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CD-ROMagazin
interaktiver Kunst

ZKM/Zentrum
für Kunst
und Medientechnologie
Karlsruhe

*Artists' interactive
CD-ROMagazine*

*ZKM/Center
for Art and Media
Karlsruhe*

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Established in 1989 as a public foundation, the ZKM/Center for Art and Media Karlsruhe is a major institutional initiative to promote the production and presentation of audio and visual media art. Within the ZKM, the Institute for Visual Media focusses on research and development in the fields of computer graphics, multimedia, telecommunications, interactivity, simulation and virtual reality. Professional media artists are invited from all over the world to take advantage of the intellectual and technical resources being offered there.

Many of the artists working at the ZKM are creating interactive installations. These installations reach a relatively small public via exhibitions at museums, festivals and conferences. The advent of CD-ROM technology for the first time offers a potentially mass medium for the publication of interactive art works. The ZKM has established a multimedia laboratory with extensive CD-ROM production facilities, and working in close cooperation with the publisher Cantz the CD-ROM magazine *artintact* has been launched as a platform for guest artists working at the ZKM to create and publish their interactive art works.

While the CD-ROM environment is constrainted by its table-top screen and standardized mouse interface, the opportunity for mass distribution has attracted many artists to create special versions of their original installations in this more compact medium. And the discipline of tailoring to the CD-ROM format has resulted in works that are effectively new creations in their own right. The success of these initial efforts we believe will inspire more artists to embrace CD-ROM as an appropriate context for artistic expression.

Without denying the powerful hypertextual possibilities also offered by CD-ROM, we have decided to hybridise *artintact* with the traditional book format where scholarly writings and illustrations on paper accompany and extend the interactive art works presented on the disc. Thus the disc becomes the 'gallery' and the book the 'catalogue'.

CD-ROM is one of the first of many new forms of 'information highway' that will radically extend the modalities of presentation, publication and consumption of media art in the close future. This media-extensive and ultimately telematic distribution of art creates a 'virtual museum' of universal access and participation in the ongoing cultural discourses.

Jeffrey Shaw
Director of the ZKM Institute
for Visual Media

Ars ex machina

By Dieter Daniels

'Can a CD-ROM be a work of art?' This might be a foolish question but it seems hard to avoid at the beginning of a project such as *artintact*.

If we seek refuge in the history of art as the responsible discipline, we discover that there is a plurality of methods and perspectives through which the history of art can be recounted. One such possibility is the development of techniques and media. Together with iconography and period history, this aspect of media history has come more and more to the fore, particularly with regard to how technologies and media influence or even determine the content of art.

This interrelation was apparent long before the emergence of electronic media. For example, the development of printing techniques (from wood cut, engraving and etching to screen printing and offset) is linked closely to the social and political role of the arts. Since the beginning of the 20th century, an essential characteristic of the avant-garde is that artists have reacted to the demands of media in art and, moreover, have purposefully altered and extended them. From the collages and montages of Cubism, Futurism and Dadaism to the new art forms of the sixties (environments, installations, multiples, performance, expanded cinema, video art) a line of development is apparent that constantly questions the role of art in a society determined by mass media.

The history of the avant-garde can be regarded as a permanent self-

analysis of art in relation to the scientific, technical and media innovations of the 20th century. This self-analysis results in the following realizations: the medium used determines the cultural context in which the work is perceived, and each new medium asks for a new definition of the social role and aesthetic function of art.

Even back in the 1930's, Walter Benjamin concisely expressed this when he wrote that 'much futile thought was wasted on the question of whether photography is a form of art, without raising the primary question whether the very invention of photography had not transformed the entire nature of art …'.[1]

The question that inevitably arises 'can a CD-ROM be a work of art?' can not be answered with technical specifications, nor by reference to the names of prominent artists. It stretches the limits of our terminology which this new medium forces us to reconsider. What do we call someone who uses a CD-ROM: onlooker, reader, user? And what about someone who produces a CD-ROM: artist, author, director, designer, producer?

By trying to apply our usual cultural paradigms from the genres of literature, film and art in some form or other to the new medium, we do not do it justice. This is not just a conflict about words. It demonstrates that the genres and categories so strongly influence aesthetic perception that it is difficult to achieve an interdisciplinary aesthetic, as is required by multimedia art forms. The construction of aesthetic categories is thus well behind artistic practice, as many fundamental impulses from the avant-

1. Walter Benjamin, 'The Work of Art in the Age of Mechanical Reproduction.' – *Illuminations,* New York, 1969. Reprinted in: *Videoculture,* Visual Studies Workshops Press, New York, 1987, p. 35.

garde of this century have resulted from an interference of genres. So the encountering of impulses from literature and art created a new relationship between images and words in the works of Mallarmé, in the word collages of the Cubists, the caligrams of Apollinaire, the *parole in libertà* of the Futurists and the new typography of Dadaism, to name just a few examples.

As all contributions to this ᴢᴋᴍ edition are the result of interactive installations which exist as physical situations in the field of fine arts, we can thus discuss them in this context. The consumer who acquires the data structure as an edition on a silver disc, and keeps it at home on his bookshelf, probably associates it with books or computer games more than with the museum where it was previously shown as an installation. And, if in the future the ᴄᴅ-ʀᴏᴍ proves to be only transitional, and we can acquire similar data structures on-line via electronic networks (which would eliminate nice accompanying printed publications such as this one) – to which context shall it be assigned?

The success of electronic media is based on the ubiquity of its contents. Thus arises the tendency to do away with any culturally determined contexts. Artists working with electronic media use this tendency to destroy the context in order to be able to escape what is felt to be the narrow or ineffective, institutionalised framework of the fine arts. At the same time however, media art suffers from the ubiquity of the media and tries to cling to sculptural and physical presentations as encompassed in the problematic concept of 'video sculpture', so as not to lose its fragile background for discourse in the small and elite field of contemporary art.

Long before electronic media, this conflict characterized all attempts to find new forms of multiplication and methods of distribution of art. It has

always been concerned with the problem of refusing the fetish of the original, without dropping out of the system of art. In the 1960's there were many attempts at this, like the MAT Edition, founded by Daniel Spoerri or the 'Fluxus Boxes', edited by Georg Maciunas. The kinetic object of the MAT edition and the playful Fluxus editions, obtainable for just a few dollars by mail order, incorporated the beginnings of an interactive work of art which first disclosed itself to the individual user, and is therefore more suitable for home use than for a museum. By means of Jean Tinguely's *Constante indeterminée* (MAT Edition 1960), small everyday objects are transformed by a fast rotation in a virtual *volumina*. Or, by combining the two toy clocks in a Fluxus musicbox by Joe Jones an unlimited number of new compositions can be played. Here the idea of the work of art as an interactive piece of experience was realized before the emergence of electronic media.

All in all, these attempts were not very successful as they did not penetrate through to everyday culture and ended up, in fact, as museum pieces. The prototype for all these attempts and also for their failure is without doubt Duchamp's *rotoreliefs*, a set of printed pieces of paper which, rotated on the home turntable, produce certain optical effects. In the 1930's Duchamp actually hoped to be able to market these pieces of paper as a cheap mass product. This proved to be a complete failure in its first test run at the *Concours Lepiné*'s Inventors' Trade Fair in Paris 1935. The *rotoreliefs*, like the MAT Edition and the Fluxus boxes, were attempts to launch a new genre or medium which does not fit into any of the existing distribution structures for art, but which in the end they were unable to surmount or change.

The *rotoreliefs* have surprising parallels to the idea of art on CD-ROM. Duchamp tried, with these pieces of paper, to bring a new 'software' onto

the market to transform the record player, normally limited to sound re-production, into an audiovisual i.e. 'multimedia' machine. Today the transformation of the audio CD (brought onto the market ten years ago) into a multimedia data carrier is actually taking place. Here the parallels end however, as Duchamp's relatively unsuccessful experiment bears no resemblance to the CD-ROM boom. In fact it is hard to compare the two at all, as there is no common background. This demonstrates the general difficulty in placing artistic models and visions in relation to industrial and technological reality, even though the artistic vision anticipates the technological developments decades in advance.

The idea of publishing art on CD-ROM carries with it the history of these tried, successful, or disappointed attempts to transcend categorical limits. But one important aspect distinguishes it from all other attempts: its aim is not to try to produce and spread a new form of objects, its products are instead compatible with a mass medium which is at present experiencing a considerable increase in distribution. Art on CD-ROM thus has the chance to become part of the ubiquity of the electronic media.

The development of video art shows that in order to take advantage of this opportunity it is not just a question of the technology used, but the cultural conditions must also be considered. When in the mid 1960's artists began to work with video, television immediately presented itself as a strong opponent, having been established institutionally and commercially long before the invention of video. The products of the video artists, technically primitive at the beginning, had no real chance of penetrating into mass media. When, at the start of the 1980's an alternative to TV arose, due to the spread of the home video market, the essential developments of video art had already taken a different direction.

In this respect the beginnings of art on CD-ROM come up against a different situation, as the market for digital data carriers is just developing and its open structure offers plenty of niches for cultural purposes – and art on the CD-ROM market will never become more than a niche. Above all, however, the direction of media development has changed completely: an individualization of single areas, caused by the variety of digital technologies, replaces the blanket coverage of the all-dominating homogeneous mass media. In the future TV will change to become a source of interactive, diverse multimedia programs.

One of the principle aspects in the future evolution of media lies in the field of interface structuring, i.e., the point at which man and machine enter into dialogue. Achieving an intuitive relationship with the user and developing new, non-linear forms of display for audio-visual environments is at the same time one of the few places where artistic work can still play a role in the evolution of media.

Indeed, all three contributions to *artintact* are concerned with the relationship between text and image, and each one offers new suggestions on how to link these two elements.

Jean-Louis Boissier allows us to flick through two books by Jean-Jacques Rousseau which both originated during Rousseau's exile on the island of Saint-Pierre on the lake of Bienne: The erotic experiences of his *Confessions* stand in contrast to the plants placed in his herbarium, the intimate language encounters the silent vegetation. Boissier combines these two books by Rousseau to form a new virtual book whose short video sequences were partially filmed on location at the original site on the island of Saint-Pierre. The illustration, bridging the centuries from the origination of the text to the origination of the virtual book, points out that each

printed and bound book is ultimately an 'interactive medium' which discloses itself to the observer as he leafs through it.

Eric Lanz develops a cryptic notation out of tools, whose individual elements can be recognized only when they are actually in use. With a certain amount of irony we can recall Wittgenstein's dictum that the meaning of language lies in its use. In the same way as Wittgenstein employs many examples from the field of simple acts and tools, Lanz sticks to presentation of the factual without deriving a general theory: what appears to be a cryptic sign language consists ultimately of just images and examples.

Bill Seaman achieves a complex, reciprocal ordering of words and images which transforms the observer into a composer of new image/word/sound sequences, and carries the idea of an 'open work of art' to a fusion of poetry, music and video.

The history of the avant-garde with its interference between literature and art from Mallarmé to the Cubists, Futurists and Dadaists, as well as the fresh analysis of this question by means of concrete poetry and conceptual art since the 1960's, in actual fact provides a decisive historical background for these contemporary artistic attempts. Principally in the 1960's, with the search for new means of distribution for art, the artist's book and the book as an object played an important role. Artists such as Maciunas or Spoerri, who attempted editorial work, deliberately tried to find a middle course between the unique specimen of the artwork and the publication of a book. These same ideas form the basis for the beginnings of media art with the slogan 'New media for a new public'.

In the digital medium, the fetish of the original has become obsolete due to the identical reproducibility of the binary code. On the display and in the

multimedia data structure, script and image are no longer kept separate *per se*. Many of the points discussed in the avant-garde have therefore become almost a matter of course: the work of art is no longer unique, the aesthetic relation between language and image requires a fresh analysis, and we must look for new methods of distribution for the multimedia product.

Should one assume that the requirements of the avant-garde in the 1960's have become irrelevant in the digital medium? Regarding this point Walter Benjamin wrote in the 1930's :

One of the foremost tasks of art has always been the creation of a demand which could be fully satisfied only later. The history of every art form shows critical epochs in which a certain art form aspires to effects which could be fully obtained only with a changed technical standard, that is to say, in a new art form.[2]
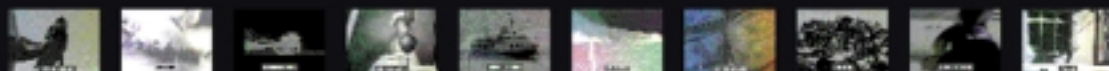
I suspect that we find ourselves once again in this situation with the start of art on CD-ROM.

Translation: Anina Helmsley

2. Ibid., p 43.

An ambidextrous broadcast combines with
an enigmatic frame of mind to escape
the changing touch of a fly by night vision

- play sentence
- random sentence
- sentence 1-33
- exit

Bill Seaman: Ex.Mech

By Dieter Daniels

When approaching a work as complex as *The Exquisite Mechanism of Shivers*, called in short *Ex.Mech*, it is best to begin at the end. The credits for the piece read: 'Camera, music, text, editing, voice, programming, concept by Bill Seaman'. Any categorization of *Ex.Mech* using the terminology of art, film, music, literature or media technology can thus only capture a partial aspect of the whole. Seaman is therefore a prime example of the interference between the genres and media producing a new multimedia art form, and at the same time an interdisciplinary work of art which can no longer really be described in usual terms.

From the beginning Seaman's personal way of working was to produce all elements of his work himself instead of using the usual array of quotes from TV, literature and music. He also does not get involved in teamwork (e.g. consisting of a composer, videomaker and programmer) as is increasingly common in the multimedia field. Instead he is one of the few artists who can and does perform all aspects of multimedia production by himself. The considerable effort involved is one explanation for why Seaman's list of works since 1979 comprises just nine video pieces.

Whereas the earlier works are mainly videotapes or installations, *Ex.Mech* is Seaman's most complex work to date in so far as it exists in numerous different versions. The basis of all these variants is a 28 minute

Bill Seaman: *The Exquisite Mechanism of Shivers,* 1991/94, Screenshot.

20   videotape with 33 brief image and musical scenes, each based on a sentence of ten words. This amounts to a total of 330 words which make up the poetic menu of the whole work. Based on this there are five different ways in which the work can be presented and installed: as a linear videotape, as a linear installation with ten video projections, as an interactive installation with a control terminal and video projection, the sound only as an audio cd, and this CD-ROM version. *Ex. Mech* is thus a multimedia work of art in the fullest sense. Its software is no longer bound to a specific hardware and can manifest itself in various forms and contexts.

In the CD-ROM edition, it is particularly the interactive aspect of *Ex. Mech* that comes to fruition. The interactive process enables the user to combine different sentences created from the 330 words in the poetic menu, which in turn steer the succession of video and audio sequences. Although *Ex. Mech* is not a completely open system, it is also not an interaction with a clear aim, which like a computer game would solve a specific task. Instead, the interactive quality of *Ex. Mech* enables the artist and user to meet halfway. The user plays with the elements derived from the imagination of the artist and is thus invited to create new compositions, i.e., form new sentences from the building blocks provided. He can also leave the choice to chance by using a random sentence generator. At the basis of the work is the generation of meaningful, absurd, banal or poetic sentences with the menu of 330 words. These language constructions then steer the image and sound. *Ex. Mech* has as its central theme the overlapping of three planes: language, image and sound. However it is not just a case of allowing these three planes to operate simultaneously, for film also contains these elements. Rather, it is an attempt to analyze their mutual influence over our perception and our construction of associations.

With almost methodical thoroughness Seaman examines, as in his early

works, different relationships between speaking, seeing and hearing. One of his first performances, *Architectural Hearing Aids* in 1980, demonstrates this in an exemplary way. Together with Carlos Hernandez, groups of visitors were driven to vantage points in San Francisco Bay in a minibus where a stereo system installed in the car played specially composed audio pieces at certain architectonic locations. This operation realizes a reversal in the relationship between film and accompanying music and, using appropriate sounds, transforms the reality of the view out of the car window into an imaginary film. Here Seaman touches on the fundamental question of how the imagination is formed by the combination of language, sight and sound.

This exploration was resumed in 1985 with the installation of the video tape *S.He* in a train from New York to Hartford, Connecticut. The video shows scenes that were shot from this very train. The installation of four monitors in the train causes these sounds and images to overlap with the actual train journey and raises it to a metaphoric and poetic level.

'S.He' is an ambivalent word assembled from 'She' and 'He'. This subject between man and woman is awarded the most diverse qualities in the text. Marcel Duchamp had previously associated ambivalence in language with sexual ambiguity by allowing his female alter-ego 'Rrose Sélavy' to appear as the author of his linguistic games. It is to this model that Seaman attributes his first video *How to revive dead Rroses* in 1979.

In the video *Telling Motions* (1986) the musical principle of composition becomes the motive for repetition and variety transfered to the image montage, so the images appear in ever-new sequences and thus bring about changing associations. Seaman's first interactive videodisc installation *The Watch Detail* (1990) offers a repertoire of image and sound sequences in the different categories such as 'wood', 'stone', 'the airport', 'architecture',

whereby some images are used in several categories and thus the possibility of a distinctive classification is questioned. In these two works the title can also be interpreted in two ways – 'Motions' evokes movements and emotions and 'The Watch Detail' connotes both a small part or a particular quality of either a wristwatch or of a person observing something.

In these works the theme of the basic ambivalence of all meanings in words and images reveals itself, and in *The Exquisite Mechanism of Shivers* becomes the principle of the viewers interaction with the work itself. Each word takes on new meanings in conjunction with other words, or in relation to an image. 'Shivers' can mean both 'splinter' as well as 'trembles'. The fragmentary aspect of 'splinter' as well as the oscillation of 'trembles' release appropriate associations, as the coherences in meaning of the work are formed into sentences of oscillating sense from the 330 fragmentations of the menu.

Words and images exert a control over each other. In the installation the main emphasis is on control via the menu of words. On the CD-ROM a new interface allows more visual and intuitive access through the combination of images. Seaman speaks of the observer as a 'navigator' through the system of *Ex.Mech*. 'Content is generated through the viewer's process of navigation.'[1] The continually changing sequence of images, sounds and words releases us from the illusion that it can convey a specific message. 'The work becomes a kind of paradox generator. Words are to images as thoughts are to the receiver/navigator.'[2]

1. Bill Seaman in: *Ex.Mech*, ICC Gallery, Tokyo, 1994.
2. Ibid.

We are used to reading words in images, for example in TV programs or films with subtitles. *Ex. Mech* on the other hand does not create a one to one relationship between text and image. This results in some interesting problems when *Ex. Mech* is rendered in other languages. A simple translation is inadequate as the complete construct of 330 words must be reconstructed so as to retain both the technical and poetic functions.

For the Japanese version of *Ex. Mech* produced at the InterCommunication Center (ICC) in Tokyo in 1994, Bill Seaman actually took it upon himself to work for several weeks together with a Japanese translator on these 330 words and their possible combinations. He even mastered Japanese pronunciation so as to be able to speak the words himself, as he did in the English version, and of course he also had to have the complete interface control system translated into Japanese. In the installation *Ex. Mech*, it is thus possible to switch back and forth between the Japanese and the English version. This duality of language adds a new dimension to the work. We are living at a time of increasing internationalism of the media in a world of subtitles and we are going to experience completely new multilingual possibilities in the field of multimedia. This means that problems which until now were only relevant to commercial software development shall in the future incorporate a new cultural dimension.

The real message of *Ex. Mech* is found in this overlapping of technology and content. The poetic construction and the technical function cannot be separated from each other. This touches on fundamental questions about the link between art and media. Today it is becoming increasingly clear that this fusion does not just consist in the use of electronic machines for the purpose of art; both areas must question their fundamental principles if they are to achieve a fruitful interference.

Such questions have not only existed since the beginning of the electronic era; they have always accompanied the relationship between art and technology. For example, *Ex. Mech* follows a long tradition of poetic machines and mechanized language, a tradition that links very remote points in the history of ideas.[3]

At the end of the 13th century, with the culmination of the scholastic era, Raymundus Lullus developed a machine made up of concentric, rotatable disks for the combination of theological terms. These reached a certain fame as 'Lullic art' for the proof of theological theories. Some centuries later Jonathan Swift describes a similar engine in *Gulliver's Travels* (1726), developed by a Professor from the 'great Academy of Lagado in the land of Balnibarbi', whose operating principle Gulliver describes as follows:

It was twenty foot square, placed in the middle of the room. The superficies was composed of several bits of wood, about the bigness of a die, but some larger than others. They were all linked together by slender wires. These bits of wood were covered on every square with paper pasted on them, and on these papers were written all the words of their language, in their several moods, tenses, and declensions, but without any order. The professor then desired me to observe, for he was going to set his engine at work. The pupils at his command took each of them hold of an iron handle, whereof there were forty fixed round the edges of the frame, and giving them a sudden turn, the whole disposition of the words was entirely changed. He then commanded six and thirty of the lads to read the several lines softly as they appeared upon the frame; and where they found three or four words together that might make part of a sentence, they dictated to the four remaining boys who were scribes. [...] the professor showed me several volumes in large folio already collected, of broken sentences, which he intended to piece together, and out of

3. Here I follow the best presentation of this history of poetic machines and the importance of the theory of combination for Surrealism by Hans Holländer: 'Ars inveniendi et investigandi.' – *Surrealismus*, ed. Peter Bürger, Darmstadt, 1982.

In the 20th century combinatory techniques like this were frequently used by the artistic avant-garde for an analysis of a world which can be presented less and less as a unity. The collages and montages of the Cubists and Futurists and the simultaneous readings of the Dadaists are the preludes to a methodical concept for these artistic working techniques in Surrealism. Decisive impulses thus evolve from the interference of traditional categories. Writing, painting and music no longer stand opposed to each other as in competition of the *paragone* in Renaissance times. Instead they enter into reciprocal stimulation through the exchange of models, methods and artistic experiences.

A good example of this is the Surrealists' *Cadavre exquis* which is transferred as a combinatory method from literature to the fine arts and provides a paradigm of the Surrealists' search for a collective subconsciousness. André Breton gives the following definition in the dictionary of Surrealism:

Exquisite Corpse: Game of folded paper that consists in having a sentence or a drawing composed by several persons, each ignorant of the preceding collaboration. The example that has become a classic and gave its name to the game is the first sentence obtained by those means: 'Le cadavre exquis boira le vin nouveau'(The exquisite corpse will drink the new wine).⁵

The history of the genesis of meaning using combinatory techniques can be traced back from the Surrealists to Raymundus Lullus and Jonathan Swift. André Breton names both Lullus and Swift in the first manifesto of Surrealism in the 'ancestral gallery' of historical forerunners for the new

4. Jonathan Swift, *Gulliver's Travels*, London/New York/Toronto, 1956, pp. 216–218.
5. André Breton and others, *Dictionnaire abrégé du surealisme*, Paris, 1938.

movement.[6] The circle joining scholasticism via the avant-garde of the 20th century to the digital era is closing, as Bill Seaman in his title *Exquisite Mechanism of Shivers* refers to the 'exquisite corpse' of the Surrealists and the related process for the construction of ambivalent sentences.

From the mechanical apparatus of Swift and Lullus via the psychological techniques of Surrealism to Seaman's digital media, words are combined in a procedure which is not fully controlled and which provokes new ways of constructing meaning. Lullus used his apparatus in his theologically based demonstration to show that any uncertainty can be replaced by another in his attempt to refute the heretical belief of the heathens and to bring them to Christianity. Swift parodies this technique of a world explanation. The Surrealists make it productive again as the basis for constructing a non-rational understanding of the world. Seaman uses it as a method for creating an ambivalence of all meanings in a multimedia perspective. The previously mentioned interference of categories by the avant-garde is an integral part of his work, due to the audio-visual unity of speech, image and music.

All these visions from Scholasticism to the present day have something in common despite their different aims. They pose the question of whether mankind is the only one who can create meaning, or whether he must share this privilege with other authorities, be this with God, as Lullus does, or with the subconscious, as the Surrealists do. Seaman's audio-visual poetry machine once again poses this question in the face of the digital age and thus touches upon a central point in contemporary culture, formulated by

6. Refer for details to Hans Holländer, op. cit.

Allan Turing in 1950: 'Can a machine think?'. Even in Turing's case this does not depend on such simple tasks as performing a calculation or answering questions. In the Turing Test, named after himself, experiments performed to differentiate between man and machine also involve tasks from the field of poetry. These do not however go very far:

F: Write a poem about the Firth of Forth Bridge.
A: Pass; I could never write a poem.
F: Add the two numbers 34957 and 70764.
A: (after a pause of 30 seconds) 105 621.[7]

The test asks whether the respondent A is a person or a machine and, according to Turing, whether it is male or female. This last point is often neglected in conventional presentations of this test. Even in the case of Turing, ambivalence in the meaning of language is also linked to sexual ambivalence, as was previously the case with Marcel Duchamp and again with Bill Seaman. According to Turing, the computer has the quality of a universal machine; it therefore tends to deny the difference between man and machine as well as the difference between male and female. To use a term of Duchamp, the computer is a 'celibate machine', just as in Seaman's words it is a 'world generator', and this is the title of his latest project. We do not therefore face the digital world as an external phenomenon, but we are actually a part of it without wanting, knowing or realizing it.

We find ourselves in the role of the 'navigator', as Seaman calls his observer. Navigation originates from the Latin 'navis', meaning ship, and offers methods whereby it is possible to assume an approximate position at sea without any fixed reference points. The term 'navigation' is also used

7. Allan Turing, 'Kann eine Maschine denken?' – *Kursbuch* No. 8, March 1967, p. 108.

for path searching in the endless, expanding and therefore increasingly complicated electronic network of the Internet. Bill Seaman defines the role of the navigator in artificial systems like *Ex. Mech* as follows:

> The definition of 'artificial' is in question as we live increasingly telematic lives, where 'real' feelings and behaviours are triggered through abstracted involvements with artificial structures and illusions. Thus the navigation of the 'set' of 'illusionistic' experiences becomes a real experience none the less.[8]

Digital technology has the tendency to create a complete double, in other words a binary 'back-up' copy of the world. Through the universal network of the Internet, in conjunction with the universal machine of the computer, Swift's ironic vision 'to give the world a complete body of all arts and sciences' draws closer. Do we therefore have to worry about this, or can we continue to dedicate ourselves to art? If we treat *The Exquisite Mechanism of Shivers* as an oracle and ask what the future relationship between man and machine will be, we receive a set of interesting answers which any user of the CD-ROM may choose to enrich with further examples.

A mathematical machine merges with a self reflexive guidance system to transcend the shifting concept of an egocentric intuition.

A sensual apparatus collides with a cybernetic network to be immersed in the subconscious memory of an electric mechanism.

A spiritual illusion mixes with the flexible magnetism to amplify the ambiguous history of a technological identity.

e.t.c.

Translation: Anina Helmsley

8. Bill Seaman, 'Anmerkungen und Beobachtungen zu künstlichen Spielen.' – *Künstliche Spiele*, ed. Georg Hartwagner and others, Munich, 1993, p. 329.

Two Ways of Bookmaking
Working notes on Flora petrinsularis
By Jean-Louis Boissier

First of all came an intuition that the works of Jean-Jacques Rousseau which are fundamentally concerned with man's relations with the world might be suitable material for a creative experiment exploring the interactive relations of the new technological media.[1] The present state of technology offers an invitation to define what hypermedia writing might be like, and to investigate the possibilities of the interactive screen. There are clearly other ways of making books and similarly in Rousseau I found that there were also two ways of making books.

Telling, showing
Rousseau's herbarium, which he began during the crisis of the Île de Saint-Pierre, operated as a lever which shifted him into new writing conditions. At the age of 50, Rousseau was forced into exile. He took refuge first at Môtiers, in the Principality of Neuchâtel, from which he was forced to flee again, in 1765, to the island of Saint-Pierre on the lake of Bienne. Per-

1. This research project owes much to the interest of Raymond Bellour. He invited me to read a paper on it – 'Le logiciel comme rêverie' (Software as a reverie) – at the 1990 colloquium held at Valence on *Cinema and literature; the age of machines*. In dealing with the interactivity in Alain Resnais' film *Smoking – No Smoking*, he analyses *Flora petrinsularis* in 'Avant, après' (Before and after) in *Trafic,* n° 10, 1994.

Jean-Lous Boissier: *Flora petrinsularis,* 1993/94. Screenshot.

secuted and suffering from a developing persecution complex, he began to see writing as the source of all his misfortunes. On the island then he chose not to write anymore: 'One of my greatest joys was to leave my books safely packed up and to have no writing-desk. […] Instead of all those gloomy old papers and books, I filled my room with flowers'. As a pastime, he decided to compose the *Flora petrinsularis* 'and to describe every single plant on the island in sufficient detail to keep me busy for the rest of my days.'[2] 'To describe' in this case means to pick, to identify and to collect: to make another sort of book. This then is the herbarium which is our inspiration:

All my botanical outings, the various impressions of the place of the objects which struck me, the ideas they provoked, the incidents associated with them, all this left me with impressions which are revived by the sight of the plants I collected there. I shall never see those beautiful landscapes again, those forests, those lakes, those groves, those rocks, those mountains which always touched my heart. But although I can no longer wander through those happy lands, I have only to open my herbarium to be transported there again. The fragments of the plants I collected there suffice to recall all the magnificent spectacle. For me this herbarium is a journal of botanizing excursions which takes me on them anew and with renewed pleasure, working like an optical instrument which projects them once more before my eyes.[3]

At the same time however, despite his distance from others, his isolation, the accusations were mounting up. Rousseau decides that he will write his memoirs, to justify himself, to push back the feeling of guilt which never really leaves him. Alongside the flowers then, alongside the other object-images, other 'memorative signs' come back to his mind, memories of 'brief moments of madness and passion', 'infrequent points scattered

2. Jean-Jacques Rousseau, *Les Rêveries du promeneur solitaire*, 'Cinquième promenade', (Reveries of the solitary walker, fifth walk), Œuvres complètes, vol. 1, Gallimard, Bibliothèque de la Pléiade, Paris, 1967, p. 1042 and 1043.
3. *Les Rêveries*, 'Septième promenade', ibid., p. 1073.

along the line of life'[4] , memories of a painful and fragmentary happiness.

    With them appears a new and pressing need to write, the effect of data acquisition is prolonged and reversed, announcing a contradiction which we can recognize when the photographic becomes interactive: a first stage of 'objective' data entry and ordering leads to a second stage of acquisition in the real time of the act of interpretation:

What you have here is my portrait, not a book. I am going to work, so to speak, in the dark room, with no other skill than that required to follow precisely the lines I see marked [...]. In giving myself up both to the memory of the impression I received and, at the same time, to my present sentiments, I shall paint a double portrait of the state of my soul, that is to say at the moment the event happened to me and at the moment I described it.[5]

That is why there are two parts in my 'book': *Les Estampes* (the engravings) and *L' Herbier* (the herbarium). And that is why I went off both on plant-gathering forays into the Swiss Jura and into an exploration of the text of Rousseau's *Confessions*, seeking out scenes of love and alarm. The hypermedia *Flora petrinsularis* is an essay inspired by this same temptation, the temptation to make a book which, if it cannot do without writing, does without the language of words; a book which shows, which offers something to experience but without really having anything to say.

Book

    For *Flora petrinsularis* I wanted to remain faithful to the model of the book. I liked the idea that the base of the primitive 'interactivity' of the book is its binding, a technological device, a 'software package', which is

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4. *Les Rêveries*, 'Cinquème promenade', ibid., p. 1046.
5. Jean-Jacques Rousseau, *Ebauches des confessions*, Œuvres complètes, vol. 1, ibid., p. 1154.

so familiar, so banal as to make us forget its brilliant efficiency. Since the *codex* of Antiquity or of the Middle Ages, it is because the pages are bound together in a determined order that we can read them individually, find them when necessary, select one, go from one to another. Doubtless we will soon become absorbed by the spaces of virtual information, networked, shared, constantly brought up to date and facilitating all sorts of original synchronous associations. But we should also be attentive to how these spaces obscure their origins, how they install a certain real time which, first of all, was someone else's, imposed at the expense of our time for thought and reflection in a controlled context. An interactive program which has been worked out at great lengths before being delivered in its machine or printed definitively into the metal of a CD-ROM (a read-only memory) leaves little in the way of the virtual possibilities of 'cyberspace' apart from the up-dating proper to an independent reading.

But this private actualisation, precisely, is what constitutes for me the essence of a project of inventing other ways of making books. Although these new books will be very different from old books, they will still end up being catalogued with books. It is the differences between old and new, however, that must be explored.

Flora petrinsularis was designed first of all as a temporary installation[6], to be consulted on a table placed in an alcove in a room. Facing the computer screen, a book – a real, ordinary loose-leaf binder with pages that may be turned freely – is 'watched' by the computer, via a camera, at the same time as the visitor peruses it. This notebook, placed between the machine and the reader, is the common ground for both and the instrument

6. It was set up first at Multimediale 3, ZKM Karlsruhe, in November 1993 and subsequently at Saint-Gervais, Geneva, in May 1994.

which gives access to the 'book' which is its double and its extension inside the computer's digital memory.

In this version then, the presence of an ordinary, familiar book acts as a proclamation of, or more simply, as a convenient transition device to a culturally recognizable mode of access. The printed text of the quotations and the herbarium, with its real dried flowers, are there to restate the singular character of a tangible reality. And the pages of the book are still really turned.

Integrated into this system of automatic recognition, the book revealed a feature that is never usually taken into consideration. There exists a 'between-the-pages' state, an intermediary state where the page is neither open nor closed. For the computer, this state was read merely as an 'error', but it accommodated a third term of the dialectics which are central to *Flora petrinsularis*. Between the direct and accomplished relation within the small world of pressed flowers and the imaginary reconstruction of related scenes from the past (always interrupted, always in suspense, always closing in on themselves), between two categories of fetish, between Rousseau's two ways of making a book, there is also a third term. For Rousseau it was the inclination towards solitary idleness, towards the emptiness of the imagination, towards 'reveries with no distinct subject', towards some prenatal state and the sounds of that state, adrift in his rowing boat on the lake:

The ebb and flow of the water, its continuous sounds swelling from time to time, lapped without slacking against my ears and eyes, taking the place of all the inward movements which my reverie had calmed within me, enough to make me pleasurably aware of my existence, but without troubling myself with thought.[7]

7. *Les Rêveries*, 'Cinquième promenade', ibid., p. 1044.

36   This process, based on the coexistence of real and virtual, underpinned the whole conception of the software design, and remains implicitly present in the CD-ROM version.

Dramaturgy

The feeling of guilt which is one of Rousseau's fundamental traits must gradually and insidiously overtake the reader/manipulator. But at the same time this reader must be cleared of all charges. After all, they are only pictures and it was the machine that made the passes. This is one of the situations I found Rousseau describing so often in his *Confessions*, concerning his childhood and adolescence: he is declared innocent of some guilty pleasure, of the shameful part of his desire, innocent because he claims to consider them with total transparency, and innocent too because of his passivity, because he kept to himself, to his solitude, leaving others responsible for taking the first step.[8]

Flora petrinsularis is not an effort to recreate Rousseau's own particular utopian project. Although Rousseau is the source, it is not our intention here to add another layer of interpretation on his work, even if the ambition of giving a modern illustration of that work might be legitimate and sufficient in its own right. I try, rather, to speak of Rousseau by finding within the interactive forms themselves the same registers of situations, perceptions, sensations and contradictions that I find in his writings. These registers are identified and selected for the veracious or ironic echoes they may have for us today. And interactivity offers just the right kind of double register of representation and simulation which allows for the ambiguity to be maintained: on the one hand, the fictitious and

8.   Jean Starobinski, *L'Œil vivant*, Gallimard, Paris, 1961, p. 107.

distanced repetition of Rousseauist situations and, on the other, the direct and literal confrontation with signs, images and gestures which are likely, at least for a moment, to strike a chord in the reality of each contemporary reader.

A dramaturgy of interactivity borrows from literature and from the theatre, from music and from the art of designing gardens. It alternates the power of words and the power of images. It plays on principles of desire and what is forbidden, of pleasure and frustration, of action and passivity, of starting and stopping, of difference and repetition, of transparency and obstacles, of rationality and uncertainty, all of these terms belonging to the critical vocabulary of Rousseau himself.

Fetish

Each scene is introduced by a fetish-object. A ribbon, a lace, a key, some cherries … these are all signals for a possible detachment from the text, for the unveiling of token images in the typographical materiality of the printed page and its printed shadows. Just as in Rousseau voyeurism is a means of fabricating and memorising images to be ruminated over later, so too fetishism does not stop at the objects themselves. The fetish objects are just an intermediary, allowing the imagination to construct a presence of greater intensity than reality itself, available at leisure in solitude and innocence.

The signs should be able to be felt without having to be read. 'Just as writing leads to the crisis of direct speech because of its "image"'[9], so too the image itself – even if, as a representation, it is a 'dangerous supplement which cheats on nature'[10] (onanism) – so too the image, by means of a per-

9. Jacques Derrida, *De la Grammatologie*, Minuit, Paris, 1967, p. 216.
10. Jean-Jacques Rousseau, *Les Confessions*, Œuvres complètes, vol. 1, ibid., p. 109.

fected artifice (that is to say art), should be able to establish communication which can take the place of natural communication, now lost forever, whilst dispensing with the language of words.

Haptic

The constant relations between sight and touch had to be envisaged with much consideration. This relation is one of the conditions of data gathering, this acquisition of things which is critically dependent on an operation in which meaning is sensorial. Pointing a finger at something is already acquiring it, entering it, but a form of acquisition which does not necessarily imply its removal from reality, its displacement, its material appropriation. This acquisition belongs already to the realm of the sign and of intellection: acquiring data is comprehending it.

But in 'herborisation', the real gathering of plants and flowers, the picked object is destined to remain forever real, a means by which what is transformed willy-nilly into a sign or, even better, into an image, still remains firmly attached to reality, still continues to belong to the raw reality which is independent of perception and interpretation. This is what constitutes the extraordinary status of pressed flowers, and other books of samples or collections, so far removed from what books usually are, clasping between their pages little fragments of reality which are pressed flat and transformed into an index, into visible and readable images, sometimes perceived as relics, sometimes as parts of a narrative.

It is not often thought worthwhile to underline how far the haptic conditions of how images work are satisfied by photography. In the automatic recording of appearances, with their strict volumes, the subtle rendering of materials and textures, of movements and vibrations, the optical verisimilitude inescapably tends towards a sense of tactile veracity.

The computer today gives a new technical organization to how both hand and eye serve to designate, using the now standard interface of the mouse on its pad and the cursor on the screen. It is the return of what is manual, even more, of what is tactile. So, inscribed in their interactive space, the video graphic images seem to flaunt their vocation if not to be literally touched, at least to be designated, pointed to, caressed by the hand's gesture. This gesture may well be a remote one: the images – such is their common lot – stay 'behind the mirror'. But here, after the necessary detour through the machine, our body projects itself mentally and delegates itself materially into the image. This little arrow which I hold in my hand and which my eye comprehends as its own active projection, is truly inside the image, on a level with it, mixed in with it amongst all the pixels whose role, as we have just observed, is to display the most immediate of presences. This manual foraging into the image's intimacy comes up against the sensitive functions the image has received and which, so to speak, it has preserved in its transfer. This probing then is by no means innocent, in so far as the image naturally displays not only figures but also certain propensities to 'feel' and to 'react'. The sensorial cartography of the interactive image contributes to the pleasure we find in taking the map for the territory it depicts.

Depth

There is no book and there is nothing on the screen without a preliminary operation of flattening. This is the flatness of the white sheet of paper, the flatness of the flowers pressed in the book. It is the result of the computer's optical projection on the screen. Afterwards there might be a temptation to restore an illusion of relief. But like the depthless world of the playing-card figures in *Alice in Wonderland*, it is only by 'slipping that we

can reach the other side, since on the other side there is nothing but the same the other way round.'[11]

The only thing that really interests me in stereoscopy is the operation of stereo comparison. By duplicating the image, by placing two identical images side by side but with a slight gap in time, like a musical canon, it is perhaps possible to reach a temporal depth corresponding with the 'specifications' that Rousseau gave his illustrators:

> Like figures in movement, it is necessary to see what came before and what came after and to give the action's time a certain latitude; otherwise it will be impossible to grasp the unity of the moment which is to be expressed.[12]

In this same movement of repetition and difference we set up a technique of flicking through. This forces the reader to touch each vibrant image with a to-and-fro gesture, but at the same time he will never see it disappear completely without being able to compare it with the next image, to see the two together, reduced simultaneously towards a greater economy in the images.

Enunciation

Here it is the reader who triggers the enunciation: he is at one and the same time the interlocutor and the enunciator. And while he designates, the signs, the images simultaneously address him and his subjectivity. Rousseau, secretly watching Madame Basile busy embroidering at her window, is caught out by her, betrayed by his own image reflected in the mirror. He understands the gesture of a young and very pretty girl to be an

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11. Gilles Deleuze, *Logique du sens*, Minuit, Paris, 1967, p. 107.
12. Jean-Jacques Rousseau, *La Nouvelle Héloïse*, Appendice II, 'Sujets d'estampes', Œuvres complètes, vol. 2, ibid., p. 28.

invitation; he throws himself at her feet. This dialogue is wordless and innocent, since it is only the exchange between two images[13]; it suggests a concrete procedure in the interactive spectacle.

The cinema has now come to accept that there will be no response from its viewers. For television however, always obliged to be strictly contemporaneous with its viewing public, the 'camera-viewpoint', frequently used in the early days of the cinema, has become a recognized and regular film figure, 'symbol of the longed-for meeting between reality and the spectator, this meeting which is always missed but sometimes approached.'[14]

For *Flora petrinsularis*, the image – the camera – always has Rousseau's point of view. It was inconceivable to feature him otherwise. Thus the reader finds himself forced to share with Rousseau the position which, *a priori*, he occupied alone. Consciously or not, this should give him both pleasure and embarrassment. It seems possible here to work on two levels: the evocation of the meeting and the effective designation of the spectator solicited from amongst the actors. However minimalist it may be, an interactive program brings to the screen elements which are more usually to be found in personal, language-based relations, the 'shifters', the 'I' or the 'you', the 'today' or the 'here' which, according to Barthes[15], when generalized, constitute the foundation of the 'amorous fluidity of a collectivity.' The rousseauist fête is recognizable here, a rare occasion for authentic communication.

Translation: Paul Smith

13. Jean Starobinski, ibid., p. 111.

14. Christian Metz, *L'énonciation impersonnelle ou le site du film*, Klincksieck, Paris, 1991, p. 22.

15. Roland Barthes, 'Le shifter comme utopie.' – Id., *Roland Barthes par lui-même,* Seuil, Paris, 1975, p. 168.

L/Lanz

By Anne-Marie Duguet

Today, as technological development accelerates and becomes infused with new myths, can the artist do anything other than produce 'delays', elaborate strategies for exploring and commenting on the new means of expression, play around with them to give them a little more play? An interrogation which thus tackles technology anew, in its relations with the whole of culture and with history, can indeed give rise to a usefully oblique, off-target approach like this. With regards to this evolution of technology and its role, Eric Lanz's interest is marked by scepticism. He cultivates a measured detachment, honing in ironically on the behaviour patterns, the codes and the stereotypes that are emerging within today's technical system, produced for example under the label of interactivity. His work, more generally, is a reflection of a wider contemporary preoccupation with the question of memory and of the role of knowledge and history in society, problems which are rendered more acute today by the multiplication of information recording techniques and the computerised storage of the data acquired. The accumulation of archive records, the drawing up of inventories, the constitution of collections, all of these activities which photography has either generated or encouraged are to be found in many present-day artistic practices, carried out sometimes with methodological and scientific concepts. But it is to subvert them and to go

Eric Lanz: *Manuskript,* 1994. Screenshot.

beyond their limits, taking the systematic approaches off into fictional meanders, tipping technological control over the vertiginous brink of poetry.

Video plays a special part in Eric Lanz's creations. He has been making tapes and video installations since 1983, and video itself is the main object of his researches which draw together traditional techniques and new technologies. The electronic image is the place – 'the dissecting table' – where this confrontation takes place. Appropriating and designating them at one and the same time, obstinate, systematic and attentive to the smallest detail, Eric Lanz has engaged in singular experimental ventures which have nothing to do with the cinema's classical narrative techniques. His inspiration and affinities are closer to experimental film-making, archaeology and ethnology, and resolutely within the world of the contemporary arts.

His earliest works, at the beginning of the 1980s, belong to the current of the electronic researches into new fictional forms, their composition based on logics and principles borrowed from music and poetry where links by association get the better of causal relationships. Some fictional elements still persist, however, growing out of a mythical character but which is nothing other than a pure pretext, a simple 'imaginary device' according to the artist. The titles of his works are significant: taken first from an ABC (*S/Sisyphus, P/Pygmalion, V/Venus, O/Orpheus, E/Echo ...*) they were then reduced to single letters (*T, I, Y*) to end up as *No title, Triptych*. The already flimsy thread of the narrative approach disappeared entirely.

It was in 1990 that he commenced the series *Les Matières, Les Outils, Les Gants, Les Gestes* (*Materials, Tools, Gloves, Gestures*), close in its formal aspects to a scholarly object lesson. A central idea is postulated, a

principle is defined, its exploration then determining the accomplishment of various actions.

The screen becomes the site of an inventory, rather like those engravings from encyclopaedias and commercial catalogues that fascinated the surrealists so much. It is the site of an experiment where things can be compared and where similar operations can be tried out, grouped according to formal or functional affinities. The disposition of these objects is minutely worked out according to an impeccable geometry. A surface grid, sometimes visible on the screen, organizes, separates things which are next to each other, guides the user's gestures and eyes.

Eric Lanz collects, catalogues, enumerates and classifies, but the rigour here is completely bogus. The taxonomic activity, pretending to introduce order into the universe of things, is constantly exaggerated and outflanked. The play of associations and the dominant presence of the body and of matter produce a special tension which makes the process slip repeatedly out of control, subjectivity imposing its own choices. Abstracted from their context and their use by the very fact of comprising a collection, translated into so many terms on a list, the objects are immediately returned to their use, surrendered to the touch, to being manipulated, referred back to their everyday situation.

The tool is never named, it is only described in its function; its identification is revealed or made precise by the image of its specific usage: peeling, digging, cutting, etc. 'The tool only really exists in the gesture which makes it technically effective', writes Leroi-Gourhan.[1] What really counts is the transformation that the tool enables.

1. André Leroi-Gourhan, 'La mémoire et les rythmes.' – *Le geste et la parole*, vol. 2, Paris, Albin Michel, 1965, p. 35.

Amongst these ordinary objects such as gloves and kitchen utensils, some are still frequently found whilst others have become rare and, in a way, extravagant, forgotten on account of their over-specialization. Their selection and the ensuing attention paid to them in the electronic close up, the amplification of the sound which accompanies their actualisation, all help to remove them from the realm of banality, projecting them into the realm of curiosities. The gesture is isolated, precise and limited to the execution of a specific function, all attention focused on one single operation at a time. There is no room for anything indefinite.

Once these collections have been constituted, once the memory of these tools and gestures of our modern times have been entered into the computer's memory, it is necessary to know how to access them. Here Eric Lanz provides a second inventory covering the current interactive procedures in computer systems and underlining the modalities for the retrieval and displacement of objects. Select, continue, stop, return to the beginning, modify the speed ... these are some of the elementary operations. In the first series he refers to the principle of the tactile screen. We do not touch with our eyes, we touch in order to see. The process of representation calls on another sense and it is the direct contact of the body with the image that sets off the process of exploration, which modifies the families, moves in from a category of tools to the tool itself and then on to the operation which defines that tool. In *Les Outils 4* and *5,* the voice is used as the organ of command.

These transitions are ordered by a simulated computer program.[2] Its

2. For example in the *Tools* series, one tool is selected from amongst eight others, and eight new possibilities are then displayed. The last tool selected is at the centre of nine squares,

logic is not immediately apparent but rapidly gives the impression of a multitude of layers which are to be summoned up and explored. The programme becomes the concept which allows the user to navigate from one action to another or to find the right tool for a given situation.

At the centre of all these series are to be found the different functions of the hand: the hand which manipulates and designates, the hand which triggers the action and accomplishes it, the hand which, by playing with the different materials, allows them to be identified. At the outset of all 'technicity' and symbol of all crafts, the hand here acquires a new function as an interface. It is not only the hand that liberates speech, following the analysis of André Leroi-Gourhan in *Le Geste et la Parole* (a text which Lanz has written about), but even more, the hand that joins in language and operates mediations.

In his most recent works, Eric Lanz has continued his inventory of manual gestures and the simulation of virtual operations, but moving on to a new level of abstraction. After the screen, the monitor in *Dictée*, *Synthèse* or *Index* (Dictation, Synthesis, Index) has become a sort of box for an experiment in the recognition and accomplishment of these gestures. Two images of hands coexist on the monitor's screen, but they belong to two different spaces. One gives orders to the other and is simultaneously confronted with the execution of the order, the gesture which prescribes to the gesture which executes. But their communication takes place via a machine, a system of spatial identification and calculation making up a second language. The object or instrument concerned remains invisible, and sound must be used for confirmation, to finish off the process of

surrounded by eight others grouped according to eight different parameters (form, genre, function, gesture, object, realm, action, principle).

identification initiated by the gesture. It is only the relations between the signs that counts here. It is no longer a question of touching, but one of signifying and interpreting.

The hands visible on the screen are cut off at the wrist, and seem therefore to lack a body. It is the spectator's body that fills this lack, prolonging itself in order to act by delegation. The narrow field of vision and the angle of view encourage the user's identification with the camera.

This attention to the position of the spectator, and to his or her implication in the space of the representation is also to be found in Eric Lanz's installations. These installations are always very simple: three monitors at maximum placed on stands, or a couple of video projections. There are no seats to invite the spectator to sit down, as though for some spectacle. On the contrary, the spectator is invited to wander around, to come and go as though 'navigating' in hypermedia, choosing his or her own distance from the screen, paying attention to such and such a sequence displayed, picking up another sequence chosen at random from another screen. This will go on as long as the visitor wishes. The only direct intervention – a ridiculously minimal one – left to the spectator concerns the change in the sequences shown. In the installation *Y* of 1988, for example, these changes are determined by the visitor's movements, tracked by infrared sensors. Trapped inside this rather summary but perfectly authentic state of inter-activity, the visitor is also the object of a fiction of surveillance. One of the sequences shows a binocular telescope used for the panoramic shots, panning over the space of the gallery like a remote control system, metaphorically returning the aim of the camera onto the person watching.

Video installations – multimedia works *par excellence* – have long since allowed artists to try out new relationships with representation, to work on new settings for cinematographic devices and to offer new aesthetic

experiences to visitors. The latter are constantly called to set up relations between the different poles in a system of which they are themselves an element and the image, but another.

In *Manuskript*, the work Eric Lanz has produced for this CD-ROM issue, he uses photographs taken from his collection of tools and images shot for the series *Les Gestes*. The interactive process is no longer cited, it is rendered effective. The ironic distance the videographic version allowed for disappears completely to make way for the direct research and consultation of the data via itineraries which are inspired, simultaneously, by film, by writing and by reading.

Zooming in from one stage to the next, we go forward into a first block of unidentifiable graphic elements. Then we decipher lines, then the signs that compose them and finally these signs turn out to be the images of tools. Placed against a white background, meticulously lined up and grouped together, like so many letters making so many words, they seem to simulate the hieroglyphs of some strange script. It is possible to run along a line to choose a particular tool, a bit like a finger running over a page. But the line turns out to be endlessly readable, like videos in a loop. The page of the catalogue extends beyond the screen, or rather, the very notion of the page is called into question.

The chosen tool is selected by clicking on an icon, and this opens a window in which the use of the tool is presented. This is the confrontation between the sign and the object, between the eye which interprets and the hand which executes.

Hypermedia allows for a non-linear access to stored information, an invitation to wander and to combine various different media. Once again, Eric

50   Lanz's appropriation of this technique is paradoxical. He does not multiply the levels of information, and adds neither title nor definition nor graphic effects. He is not offering any extravagant possibilities for random information sampling, just as he has never given in to the temptation of extravagant special electronic effects. He gives the impression of standing back from the critical position of the lesson about technologies, the better to develop a kind of internal resistance, holding the technical possibilities in reserve, playing with them on a low key, in a minimal mode, almost against the grain.

Translation: Paul Smith

Jean-Louis Boissier

Geboren 1945, promovierte 1979 in Ästhetik und ist Professor und Forschungsleiter an der Université Paris 8. Als Lehrer, Forscher und Kurator ebenso wie als Künstler beschäftigt sich Boissier mit den ästhetischen Veränderungen von Kunst und Bild in Verbindung mit Interaktivität und Virtualität. Seine multimedialen Werke untersuchen neue Formen von Narration und Fiktion.

Born in 1945, Jean-Louis Boissier obtained a PhD in Aesthetics in 1979, and is a professor and research director at the Université Paris 8. His work as a teacher, researcher, curator and artist has been concerned with the aesthetic changes occurring in images and the arts in connection with interactivity and virtuality. His multimedia works explore new forms of narration and fiction.

Werke (Auswahl) / Selected works

Le Bus, interactive video disk, 1985

Pékin, pour mémoire, interactive video disk, 1986

Anthologie d'images de synthèse scientifiques, interactive video disk, 1990

Anthologie du virtuel, interactive video disk, 1992

Globus oculi, interactive installation, 1992

Flora petrinsularis, interactive installation, 1993

Mutatis mutandis, interactive installation, 1995

3e Biennale d'art contemporain de Lyon, CD-ROM, Paris: Réunion des musées nationaux, 1995

Mémoire de crayons, interactive installation, 1995

Actualité du virtuel, CD-ROM, Paris: Centre Georges Pompidou, 1997

Le billet circulaire, Website, 1997

La deuxième promenade, interactive installation, 1998

La morale sensitive, interactive installation, Cité des sciences, Paris, 1999

Moments de Jean-Jacques Rousseau, CD-ROM, Geneva: Centre pour l'image contemporaine, and Paris: Éditions Gallimard, 2000

Einzelausstellungen (Auswahl) /
Selected solo exhibitions

Musée de l'Élysée, Lausanne, 1990
Centre pour l'image contemporaine,
     Geneva, 1994/99
Credac, Ivry, Paris, 1995
InterCommunication Center Gallery,
     Tokyo, 1995
Studio national des arts contemporains,
     Le Fresnoy, 1998
Kunst und Ausstellungshalle der Bundes-
     republik Deutschland, Medien-
     KunstRaum, Bonn, 1998
Kyoto Art Center, Kyoto, 2000

Gruppenausstellungen (Auswahl) /
Selected group exhibitions

Les immatériaux, Centre Georges
     Pompidou, Paris, 1985
Venice Biennale, Venice, 1986
Passages de l'image, Centre Georges
     Pompidou, Paris, 1990
Arslab, Turin, 1992
Ars Electronica, Linz, 1992
Multimediale 3, ZKM, Karlsruhe, 1993
Version 1.0, Centre pour l'image contempo-
     raine, Geneva, 1994
Interactive Media Festival, Los Angeles,
     1994
ISEA '94, Helsinki, 1994
The Interaction '95, Gifu, Japan, 1995
InfoArt, Kwangju Biennale, Kwangju,
     Korea, 1995
3e Biennale d'art contemporain de Lyon,
     Lyon, 1995
Lab 6, Centre for Contemporary Art,
     Zamek Ujazdowski, Warsaw, 1997

Version originale, Musée d'art contempo-
     rain de Lyon, Lyon, 1997
Art virtuel, Boulogne Billancourt, 1998
Interactivités, Centre Georges Pompidou,
     Paris, 2001

Ausstellungen (als Kurator) /
Exhibitions (as curator)

Electra, Musée d'art moderne de la ville de
     Paris, Paris, 1984
Image calculée, Cité des sciences, Paris,
     1988
Biennale Artifices, Saint-Denis, Paris,
     1990/92/94/96
Machines à communiquer, Cité des sci-
     ences, Paris, 1991–1992
Revue virtuelle, Centre Georges Pompidou,
     Paris, 1992–1996
L'image n'est pas seule, Saint-Denis, Paris,
     1998

Veröffentlichungen (Auswahl) /
Selected bibliography

'Dramaturgie de l'interactivité.' – *Vers une
     culture de l'interactivité*. Colloquium,
     Paris: Cité des sciences, 1989.
'Bambous, pour que poussent les images.' –
     Les Chemins du virtuel. Cahiers du CCI,
     Paris: Centre Georges Pompidou, 1989.
'Le logiciel comme rêverie.' – *Le temps des
     machines*. Valence, 1990.
'Machines à communiquer faites œuvres.' –
     La communication, sous la direction de
     Lucien Sfez, Paris/La Villette: Presses
     Universitaires de France, 1991.
'Le virtuel s'expose-t-il?' – *Ars technica*,

Paris, 1992.

'Vertus des mondes bornés.' – *Cahiers de l'Ircam*, Paris: Centre Georges Pompidou, 1992.

'Une esthétique de la saisie.' – *Revue d´esthétique*, Paris, 1994.

Programmes interactifs, catalogue, Ivry-sur-Seine: CREDAC, 1995.

'Langages en perspective.' – *Artifices 4*, catalogue, Saint-Denis, 1996.

'Esthétique du virtuel.' – *Actualité du virtuel*, CD-ROM, Paris: Centre Georges Pompidou, 1997.

'Arts du virtuel.' – *Encyclopaedia Universalis*, Paris, 1997.

L'image n'est pas seule, catalogue, Paris: Bibliothèque de l'Université Paris 8, 1998.

'L'interactivité comme perspective.' – *Traversées de l'image*, Beaux-Arts du Mans, 1998.

'L'hyper-estampe.' – *Les nouvelles de l'estampe*, Paris: Bibliothèque Nationale, 1999.

'Le moment interactif.' – *Moments de Jean-Jacques Rousseau*, CD-ROM, Paris: Gallimard, 2000.

'Lisibilité, visibilité, jouabilité.' – *Revue d'esthétique*, Paris, 2001.

Eric Lanz

Geboren 1962 in Biel (Schweiz), studierte an der Ecole supérieure d'art visuel in Genf und an der Kunstakademie in Düsseldorf. Seit 1998 hat er einen Lehrauftrag an der Hochschule für Gestaltung in Karlsruhe. Eric Lanz lebt in Düsseldorf und Genf.

Born in Biel (Switzerland) in 1962, Eric Lanz studied at the Ecole supérieure d'art visuel in Geneva and at the Kunstakademie in Dusseldorf. Since 1998, he has been teaching on assignment at the Academy of Design, Karlsruhe. He lives and works in Dusseldorf and Geneva.

AUSZEICHNUNGEN UND STIPENDIEN / AWARDS AND STIPENDS

Prix Montres Bréguet d'Art Contemporain, Fribourg, 1993
Siemens Stipend, ZKM, Karlsruhe, 1994
Künstlerhaus Bethanien, Berlin, 1995
Akademie Schloss Solitude, Stuttgart, 1998
Künstlerdorf Schöppingen, 2000

WERKE (AUSWAHL) / SELECTED WORKS

Video-Alphabet, Reihe von Installationen und Bändern / installation-and-tape series, 1985–1990
Les matières [*Die Materien / The Materials*], Reihe von Videos für Monitor / videotape series for monitor, 1991
Les outils [*Die Werkzeuge / The Tools*], Reihe von Videos für Monitor / videotape series for monitor, 1991–1994

Les gants [*Die Handschuhe / The Gloves*], Reihe von Installationen und Videos für Monitor / installation-and-video series for monitor, 1991–1993

Les gestes [*Die Gesten / The Gestures*], Reihe von Videoprojektionen / video-projection series, 1993–1995

Les mains [*Die Hände / The Hands*], Reihe von Videos für Monitor / videotape series for monitor, 1994

Les pulls; les maillots; les torses [*Die Pullover; die Leibchen; die Büsten / The Pullovers; The Bodices; The Torsos*], Reihe von Installationen und Videos für Monitor / installation-and-video series for monitor, 1995

Les habits [*Die Kleider / The Clothes*], Reihe von Installationen und Videoprojektionen / installation-and-video-projection series, 1996–1998

Les choses [*Die Dinge / The Things*], Reihe von Installationen und Videoprojektionen / installation-and-video-projection series, 1999–2001

La pâte [*Der Teig / The Dough*], Video für Monitor / videotape for monitor, 2000

Intervention, Videoinstallation / video installation, 2001

Einzelausstellungen (Auswahl) /
Selected solo exhibitions

Centre Culturel Suisse, Paris, 1986
Société des Arts, Palais de l'Athénée, Geneva, 1989
Le Magasin, Centre National d'Art Contemporain, Grenoble, 1991
Kunsthalle Fri-Art, Fribourg, 1993

Festival Videoart, Museo Cannobbio, Locarno, 1994
Künstlerhaus Bethanien, Berlin, 1995
Centro dí Arte Contemporanea, Bellinzona, 1996
Fondation Claude Verdan (Handmuseum), Lausanne, 1997
Saint-Gervais Images (Vitrines), Geneva, 1997
Galerie Bochynek, Düsseldorf, 1998
Forum d'Art Contemporain, Sierre, 1998
Espace Croisé, Lille, 1998
Akademie Schloss Solitude, Stuttgart, 1999
Kunstverein (Artothek), Bonn, 2000
Schloss Ringenberg, Hamminkeln, 2001
Spiegel, Munich, 2001

Gruppenausstellungen (Auswahl) /
Selected group exhibitions

Von Bildern, Kunsthalle, Bern, 1986
Stiller Nachmittag, Kunsthaus, Zurich, 1987
Centre d'Art Contemporain, Geneva, 1988
Transformacoes, Fundacao Gulbenkian, Lisbon, 1990
Projekt Schweiz, Kunsthalle, Basel, 1992
Et passim, Kunsthalle, Bern, 1994
Artifices 3, Saint-Denis, Paris, 1994
La revue virtuelle 10, Centre Georges Pompidou, Paris, 1994
Ohne Titel, Kunsthaus, Aarau, 1995
Multimediale 4, ZKM, Karlsruhe, 1995
Video Visions, El Hanager Center of Arts, Cairo, 1995
Burning the Interface, Museum of Contemporary Art, Sydney, 1996
Version 2.2, Saint-Gervais, Geneva, 1996
Cabines de bain, Schwimmbad La Motta, Fribourg, 1996

The thing between, Technische Sammlungen, Dresden, 1996
Nonchalance, Centre Pasqu'Art, Biel/Bienne, 1997
Nonchanlance revisited, Akademie der Künste, Berlin, 1998
Serien und Konzepte, Museum Ludwig,

Cologne, 1999

Wash & Wear, Kubus, Hanover and Hoesch-Museum, Düren, 1999; Kunsthaus, Hamburg, 2000
Untragbar – Mode, Siemens Kulturprogamm, Museum für Angewandte Kunst, Cologne, 2001

Bill Seaman

Geboren 1956, erhielt den Master of Science in Visual Studies 1985 am Massachusetts Institute of Technology (MIT) und promovierte 1999 am Centre for Advanced Inquiry in the Interactive Arts (CaiiA), University of Wales, Newport; als Komponist und Musiker ist er Autodidakt. Seaman ist Professor am Department of Design | Media Arts, University of California, Los Angeles. In seinen Arbeiten (Installationen, Virtual Reality, Video, Laserdisk, computergestütze Medien-, Fotografie- und studiobasierte Audiokompositionen) untersucht er Verbindungen von Text, Bild und/oder Ton.

Born in 1956, Bill Seaman received an MSc in Visual Studies from the Massachusetts Institute of Technology (MIT) in 1985, followed in 1999 by a PhD from the Centre for Advanced Inquiry in the Interactive Arts (CAiiA), University of Wales, Newport. A self-taught composer and musician, Seaman holds a professorship at the Department of Design | Media Arts, UCLA. His work explores text, image and/or sound relationships through technological installation, virtual reality, linear video, computer-controlled laser disk and other computer-based media-, photography-, and studio-based audio compositions.

Auszeichnungen (Auswahl) /
Selected awards

First Prize, San Francisco Art Institute Sound Art, San Francisco, 1979
Best Sound, Geneva International Video Festival, Geneva, 1985
First Prize, 2nd International Biennal, Ljubljana, 1985
Awards in the Visual Arts, Rockefeller Foundation, Winston-Salem, 1986
Cannon Europe Prize, World Wide Video

Festival, The Hague, 1987
National Endowment for the Arts Fellowship, Washington D.C., 1987
Zone Video Festival Prize, Springfield, 1989
Award of Distinction in Interactive Art, Prix Ars Electronica, Linz, 1992
Best International Video, Cadíz, 1992
Award of Distinction in Interactive Art, Prix Ars Electronica, Linz, 1995
International Award for Video Art, ZKM Karlsruhe, SWF Baden-Baden, ORF Austria, 1995

Bonn Videonale Prize, Bonn, 1996

Interaction Design Award, software for virtual and spatial performances, Hanover, 1998

Intel Research Gift, UCLA, Los Angeles, 2000/2001

Chancellor's Fund for Academic Border Crossing, UCLA, with Dr. Ingrid Verbauwhede, Electrical Engineering, 2001

Werke (Auswahl) / Selected works

How to Revive Dead Roses, linear video, 1981

Home – Homeostatic Range, linear video, 1981

S.HE, linear video, 1983

The Water Catalogue, linear video, 1984

Telling Motions, linear video, 1986

Boxer's Puzzle, linear video, 1986

Shear, linear video, 1986

Details from the Book of Notice, site-specific sign-and-sound installation, 1989

The Design of the Grip, 9-channel video installation, 1989

The Watch Detail, linear video and interactive video disk, 1990

The Exquisite Mechanism of Shivers, linear video and interactive video disk, 1991

Abstraction Machine, auto-generative computer-based work, 1993

Shop and the Necessary Orgy (with Open City Theatre), interactive video disk for theatrical production, 1994

Passage Sets / One Pulls Pivots at the Tip of the Tongue, linear video and interactive video disk, 1995

The Engine of Desire, linear video and interactive video disk, 1996

The World Generator / The Engine of Desire (with Gideon May), virtual environment, 1996–97

Red Dice / Dés Chiffrés, interactive installation and linear video, 2000

Exchange Fields (with Regina Van Berkel), interactive installation and linear video, 2000

Hybrid Invention Generator, computer-based interactive installation, work-in-progress, 2001

Inversion (with Regina Van Berkel), dance and interactive installation/set, work-in-progress, 2001

Einzelausstellungen (Auswahl) / Selected solo exhibitions

Rhode Island School of Design Museum, Providence, Rhode Island, 1985

Institute of Contemporary Art, Boston, 1989

Experimental Art Foundation, Adelaide, 1992

NTT Media Lab, Tokyo, 1994

Art Gallery of New South Wales, Sydney, 1995

Kunst- und Ausstellungshalle der Bundesrepublik Deutschland, Medien-KunstRaum, Bonn, 1996

Sprengelmuseum, Hanover, 1997

c³ – Centre for Culture and Communication, Budapest, 1997

Canadian National Gallery, Ottawa, 2000

The Daniel Langlois Foundation, Cinémateque Québecoise, Montreal, 2001

Gᴀᴜᴘᴘᴇɴᴀᴜsꜱᴛᴇʟʟᴜɴɢᴇɴ (Aᴜꜱᴡᴀʜʟ) /
Sᴇʟᴇᴄᴛᴇᴅ ɢʀᴏᴜᴘ ᴇxʜɪʙɪᴛɪᴏɴꜱ

New Music America, Miami, Florida, 1989
Institute of Contemporary Art, Boston,
    Mass., 1989/90
Siggraph, Las Vegas, Nevada, 1991
Frankfurt Art Institute, Frankfurt, 1992
Experimenta '92, Melbourne, 1992
Bitte Berühren, ZKM, Karlsruhe, 1992
FISEA , Minneapolis, Minnesota, 1992
Ars Electronica, Linz, 1992/95
9th Biennale of Sydney, Sydney, 1992–93
Tomorrow's Realities, Siggraph, Anaheim,
    California, 1993
Artificial Games, Munich, 1993
Ivan Dougherty Gallery, Sydney, 1993
CAVS, MIT 25 Year Retrospective, Cam-
    bridge, Mass., 1994
ISEA '95, Montreal, 1995
Multimediale 4, ZKM, Karlsruhe, 1995
Electra, Oslo, 1996
Guggenheim Downtown New York, New
    York, 1996

Dutch Electronic Art Festival, Rotterdam,
    1996
Serious Games, Barbican Gallery, London,
    1997
Wilhelm Lembruck Museum, Duisburg,
    1997
IT Conference Exhibition, VR connecting
    ZKM, Karlsruhe and Brussels, Belgium,
    1997
Surrogate, ZKM Karlsruhe, VR connecting
    ZKM and InterCommunication Centre,
    Tokyo, 1998
Body Mécanique, Wexner Center for the
    Arts, Columbus, Ohio, 1998
Digital Traces, Pittsburgh Art Center, Pitts-
    burgh, 1999
Adelaide Festival, Adelaide, 2000
Vision Ruhr, Dortmund, 2000

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http://www.cda.ucla.edu/faculty/seaman/

Biografische Notizen / Biographical Notes
Autoren / Authors

Jean-Louis Boissier

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Dieter Daniels

Dieter Daniels initiierte 1984 die Videonale Bonn, leitete von 1991–94 die Videothek am ZKM und ist seit 1993 Professor für Kunstgeschichte und Medientheorie an der Hochschule für Grafik und Buchkunst, Leipzig. Neben zahlreichen Veröffentlichungen (u. a. *Duchamp und die anderen. Der Modellfall einer künstlerischen Wirkungsgeschichte in der Moderne*, 1992; *Medien Kunst Interaktion. Die 80er und 90er Jahre in Deutschland*, mit Rudolf Frieling, 2000) und Tätigkeiten als Kurator (u.a. *Minima Media*, MedienBiennale Leipzig, 1994) ist Dieter Daniels seit 2000 Co-Redakteur des Internet-Projekts ›medienkunstnetz.de‹.

Dieter Daniels initiated the Videonale Bonn in 1984, was director of the ZKM Video Library from 1992 to 1994, and since 1993 has been Professor of Art History and Media Theory at the Leipzig Academy of Visual Design. As well as authoring and editing numerous publications (incl. *Duchamp und die anderen. Der Modellfall einer künstlerischen Wirkungsgeschichte in der Moderne*, 1992; *Media Art Interaction. The 1980s and 1990s in Germany*, with Rudolf Frieling, 2000), and curating many exhibitions (e.g. *Minima Media*, Medien-Biennale Leipzig, 1994), he co-edits the Net project 'mediaartnet.org'.

Anne-Marie Duguet

Anne-Marie Duguet ist Professorin an der Université Paris 1 und leitet dort das Centre de Recherches d'Esthétique du Cinéma et des Arts audiovisuels. Neben ihrer Tätigkeit als Kuratorin publiziert sie zu Themen zeitgenössischer Kunst, neuen Technologien und Video. Sie ist Initiatorin und Herausgeberin der Publikationsreihe 'anarchive', die DVD-ROM und Internet-Projekte dokumentiert und Co-Autorin der ersten Ausgabe *Muntadas: Media Architecture Installations* (CD-ROM, 1999) sowie Co-Autorin des Buchs *Jeffrey Shaw – a user's manual / eine Gebrauchsanweisung: Vom Expanded Cinema zur Virtuellen Realität* (1997).

A professor at the Université Paris 1, Anne-Marie Duguet is head of the Centre de Recherches d'Esthétique du Cinéma et des Arts audiovisuels. Alongside her curatorial activities, she writes on contemporary art, new technologies and video. She established and edits the 'anarchive' series documenting DVD-ROM and Internet projects, and co-authored the first issue *Muntadas: Media Architecture Installations* (CD-ROM, 1999) as well as the book *Jeffrey Shaw – a user's manual: From Expanded Cinema to Virtual Reality* (1997).

Impressum / Colophon

artintact 2

CD-ROMagazin
interaktiver Kunst

ZKM/Zentrum
für Kunst
und Medientechnologie
Karlsruhe

Artists' interactive
CD-ROMagazine

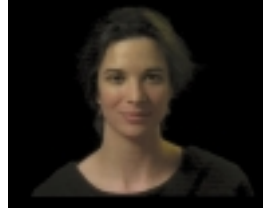*ZKM/Center*
for Art and Media
Karlsruhe

Contents

Luc Courchesne:
Portrait One

Miroslaw Rogala:
Lovers Leap

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Der Wald

In autumn 1994 we presented *artintact 1* to the public at the Frankfurt Book Fair. This was an initial attempt to store interactive media art on a commensurate and state-of-the-art data carrier and simultaneously an economic experiment to market a multimedia communication product in cooperation with a publishing company. The overwhelming success of this initial edition of a CD-ROM magazine of interactive art published by the ZKM/Center for Art and Media proved that we were heading in the right direction and the interest it aroused when presented at subsequent festivals, fairs and exhibitions in Leipzig, Berlin, Paris and Cannes confirmed our concept: CD-ROM is the ideal medium to enhance the diversity of interactive works of art on an individual level and simultaneously afford their propogation. The combination of CD-ROM and book which, as a conventional medium, has no influence on the autonomy of the work of art itself but which nevertheless offers a commentary and critical reflection, enabled us to further diversify a small gallery of media art.

The second issue of *artintact* is published on the occasion of the ZKM media art festival MultiMediale 4 in May 1995. Under the auspices of Jeffrey Shaw we have once again invited artists-in-residence at the ZKM/Institute for Visual Media to create *artintact 2*. Thus we want to do justice to our obligation as chronicler by processing and documenting certain experiences made during the research and development work. The guest artists of the ZKM not only leave their mark internally – they also proffer a vital testimony for new surprising modes of expression that the electronic media can afford to artists. Moreover, from the selected form of *artintact* as a magazine to the reception of media art in toto, a rarely used opportunity is afforded for works that require interaction with the viewer. The customary mode of presentation and discussion with media art is here privatised as it were, to afford an intimate individualised experience and yet it is made accessible to everybody. We regard this as yet another contribution to further acceptance and integration of media art in the contemporary art discourse.

Heinrich Klotz
Director of the ZKM/Center for Art and Media Karlsruhe 1989–1998

Walter Benjamin and the CD-ROM
A New Media Form

By Christoph Blase

Quotes from Walter Benjamin's 'The Work of Art in the Age of Mechanical Reproduction'[1] have become popular again. Published in 1936, the quotes are being used today in the hope that their prophetic revelations could also apply to the CD-ROM:

> One of the foremost tasks of art has always been the creation of a demand which could be fully satisfied only later. The history of every art form shows critical epochs in which a certain art form aspires to effects which could be fully obtained only with a changed technical standard, that is to say, in a new art form.[2]

Benjamin was referring to photography and, in particular, to film. Today this quote could equally apply to the CD-ROM. As a concrete product, it can represent the entire area of New Media. Although the CD-ROM represents only a small piece of what is technically possible, accessible and useable, it is the most advanced. With every million new CD-ROM drives, one can justifiably speak of a new form of art in the sense of Benjamin's art form.

In the fine arts, there has been a trend over the past five years to work in a wide range of contexts. To name just a few artists and to show that there are many: Renée Green, Andrea Fraser, Fareed Armaly, Christian Philipp Müller, Regina Müller, Clegg & Guttmann, Peter Fend, Carsten Höller, Mark Dion, Stephan Dillemuth, Jason Rhodes. Their work is based on indepth research, which has led to a wealth of material presented

1. Walter Benjamin, 'The Work of Art in the Age of Mechanical Reproduction.'– *Illuminations,* New York, 1969. Reprinted in: *Videoculture,* Visual Studies Workshops Press, New York, 1987, pp. 27–52.
2. Ibid., p. 43.

to the public. The collection of information reaches such an amount that no viewer can absorb all of it. As far as the information involves articles, magazines and books as well as audio over the headphone, only one viewer at a time can usually take in this information. And there is hardly anyone who reads or listens to the same passage as another, who concentrates on the same parts of an interview, views the same video sequence, knows the same context in the same volume. The viewer participates in the work of art according to individual gusto and takes a small sampling from the information package. As such, art provokes an unsatisfactory situation since the work of art offers an interweaving and interconnecting that can be grasped only with great difficulty. One feels obliged, however, to want to grasp everything so that one understands at the least the proximate meaning of the work in order to evaluate it. Frequently, people are left with the impression that they have missed something, have overlooked a detail that might have been important. So the artist is silently criticized of having offered an unstructured and unedifying hodgepodge. In reality the artist's collection of materials has a structure, but what it is missing is the proper medium.

In the sense of Benjamin's quotes, the context art of the 1990s is in a stadium 'which could be fully satisfied only later' but nevertheless 'aspires to effects' which 'could be fully obtained only' – with the CD-ROM – 'in a new art form.'

The effect that is targeted but not achievable in the exhibition situation forms an abundance of networked material that overwhelms the viewer. This happens largely because the viewer is not aware that this tender does not have to be fully studied; the viewer should choose what is personally important. The viewer gradually becomes an individual recipient of art, like the user of a computer monitor.

If the viewer has the information on a CD-ROM, he could move much more easily, quickly and focused through the maze of data involving text, pictures, voice and video. The desired structure, the connection that

arouses specific associations and experiences in the mind become more effective and more accessible than in an exhibition situation. The difference exists in the art form, and this is exactly what establishes acceptance by the public.

Benjamin proved 60 years ago, that the Dada movement or surrealism would not be accepted by a large audience, but that film would. 'Thus the same public which responds in a progressive manner towards a grotesque film is bound to respond in a reactionary manner to surrealism'[3]. Picasso is rejected, Chaplin, by contrast, is loved. This can be explained in 'that behaviour items shown in a movie can be analysed much more precisely and from more points of view than those presented on paintings or on the stage.'[4]

The context art of the 1990's is received, albeit reluctantly, by a large audience, also including gallery owners and museum officials. The classification of this art is as difficult as is its consumption. One views it not as a logical, further development of the booming 1980s. Still, its strength and importance can be felt. For this art form – and not the line of video sculptures from Paik through Lafontaine – symbolizes Benjamin's 'critical epochs,' which precede 'a changed technical standard.'

In the context art of the 1990's the viewer is not only overloaded with material and left with an individual reception – both positive characteristics of the CD-ROM; other observations can also be described that arise from the wrong medium but correctly point to the 'new art form.' Just as Benjamin proved that Dadaismus had 'sacrificed the market values which are so characteristic of the film in favor of higher ambitions,'[5] the context artist today is less concerned with the marketability of his work. The

3. Ibid., p. 41.
4 Ibid., p. 42.
5. Ibid., p. 43.

main thing is that the artist's travel and production costs are half way covered. The artist is more excited about the invitation to a symposium than about the sale of his work.

At the same time, there is a strong interest in techniques and results from the scientific area, which partly flow together in artistic work. Benjamin also made an observation about this when he prophesied that one of the most important functions of film would be 'to demonstrate the identity of the artistic and scientific uses of photography which heretofore usually were separated.'[6] As the smallest haptic unit of the New Media, the CD-ROM also has the 'tendency to promote the mutual penetration of art and science.'[7] This is not only because both sides – art and science – work today with the same computers and programs and thus share the same problems. By the way, it should be mentioned that many artists attempt to produce and design text with computers, while scientists are more interested in visualizing the results of their research.[8]

What is the status of the CD-ROM? How true is Benjamin's statement: 'Just as lithography virtually implied the illustrated newspaper, so did photography foreshadow the sound film.'[9] Are we dealing here with a bastard, like television? Or if we refer to Gutenberg, Senefelder and Daguerre, should we recognize that through clever cross-breeding we can

6. Ibid., p. 42.

7. Ibid.

8. Benjamin refers in a footnote to the historical analogy in the Renaissance painting: 'The incomparable development of this art and its significance rested not least on the integration of a number of new sciences, or at least of new scientific data. Renaissance painting made use of anatomy and perspective, of mathematics, meteorology, and chromatology.' (Ibid., p. 51) Also recommended is the essay 'Der Weg zur Welt im Kopf. Eine Kunstgeschichte der Medien – fast-forward' by Beat Wyss in the catalogue *RAM. Realität – Anspruch – Medien*, pp. 15–36, distributed by the bookstore Walther König, Cologne, 1995.

9. Walter Benjamin, ibid., p. 29.

achieve an ideally cultivated media? The artistic film exists, which cannot be said of television. Will there ever be the artistic CD-ROM?

The question can be answered with 'yes' even if there is little evidence to back this up. Even the works of art on the *artintact* CD-ROM deal only with certain aspects: While these works make use of this medium, they were adapted from installations in order to make them accessible to a larger audience. This happens so cleverly that the user doesn't realize it, and even those who do, forget quickly. If we wander through the *Forest* of Tamás Waliczky, we don't need the large flight simulation platform. Paging through the real book in *Flora petrinsularis* by Jean-Louis Boissier (*artintact 1*) can be substituted by moving a mouse without the work losing its intensity. Communication with the insidious, but friendly young woman in Luc Courschesne's *Portrait One* is perhaps more comfortable on the computer than in an exhibition situation.

Although *artintact* is a documentation medium, it has an effectiveness all of its own, possibly a superior one. The same works put limitations on the user in their representation as art installations. The user must move at a certain time in a certain location. He is not alone, and is being observed. It is as if someone is reading a book in public, and everyone is observing which pages the reader is interested in. In its handling the CD-ROM, like the book, represents a highly individual work of art, aimed only at one interacting mind and predestined as such for the private sphere. The exhibited media installation is to the CD-ROM what the cinema experience is to the video tape, only that the CD-ROM offers much more.

Within this potential, the works on *artinact 2* examine specific areas, such as movement in infinite space, recording of urban space and private communication with a simulated real person. Each of these is a chapter in the grammar of the new art form CD-ROM. There are artistic research results, which attempt to delve into the secrets of interactive and multi-media semiotics, but which later forego these attempts and prove – by

publishing a CD-ROM – the value of the CD-ROM as a medium. Media art is the research department for the mass product and the new CD-ROM art form. 'The technical standard' has meanwhile become so advanced that future developments can – and will – occur directly in this form.

As with the book, not everything will be art, but it is pointless – an exercise in 'much futile thought,' to quote Benjamin – to dwell on the question whether the CD-ROM and the New Media can be art without 'raising the primary question whether the very invention of photography,' which we are replacing here with the CD-ROM, 'had not transformed the entire nature of art.'[10] Without doubt, this is the case. But it is not so dramatic today since the process already began when the sources of all visual representations – painting and sculpture – were expanded through technical media. Since then the transformation of the entire character of art has occurred less dramatically. Instead, it has come in small waves. The CD-ROM is such a wave, just as the radio and the television were years ago, and the Internet is today. Big waves have washed over art time and time again. So there is growing support for the opinion of Markus Lüpertz that the time has come to restrict the term art to painting and sculpture.

One should preserve the aura of the original for such art and establish another forum for the CD-ROM in the range of mechanically reproductive art. In reality this has already happened. The problem is that a second expression with a similar value and aura as the word 'art' doesn't exist. But the expression 'media' is gaining recognition, giving it a similar value as 'art.' The discussion about quality and non-quality can be conducted much more effectively when the CD-ROM is viewed not as a new art form but as a new media form. This is equally important with the admission that the decade long battle about the character of photography as art was only a fictitious one. The expression 'new media form' for photography is

10.   Ibid., p.35.

perhaps stronger than the term 'new art form.' The art character can be returned to where it came from. What is important is the individual media character. And the one that has reached its zenith since the invention of photography is the CD-ROM.

But what constitutes the quality of the new media form CD-ROM? It is known that the CD-ROM can store a vast amount of reproductive data, which can be used interactively (since it is non-linear) and with astonishing speed. That the disc still isn't fast enough, that it does not produce a satisfactory picture and that each disc is not compatible with every drive are among the start-up hiccups. The discussion is not about technical issues. Rather, it is about the quality of content and the criteria to evaluate content based on examples of how state-of-the-art can be offered to users in 1995.

Until now products have frequently used existing material, with the attraction being the new way of presentation. This applies, for instance, to works like the Beatles film *A Hard Day's Night*[11], in which the script can be read parallel to the film, or Marvin Minsky's book *The Society of Mind*[12], which stands out because of its numerous connections within the texts. In addition, numerous CD-ROMs about museums and art exhibitions are strongly oriented towards former techniques of data acquisition and represent, above all, a huge electronic note box where notes can be easily retrieved and logically connected. But even here a person can get lost in the flood of information and overlook interesting details. An important criterion for the CD-ROM will be its ability to develop a system to process and access information.

The best CD-ROM available today in the field of art is the one dealing with the *Louvre*[13], which consits of short and condensed chapters.

11. *The Beatles in a Hard Day's Night*, CD-ROM, Voyager, 1993.
12. *First person: Marvin Minsky – The Society of Mind*, CD-ROM, Voyager, 1994.
13. *Le Louvre – peintures & palais*, CD-ROM, Montparnasse Multimedia, 1994.

Because of its conscious focus on the spoken word, users aren't inclined to make a hardcopy of it. Partially the text can only be heard, but of course it is coupled with visual material and can be heard frequently. The user could 'click' his way through the *Louvre* without having to read the individual texts. Another feature that underscores the special dissemination capability of the CD-ROM is its ability to enlarge an image and scan it with the mouse instead of restricting it to a static size, so that the hand is moving ahead of the eye.

What happens here on the surface is already possible spatially on other CD-ROMs. The mouse determines the line of view: The user is free to move, say, in the new CD-ROM about the Barnes Collection[14] where he can fetch the paintings directly from the walls or just wander through the entire building.

A completely different camera direction is necessary if one wants to reproduce reality for the CD-ROM. In demand are panorama scenes which can be visually traversed not only horizontally but also vertically, zoomed in and exited to enter the next. The CD-ROM is a medium that represents and creates space and whose quality is characterized by the ability of the user to get used to this space. In the area of animation, the CD-ROMs *Freak-Show*[15], *Myst*[16] or the new *P.A.W.S.*[17] are already examples of a specific style.

Another distinguishing CD-ROM attribute is its capability to establish a correlation based on journalistic methods to present complex information effectively. In *Doors of Perception 1*[18], for instance, the material of a two-day conference appears to be fully reorganized in a subjective man-

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14. *A Passion for ART – Renoir, Cézanne, Matisse and Dr. Barnes*, CD-ROM, Corbis, 1995.
15. *The Residents Freak Show*, CD-ROM, Voyager, 1994.
16. *Myst,* CD-ROM, Broderbund, 1994.
17. *P.A.W.S.*, CD-ROM, Voyager, 1995.
18. *Doors of Perception 1*, CD-ROM, Mediamatic, 1994.

ner. Topic areas, such as 'The book is dead,' 'New Media are good' or 'Cyberspace will replace real space' are provided as catchphrases, under which a column appears where opinions for and against are displayed from right to left. The user can retrieve a statement with a simple click of the mouse. What is interesting here is that there was never a discussion at the symposium about these topics. The medium form CD-ROM made this synopsis possible by using material without regard to the original context. At the same time, the CD-ROM reproduces the symposium's content and atmosphere better than a normal report could. There are huge opportunities to disseminate information through such a process, but it also requires a great deal of responsibility in handling the material.

There is more room for those who produce or provide material for a CD-ROM according to a film or interactive script, and only for this purpose. The journalistic method becomes a literary method. Material in previously unimaginable abundance will be provided in a virtual room, where the user appears to have free control. As feelings were captured adequately in literature in the 1920s and in film in the 1960s, they will be instilled into the minds of people by the CD-ROM in the near future. The CD-ROM is, apart from everything else, the ideal novel for the communication society.

Translation: John Blau

»Aren't you afraid ?«

»You're right!«

Blind Date in Cyberspace
or the Figure that Speaks
By Jean Gagnon

Luc Courchesne has been interested in portraiture for a long time. In 1982, while still studying at the Massachussets Institute of Technology, he did *Twelve of Us*, a short five minutes video, probably his best known single-channel tape, in which different people are seen in medium shot trying to remember the story of the three bears. Each person is captured with his or her particular facial expressions, revealing features not only of a face but of self-presentation to others – to Courchesne as videomaker and, by extension, to us, the viewers. The facial expressions are also tied to intonations, laughter, giggling, and so forth, echoing the inner states of the person in the situation of self-revelation in front of the camera.

In *Twelve of Us* Courchesne used talking heads and the anecdotal mode of oral speech. Through these, the work was already leaning towards what would become crucial in the interactive portraits: direct address to the viewer, dialogue, and intersubjectivity. He sought to reveal aspects of persons through recollections of childhood memories, thus creating a channel of intimacy between him and his subjects, and between them and the viewers that operates through the empathic presentation of faces, vocal expressiveness, and the sharing of common memories.

Then, it was almost a natural thing for Courchesne to get involved with interactive portraiture. As he states himself:

I use hypermedia to make portraits. A portrait of someone is an account of an encounter between the author and the subject. Painted portraits were made over long periods of time and therefore are more conceptual than photographic portraits. They encapsulate in one single image hours of interaction between the model and the painter. Photography, on the other hand, makes realistic portraits. The talent of the portrait photographer is to wait and pick the right moment – the moment when the person expresses the density of his or her being;

Luc Courchesne: *Portrait One,* 1990/95. Screenshot.

the subject and the photographer wait for the magic moment in complicity. In my portraits, the entire encounter is recorded, and material is extracted to construct a mechanics of interaction that will allow visitors to conduct their own interviews.[1]

Here, Courchesne refers mostly to his piece entitled *Family Portrait* (1993), where the notion of encounter is central, and what is rendered for the viewer is a fragment of the original encounter between the artist and the persons whose portraits we interact with. But what about his earlier interactive piece *Portrait One* (1990), in which we encounter a fictional character, Marie? Is the fragmented documentation of a real encounter more truthful than the conversation we may have with a fictive persona? In a way, the answer is no, because both rely on the subjective part of us that we give away each time we converse and engage in dialogue. These works are representations of our subjective stance, of our being-for-others; they animate in us, the viewers, the very foundation of our subjectivity.

Interactivity and Intersubjectivity

Portrait One is a fictional work and a framed encounter with a character. But unlike other interactive works, it is not a narrative piece, as multilayered as it may be. It is structured so that the viewer can converse with Marie. And it is precisely as a conversation, through a dialogic structure, that the piece establishes its empathic claim on us. It works at many levels, through non-verbal clues such as facial expressions and eye contact and through verbal strategies of oral and direct address. To experience *Portrait One*, is, simply put, to encounter Marie. The only experience one can have of the piece is by encountering the young woman whose face we see on the screen and by having a conversation with her. Otherwise, it is impossible to experience this work, or one would face a mere image, an

1. 'Family Portrait: The Art of Portraiture.' – *Luc Courchesne: Interactive Portraits,* ed. National Gallery of Canada, Ottawa, 1994, p. 3.

inanimate portrait not different than, say, a photograph, with much less definition than a photograph. So it is only by interacting with the piece through a dialogic posture that one can experience it.

I should clarify the terms 'conversation' and 'dialogue' I have used so far. The encounter in question is with a machine – a video screen and a computer-controlled videodisc (or a CD-ROM in the present version). The conversation or dialogue one has with Marie is certainly not a real one, and the parameters – the subject matters we can talk about, the different paths by which our dialogues unfold – have been preset by the artist: But at the same time, the work constitutes a type of verbal interaction that has many of the characteristics of interpersonal exchange. We find co-present to each other two 'subjects', one virtual (Marie), one actual (the viewer). Both use linguistic indicators of persons, the pronouns 'I' and 'you', which mark and re-mark the enunciation and are also, according to Francis Jacques[2], respectively, the actual and the virtual persons of the dialogic exchange. As the conversation unfolds, the interlocutors try to establish a common ground of understanding through 'co-references', using situational indexes to refer to the context of their conversation. These indeed are some features and elements we can find in real dialogues between two persons.

Portrait One, however, is different from a photographic portrait. The latter refers to something that was and ultimately to death (Barthes), while Courchesne's interactive portrait is experienced in the present of the conversation, although, as we will see, it may refer to the past but not as what has been or is dead, but rather as what is forever happening in the present of the verbal interaction. Thus, the interactive portrait calls for me as interlocutor, and in fact it does not reveal as much of the portrayed subject as it does of myself as I engage in the dialogic dynamic of ex/change.

2. Francis Jacques, *Dialogiques. Recherches logiques sur le dialogue*, Presses Universitaires de France, Paris, 1979.

Thus, it is my own subjective positioning that is played out through language, through verbal interactions, through ex/change: when I exteriorize myself and change position, when by saying what I say, I establish my placement in front of my interlocutor.[3] This ex/change is also a fracture of my egocentricity because I will only grasp myself by encountering the other person. It is then possible to argue that the subject of Courchesne's interactive *Portrait One* is myself.

At the core of this work, as in the following one, *Family Portrait*, we find the notion of subjectivity as inter-subjectivity. Both works rely on language, thus lending themselves to a pragmatic approach to subjective experience. What is a person and what can we know of another person? Gaston Bachelard wrote that what we know of another person is what we imagine, and this would summarize the extent to which philosophical inquiry has succeeded in penetrating this question. It was also the great discovery of psychoanalysis that language, the spoken word, is the royal road to the unconcious, and that it is structured as a language, to use Jacques Lacan's famous expression. In fact, a person reveals himself by talking to me, and even Descartes' *cogito* (I think, therefore I am) seems to rely on an underlying and unanalyzed dimension: I talk, therefore I think. Many critics of Descartes' brilliant demonstration of the *cogito* have highlighted its inherent solipsism, and even phenomenological systems, such as Sartre's, suffer from the same foreclosure of subjectivity onto itself because the ego and the alter ego are thought of in a specular relationship based on the look, especially in love. What is interesting, then, about Luc Courchesne's work is that it positions subjectivity as intersubjectivity within the framework of verbal interaction, in conversation and dialogue, within the linguistic occurrence of the 'I'. For to say 'I' is to refer first to the discursive act and second to the speaker. 'I' is distinguished from another person who is not 'I', being, within a statement, the witness of

3. See François Flahault, *La parole intermédiaire*, Éditions du Seuil, Paris, 1978.

the subject of enunciation. But this position can be reversed when the addressee in turn says 'I'. We can now begin to see that we are no longer facing the well-rounded subject of the *cogito*, or even the all-perceiving subject of the cinema, but rather a fluctuating subject, a fractured subject in the ex/change of the verbal interaction. Thus the other person is a linguistic function in a dialogic relation; the recognition of others is linked to the very practice of language in which both the subject and the other ex/change positions.

Fictive Conversations

But, of course, Marie is not real, she is part of a computercontrolled system, and the viewer interacts with her by using a computer mouse to choose questions and answers on the screen. The dialogic situation thus created would fall within the category of what Francis Jacques calls the 'playful context' which is a form of 'mutilated speech' as opposed to 'sincere speech'. In that category, we find the actor's paradoxical 'I' or Rimbaud's poetic 'I is another'. *Portrait One* is a playful representation of subjectivity as intersubjectivity. It possesses many levels of objectivity for the viewer: the technological objectivity of the apparatus confronting him, the objectivity of the parameters of interaction preset by the artist, which are at first unknown to him as interlocutor but which can become known through the process of playing with the system. This objectivity then resembles that of a game with rules that distinguish it from daily activities, behaviours, and attitudes; players in order to play must abide by the rules, and if one of them cheats the game does not work anymore. With *Portrait One* one must be willing to enter into the playful aspect of the conversational.

Portrait One is also fictional, unlike *Family Portrait*, which is a documentary. The fictional aspect in conversation is important to highlight because, again, it implies the playfulness of language in daily situations. The fictional mode of conversation is in opposition to the serious mode of

daily activities and social practice. The serious mode is based on sincerity, which is the warrant of the necessary continuity of social coherence. It is based on pertinence for rationality and efficacy. Beside this serious mode of the quotidian exist the different worlds of the imagination: daydreaming, play, fiction, fairy tales, myths, jokes, and the like. All of these are specific modifications in one's relation to daily reality. Thus, the serious mode of conversation and the types of verbal interactions within it constitute reality and construct our daily reality aimed at practical ends. The playful modes depart from this quotidian use of language, normal and normative, to escape into imaginary worlds where amusement will prevail. In this mode, the *telos* of everyday efficiency of language is suspended to make room for another type of relationship to reality and others.

Fiction in conversation can be defined as follows: it is a 'mode of interaction, i.e., an aspect of the structuration of verbal interactions corresponding to the interpretation by the speaker as to what constitutes reality.'[4] Reality must not be regarded as an objective datum that language simply registers, but rather as a set of situational data based on beliefs and knowledge of diverse sorts in relation to intentions linked to values and preferences; this construction of reality consists in the choice of certain objects and states of things as relevant to the situation; it is thus in an elaborated context that activities, and verbal actions as well, can be understood. Fiction is an activity for constructing the context.

If we now consider examples from the dialogues we find in *Portrait One*, we notice that both the actual person of the viewer and the virtual person, Marie, are constantly trying to establish the proper context of their conversation. They first try to identify themselves – who they are and what common interests they might have – and if Marie or the viewer

4. Pierre Bange, 'Une modalité des interactions verbales: Fiction dans la conversation.' – in *DRLAV, Revue de linguistique*, No. 34–35, Centre de Recherche de l'Université de Paris VIII, 1986, p. 215. (Translation mine)

is not satisfied, she or he may turn away. All the while, Marie repeatedly refers to her own situation as a virtual being:

I like you too … Unfortunately it's hard for me to contemplate anything. I have no future! I'm not like you …

I have only my past. Time stopped for me the day I became what I am now.

Because I'm a portrait. My real existence lies elsewhere.

In these excerpts we see that Marie establishes her own situation in the continuing present of the past, which is re-actualized each time she enters into dialogues. We see as well that for her interlocutor the context here is one of closure into a very determinate present. It is difficult to spell out all the possible dialogues in the piece, although the combinations and dialogic paths are not infinite. But for the viewer and interlocutor, the situation is one that is filled both with certainty (I speak with a prerecorded persona who has only the past and no future) and uncertainty (I don't know in advance where my choice of questions or answers will lead me).

Marie is also a seducer and she knows it, but as she states:

It is true that we can be scared to let ourselves be loved. The threatening love of another … See … I could tell you that I love you … I love you! But how does that commit me? You … You are not afraid?

With me it's too easy. I can only be the impossible love, a detour which occupies desire at no risk.

What could be quite similar to many so called erotic/pornographic CD-ROMs loaded with simulacra of intimacy is here deconstructed when she refers to the vacuity of the desire she triggers at no risk. In the virtual context of this conversational situation – and this would be the fictive part of the game – illocutionary statements bear no consequences. To say 'I love you' is to take a stance and to run the risk that the other person may turn away. Such a statement has an illocutionary force that modifies the inter-

subjective positioning of the interlocutors. But here, however, no one is at risk:

> Yes but with me, your gesture doesn't bear any consequences. Will you dare as much with the person that's standing by?

> It is true that you cannot reach me, that you cannot change me. But look at the people around you: Are they so different from me? Can they be reached? Some believe that it is impossible to be in communion with a person … that it is a great illusion.

> Here is what I think. The others are very close yet so far away! The most creative gesture is one that leads to another human being. This gesture is not useless. Bonds are made. Children are born. Actions are taken. Systems are instituted. All of it because of one gesture, one word. It's crazy! We are the product of this gesture toward another person … and it has to be repeated forever.

Here Marie raises an ethical question. As for the vacuous desire she represents, the relationship we can have with her forces us to think about the authenticity of our involvement or commitment to relationships in the larger scale of social life. Francis Jacques writes: 'The reality of the other person becomes problematic only to someone who is unaware of his duty'[5], the duty of reciprocity and response, which in this case is also the duty to play. Luc Courchesne raises the important issue of how we meet others in a telecommunication environment, and of how we meet ourselves, through others, in a virtual environment such as the CD-ROM or, more generally, in the context of digital media that will increasingly surround us.

It is ultimately the very notion of social community that Courchesne's work questions. A fundamental solitude marks a highly mediatized society like ours. For solitude is to refuse the risks to ex/change by encountering others and to prefer the safe virtuality of mediated desires and fantasies, to prefer blind dates in cyberspace to face to face encounters with the person next to us.

5. Francis Jacques, ibid., p. 17.

Lovers Leap – *Taking the Plunge: Points of Entry ... Points of Departure*

By Timothy Druckrey

We find certain things about seeing puzzling, because we do not find the whole business of seeing puzzling enough.[1]   *Ludwig Wittgenstein*

I.

Two central issues have grounded the development of photography. First, the idea that the production of the image established a fixed relationship to events. Second, that the reception of the image short-circuited the viewer into the temporal space of the original moment. Both perhaps myths when subjected to critical scrutiny and both perhaps fallacies when the image is situated within the conditions in which it was produced. Yet we know that the image in photography is a far more complex set of circumstances than mere historical analysis presented. While rooted in temporality, the image is propelled by a relationship with on-going events not fully realized by dialectical means. The discursive moment – established at the moment the world is imaged – is not limited to subject and object, but rather to a process in which subject and object are mediated within a system of representation.

It is no coincidence that photography, technology and modernity were maturing on parallel tracks. The industrial revolution and the emergence of the bourgeois economy linked representation with both the commodity and the mastery of nature. More than a sheer witness, the archive of imaged experiences traversed by the fossil record of photography exists as a dynamic archaeology. To a culture inebriated by ocular

1. Ludwig Wittgenstein, *Philosophical Investigations*, Blackwell, Oxford, 1958, p. 211.

Miroslaw Rogala: *Lovers Leap*, 1994/95. Screenshot.

consumption, the characterization of the 19th century as that of 'the scopic regime', as Martin Jay asserts, or as obsessed with 'the frenzy of the visible', as Jean Louis Comolli suggests, seems to identify a rather startling realization concerning the relationship of the visual with the intelligible. Knowledge and identity became fused with the experience of representation.

Yet, representation within modernity also invoked forms of control and issues of power. The coercive representations invoked by Walter Benjamin, George Orwell, Michel Foucault, Martin Heidegger, Edward Said, and many others, are those in which the image, word, technology, archive, and imperialism are embedded within structures of control rooted in the technologies of representation. Contingent, episodic, terse, and simultaneously embedded in lived-time, photography compelled culture to encounter its presence as historically specific and as temporally loaded. As the technologies of reproducibility evolved, the implications of visualization expanded. What could be recorded could be controlled. Surveillance stood astride sentiment as scylla and charybdis of representation. How this diametric relationship could be assessed is one of the essential issues in the study of photography. How this issue is exploded in so called post-photography is crucial in understanding the image in digital culture. Indeed, as Edward Said wrote, 'what we must eliminate are systems of representation that carry with them the authority which has become repressive because it doesn't permit or make room for interventions on the part of those represented.'[2]

Traditional models of representation, as reflexive and hinged on an analogical relationship with the material world seem to have lost their efficacy, supplanted by the fascination with the digital, the artificial, the simulated, and the virtual. It is as if photography can no longer serve the

2. Edward Said, 'The Imperialism of Representation, the Representation of Imperialism.' – *Wedge*, No. 7/8, New York, 1985, p. 5.

interests of electronic culture, a specious assumption for experience so immersed in optical metaphors. The acceleration of the visual now challenges more than just the grounds for an optical epistemology, it initiates a critical phase in which cognition, rather than perception, becomes the object of interest. What seems so necessary is a reconceptualization of photography beyond the limited terms of aesthetics, memory, sentiment or phenomenology. Instead, a consideration might be made of the image not only as a signifier, but rather as an event. Retaining photography's crucial link to perception, the idea of the image as event extends its legitimacy as mere description by registering it as experiential. Suddenly one might imagine the navigation of the image as more than the scrutiny of its signifiers, but as a dynamic process in which the stability of the moment itself is extended. With all the hoopla around simulation and the artificial, theory has yet to account for the efficacy of the image as experience. And while the stakes of immersive technologies often seemed to leapfrog over the transition, the fact remains that photography has not exhausted its potential – especially as it is assimilated into the digital. Most interesting in this is the distinction drawn by Paul Virilio between simulation and substitution and, in particular, the recognition of the screen – television and computer – as 'the third window'.

II.

The world has lost its pivot; the subject can no longer even dichotomize, but accedes to a higher unity, of ambivalence or overdetermination, in an always supplementary dimension to that of its subject. […] A system of this kind could be called a rhizome […]. The rhizome is altogether different, a map and not a tracing. […] Perhaps one of the most important characteristics of the rhizome is that it always has multiple entryways.[3]   *Deleuze & Guattari*

Miroslaw Rogala describes the experience of *Lovers Leap* in two ways.

3. Gilles Deleuze, Felix Guattari, *A Thousand Plateaus*, University of Minnesota Press, Minneapolis, 1987, pp. 7, 12.

94	First, as a moment in which an opposition ocurred: 'Travelling from Chicago to Jamaica, I visited a place called "Lovers Leap" (a legendary location of tragic lovers – such places exist all over the world): there was a military radar scanning the sky. This physical surprise created a conceptual leap as well.'[4] Conjunction and displacement collide in this moment in which the relationship between emotion and technology are juxtaposed. Second, *Lovers Leap* is described as the 'movement through perspective,' a project in which the image is a point of entry. One could speculate about an elaborate electronic geometry in which non-euclidean gymnastics could be performed within an environment of computed space. But *Lovers Leap* is rooted within the tradition of photography. Its 'space' is not virtual. Its image is not static. It is an event-image, a dynamic system in which movement and perspective are related – not as a criteria of the tradition of the static observer, but as a consequence of the reconfiguration of the experience of perspective as interactive.

Lovers Leap posits the image as a challenge to the objective history of linear projective geometry as it considers the encounter with the random and subjective juxtapositions of experience. In disregarding the logic of the image as a fixed form, *Lovers Leap* uses it as a site for investigation. What will immediately be apparent in this work is that the image offers an encompassing view of a subject enacted through participation. One of the unique possibilities of interactive forms is precisely this moment when the passivity of observation is superceded by necessity of activity. A new understanding form becomes necessary, one that is both generative and analytical. A new understanding of subjectivity is necessary as well, one that accounts for the reflexivity of both the image and the behavior it initiates. But the significance of interactive media is in the extension of agency into the formation of narrative. In the coupling of spatial and nar-

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4. Miroslaw Rogala, *Prace Multimedialne/Multimedia Works*, Catalogue, ed. Galeria Arsenal, Bialystok, 1995.

rative forms, *Lovers Leap* dramatizes the moment without succumbing to the simple linking mechanisms of hypermedia. Instead, the spatial becomes a sphere of activity and the image a site of reflection.

In coupling the image with its performance, *Lovers Leap* implicates more than it reproduces. Within the image is a set of possibilities, partially controllable and partially uncontrollable. 'Such happens,' as Rogala remarks, 'in matters of love as well.'[5] In this new order of representation, metaphor and performativity are intimately connected. To be in the image is to be in a set of circumstances that are reflexive and evolving. Every nuance of the image extends the meaning. Seeing, like gesture, is provoked by desire. 'What is the desire,' asks Lacan, 'which is caught, fixed in the picture, but which also urges the artist to put something into operation?'[6] The inversion of the subject implied in the interactive gesture demands new thinking about the position of the subject. 'For it is a structural fact, if not a structural effect, that when man comes to terms with the symbolic order, his being is, from the very start, entirely absorbed in it and produced by it, not as "man", but as subject.'[7] In *Lovers Leap* one is subjected to incalculable possibilities as one subjects the image to boundless scrutiny.

'Eyes don't lie/They Are Where they Go,'[8] Rogala wrote in a poem accompanying the 1989 interactive theatre work *Nature Is Leaving Us*. In this work the spectre of technology overwhelms reflection. Rogala writes of this complex video theatre work that it 'is composed of simultaneous provocations of contrasting rhythms, a panoramic polyphony between urbanity and nature; thus it is a metaphor for the simultaneity of experi-

5. Ibid.
6. Jacques Lacan, *Four Fundamental Concepts of Psycho-analysis*, Norton, New York, 1981, p. 92.
7. Hubert Damisch, *The Origins of Perspective*, MIT Press, Cambridge, 1994, p. 20.
8. *Nature Is Leaving Us, A Video Opera by Miroslaw Rogala*, program, The Goodman Studio Theatre, Chicago, 1989.

ence of modern life.'[9] Accelerated experience without accelerated reflec-
tion. *Nature Is Leaving Us* is both castigation and eulogy. It's message
exists in the imbalance between information and being. Enframed in, as
Paul Virilio identifies it, 'vectors of representation which, in the electro-
nic interface, affect the order of sensations,' he asks, 'How can we no
longer believe our own eyes and then believe so easily in the vectors of
electronic representation?'[10] Invoked metaphorically in *Lovers Leap*, the
phrase 'Nature is leaving us' echoes the affinity between the mechanism
of perception and the act of consciousness, between the stability of
perception and the instability of chance, between technology and love.
Amplifying this relationship, the issues raised in the performance of the
image in *Lovers Leap* transform the 'phenomenology of perception' into
a phenomenology of reception. And if the terms within the seeing of the
image are no longer those of correspondence, but those of behaviour,
then a 'leap' has been made over the limitations of the material image into
the realm of the cognitive process. Above all, interactivity is predicated
on the realization of experience affected by conduct. This is accomplished
in two ways.

Utilizing newly developed software, *Mind's Eye View*™ (developed
by collaborator Ford Oxaal[11]) and a 12-D design environment (contribu-

9. Miroslaw Rogala, Darrell Moore, 'Nature Is Leaving Us: A Video Theatre Work.' –
   Leonardo, Vol. 26, No. 1, MIT Press, Cambridge, 1993, p. 18.
10. Paul Virilio, *The Lost Dimension*, Semiotext(e), New York, 1991, p. 52.
11. Without the close collaboration of Ford Oxaal and Ludger Hovestadt the realization
    of *Lovers Leap* would not have been possible. Ford Oxaal studied at the University
    of Maryland (1979 B.S. in Business) and at the Rensselaer Polytechnic Institute, Troy,
    New York (1992 M.S. in Computer Science). His main areas of interest and work are
    geometry, philosophy and painting. The overriding focus from 1975 has been the
    study and development of the Geometry of Visual Perception, now called *Mind's-
    Eye-View*™. His effort has included the production of many large scale experimental
    oil paintings, proof of geometric theorems, and development of Unix software.

ted by Ludger Hovestadt[12]), *Lovers Leap* reconceptualizes the photographic image in terms of its ability to encompass an event as a navigable environment. Two photographs taken with a fish-eye lens establish a 'view' that, when joined, encompass 360°. The digitized image is the point of entry into an experience based on the ability to render curvilinear perspective as process. Indeed, the image becomes an immersive geometry, one in which traditions such as point-of-view become mutable rather than fixed. The single image, so long considered a finite form, suggests a new possibility, perhaps like what Ernst Cassirer called 'physiological space', or what might be thought of as psychological optics. Indeed, the linking of psychological and mathematical conceptions of space raises important issues about the ability of the image to generate meaning. This space, indeed, could be understood as a form of narrative in which the conditions of the moment are episodic and ineluctably simultaneous. In this narrative space, one is paradoxically performing and observing.

The installation *Lovers Leap* implements *Mind's Eye View*™ in terms of location on a grid. The image is projected in terms of 'three parameters: focal length, direction of attention, and perspective setting – which can vary from conventional perspective to a full 360° view.'[13] Each location in the grid corresponds with an image sequence linked with these variables. In the installation, the body and the eye merge, gesture transforms image. This embodied space is rooted not just in the possibilities of the single image, but also in the moments in which the spatial narrative is ruptured by episodes and samples of images and sound from the actual site of 'Lovers Leap' in Jamaica. These moments collapse the borders between

12. Ludger Hovestadt studied Architecture in Aachen and Vienna until 1987. Since then, basic research at the Institut für industrielle Bauproduktion at the University of Karlsruhe. 12-D-Design Environment is the result of this research in the fields of Architecture, CAD and Artificial Intelligence. 12-D-Design Environment makes it possible to design and to run complex buildings by adding virtual components.

13. Miroslaw Rogala, '*Lovers Leap* – Interactive Installation,' unpublished, 1994.

location, technology and expectation and shift the emphasis from the analytical image by introducing discontinuities into the system. In *Lovers Leap*, coincidence is a reminder that an encounter with technology is a collision with Heisenberg's Uncertainty Principle as much as it is a rendezvous with representation.

The CD-ROM adaptation shifts the emphasis from the physical transformation to the cognitive one. The movement of the eye outdistances the movement of the body, while the image is transformed by the movement of the mouse. Yet, this does not undermine the logic of the work. Rather, it refocuses the issue of sight into gesture. Material space is replaced by the interface. The screen, itself a geometrical frame, transmits the image as projective space. Cartography and cognitive mapping converge. More than this, the screen adaptation compresses the theatrical distance of the installation into 'the third window', a space in which, again citing Virilio, 'what was visibly nothing becomes "something", the greatest distance no longer precludes perception.'[14]

III.

The city is redundant: it repeats itself so that something will stick in the mind […]. Memory is redundant: it repeats signs so that the city can begin to exist […]. The catalogue of forms is endless, until every shape has found its city, new cities will continue to be born.[15] *Italo Calvino*

Every instrument in the repertory of the scientific instrument maker is a possible sense organ […].[16]   *Norbert Wiener*

The fiction of Calvino and the theory of Wiener. Related issues in the

14. Paul Virilio, ibid., p. 41.
15. Italo Calvino, *Invisible Cities,* Harcourt Brace Jovanovich, New York, 1972, pp. 19, 139.
16. Norbert Wiener, *The Human Use of Human Beings,* Doubleday, New York, 1954, p. 23.

interface between machine and person and the refunctioned issue of storytelling that are essential to conceptualizing the development of interactive media. Indeed, while issues of space and duration dominated discourses of modernity, the related issues of interface and narrative have come to stand within postmodernity as signifiers of a far more intricate situation. Worn traditions of the public sphere, the sociology of post-industrialization, the discreetness of presence, have been supplanted by a form of distributed imbeddedness – or better, the immersion – of the self in the mediascapes of tele-culture which must generate a communicative practice whose boundaries are not mapped in physical space. Instead, the technologies of new media map a geography of cognition, of reception, and of communication emerging in territories whose hold on matter is ephemeral, whose position in space is tenuous, and whose presence is measured in acts of participation rather than coincidences of location.

A revamped theory of the relationship between reception and re-presentation must accompany experiential media. More than simply new technical questions arise about the role of technology in creativity. Modes of experience and modes of perception can no longer be so easily theorized – no less expressed! This, conjoined with the development of what could be termed post-optical technologies for the apprehension of images, make it clear that digital media pose more than novel techniques for representation. An inclusive approach will need to conceptualize quickly shifting technologies as intrinsic to digital media and will have to approach the contingency of form as a guiding principle. Simultaneously, the ability to suggest an algorithmic affinity between the real and the symbolic is a challenge to the entire history of image making.

The photograph in *Lovers Leap* is a jumping off point. The intricate connections between space, single and multiple point perspective, the development of diverse approaches to curvilinear perspective, the ability of the computer to render geometry, the shifting role of the viewer/participant, and the more speculative issue of space as narrative, converge

and diverge simultaneously – information and symbolism meet. Rendered, sequential, or arrayed, information can be created in forms that suggest that the usefulness of the single image can no longer serve as a record of an event but rather that events are themselves complex configurations of experience, intention, and interpretation. In this sense, the narratives of electronics are non-linear and kinetic rather than linear and potential. The image suggests transition and not resolution. More pertinently, *Lovers Leap* reframes the problem of the distinction between physical space and visual space, by fusing them as experiential and interactive. The image of the city, the signifier of memory, the technology of representation: these metaphors of geography, consciousness, and visualization are at the heart of *Lovers Leap*. At its periphery is another entry.

Coda

The closing paragraph of Edward Tufte's wonderful book *Envisioning Information*:

Perhaps one day high-resolution computer visualizations, which combine slightly abstracted representations along with a dynamic and animated flatland, will lighten the laborious complexity of encodings – and yet still capture some worthwhile part of the subtlety of the human itinerary.[17]

17. Edward Tufte, *Envisioning Information,* Graphics Press, Chesire, Ct., 1990, p. 119.

Tamás Waliczky: The Forest
By Anna Szepesi

> When from the midst of life I ascended,
> I found myself in a dark forest,
> Where I strayed from the straight and narrow path.
> How difficult to describe the apparition
> Of the thick, wild, thorny sylvan halls,
> Their terrors forcefully renewed in memory!
> The clawed embrace of death is scarcely harsher;
> For the sake of the good that befell me in the forest,
> I shall relate the other things which came to pass.
>
> *Dante,* A Divine Comedy, *Canto I, lines 1–9*

The Forest (Der Wald) exists in three separate versions. The first version is a computer animation lasting four and a half minutes, the second an inter-active installation, and the third a CD-ROM edition which is presented here for the first time in *artintact 2*. All three versions are similar, relying on the same basic set of visual elements, but their respective structures differ according to the technical requirements of each medium. Their common feature is the misty appearance of a black-and-white forest, stretching out in every direction as a symbol of hopeless searching.

The purpose of the following essay is to outline the main stages in the development of Tamás Waliczky's artistic ideas, and to provide an intro-duction to *The Forest*.

Tamás Waliczky was born in Hungary and spent his childhood in a small village in the south of the country, near the border with Yugoslavia. The village's geographical position meant that Yugoslav television was easier to receive than its Hungarian counterpart – a significant point, since in the 1960s and '70s Zagreb was a major centre for animation, and this was reflected in the number of cartoon films shown on television. Their influence led Waliczky, at the tender age of nine, to begin making

Tamás Waliczky: *Der Wald,* 1993/95. Screenshot.

his own animated films. For technical reasons, it was only possible to receive pictures, so until the age of fourteen Waliczky saw the films from Yugoslavia without sound. This may be the reason why his animations are mainly visual works: although the music is often a significant formal element, it is always added later, after the creation of the pictures. His early animated films were silent, and even some of the later computer animations dispense with a soundtrack: this is the case, for example, in *Computer Mobiles – Human Motions* of 1987. The impact of the cartoons Waliczky saw as a child is apparent in his fondness for two-dimensional figures. Although his later work exhibits a virtuoso facility in constructing three-dimensional spaces, he always places the effect of spatial depth in imaginary quotation marks – perhaps one should therefore say that he uses two and a half dimensions rather than three. The relationship between figure and ground in his work also harks back to the traditional techniques of cartoon film.

Waliczky followed up his early preoccupation with cartoons and animation by teaching himself to draw and paint. He subsequently worked for three years at the Pannonia Animation Studios in Budapest, but at this point, he was far more interested in painting than in industrialized cartoon film production. In his large-format canvases he sought to capture the essence of individual objects and human figures by the most economical means possible. A similar set of principles governed the making of his first three-dimensional computer animation in 1988. This black-and-white video film, entitled *Is there any room for me here?* is based around the image of a sparsely furnished apartment at nighttime, using light and shade effects – of a subtlety and delicacy that recalls the brushstrokes in a Chinese ink drawing – to pick out the objects from the dark background. The austere beauty of the forms and movements is accentuated by the strains of a Bach cello suite.

However, let us return to the early 1980s. In 1983 Waliczky abandoned traditional animation and went to work for a software company

which specialized in the development of computer games for American clients but also wrote programs for animated graphics. The hidden potential of computer animation began to interest Waliczky, who had always been fascinated by technical instruments. (As a boy, his favourite reading matter was a volume entitled *The Paperback Guide to Amateur Film*, dealing with questions such as macrophotography and the calculation of focal lengths.)

As well as a means of earning a living, the computer became a vehicle for artistic experimentation. Around 1987, Waliczky used an Atari 520 ST to make his first-ever computer animations, which he called *Computer Mobiles*. The programmers at the company where he worked helped him to design the software; since then, all his exercises in animation have been based on programs written wholly or partly for the specific work concerned. In his first works, Waliczky explored the possibility offered by the Atari computer of storing and endlessly repeating a one to four seconds long animated sequence. The series known as *Computer Mobiles* was made up of such pieces, and the use of alternating long and short sequences has become a characteristic feature of the artist's work.

In *Balance*, one of the most attractive works in the *Mobiles* series, Waliczky arranged the digitized photographs of a man and a woman into an endless vertical composition. The two figures, captured in acrobatic poses, seem to push and pull one another to and fro, as if engaged in a circus performance watched by the camera as it slowly pans upwards. The emphasis on the vertical supplies a calligraphic element which later recurs in the design of the trees forming the basis of *The Forest*.

The *Computer Mobiles* address a number of major artistic and technical questions which are characteristic of Waliczky's œuvre and crop up repeatedly in subsequent works. Among these issues is the principle of colour animation, i.e., the use of changes in colour to create an impression of movement, as in the two mobiles *Waterbird* and *Crying Woman.* The technical solutions devised for these works had a crucial impact on the

form of the trees and other background elements in *The Garden*, a later animation.

In 1988, after completing the *Mobiles* series, Waliczky made a five-minute computer animation which he called *Pictures*. Based on a set of digitally manipulated snapshots from a family photo album, the work is like a slide show in virtual form: details from the first photograph are enlarged by an imaginary camera, and each enlargement generates a new 'picture'. Thus the viewer sees an ever-receding sequence of moments from the story of a person's life. The first and last image in the animation are identical; the circle is complete and the story comes to an end.

In 1989 Waliczky produced a manifesto on electronic art which he read out in public at the *Ars Electronica* festival in Linz (where *Grammophone*, an example of his work in computer graphics, won a Golden Nica award) and also at the *Imagina* in Monte Carlo. The text of the manifesto was published in the catalogue of the Hungarian exhibition Digitart II. Since the issues raised are relevant to Waliczky's later work, it is worth taking a brief look at some of the ideas he explored:

If we have already managed to make a three-dimensional computer model and to sample the experience – not previously available to the human mind – of sitting in front of a two-dimensional screen and seeing that we have created a statue, in such a way that it extends outwards in all directions, that it has surface, mass and colour and can reflect or absorb light, in other words that it is a real statue in every respect, and that only convention deems it unreal – then it becomes clear that we have ventured into a new world where clinging to traditional concepts can only lead to infinite hairsplitting.

The new mode of production changes the dramatic structure.

The relationship between spectator and artist has to be redefined, since we are moving away from one-dimensional narrative.

Movement as determined by the computer has no beginning or end. There is no film, no strip of celluloid with a specific length, no metal base or framework. So why should we stick with habits deriving from the technical limitations of film spools and videotapes?

In 1991 Waliczky wrote the script for *The Garden*, an animation based on an idea which came from an old piece of Super-8 film, made over ten years before, showing a little girl playing in a country garden. The artist's aim was to portray the alertness and curiosity of a small child investigating its surroundings, and to evoke the particular sense of affection that children often inspire in us. To illustrate these lines of force, Waliczky devised a new type of perspective, the 'waterdrop-perspective-system'. The conventional notion of perspective, dating from the Renaissance, privileges the viewer as the person for whose benefit the depiction of the world unfolds and whose gaze completes the image; the stability of his or her position is mirrored by the fixed vanishing point. 'Waterdrop-perspective' is a quite different principle which structures every object from the vantage point of the child within the space of the image: the objects grow or shrink as the child approaches them or moves away. Thus everything in the space becomes visually distorted; the world is seen as a sphere and the child as its centre. In other words, the depicted world is the child's own private universe; shaped entirely by the child's movements, it is independent of the viewer who stands outside it and sees the dream of another.

The figure of the eighteen-month-old child playing in the synthetic space was taken from a 16mm film sequence which Waliczky converted into digital form. Frame by frame, he analyzed and manipulated the images of the child's movements and fitted them into the garden. The child never varies in size and is always in the centre of the picture.

This device of setting a 'real' actor – photographed with an ordinary camera – in a computer-generated world is a frequent feature of Waliczky's work. Its first appearance is in the animation *Wheel,* which belongs to the series *Human Motions* (or *Computer Mobiles*). Here, a digitized and animated male figure from one of Eadweard Muybridge's serial photographs is seen running endlessly on a computer-generated three-dimensional treadmill: his entire fund of kinetic energy is devoted to keeping the wheel in motion.

Waliczky began the preparatory work for *The Garden* in Hungary, but the video was made in Germany with the assistance of the Institute for Visual Media at the ZKM, where he held the position of artist-in-residence until his appointment in 1993 as a member of the Institute's staff. All his works after *The Garden* – for example, *The Forest*, its immediate successor – were produced in the ZKM's studios.

In the first version of *The Forest*, made as a computer animation, the image of the forest creates the impression of a three-dimensional space constructed from elements which themselves are only two-dimensional. The basis for the image is a black-and-white drawing of a bare tree. As indicated above, this tree is directly related to the calligraphic drawing of human figures seen in *Balance*: a long vertical composition running in an apparently infinite sequence. The effect of infinity is partly created by the suggestion of perpetual motion: to the viewer, the camera seems to move continually up and down in this endless forest which has no sky and no ground. This is the first line of movement, the movement of the trees. Waliczky copied the two-dimensional drawing of the tree onto the surface of a number of transparent cylinders. This structure, made up of cylinders of varying sizes, supplies the basis for the visual impression of the endless forest in the animation. The virtual camera which provides the viewer with pictures of the forest is placed among the cylinders. Since the camera is far smaller than the smallest cylinder, the viewer remains unaware that the trees in the picture are not standing in a staggered row but mounted on a set of convex surfaces. When the cylinders begin to revolve, the camera appears to pan to the right or left. This is the second line of movement, the movement of the cylinders. The virtual camera is also mobile: it can move forwards or backwards along a circular path within the forest, thereby forming the third line of movement. The combination of the three lines makes it possible to produce movements running in every direction, including diagonals, spirals and so forth. With this struc-

ture, Waliczky alters the whole system of coordinates on which the representation of space depends. Whereas the three directions (x, y and z) normally correspond to straight vectors, Waliczky's system of coordinates employs curved lines that loop back on themselves. This evokes a sense of limitless space: the viewer feels that there is no way out of the forest which extends in every direction. The bare trees revolve endlessly around their own axis, like patterns in a kaleidoscope. The resulting illusion is complete and deeply alarming: the infinity of the gaze leads to a total loss of perspective.

The accompanying soundtrack of train noises and song (a female voice is heard singing an old German children's song) accentuates the surrealism of the visual level and the sense of loneliness. After finishing the animation, Waliczky began to work on the second, interactive variant of *The Forest*, in collaboration with Jeffrey Shaw and Sebastian Egner. Here, the animation becomes part of an interactive installation, based on a flight simulator whose cockpit is replaced by a simple platform with a seat and a large monitor. Using a joystick mounted in the arm of the seat, the viewer can negotiate his own path through the forest which is shown on the screen in front of him. The flight simulator reacts accordingly, so that changes of speed or direction are experienced as physical sensations. For this version, Sebastian Egner, who wrote the program and designed the control system for the platform, also devised a new method of constructing the visual image – for technical reasons it was not appropriate to use the previous solution. In the new version of the work, the drawings of the trees are not mounted on transparent cylinders but randomly arranged inside a huge cube, in which the camera is free to move in any direction the viewer chooses. In theory, when the camera reaches the side of the cube, it passes through into a new box of the same type, with exactly the same trees; in fact, however, it reenters the same cube from the opposite side. Thus this space, too, appears infinite.

In the CD-ROM version of *The Forest* presented here, Waliczky uses

the structure of the second, interactive version, with only a few modifications dictated by the technical requirements of the medium. One significant modification is the further reduction in the number of colours, which minimizes the quantity of information involved and thereby makes for a higher projection speed; for Waliczky, the size of the image format and the suppleness of the movements were more important considerations than a wide spectrum of tonal shading. Instead of the nuanced greys in the original version, which create the impression of a photograph, he uses pure white and black, which lends the new animation a markedly graphical feel. The result is an interactive illustration, as it were, of the original animation, but the modifications make it an original art work in its own right.

Translation: John Omrod

Luc Courchesne

Geboren 1952 in St-Léonard d'Aston, Québec, lebt und arbeitet in Montréal. Luc Courchesne erhielt den Bachelor of Design in Communication am Nova Scotia College of Art and Design, Halifax und den Master of Science in Visual Studies am Massachusetts Institute of Technology (MIT), Cambridge. Seit 1986 ist er Professor an der École de design industriel, Université de Montréal und seit 1996 Präsident der Société des arts technologiques (SAT), Montréal. Seine Arbeiten befinden sich in zahlreichen Sammlungen, darunter in der National Gallery of Canada, Ottawa, im ZKM-Medienmuseum, Karlsruhe und im NTT Intercommunication Centre, Tokio.

Born in St-Léonard d'Aston, Quebec, in 1952, Luc Courchesne lives and works in Montreal. He obtained a Bachelor of Design in Communication at the Nova Scotia College of Art and Design, Halifax and an MSc in Visual Studies at the Massachusetts Institute of Technology (MIT), Cambridge. Since 1986, he has been a professor at the École de design industriel, Université de Montréal, and since 1996 has been president of the Technological Art Society (SAT), Montreal. His works are in numerous collections, including the National Gallery of Canada, Ottawa, the ZKM-Media Museum, Karlsruhe and the NTT Intercommunication Centre, Tokyo.

ARBEITSAUFENTHALTE UND STIPENDIEN / RESIDENCIES AND STIPENDS

Research fellow, Center for Advanced Visual Studies, MIT, Cambridge, 1984–85
Artist-in-residence, Institut Méditerranéen de Recherche et de Création (IMEREC), Marseille, 1991–93
Artist-in-residence, ZKM, Karlsruhe, 1995
Artist-in-residence, Museum of New Zealand, Wellington, 1997–98

Artist-in-residence, International Academy for Media Arts and Sciences (IAMAS), Ogaki City, Japan, 2000–01

AUSZEICHNUNGEN UND FÖRDERUNGEN (AUSWAHL) / SELECTED AWARDS AND GRANTS

Grand Prize, Salon mondial des inventions, Brussels, 1979
Silver Medal, Concours Lépine, Paris, 1980

Award of Excellence in Exhibition Design, Graphisme, Québec, 1984

Project Grants, Canada Arts Council, 1985/89/92/94

Grant, Ministère de la Culture, France, 1991

Honourable Mention, Prix Ars Electronica, Linz, 1992

Grand Prix, ICC Biennale '97 , NTT InterCommunication Centre, Tokyo, 1997

Award of Distinction in Interactive Art, Prix Ars Electronica, Linz, 1999

Werke (Auswahl) / Selected works

Videobänder / Videotapes

Bob Rosinsky's Sister, 1982
Twelve of Us, 1982
Paula, 1983
The Past and Future Wheel, 1983
Letter to the Unknown, 1986

Interaktive Installationen / Interactive installations

Elastic Movies, 1984
Encyclopedia Ciaroscuro, 1987
Portrait One, 1990
Portrait of Claude Jutra, 1991
Bostonian Suite, 1992
Family Portrait, 1993
Portrait of Paula Dawson, 1994
Hall of Shadows, 1996
Landscape One, 1997
Passages, 1998
Jeu de chaises, 1998
Portrait Collection (for the Museum of Communication, Bern), 1999

Rendez-vous ... sur les bancs publics, 1999
Panoscope 360, 2000
The Visitor: Living by Number, 2001

Bühnenbild / Stage design

L'après-midi d'un faune, dance performance by Marie Chouinard, 1987
Chroniques de la lumière, concert by composer Francis Dhomont, 1989

Präsentationen und Ausstellungen (Auswahl) / Selected screenings and exhibitions

MIT Film/Video Spring Screening, Cambridge, 1983

12éme festival international du nouveau cinéma et de la video, Montreal, 1983

Institute of Contemporary Art, Boston, 1984

Coastal Extremes, Video Free America, San Francisco, 1984

Holland Festival, Amsterdam, 1985

New York Film Market, New York, 1985

Art New Vision '86, Nippon High Technology Arts Festival, Tokyo, 1986

Gen-Lock, Geneva, 1987

Maison de la culture du Plateau Mont-Royal, Montreal, 1987

Grey Art Gallery, New York, 1988

Image Forum, Tokyo, 1988

PRIM, Montreal, 1990

Siggraph, 1991/93

TISEA, Third International Symposium on Electronic Art, Sydney, 1992

Muu Media Festival, Helsinki, 1993

Centre de la Vieille Charité, Marseille, 1990/93

National Gallery of Canada, Ottawa, 1993

Musée d'Art, Nice, 1994
Jan Potter Gallery, Melbourne, 1994
Museum of Modern Art, New York, 1994
Artifices 3, Saint-Denis, Paris, 1994
Power Plant, Toronto, 1995
Triennale di Milano, Milan, 1995
MultiMediale 4, ZKM, Karlsruhe, 1995
Kwangju Biennale, Kwangju, Korea, 1995
Interaction 95, Gifu, Japan, 1995
DEAF '96, Rotterdam, 1996
Ars Electronica, Linz, 1996/99
The Art Gallery of New South Wales,
    Sydney, 1996
Musée d'art contemporain de Montréal,
    Montreal,1996
Multimediale 5, ZKM, Karlsruhe, 1997
NTT InterCommunication Centre, Tokyo,
    1997/98
Musée canadien de la photographie con-
    temporaine, Ottawa, 1998
Avatar, Amsterdam, 1998

Tokyo Metropolitan Museum of Photo-
    graphy, Tokyo, 1998/2000
Te Papa Tongarewa, Museum of New
    Zealand, Wellington, 1998
Musée National des Arts et Traditions
    Populaires, Paris, 1999
Kiasma, Museum of Contemporary Art,
    Helsinki, 1999
Cité des Sciences et de l'Industrie, La
    Villette, Paris, 1999
Musée de la communication, Bern, 1999
Bonner Kunstverein, Bonn, 1999
Siggraph 2000, New Orleans, 2000
Rendez-vous Paris-Belfort, CICV,
    Hérimoncourt, 2000
ACM '01, San Jose, CA, 2001
Art Gallery of New South Wales, Sydney,
    2001
The Interaction '01, Japan, 2001

WEBSITE

http://www.din.umontreal.ca/courchesne

Geboren 1954 in Polen; studierte Musik und bildende Kunst in Krakau (Master of Fine Arts für Malerei, 1979) und an der School of the Art Institute, Chicago (Master of Fine Arts in Video, 1983). Rogala promovierte 2000 in interaktiver Kunst am Centre for Advanced Inquiry in the Interactive Arts (CAiiA), University of Wales, Newport. Er unterrichtete u.a. am Department of Computer Graphics, Arts and Television, Columbia College, Chicago (1987–1996), am Rennselaer Polytechnic Institute, Troy, New York (1991–1993) und war Associate Professor am Brooklyn College/City University of New York sowie Leiter des Program in Performance and Interactive Media Arts (PIMA, 2000-2001). Seine Arbeiten befinden sich in zahlreichen Sammlungen, u.a. Centre Georges Pompidou, Paris, Musée d'Art Contemporain, Lyon, Museum of Modern Art, New York und Museum of Contemporary Art, Chicago.

Born in Poland in 1954, Miroslaw Rogala studied music and fine arts in Krakow (MFA in Painting, 1979) and at the School of the Art Institute, Chicago (MFA in Video, 1983). In 2000, he received a PhD from the Centre for Advanced Inquiry in the Interactive Arts (CAiiA), University of Wales, Newport. His teaching positions include: Department of Computer Graphics, Arts and Television, Columbia College, Chicago (1987–1996), Rennselaer Polytechnic Institute, Troy, New York (1991–1993), Associate Professor at Brooklyn College/City University of New York, and director of PIMA, Program in Performance and Interactive Media Arts (2000-2001). His works are in numerous collections, among them: Centre Georges Pompidou, Paris; Musée d'Art Contemporain, Lyon; Museum of Modern Art, New York; Museum of Contemporary Art, Chicago.

Auszeichnungen und Förderungen (Auswahl) / Selected awards and grants

Grant funded study at the Merce Cunningham Dance Theatre, New York, 1982
Regional Fellowship Award, National Endowment for the Arts and the American Film Institute, 1984–85, 1990–91, 1993
The City of Chicago Department of Cultural Affairs Commission Award, 1990
New York City State Council for the Arts Grant, 1991–93

American Film Institute Video Festival Award, 1991
Intermedia Arts Award, National Endowment for the Arts, 1992
Project Grant, Goethe Institute, Chicago, 1993/95
Artist-in-residence, ZKM, Karlsruhe, 1994–95
International Award for Video Art, ZKM Karlsruhe, SWF Baden-Baden and ORF Austria, 1995 (nomination)
Babelfish Award, Interactiva, Potsdam, Germany, 1995 (*artintact 2*)
Research Fellowship, online PhD Research Program, CAiiA,

University of Wales, Newport,
1996–99

Videobänder und ihre Präsentationen
(Auswahl) / Videotapes and screenings
(selection)

Polish Dance '80, 1980 – Transcultura/
Transmedia, Exit Art, New York, 1986;
Museum of Contemporary Art, Los
Angeles, 1991

Four Simultaneous Provocations, 1982 –
Video Roma, International Video
Festival, Rome, 1982; The Center for
New Television, Chicago, 1984

Speech, 1982 – Film/Video Festival, Athens
(Ohio), 1982; Anthology Film Archives,
New York, 1984; Centre Georges
Pompidou, Paris, 1987

Questions To Another Nation, 1985 –
International Video Festival, San
Sebastian, 1984; Scan, Tokyo, 1987; 19th
International Video Biennial, São Paulo,
1987; Arsenal Gallery, BWA Bialystok,
1995; Anthology Film Archives, New
York, 1984

Nature Is Leaving Us, 1987–88 – Aus-
tralian Video Festival, Paddington,
1988; International Film and Video
Festival, San Francisco, 1989; Museum
of Contemporary Art, Chicago, 1989;
Ars Electronica, Linz, 1990

The Witches Scenes/Macbeth, 1988 –
Walker Arts Center, Minneapolis, 1990;
The Kitchen, New York, 1991; Sig-
graph, Chicago, 1992; Iterations,
International Center of Photography,
New York, 1993, Brooklyn Art Mu-
seum, New York, 1990

Instructions Per Second (with Carolee
Schneemann), 1994 – Fylkingen,
Stockholm, 1994; World Wide Video
Festival, The Hague, 1996; International
Festival of Films on Art, Montreal, 1996

Video-, Multimedia- und interaktive
Installationen und ihre Präsentationen
(Auswahl) / Video, multimedia and
interactive installations and places of
presentation (selection)

Pulso-Funktory, (pre)interactive sound and
mixed media installation, 1977 –
Walbrzych, Poland 1977; Centre for
Contemporary Art, Ujazdowski Castle,
Warsaw, 2001; Centre for Contempo-
rary Art, Krakow, 2001

Questions To Another Nation (sound with
Christopher Wargin), video installation,
1983 – The School of the Art Institute,
Chicago, 1983

Love Among Machines (with A. Osgood,
J. Boesche; music: R. Woodbury), video
installation, 1986 – Morning Dance
Center, Chicago, 1987

Remote Faces: Outerpretation (sound:
Lucien Vector), video performance,
1986 – New Generations, Museum of
Contemporary Art, Chicago, 1986

Nature Is Leaving Us (with U. Dudziak,
L.Vector, R. Woodbury), opera/linear
video, 1987–88 – Chicago International
Art Exposition, Chicago, 1988

Nature Is Leaving Us (with F. Abbinanti, J.
Boesche, L. Book, U. Dudziak, W.
Herterich, B. Jeffrey, W. Myers, A.
Osgood, J. Reitzer, L. Vector, M. Ward,
R. Woodbury), video theatre/multime-
dia opera, 1989 – The Goodman Theatre
Studio, Chicago, 1989

Artificial Intelligence: The Last Symposium

(with K. Nordine, E. Paschke), multi-media installation, 1992 – Siggraph, Chicago, 1992

Lovers Leap (with L. Hovestadt, F. Oxaal), interactive multimedia installation/CD-ROM, 1995 – MultiMediale 4, ZKM, Karlsruhe, 1995; V2, Rotterdam, 1995; 3e Biennale d'art Contemporain, Lyon, 1996; Perspektiven, Schlossmuseum Murnau, Murnau, Germany, 2000

Electronic Garden/NatuRealization, site-specific outdoor interactive sound installation, 1995 – Sculpture Chicago '96, Chicago, 1996

Divided We Stand/Divided We Speak (with Art(n), R. Ascott, A. Arsenault; S. Boyer, A. Cruz, K. Nordine; J. Guo; U. Dudziak; J. Friedman, W. Herterich, M. Iber; J. Krieger, M. Rutan, J. Reitzer, C. Schandelmeier, F. Oxaal), interactive multimedia laboratory project, 1997 – Museum of Contemporary Art, Chicago, 1997

Virtual Photography studies for *Divided We Stand* (with Art(n), Allan Cruz), interactive PHSCplograms, 1997 – Museum of Contemporary Art, Chicago, 1997; WRO 2000, Wroclaw, 2000; Centre for Contemporary Art, Ujazdowski Castle, Warsaw, 2001; Centre for Contemporary Art, Krakow, Poland, 2001; Digital: Printmaking Now, Brooklyn Museum, New York, 2001; Digital Innovation in Printmaking, Design Arts Gallery, Drexel University, Philadelphia, 2001

Divided We Sing (vocals by U. Dudziak, J. Guo, K. Nordine), interactive sound installation, 1999 – Pittsburgh Center for the Arts, Pittsburgh, 1999; Universiteit Eindhoven, Eindhoven, 2000

Divided We See (with J. Friedman, W. Herterich, R. Harmon, J. Reitzer), interactive media installation, 2001 – Drexel University Art Gallery, Philadelphia, 2001

WEBSITE

http://www.rogala.org

Geboren 1959 in Ungarn, arbeitet in den Bereichen Trickfilm, Malerei und Computeranimation; er verwendet seit 1983 Computer. 1992 erhielt Tamás Waliczky ein Stipendium des ZKM-Instituts für Bildmedien und war dort von 1993–97 Mitarbeiter des Forschungsbereichs. Seit 1997 ist er Gastprofessor an der Hochschule für Bildende Künste Saar, Saarbrücken, und war 1998/99 Gastkünstler an der International Academy for Media Arts and Sciences (IAMAS) in Gifu, Japan. Seine Arbeiten befinden sich in verschiedenen Sammlungen, darunter im Centre Georges Pompidou, Paris, der Oppenheimer Collection, Bonn und der Scan Video Gallery, Tokio.

Born in Hungary in 1959, Tamás Waliczky is an animator, painter and computer animator. He has been working with computers since 1983. He was artist-in-residence at the ZKM Institute for Visual Media in 1992, and subsequently joined the Institute's research staff (1993-97) until taking up a guest professorship at the HBK Saar, Saarbrucken (1997 onward). He was artist-in-residence at the International Academy for Media Arts and Sciences (IAMAS) in Gifu, Japan, in 1998/99. His works are in various public collections, among them: Centre Georges Pompidou, Paris; Oppenheimer Collection, Bonn; Scan Video Gallery, Tokyo.

Auszeichnungen / Awards

Third Prize, Digitart Computer Graphics Festival, Budapest, 1986

Honourable Mention, distinction Animation, Prix Ars Electronica, Linz, 1988

First and Second Prize, distinctions 2-D and 3-D, P.L.E.I.A.S. Festival, Paris, 1988

Golden Nica, distinction Computergraphics, Prix Ars Electronica, Linz, 1989

Honourable Mention, distinction Interactive Art, Prix Ars Electronica, Linz, 1990

Third Prize, distinction Art, Imagina, Monte-Carlo, 1991

World Graph Prize, Locarno Videoart Festival, Locarno, 1991

Festival Prize, Internationales Festival des Animationsfilms, Berlin, 1991

Prize for the Best Animated Film, Hungarian Advertising Film Festival, Budapest, 1991

Honourable Mention, distinction Education, IVCA Festival, London, 1991

Special Prize of the Polish Television's Channel 2 and the festival's Art Director, WRO '93, Wroclaw, 1993

Honourable Mention, distinction Animation, Ars Electronica, Linz, 1994

First Prize, distinction 3-D workstation, Bit.Movie '94, Riccione, 1994

Special Prize of the Jury, VideoArt Festival, Locarno, 1994

First Prize, Electronic d'Arte e Altre Scritture Festival, Torino, Milano, Bologna, Firenze, Roma, 1994

Commission of Photoarts 2000, Year of Photography & the Electronic Image, Huddersfield, UK, 1996

Award of Distinction in Computer Animation, Prix Ars Electronica, Linz, 1998

Honourable Mention, distinction Interactive Art, Prix Ars Electronica, Linz, 1998

First prize, distinction Animation, Mediawave festival, Györ, 2000

First prize, distinction Video Art, Asolo Film Festival, Asolo, 2001

Werke / Works

Computer Mobiles – Human Motions, computer animations, 1986/87

Pictures, computer animation, 1988

Is there any room for me here?, computer animation, 1988

Machines, computer graphic series, 1989

Memory of Moholy-Nagy, computer animation, 1990

Conversation, performance with Tibor Szemzö, 1990

Studies for The Garden, computer animation, 1992

The Garden, computer animation, 1993

Der Wald, computer animation, 1993

The Forest, interactive installation with Sebastian Egner und Jeffrey Shaw, 1993

The Way, computer animation, 1994

Asylphony, computer animation installation for a composition by Bojidar Spassow, 10 min., 1995

Sculptures, computer animation/ installation, 1996

Landscape, 3-D computer animation, 1998

Focus, interactive computer installation, 1998

Focusing, CD-ROM, 1998 (publ. in ZKM digital arts edition 1, ed. ZKM Karlsruhe, Ostfildern: Hatje Cantz, 1998)

The Fisherman and his Wife, computer animation, 30 min., 2000

Ausstellungen und Festivals (Auswahl) / Selected exhibitions and festivals

Digitart I., Museum of Fine Arts, Budapest, 1986

Ars Electronica, Linz, 1988/89/90/94/98

Video-Visions, Frankfurt, 1989

Europa Electronica, Napoli, 1989

Scan Video Festival, Tokyo, 1989

Imagina, Monte Carlo, 1990/91/93

Siggraph, 1990/91/92/93

ISEA, International Symposium on Electronic Art, 1990

Los Angeles International Film Festival, Los Angeles, 1990

Tendances Multiples, Centre Georges Pompidou, Paris, 1990

MOMI, Museum of the Moving Image, London, 1990

Un art de machines?, Exhibition of Electronic Images, Reze, 1990

Fujita Vente, Tokyo, 1991

IVCA Festival, London, 1991

Video Art, XII. Festival et forum international de Locarno, Locarno, 1991

Internationales Festival des Animationsfilms, Berlin, 1991

Le Festival du dessin animé et du film d'animation, Brussels, 1992

TISEA, Third International Symposium on Electronic Art, Sydney, 1992

Mediale, Hamburg, 1993

MultiMediale 3, ZKM, Karlsruhe, 1993

Mediawave, Györ, 1993

WRO '93, Wroclaw, 1993

MUU Media Festival, Helsinki, 1993

London Film Festival, London, 1993

Europa-Europa, Kunst und Ausstellungs-
	halle der Bundesrepublik Deutschland,
	Bonn, 1994
Version 1.0, Geneva, 1994
Techno Art, Ontario Science Centre,
	Ontario, 1994
Adelaide Festival, Melbourne, 1994
7. Internationales Trickfilmfestival,
	Stuttgart, 1994
Hong Kong International Film Festival,
	Hong Kong, 1994
Les Rendezvous d'imagina, Paris, 1994
Irrton, Festival virtueller Irritation, Berlin,
	1994
Videonale, Bonn, 1994
MultiMediale 4, ZKM Karlsruhe, 1995
Tokyo Metropolitan Museum of
	Photography, Tokyo, 1995/2000
Arslab, Torino, 1995
Biennale de Lyon, Lyon, 1995
The Butterfly Effect, Budapest, 1996

NTT/ICC Gallery, Tokyo, 1996
MultiMediale 5, ZKM, Karlsruhe, 1997
Leeds Metropolitan University Gallery,
	Leeds, 1998
The Fruitmarket Gallery, Edinburgh, 1998
DEAF '98, Rotterdam, 1998
Perspectiva, Budapest, 1999
The Interaction '99, Ogaki, 1999
MediaTime, Bolzano, 1999
Enter Multimediale, Prague, 2000
Digital Alice, Seoul, 2000
Festival Internazionale del Film sull'Arte,
	Asolo, 2001
Anteprima Bovisa, Milano Europa 2000,
	Milan, 2001
Fourth Biennale – The World Forum for
	Media and Culture, Ogaki, Japan, 2001

WEBSITE

http://www.waliczky.com

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Christoph Blase ist Chefredakteur der Kunstkritiksite www.blitzreview.de und schreibt als freier Mitarbeiter u.a. für die *Frankfurter Allgemeine Zeitung* und das *Kunst-Bulletin*. Er lebt in Berlin.

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Timothy Druckrey

Timothy Druckrey lebt in New York und ist als Kurator, Autor, Redakteur und Dozent tätig. Er beschäftigt sich mit den sozialen Auswirkungen der elektronischen Medien und der Transformation von Repräsentation und Kommunikation in interaktiven und vernetzten Umgebungen. Er war Mitorganisator des internationalen Symposiums *Ideologies of Technology* am Dia Center of the Arts (New York) und Co-Kurator der Ausstellung *Iterations: The New Image* am International Center of Photography (New York). Er ist Mitherausgeber von *Culture on the Brink: Ideologies of Technology* (1996), *net_condition: art and global media* (2000), edierte *Electronic Culture: Technology and Visual Representation* (1999), *Ars Electronica: Facing the Future* (2000) und ist verantwortlich für die Publikationsreihe *Electronic Culture: History, Theory, Practice* (MIT Press).

Timothy Druckrey, who lives in New York, is a curator, writer and editor. He lectures internationally on the social impact of electronic media and the transformation of representation and communication in interactive and networked environments. He co-organized the international symposium *Ideologies of Technology* at the Dia Center of the Arts (New York) and co-curated the exhibition *Iterations: The New Image* at the International Center of Photography (New York). He co-edited *Culture on the Brink: Ideologies of Technology* (1996), *net_condition: art and global media* (2000), edited *Electronic Culture: Technology and Visual Representation* (1999), *Ars Electronica: Facing the Future* (2000), and is series editor for *Electronic Culture: History, Theory, Practice* (MIT Press).

Jean Gagnon ist seit 1998 Programmdirektor der Daniel Langlois Foundation, Montréal. Von 1991 bis 1998 war er Kurator für Medienkunst an der National Gallery of Canada. 1994 lehrte er Theorie und Geschichte der Videokunst an der Concordia University, Montréal und an der Carleton University, Ottawa. Er war als freiberuflicher Fernseh- und Videoproduzent sowie als freier Kritiker und Kurator tätig. Zahlreiche Publikationen, u.a. *Pornography in the Urban World* (1988), Kritiken für *Le Devoir* und *Vanguard* und zahlreiche Artikel für Ausstellungskataloge und wichtige Publikationen zur Medienkunst.

Jean Gagnon has been Director of Programs at the Daniel Langlois Foundation, Montreal, since 1998. He was Associate Curator for Media Arts at the National Gallery of Canada from 1991 to 1998, and taught Theory and History of Video Art at the Concordia University, Montreal, and the Carleton University, Ottawa, in 1994. An independent video and television producer and also a freelance curator and critic, his publications include *Pornography in the Urban World* (1988), reviews for *Le Devoir* and *Vanguard*, as well as numerous articles for exhibition catalogues and major publications on media art.

Anna Szepesi

Anna Szepesi arbeitet als freiberufliche Kunsthistorikerin, organisiert Ausstellungen zeitgenössischer Kunst und ist als Redakteurin von Kunstbüchern, seit 1998 vor allem als Autorin und Fotografin für verschiedene Architekturzeitschriften, tätig. Seit 1981 arbeitet sie mit Tamás Waliczky.

Anna Szepesi is a freelance art historian. In addition to organizing exhibitions of modern art and editing art books, since 1998 she has worked primarily as a writer and photographer for a number of interior design journals. She began working with Tamás Waliczky in 1981.

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artintact 3

CD-ROMagazin
interaktiver Kunst

Artists' Interactive
CD-ROMagazine

cantz

artin**act** 3

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The nice thing about exhibitions on CD-ROM is their durability (in theory, at least, provided the hardware needed to play the disc remains available and the data doesn't mysteriously vanish from the storage medium or suddenly become unreadable). And then, because the show is presented on a potential mass medium, there is the prospect of it being seen by large numbers of viewers, even by people unlikely to enter a museum or those who inevitably resolve to visit an exhibition the day after it has closed.* Freed from the constraints of opening times and closing dates, the character of these exhibitions as events has shifted from the public to the private realm. The CD-ROM can slumber for a long time on the bookshelf, not entirely out of sight or mind until being brought back to life on the home computer at a special moment. This private existence is often only one side of a double life – the other side being guest appearances alongside other art objects at exhibitions and festivals in the outside world. The exhibition *en miniature* can become a show piece in its own right, part of a public happening and social experience.

The CD-ROM also has the ability to lead a double life in a different respect: as an exhibitory vehicle which is simultaneously the means of artistic expression. Developments in this direction are reflected in the evolution of *artintact*, whose first two numbers featured mainly adaptations of interactive (sculptural) installations, works that were re-aligned, modified, 'condensed' to suit the more compact CD-ROM environment. By contrast, the works presented in the new edition were created with the medium of presentation in view and – more pointedly than before – exploit and explore, even reduce to absurdity, the potential of the multimedia data carrier. The concepts underlying these works no longer count upon three-dimensional space and large-format projection, but engage instead with an ensemble made up by monitor, mouse and counterpart or, ideally, co-author.

Unlike the contributors to the previous editions, the artists featured in *artintact 3* are not working with ZKM stipends. In the setting-up phase that followed its foundation in 1989, the ZKM/Center for Art and Media Karlsruhe has been distributed over temporary premises in different parts of Karlsruhe. The move into the permanent ZKM building is now scheduled for October 1997, from which time onward all the ZKM departments and collections will open to the general public. The concentrated effort demanded by the run-up to the opening means the ZKM/Institute for Visual Media is unable to implement an artist-in-residence programme in 1996/97. We are all the more pleased, therefore, that the annual edition of *artintact* could go ahead as planned, giving us the opportunity to invite Ken Feingold, Perry Hoberman and George Legrady – all three experienced 'researchers' in different areas of interactive media – to present new works of art.

Astrid Sommer, Editor

*Cf. *Wunschmaschine Welterfindung.*
Ed. Brigitte Felderer. Vienna, 1996, p.1.

The Post-Gutenberg Book
The CD-ROM between
Index and Narration

By Peter Weibel

I. (the 'special book')

The historiographer Jakob Mennel published for Emperor Maximilian I between 1518 and 1521 a special book entitled *Der Zaiger*. A sentence was printed below each picture in the book, and each visual/textual unit represented one chapter. Similar illuminated books of the period show pictures between the text passages, with the words explaining the pictures and the pictures illustrating the text. One could almost think this presentation form was intended for the illiterate as a way of communicating a message by images instead of letters, but since the uneducated belonged to a social class without access to books, clearly this was not the case. *Der Zaiger* and other 'special books' as these illustrated volumes were known, were produced for the literate aristocracy. What made them distinctive was a linkage of image and text defining the way the book was read. Interpretation took place through the parallel display of knowledge, by the suggestions resulting from the concurrent processing of visual and textual information. The linkage, therefore, was the message. In this form of book we can discern antecedents of three CD-ROM characteristics, namely access to knowledge, networking, and the parallel display of information in differing media. Naturally, the technical limitations of the Gutenberg book imposed restrictions on these possibilities; further development of the book as a communication type would require an optimizing technology.

The art catalogue we know today as a document combining photo-

graphic records, legends, commentaries and theoretical essays was a further major advance in the history of the 'special book'. To facilitate the customer's access to knowledge, art dealers began printing reproductions of paintings next to their titles in art catalogues that had started out as mere listings of works and prices. The next step was the insertion of explanations which, initially no more than brief introductions to the listed works, later became longer texts by various authors aimed at deepening the reader's understanding, facilitating access and adding to the symbolic capital. The final product was the art catalogue we know today, a veritable compendium of scholarship, a *catalogue raisonné* of art objects and discourses, often acoustically supplemented by a tape, record or CD. The variegated presentation of the art catalogue hid from sight the structural problems inherent in the product form. In the art catalogue too, the linkage of image and text signifies the actual message: the text legitimizes the images, the images illustrate the text. The art catalogue of today is essentially a concealed struggle for legitimacy, based furtively on legitimizing discourses and strategies ascribable to two different structural principles, namely the indexical and narrative structures.

II. (indexical information systems)

The index, atlas and lexicon are information systems based on the concept of the encyclopedia – a concept asserting the claim to supply objective information about the facts of the world with minimal recourse, if any at all, to fictional elements. An encyclopedic representation of contemporary knowledge sees itself as an objective atlas of individual areas of knowledge, as an indexically-structured, systematic catalogue. Terms, objects or areas of knowledge are listed alphabetically, treated in definitions, their development traced monocausally and apparently logically. This notion of knowledge is based on the idea that the world is a pool of data, and so it is possible to systematically catalogue and record everything known about every phenomenon in the universe: hence the

encyclopedia's claim to universality. The information system derived from the indexical structure and founded on a database promises objective, comprehensive knowledge – encyclopedic information, in other words.

Most CD-ROMs are bound to the encyclopedic concept and indexical structure. They promise all the paintings and sculptures in the *Tate Gallery* or *Louvre*. They promise all the published editions of a journal from the first number forward. They promise a comprehensive lexicon of all books, operas and plays. They promise the knowledge of the world – meticulously recorded, alphabetically ordered, systematically catalogued.

This promise obfuscates the fact that an indexical structure does not represent, and therefore cannot command, knowledge. Asked what an index is, one might offer as an example 'a catalogue of books'. Knowledge, however, can be acquired only by reading the books themselves, is enabled only by methods of representation that digress from the indexical course. The index is not an information system but merely a key providing access to the latter. To view the index as a register of truth is illusive; knowledge comes from immersion beyond, behind, the indexical structure.[1]

III. (narrative information systems)

Contrasting with objective representation and systematic catalogization – the hallmarks of the indexical structure – is narration: a system based on fictional elements, illogical links, detours, omissions and fragmentary, unsystematic information. The unpredictability of what will happen next is one of several features by which narration lives. The narrative threads a network between events and people without immedi-

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1. Jorge Luis Borges' fiction circles obsessively round this problem, for instance: *Atlas*. (In collaboration with Maria Kodama, trans. and annotated by A. Kerrigan. New York: E. P. Dutton, 1985. Ed.)

ately revealing and making visible the interconnections. Narration *per se* is a voyage of discovery, therefore, and the main figure in a novel acts as a kind of guide. Within a narrative framework, selection means information and linkage represents the actual art. Although no less structural in concept than the index, narration is chaotic and viable in structure, neither mechanical nor dead, owing its life less to the objects and characters described than to the dynamic links established, elaborated and made accessible between them. Index and narration represent two opposing information systems. Most current CD-ROM products are characterized by the indexical structure, but the future of the CD-ROM lies in narration based on data, cross-references and jumps, on networking and links that go beyond the indexical structure.

IV. (hypertext paradigm)

The message is not the text but the hypertext – the branchified, non-sequential form of text named by Ted Nelson in 1965. Designed for a computer environment, the hypertext method reaches ideal form in dynamic, interactive electronic systems. In the Internet, whose origins stretch back to the founding of the ARPANET [2] in 1969, a digital information network evolved that links indexical structure (as the point of entry) with narrative structure (as database research device). A new form of travel was made possible by the World Wide Web and the *Netscape* program Marc Andreesen developed in 1993 to facilitate navigation through this ever-changing global body of information. The contemporary 'flaneur' no longer strolls through a city past shop-windows and people, but tours through a data landscape that is networked throughout the world. Browsing and surfing are what we call this wandering through virtual cities and global databases.

2. Advanced Research Projects Agency Network; digital information network, originally planned with the intention of allowing segmented messages to be transferred via telephonic information in the case of a nuclear attack.

With its attributes of browsing, of non-sequential information gathering, mosaic-like distribution and fragmented, jerky, quantum-like processing, the hypertext paradigm that led to the global computer network is simultaneously the core of the CD-ROM. The difference between the indexical structure of a library and the networked structure of hypertext can be simply illustrated by saying the hyperlinks make any one page on the Web the door to all other Web pages. Every information file is structured in such a way that it can locate a different part of the same file as well as any other file. Unlike the books in a library, the information files are not confined to specific locations. Non-sequentiality and non-linearity therefore join forces with non-locality to characterize the Net and the CD-ROM. In practice and theory, every word on the Web can be linked to any other word, somewhere in the world. Hypertext presents the text as a kind of landscape which is partially invisible, one that forces the reader to explore but is not subject to the usual considerations of physical distance. Unlike in a real landscape, any point on the map is equidistant with any other point. São Paulo is normally further from Paris than Rome is, Neuilly lies closer to Paris than Vienna. Hypertext makes Paris, Rome, Neuilly and São Paulo equidistant.

The CD-ROM is the little brother of the Internet, a consumption-oriented, physical implementation of the international Web. The intermediary position implied in the subtitle of this essay can now be defined: it is the hypertext paradigm or, more precisely, the constructive hypertext. The user connects the points by leaping from file to file, thereby constructing the image or map autonomously. The barrier between author and reader is lifted. Thus, hypertext is a non-linear text awaiting completion by each reader that comes along.[3] Of course, hypertext was a dream in the Gutenberg Galaxy too, running through the work of

3. Cf. Michael Choice: *Of two minds: Hypertext Pedagogy and Poetics.* University of Michigan Press, 1995.

Giambattista Vico to Giordano Bruno, James Joyce to John Cage, Phillip K. Dick to William Gibson, Roland Barthes to Jacques Derrida, the Dadaist collages to the cut-ups of William Burroughs.

V. (new forms of narration and authorship)

The assertion that the CD-ROM continues the form of the 'special book' is valid only in a comparitive, qualified sense: after all, the CD-ROM does not know the border of a local page. The database, like the alphabet, is obviously restricted in size, but the text I construct from it is in principle infinite. If Gutenberg narration was characterized by the mechanical medium (type matter, page, book), by a causal chain of events freezing the world into a rigid sequence of letters, then the electronic book (the CD-ROM) represents some kind of thaw. The narrative form it enables might be called anti-narration (as known from the great 20th century narrative experiments of authors from James Joyce to Marguerite Duras): a form allowing information sequences and jumps to be nonlinear, non-causal, non-sequential, making them singular and fragmentary.

The CD-ROM places in question not only the Gutenberg narration concept but also that of the Gutenberg author. The creator of the CD-ROM is a prime example of the postmodern multiple subject. The author of the work can be the reader or a collective, i.e. a network of subjects on either side of the CD-ROM, since the user's selections determine the reading and generate the information. The designers of a database did the same when they proposed and installed linkage options, selection and interpretation possibilities. A strict separation no longer exists between the author as demiurge, as constructor of the text universe, and the reader as inhabitant of the universe created by the author. Instead, a collective of authors (in the traditional sense) has proposed different parallel worlds and the users (formerly the readers) construct from these potential virtual worlds their own singular, real world. One might say we are dealing with an anti-author. The CD-ROM is the product of this new form of author-

ship: interdisciplinary collectives author a dataspace navigated by the surfer, a digital traveller searching for the accessible information.

VI. (virtuality, variability, viability)

The CD-ROM ends the age of transcription and opens the transcoding era. Prior to Gutenberg's invention, hundreds of monks would reproduce an existing book by manual transcription. Errors were made during this process, or ideologically-coloured re-interpretations, exegeses, were introduced deliberately. Even if the original intention of transcription was to multiply one and the same book, new versions emerged all the same. The CD-ROM has brought about an explosive increase in this kind of transformation. Each new interpretation of the database delivers a new book. This is possible because the information is not locked in, whereas in a book each printed page is a sealed mechanism with fixed components, and the mind drifts over a specific number of mechanistic pages. Due to the electromechanical information storage capability of the CD-ROM, its behaviour approximates that of a living system. Each item of information becomes a variable, and each page a field of variables that can be linked directly with different variables on other pages. The information is a freely accessible variable that can be evaluated in diverse ways. If the book was comparable with an automated machine, then the CD-ROM shows similarities to a dynamic system.

A system is said to be viable if the output it will return for a specific input cannot be exactly predicted within a limited, predetermined field. One might say, then, that the CD-ROM comes close to a viable system. The transition from transcription (the transfer of a message within one medium) to transcoding (the transfer from one medium to another) effected in the CD-ROM stands for a wide-open horizon of virtuality, variability and viability. The password that opens up this horizon is hypertext.

VII. (CD-ROM museums)

Unfortunately, the catalogues issued so far by the world's major museums do not even begin to demonstrate the potential of this electronic information system. Resembling electronic mail-order catalogues with visual and textual listings of all exhibits, they merely reproduce *grosso modo* the indexical structure of traditional catalogues. But other CD-ROMs exist which display the new narrative potential of the CD-ROM catalogue and in some cases even constitute genuine CD-ROM exhibitions or museums. By featuring works produced specifically for the CD-ROM medium, a magazine like the current edition of *artintact* can go far beyond the possibilities of an exhibition staged in real space and ignore the normal behavioural restrictions applying to the way art is handled.

The *Boîte-en-Valise*, the portable museum of Marcel Duchamp (or Rrose Sélavy, his female alter ego) can be viewed as the pictorial forerunner of the CD-ROM in the 20th century. Duchamp hit upon in the idea in 1914 when he photographed 14 notes and a drawing, reproduced them at original size on photographic paper, glued them onto separate pieces of cardboard and then combined them to form a triple edition of standard photoplate boxes.[4] In 1934, Duchamp wanted to compile a new selection of notes. By now, however, the development of the work 'Le Grand Verre' was documented by more than 70 notes as well as a whole series of photos and diagrams. And so the 'Boîte Verte' was produced in an edition of more than 300.[5] As the work advanced, reproductions ultimately became miniature replicas of the originals. The 94 elements in the box became an ensemble of random combinations as opposed to a series following the linear sequence of the book. Duchamp began to make a deluxe version of his 'boîtes' – the *Boîte-en-Valise* – in 1941. This box in a

4. *Boîte de 1914 (Box of 1914)*. (Ed.)
5. 'Le Grand Verre' ('The Large Glass') and 'La Boîte Verte' ('The Green Box') both bear the title *La Mariée mise à nu par ses Célibataires, même (The Bride Stripped Bare by Her Bachelors, Even)*. (Ed.)

valise is a miniature museum containing *grosso modo* the entire œuvre of Duchamp in modified, folding miniature models: 69 miniatures (of paintings, drawings, objects, ready-mades) packed into over 300 'boîtes'; 24 of which were declared to be *Boîte-en-Valise* – a retrospective in suitcase form.

The idea of summarizing a lifetime's work in a large box can possibly be traced back to Stéphane Mallarmé, more specifically to the poem *Un coup de dés jamais n'abolira le hasard*[6] as well as to *Le Livre*[7], the uncompleted major project in which Mallarmé was striving to concentrate all his knowledge and indeed the entire cosmos. The large-spaced distribution of words and lines over the white pages of a book ('Dice-Throw') allows countless possibilities of interconnecting the lines and words to produce ever-new interpretations and meanings. Mallarmé's 'Dice-Throw' is thus a first example of a network structure, of random combinatorics, multiple choices and/or random access to a text or work. This network structure and random combinatorics characterized the extreme positions of the Gutenberg book at the peak of modernism and predetermined decisive characteristics of the post-Gutenberg book, i.e. the CD-ROM.

The silver discs are the new portable museums or 'boîtes-en-valise'. The artists using CD-ROM as an exhibitory or museum medium create works that exploit the potential of this electronic medium. Duchamp's hand-made 'CD-ROM' construction contained works made for exhibitions held in real space and time. The electronic works produced by the contributors to ZKM's new CD-ROM were made specifically for an electronic construction geared towards virtual space, cyber architecture and the browsers in digital museums. Their usage of the interactivity and variability the CD-ROM offers is innovative and complex, producing new

6. *A Throw of the Dice Will Never Abolish the Hazard*; first version published in 1897 (in the magazine *Cosmopolis*), appearance as a book in 1914.
7. *Le Livre (The Book)*, cf. Jacques Scherer: *Le 'Livre'.* Paris: Gallimard, 1957. (Ed.)

forms of art as well as new forms of encountering art. However cold this miniature electronic museum may seem, the greater the range of experiences offered. The artworks produced for the new *artintact* CD-ROM outline a valid horizon for the experiential possibilities electronic media can provide.

The electronic CD-ROM catalogue of the future will extend the *territorium artis* far beyond that of an exhibition (historically constrained by the restricted physical accessibility of the art objects and information, by the physical borders of the exhibition space and exhibits, and by restricted, curatorial authorship). The electronic CD-ROM catalogue will constitute a *territorium artis* of its own, a territory in many cases superior to that of the classical exhibition. It could even be that in the emancipatory process from subsidiary, servile instrument of the art exhibition to independent medium, the catalogue eventually supersedes the exhibition. Obviously, any such change involves a risk that 'canned' art could bring about the loss of the aesthetic experience as one which is at the same time sensory.

Translation: Thomas Morrison
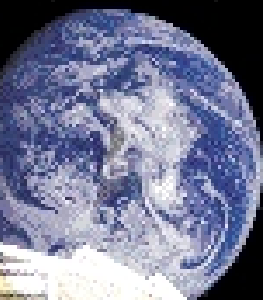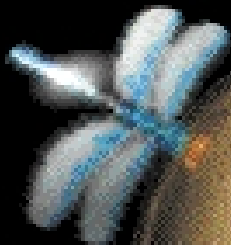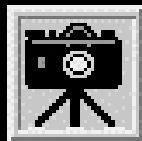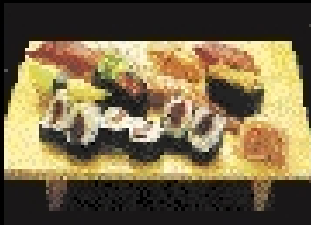
Surreal-time Interaction or How to Talk to a Dummy in a Magnetic Mirror?

By Erkki Huhtamo

… this 'interactivity' – it's another seduction, another stage-effect … Of course! What else could we have ever imagined? That we could, without knowing what it is, make an 'artwork' which 'itself' knows selfhood but does not reflect its maker in it?[1]

Ken Feingold

An old, respectable professor, honourable member of the Finnish Academy, already retired, once told me when I was a young university student: 'I guess there has been just one guiding thought in my life: those earnest, matter-of-fact kind of people – I have always found them somehow ridiculous.' Without the extra stimulation provided by a couple of glasses of his favourite Italian red wine (he was a Renaissance scholar and a Boccaccio specialist), perhaps he would have chosen his words differently, saying 'restricted' instead of 'ridiculous'.

The task of writing about Ken Feingold's work caused this long 'forgotten' scene to surface unexpectedly from my unconscious. And yes, I begin to see the connection. Not that Ken Feingold would in the least resemble the honourable professor (who passed away years ago, typically in the middle of a banquet, while delivering a speech) – yet he is clearly at least a distant relative. Feingold is an 'artifex doctus', whose works – as serious as their underlying themes and motives may be – always remind one

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1. Ken Feingold: 'The Magnetic Mirror', 1992–93 (unprinted manuscript; another version, without this quote, was published in *Cameraworks* (San Francisco), Spring/ Summer 1993).

Ken Feingold: *JCJ-Junkman*, 1995. Screenshot.

of the relativity, uncertainty and variability of our quests and perceptions on this tiny planet. With his cunning intellect and sneering smile Feingold repeatedly tells his audiences not to take everything (in fact, anything) at face value. Things are never as they seem. There is always another perspective, and yet another. 'Reality' evades us; representations can give us a momentary glimpse of it, but they should not be mistaken for the 'thing itself.' To make these points Feingold sometimes has to drive his audiences practically crazy. Although many eventually get it, there are always those 'earnest, matter-of-fact kind of people' who'll miss the point of the 'Feingoldian universe' but they are hopeless anyway.

During his career Feingold has used a range of means of expression, moving from painting to video and on to interactive installations, tele-robotics, multimedia CD-ROMs and Internet explorations. Particularly in the 1990s, his works have addressed the different (personal, psychological, ideological, economical) implications of the on-going 'mediatization' and digitalization of culture (an endeavour to which his early video works are also connected by various threads). In spite of the good use he is making of his programming and engineering skills, Feingold's orientation as an artist is more philosophical and conceptual than technological. He uses state-of-the-art technologies not as goals in themselves (as some 'artist-engineers' do), but as means of reflecting on their social and psychological meanings – particularly the anomalies and paradoxes that always accompany their implementation, including the question about 'poorly designed' or 'badly working' technology. Feingold's creations could be considered meta-artworks, technological pieces (obliquely) mirroring technology in its different settings and guises.[2]

The development of electronic and digital media and particularly their

2. For a more elaborate treatment of this topic, see my 'Seeking Deeper Contact: Interactive Art as Metacommentary.' – *Convergence* (UK), Vol. 1, No. 2 (Autumn 1995), pp. 81–104.

consolidation as powerful cultural, ideological and economic forces represents a major step, to be sure. But even saying this much means submitting oneself to the idea of progress (with constant technological development as one of its main corollaries), without first questioning its premises. The formative period of the Digital Era has been prone to naive assumptions – and outright myths – about the blessings the introduction of ever more powerful 'interactive' gadgets and the widening access to cyberspace will almost inevitably produce. The imminent technological paradise on Earth, to be reached along the 'electronic superhighway', the ultimate myth of the late-20th century, has been touted by governments and corporations alike; many naive (and sometimes innocent) fellow-navigators in the bit-stream have joined the chorus, re-enacting the corporate slogans purportedly in the guise of an 'individual' or 'democratic' initiative. The Internet, where anybody can be a publisher, a soap star (no silicone body parts needed), or a member of the first 'truly egalitarian community'– albeit a virtual one – is claimed to be the utopian realm that a Thomas More, a Robespierre or a Saint-Simon failed to deliver.

Will there be junkmen in such a utopian realm? Ken Feingold seems to think so – for what if junk happens to be the very stuff that the Web is made of? Feingold's first CD-ROM-work *JCJ-Junkman* (1995) can be read as a metaphorical commentary on the 'wired world'. When the program has been activated, JCJ (or Jimmy Charlie Jimmy, a ventriloquist's dummy, already used by Feingold in an earlier installation) appears on the screen, staring with his glazed eyes, silent, surrounded by a dark space with innumerable rapidly flashing images (kind of 'web-bites' as it turns out). Faced with a situation without any instructions (typical of Feingold's œuvre), the user probably starts clicking on the flashing images, trying to 'catch' them. If s/he is quick enough, a sound sequence is (or rather, may be) heard. Jimmy Charlie Jimmy opens his clacking mouth and starts reciting recycled sound loops: different voices, different

languages, weird sound effects. Sometimes we grasp full sentences, sometimes mere unintelligible fragments. Or nothing happens. The effect is a cacophonic and aleatoric chorus spat at the user from the mouth of a ludicrous dummy.

One begins to think about the contemporary media reality (or rather, media virtuality), and particularly the Internet (the source of all the images and sounds, although this may not be obvious at the outset). A chaotic mess, a datatrash-space, the 'x-million channel' scenario. Zapping and surfing in this 'junkyard' of electronic media obliterates all prevalent syntaxes and constellations of meaning, producing a fragmented subjectivity, a schizophrenic self – for of course the babbling dummy is nothing other than a 'magnetic mirror' of our own 'surrogate subjectivity' (much like the traditional ventriloquist's dummy). By displacing, externalizing and re-framing our desires *JCJ-Junkman* makes visible (and audible!) the other side of the utopia: the on-going automation and preprogramming of our desires. The choices we make are really pseudo-choices: we have no way of controlling the flow of datatrash that we have already internalized; we can merely play with it and add to it.[3] The junkmen we have become do not collect the garbage to sort it or recycle it in the ecological sense of the word. Although we may think otherwise, we merely reiterate the cycle of junk that connects our minds with the media reality.[4] The loop is endless (correspondingly, *JCJ-Junkman* has no beginning nor end, no narrative with a soothing closure).

3. Feingold has written a program that enables the user to add, while on-line, 'junk' from the Internet to the world of *JCJ-Junkman.* (This option is not implemented in the *artintact* version.)
4. The basic theoretical text about such recycling in the commercial media environment (in relation to television, though) is Beverle Houston: 'Viewing Television: The Metapsychology of Endless Consumption.' – *Quarterly Review of Film Studies*, Summer 1984, pp. 183–95.

Besides giving us an opportunity to probe our relationship with on-line worlds, *JCJ-Junkman* also questions our relationship with computers in general. Like Feingold's earlier works, such as *The Surprising Spiral* (1991) and *where I can see my house from here so we are* (1993–94), it challenges the idea of interactivity, another powerful myth of the late-20th century. 'Interactive media' (in fact, interactive anything) has been offered as The Remedy to all the evils caused by the hegemony of traditional 'uni-directional' alienating, usurpatory media. Interactive media miraculously raises the couch potato from his couch, and turns him into an active 'protagonist', a creator of his own media realities/fantasies. The interactive media engines, in their turn, get smart, housing scores of 'intelligent agents'. What results is a 'creative conversation', a 'real-time human–machine interaction' leading to a kind of human–computer symbiosis. Eventually this produces a quasi mind-to-mind communication, and a higher level of hybridized consciousness.

Already in *The Surprising Spiral* Feingold tackled two central premises of interactivity: the idea(l) of real-time interaction and the requirement for a 'pedagogical subtext' – a built-in tutorial for the user. Feingold programmed the reactions to the user's actions to be either in real-time or delayed; they could also have been triggered by the previous user; there is no way to tell. Feingold included neither 'maps', nor 'menus' not even a signboard saying that the work is 'interactive' – the visitor either finds it out or doesn't. In *where I can see my house from here so we are*, a telerobotic work between three locations, connected by the Internet Mbone, the participants remotely control little (physical) tele-robots on an arena surrounded by mirrors.[5] The users communicate through their 'sense organs' (video-eyes, microphone-ears). Again, Fein-gold has deliberately complicated the situation. The slow update rate of

5. My description of the work is based on the version which was shown at the Interactive Media Festival, Los Angeles, June 4–8, 1995.

the Mbone, with the delusive effect of the mirrors, makes it difficult to orient oneself, and even to perceive if one is talking to another 'puppet' or to one's own mirror image. The robots' movements are also restricted by their 'navel strings', the visible cords. The perceptual chaos is increased by occasional accidents, a robot getting tangled in its cord and falling over, or the whole system crashing.[6]

In *JCJ-Junkman* Feingold has continued to explore these themes. As mentioned already, the work contains no 'operating instructions' and has no beginning or end. The images appear on the screen randomly; they cannot be predicted. For most potential users, a CD-ROM suggests either an electronic encyclopedia or a computer game. The expectation horizons constituted by these will be totally and deliberately disappointed, forcing the user to re-think one's relationship to the medium (using the disc as a frisbee being the other option). Feingold has treated 'real-time' inter-action by speeding up the images until interaction with them is next to impossible (computer systems are usually criticized for their slowness!). The result is, indeed, a kind of '*sur*real-time' interaction! Simultaneously, the idea of 'conversational multimedia' and 'intelligent agents' is made ridiculous – yes, there is a partner or an 'agent' on the screen, but merely as a distorted reflection of the user's own (mediatized) subjectivity. By adding noise (in the cybernetic sense of the word) to the communicative act, Feingold disturbs the conventions of communication – not to create anarchy, but to submit the prevailing (naive or calculated) assumptions about media and technology to philosophical and artistic scrutiny. The interactivity lies primarily in the fact that it is up to the user to draw the conclusions.

6. Feingold hits the mark with his characterization of the work: 'A virtual masquerade party, a MOO with mirrors, a remote-control puppet-theatre, a world of "waldos", one of the unbearable hells, or the beginning of a new form of public space …' ('Notes on recent works', available on-line at http://www2.sva.edu/ken/).

Important as this contemporary frame of reference is, it is not the only one. Feingold's works engage also in a historical and theoretical dialogue (or rather, a polylogue). They are loaded with carefully considered cultural references. This may not always be immediately evident, but it gives them solidity and places them within semantic-temporal grids. A case in point, the installation *Childhood/Hot & Cold Wars (The Appearance of Nature)* (1992–93) is a conglomeration of various elements (from a clock-cum-video-screen, a transparent globe-interface, a door from a 1950s suburban house, a replica of the 'A-Bomb Dome' in Hiroshima), which together form a kind of time machine, evoking the workings of the memory and mixing the artist's private reminiscences with the 'objectified' traces of an era (film and television clips from the 1950s).[7] *OU* (1992–96, in progress) engages in another kind of archaeology by tracing the beginnings of interactivity from old vending machines and the modes of economic 'exchange' between the client and the machine they were meant to support. *OU* is another speaking puppet, an anthropomorphized fortune-telling machine that requires real US currency before it will share its home-brewed economic philosophy with the viewer.[8] A smart way of bridging 19th-century mechanized entertainment with today's art market (to say nothing of the way of the Web).

Where do the puppets and robots in Feingold's works come from? One might think about many possible influences. There were the ventriloquists with their grotesque 'families' of dummies exhibited by P. T.

7. More about the ideas behind the work, see Ken Feingold: 'Childhood/Hot & Cold Wars (The Appearance of Nature).' – *Iterations: The New Image*, Ed. T. Druckrey. New York City and Cambridge, Mass.: International Center of Photography and The MIT Press, 1993, pp. 162–167.
8. Mechanical fortune telling machines have often contained simulated human figures. These may speak and move, or perhaps submit the fortune on a strip of paper through a slot. A machine from the 1960s named Zoltan read the future through a telephone receiver, see Bill Kurtz: *Slot Machines and Coin-Op Games.* London: The Apple Press, 1991, p. 110.

Barnum in the 19th century.[9] It could even be claimed the physical dis-
embodiment of the voice practiced by these illusionists reached such a
peak of popularity because it was 'in the air', a preview of the virtual ven-
triloquism the new telecommunications were about to teach everyone:
the electric transmission of voice. Along similar lines one could speculate
why 'Buffalo Bob' Smith's talking puppet Howdy Doody became one of
the first superstars of early American television.[10] One could also think
about Hans Bellmer and the Surrealists. Or about Kokoschka's doll com-
panion. Or about the line of development from classical 'automata' to the
cybernetic artworks of the 1960s, delineated by Jack Burnham.[11] Or
about 1950s science fiction, and eventually, the 'intelligent' video-eyed
missiles, the stars of the Persian Gulf War …

Be it how it may, for Feingold what a puppet says is, after all, more im-
portant than what a puppet is (it is a medium anyway). Concern with
language as the organizing principle of our cognition is one of the most
important subtexts of his whole œuvre. From his early videoworks, such
as *5dim/Mind* (1983) and *The Double* (1984) Feingold has striven to
deconstruct prevailing syntaxes and work towards new configurations
and taxonomies. This is also true of his recent Web projects.[12] The logic of
the human mind has provided the central model. Dadaist and Surrealist
influences can be frequently felt.[13] Aleatoric poetry as practiced by the
Dadaists and the automatic writing as practiced and theorized by the

9. See Philip B. Kunhardt Jr., Philip B. Kunhardt III & Peter W. Kunhardt: *P. T. Barnum:
America's Greatest Showman.* New York: Alfred A. Knopf, 1995, pp. 254–255, et al.

10. See Rick Marshall: *History of Television*, London: Bison Books, 1986, pp. 22–23.

11. Jack Burnham: *Beyond Modern Sculpture.* New York: George Braziller, 1968, parti-
cularly chapters five and eight.

12. See 'REKD=HARDCORE PORNOGRAPHIE' and 'The Amazing Buttonizer', available
at http://www2.sva.edu/ken/.

13. For an analysis of the influences behind *The Surprising Spiral*, see Regina Cornwell:
'Interactive Art: Touching the "Body in the Mind".' – *Discourse*, Vol. 14, Nr. 2 (Spring
1992), pp. 213–214.

Surrealists meets the influence of figures like Jean Cocteau, Jorge Luis Borges, Alain Robbe-Grillet and Octavio Paz. One of Feingold's most recent works, *Orpheus* (1996), can actually be read as a hommage to Cocteau's great film *Orphée* (1950). Orpheus, another speaking puppet that Feingold plans to situate in a hard-to-reach yet not too distant place, utters enigmatic sentences composed using one of the main features of Cocteau's film – the poetic, surreal messages that Death sends over the radio – as the basic semantic grid for Feingold's variations.[14]

In this sense the cacophony of voices and sounds released from *JCJ-Junkman*'s mouth is by no means haphazard or restricted merely to the context of the Internet. By interacting with the work the user produces 'poetry' – a unique image/sound collage which is akin to the Dadaist and Surrealist endeavour. Amidst all the 'noise' fragments of new linguistic idioms will perhaps be perceived. Yet such an interpretation should not be pushed too far. In the case of a truly 'open work' (Umberto Eco), such

14. Feingold explains: 'The text(s) in *Orpheus* came about as follows: First, I used the original (translated) sentences from Cocteau's film – all of the phrases that were spoken over the radio, in sequence – as a grammatical matrix. So the matrix is a kind of crosssection of the original screenplay, paying attention to only one aspect of the film – the radio trick that Death arranges to lure Orpheus into the underworld, the "found texts" from the media that hypnotize Orpheus. Then, I added further words (of my own), as possible words in the matrix. The computer program randomly pulls words from the matrix each time through the loop of the overall piece. For example, the original sentence from Cocteau's film, "Silence goes faster backward" became a matrix to which "Time" goes "slower" and "sideways" (and others) were added.' (From a message from Ken Feingold to the author, June 25, 1996.) Although Cocteau was strictly speaking never a Surrealist, one should not forget the influence of Surrealist automatic poetry. Some of Éluard's and Péret's '152 proverbs adapted to the contemporary taste' (1925) sound very much like Cocteau's and Feingold's sentences: 'Cold meat puts out no fire', 'Skin that peels goes to heaven', 'He who sows finger-nails reaps a torch', etc. (see David Gascoyne: *A Short Survey of Surrealism*, San Francisco: City Lights Books, 1982 (1935), pp. 77–78). (The original version, titled '152 proverbes mis au goût du jours', was first published in *La Révolution Surréalistes*, Ed. Bureau de recherches surréalistes, Paris, 1925. Ed.)

as this one, people will find their own readings. It is also part of the game that for some users an exciting reckless sampling session – oh, my aching wrists! – with *JCJ-Junkman* will be enough. Or perhaps even this will be too much, but that is not Feingold's problem.
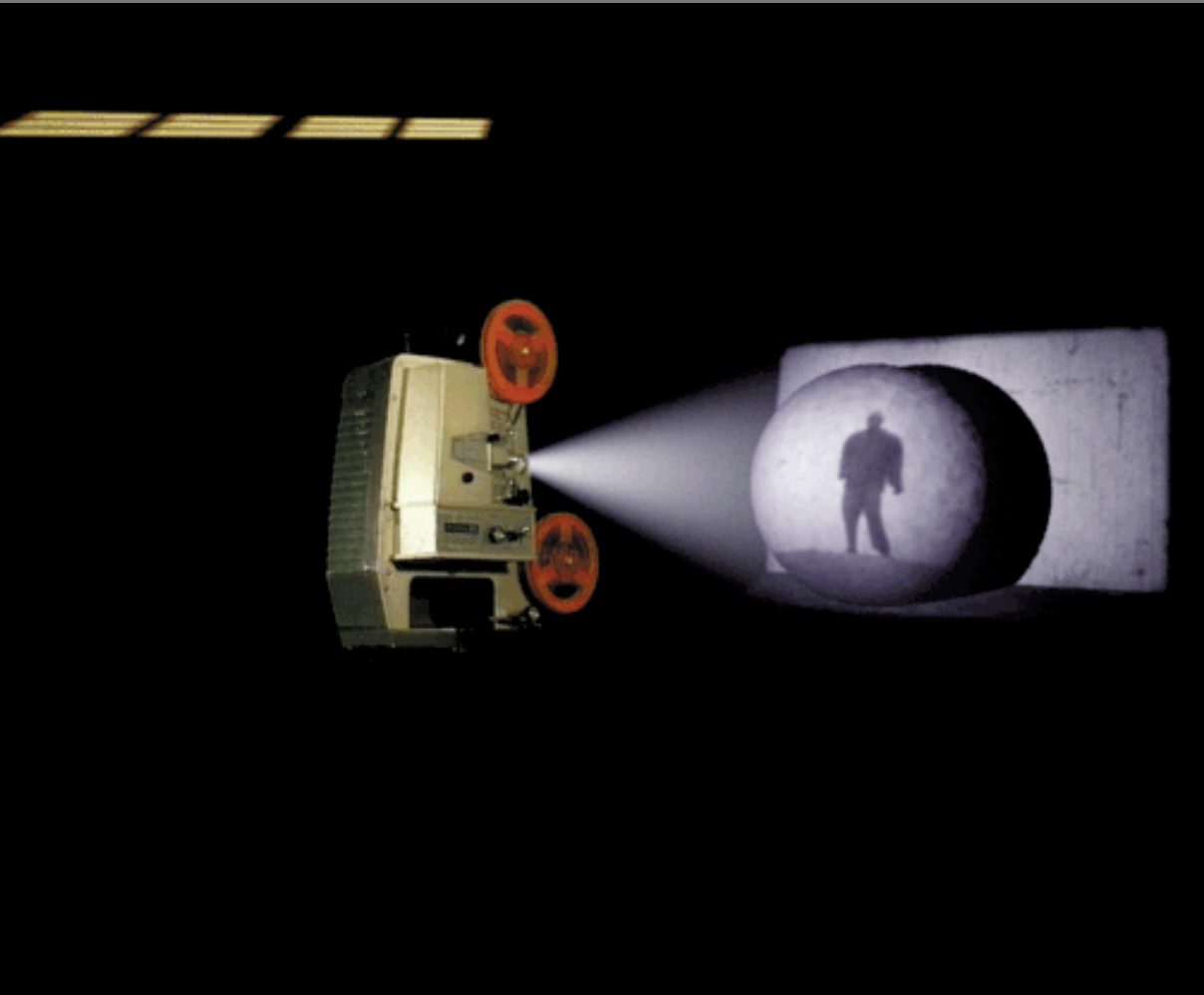
Click: Imagescape as Ruin

By Peter Lunenfeld

There has to be that interval of neglect, there has to be discontinuity; it is religiously and artistically essential. That is what I mean when I refer to the necessity for ruins: ruins provide the incentive for restoration, and for a return to origins.[1]   *J. B. Jackson*

A 35-millimeter projector starts up in the booth, and *The Big Easy*, a policier set in New Orleans, opens with daylight travelling shots through the Louisiana bayou. These accelerate and darken, to culminate with a descent through the night skies of the city into Charles Moore's classically inspired postmodern pastiche, the Piazza d'Italia. This being a crime movie, of course, there's a corpse face down in the fountain.[2]

The first time I see this film, I know the Piazza d'Italia only through illustrations in architectural publications. But here, the Piazza – with its brilliantly lit faux columns, flowing 'wetopes' (witty, dribbling metopes), and topographic map of the boot of Italy – has never looked more enticing. This is, after all, a movie, and people, places, and things are supposed to look better in the movies.[3]

Some years pass, and I am walking through downtown New Orleans for the first time. I happen upon a ruin. Neon tubes are missing or shattered, the water has been off for years, and the walls are cracked and peeling – a peculiar aspect of the 'witty' construction which faced steel framed construction with stone and now sees the two separating

1. J. B. Jackson: *The Necessity For Ruins*. Cambridge, Mass.: MIT Press, 1980, p. 101.
2. *The Big Easy*. USA, 1987. Directed by Jim McBride.
3. The Piazza d'Italia (1976–79) is one of the best known works of the American architect Charles W. Moore (1925–1993). Heinrich Klotz describes the Piazza d'Italia as 'the

Perry Hoberman: *The Sub-Division of the Electric Light*, 1996. Screenshot.

through the effects of time and vandalism. The Piazza d'Italia, no more than a decade and half after it was completed, doesn't need a body to resemble the scene of the crime. The discourse of contemporary architecture too often stops the day of the ribbon cutting. Perhaps it should revisit its showpieces as they adapt to their environments, inhabitants, and unexpected uses – even to their unjust, even ignominious fates.[4]

Still more years pass, and I'm back in New Orleans, looking at a prototype of Perry Hoberman's *The Sub-Division of the Electric Light*. I've come from Los Angeles, Hoberman from New York, yet the odd triangulation that the tradeshow, conference and lecture circuits work on geography has brought us together in the shadow of the Piazza d'Italia. This may be Hoberman's first project specifically for a CD-ROM, but it is in keeping with the artist's long and keenly realized attention to the intertwinings of technology, images and nostalgia. So, with the Piazza as context, the screen instantiates the imagescape as ruin.

Click. Antique projectors whir in an undifferentiated, phosphor-lit blankness. Click, and the projectors perform their destiny; they project. The images they throw across the virtual space of the monitor consist of home movies, found footage, family slides. The imagescape is a calculated nostalgia engine, calibrated to our memories of an earlier media era, one of bright bulbs, photo-chemical emulsions, reflective surfaces, and dust motes which swirl into life, into light. Hoberman sub-divides our cultural memory of light in the service of media. On a monitor, he conjures projection to remind us of the ever-accelerating speed with which we consume and then dispose of media technologies – and that with every move there is loss as well as gain. At a moment when the comput-

most telling example of postmodern architecture' in his encyclopedic survey, *The History of Postmodern Architecture*. Trans. by Radka Donnell, Cambridge, Mass.: MIT Press, 1988, orig. 1984, p. 130.

4. Stewart Brand is particularly informative on this lapse in architectural discourse in *How Buildings Learn: What Happens After They're Built*. New York: Viking, 1994.

er market's most fervent dream can be summed up as 'full-screen, full-motion video', Hoberman is an iconoclast, shattering and subdividing the monitor, playing with its spurious two and one half dimensions of depth.

Click, and a scenario begins: an antique 8mm Bell&Howell projector whirs to life in one corner of the monitor, fulfilling the expectations for interaction. Click again, this time on the miniaturized moving image of a baby, cooing and gurgling on a screen situated at an oblique angle from the projector, and expectations are challenged. This click brings on the projectionist's nightmare: the image blurs, skips, freezes, and then burns from the inside to its edges. But we are afraid of system crashes now, not film jamming the gates and bursting into flames, which raises the question: Where do antique nightmares go when no one dreams them anymore?

Click, and one of the barely finished rooms is bathed in a projection. An immensely over-scaled ball rolls by the wall, catching and transforming the light, a reminder that the moving image should not always be measured in the diagonal increments of monitor models. Click, and the projection takes on the attributes of that onto which it is projected. Click, and be reminded of the great pleasure that were to be had in the interruption, manipulation, and scaling of projected light.

Playing with light is not simply an aesthetic gesture, it also must be considered a manipulation of time, as a result of our awareness of the laws of relativity and the 20th-century mantra that E equals mc^2. *The Sub-Division of the Electric Light* is also about the parcelling and reapportionment of time that dynamic media bring in their wake: Godard spoke of film as truth twenty-four times a second; video cassette recorders made time-shifting a phenomenological commonplace; the grail of computer graphics is 'real-time' applications; and the aesthetic of the World Wide Web is based at least as much on the wait between images as it is on the online imagescapes themselves.

Hoberman plays off this interrelationship between the visual and the temporal. Click, and each scenario manifests its singularity (or gimmick, as it were), either with another click or with a movement of the mouse: film runs in reverse, light sources shift, slides jam, objects rotate or deform; and in one, the screen moves closer or farther away, creating a time slider in space. Click, and time is spatialized. Click, and space is temporalized. In reference to this project, Hoberman has written, 'I want to make something where time never stops completely – but not where you're trapped in an automated clockwork – where the user can play with time, where time is something malleable – however not something where the user controls time (which would be impossible anyway).'[5]

This quotation is likewise a description of memory, that slippery somewhere where 'time is something malleable'. And memory is central to *The Sub-Division of the Electric Light*. There are forgotten memories: Edison's electric light bulb as the refutation of the commonly held 19thcentury belief that the small-scale domestication of artificial illumination was impossible.[6] There are dim memories: MIS administrators dismissing desktop computing as a hobbyist's pursuit,[7] one that posed no threat to the mainframe mandarins' caste system. There are personal memories of the distant past: relatives hauling out obscure machinery to show their home movies and the slide shows of their travels. There are professional memories: machines (the Apple 11), platforms (the Amiga), hardware (the dot matrix printer), software (Wordstar), storage systems

5. From the artist's e-mail correspondence with Lorne Falk, June 27, 1996.
6. 'In 1877 Fontaine, an eminent French engineer and scientist, wrote a book on the incandescent light in which he announced his fixed conclusion that the sub-division of the electric light, that is, the development of small illuminating units of electric light analogous to the illuminating units of gas distribution, was impossible … William H. Preece, in a lecture given on February 15, 1879, before the Royal United Service Institution, said: "It is however easily shown (and that is by the application of perfectly definite and well-known scientific laws) that in a circuit where the electro-motive force

(the 5 ¼" floppy) – once central to computing, now hand-me-downs or entirely abandoned.

And so, back to architecture and the postmodern ruin of the Piazza d'Italia. We can see most electronic art sharing the fate, sooner rather than later, of Moore's monument – the silver oxide that flakes off one-inch videotape; the pioneering audio and visual work done on computer systems that no longer have manuals or spare parts; even the CD-ROM itself, a delivery system referred to as transitional since its very inception. Thus it is that Perry Hoberman, whose works have so often been performance-based, is an emblematic artist for the CD-ROM. It may be a mistake to regard *The Sub-Division of the Electric Light* as an art object, for that implies a certain permanence and stability that the work and its medium do not offer. Better to think of it as performance, for performances, unlike monuments, don't leave ruins; they leave memories.

is constant, and we insert additional lamps, then, when these lamps are joined up in one circuit, i.e., in series, the light varies inversely as the square of the number of lamps in circuit, and that joined up in multiple arc the light diminishes as the cube of the number inserted. Hence a sub-division of the electric light is an absolute *ignis fatuus*." ' Francis Jehl: *Menlo Park Reminiscences,* Vol. I., New York: Dover Books, 1990; reprint of Dearborn, MI.: *The Edison Institute*, 1937, p. 197. My thanks to the artist for sharing the source that inspired the project's title.

7. MIS: Management Information Services.

Space for Electronic Insurrection
By Annika Blunck

In his interactive works Perry Hoberman directs attention to the notions 'mass' and 'medium' with a view to investigating these concepts and questioning the validity of conventional, often biased, criticism. His attempts to break the mass media's hold on reality are nothing short of emphatic: Hoberman creates situations in which viewers act as intercedents rather than recipients whose interests are normally almost imperceptible defined by the information communicated.

The invitation to act offered by the interactive work of art is an opportunity for the individual to determine the content of the transferred information: the 'potatoes' can get off the couch and direct their responses to the work on display. This personal influence both weakens and reinforces the power of the medium. Since the individual helps to define the information content of a work of art, the content is divested of the power to dictate an aspect of reality, but at the same time an initially unfamiliar space opens up between human-being and image because the participant's own mediating capacity has been recalled to mind.

The dream of interactive art is to create opportunities of encounter and interaction. The intermediate space that is part of any interactive work gives viewers a chance to define and shape their roles. Just as Hoberman is striving to establish a new awareness of mass media, he is also advancing new ways of confronting the technologies. And so he works with equipment established in the workings of government and military laboratories, in the manufacturing and entertainment industries, technologies that have become part of our lives in more ways than we can

fully grasp. Common to these technologies are the following attributes of use: interactivity, inconspicuousness that can fade into invisibility, and indispensability.

The potential might of technology is founded on the interplay of these attributes. And since the reactions demanded by the technologies are geared not necessarily towards emancipating their users but inevitably towards enticing them into a game not of their own design, Hoberman takes aim accordingly. Few people are able stay aloof from such invitations to interact, few develop active powers of resistance that prevent them from being compelled to adhere to predetermined rules. At any presentation of the latest technological developments, one might just be lucky enough to spot a few youngsters determined to subvert with their own proficiency the absolutism and invisibility of the systems and make the computers crash.

The work of Perry Hoberman is another instalment in the dream of interactive art, one in which established technologies are deployed not just to create the desired interaction but also to point out, affiliate and promote the insubordination that is so imperative. This dual motivation – to establish interaction in a sphere where it was previously withheld, and to reject those modes of interaction offering no more than the illusion of freedom of choice – lies behind *Cathartic User Interface* (*CUI 1.0*), the installation Hoberman produced in collaboration with Nick Philip in 1995. The piece invites the user to give free reign to the destructive urges provoked by computers on occasion and throw a ball at computer keyboards mounted on a wall. When you hit a target, a user warning flashes onto the screen, its wording a somewhat abridged echo of the computer messages known from everyday life. Some visitors slam the balls so hard that the keyboards suffer permanent damage. The manipulation of the programming revealed by the 'hostile' user messages confronts the users with their own impotence in the face of the medium, the radical messages spell out how mercilessly we are exposed to the whims of computer technology. These moments bring to mind experiences we have all gone

through and the *CUI* projection area widens to include the monitor waiting at home. Hoberman does not choose technologies in order to imbue their existence with a primary artistic significance, then, but to subvert the function we accept as their 'calling' and by doing so makes the art of social interaction a theme.

Throughout Hoberman's work, this strategy of throwing light on the technologies in contexts which challenge the one-sided orientation of mass media is distributed over several planes: an interior realm as projection and/or (inter)action area; an external realm as reaction space; curious, active visitors as co-designers. Unlike many interactive installations, the external domain of interaction is very important. The environment determines the atmosphere, acts as a communication space and landscape in which art can be experienced. The space surrounding Hoberman's installations is not designed to be inconspicuous or easily forgotten but as an enclosed space which will be expanded by the interior dimension. The black boxes in which interactive works of art are (all too) often presented allegedly foster immersion, are supposed to enclose visitors in the infinite expanse of computer-generated images so that the real world can be left far behind.

Hoberman wants to emphasize the unity and mutual interdependence linking both realms. In *Dead Space / Living Rooms* (1985) the interior was purely fictional or virtual. Four science-fiction films dating from the '30s to the '50s were screened on consecutive Sundays, each film sharing a preoccupation with death and resurrection. After each screening, stills from the film just shown were integrated in the installation as 2-D and 3-D projections covering every free projection surface in the exhibition space. Wearing stereoscopic glasses, the spectators then wandered through a visual realm of images backed by a sound collage combining dialogue and music from the films. The computer-controlled slide projectors, the dissolves and the sound track instilled life into the frozen images, and as the exhibition progressed, the films intermingled, coloured each other, pro-

duced new narratives. Finally, Hoberman integrated a picture of himself in the projections, and by doing so overthrew the framework of projection and illusion, shifted the borders between fiction and reality.

When visitors concoct their own story by moving about an exhibition space, the mass medium film loses its assertive position of power and becomes the raw material in the viewers' hands. The subject articulated is not the relation of dependency between man and machine but how realities can be re-defined by employing, and then dismantling, habitual illusory mechanisms. Nevertheless, these individual realities are created in the middle of a high-tech society, an environment in which new inventions replace their electronic predecessors as a matter-of-course, often disappear unnoticed. Hoberman's work embraces this world of componentry because an understanding of its workings is a prerequisite for the intelligent user, the co-operating human interactor.

Hoberman's tongue-in-cheek deployment of domestic appliances in *Faraday's Garden* (1990) can be seen in a similar light; it made visible the consumer gadgets of everyday life and simultaneously revealed the absurdity of the advertising hype surrounding them. In a garden constructed from countless familiar electrical appliances, visitors were confronted with the self-inflicted dominance of technology and the feeling of helplessness it arouses. Power cables dangled down like roots from equipment ranging from obsolete mixers, toasters, electric carving knives and fans to state-of-the-art film projectors, radios and TV sets. By treading, inadvertently at first, on switches concealed beneath the floor-mats each visitor started up different machines to produce a personal wall of sound that clashed with the sound tracks triggered by the others, and although everybody was capable of influencing their electrified environment, escape was possible only by leaving the room …

… and entering the *Bar Code Hotel* (1994). The strategies described above emerge in this interactive installation, too. It employs as an interface an entire room which, plastered from floor to ceiling with bar-code

labels, can be used by several participants simultaneously. The input devices are bar-code wands that dangle down from the ceiling and allow the black-and-white bar code information to be scanned and transferred to the (invisible) computer system. By scanning any one of the bar codes printed on cubes, one can create a personal agent in the virtual environment. Other bar codes can be used to change the behaviour, the motions, the positions of an object: it can rotate, breathe, expand or follow another object. After a few interactive trial runs it transpires, moreover, that the various objects associated with individual visitors possess their own characteristics in dependence on their size or age. This virtual environment changes constantly, forces the guests to act and react. The presence of non-specific bar-code instructions such as 'wallflower' or 'fear', however, preclude any possibility of ever feeling you are 100 % in control of the situation. Again, the scenarios that develop are unique, unpredictable, require a different reaction each time. The universal black-and-white product code has become the centre of attention in this installation, is no longer a one-way information source but enables feedback that can trigger activity. The bar code is the *lingua franca* of the projection area, the communicators in the real exhibition space responsible for the group dynamics.

The special feature in Hoberman's work is always a small gap through which the viewer can escape from the traditional patterns of relationships between the established technologies and their habitual users. The gap opens that rare intermediate space in which the borders between human-being and image are being constantly re-defined. It is the space for the unpredictable and non-programmed, a foundation on which the maturity and responsibility of the contemporary viewer can build. The active viewer uses this gap to interconnect the interior and external dimensions to form a communication chamber with its own chronology. As soon as the actors enter the interior realm, they establish a relationship with their co-actors. Alliances are formed that need to be constantly expanded and

re-aligned, pointing out the difficulties, chances, and often enough the failures, with which social interaction is fraught. Any sense of personal location is surmounted by the will to participate, and finally coincides with the intentions of other participants in the new spatial concept. All these works involve the individuals as individuals, create a small world that can be processed and manipulated, and so remind the actors of the mediating capacity that is necessary for the constitution of society.

The logical conclusion of such a concept allows the suggestion Perry Hoberman's works of art are created as a medium aiming to involve the viewer as an individual and to keep handing over, in different forms and guises, the responsibility for cooperation and collaboration.

Translation: Thomas Morrison
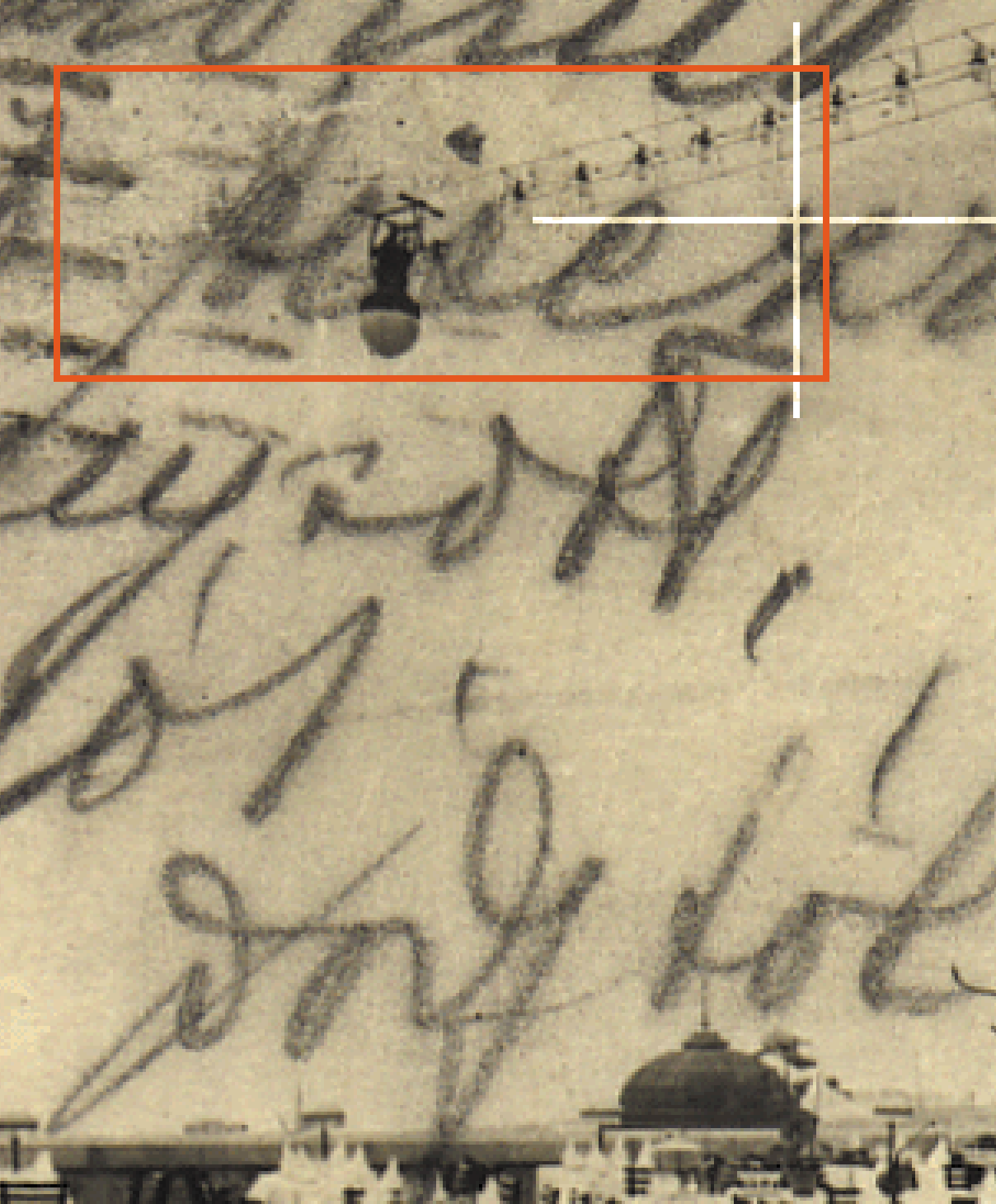
FROM Mother and child in the sun

The Postcard Trail

By George Legrady

Photography is memory, the trace of an original. In a postmodern age, […] the past has become a collection of photographic, filmic or televisual images. We, like the replicants [in the movie *Blade Runner*], are put in the position of reclaiming a history by means of its reproduction.[1]   *Giuliana Bruno*

I

   Slippery Traces is a non-linear, visual narrative in which the viewer navigates through a web of 230 interconnected postcards[2] that are classified and linked according to literal and metaphoric properties. Each postcard contains approximately five 'hot spots', or links to about ten other images. The user constructs a viewing sequence by clicking the mouse on a hot spot of interest in the current image which then leads to another image. The resultant sequence of linked images can be reviewed to examine the evolving 'meta-narrative' and the particular connections derived through one's choices.

   The 230 postcards in this project were selected from my collection of over 2000 postcards. These were gathered over a period of twenty years. Following the initial selection of images, the postcards were grouped into 24 categories. This process of classification led to the emergence of topics such as nature/culture, colonialism, the future, military, industry, the exoticization of the Other, scenic views, morality tales and others. Images

1. Giuliana Bruno, 'Ramble City: Postmodernism and Blade Runner.' – *Alien Zone*, Ed. Annette Kuhn. London: Verso, 1990, p. 193.
2. The *Slippery Traces* installation features 230 postcards. For copyright reasons, some 50 postcards (mainly of recent origin) have been omitted from the CD-ROM version. (Ed.)

George Legrady: *Slippery Traces,* 1996. Screenshot.

that could not have a category of their own were grouped into the closest thematic area. By inserting these images that stretch the meaning of the grouping, a dialogue ensues that extends the categories' function from simple classification to that of narrative. The intention underlying my selection of postcards was to provide an overview, a world view, both cultural and ideological in terms of how the mid-20th century has been represented photographically within the framework of global development, tourism and cultural exchange. Other criteria included culturally significant or relevant subject matter or visually interesting compositions that express a perception based on the photographic paradigm. The selection does not aim to represent the totality of 20th-century historical experience.

In the early 1970s, fine arts photographic investigations focused on the development of a personal way of seeing. Postcards, which were understood as conventionalized iconic signs produced according to economic demands, notably tourism, were deemed to be empty of aesthetic value derived from a personal vision. When the same postcards were looked at from a critical, social perspective, they became more meaningful. Postcards, being a condensation of cultural expectations and beliefs, are ideologically charged. They are coded expressions of how the culture that produces them looks at the world. They are coded representations of the possible and the impossible (the real and the imaginary). They are mythic, totemic samples, or traces whose meanings are revealed over time, allowing the ideological narratives and semiotic coding to rise to the surface. With time, their narratives become transformed, reconstituted through newer interpretations, their meanings slip into other readings.

II

Slippery Traces had its roots in a two-projector slide show created to explore the ways that the meanings of images change when juxtaposed with other images.

Images are normally seen in relation to each other, and like words positioned together in a sentence, they oscillate each other, slightly expanding, re-adjusting, imperceptibly transforming their meaning through contrast, association, extension, difference, etc. Transferred to the non-linear dynamic environment of the computer, the shifts in meaning are exponentially increased as the images are freed from their slide-tray linear positions, to be constantly resituated in relationship to each other as determined by criteria defined in the computer code. The result is an imaginary three-dimensional, nerve-cell-like network in which all 230 images are interlinked by over 2000 connections criss-crossing to form a unified whole. Connections, or hot spots have something thematically in common with the image they call up. Each time the viewer clicks on a hot spot to move to another image, he or she weaves a path in this dense maze of connections that will be recorded in a database.

One of the project's aims is to have viewers follow their own desires within an environment predefined by my perceptual filters. By perceptual filters, I mean not only the way I have categorized the postcards but essentially the way they function within the program's structure – a way of looking as opposed to the actual content of the postcards. The conditions of this looking have been encoded by computer programming, specifically by usage of dynamic database structures. The databases at the core of our social institutions – from marketing to police records to mailing lists – exist as a result of statistical data generated by our actions, and are used to redefine our cultural environment. *Slippery Traces* appropriates these statistical organizing structures and uses them to create an opening for analysis of such techniques. In addition, the navigation and sequencing flow of *Slippery Traces* incorporates the form and function of database structures as a creative device, and underscores a philosophical approach to computer programming as aesthetic practice.

The interface design of *Slippery Traces* anchors the act of looking in a particular way. Like the technological looking exemplified by vision

machines or as in the movie *Terminator*, the interface emphasizes a 'looking with intent' or 'search and capture'. In this constantly moving, fragmented looking environment, the viewer has to literally stop the act of 'looking' (by freezing mouse movement) to see the whole image. The movie *Blade Runner*'s image-analyzing machine through which Deckard, the protagonist, enters the replicant's photograph to search for clues, serves as one of the key models for *Slippery Traces*. Deckard uses a technological 'prosthetic visual device'[3] to penetrate the photographic image, disrupting the spatial boundaries of the traditional photograph by moving and turning around within it. He forces the image to reveal to him a woman's face, something that he is looking for but that initially was not in the image – he re-invents the image to match his desire.

Alain Robbe-Grillet's *L'année dernière à Marienbad*[4] serves as an important reference model for *Slippery Traces*' narrative flow, specifically in terms of a matrix of non-linear connections. The *Slippery Traces* structure draws from the film's use of a shuffling of time and space where past, present, here and there are weaved together and images are recycled in different sequences to produce different meanings. In essence, the interactive operational mode situates the narrative development in the viewer's hands. In the words of Robbe-Grillet, the viewer is positioned 'to invent in his turn the work'.

3. Elissa Marder, 'Blade Runner's Moving Still.' – *Camera Obscura*, No. 27, September 1991. John Hopkins University Press, p. 102.
4. *Last Year at Marienbad*. France/Italy, 1961. Directed by Alain Resnais, screenplay by Alain Robbe-Grillet (published under the same title in a translation by R. Howard. New York: Grove Press, 1962). (Editor's note)

Detailed Traces of Secrets

By Miklós Peternák

Every photograph is a detail of a bigger picture which does not, cannot, exist. It frames a unique, unrepeatable but photographable moment, the there-and-then, *anywhere, anytime*. The viewer, *Everyman,* who possesses this bought or self-made picture owns it temporarily only: as an object, souvenir, the impression of an unconscious fantasy, a vicarious adventure, the essence of a spectacle. A view can become a picture in the mind as the natural result of a chance impression or by means of some apparatus – a camera, perhaps – operated consciously or otherwise. The pictures so created are derived from something seen, or render visible something previously not visible (as such). In either case, they are put on display for a second act of seeing in which the picture can be appreciated in its now permanent form. A viewer confronted with a picture is taken to task: the pictorial representation is the only way of establishing contact with the original view, or the origins of the constructed view.

A picture has no 'general' existence but only a specific one as a unique event about which we speak, which we are seeing at one particular moment – and it is wholly irrelevant how many people view or have viewed it, or where and when they saw 'the very same thing'. The picture we see and discuss is always a partner in a dual relationship, an element in a proportional equation between the situation in which the picture was shot and the present viewing situation. The ratio of the trace, that visible detail of the unrepeatable *past* (e.g. the developing photograph), to the there-and-then is equal to that of the composed, uninterpretable view (the finished, existing photograph) to the interpreter-viewer's conven-

tion-determined analysis that coincides with the eternal here-and-now. Presumably, this proportional equation is apt only in regard to pictures produced photographically. Only of photos can we say they are details of a bigger – unknown – picture and therefore unexplainable. Paintings, graphical representations etc. are a whole – at least, in as much as nothing else exists or can exist beyond the area of the picture and frame.

The person who shows a picture is as important as the viewer. What would parents showing a picture of their child say, for example? And a private collector if the same picture fell into his hands? Or a photographer suggesting his picture of a famous building be reproduced for a postcard? What would the architect of the building say about the same photo? Or the tourist who scribbles 'I was here, saw this building' on the back of the postcard – possibly without looking at the picture, leaving that job to the recipient/reader ('tele-viewing' courtesy of the postal service). Viewer and picture never occupy the same time slot.

Photographs are static observations providing secret, hidden publicity. Their very existence harbours the danger that nothing can ever vanish completely, but will become merely unverifiable instead, dislocated in time and space. The secret becomes public so that the act of seeing can be observed and its mysteries given form. It is strange, then, that postcards – usually made to travel from the place they show, to transfer this location – become custodians of the time linked with specific places. The postal stamp and written message become a chance chronology of time stretching over the uncertain expanse reaching from the 'once-upon-a-time' to the present-day. In combination with some banal personal message, the naked picture ready to be dispatched is one of the strangest images of all. Three million mailed postcards of the 'Diskos of Phaistos' signify three million different recipients, even if the messages conveyed could be classified into very few groups.

The postcard and somewhat younger picture postcard are products of the eighteen-sixties and seventies of the last century. A popular work of postal history tells us: 'The idea was broached during the Fifth German Post Congress in Karlsruhe in 1865. The Prussian Consul Dr. Heinrich Stephan […] proposed the introduction of an envelope-sized "Postblatt" with an imprinted postage stamp.' The suggestion was not acted upon immediately due to fears that this open form was incompatible with pledges to guarantee postal secrecy. As the postcard eventually became established, however, images began to be printed on the back of the cards, banishing the written message to the frontal side previously reserved for the address. The picture became the message, therefore, smuggling back in the secret by masking more securely than any mere envelope the usually hackneyed phrases of the sender. Naturally, some messages demanded more space and spilled over onto the picture side, disrupting its visual coherence but unwittingly restoring the original function.

The postcards of today usually show a photographic reproduction, the printed text, if any, being confined to a simple place-name. The very existence of postcards is undeniable evidence of and motivation for communication between the 'self' and the 'world'. The postcards received in the course of a year need to be stored somewhere (unless, that is, we throw them away immediately) – a few here, a few there. This grouping, however, is already a minimal form of systemization that can, if occurring at the proper time, lead to an involuntary search for and creation of context. Kairos (the god of opportunity) is inseparable from the decisive moment; but then, every photograph signifies such a favourable moment and is therefore a fitting occasion for responding. The only way of responding to insoluble equations is to create a more favourable situation by ordering and re-grouping. Segmentation and classification are known from linguistics as processes used to generate meaning. As speech is not the basic material, only the frames need to be marked. The frames allowing us to handle the incomprehensible must be

located within the pictures. The marked – selected and framed – elements are now capable of dialogue, their parts now attain a clearly classifiable status.

But where are the frames? The original frame – picture border, picture limit – inevitably gives rise to more questions and mysteries than potential interpretations: that is the associative adventure of the interpreter. Analytical viewing conventions are bound to periods of time, really change only every 150 years. The assertion that some one-and-a-half centuries are needed for a visual or semantic convention to be created or changed (this being the period in which the convention comes into being, is disseminated and generally accepted while concurrently a new convention begins to emerge that will eventually supersede the previous one) is illustrated, and possibly even corroborated, by the history of photography and the question of photographic authenticity. Although photographic reality, the documentary worth of photography, was the subject of countless debates and analyses from the first photographic image onward, until recently one point was not disputed: what we see in a photograph, the then-and-there, was in front of the camera when the photo was taken; otherwise, it could not have been captured on film. The rise of the computer has dealt this convention a lethal blow. The documentary value is becoming unverifiable, rendering meaningless the terms 'fake' and 'manipulated' in this specific context, in a time when a new convention is gaining ground. Everything is fictional once more, and even what is not, could be. That is the message conveyed by the digital image, the picture type that is unverifiable and yet more exact than any seen before.

And so the time has come to create the *Slippery Traces*. There is nothing more beautiful than 230 postcards if I can never view them together, can see only parts of them in groups, observe components of certain pictures but not examine the highlighted details. The greater the degree of frag-

mentation, the more complete the fragments become: select a marked detail, and the picture vanishes, makes room for a new one. The non-linear logic is based on a holistic strategy – the ever-more arbitrary revelation of details is simultaneously ever-more consistent, rousing a feeling of wholeness and the desire for completeness.

We might wonder what happens if we remove the pictures from their original historical context and use/recycle, re-discover/classify them. By now, however, it should be clear the context never existed, is always being created here and now. Just as history would not exist without a historian to record it, the picture story has to be invented in order to alert us to the communication among world, people, image. The inconceivable stack of pictures, this inarticulate chaos of monadic views existing without forerunners or successors, is not at our command. On the contrary: unless we create a context, we remain chaotic, shackled slaves of the entropy of the past. And if we fail to create a context, then possibly because we find it easier to slip through the fingers of these advances in information/history, imperceptibly, leaving no trace behind.

Translation: Emma Roper-Evans

Elusive Tracks and Mise-en-scène
Some thoughts on montage as an open dialogue between artist and viewer

By Andrea Zapp

In front of me lies a crumpled, yellowed sheet of paper. On it is a mysterious note: 'Linkage – P' and 'Collision – E'. This is a substantial trace of a heated bout on the subject of montage between P (Pudovkin) and E (myself). This has become a habit. At regular intervals he visits me late at night and behind closed doors we wrangle over matters of principle. A graduate of the Kuleshov school, he loudly defends an understanding of montage as a linkage of pieces. Into a chain. Again, 'bricks'. Bricks, arranged in series to expound an idea. I confronted him with my viewpoint on montage as a collision. A view that from the collision of two given factors arises a concept.[1]   *Sergei Eisenstein*

Views

Americana, Image 1, 'Beach Cartoon'. Colourful comic book beach scenery. I want to take a closer look, move the crosshairs over the screen as if aiming a telescope, every millimetre seemingly documented by a metallic staccato. I click on a marked area, a hot spot showing a bikini-clad '50s beauty, 'someone with specific expectations'. The caption promises me more details, but my trust in this simple logic is disappointed – suddenly I am high above an American city, a tightrope walker balances a beam way over the heads of the spectators below. *Americana*, Image 2, 'Wire walker'. Someone with specific expectations? I focus on the people on the ground, 'an expecting crowd'. And find myself hurled into a holiday landscape, orange trees growing by the sea, in the background snow-capped mountains, *Americana*, Image 3. Counter check: a sequen-

1. Sergei Eisenstein: *Film Form, Essays in Film Theory*. Ed. and trans. by Jayn Leyda, New York, 1949, London, 1951, pp. 37–38.

tial display reviews my route so far; my vision of *Americana* has the pin-up girl dreaming of a man prepared to take risks in the land flowing with milk and honey … ²

Tracking Down

Shots collide, a thought becomes a personal ideology. George Legrady defines his work as a clash between the artist's cultural and ideological perspective and that of the viewer. While the postcards emphasize this background, above all they mean a lot to him, obviously come from a personal archive in which romantic snapshots have their place alongside significant events. You can only guess at the references the images contain for the artist. This browsing in Legrady's well-filled album, these chance encounters with people, places and spots inside the interactive layers, lead to a more metaphorical, coincidental contact with the artist. An analogy unfurls, layer-by-layer, with the montage theory of Eisenstein, who regarded filmmaking basically as a process supplying the viewers with material and motivating them to think and act for themselves. Only in this way can a complex, intellectual dialogue evolve between viewer and work, providing the level which is one of the primary essentials for the conception of interactive media.

In the Viewfinder

Certainly, Eisenstein's early montage philosophy was supported by the pedagogic precept of acknowledging the universal validity of the message. By contrast, the design elements in *Slippery Traces* are explicitly individual. They go beyond purely identificational closeness to the content and assign to the viewer an active function. The viewer takes on the role of scenarist as well as director and camera operator. The screen, a

2. The CD-ROM version of *Slippery Traces* no longer include the postcards described (see note 2, p. 169). (Ed.)

metaphor for navigation, consciously emphasizes the exchange of roles: when scrolled and zoomed, the visual material presents itself as terrain inviting investigation, as a set or location. The crosshairs act as a surveying camera eye enabling the viewer to position the desired shooting angle, make it clear that access is interactive. The reduced sound level underscores only this one procedure of adjusting the angle and the final 'shot'. The text information is confined, outline-like, to essentials – 'Arabic bride', 'Snow-topped mountains', 'Hut in the background'. In addition, the overall structure of the image and individual links – in other words the predetermined design background which has to be decomposed – can be localized and decoded.

The responsibility transferred to the viewer for the actual narration – the creation of individual sequences and complexes of meaning – comes very close to mise-en-scène. The entire work is strikingly a-chronological and episodic in character, linking it in turn with cinematic traditions of associative montage. In his notes, George Legrady refers directly to the fragmentary, non-linear process of Nouvelle Vague film. Moreover, he even breaks through this metaphor by reducing to absurdity the typical film form of narrative time as a closed circuit by offering an infinite, open navigation product in which no constellation appears twice.

Point of View

Nevertheless: the intentional randomness of the sequences, the ethereal and elusive narrative weave of individual points of view lead us back to the filmic language – the detective-like, focusing navigation is resonant with the potential for silent observation peculiar to film. Investigating every nook and corner of the image, tracking down the hot spots, the searching eye could be glued up against a keyhole. The special, private value the postcard medium holds for the artist imbues it with a heightened symbolic function: the invisible dialogue on the basis of moments of personal significance, déjà vues and yellowed memorabilia smacks of

illicitly opened drawers, of stolen glimpses in a visualized diary. Interest
and curiosity unite to form a subliminal arc of tension.

Border crossings

Slippery Traces is in many aspects an individual journey through different cultures, eras and historic events. The function of the 'picture' postcard as a reproduction of reality is consciously dissolved within the dynamics of the unpredictable linkage of time and place, likewise the sometimes painful knocks against the borders of images when first exploring the screen. The snapshot now appears to be more a cultural code for a progressive nomadship in which people become virtual wanderers and the images and places become transitory. The chosen form of montage as a collision of scene, content and individual shaping intensifies and interconnects spatial and temporal planes, and so has the strength to break free from the boundaries of the image frame and information raster. And, in the figurative sense, break free from pre-cast forms of media viewing habits, from technologically and socially demarcated territories.

For George Legrady, the computerized recording and definition of information is currently the determining factor for social existence. The aesthetic, physical and mental close-ups of the 'interactive database' in *Slippery Traces*, the borders crossed, set creative and subjective counterpoints for artist and viewer alike.

This is how we formulate our demands upon a scenario. And this is a dangerous blow at the traditional form of the 'shooting script' with its single numbers. The scenario, which at the worst is written by an ordinary worker at his trade, supplies the traditional optical description of what the spectator is to see. But the secret consists in using the scenario to weld together the links in the chain of events to be shown.[3]   *Sergei Eisenstein*

3. Sergei Eisenstein as quoted in *New York Times*, 30 march 1930, in 'A Russian View of Scenarios', the partial translation of Eisenstein's German preface ('Drehbuch? Nein: Kino-Novelle!') to the published treatment of *Old and New* (*Der Kampf um die Erde*. Berlin, 1929).

'Building blocks' are arranged to form chains of reasoning appreciated by the viewer.

'Links in the chain' are forged into real events awaiting the viewer.

'Slippery Traces' lead to imaginary places and structures of meaning each viewer discovers for himself.

Translation: Thomas Morrison

Ken Feingold

Geboren 1952 in Pittsburgh, USA, studierte am Antioch College und am California Institute of the Arts in Valencia, wo er 1974 den Bachelor of Fine Arts und 1976 den Master of Fine Arts erhielt. Seine Arbeiten befinden sich in zahlreichen Sammlungen, u.a. Centre Georges Pompidou, Paris, Museum of Modern Art, New York, Nagoya City Art Museum, Nagoya, ZKM-Medienmuseum, Karlsruhe und Kiasma Museum of Contemporary Art, Helsinki. Ken Feingold wird von der Postmasters Gallery, New York, vertreten.

Ken Feingold was born in Pittsburgh, USA, in 1952. He studied at Antioch College and received a BFA (1974) and MFA (1976) in Fine Arts from the California Institute of the Arts, Valencia. His artworks have been included in numerous museum collections – among these, the Centre Georges Pompidou, Paris, the Museum of Modern Art, New York, the Nagoya City Art Museum, Nagoya, the ZKM-Media Museum, Karlsruhe, and the Kiasma Museum of Contemporary Art, Helsinki. He is represented by Postmasters Gallery, New York.

STIPENDIEN UND AUSZEICHNUNGEN (AUSWAHL) / SELECTED STIPENDS AND AWARDS

National Endowment for the Arts (Washington DC), fellowships, 1979/81/88
New York State Council on the Arts, production awards, 1985/88/91
The Andrew Mellon Foundation, research fellowship, India, 1982
The McKnight Foundation Fellowship for Artists, 1984
The Contemporary Art Television Fund, Boston, video production award, 1985
The Bush Foundation Fellowship for Artists, Southern Asia, 1986
The Checkerboard Foundation, video postproduction award, 1987
The Jerome Foundation, video installation production award, 1987
US-Japan Friendship Commission Creative Artists' Exchange Program, research fellowship, Japan, 1988, undertaken 1990
Bonn Videonale Prize, Bonn, 1992
Interactive Media Festival Awards exhibitions, Los Angeles, 1994/95

Honourable Mention, distinction Interactive Art, Prix Ars Electronica, Linz, 1996

DNP Internet '97 Interactive Award, Tokyo, 1996

Honourable Mention, distinction Interactive Media, ID. Magazine, New York, 1997 (*artintact 3*)

Fundación Telefónica, Vida 3.0 award, Madrid, 2000

Werke (Auswahl) / Selected works

Filme / Films

Mechanism Film (Supendulum Camera), 2 min., 16mm, 1970

Room, 3 min., 16mm, 1970

Evidence, 1 min., 16mm, 1972

Text and Context, 7 min., 16mm, 1972–73

Reference Text, 3 min., 16mm, 1972–73

Neutral Density, 8 min., 16mm, 1973

Comparative Anatomy, 10 min., 16mm, 1974

Local Option, 12 min., 16mm, 1974

Subject, 5 min., 16mm, 1974

Four Incidents With Translations, 12 min., 16mm, 1974

'With Photos…', 9 min., 16mm, 1975

The World Gets a Funny Light this Time of Day, 18 min., 16mm, 1976

Hysteria, 30 min., 16mm, 1977

Videobänder / Videotapes

Speak Falling, 30 min., 1972

Literal Illustration, 8 min., 1975

In a Vacuum, 4:30 min., 1975

Jumps, 2:30 min., 1975

Secret Life, 11 min., 1978

Narrow Jokes, 13 min., 1978

Water Falling From One World to Another, 36 min., 1980

Purely Human Sleep, 28:43 min., 1980–81

Allegory of Oblivion, 168:30 min., 1981

Relays that Destroy Instants, 35:15 min., 1981–1983, comprised of: *Snakebite*, 0:42 min., 1983; *Scattered Witness*, 2:40 min., 1982; *Hell*, 9:19 min., 1981; *Region of Extreme Examples*, 8:23 min., 1981; *New Building Under the Water*, 11:38 min., 1982

5dim/MIND, 29 min., 1983

The Double, 29 min., 1984

Irony (The Abyss of Speech), 28:50 min., 1985, Music: Ratso Harris, coproduction of Contemporary Art Television Fund, WGBH-TV, Boston and The Kitchen, New York

India Time, 45:54 min., 1985–87

The Smallest Particle, 7:53 min., 1986–87

In Shadow City, 13 min., 1988, collaboration with Constance De Jong, Music: David Behrman, produced by The Kitchen, New York

Un Chien Délicieux, 18:45 min., recorded 1986, written and edited 1991

La Vida es una Herida Absurda (with Nora Fisch), 3 min., recorded 1985, written 1989, edited 1995

Installationen / Installations

Subject with Four Footnotes, 1975

A. O. O. P. L. C. I. T. V. V. T. M. (An Object or Person Left Cooking is the Virtuoso Violinist Trifling Matter), installation series, 1976–78

Previews of the Modern World, 1978

Shortwave, 1978

Sexual Jokes, 1979

Red Cell, 1979

Time Bomb, 1979

Ride for the 20th Century, 1979–80
Who Do You Love?, 1980
Signs Nos. 1–15, installation series, 1980–83
July 24, 1895/Sleeping Room, 1983/88
The Lost Soul, 1988
The Surprising Spiral, 1991
Jimmy Charlie Jimmy, 1992
Childhood/Hot & Cold Wars, 1993
where I can see my house from here so we are, 1993–94
Orpheus, 1996
Interior, 1997
Séance box No.1, 1998–1999
Head, 1999–2000
Sinking Feeling, 2001
If/Then, 2001
Self Portrait as the Center of the Universe, 2001

Einzelausstellungen /
Solo exhibitions

Millennium, film exhibition, New York, 1974
Claire S. Copley Gallery, Los Angeles, 1975
Whitney Museum of American Art, New York, 1979
Walker Art Center, Minneapolis, 1979
Video Viewpoints: Ken Feingold, The Museum of Modern Art, New York, 1985
Galerie René Coelho, MonteVideo, Amsterdam, 1992
Postmasters Gallery, New York, 1999/2001

Gruppenausstellungen und Festivals (Auswahl) / Selected group exhibitions and festivals

Southland Video Anthology, Long Beach Museum of Art, Long Beach, 1975
Artists' Space, film screening, New York, 1975
Films in exhibitions, Whitney Museum of American Art, New York, 1975/76
Walker Art Center, Minneapolis, retrospective film screening, 1978; video screening, 1983
Biennial Exhibition, Whitney Museum of American Art, New York, 1983/85/89
Los Angeles Contemporary Exhibitions (L. A. C. E.), Los Angeles, 1983/91
Film Festival Berlin, Berlin, 1984
Museo Palazzo Fortuny, Venice, 1984
The Institute of Contemporary Art, Boston, 1984/85/87
Signs, The New Museum of Contemporary Art, New York, 1985
Videonale Bonn, Bonn, 1986/88/92/94
L'epoque, la mode, la morale, la passion, Centre Georges Pompidou, Paris, 1987
Contemporary Art in Context, The Museum of Modern Art, New York, 1988
Image World, Whitney Museum of American Art, New York, 1988–89
Installations, The Asia Society, New York, 1988
Nagoya City Art Museum, Nagoya, 1990
Dream, The Museum of Modern Art, New York, 1990
Video Art Internacional, Museo Nacional de Bellas Artes, Buenos Aires, 1990
Fact/Fiction, The Museum of Modern Art, New York, 1991
European Media Art Festival, Osnabrück, 1991

Bitte berühren, ZKM, Karlsruhe, 1992

Kunsthallen Brandts Klædefabrik, Odense, 1992

MUU Media Festival, Helsinki, 1992

Rotterdam Film Festival, Rotterdam, 1992

VideoFest Berlin, Berlin, 1992

Desmontaje: Film, Video/Appropriacion, Reciclaje, Institut Valencia d'Art Modern, Valencia, 1993 [touring exhibition]

Between Word and Image, The Museum of Modern Art, New York, 1993

American Avante-Garde Film and Video Programs, Gallery Puskinskaya 10-10, St. Petersburg, 1993

Iterations: The Digital Image, International Center of Photography, New York, 1993–94

Interactive Media Festival, Los Angeles, 1994/95

Homens Surrealismus, Museum of Contemporary Art, Gent, 1995

Artists and the New Technologies Conference, Guggenheim Museum Soho, New York, 1995

Biennale d'Art Contemporain de Lyon, Lyon, 1995–96

Can You Digit?, Postmasters Gallery, New York, 1996

Technology in the Nineties, Museum of Modern Art, New York, 1997

Interact! Key Works of Interactive Art, Wilhelm Lehmbruck Museum, Duisburg, 1997

Beware! In Playing the Phantom You Become One (production of Centre Georges Pompidou), Documenta X, Kassel, 1997

Password: Ferdydurke, Postmasters Gallery, New York, 1997

ICC Biennale '97, InterCommunication Centre, Tokyo, 1997

Glut/Fest, Kunsthalle, Dusseldorf, 1998

Surrogate, ZKM, Karlsruhe, 1998

Visual Extension – Fantasy and Reality, National Museum of Contemporary Art, Seoul, 1998–1999

Dark Room, Museo Universitario Contempránero de Arte, Mexico City, 1999

Lasipalatsi Film and Media Centre, Helsinki, 1999

Pacific Film Archive, Berkeley, 1999

net_condition, ZKM, Karlsruhe, 1999–2000

Alien Intelligence, Kiasma Museum of Contemporary Art, Helsinki, 2000

Cyborg I, Kapelica Gallery, Ljubljana, 2000

Urban Futures, MTN Art Institute, Johannesburg, 2000

SHIFT-CTRL: Computers, Games & Art, Beall Center for Art & Technology, UC Irvine, Irvine, 2000

Video Time, The Museum of Modern Art, New York, 2000–01

Under the Skin, Wilhelm Lehmbruck Museum, Duisburg, 2001

In the Field of Letters. The Future of Literature, Neue Galerie Graz am Landesmuseum Joanneum, Graz, 2001

Devices of Wonder, J. Paul Getty Museum, Los Angeles, 2001–02

WEBSITE

http://www.kenfeingold.com

Geboren 1954 in Cambridge, Mass. Installations- und Performance-Künstler, arbeitet mit den verschiedensten Medien – von völlig veraltet bis zum neuesten Stand der Technik. Perry Hoberman wird von der Postmasters Gallery, New York, vertreten und lehrt z.Zt. an der School of Visual Arts, New York.

Perry Hoberman was born in Cambridge, Mass., in 1954. An installation and performance artist who works with a wide variety of media ranging from utterly obsolete to state-of-the-art, he is represented by Postmasters Gallery, New York. He currently teaches at the School of Visual Arts, New York.

Stipendien und Auszeichnungen / Stipends and awards

National Endowment for the Arts (Washington DC), fellowship, 1984

New York Foundation for the Arts Fellowship, 1985/89

Engelhart Foundation Award, 1985

Archetype Award for Overall Excellence, Interactive Media Festival, Los Angeles, 1995

New York Foundation for the Arts (Computer Art), New York, 1997

Honourable Mention, distinction Interactive Media, ID. Magazine, New York, 1997 (*artintact 3*)

First prize, arts'_edge prize for interactive multimedia works, Perth, Australia, 1998

Award of Distinction in Interactive Art, Prix Ars Electronica, Linz, 1999

Grand Prix, ICC Biennale, Tokyo, 1999

Werke (Auswahl) / Selected works

Simulcasts, projection installation, 1982

Out of the Picture, 3-D-projection installation, 1983

Smaller Than Life, 3-D-projection performance, 1983

Dead Space/Living Rooms, 3-D-projection installation, 1985

Return to Sender (with Bill Obrecht), 3-D-projection performance work, 1985

Seven Wonderful Children We Have Never Seen (with Haim Steinbach), performance, 1986

Meat and Potatoes, interactive installation, 1986

Inferno, performance, 1987

Revenge of Debris, 3-D-projection performance, 1988

No Salesman Will Call (with Christian Marclay), performance, 1989

Means of Egress, interactive installation, 1990

Faraday's Garden, interactive appliance installation, 1990

Empty Orchestra Café (with SFAI students), neo-karaoke performance event, 1991

Interstate, 3-D-projection performance, 1991

Runway, interactive appliance performance, 1992

Zombies, Has-Beens and Excess Baggage, sculpture installation, 1992

Bar Code Hotel, interactive installation, 1994

Symphonic Appliance Orchestra, machine performance, 1995

Faraday's Islands, interactive appliance installation, 1995

Cathartic User Interface 1.0 (with Nick Philip), interactive installation, 1995

Systems Maintenance, interactive installation, 1998

Lightpools o El Ball del Fanalet (with Galeria Virtual), interactive installation, 1998

Timetable, interactive installation, 1999

C.U.I 2.0 (with Nick Philip), interactive installation, 2000

ZOMBIAC (Zone Of Monitor-Based Inter-Amnesiac Contact), interactive installation, 2000

Workaholic, interactive installation, 2000

Einzelausstellungen /
Solo exhibitions

Out of the Picture, Hallwalls, Buffalo, New York, 1983

Out of the Picture, Wake Forest University Fine Arts Gallery, North Carolina, 1983

Inside Out, Galerie Pon, Zurich, 1984

Dead Space/Living Rooms, Capp Street Project, San Francisco, 1985

Postmasters Gallery, New York, 1985/86/88/90/92/2000

Faraday's Garden, Museum of Contemporary Art, Dayton, Ohio, 1991

Bar Code Hotel, Walter Phillips Gallery, Banff Centre for the Arts, Alberta, Canada, 1994

Faraday's Islands, Boston University, Mass., 1995

Unexpected Obstacles, Otso Gallery, Espoo, Finland, 1997

Sorry We're Open, Postmasters Gallery, New York, 1997

Systems Maintenance/Faraday's Garden, Cornerhouse Gallery, Manchester, 1998

Lightpools or El Bal del Fanalet, Fundació Joan Miro, Barcelona, 1998

Systems Maintenance/Faraday's Garden, Ferens Gallery, Kingston-Upon-Hull, England, 1998

Unexpected Obstacles, ZKM-Media Museum, Karlsruhe, 1998

Faraday's Garden, Hull Time Based Arts, Kingston-Upon-Hull, England, 1999

Gruppenausstellungen (Auswahl) /
Selected group exhibitions

Constructed Color, Hayden Gallery, MIT, Boston, Mass., 1982

Dark Rooms, Artists Space, New York, 1983

Between Science & Fiction, São Paulo Biennial, São Paulo, 1985

Modern Machines, Whitney Museum at Philip Morris, New York, 1985

Biennial Exhibition, Whitney Museum, New York, 1985

Future Histories: The Impact of Changing Technology, Anderson Gallery, Richmond, Virginia, 1985

The Fairy Tale, Artists Space, New York, 1986

CinemaObject, The Kitchen at City Gallery, New York, 1986

Paintings/Objects, Postmasters Gallery, New York, 1986

TV Generations, Los Angeles Contemporary Exhibitions, Los Angeles, 1986

Film in the Cities, Minneapolis, Minnesota, 1986

Poetic Justice, Ward-Nasse Gallery, New York, 1988

Springworks, New York Hall of Science, New York, 1990

The Living Room, San Francisco, 1991

Technorama, Barbara Toll Gallery, New York, 1992

Art Show, Siggraph '92, Chicago, Ill., 1992

Machine Culture, Siggraph '93, Anaheim, Cal., 1993

Images du Futur 93, Montreal, 1993

Cyber Art, Ars Electronica, Linz, 1994

Resurrections: Objects with New Souls, William Benton Museum, Hartford, Connecticut, 1994

Arc Gallery, International Media Festival, Los Angeles, 1995

CeBIT '95, Deutsche Telekom stand, Hanover, 1995

Electra, Henie-Onstad Art Centre, Oslo, 1996

Le laboratoire, Artifices 4, Saint-Denis, Paris, 1996

Constriction, Pierogi 2000, Brooklyn, 1996

Can You Digit?, Postmasters Gallery, New York, 1996

Password: Ferdydurke, Postmasters Gallery, New York, 1997

The Art of the Accident, DEAF '98, Rotterdam, 1998

Cyber, Lisbon, 1999

Interaction, ICC Biennal '99, NTT Inter-Communication Center, Tokyo, 1999

Cyberarts 99, Ars Electronica, Linz, 1999

Beyond Technology, Brooklyn Museum of Art, New York, 1999

Perspective, c³, Müscarnok, Budapest, 1999

Vision Ruhr, Dortmund, 2000

Alien Intelligence, Kiasma Museum of Contemporary Art, Helsinki, 2000

Microwave Festival, Hong Kong, 2000

WEBSITE

http://www.perryhoberman.com

Geboren 1950 in Budapest, kanadischer Staatsbürger seit 1961, lebt seit 1981 in Kalifornien. Von 1996 bis 2000 war Legrady Professor für elektronische Medien an der Merz Akademie in Stuttgart, z. Zt. ist er Professor für Digitale Medien an der University of California, Santa Barbara. Zuvor war er u.a. an der University of Southern California, am California Institute for the Arts in Los Angeles und an der University of Western Ontario in London, Kanada, tätig. Seine künstlerischen und wissenschaftlichen Arbeiten beschäftigen sich mit den kulturellen Auswirkungen der Technologieentwicklung im Hinblick auf Repräsentation und Gesellschaft. Er begann seine künstlerische Karriere 1970 mit Fotografie, lernte 1981 Computerprogrammierung und verband beides Mitte der 80er Jahre. Seit 1992 entwickelt er alle Arbeiten mit interaktiven Medien.

George Legrady, who was born in Budapest in 1950, has been a Canadian citizen since 1961, and resident of California since 1981. From 1996 to 2000, he was Professor of Electronic Media at the Merz Academy in Stuttgart, and currently holds a position as Professor of Digital Media at the University of California, Santa Barbara. Prior appointments include: University of Southern California and California Institute of the Arts in Los Angeles, University of Western Ontario in London, Canada. His work and research have focused on the cultural impact of emerging technologies on representation and the social environment. He took up photography in the early 1970s, learned computer programming in 1981 and integrated the two in the mid-1980s. Since 1992, all his work has been in interactive media.

Jüngste Stipendien und Auszeichnungen (Auswahl) / Selected recent stipends and awards

Honourable Mention, distinction Computer Graphics, Prix Ars Electronica, Linz, 1988
Canada Council Computer-Aided Media Award, 1992/93, 1994/95, 1997/98
Honourable Mention, distinction Interactive Art, Prix Ars Electronica, Linz, 1994
New Voices, New Visions prize, Voyager Co., Wired and Interval Research, 1994
Visual Artist Fellowship, National Endowment for the Arts, Washington, 1994

Artslink, National Endowment for the Arts, Washington, 1996
Honourable Mention, distinction Interactive Media, ID. Magazine, New York, 1997 (*artintact 3*)
Residency, Akademie Schloss Solitude, Stuttgart, 1997
Residency, c³ Media Center for Culture and Communication, Budapest, 1998
international media art award, ZKM, Karlsruhe, 2000 (nomination)
The Daniel Langlois Foundation for Art, Science and Technology, Montreal, 2000

Installationen (Auswahl) / Selected installation works

Equivalents II, interactive computer installation with text and four dyptichs (eight digital prints), 1992–94
An Anecdoted Archive from the Cold War, interactive laser disk and CD-ROM installation, 1994
[*the Clearing*], interactive work on disks, 1994
Slippery Traces, interactive installation and CD-ROM, 1996
Tracing, interactive installation, 1997–98
A Sense of Place, interactive installation, 1998
Transitional Spaces, interactive installation, 1999
Pockets Full of Memory, online and museum installation, 2001
Ebner, Stolz & Partners Project, installation for Ebner, Stolz & Partners, Stuttgart, 2001

Einzelausstellungen (Auswahl) / Selected solo exhibitions

George Legrady: Interactive Media Art, Rovaniemi Art Museum, Rovaniemi, Finland, 1995
Open Space Gallery, Ansel Adams Center, San Francisco, 1996
George Legrady: From Analogue to Digital, National Gallery of Canada, Ottawa, 1997
Tracing, Kunst- und Ausstellungshalle der Bundesrepublik Deutschland, MedienKunstRaum, Bonn, 1997–98
Canadian Museum of Contemporary Photography, Ottawa, 1998
Tracing, Museum of Contemporary Art, Los Angeles, 1998

Transitional Spaces, Rotunde, Siemens Headquarters, Munich, 1999
Los Angeles Metro Rail Commission, 2001

Gruppenausstellungen (Auswahl) / Selected group exhibitions

Digital Photography, San Francisco Camera Works, San Francisco, [touring] 1988–89
Fotografie, Wissenschaft, Neue Technologien, Kunstmuseum Dusseldorf, 1989–90
Les Hypermédias: revue virtuelle, Centre Georges Pompidou, Paris, 1994
Artifices 3, Saint-Denis, Paris, 1994
ISEA '94, Helsinki Museum of Contemporary Art, Helsinki, 1994
New Langton Arts Gallery, San Francisco, 1994
Fifteen Years of Ars Electronica, Ars Electronica '94, Landesmuseum, Linz, 1994
Iterations: The Digital Image, International Center for Photography, New York, 1994
In|Out of the Cold, Center for the Arts, Yerba Buena Gardens, San Francisco, 1994
Obsessions: from Wunderkammer to Cyberspace, Rijksmuseum Twenthe, Enschede, 1995
ISEA '95, Montreal, 1995
V2 Festival, Rotterdam, 1995
VideoFest, Berlin, 1995
Interactive Media Festival, Los Angeles, 1995
6th Fukui International Video Biennale, Fukui, Japan, 1995
The Butterfly Effect, Soros Center for Contemporary Art, Mücsarnok,

Museum of Fine Arts, Budapest, 1995

Biennale d'Art Contemporain de Lyon, Lyon, 1995–96

Photography After Photography, Siemens Kultur Programm, Munich, [touring] 1995–97

European Media Art Festival, Osnabrück, 1996

Everybody's Talking, Gemeente Museum Helmond, Helmond, Netherlands, 1996

Can You Digit?, Postmasters Gallery, New York, 1996

Das digitale Wort, Word Up Festival, Vienna, 1996

Deep Storage, Haus der Kunst, Munich, [touring] 1996–98

Burning the Interface, Museum of Contemporary Art, Sydney, [touring] 1996–98

Selected Memories, Palais des beaux-arts de Bruxelles, Brussels, 1997

Dawn of the Magicians, National Gallery, Prague, 1998

Verbindingen / Jonctions, Palais des beaux-arts de Bruxelles, Brussels, 1998

Anticipation – Version 5.0, Centre d'art contemporain, Saint-Gervais, Geneva, 1999

Interactive Frictions, University of Southern California, Los Angeles, 1999

Contact Zones, Cornell University, Ithaca, NY, [touring] 1999–2000

ISEA, Ecole Nationale des Beaux-Arts, Paris, 2000

Pockets Full of Memories, Centre Beaubourg/Pompidou, Paris, 2001

New Media, Klaus Peter Goebel Gallery, Stuttgart, 2001

WEBSITE

http://www.georgelegrady.com

Annika Blunck

Annika Blunck studierte Kunstgeschichte (MA, Freie Universität Berlin) und ist Mitarbeiterin des Social Interface Design Teams bei Philips Design, Niederlande. Sie konzipierte zuvor verschiedene Projekte für internationale Medienkunstausstellungen und war von 1995 bis 2001 wissenschaftliche Mitarbeiterin am ZKM-Institut für Bildmedien, wo sie an verschiedenen interdisziplinären, EU-finanzierten Forschungsprojekten arbeitete. Ihr Interesse gilt der 3D-Visualisierung von Information, der Beziehung von realen und digitalen Welten sowie der Evaluation interaktiver Installationen im Hinblick auf die verwendete Informationstechnologie.

Annika Blunck (MPhil. in art history, Freie Universität Berlin) is member of the Social Interface Design Team at Philips Design in the Netherlands. Before joining Philips Design she developed a number of different projects for international media-art exhibitions. From 1995 to 2001, she worked as research associate at the ZKM-Institute for Visual Media on a number of interdisciplinary research projects funded at European level. Her interest focuses on 3-D information visualization, the relationship between physical and digital worlds, and the evaluation of interactive installations in relation to Information Technology.

Erkki Huhtamo

Geboren 1958 in Helsinki, Gastprofessor an der University of California, Los Angeles (UCLA), Department of Design | Media Arts. Erkki Huhtamo arbeitet als Forscher, Dozent und Kurator im Bereich der Medienkultur. Er publizierte zahlreiche Studien über die Geschichte der Medien und die Ästhetik der Medienkunst, hält weltweit Vorlesungen und realisierte Fernsehserien für das finnische Fernsehen. Als Kurator war er für wichtige Medien-

Born in Helsinki in 1958, Erkki Huhtamo is an associate professor at the Department of Design | Media Arts, University of California, Los Angeles (UCLA). A researcher, educator and curator working in the field of media culture, he has published numerous studies on media history and the aesthetics of media art, lectured widely around the world, and has written and directed television series for Finnish television. His curatorial credits include major media-art exhi-

kunstausstellungen verantwortlich, u.a. für die Retrospektiven zu Toshio Iwai (1994), Perry Hoberman (1997) und Paul DeMarinis (2000) sowie für die Gruppenausstellung *Alien Intelligence* (2000). Huhtamo arbeitet derzeit an einem Buch zur Medienarchäologie (MIT Press).

bitions, such as retrospectives devoted to Toshio Iwai (1994), Perry Hoberman (1997) and Paul DeMarinis (2000) and the group show *Alien Intelligence* (2000). He is currently working on a book about media archaeology (MIT Press).

George Legrady

Peter Lunenfeld

Peter Lunenfeld gründete ›mediawork: The Southern California New Media Working Group‹ und ist Professor am Graduiertenprogramm für Mediendesign am Art Center College of Design, Pasadena. Er ist Autor von *Snap to Grid: A User's Guide to Digital Arts, Media, and Culture* (2000), und Herausgeber von *The Digital Dialectic: New Essays on New Media* (1999). Er ist verantwortlicher Redakteur der Publikationsreihe *Mediawork Pamphlets* (MIT Press), die sich mit den Schnittstellen von Kunst, Technologie und utopischem Unternehmertum beschäftigt.

Peter Lunenfeld is the founder of 'mediawork: The Southern California New Media Working Group'. He is a professor in the Media Design graduate programme at the Art Center College of Design, Pasadena. Author of *Snap to Grid: A User's Guide to Digital Arts, Media, and Culture* (2000), and editor of *The Digital Dialectic: New Essays on New Media* (1999), he is the editorial director for the *Mediawork Pamphlets* series (MIT Press) on the intersections of art, technology and utopian entrepreneurship.

Miklós Peternák

Geboren 1956 in Esztergorn, Ungarn, lebt in Budapest. Miklós Peternák war von 1981–87 Mitglied des Béla-Balázs-Studios, Budapest, arbeitete von 1981–83 an der Ungarischen Nationalgalerie und von 1983–87 am Forschungsinstitut für Kunstgeschichte der Ungarischen Akademie der Wissenschaften. Seit 1991 leitet er das Intermedia-Institut an der Akademie der Schönen Künste und seit 1997 die Stiftung c³: Center for Culture and Communication, Budapest. Zahlreiche Film- und Videoproduktionen sowie Artikel- und Buchveröffentlichungen.

Miklós Peternák was born in Esztergom, Hungary, in 1956. He was a member of the Béla-Balázs-Studio, Budapest (1981–87), worked at the Hungarian National Gallery (1981–83) and at the Research Institute for Art History at the Hungarian Academy of Sciences (1983–87). Since 1991, he has been head of the Intermedia Department at the Hungarian Academy of Fine Arts, and since 1997 director of c³: Center for Culture and Communication Foundation, Budapest. He has produced several films and videos and published numerous articles and books. He lives in Budapest.

Peter Weibel

Geboren 1944 in Odessa, studierte Literatur, Film, Mathematik, Medizin und Philosophie in Wien und Paris. Durch seine Aktivitäten als Künstler, Ausstellungskurator und Kunst- und Medientheoretiker wurde er zu einer zentralen Figur der europäischen Medienkunst. Peter Weibel hat zahlreiche Bücher und Essays über die Geschichte und Zukunft der visuellen Medien veröffentlicht und seit 1976 an vielen Universitäten und Akademien in Europa und den USA gelehrt. Er leitete von 1984 bis 1989 das Media Department der New York University, Buffalo, und gründete 1989 das Institut für neue Medien an der Städelschule in Frankfurt/Main. Von 1986 bis 1995 war er künstlerischer Berater und später künstlerischer Leiter der Ars Electronica Linz, von 1993 bis 1998 künstlerischer Leiter der Neuen Galerie am Landesmuseum Joanneum in Graz und 1993–99 Österreich-Kommissar der Biennale von Venedig. Seit 1999 ist Peter Weibel Vorstand des ZKM Karlsruhe.

Born in Odessa in 1944, Peter Weibel studied literature, medicine, logic, philosophy and film in Paris and Vienna. He became a central figure in European media art on account of his various activities as artist, media theorist and curator. Peter Weibel has published numerous books and essays on the history and future of visual media, and since 1976 has lectured widely at universities and academies in Europe and the US. After heading the digital arts laboratory at the Media Department of New York University in Buffalo from 1984 to 1989, he founded the Institute of New Media at the Städelschule in Frankfurt-on-Main in 1989. Between 1986 and 1995, he was in charge of the Ars Electronica in Linz as artistic consultant and later artistic director, and from 1993 to 1998 he was curator at the Neue Galerie Graz. He commissioned the Austrian pavilions at the Venice Biennale from 1993 to 1999. Peter Weibel has been Chairman and CEO of the ZKM Karlsruhe since 1999.

Andrea Zapp

Geboren in Deutschland, lebt zur Zeit in Manchester und arbeitet als Dozentin und Medienkünstlerin. Ihre Projekte beschäftigen sich mit digitalen Netzwerken als Modell für digitales Drama und für Benutzerbeteiligung. Andrea Zapp studierte Film- und Medientheorie sowie russische Sprache und Literatur (MA 1990). Sie unterrichtete an der Hochschule für Film und Fernsehen, Babelsberg, sowie in Lehraufträgen an den Universitäten Marburg, Leipzig, Liverpool u.a. und ist Co-Herausgeberin von *New Screen Media. Cinema/Art/Narrative* (Buch und DVD, British Film Institute London/ZKM Karlsruhe, 2001). Informationen über ihre Aktivitäten sind unter <www.azapp.de> zu finden.

Born in Germany, Andrea Zapp currently lives in Manchester and works as a lecturer and media artist. Her projects focus on digital networks as a model for digital drama and user participation. After studying film and media theory, Russian language and literature, she taught at the Academy for Film and Television in Babelsberg and was a guest lecturer at universities including Marburg and Leipzig in Germany and Liverpool in Britain. She is co-editor of *New Screen Media. Cinema/Art/Narrative* (book and DVD, British Film Institute London/ZKM Karlsruhe, 2001). Her activities are documented at <www.azapp.de>.

artintact 4

CD-ROMagazin
Interaktiver Kunst

Artists' Interactive
CD-ROMagazine

cantz

artint**act** 4

Contents

Dieter Kiessling:
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trance machine

In all fictional works, each time a man is confronted with several alternatives, he chooses one and eliminates the others; in the fiction of Ts'ui Pên, he chooses – simultaneously – all of them. He creates, in this way, diverse futures, diverse times which themselves also proliferate and fork.*

Jorge Luis Borges

What Borges almost prophetically pictured in 1941 was not merely the disintegration of linear narration in the 'endless book' but the proliferation of non-linear narration. Borges, the man of letters and archivist, would have known that even a nondescript CD-ROM can prove to be of inestimable (collector's) value to future generations, provided some treasure lies beneath the neutral guise. When the ZKM/Centre for Art and Media opens the doors of its new and permanent residence in October 1997, it can glance over a considerable collection of art treasures of a very specific kind: four editions of *artintact* which, as time has shown, are among the few examples of concepts devised specifically for the CD-ROM medium. The collection that the second edition was content to present as a 'miniature gallery' has now become a multi-facetted cross-section of media art. Each edition casts a new light on ideas and concepts of the practice of art in view of the variegated, forking paths programmatically offered by the medium.

ZKM's commitment to experimentation/production and collection is unequivocal. The success of *artintact* lies in the way the magazine has reflected and discussed these endeavours in its four-year history. As of 1997, the sixth year of the annual competition, the International Award for Video Art presented by ZKM and Südwestfunk has been opened up to admit entries from the fields of CD-ROM and Internet art. Appropriately enough, this new synergy between two ZKM initiatives with the common goal of promoting and presenting media art is marked by the presence on the new *artintact* of works by former winners of the Award for Video Art, namely Dieter Kiessling and Marina Gržinić & Aina Šmid. The contribution by the latter artists was realized in the scope of the supporting prize they won in 1993. In the Baroque universe of the Slovenians Gržinić & Šmid, narration as the realization of a chronological sequence of events becomes a path running through and illuminating European history. Dieter Kiessling's minimalist Concept art operates with the dualism of linear narration that knows only ever-new beginnings. Anja Wiese's semantics, which are derived from light and sound, are by contrast more spatially related and provide a further demonstration of how an installation project can be modified for an interactive plane. All three works are premieres in one respect: they are the first interactive art-works of their creators. Their analysis of the parameters of our decision to take a specific path through time and space is not so much playful as critical.

Rudolf Frieling
Curator of the ZKM-Media Library, 1994–2001

*   Jorge Luis Borges, 'The Garden of Forking Paths.' – *Labyrinths*. Selected Stories & Other Writings, New York, 1964, p. 26.

Theaters of Memory:
Film and Video in a New Media Age
By John G. Hanhardt

The following remarks are offered as a critical and historical reflection on the claims new media make on the precedent of the dominant media of our time: film and video. Today we are in a transitional period in which emerging media and technologies of communication have been informed and receive their authority and cultural presence through their origins in the cinema and its influential presence in the world. The powerful historical and theoretical trajectory of the cinema as well as of video across the century can be seen in a broad and diverse spectrum of histories as an aesthetic discourse including both mainstream forms of entertainment and the avant-garde movements I will discuss here.

At the close of the 20th century, certain new media have come to the fore to be engaged by artists and market capitalism. An example is that of holography, which, while a part of installation art practice, never, with the exception of only a very few artists, gained a presence as a stand-alone medium of creative expression. Although a tool for science and the military, with uses in the marketplace of commerce and entertainment, the medium of holography did not succeed in constituting itself as a viable, multi-discursive form with a presence in the art world. It may do so in the future, where science and technology, as well as popular culture, may create a framework and context for it to reemerge and for artists to continue creative work with the medium. However, today we look at holography as a medium which, with rare individual exceptions, remains

a specialized technology without the presence of a critical context nor a fully formed and sophisticated aesthetic discourse.

The challenge any new medium faces is complex and manifold: establishing an authority through a history of accomplishment and the presence of an established body of work, a language of expression that is built out of a dialectical engagement between the artist and the medium. This occurs through a process in which the artist's vision transforms the medium and creates a powerful discourse that connects to the visual and linguistic languages of the culture not simply as quotation or appropriation, but in creating a presence and means to connect to the imagination. As an aesthetic discourse, the properties of its image-making must come from the materials of the medium, refashioned into a work that forms an intertextual and complex connection within and between the visual, performance, and time-based arts. These transactions witnessed and engaged in by the viewer will serve to open up how we see and understand the world around us.

To be a viable aesthetic discourse, the CD-ROM must create cognitive meaning out of its properties: its compressed time, the mix of still and moving images, the incorporation of audio elements, the intertextual movement within the illusionistic space of the screen, and the direct interactive engagement of the viewer, to name a few. The CD-ROM lies at a critical juncture in developing technologies of communication and image-making, and has the possibility of informing and expanding the media arts of the next century. This potential resides in the capacity of the CD-ROM to create an interactive transaction with the viewer. With each viewing, we must learn new things not only about the text but about ourselves. Today the CD-ROM is an instrument, a technology, and because of its limited accessibility and distribution, it is a restricted discourse that is experienced by few. Outstanding examples of artists' projects on and through the CD-ROM process point to its potential as a creative medium. In addition, its primary attachment is to educational institutions and museums, where its

potential in the arena of replication and didactic display is clearly under-stood. However, to become an aesthetic discourse that stands on its own, it must become a part of a larger project, sustaining and investing the imagination of the individual and the community. Film and video have achieved this in a complex and large history. For the present moment, all new media will be measured by the historical paradigm of the dominant moving-image media of the 20th century: film and video.

The CD-ROM must achieve a connection to the world it contributes to by radical transformation or by informing traditions of expression. Otherwise, the CD-ROM will be like the hologram, waiting for its moment or disappearing into the archive of technological experiments. The CD-ROM must not recreate a reading experience, or look at itself as an imaginary *wunderkammer*, but rather, it must be something that speaks a language we have to hear, telling stories we want to read, creating multi-textual experiences we want to experience again and again, and providing an engagement with theory and ideas: the means to construct an epistemology of knowing and experience. We look to see if the CD-ROM will be a temporary phenomenon or a viable discourse, body of knowl-edge, and experience that we will want to share in and preserve.

As a means to more fully grasp and critically engage the multimedia environment of developing technologies, I would like to focus on the relationships between single-channel videotape and multimedia instal-lation art with historical connections between film and video art practices, and on how that history anticipates and informs developments in new technologies of image-making and distribution. Finally, I will critically consider the roles of the curatorial/institutional practices of the museum seen in relationship to the construction of this history and to that in-stitution's potential roles in the future of our visual (media) culture. I want to stress that this essay is, by necessity, highly selective and meant to indicate through very few examples – drawn from the history of the media arts in the US – the complex network of issues relating to the spectator's

new role(s) in the construction and reception of the aesthetic text.

Over the 100-year history of the moving image, from cinema to television, the self-reflexive incorporation of the artist and the spectator into the text of the work has been a rhetorical trope deployed to critically open up the text of the artwork as a production process and strategically destabilize its traditional meaning and function in society. The following works not only claim a radical restructuring of the medium and its modes of production but also criticize the textual and ideological codes of the mainstream mass media and entertainment industries, deconstructing the epistemological foundations of media by exposing and acknowledging the complex nature of the viewer's interaction with the time-based artwork. Thus they locate themselves as valuable points of reference to the nexus of technological and cognitive issues which I would argue are being redefined in the expanding multimedia environment of global economies and cultures.

I will begin with the medium of video, which artists were first drawn to because of its capacity to instantaneously and immediately record moving images. Through exploring closed-circuit and multi-channel installation projects, artists sought to respond to developments in technology while at the same time wishing to modify existing, and develop new, image-making tools. Within this cross-disciplinary and multimedia culture of experimentation in the 1960s and 1970s, artists explored ways of creating work outside the traditional art and media worlds.

To illustrate an aspect of this history, I would like to begin with the early projects of Korean-born artist Nam June Paik and German artist Wolf Vostell that engaged the institution and models of television in critique and the desire to transform television programming and its very instrumentation. In the period before the development of the Portapak in the mid-1960s within a culture where artists challenged the institutions and means of art-making, Paik and Vostell appropriated the television set. Here was the Fluxus- and Happenings-inspired transformation in an ac-

tive destruction and rebuilding of the television medium. Through the strategy called 'dé-collage' (a term coined by Vostell in 1959), tearing apart the television image and placing the viewer in a new relationship to the television set, Paik, in his first one-artist exhibition in 1963 at the Galerie Parnass, in Wuppertal, Germany, began to incorporate the television as an object into his art-making. At the same time in the Smolin Gallery's *TV Dé-Collage* exhibition in New York, Vostell distorted the received broadcast image and buried a television in a performance at the YAM Festival (with the artists Allan Kaprow and George Brecht) in New Jersey. Paik offered an interactive model for video and television for the artist and user; in his hands, the medium became a new instrument through which to fashion electronic images on the cathode-ray tube. From his early 'dé-collage' engagements with and disruptions of the flow of broadcast television, preserved on such videotapes as *Videotape Study #3* (1967–69, produced by Nam June Paik and Jud Yalkut), his treatments of the magnet TV as an abstract moving-image medium, and the development of the Paik-Abe video synthesizer, which allowed the artist to alter, colorize, and transform the recorded image and/or create a wholly abstract range of possibilities, Paik set the basis for his radical reimagining of the television.

In this period from the 1960s to the early 1970s artists also turned to film. In radical new ways they sought to open up the mechanical means of recording moving images. The parallel transformation of film as installation created an extraordinary confluence of relationships to developments in video and argued for a closer examination of the influences both media had on each other in this formative period.

Andy Warhol's key role in transforming art-making in the 1960s was embodied in the Factory, the space where he fashioned his persona and engaged the filmmaking process and its materiality in a radical reconsideration of the filmmaking process, reworking the relationship of the filmmaker and spectator to the cinematic apparatus and subject of the film. In

Empire (1964), Warhol continuously filmed one static view of the Empire State Building, using 100-foot rolls of film. Projected at 16mm silent speed, the effect is one of a relentless record which emphasizes the very conditions of recording and underscores the moving image's relation to notions of time and representation.

The disjunction between the soundtrack and image is central to the construction and viewer's engagement in Hollis Frampton's film *Nostalgia* (1973). In this film, the image track consistently lags behind the voice track. Thus each time one hears a verbal description, one anticipates the appropriate corresponding visual image, and simultaneously, each film image directs one into the past to the previous description. Thus the viewer constantly remains unable to locate the present moment. The sound/image disjunction requires the spectator to look within the boundary of the film to analyze the interrelationships, ambiguities, and contradictions which are the direct results of the non-coincidental structure. At the end of the film, the narrator's final description points to an image which one never witnesses – instead of the ecstasy of a final promised image we are at the end of the film, with image as memory and language as a conduit of history.

These few examples suggest that this materialist treatment of film, which has been called the structural film movement, has interesting parallels and relationships to conceptual, body, process and performance art and to issues pursued by video artists during this same period. Artists working in both media engaged the epistemological issue of the analogy between the process of viewing and that of consciousness – where film/video is filtered through a distorting mechanism – as all perceptions of the world are mediated by individual consciousness. The electronic medium of video was transformed by artists through a variety of strategies that were developed to reconceive the image as a process seen within a place, whether through a site-specific installation or, on the television set, where the work addressed you as the receiver of the

broadcast. It is the intertextual nature of this work, its examination of the medium and the reflexive construction of the image, that I would like to briefly describe through a selection of artists' video projects:

In Bill Anastasi's self-reflexive work *Transfer* (1968), a video monitor and camera reflect back on the source of power: the electrical outlet that runs the apparatus. This self-reflexive use of closed-circuit systems is reworked by Bruce Nauman in his installation *Live/Taped Video Corridor* (1969). In this work, at one end of a narrow passageway created by two walls two monitors are stacked on top of each other, one showing a prerecorded tape of the passageway, the other a closed-circuit live recording of the same space. As you walked to the end of the corridor you could see yourself on the first monitor, while the second monitor screened the prerecorded tape of the same space with nobody in it.

In Peter Campus' video installation *Mem* (1973), viewers enter a completely darkened space illuminated by a black light. A camera positioned in the room picks up the image of the viewer's body and projects it at an angle onto the wall of the gallery. Thus the spectator's body becomes both the subject and means of the completed artwork as the artwork reveals itself through the (immaterial) dynamics of its process.

The trope of the video camera as a third eye of perception and self knowledge can be seen at play in Bill Viola's influential works. In Viola's installation *He Weeps for You* (1979), the video camera's close-up lens records a drop of water as it forms. When the drop hits the ground, it lands on the surface of a tamborine. A loud percussive sound is heard as the impact is greatly amplified through loudspeakers. The micro-image is also enlarged as it is projected onto the video screen. Here the camera creates an image in real time in an installation that acknowledges the camera and apparatus of video as a new means to see the world around us. Viola's *I Do Not Know What It is I Am Like* (1986), a brilliant 89-minute-long videotape, is a quest for transcendence and self-awareness that employs the camera as an instru-

ment for constructing an exploration of epistemologies of knowing.

Gary Hill's work continues the use of video as an epistemological tool. His videotape *Incidence of Catastrophe* (1987–88) draws its inspiration from the writer/philosopher Maurice Blanchot and his text *Thomas the Obscure.* The artist himself becomes enfolded within the phenomenology of the written/printed text; as his body and eye merge with the text to become one, as the folio's folds and the press type on the page leave the deep impression of language on our consciousness. We attempt to grasp the fold of language and the imagination through perception in this impressive videotape.

I focus on these artists as examples of strategies developed to examine epistemologies of representation. Technology and the body and how they engage one another in social spaces become the subject of a variety of formal strategies. These are strategies that implicate and acknowledge the viewer as integral to the image-making process. I also propose that this work confronts the protocols of the art world's foregrounding of aesthetics as a contemplative and passive experience. While a host of reader-response and phenomenological interpretations have confronted the myth of the passive viewer, it is the actions and writings of these artists (among others) that have in formal and critical terms exposed the notion of the passive film/television viewer as false and have anticipated the breakdown between media, materials, and discourses that we see today with new developments in the interactive multimedia arts.

I want to conclude with a set of recent examples of installation projects that directly engage historical memory, gender, sexuality and race by addressing the viewer as a participant in the social and political sphere. These are projects that employ formal and narrative strategies to destabilize the authority of art, the museum, and technology by confronting and challenging the spectator. I will begin with Francesco Torres' *The Haywain* (1991), which takes as its referent Hieronymous Bosch's painting, employing Bosch's text as a means to construct a reflection on

the history of the spectacle as the carnivalesque and as a form of political resistance. The projections consist of videotaped images, close-up, of the surface of Bosch's painting, intercut with footage from the 1968 student uprising in Paris, bonfire celebrations in the streets of Spanish cities that date back to a pre-industrial resistance, and images of a homeless man in contemporary Spain. Bicycles seen lying under a truck refer to Tiananmen Square, further complicating our reading of history, custom, and the role of the public sphere as something other than a bourgeois social space. The work confronts the viewer with a spectacle that asks us to see culture and politics not as things of the past but as meaningful points of resistance to be redeployed today.

Installations also become a mode for the conceptual reworking of media as a means to expose ideological codes of definition. Adrian Piper's video installation *Out of the Corner* (1990) elaborates a powerful epistemological reflection on the social construction of racial identity within Western society. A videotape of Piper appears on a large monitor, and we listen to her talk about herself and her parents (one black and the other white) and how the law(s) racially categorize her. Multiple channels, performers, texts, languages, and photographs in the installation draw the viewer into a subtle and dramatic engagement with language and image, working to expose the linguistic conventions that inform and shape the social exchange of everyday life.

Artists today are also moving between media, operating on all levels of technological imagemaking and communications. A recent example of a multimedia artwork that engaged different spaces and technologies was Shu Lea Cheang's *Bowling Alley* at the Walker Art Center in 1996. The Walker's gallery space was linked via video to a bowling alley in suburban Minneapolis, with a bowling lane created in the gallery, and projected images and texts engaging sports and bowling as metaphors for personal stories and celebrations of sexuality. Accessible to Internet users through its own Web site, this work operated on multiple levels. This collaborative

and multidimensional project created narratives out of the individual and collective languages of sports, which in this work become a multitextual metaphor for the body as it defines itself in public and private social and sexual spaces. Such projects reject the traditional definition of the passive viewer situated within a stable public sphere. These artists challenge and directly engage the interactive possibilities of reception within multicultural social and cultural spaces.

I have attempted in this paper to reflect upon the history of independent video art practices and the complex of multifaceted forms and issues that this work has taken. In doing so, we must consider the future and acknowledge that video as a medium is no longer the cutting-edge medium it once was, but is part of, and will be absorbed into, an emerging multimedia set of Virtual Reality, CD-ROM, DVD (Digital Versatile Disk), and Web site complexes of production and distribution. Thus new questions arise, such as whether the virtual space of the simulated environment will become a new ground for the moving image and the expanded text of the media arts. Or, will the interactive technologies increasingly privatize the languages and experiences of image reception or become a source of hyperbolic entertainment as private amusements? The proliferation of the media environment certainly argues that our notion of visual culture is being transformed into a complex media culture.

It is critical and urgent that we theorize this emerging paradigm by reexamining the models of our recent past. We would also do well to consider the full spectrum of artist, community, and collectively engaged uses of low-end media, as well as look at how access was and is granted to the latest hardware. These examples offer real lessons in how to establish new possibilities for artists today and in how to reach out to and best serve expanding and changing global audiences.

In conclusion, I want to suggest that we in the museum must at the close of this century also re-examine our goals and ways of representing history and new work. However, the entire history of the museum, in-

cluding recent developments in its function and mission, remain largely undertheorized and unexamined as we face a future of enormous change in all sectors of our society. While we may lay claim to work with new urgency to preserve and understand the past of media technologies, connecting them to other disciplines and understanding their future, we also confront a reduced economy of cultural funding, forcing the question of what the museum's capacity to support and address a truly diverse set of art practices and audiences will be.

At the center of this complex of changes and challenges is the audience – a fluid, global mix of communities and cultures who, in their appropriation of popular and corporate culture and in their innovative development of local and transcultural models, are destabilizing and challenging the historical paradigm of the Western art world and its nation state. How the economies of the Internet and the political cultures of global networks are deployed will be critical to the future of what is now a shrinking and isolated traditional Western art world, an art world too often closed to challenge and critique by its fortress museums and closed paradigms of art-making. These institutions must face change for their very survival. It will be necessary that we engage and support new economies of production and the development of new communities of cultural practice, bringing the art world into a fundamental critical debate with how the museum represents and defines art and culture. This extends to the very histories the museum contains in its archives and collections. In bringing the museum into critical dialogues with the diverse histories and artistic practices of the media arts, from film to video and the intertextual multimedia of CD-ROMs and the Internet, the museum will be transformed into a site for the public to critically participate in an expanding, global media culture.

Choose what you do not like!

Sex, History, (Sub-)Culture: A Re-Consideration

By Kathy Rae Huffman

The interpretation of history and culture is a condition of artistic perspective. World view, a circumstance of political indoctrination (i.e. education), is related to inherited social class, sex and religion. How is it possible to transcend this limited perspective? Martin Heidegger refers to our 'subjective experience' as a 'phenomenon of the modern period.'[1] Using various media to record ideas and life around them, artists employ historical references to capture intellectual, psychological and personal perspectives. Video added a completely new potential for creating a point of view. As a personal form, its 'real-time' (and instantaneously re-viewable) mode changes the relationship between subject, viewer, and creator. Its uneasy relationship with television brings to bear the issues of 'an economy of abundance,' and as David Ross points out, video was 'taken up rapidly by an alienated and deeply cynical generation of media artists, schooled and engaged in the postmodern, postideological politics of identity and suspicious of all institutions, including their own.'[2] Television, the vast marketplace of society, was/is the international voice of political persuasion and economic power.

1. Martin Heidegger: 'The Age of the World Picture.' – *Electronic Culture*, Ed. Timothy Druckrey, New York: Aperture, 1996, p. 47.
2. David A. Ross: 'Radical Software Redux.' – *Clicking In: Hotlinks to a Digital Culture*, Ed. Lynn Hershman Leeson, Seattle: Bay Press, 1997, p. 346.

Marina Gržinić & Aina Šmid: *Troubles with Sex, Theory & History*, 1997. Screenshot.

Media art did not become established in the Eastern Bloc until the 1980s. Furthermore, although women played a major role in international media practice, their position in the East was minimal. Slavenka Drakulić, responding to a feminist's query about the influence of (Eastern) women on the public discourse, wrote: 'For God's sake, what does she mean? There is hardly any public discourse, except about politics. Women don't have influence, they barely even have a voice. All media are non-feminist, there are no feminist media. All we could talk about is the absence of influence, of voice of debate, of a feminist movement.'[3] This situation, tolerated 'for the cause' in the 1970s, became unbearable to many young women in the 1980s, who were well aware of feminist practice in the West, but because of restricted international contact, developed a discourse through theoretically based art and literary works that carefully wove their political context together with images of strong and confident women.

The path from video to multimedia art in the work of Gržinić & Šmid begins with their carefully articulated film and video experiments, works that were quotations of the media influence on their complex culture. As Vanesa Cvahte points out, 'The Eighties were the period when visual media, like cinema and television, flooded the world with images which refer to the images from these media instead of images from the human environment.'[4] From their earliest works, a complex lineage emerges, an analysis of propaganda from educational and classic films, television, and artworks. They establish a position of power, which they claim as women, as artists, and as intellectuals in a post-Communist society. Likewise significant is their contribution to the development of a media

3. Slavenka Drakulić: *How we survived Communism and even laughed*, New York: Harper-Collins, 1991, p. 123.
4. *Media in Media*, Vanesa Cvahte (curator), catalogue, SCCA Ljubljana, 1996, p. 20.

aesthetic in Slovenia, and numerous personal presentations that have exposed this aesthetic to a larger, curious and appreciative international audience.

Yugoslavian video was heavily influenced by film tradition in the 1980s, and the usage of icons and symbolism predominated. For instance, the Red Star (ubiquitous in state-controlled political propaganda) was used by many artists – not as a nationalistic symbol in the way of the government, but in recognition that the image was being used to force identity upon people of disparate belief. Its usage was the most striking example of artists' political quotation during the unique political history of anti-Fascist/pro-Communist ideology. 'The art practice of the Eighties and Nineties reveals the need for re-evaluation and evaluation of the mediated images which create new meanings.'[5] In the works of art, a recycling of ancient images and propaganda (with pointed reference to Socialist public life and Tito) were visible in darkly melancholic creations evoking a romantic unease with everyday life. With its wild style and self-esteem, the underground youth scene was out of place in the Yugoslav Republic. Belgrade tolerated it in small 'unimportant' places like the ŠKUC Gallery in Ljubljana. Although the ŠKUC 'scene' was advanced by Eastern standards, there were a lot of differences between Slovenian media artists and their Western neighbors in Austria, Italy, and Hungary.

Production was a major concern for Slovene video artists in the 1980s. A funky VHS camera was available at the ŠKUC (Student Cultural and Artistic Center). No media department existed at the university, art academy, or high school. Production was possible only with private equipment purchased by artists to realize commercial jobs. Like in many other Eastern countries, artists became the sponsors of other artists' works in co-operative relationships where skills and talent were exchanged. There was no state or private funding, no distribution, and no

5. Ibid.

careers for media artists. Access even to playback equipment was a problem, often it was loaned by foreign agencies (French Institute, Goethe Institute, etc.). Production conditions were so fraught with difficulties that the completion of a new work in video was a major achievement. But interest in video evolved, and eventually Slovene video artists became known for their style and energy.

In 1987, *Axis of Life* by Gržinić & Šmid took the first prize at the 3rd International Video Biennial Cankarjev Dom. A provocative work, it was the only female work granted serious consideration among the entries. Gržinić & Šmid were viewed as 'young artists' who worked in 'amateur' (VHS) formats. At that time, VHS was equated with home movies, considered naïve on account of its low technical quality. In a country where many TV cameramen held university degrees in film history, differences like that counted for a lot. But the low-grade aesthetic captured the attention of the foreign jury members, and established the aesthetic as a credible look. We acknowledged the powerful contribution these women were making to the field. *Axis of Life* had been produced on low band (U-matic) at a private video studio, but it was a 'semi-professional' work that had in its adaptation of artificial style the aesthetic consciousness of VHS.

Two previous, and very successful, international video biennials in Ljubljana in 1983 and 1985 gave the local intellectuals some chance to become acquainted with the genre. But Gržinić & Šmid had been very active in the Slovene underground art scene, influenced by punk style and the 1980s new music scene. The prize took them from amateur status (a category which the international jury never really seriously supported) to being recognized artists. This was important in the local scene, because the 1980s Yugoslav system resembled that of most Eastern countries in granting recognition on the basis of educational degree, social class, and reputation through work. University and film academy graduates were admitted into certain 'clubs'. Discussions about politics, life and culture took place on a regular basis, often late into the night, at venues such as

the writers' club, actors' club, and so on. Alternative culture was alive and kicking, but the line was clearly drawn.

While many Yugoslav works were supported by TV, this was because the television administrators paid no attention to 'art'. Artists, therefore, could explore many themes, with many layers of meaning. It would take another year or two before not only the works but also the producers and technical crews would come under close political scrutiny. The national arts program 'TV Gallery' produced by Dunja Blažević, supported works by 'authors', in a program broadcast monthly from Belgrade. It could accommodate very few projects, could not pay the artists in cash, but offered technical support and the chance of national TV distribution. Slovene video artists previously had little contact with local television, but that was about to change.[6] In the early 1990s, 'Slovene National Television' began to support artists who could deliver good, skillfully made content. Gržinić & Šmid were among the first recognized by TV.

The distinct interface character in the video work of Gržinić & Šmid was an early indication that their move into multimedia (Internet and CD-ROM) was only a matter of time. *Labyrinth*, especially, set up a hypertext model that begs for interaction. The revolving references they make to film, with the techniques of remake and quotation, are another decisive use of multi(in relation to)media. The references to the civil war in ex-Yugoslavia throughout the 1990s were already set up with *Bilocation*, a work triggered by the Kosovo incident in 1989. Art and propaganda become synonymous ideas in this video work which is obsessed with politics, historical precedents and the interwoven aesthetical structure of film. Gržinić & Šmid continued to delve ever-more deeply to find in video a solution indicative of a new platform. 'We find ourselves within all media, in all bodies, in all possible spaces at once.'[7]

6. A video by Miha Vipotnik (co-director of the Video Biennial) was broadcasted in 1984, a celebrated one-off event.
7. Marina Gržinić in the following article, p. 233.

In *Transcentrala* (with IRWIN[8]), the re-contextualization of information into overlapping texts, images and storylines establishes the final precedent for an interface with new interactive formats (not then available to Slovene artists), especially since the work reviews ideas from the 1980s and 90s. Gržinić & Šmid have now entered a phase transition from film to multimedia. *Axis of Life*, the Internet site located on the Ljudmila server[9], brings to full circle the artistic body of work in an interactive game show. With CD-ROM, an interface allows the viewer a choice, at least as much of a choice as the artists have experienced in their personal political environment. The trick is played to its conclusion in Gržinić & Šmid's sensibility, and as much as the viewers might desire to take control, they are denied the power. It is a matter of 'recycling […] "cleaning" and reusing'[10], an old Socialist game aimed at tricking people into believing that they have control in their own daily life.

Gržinić & Šmid refuse to be tricked. Gržinić explains, '[…] in the 1980s we tried to overcome the counter-cultural discourse, the mentality and the attitudes towards institutions in general. We were striving for the formation of our own institution and communication networks […], we wanted to establish conditions for our own social and mental structure.'[11] With the CD-ROM format, the playful solution of interaction is a natural solution that combines past and present. It is the evolution of a thoughtful, artistic process that has developed steadily by way of video. As art for TV, it also refers to television, sex and propaganda. The work of

8. Since 1984, IRWIN is part of the Slovenian art collective 'Neue Slowenische Kunst' (NSK) as art in the image of the state. Artists include: Dušan Mandić, Miran Mohar, Andrej Savski, Roman Uranjek and Borut Vogelnik. Gržinić & Šmid collaborate with IRWIN, and created the video for *Transcentrala*, an installation premiered at the Slovenian Pavilion at the Venice Biennale, 1995.

9. http://www.ljudmila.org/quantum.east

10. Cvahte, op. cit., p. 20.

11. Marina Gržinić, 'Art and Culture in the 1980s: The Slovenian Situation.' – *IRWIN-NSK Embassy Moscow*, catalogue, Ridžhina Gallery, 1992, pp. 43–44.

Gržinić & Šmid conquers the pervasive cultural images it cites, and gives us an alternative, one which brings us into a personal, provocative relationship with both history and art.

Troubles with Sex, Theory & History or Video Processes of Re-appropriation – Recycling Different Bodies, Histories and Cultures Through the Video Medium

By Marina Gržinić

An alluring female body, cut just above the bust; and suddenly the blood does start spurting out: red, thick, sticky and 'real' – at least to the degree permitted by the transformation from the static image of blood to the one overflowing the body on the screen. The body with its face wreathed in smiles is convulsed not with horror, but with sensuous delight. She (the main actress) is seized with pleasure, and all she does is gasp rhythmically as the blood spurts out. This is the first scene in the video *The Axis of Life* (Gržinić & Šmid, 1987). This Bloody Madonna video sequence contains references to the pop icon Madonna, and Caravaggio's *Judith and Holofern*, 1598; the body is simultaneously heroically exposed and stigmatized.

And next come (again in *The Axis of Life*) the talking faces of the two actresses, like huge hills or objects, fitted into a synthetically produced reddish desert on whose surface is imprinted in the far distance the final letters of the word 'Hollywood'. As Jean Narboni put it, 'Discordant are not only perceptions and emotions, but also the faces, which are real territories.'[1] To transform a face, however, doesn't mean only to use it as a territory along which one can stroll – a face can also be doubled (or multi-

1. Quoted in Pascal Bonitzer: *Le Champ aveugle*. Paris: Edition Cahiers du cinéma/ Gallimard, 1982.

plied, for instance in the triplication of one actress within the same image), or borrowed.

In *The Moments of Decision* (Gržinić & Šmid, 1985), one actress borrows the face of the leading actress from a 1950s Slovenian motion picture of the same title directed by František Čap. The story therefore continues within the video image, introducing live acting and new iconographic elements. By exposing the female character from Čap's partisan movie, the partisan drama is turned into a melodramatic love story. Doesn't the process of 'keying' a film into video actually announce some concrete destiny of film and, in a more general sense, the faithfulness of film as seen from the viewpoint of video? By the end of the century video shall have developed into a 'viewer', since it enables us to read the surface, to see through it and to perceive the future. To paraphrase Christine Buci-Glucksmann's words[2], we can say that video is in the position where 'eyes can see how eyes see'.

'I've learned everything by watching. Without those pictures we wouldn't exist either,' says the male protagonist in the video *Bare Spring* (Gržinić & Šmid, 1987). Dedicated to Wim Wenders' 'road movies', this 'road video' aims to portray the sensibility and specificity of the 1980s rock generation in Slovenia/ex-Yugoslavia. The identity of this generation was not represented by the psychology of the individual, however, but by the formation of a new visual and cultural space. In consequence the video omits psychology (contrary to the anticipation of the realistic doctrine) unless it is a constituent part of a 'quotation' or 'stereotype'. The processes described result in a body of the image that is exposed to a never-ending display, insertion and rearrangement. What we are witnessing in these video works is the act of taking possession of documents,

2. Cf. Christine Buci-Glucksmann: *La folie du voir: De l'esthéthique baroque*. Paris: Ed. Galilée, 1986.

photographs, images, faces, bodies which are constantly reproduced as types, prototypes and stereotypes – a kind of double negation of identity and the body.

In the video titled *A Girl With Orange* (Gržinić & Šmid, 1987) the plot deploys as key image a copy of René Magritte's *This is not a pipe.* The painting's significance occurs in the context of Michel Foucault's interpretation of it.[3] Quotations and recycling methods are used to suggest questions about originality and repetition, about reality and media simulation. In *A Girl With Orange* the entire environment is real, the scenes are shot in an abandoned castle, in a flat, on the street, in a workshop. Although most of the locations of these video works are negative, their position in the power structure of the social system is not clearly visible: the locations were/are a private apartment, a bedroom or bathroom.

Many video artists had developed alternatives to the dominant forms of (post-)Communist representation. Also by way of misrepresentation. Unlike some expectant models of identification with a positive narrative or with the heroic character, misrepresentations seldom provide an anticipated pleasure of identification. Instead, the aim is to effect the ruin of representation precisely on the grounds of what has been excluded, of the non-represented object, creating a significance out of its absence, and in this way investigating (according to Jo Anna Isaak) the means by which a subject and the body is produced.[4] The achievement is the decentralization of the subject to the point where instead of outside or inside there exists a powerfully dynamic relation to both outside and inside, dependence and independence, art and nature and, finally, to what is real and what is not.

The position of the body in relation to history and theory in the so-

3. Cf. Michel Foucault, *This is Not a Pipe*, Berkeley: University of California Press, 1984.
4. Cf. Jo Anna Isaak, 'Women: The Ruin of Representation.' – *Afterimage*, April 1985.

called post-Socialist, post-Communist or post-Capitalist context can be grasped precisely with *Bilocation* (Gržinić & Šmid, 1990). Bilocation means the simultaneous residence of the body and soul in two different places. The term is perfect for delineating the process of the video medium and for describing history in relation to the body. The body is used against amnesia, shifting tenses in a way that deepens our under-standing of memory and history beyond the video medium. But not only this. The way the body is presented in *Bilocation* clearly shows that the body in video is only the video resolution! In *Bilocation*, original docu-mentary footage shot by TV Slovenia during the 'civil war' in Kosovo (a territory in the south of former Yugoslavia racked by national unrest and conflicts between its Albanian and Serb populations) has been used and juxtaposed with the imaginary world of synthetic video images. There are images about (historical) places where our own memories become at once psychotic and erotic.

Trying to generalize some of the Gržinić & Šmid strategies of recycling different bodies, histories and cultures through the video medium, I can state that these processes reflect two territories in particular: 1. that of the body in connection with sexuality and the 'social body', and 2. history in connection with politics.

   1. The over-sexualization of the video medium witnessed in the 1980s was not only an art-political reflexion of the repression of sexuality under Socialism and Communism, but also a distancing-disassociation of the video medium from its sister media film and TV. This process was en-acted by the externalization of a sexuality perceived, learned and adopted from the underground film tradition of Fassbinder, Rosa von Praunheim, Warhol, etc. (whose films were shown in underground venues in Ljubljana in the 1980s). The externalization of sexuality took the form of overtly staged pornography and gender confusion (gender bending) of gay, lesbian and transvestite sexual attitudes. In a way, the process is

simple to explain: the sexual stereotypes and civil rights prototypes were not only consumed in and by the underground, but immediately performed and staged in front of a VHS camera in private quarters and bedrooms. In these works, the masquerade of reappropriation ensured not only the simple question of the formation of artistic or underground identity, but the process of negotiation with multiple realities with the aim of producing continually ambiguous, unbalanced situations and identities.

In Eastern Europe, the video medium was/is appropriated by desire, obscenity, pornography, politics and history. In becoming an index of time and subjective politics, the medium lost its innocence. The same happened in Russia; one need only recall the spiritual state of Russia after the 1980s collapse of the prevailing order. According to Slavoj Žižek, the atmosphere was/is one of pure, mystical spirituality, of the violent denial of corporeality on one hand, accompanied by an obsession with pornography and sexual perversion on the other. Cynically speaking, Perfect Western Europe will have to include, subsume, in its flawless image Imperfect ex-Eastern Europe.

2. Socialist societies had functioned by virtue of a painful recourse to a psychotic discourse that by means of hiding, masking, renaming history attempted to neutralize the side-effects of pertinent interpretations and productions. The political and social shifts of recent years represent not so much a yearning for the past as a desire to co-opt and re-appropriate history. Not as a means of re-possessing the history of Communism with all its deformations, but in order to reject the blind retaliation, nationalism and racism that can and does spring from the 'ruins of war'. Video is also the eye of history.

The video *Three Sisters* (Gržinić & Šmid, 1992) presents a different visualization of the classical play by Anton P. Chekhov, and relates to a radically altered political and artistic context. It can be also understood as an attempt to talk about the disintegration of Communism, about racism,

nationalism, and the new political machinery of free-market capitalism. It contains, for instance, a remake of a famous Benetton commercial. It also explores the relationship between Chekhov and Eisenstein (referring to the *Battleship Potemkin*, 1925), and between Chekhov and Brian De Palma (referring to the film *The Untouchables*, 1987). The video is like a virtual explosion of the 'rotating swastika'; splinters of the explosion take us into the very innards of the post-Communist condition, a condition saturated not only with 'blood and mud', cadavers and monsters, but also with the most ludicrous utopias, visions, strategies, as well as consciousness of the Apocalypse and the self at the end of the millennium.

In *The Three Sisters* the last act of disobedience perpetrated by the stereotypically transvestite body (the same as the heroine of Liliana Cavani's film *The Night Porter*, 1973) is her line at the end of the video: 'I shall live'. The strategy is not to make fakes but to develop tactics of resistance, as Homi K. Bhabha would say, around a specific kind of subject that is constructed at the point of disintegration. And here I will turn on its head Godard's re-formulation of the French Nouvelle Vague. Godard said, 'it is not blood, it is red', but what we can learn from the body in Communism is, 'it is not red, it is blood' – a kind of traumatic reality emerging through the surface of the video picture in the (post-) Communist era.

According to Peter Weibel[5], we can for example think about the idea of what it means when we leave a historically defined position which imitates – even in art – the natural world of our senses. Our experience of place, position and so on depends on what we call the natural interface. The body, for instance, is a natural interface, and therefore we have a

5. Cf. Peter Weibel, 'Ways of Contextualisation or The Exhibition as a Discrete Machine.' – *Place, Position, Presentation, Public*, Ed. Ine Gevers, Maastricht and Amsterdam: Jan van Eyck Akademie and De Balie, 1992.

natural approach to space and time. Our interpretation of the media is experienced through natural interfaces like our senses and organs, and is channelled, mediated by an ideology of naturalness that neglects the artifice of the media. But contemporary media show us that we have the option of deploying an artificial interface which is in fact these very media. In Weibel's view, therefore, Marshall McLuhan's definition of media as being an extension of the human slightly missed the point, because McLuhan failed to underline that this extension was an artificial one. Moreover, in such an artificial media space we see that the basic concept of how to construct space, time and the body is an example of non-naturalness.

The same might be said of the CD-ROM *Troubles with Sex, Theory & History*. It starts with pure chance or contingency (the user is the agency which chooses between the numbers 1 or 2). The user is a gambler. The numbers 1 or 2 are connectors that link up with different images, texts and interactions derived from the video, film and theoretical work of Gržinić & Šmid (in the period between 1982 and 1997), and now classified on four levels of values ranging from -- to -+, and from +- to ++. The images and interactions express function and redundancy on the one hand, and meaning, nonsense, chance, destiny and void on the other hand. It is not possible to travel through the four structures without changing them in accordance with our particular history, intimacy, prejudices and stereotypes. Unlike most CD-ROM structures, after choosing between 1 and 2 the user cannot change the path of events by leaping backwards and forwards. The user either proceeds up to the end, or else has to quit. *Troubles with Sex, Theory & History* signifies an interface between at least two force fields, between a form of content that is pure contingency, and a form of expression that is attached to the interactive user responses (it is a process translating a general order of taste, knowledge, obsessions and ethical viewpoints into a personal order).

From here we can again easily travel backwards and forwards through

the video history of Gržinić & Šmid, as the video works and the CD-ROM coincide. In the video *Labyrinth* (Gržinić & Šmid, 1993) we witness the juxtaposition of artificially constructed surrealistic imagery based on René Magritte's pictures (*Young Girl Eating a Bird, The Heart of the Matter, The Lovers* etc.) and documentary footage of the refugee camps in Ljubljana housing Bosnian refugees in the 1990s. The layering of quotations from other movies, pictures and images infuse a cliché or, more accurately, put all of them in a new context. The same can be said of the body; the body is an artefact cobbled from other artefacts rather than from a profound experience of life, not because our life couldn't be natural but because it is a constant artefact of ritual. So our dreams of going somewhere far away, of escaping the dimensions of ourselves as nothingness are realized here by reversals of the body in time and space, and space in time. And you see how tremendous impact can be achieved by technically reverting the linearity of time; sometimes, a backward move by the simplest video switch is the most adequate measurement of our feelings and thoughts.

'Everything, everywhere, everybody' is the 1990s slogan that results in a confusion of bodies, concepts and strategies, a type of out-of-joint situation for the subject. We find ourselves within all media, in all bodies, in all possible spaces at once, to the point that the subject is forced to assume that s/he is not what s/he thought him/herself to be, but somebody-something else. The position of identity is operated in a new mode, producing not a new identity but something more radical: the total loss of identity.

quit continue

Invisible Media

By Carina Plath

A description of Dieter Kiessling's video works cannot leave unmentioned the materiality of the equipment, the minimalist reduction of the installations, the black silence of the components. This economy of resources and concentration on one specific is the striking characteristic. Yet one component is essential apart from these external attributes, namely the fact that in these works the so-called 'new media', which are often described as invisible, come into focus.

What causes this invisibility? The fast flow of changing, informative images with their overload of 'content' puts the new media beyond the range of pursuit – both in sensory and conceptual terms. However, the invisibility of these media is due less to the actual failure of our sense organs than to the way these organs are programmed to view functionally. That was why McLuhan preferred to talk about the observer's blindness in face of the media as opposed to the invisibility of the latter. His phrase 'the medium is the message' indicated that the actual content of media criticism would have to be the medium itself as a condition for a shift in scale and scheme of our perceptions.[1]

Despite many further calls to finally penetrate to the 'essence' of the media, few theoretical attempts have been started in this direction. I shall offer only two of many possible explanations for this hesitancy. Firstly,

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[1]. Marshall McLuhan, *Understanding media. The extensions of man*. London: Routledge & Paul, 1964. Part I, 1: 'Medium Is the Message', pp. 7–21; in relation to the blindness of the observer, cf. p. 9.

Dieter Kiessling: *Continue,* 1997. Screenshot.

the medium is in fact invisible: without pictures, television 'as such' is non-existent. The immaterial procedure requires a 'content' on which to reveal itself. Secondly, media criticism is always part of the programme being investigated. Since we meanwhile think in categories of media, the language communicating this thought is as just as critical as it is affirmative.

The work of art is clearly at an advantage over text in this respect. The artist's direct, non-mediated access to the equipment appears to be the sole possibility of making visible the imperceptible prerequisites of mediateness. Media cannot be laid bare; they can only be outsmarted. It is a question of finding a way of double-crossing them so that they are beaten by their own means, lured into self-defeat. Dieter Kiessling successfully plies a strategy of this nature in his works. He places the new media in situations that do not suit them: a camera is trained on itself, a monitor shows its own picture. This kind of feedback leads to 'short circuits' in which the devices reveal their mode of function precisely through failing, in our eyes, to function 'correctly'. The content of Kiessling's media are the media themselves.[2] Misused for self-analysis, they ultimately observe their own behaviour and nothing else.

The stimulation exercised on Kiessling by the new media may have been that contradiction between the degree of abstraction something attains in proportion with its purely mediated existence as opposed to its tangible, accepted everyday presence. Kiessling's clock works (1985–88) are one example of this interest. The swapping of hour and minute hand

2. This is true not only of the 'new media' but also of traditional materials like stones which Kiessling handles in other works. Cf. catalogue of Städtisches Museum Abteiberg, Mönchengladbach, 1989/90, and catalogue of Städtische Kunsthalle, Düsseldorf, 1994. A further introduction to Kiessling's video works and projections is offered by the catalogue of the Gesellschaft für Aktuelle Kunst, Bremen, 1995, and in the present author's essay 'Kurzschlüsse. Zu den Videoarbeiten von Dieter Kiessling.' – *Das Kunst-Bulletin*, 5/97, pp. 10–17.

directly reflects on the notion of time – a simple manipulation by the artist has made us conscious of how the clock stands for the notion of time, and how notion and object coincide.[3] In the same way, every technical image represents not only its medium, but a whole world of ideas, and can be deluded into self-referentially reflecting this world.

Kiessling is interested in the fundamentals. Before pursuing the theories of vanishing reality, he tackles the basic questions that arise the instant one switches on a TV set. With a nod to Roland Barthes' analyses of photography, one might talk about the artist's 'ontological desire' in view of the new media. Since however the medium is 'in itself' intangible, Kiessling initially tries to scan the environment. This endeavour involves going beyond a mere examination of the material properties in order to place in question the prejudices and terms that surround and define a medium.

In one of Kiessling's first works the camera transilluminates the microcosmic structure of the TV picture. It records a small section of the monitor image, and then returns it, now considerably blown-up, to the same monitor. That brightly coloured raster of which every TV picture is composed suddenly flickers into visibility on the screen (*Raster*, 1982). Yet we are made conscious only of its inaccessibility, just as when through a microscope we view a life-form otherwise invisible to the naked eye. This demonstration of what we normally do not see only underscores our blindness.

The rear of a television cabinet has been opened up in another work (untitled, 1989). A camera records from the side and transfers to the screen the interior of the appliance. A hidden beauty that seems remote from all technology is revealed by colourful, elegantly sinuous cables, delicately vaulted shiny metal tubing, intricately detailed circuit boards. It

3. Regarding the clock works see also text by Dierk Stemmler in catalogue of Museum Abteiberg, Mönchengladbach, 1989/90, no page nos.

is the showing of this interior as a picture on the monitor, rather than the mere act of opening up of the TV set, which makes the apparatus aesthetically interesting. But what relation does the image of the interior have to the function? The revelation of the electronics inside the 'black box' does not even begin to tell us how to understand and evaluate the process of procuring images or the mediated picture.

There is no narrative in Kiessling's video installations. His preferred method is the 'closed circuit' made possible by the simultaneous recording and playback capability of the video camera. Every component in the circuit – the motif, the camera, the cables, the monitor, the image – is presented, and not just present, in a formally closed composition. Furthermore, Kiessling works exclusively with the freeze frame. Opposing the nature of the moving image, he brings it to a standstill, forces it concentrate on one detail, and thus to reveal itself. The thought process triggered in the viewer is therefore not geared towards a procedure, but towards the logical connection of the components making up the installation. The viewer comes up against the contradiction that even though all the parts making up a functional correlation can be seen, connecting them logically remains impossible. The closed nature of the situation and the simultaneity of object and image bring about mental paradoxes that viewers can escape only by giving up the attempt to reconstruct a cohesive procedure in their minds. They are confronted with a vacuum in time that apparently offers no space for personal projections.

In the installation *Candle* (1988), an unlit candle in a dark room is nonetheless visible due to the light shed on it by its radiant image on a nearby monitor.[4] The image – inconceivable for its part without the real

4. At the beginning, a lamp has to be shone once on the candle in the darkened room in order to make it visible for the camera. In the further course of the installation, however, a self-maintaining circuit is constituted by the camera that tapes the candle and by the video image that lights up the candle.

candle – is thus dependent on the candle but nonetheless the determiner of the candle's appearance. Due to its function as source of light, the image takes on a realistic status equivalent with that of the authentic candle. The unlit candle glowing in the dark and the candle's image, created in a seemingly mysterious way, share approximately the same degree of fiction. It is a matter of double-dealing: because the reciprocal dependence of object and image is overstrained, the reproduction gains a sovereignty that apparently releases it from this relation of dependence. The technical reproduction is emancipated from its real subject. The question of what came first – candle or candle image? – is unanswerable.[5]

In a work created in 1988 (untitled), Kiessling expands the co-existence of object and image to include the mirror image. A camera records the way it is being reflected, together with its immediate vicinity, in the screen of a disactivated monitor. This picture is transferred to a second monitor, which shows the recorded reflection on a screen that is simultaneously reflecting the real space and real camera. The recorded reflection and 'real' reflection interpenetrate. The recorded mirror image holds the camera under permanent arrest. In this way, the recording ultimately becomes more realistic than the volatile mirror image that moves with the viewer; the reflection, normally viewed as unreliable, is upgraded through being recorded. On the other hand, no more than the outline of the image of the reflection is discernible; it shines through from somewhere deep down inside the screen. The luminous TV picture as commanding presence is here contradicted by an image that seems intangible no matter

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5. At this point it is appropriate to quote Marshall McLuhan's description of the transformation effected by the new media, which might have been written for *Candle*: 'So the greatest of all reversals occurred with electricity, that ended sequence by making things instant. With instant speed the causes of things began to emerge to awareness again, as they had not done with things in sequence and in concatenation accordingly. Instead of asking which came first, the chicken or the egg, it suddenly seemed that a chicken was egg's idea for getting more eggs.' Marshall McLuhan, op. cit., p. 12.

how closely one looks. This dematerialization of the camera progresses until it is nothing more than a schematic appearance shimmering from a distance. Thus, the technical reproduction is placed in doubt.

Lacking the terms to differentiate the reality content of such images, language loses its grip. Instead of offering us release from the need to think in the abstract, as the rapid, everyday pictures do, Kiessling's visual puzzles once more put to the test the ability to explain things in notions. The simultaneous confrontation of object and mediated image leads to a reciprocal disfiguration of the states, a calling into question of the mutual dependencies. The simultaneity of three-dimensional object and two-dimensional surface reveals a dissimilarity for which we have no name.

The magnetically recorded analog video image is showing now itself to be a transitional phase between photography and digital image generation. Unlike the digital image, the video image cannot be detached from the external world; and precisely because, like the photograph, it upholds this bond with reality, the question of the relationship between reality and image remains explosive.

The magic of the technical image is a product of its use. By fabricating and conjuring up this magic, some works by Kiessling show how our everyday attitude to the new media remains fundamentally irrational. We ourselves produce the fascination surrounding media power by constantly perceiving these media in relation to ourselves. Our senses fail in the 'other' reality of media images. Viewed from the standpoint of the media, the senses are no longer able to perceive 'correctly'; the flickering, constantly changing image is seen as a uniform plane, editing perceptible only as a change. And where the senses fail, the circumstances become matters of faith. Since the reality of the technical images evades our rational and sensorial registration, we opt for professing our faith in simulation. Technology turns into magic.

Medium: the puzzle is already implicit in the word. The medium that lies between, the mediator with no identity of its own save for the

function of transmittal. The medium, that can communicate to us messages to which we have no direct access. Mediated means distanced.

A wobbly picture pleads with us in the dark: 'STAY' (*STAY*, 1991). A call from the media world exhorting us to pause among the frenzy of images. Kiessling makes the introspective video camera a meditative instrument that speaks out against its own conditions. 'STAY': a purely functional display seems to become a command. Like a big eye in the dark, the lens protrudes from the wall. 'Stay with me': the camera conveys the strange impression of being an apparatus that begs for company. Introverted in this way, the camera function of delivering objective pictures of the world under observation is reduced to absurdity.

Kiessling's installations assign a special task to the video camera, make it an analyst that scrutinizes the other equipment or examines itself. Because its gifts of observation are made focal, the naïve correlation of eye and camera is hoodwinked. By not meeting our expectations, the image clearly shows its self-dynamics. It is precisely this mere functioning of the equipment, often absurd in its stubborn complacency, that rouses the irritation in Kiessling's works.

The appliances sort matters out for themselves; it is a private function to which the viewer has no access. In a work of 1995 (untitled), two cameras face each other as if in a duel, either one constantly recording its opponent. The monitor that seconds them shows the frontal view of one camera, the black eye of its lens insistently open. The cables seen on the screen betray the video mixer: the countless recordings of both cameras flow into one, constantly changing image. This dual input appears to double the potency of the self-updating image – an impression that heightens the contrast between the 'exchange of shots' and the warning presence of the lone, lurking camera. But the view of its exterior only signifies another void: it is irrelevant which of the two cameras we are able to see. One camera is like the other, trapped in a process of continuous self-reproduction.

Dieter Kiessling had already deployed the device of senseless recurrence in his film *Paternoster* (1987), in which circulating elevator cabins became a symbol of redundant images. The self-reproducing loop is present as a temporal form in other works like Kiessling's *Wall Film* of 1982, or an untitled work of the same year in which a vertically tilted film projector draws in a strip of dangling celluloid and simultaneously projects its pictures onto the floor. The projected images show the reverse process: a dark-coloured tape slides downward and piles up on the floor as the film progresses until, finally, the last piece of tape falls from the projector. At the end, the real strip of film is fully unrolled, the 'film in the film' is on the floor. Both procedures neutralize each other so that nothing, in effect, might have happened. The viewer of all these works is made a witness of absurd events that are always completed the moment they begin. As images whose information content revolves solely around itself, they become metaphors for the structural immanence of the media system.

The viewer's position as permanent outsider, which is formally underscored in Kiessling's installations, is not only a characteristic of the specific situation but an essential attribute of the media. There seems to be no possibility of winning a subjective viewpoint. Only the vacuous gaze at the surface remains. Yet Dieter Kiessling gives this superficiality a positive twist: because the equipment is suddenly surveying itself, the focus shifts from the human beings, and precisely this gives them new latitude.

In his study *Towards a Philosophy of Photography*, Vilém Flusser described the possibilities that could create a free space for humanity in an automized world. After listing these possibilities, he concludes: 'Freedom is to play against the apparatus'.[6] Kiessling does exactly that. He turns the

6. Vilém Flusser, *Für eine Philosophie der Fotografie*. Göttingen: European Photography, 1994, p. 73 (own translation). [*Towards a Philosophy of Photography*. Göttingen: European Photography, 1984.]

rules on their head – it is no longer our senses that fail when confronted with the devices, but the devices that fail on being confronted with themselves. Self-referential now, each appliance becomes what it is: a medium, nothing more, nothing less.

Translation: Thomas Morrison

Indicator

By Astrid Sommer

Painting degree zero. On the floor of the exhibition space is a white line of specific length; at its end, a delicately (dynamically) poised block of plaster – the tool that drew the line but whose proper function is not to leave a trace (untitled, 1983). The arrangement gathers together the essential elements of graphic image production, and they identify the requisite procedure without being compelled to re-present a picture. It is a configuration concerned only with the essence of drawing/painting, the basic requirements of the imaging process, or, to quote Lambert Wiesing: 'the generation of visibility is substituted for the reproduction and interpretation of a visible reality.'[1] In *Empire of Signs*, Roland Barthes asked: 'Where does writing begin? Where does painting begin?'[2]

Throughout the past 15 years, Dieter Kiessling has consistently devoted himself primarily to questioning and investigating the generation and playback of images by (analog) technical media: television, video camera, slide projector. Thus, in untitled (1994) 'a slide projector projects by means of the light of its projection-bulb the light bulb onto the wall without a slide between the lens and the light bulb'.[3] The image of the filament lamp conveys information about the functional conditions of the slide projector, about electrical image generation. Through the vehicle

1. Lambert Wiesing, *Die Sichtbarkeit des Bildes*, Hamburg, 1997, p. 267.
2. Roland Barthes, *Das Reich der Zeichen*, Frankfurt/M., 1981, p. 35 (own translation). [*The Empire of Signs*, London: Cape, 1982.]
3. Description of the work by Dieter Kiessling in: *Dieter Kiessling. Projektionen und Videoinstallationen*, catalogue of Gesellschaft für Aktuelle Kunst, Bremen, 1995, p. 36.

of light, the picture provides a 'clear reflection of its own basis: its visibility.'[4]

The production of images is among the purposes served by the computer, the universal machine and manifest determining element of our post-industrial, late 20th-century societies. What Dieter Kiessling investigates in *Continue*, however, is not (just) the nature of digital image generation but, logically enough, the nature of the machine's mode of function in general.

We are aware of the inexorability of the machine which is governed only by the binary code. It reacts to 0/1, to Yes/No, Either/Or, Quit or Continue. Incorruptible, it accepts no compromises, no 'maybes'. Acknowledges no intermediate states between 0 and 1. Quit or Continue? This query is the essence of the options open to us vis-a-vis the machine. When faced with an interactive art-work that functions by the rules of the digital machine. Quit or Continue? Yes or No? Black or White? If we continue, then the query seemingly multiplies infinitely into a seemingly infinite number of identical options. Quit or Continue? Get involved, or turn away? The process by which we approach a work of art is demonstrated – and shows us just how banal our options are. Yes or No? 0 or 1? Quit or Continue? Infinity is, in fact, limited: a pixel is the smallest, indivisible unit of the digital image, and when the threshold has been exceeded in which 'Quit' is allocated to every second pixel and 'Continue' to the others, then only random operations remain, as opposed to further multiplications.

India is considered to have been the cradle of modern mathematics, and Muhammed ibn Musa al-Khwarizmi (c. 780–847 AD), the Uzbekistani mathematician from whose name the term algorithm is said to be derived, went there in order to perfect his mathematical skills. He demonstrated

4. Wiesing, op. cit., p. 268.

methods of solving quadratic equations, thereby employing the logarithmic system also inherent in what is known as the 'wheat-corn legend'. The legend, which is generally associated with the origins of chess, goes as follows:

> The wise inventor of chess asked the King to remunerate his invention merely with wheat-corns paid according to the following principle: one grain for the first square on the chess-board, two grains for the second square, four grains for the third square, eight grains for the fourth, sixteen for the fifth, and so on. The general astonishment in view of such modest demands changed to sheer dismay on the part of the King when it finally emerged that the sixty-fourth square alone would cost the monstrous, unpayable sum of 9 223 372 036 854 775 808 wheat-corns, meaning 18 446 744 073 709 551 616 grains of wheat would be due in total. A book clearly demonstrated that all of Europe and large parts of Africa would have had to be covered in wheat in order meet the payment; the area of the Indian subcontinent would not have been sufficient.[5]

Thanks to the findings of al-Khwarizmi, the unspeakably large sum of wheat-corns was later (in the 11th century) stated at the more manageable size of 16^{16}-1. As if conversely Dieter Kiessling now wants to confirm the inconceivable, and at the same time refer to the historical roots of modern arithmetic and with them the origins of the computer, *Continue* plainly shows the first stages of the calculation relating to the number of wheat-corns. By the sixth stage, the screen does indeed resemble a chessboard. Obviously, the area of the screen is insufficient to display the dimensions being handled. At the nineteenth stage, the viewer has 153,600 possibilities of choosing 'Continue', but this number is little more than theoretically significant, since exact decisions are scarcely possible. From the twentieth stage onward – or, by analogy, only the beginning of the third row of the chessboard – the viewer sees only a uniform grey surface in which choice has become random decision.

   Although we are dealing apparently with branches (the subdivisions of the options), it is in fact a one-way street ('the technique of the one-way

5. Joachim Petzold, *Schach – Eine Kulturgeschichte*, Leipzig, 1986, p. 13.

street is related to that of the gambler'[6]): we can only start over from the beginning, again and again, and the route we follow will always be exactly the same. Yet to follow it is a pleasure, as *Continue* makes no attempt to fool us into believing in the false infinities the hype surrounding the CD-ROM would have us believe in. *Continue* takes us to the other end, or, if one chooses, the beginning: to the binary code degree zero.

Translation: Thomas Morrison

6. Theodor W. Adorno: 'Walter Benjamin's *Einbahnstrasse*.' – Id.: *Über Walter Benjamin*, Frankfurt/M., 1990, S. 29.

Media Impressionism –
On Anja Wiese's trance machine*

By Tilman Baumgärtel

A story has a beginning, a climax, and an end.

A sentence has a start and a close. Subject, predicate, object, relative clauses, main clauses.

History is made up of historical events. Of battles, coronations, peace treaties, elections, contracts, soldiers' deaths, the bombing of a bridge, the invasion of the Allied Forces.

In space there is up and down, left and right. Things in the foreground, things in the background.

The great disorder sets in with reality. It emits sensori-motor signals, bombards us ceaselessly with audiovisual data. The sum of that able to be perceived and known is simply too much for the receptive capacities of people everywhere – not just in the dense mediatized cities. We escape this permanent assault of the perceptible by partially closing our channels to input. In order to process the floods of reality, we organize our sensory impressions and try to master them by accentuating some and suppressing others. Thus, what we have experienced becomes a story, the impressions and scraps of words in our brains line up in sentences. The things

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* The book edition of *artintact 4* featured an essay on Anja Wiese's work by Barbara Köhler, who withheld permission to reprint the text. The present essay was commissioned for the DVD issue. (Ed.)

Anja Wiese: *trance machine,* 1997. Screenshot.

going on in the world become history or are forgotten, the space surrounding us is seemingly divided up into directions: up and down; left and right; east, west, south, north.

Anja Wiese's art works on, and against, this ordering of things. In her sound-and-video creations, she makes use of the data streaming into our eyes and ears, yet breaks down that stream of phenomena into small units, into a set of precisely dosed stimuli. Although at first apparently a homogeneous great whole, every work is concerned with analysis as opposed to synthesis, with isolating and re-combining elements of sound and vision. Wiese employs to that end mainly technical media: endlessly looped tape reels, dictaphones, digital sound storage, video.

The method deployed by Anja Wiese is a kind of media Impressionism reminiscent, in many regards, of the historical movement that prioritized immediate, heterogeneous accounts of perceived sensory stimuli over homogenizing representations of the whole. In Impressionist painting, the focus is placed upon the transient stimuli of light and atmosphere, upon moods and manifestations. In the view of the painters, these impressions came into being through the world's direct impact upon the senses. These perceptions are not fully developed, are in part not yet touched or formed by cognition and experience.

'Impressions' of that nature are similarly conveyed in Anja Wiese's works: sections and fragments of reality instead of one totalizing overall picture. And just as the Impressionists made paintings of their fascination with the volatile, iridescent attributes of colour and light, so Anja Wiese almost invariably devotes herself to ephemera: to moving pictures and transient sounds, to the light so important for the earlier Impressionists. This gives her works a crystallizing, ambivalent quality that appeals to the senses without being sensual and investigates phenomena analytically without being sterile, abstract or cold. While the Impressionists were attempting to document their own 'naive view' of the flow of manifestations, Anja Wiese's oeuvre is more concerned with creating conditions

that permit the spectator an unprejudiced view of phenomena – that 'virgin seeing' (or hearing, in the case of Wiese's sound installations) so often alluded to in the literature on Impressionism.

Viewed close-up, an Impressionist painting often consists of colour fields and dots that initially 'portray' nothing. The fragments form a picture only after one steps back. Because the Impressionists wanted their paintings and sketches to record their own transient, subjective and fragmentary perception, their canvases showed their 'view of the world' broken down into small fields of colour. Reality, in Anja Wiese's work, is similarly dissected into small fields of sensori-motor perception – scraps of sentences, dots and patches of light, video images – to be assembled into compositions of the viewer's own.

Describing the tellingly entitled *Untameable Ambivalence* of 1987, a site-specific environment created for the Galerie Brusten in Wuppertal, Friedemann Malsch wrote:

Anja Wiese covered the windows with foil which, with infinite patience in many work stages, she painted purple-red, leaving behind in each of the painted surfaces different internal structures. These foils bathed the space in a diffuse but sharply intensive red light of a well-nigh physically palpable aggressiveness. It was accompanied by the pounding rhythm of a serial taped composition of two sentences: 'Be utterly frank! Tell the truth!' The effect of the colour was indeed so strong that visitors entering the space had no opportunity to find their bearings, too preoccupied were they with absorbing the sensory impressions and resisting the insistent command. The artist had more than overcome the dominance of the interior architecture and its geometry: *by creating a space of colour, she had broken down the central space into a diffuse space devoid of structure and hierarchy.*[1]

The conclusion I have placed in italics might almost describe an Impressionist painting – a late Monet, for instance. Wiese produces diffuse 'impressionistic' situations free of structure and hierarchy in much of her work, including *trance machine* (1997) to which this essay is devoted. A

1. Friedemann Malsch, 'Wagner, Jansen, Rentmeister, Wiese. Galerie Brusten, 28.8.1987 – 17.1.1988.' – *Kunstforum International*, Vol. 93, March 1988, p. 304 (my italics, T.B.).

CD-ROM project, it developed from her acoustic environment *The Singular One* (1995). I intend to discuss the latter in the context of her œuvre in order to illustrate my view that its central questions and subject-matter play modified roles throughout her work. Just as *The Singular One* dissects into isolated visual components those narratives and statements by which a subject constructs itself as 'I', as a first person singular, so Anja Wiese's other works break up narratives, histories and places. Spatio-temporal continuity has been disrupted. Language, history, biography and place are no longer unified, but dispersed in an opalescent field of perceptual stimuli.

 The Singular One and *trance machine* represent the (fictional or factual) biography of a nameless female. Either work is at once constituted and dismantled by the personal information provided by a woman speaking in the first person singular. The user-viewer of *trance machine* sees on the monitor a rectangular black field upon which are rotating 32 grey circles that look like stylized tape reels. After clicking on one of these circles, one hears the fragment of a sentence: it is repeated a few times, slowly fading out in the process. The greater the number of reels activated, the more fragments can be heard. They merge into a wall of sound, a multilayered stream of consciousness. It is a kind of internal monologue, apparently waiting to be retrieved. All the sentences are spoken in a slightly foreign accent by the same female voice. Sometimes two reels swap places – the one clicked upon takes the other's place, adopts its rotary direction. Four fragments at a time add up to one complete sentence, a thin grey line then appears between the four 'matching' reels. Other than that, little visual distraction is offered by the grey reels against a black backdrop. One soon concentrates on the spoken matter.

Sometimes I felt light and free.
It was hard for me to hold out in an unpleasant environment.
I had great powers of imagination, much too much to be satisfied with mere reality.
I was helpful and generous.

I was soft, fragile, but didn't want to show it.
Sleep was part of my work.
I couldn't rest in face of a challenge.

The sentences generated by *trance machine* are the reflections of an anonymous woman who remains, for all her self-portrayal, at a distance. One may speculate on her identity: Are we hearing the artist's own autobiographical deliberations? The thoughts of an invented personality? The foreign accent makes the sentences alien. Depending upon the combination in which they are heard, they can indicate a crisis or a positive phase of self-discovery. Sometimes the sentences seem sad, sometimes wise. At times one makes out a note of self-pity, at others cool self-analysis and insight. Because all the sentences are delivered in the past tense, the woman seems to be speaking about a past life.

trance machine was made for CD-ROM, and thus designed for the computer. It is a kind of digital multiple able to be taken home and played, not reliant on a museum or gallery to be shown or seen. This more private and defined usage of the CD-ROM suits the confidential revelations transported by the woman's voice. It can be seen and heard repeatedly: *trance machine* – unlike *The Singular One* – does not demand a specific space of a specific size. And the title alone suggests that the work can keep its user occupied for a longer period of time, is indeed meant to envelop the user within a sustained trance-like state.

Unlike many other works for computer-based media such as CD-ROM or the Internet, the technical nature of the computer is not a primary theme of *trance machine*. Certainly, it uses the computer's genuine attributes: the interconnection of various multimedia elements such as acoustic samples and animated sequences. The work allows user interaction in real time, and establishes hypertextual links between dissimilar, discrete elements. As such, *trance machine* is media-specific – in no other medium could it be shown the way it is – yet not self-referential in regard to the medium. The computer is not its subject-matter, but merely artistic

means to an end. In one respect only is *trance machine* dependent on the machine it runs on: the quantity of available RAM determines how much sound can be generated and played simultaneously. To prevent the *trance machine* from grinding to a halt, the programming is such that the RAM (along with the stored sound fragments) is deleted continuously as long as the CD-ROM is running.

Anja Wiese presented *The Singular One*, the acoustic environment from which *trance machine* emerged, in the Kesselwerke, Dusseldorf, in 1995. It was also the source of the sentences – or samples – she used for the CD-ROM, thus transferring them from a physical location into virtual computer space. If *The Singular One* was a kind of poem transplanted into physical space, a three-dimensional soliloquy rendered in the roomy expanse of a former open-plan office building, then *trance machine* places these sentences in an intimate situation more akin to those in which confidences are communicated. Barbara Köhler describes *The Singular One* as follows:

This latter work consists of 64 digital sound storage and retrieval units in plexiglass boxes with flashing elements and motion sensors, which are arranged in a chessboard-like formation at one-metre intervals on the floor of a dark room. The flashing elements and voices are activated when somebody enters the installation; each sentence is repeated, with no variation in the acoustic volume, for approximately one minute. It would be possible to quote Duchamp and say the viewer thus makes the art-work, but equally possible to add to and particularize this statement by saying s/he is made part of the art-work, which the artist created with this intention in mind. Movement sets the installation in motion, the rhythm of footsteps generates a (different) rhythm of speech and every path through the installation a type of story, a possible connection of sentences.[2]

Not unlike the chance operations John Cage deployed in his compositions, the sentence elements in both *trance machine* and *The Singular One* are allowed to enter into a relationship with each other through the view-

2. Barbara Köhler, 'The Grammar of the First Person Singular.' – *artintact* 4. Ed. ZKM Karlsruhe, Ostfildern: Hatje Cantz, 1997, pp. 115–6.

ers' arbitrary acts (clicking in one case, walking in the other). Wiese employs a similar method in many of her installations and sound or video works dealing with the raw audiovisual material of our experience. She breaks down into small units the reality we normally order and arrange for ease of absorption, and dissects big stories into their small parts. Where other artists create a synthesis of the phenomena of the material world by means of various media, she separates the manifestations and subjects them to artistic scrutiny.

Her method becomes particularly clear if one compares the organization of sound and image – Wiese's preferred materials – with 'normal' media presentation of the same. Conventional feature films or documentaries lay out their footage along a strand of time, and construct a story from the disparate elements. A radio play or feature does much the same with sound material. Film, video and recorded sound obey a strictly linear system in such processes: like a train running from station to station, they reel off one event after another, image for image, sound upon sound. Anja Wiese's installations allow visitors *to assume an attitude* of their own choosing: that is what distinguishes them from 'normal' films or radio plays, which the viewer or listener must *follow*.

Her sound-and-video installations detach the images and sounds from a rigid linear order and transpose their two-dimensional sequence into three-dimensional space. The sequence of sound and visual elements is no longer predetermined; it is up to the viewers to find a way through the data. They can walk straight through, or dwell on specific elements. *History*, an acoustic environment of 1992, thus merges historical accounts into a soundscape that the visitors can break down into components that restore the sense. Anja Wiese described her installation as follows:

From the speakers we can hear the personal histories of two women, who directly experienced life as it was when these bunkers were actually in use. Their stories tell of life under the Nazi dictatorship and during the Second World War from a civilian perspective. The speakers are linked up in the room and attached to the walls. All cassette recorders are playing si-

multaneously, so that a general and undifferentiated murmuring can be heard. The wall is narrator, whispering its story. The principle of simultaneity of experiences from personal life, the relativity of the individual against the background of contemporary events, the value of human life in its uniqueness, the interlocking network of memories, the movement from speaker to speaker, the speaking and listening […].[3]

A multilayered historical picture is similarly drafted by wall-mounted dictaphones in *HiddenWords* (1999), an installation which was made for one of the towers of the Bridge of Remagen, an edifice destroyed in World War II. Computer-synthesizer voices recite excerpts from seven diaries recording personal experience of various conflicts – World War I, Belgrade during the NATO bombardment, Kosovo, the eyewitness account of a women from Erpel (site of one of the two bridge towers) talking about World War II. History, in this installation, disintegrates into a multiplicity of voices. By moving through the spaces, the visitors assemble their own version of the recounted events. In *The Singular One* too, the arrangement of sentences varies continuously according to individual viewer movement – and indeed without the walking visitor, no re-arrangement occurs in the first place. Thus, new contexts and juxtapositions arise, incessantly conflicting and overlapping.

The installation *Beep Little Signal* (1997) plays upon the viewer's spatial and acoustic disorientation even more than *Untameable Ambivalence*, the work described above by Friedemann Malsch. Small acoustic-visual signal generators independently emit at two-minute intervals a brief beep along with a simultaneous light signal. 'In Essen the installation was shown in a darkened room. For the brief time each red light signal was lit it became a point of orientation in space.'[4] Sound and space are

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3. Anja Wiese, 'Geschichte_History.' – *Anja Wiese*. Ed. Stadt Neuss – Der Oberstadtdirektor, Kulturforum Alte Post, Neuss, 1998, no page nos.
4. Anja Wiese, 'Beep Little Signal.' – *Anja Wiese*, op. cit., no page nos. The installation was shown in 1997 at the Forum Bildender Künstler, Essen, and at the Galerie Gaby Kraushaar, Dusseldorf.

similarly interconnected in *civilised animism (poem machine)* (1994):

The poem machine consists of 16 tape recorders connected in series to form a circle. Along the recording heads of the machines a loop of tape is transported. The sound volume of each recorder has been adjusted to match the room acoustics. The sound track is composed of a series of 1-metre-long sequences in which a human voice (the artist's) imitates animal noises. The irregular repetition of the different sound sequences produces a (machine-generated) voice/noise orchestra that is amplified by the echoes in the room.[5]

Even more radical was the sound installation *Time Machine* (1994) shown within the industrial space of the Flottmann-Hallen in Herne. A microphone invited visitors to record their own voices on an endless tape running from one tape recorder to the next, while other devices played pre-recorded sounds and texts:

The recorded matter is […] played several times consecutively as it runs from recorder to recorder, until finally being deleted by a different, pre-recorded tape. [The installation] is a work of art that reproduces and thematizes itself and the place of its exhibition.[6]

'Interactive' would seem to be the obvious term applying to works that are controlled or influenced by motion sensors, mouse clicks or speech into microphones. Yet that notion, which has deservedly fallen into discredit in recent years, is not apt in regard to Anja Wiese's works. In the 1980s and '90s, people considered 'interactive media art' to consist primarily of computer-based works allowing the viewer to control and manipulate occurrences – generally on a monitor screen or video projection – by pressing buttons operating a trackball or other input device. Critics justly pointed out that in many cases the artist's pre-configurations severely curtailed the viewers' freedom of choice. Contrary to what

5. Inke Arns, 'Gedicht(-Maschine).' – *Minima Media* – documentation of the Medienbiennale Leipzig 94, Ed. Dieter Daniels, Oberhausen: Pitt Verlag and Leipzig: Mencke Presse, p. 92.
6. Anja Wiese, 'Zeitmaschine' – *Unterholz*. Katalog zur Ausstellung in den Flottmann-Hallen Herne, 29.1. – 13.4.1994. Ed. Stadt Herne, Emschertalmuseum, p. 42.

the term 'interactive' suggested, the audience was given the option of calling up a program, or a series of predefined sequences, but not of truly interacting with the work. The viewer-users did not become co-creators, as asserted by some artists and theorists, but reacted in Pavlovian dog-like fashion to discriminative stimuli, pre-programmed alternatives and instructions to act. Thus, they became co-executors of the artist's intentions. The more extreme examples of such works were considered not to involve spectators in the creation or process-based existence of an artwork, but to manipulate them.

Anja Wiese's works are not interactive in the above sense, although without spectator participation many of them would be merely collections of devices, of dead hardware. In most of these installations, Wiese does not confront her public with simple alternatives or leave them alone with a set of choices. She creates a space of possibility in which viewers and listeners can move with a large degree of freedom.

Many of the sensory experiences offered to visitors may be confusing, even disorientating. Yet Wiese's art invariably offers the audience the chance of adopting a stance towards her object, towards the sounds and images she supplies. Often, this position may be tangible and physical – viewers walking round, past or into her installations do not co-create the work, admittedly, but inevitably trigger a multitude of dissimilar sensory experiences. The components fuelling such experiences are stipulated in advance, and Anja Wiese makes no attempt to conceal the fact that her audience is unable to alter anything. Nevertheless, her works are more ambiguous, less fixed in meaning and mediated sensoriality than most of their 'interactive' peers.

Many of her works make the spectators into participants who are not separated from the work by an aesthetic boundary but placed as witnesses in the centre of the installation. They intervene, voluntarily or involuntarily, more perhaps by chance than intention, in the process of what is seen and heard.[7]

7. Thomas Brandt, 'Untameable Ambivalence.' – *Anja Wiese*, op. cit., no page nos.

While Anja Wiese's art never pretends to give the audience complete freedom in reconstructing the furnished material, it offers a range of choice exceeding that of simply deciding among a series of stipulated alternatives. It is a process that often appears to duplicate mental processes of perception. By plucking out isolated components from the overall picture one has absorbed and organizing them in new, cursory and multilayered fields of perception, an installation comes closer to our senses' manner of perceiving reality than a conventional linear film or radio play would be able to. Her works are 'impressionistic' in that sense: just as Cézanne claimed to paint patches of colour, so Anja Wiese works with visual and acoustic 'patches'. She leaves it up to the viewer to order these and place them in a context that makes sense.

The 'sound patches', the acoustic samples supplied to the user in *trance machine* are merely cursory pointers to the person or state of consciousness she wishes to portray in this work. Wiese does not draw up a portrait of the character speaking to us through the *trance machine*; she provides us with scant, impersonal pointers to moods and self-descriptions. On the basis of the latter, we must try to imagine the woman who opens up her heart yet reveals so little. It is no grand self-portrait, no heroic tale. What *trance machine* has to tell us is devoid of pathos.

Reminding us of the sketchy brushwork for which many Impressionist paintings have become noted, *trance machine* draws no more than an ephemeral portrait of the woman it serves as mouthpiece. It is organized like a board game: click long enough on the reels, and they eventually fall into groups of four. Suddenly, the sound fragments make up complete sentences, and thin grey lines between the reels seemingly establish a link between what is said. And the player is left hoping that the impression left behind is not all there is to be said about the person portrayed in *trance machine*.

Translation: Thomas Morrison

Marina Gržinić & Aina Šmid

Marina Gržinić, geboren 1958 in Rijeka (früher Jugoslawien, heute Kroatien), lebt und arbeitet seit 1977 in Ljubljana. Sie promovierte in Philosophie an der Philosophischen Fakultät und ist wissenschaftliche Mitarbeiterin am Institut für Philosophie an der ZRC SAZU (Wissenschafts- und Forschungszentrum der Slowenischen Akademie für Wissenschaft und Kunst), Ljubljana. Sie arbeitet außerdem freiberuflich als Medientheoretikerin, Kunstkritikerin und Kuratorin.

Aina Šmid, geboren 1957 in Ljubljana, lebt und arbeitet in Ljubljana. Sie studierte Kunstgeschichte an der Philosophischen Fakultät in Ljubljana und arbeitet als Redakteurin eines Kunst- und Designmagazins.

Marina Gržinić und Aina Šmid beschäftigen sich seit 1982 mit Videokunst. Sie haben seitdem in mehr als 30 Videokunstprojekten zusammengearbeitet, einen Kurzfilm und zahlreiche Video- und Medieninstallationen sowie mehrere Fernsehproduktionen und Dokumentarvideos realisiert.

Marina Gržinić was born in Rijeka (formerly Yugoslavia, today Republic of Croatia) in 1958, and has lived and worked in Ljubljana since 1977. She gained a PhD in Philosophy at the Faculty of Philosophy and works as researcher in the Institute of Philosophy at the ZRC SAZU (Scientific and Research Center of the Slovenian Academy of Science and Art), Ljubljana. She is also active as an independent media theorist, art critic and curator.

Aina Šmid was born in Ljubljana in 1957, lives and works in Ljubljana. She is an art historian (Faculty of Philosophy, Ljubljana) and works as contributing editor for an art and design magazine.

Marina Gržinić and Aina Šmid have been involved in video art since 1982. Since that time, they have collaborated in more than 30 artists' video projects, made a short film, and produced numerous video and media installations. They also directed several video documentaries and television productions.

First prize, 3rd international video
Biennial Cankarjev Dom, Ljubljana,
1987

First prize, Biennial video manifestation
Video Susreti, Sarajevo, 1991

First prize, Videonale 5, Bonn, 1992

Special Award, German Award for Video
Art, 1993

First prize for an original video music
composition at Il Coreografo
Elettronico, Naples, 1994

Award, 10th Festival TTVV Riccione, 1995

Award, 38th San Francisco International
Film Festival, San Francisco, 1995

First video award and award as best
women video artists, 1. International
Video Festival, Buenos Aires, 1995

Silver soire award winner, 39th San
Francisco International Film Festival,
San Francisco, 1996

First prize, Video festival, Nuremberg,
2000

Stipendien (Auswahl) /
Selected stipends

Grant of the International Agency U.S.A.
for video art research in New York,
Boston, Chicago, Los Angeles and San
Francisco, 1988 (Marina Gržinić)

Grant as resident artists at The Art Studio,
Banff Centre for the Arts, Banff,
Canada, 1990 (Gržinić & Šmid)

Fellowship of the Japan Society for the
Promotion of Science, Tokyo, 1997/98
(Marina Gržinić)

Apex curatorial fellowship, New York,
2001 (Marina Gržinić)

Werke (Auswahl) / Selected works

Trenutki odločitve (*Moments of Decision*),
video, 1985

Os življenja (*Axis of Life*), video, 1987

Doma (*At Home*), 16 mm film, 1987

Gola pomlad (*Bare Spring*), video, 1987

Deklica z oranžo (*The Girl With Orange*),
video, 1987

Žed (*Thirst*), video, 1989

Bilokacija (*Bilocation*), video, 1990

Moscow Portraits, video and video instal-
lation, 1990

Sejalec (*The Sower*), video and video
installation, 1991

Tri sestre (*Three Sisters*), video, 1992

Ženska, ki nenehno govori (*The Woman
Who Constantly Talks*), video, 1993

Labirint (*Labyrinth*), video and video per-
formance, 1993

Transcentrala, video and video installa-
tion, 1993

Rdeči čeveljčki (*Red Shoes*), video, 1994

Luna 10, video and video installation (The
Butterfly Effect of Geography), 1994

Zgodba o metulju (The Butterfly Story),
video and video installation (The
Butterfly Effect), 1994/95

A3 – Apatija, Aids in Antarktika (*A3 –
Apathy, Aids and Antarctica*), video
and video installation (The Butterfly
Effect), 1995

IRWIN CD-ROM, *Model 2000*, computer
graphics and animation, 1995

Os življenja (*Axis of Life*)
<http://www.ljudmila.org/
quantum.east>, Website, 1996

*Post-socialism + Retro avant garde +
IRWIN*, video, 1997

Dan D (*Day D*), video, 1997

Zvezdogled (*Stargazer*), video, 1997

LUNA PARK, interactive video installation,

produced by the ICC Biennial '97, Tokyo, 1997

O muhah s trznice (*On the Flies of the Market Place*), video, 1999

NET.ART.ARCHIVE <http://www.zrc-sazu.si/net.art.archive/>, Website and interactive multimedia installation, 1999

SILENCE SILENCE SILENCE, video, 2001

Präsentationen (Auswahl) / Selected screenings

World Wide Video Festival, Den Haag, jährliche Teilnahme / annually 1986–1995

European Media Art Festival, Osnabrück, 1988/1990/1994/1995/1997

Muu Media Festival, Helsinki, 1990

Videonale, Bonn, 1992

International Video and TV Festival, Montbeliard, 1992

Grand Prix Video Danse, Paris, 1993

Viper, Lucerne, 1994

London Film Festival, London, 1994

Oberhausen Short Film Festival, Oberhausen, 1994/1995

Pandæmonium, London Film Festival, London, 1996

Mediopolis, Berlin, 1996

Videoformes, Clermont-Ferrand, 1996

Fundació La Caixa, Mediatheque, Barcelona, 1999

Viper, Basel, 2000

14. Stuttgarter Filmwinter, Stuttgart, 2001

Ausstellungen (Auswahl) / Selected exhibitions

Information Center of the Museum of Modern Art, Ljubljana, 1991

Europa, Europa. Das Jahrhundert der Avantgarde in Mittel- und Osteuropa, Bonn, 1994

I and the Other (Ik + De ander) at the Beurs Van Berlage, Amsterdam, 1994

Video Viewpoints, Museum of Modern Art, New York, 1994

ICC Biennial Manifestation, Tokyo, 1997

net_condition, Steirischer Herbst, Graz, 1999

After the wall, Moderna Museet, Stockholm, 2000

Positionen, Museum 20 Jahre, Vienna, 2000

Broadway gallery 450, New York, 2001 (solo exhibition)

Bibliografie (Asuwahl) / Selected bibliography

Bücher und Texte von Marina Gržinić / Books and texts by Marina Gržinić

Marina Gržinić, Aleš Erjavec, *Ljubljana, Ljubljana*. Ljubljana, 1991.

Marina Gržinić, *In a Line for Virtual Bread. Time, Space, the Subject and New Media in a Year 2000*. Ljubljana, 1996.

—, *Fiction Reconstructed. New Media, Video, Art, Post Socialism and the Retro-Avant-garde*. Essays in Theory, Politics and Aesthetics, Ljubljana, 1997.

Spectralization of Technology: From Cyberfeminism to Elsewhere and Back.

Eds. Marina Gržinić, Adele Eisenstein, Maribor: MKC, 1999.

The Body Caught in the Intestines of the Computer. Eds. Marina Gržinić, Adele Eisenstein, Maribor: MKC, 2000.

Marina Gržinić, 'Exposure Time, the Aura, and Telerobotics.' – *The Robot in the Garden: Telerobotics and Telepistemology in the Age of the Internet*. Ed. Ken Goldberg Cambridge, Mass.: MIT Press, 2000.

—, 'Strategies of Visualisation and the Aesthetics of Video in the New Europe.' – *Culture and Technology in the New Europe: Civic Discourse in Transformation in Post-Communist Nations*. Ed. Laura Lengel, London:

Ablex Publishing Company, 2000.

—, *Fiction Reconstructed. Post Socialism and the Retro-Avantgarde*. Vienna: Edition selene, 2000.

—, 'Spectralization of Europe.' – *net_condition.* Eds. Timothy Druckrey, Peter Weibel, Cambridge, Mass.: MIT Press, 2000.

The Last Futurist Show. Ed. Marina Gržinić, Ljubljana, 2001.

Gallery Dante Marino Cettina – Future perspectives. Ed. Marina Gržinić, Umag: Gallery Marino Cettina, 2001.

WEBSITE

http://www.ljudmila.org/quantum.east/

Dieter Kiessling

Geboren 1957 in Münster, lebt in Düsseldorf und Karlsruhe. Studium an der Kunstakademie Münster 1978–86. 1997 Gastprofessur an der Hochschule für Künste Bremen, seit 1997 Professur für Medienkunst an der Staatlichen Hochschule für Gestaltung Karlsruhe.

Dieter Kiessling was born in Munster in 1957, and lives in Dusseldorf and Karlsruhe. He studied at the Kunstakademie, Munster, from 1978 to 1986. He was visiting professor at the Bremen Academy of Art in 1997, and in the same year was appointed Professor of Media Art at the State Academy of Design, Karlsruhe.

STIPENDIEN UND AUSZEICHNUNGEN / STIPENDS AND AWARDS

WERKE (AUSWAHL) / SELECTED WORKS (O.T. = UNTITLED)

Production Prize, Videonale Bonn, 1986
Karl Schmidt-Rottluff Stipendium, 1990
Förderpreis des Kulturkreises im BDI, 1990
Caspar-von-Zumbusch-Preis, 1990
Förderpreis des Landes Nordrhein-Westfalen, 1991
Special Award, First German Award for Video Art, 1992
Arbeitsstipendium des Kunstfonds Bonn, 1993

Filmarbeiten / Film works

Mauerfilm (*Wall Film*), film performance, 1982
o.T. (aufwärts/abwärts laufender Film / upward/downward running film), film installation, 1982
o.T. (Wasseroberfläche / Water surface), film installation, 1986

Videobänder / Videotapes

Vorhänge (*Curtains*), 1982/86
Ausgrabung (*Excavation*), 1982/87
Fallende Scheibe (*Falling Disk*), 1986
Fallende Scheibe 3 (*Falling Disk* 3), 1986
Paternoster, 1987
Fallende Scheibe 4 (*Falling Disk* 4), 1992

Videoinstallationen / Video installations

Raster, 1982/86
Pendelnder Fernseher (*Pendulum TV*),
  1982
o.T. (Rückansicht der Bildröhre / rear view
  of picture tube), 1984
Fallende Scheibe 2 (*Falling Disk* 2), 1986
o.T. (eingeschalteter/ausgeschalteter
  Fernseher / TV set switched on /off),
  1988
o.T. (Kerze / candle), 1988
o.T. (Seitenansicht der Bildröhre / side view
  of picture tube), 1989
o.T. (Seitenansichten zweier Kameras / side
  view of two cameras), 1990
STAY, 1991
o.T. (Video walkman), 1991
Zug (*Train*), 1992
o.T. (Fernseher mit umgekehrt eingesetzter
  Bildröhre / TV set with inverted picture
  tube), Fernseherskulptur / TV set sculp-
  ture, 1992
Schleuderstern, Fernseherskulptur / TV set
  sculpture, 1992
o.T. (Projektion des Rasters eines LCD-
  Videoprojektors / projection of the
  raster of an LCD video projector), 1993
o.T. (großer Fernseher auf schmalem
  Sockel / big TV set on narrow base),
  1993
o.T. (rote Glühbirne / red bulb), 1994
o.T. (Fernseher versetzt auf Sockel,

stehend / TV set shifted on base,
  upright), 1994
Ventilator, 1994
o.T. (digital gemischte Vorderansichten
  zweier Kameras / digitally mixed frontal
  views of two cameras), 1995
o.T. (zwei gemischte Ansichten eines
  Stabes, mehrere Fassungen / two mixed
  views of one rod, several versions), 1995
o.T. (Gegenüberstellung zweier Kameras
  und eines Fernsehers / juxtaposition of
  two cameras and a TV set), 1995
Staub (*Dust*), 1996
o.T. (Reflexe zweier Lampen / reflections
  of two lamps), 1996
o.T. (3/4 Kameras / 3/4 cameras), 1997
Würfel 2 (*Dice 2*), 2000
Staub 2 (*Dust 2*), 2000
Objective, 2001

Projektionen / Projections

o.T. (projizierte Neonwerbung / projected
  neon advertisement), Diaprojektion /
  slide projection, 1987
o.T. (Akropolis / Acropolis), Diaprojek-
  tion / slide projection, 1987
o.T. (Projektion der Projektionsbirne /
  projection of the projection bulb), Pro-
  jektion / projection, 1994
o.T. (Projektion auf vier Nägel / projection
  onto four nails), Projektion / projection,
  1994

Skulpturen / Sculptures

o.T. (Gipsblock, Strich / plaster block, line),
  Skulptur/Zeichnung / sculpture/draw-
  ing, 1983
o.T. (Gipswürfel, zwei Striche / plaster
  cube, two lines), Skulptur / Zeichnung /
  sculpture/drawing, 1983

o.T. (Kalksandsteine und Betonkeil / sand-
lime bricks and concrete wedge), 1984
o.T. (Uhrenwaage / clock scales), 1986
o.T. (Kalksandsteine, Papiertüten / sand-
lime bricks, paper bags), 1986
o.T. (Kalksandsteine und Holzkeil / sand-
lime bricks and wooden wedge), 1986
Das Messer (*The Knife*), 1988
o.T. (Zigarettenverpackungskartons /
cigarette cartons), 1989
Die Taschenlampe (*The Flashlight*), 1989
Schränkchen (*Small Cabinet*), 1992
Teleskop (*Telescope*), 1992
o.T. (Glasscheibe, zwei Nägel / glass pane,
two nails), 1995
o.T. (Zwei Fotolampen / Two photo-
lamps), 1999

Verschiedene Fotoarbeiten seit 1987 /
Diverse photo-works since 1987

Ausstellungen (Auswahl) /
Selected exhibitions
(Kat. = Katalog / catalogue)

Einzelausstellungen /
Solo exhibitions

Galerie Hake, Munster, 1987; Wiesbaden,
1988
Städt. Museum Abteiberg, Mönchenglad-
bach, 1989 (Kat.)
Thomas Backhauß Galerie, Dusseldorf,
1991
Räume für neue Kunst, Rolf Hengesbach,
Wuppertal, 1994/1996/2001
Gesellschaft für Aktuelle Kunst, Bremen,
1995 (Kat.)
Kunstraum, Wuppertal, 1996
Saint-Gervais Genève, Geneva, 1997

Gruppenausstellungen (Auswahl) /
Selected group exhibitions

Videonale, Bonn, 1986/1988/1990 (Kat.)
Elektronische Künste, Wissenschaftszen-
trum, Bonn, 1986 (Kat.)
Infermental 6, Edition Vancouver, 1987
Ars Electronica, Linz, 1987
Neues Video aus der BRD, Museum für
Gegenwartskunst, Basel, 1987 (Kat.)
2nd Fukui International Video Biennal,
Fukui, Japan, 1988 (Kat.)
Video-Skulptur retrospektiv und aktuell
1963 – 1989, Kölnischer Kunstverein,
Cologne; Kongresshalle, Berlin; Kunst-
haus, Zurich, 1989 (Kat.)
Multimediale, ZKM, Karlsruhe,
1991/1993/1995 (Kat.)
Wortlaut, Galerie Vaclava Spaly, Prague,
1991 (Kat.)
Avantgarde Reflex Ost-West, Altes
Rathaus, Potsdam, 1992 (Kat.)
Gegenbilder, Ausstellung in Münsteraner
Kirchen, Munster, 1993 (Kat.)
Medienbiennale, Leipzig, 1994 (Kat.)
Videoskulptur in Deutschland seit 1963,
Kunsthalle, Rostock; Centrum
Beeldende Kunst, Groningen; World
Wide Video Centre, The Hague; Mu-
seum van Hedendaagse Kunst, Ghent;
Circulo de Bellas Artes, Madrid; Galeria
Zachęta, Warsaw, 1994 (Kat.)
Videobrasil, Sesc Pompeji, São Paulo, 1994
(Kat.)
Art & Electronics, Pao Gallerys, Hong
Kong Arts Centre, Hong Kong, 1995
(Kat.)
European Media Art Festival, Osnabrück,
1995 (Kat.)
Kwangju Biennale, Kwangju, Korea, 1995
(Kat.)

Electronic Undercurrents, Statens Museum for Kunst, Copenhagen, 1996 (Kat.)

Objekt Video, Oberösterreichische Landesgalerie, Linz, 1996 (Kat.)

Der Traum vom Sehen, Gasometer, Oberhausen, 1997

Video Positive: Escaping Gravity, Cornerhouse, Manchester, 1997 (Kat.)

Galerie Gaby Kraushaar, Dusseldorf, 1997

Zones of Disturbences, Steirischer Herbst, Graz, 1997 (Kat.)

Minimal / Maximal, Neues Museum Weserburg, Bremen, 1998 (Kat.)

Blickwechsel, Museum für Neue Kunst, ZKM, Karlsruhe, 1998

11th Biennale of Sydney, Sydney, 1998 (Kat.)

Kunstpreis der Böttcherstrasse in Bremen, Kunsthalle, Bremen, 1999 (Kat.)

Contact Zones: The Art of CD-ROM, Centro de la Imagen, Mexico City, 1999 (Kat.)

Minimal /Maximal, Centro Galego de Arte Contemporanea, Santiago de Compostela, Spain, 1999 (Kat.)

Rewind to the Future, Bonner Kunstverein, Bonn; Neuer Berliner Kunstverein, Berlin, 1999 (Kat.)

Orbis Terrarum, Plantin-Moretus Museum, Antwerp, 2000 (Kat.)

One of those Days, Mannheimer Kunstverein, Mannheim, 2000 (Kat.)

Die Künstlerstiftung, 25 Jahre Karl Schmidt-Rottluff Stipendium, Kunsthalle Dusseldorf, 2000 (Kat.)

Big Nothing, Staatliche Kunsthalle, Baden-Baden, 2001 (Kat.)

Vor-Sicht Rück-Sicht, 8. Triennale Kleinplastik, Fellbach, 2001 (Kat.)

Minimal / Maximal, Chiba City Museum of Art, Chiba; The National Museum of Art, Kyoto; Fukuoka Art Museum, Fukuoka, Japan, 2001 (Kat.)

Website

http://www.dieter-kiessling.de

Geboren 1962 im Ruhrgebiet, Deutschland. Sie studierte Bildende Kunst an der Kunstakademie Münster und Sozialwissenschaften an der Westfälischen Wilhelms Universität Münster. 1985 wechselte sie an die Kunstakademie Düsseldorf und wurde 1989 Meisterschülerin von Guenther Uecker. 1992 beendete sie ihr Studium mit dem ersten Staatsexamen und absolvierte anschließend ein Zusatzstudium der Audiovisuellen Medien an der Kunsthochschule für Medien in Köln. 1993–96 war sie künstlerische Mitarbeiterin an der Fakultät Gestaltung der Bauhaus Universität Weimar, seit 1996 ist sie Professorin für Gestaltungslehre, Rauminszenierung und Video im Fachbereich Gestaltung der Fachhochschule Bielefeld. Anja Wiese arbeitet mit neuen und alten Medien im Raum. Sie lebt in Düsseldorf.

Anja Wiese was born in the Ruhr district of Germany in 1962. She began her studies with Fine Arts at the Kunstakademie in Munster, and Social Sciences at the Westfälische Wilhelms Universität, Munster. In 1985, she changed to the Kunstakademie in Dusseldorf, graduated in 1992, and completed a supplementary course of studies in Audiovisual Media at the Academy of Media Arts, Cologne. From 1993 to 1996 she worked as artistic collaborator at the Design Faculty of the Bauhaus Universität, Weimar; since 1996 she has been Professor of Design Studies, 'Rauminszenierung' and Video in the Design Faculty of the Fachhochschule Bielefeld. She employs both new and traditional media in her installations and environments. She lives in Dusseldorf.

Werke / Works

Lichtinstallationen / Light installations

Tresor (*Safe*), 1986
Lichtwürfel und Windmühle Kalkar (*Light Cube and Windmill, Kalkar*), 1988
Sysiphus' Atem (*Sysiphus' Breath*), 1989
Hommage à Richard Long, 1989
Leucht-Turm (*Light-Tower*), 1991

Klang- und Tonbandinstallationen / Sound and tape installations

Romeo & Julia (*Romeo & Juliet*), 1988
Das Pfingstwunder (*The Pentecostal Miracle*), 1990
Erstes Rätsel (*First Puzzle*), 1992
Zeitmaschine (*Time Machine*), 1994

Civilized Animism/Gedichtmaschine (*Civilised Animism/Poem Machine*), 1994
Hier-Jetzt Unterbrecher (*Here-and-Now Interruptor*), Tonbandinstallation / tape installation, 1996
Erfassungsbereich (*Registration Range*), interaktive Klanginstallation / interactive sound installation, 1996
Kriegstagebuch, Audio-Installation mit Diktiergeräten/Elektronik / audio installation with dictaphones and electronic equipment, 1999

Videoinstallationen / Video installations

Himmel auf Erden (*Heaven On Earth*), 1993
Zerteiler (*Divider*), 1995

Imperials, Audio-Videoinstallation für 21 Monitore / audio-video installation for 21 monitors, 1998

Seven, Audio-Videoinstallation für 7 Monitore / audio-video installation for 7 monitors, 2000

Environments

Unbezähmbare Ambivalenz (*Untameable Ambivalence*), 1987
Ähnliche Einsamkeit (*Similar Loneliness*), 1987
Geschichte (*History*), 1992
Die Einzige (*The Singular One*), Interaktives Environment / interactive environment, 1995

Andere / Others

Dschungelmusik (*Jungle Music*), Hologramm / hologram, 1985
To maintain the system, that's stupid, I mean, Beschallung / acoustic irradiation, 1986
East-West-Drawing, Fax Konzept / fax concept, 1994
Die Dritte Person (The Third Person) (mit/with Barbara Köhler), Wandinstallation mit Text auf Glas / wall installation with text on glass, 1998

1996 (Kat.)

Oir es Ver/Hören ist Sehen, radio project with exhibition, Expouniversidad '96, Universidad De Antioquia, Medellin, 1996 (Kat.)

Letzter Aufguß, Saunaabteilung des ehemaligen Wellenbades Dusseldorf, 1996 (Kat.)

Un-Frieden. Sabotage von Wirklichkeiten, Kunstverein und Kunsthaus Hamburg, 1996–97 (Kat.)

Labor-Techno, Forum Bildender Künstler, Essen, 1997 (Kat.)

Kimchi und Sauerkraut, Galerie Münsterland, Emsdetten 1997, (Kat.)

Galerie Gaby Kraushaar, Dusseldorf, 1997

Am Fenster (mit/with Barbara Köhler), Landtag NRW, Dusseldorf, 1998

Verborgene Orte, Brücke von Remagen, Erpel, 1999 (Kat.)

Warum ist Zeichnung so schön, Galerie Gaby Kraushaar, Dusseldorf, 1999

Bleibe!, Akademie der Wissenschaften, Berlin, 2000 (Kat.)

Hören ist Sehen/oir es ver/to hear is to see, Austrian Cultural Institute Istanbul, Tercera, Bienal de Radio, Mexico, 2000 (Kat.)

von Haus zu Haus, Westdeutscher Künstlerbund im Museum der Stadt/Städtische Galerie Lüdenscheid, 2000 (Kat.)

Gruppenausstellung koreanisch-deutscher Künstler in Seoul/Südkorea, Städtisches Museum, Seoul, 2001 (Kat.)

Videos von Künstlern, Kunsthalle, Recklinghausen, 2001

total 3000, Projekt im Einkauszentrum, Essen-Altenessen, 2002

Kunstverein Münsterland (mit/with Suse Wiegand), Coesfeld, 2002

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http://www.anjawiese.de

Biografische Notizen / Biographical Notes
Autoren / Authors

Tilman Baumgärtel

Geboren 1966 in Würzburg, Redakteur der *Berliner Zeitung*. Tilman Baumgärtel ist Mitglied der Medieninitiative mikro e.V., Berlin, und Mitgründer und Moderator von *Rohrpost*, einer Mailingliste für Netzkultur. Im Sommersemester 2000 hatte er eine Vertretungsprofessur für Medienwissenschaft an der Universität Paderborn und im Sommer 2001 war er Gastdozent an der Kunstakademie Riga. Veröffentlichungen: *Vom Guerillakino zum Essayfilm: Harun Farocki – Werkmonographie eines Autorenfilmers* (1998), *net.art – Materialien zur Netzkunst* (1999), *net.art 2.0 – Neue Materialien zur Netzkunst* (2001).

Tilman Baumgärtel was born in Würzburg in 1966. He is on the editorial staff of the *Berliner Zeitung* newspaper in Berlin, where he is also active in the 'mikro' project and a presenter of *Rohrpost*, a Net-culture mailing list that he co-founded. He was commissary professor of media studies at Paderborn University in summer semester 2000, and guest lecturer at the Art Academy of Riga, Lithuania, in summer 2001. Publications: *Vom Guerillakino zum Essayfilm: Harun Farocki – Werkmonographie eines Autorenfilmers* (1998), *net.art – Materialien zur Netzkunst* (1999), *net.art 2.0 – Neue Materialien zur Netzkunst* (2001).

Marina Gržinić

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John G. Hanhardt

John G. Hanhardt ist leitender Kurator für Film und Medienkunst am Solomon R. Guggenheim Museum, New York. Zuvor war er über 20 Jahre Abteilungsleiter und Kurator für Film und Videokunst am Whitney Museum of American Art, New York. Er kuratierte dort u.a. die Ausstellungen *Re-Visions: Projects and Proposals in Film and Video* (1979), eine Retrospektive zu Nam June Paik (1982) sowie die erste Warhol-Museumsretrospektive *The Films of Andy Warhol* (1988). Außerdem war er für die Videoauswahl der Whitney Biennalen von 1975 bis 1995 verantwortlich. Von 1972–74 war er Koordinator für Film am Walker Art Center, Minneapolis. Er hat an verschiedenen Universitäten und Hochschulen unterrichtet, u.a. an der Columbia University und am School of the Art Institute of Chicago.

John G. Hanhardt is Senior Curator of Film and Media Arts at the Solomon R. Guggenheim Museum, New York, where for over 20 years he was Curator of Film and Video and Head of the Department at the Whitney Museum of American Art. During that time he curated exhibitions including *Re-Visions: Projects and Proposals in Film and Video* (1979), the retrospective *Nam June Paik* (1982) and, as the first museum retrospective devoted to Warhol, *The Films of Andy Warhol* (1988). Additionally, he made the film and video selections for the Whitney Biennials from 1975 to 1995. He was Film Coordinator at the Walker Art Center in Minneapolis from 1972 to 1974. He has taught at a number of institutions, including Columbia University and the School of the Art Institute of Chicago.

Kathy Rae Huffman

Kathy Rae Huffman ist seit 2000 Leiterin der Hull Time Based Arts, Hull. Von 1998–2000 war sie Gastprofessorin für elektronische Kunst und Leiterin des Programms Electronic Media Arts and Communication (EMAC) am Rensselaer Polytechnic Institute, Troy, New York. Als freiberufliche Kuratorin, Künstlerin, Autorin und Netzwerkerin lebte sie von 1991–98 in Österreich. Als Autorin schreibt Huffman u.a. für *Telepolis*, *Rhizome*, *ISEA* und andere online-Magazine. Zu ihren aktuellen Projekten als Kuratorin gehört [e]dentity, ein Programm, das Videoarbeiten von Künstlerinnen vorstellt und zeigt, auf welche Weise sich weibliche Identität in online-Umgebungen ausdrückt.

Before being appointed director of Hull Time Based Arts in 2000, Kathy Rae Huffman was from 1998 to 2000 Associate Professor of Electronic Art, and director of EMAC, the Electronic Media Arts and Communication program, at Rensselaer Polytechnic Institute, Troy, New York. From 1991 to 1998, she was based in Austria as a freelance artist, curator, writer and networker. She writes for *Telepolis*, *Rhizome*, *ISEA* and other online journals. Huffman's recent curatorial work includes [e]dentity, a program of video works by women showing how female identity is expressed in online environments.

Carina Plath

Geboren 1966 in Münster (Westfalen), lebt in Münster. Carina Plath studierte Kunstgeschichte, Klassische Archäologie und Romanistik in Münster, Bologna, München und Bochum, promovierte über Maria Nordman und die kalifornische Kunst der 70er Jahre und war als Kunstkritikerin u.a. für *Das Kunst-Bulletin*, Zürich, tätig. Von 1999–2001 nahm sie am Kuratorenprogramm des Center for Curatorial Studies, Bard College, New York, teil und kuratierte dort die Ausstellung *image a new*. Seit 2001 ist sie Direktorin des Westfälischen Kunstvereins Münster.

Carina Plath was born in Munster, Westphalia, in 1966. After studying art history, classical archaeology and Romance languages and literatures in Munster, Bologna, Munich and Bochum, she obtained a PhD on Maria Nordman and 1970s Californian Art. She was an art critic for journals including *Das Kunst-Bulletin*, Zurich. From 1999 to 2001, she attended the Center for Curatorial Studies, Bard College, New York, where she curated the show *image a new.* She was appointed director of the Westfälischer Kunstverein, Munster, in 2001.

Astrid Sommer

Astrid Sommer studierte Angewandte Theaterwissenschaft in Giessen und arbeitet als freiberufliche Redakteurin, Dramaturgin und Übersetzerin, u.a. seit 1993 für das ZKM-Institut für Bildmedien.

A graduate of theatre studies, Astrid Sommer works as a freelance editor, dramaturg and translator, and has been associated with the ZKM-Institute for Visual Media since 1993.

Impressum / Colophon

artintact 5

CD-ROMagazin
interaktiver Kunst

Artists' Interactive
CD-ROMagazine

Forced Entertainment
& Hugo Glendinning
Masaki Fujihata
Agnes Hegedüs

artintact 5

cantz

art int act 5

CD-ROMagazin
interaktiver Kunst

ZKM/Zentrum
für Kunst
und Medientechnologie
Karlsruhe

*Artists' interactive
CD-ROMagazine*

*ZKM/Center
for Art and Media
Karlsruhe*

Contents

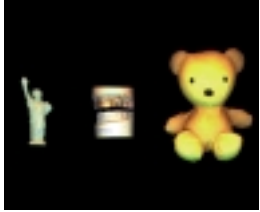Forced Entertainment & Hugo Glendinning: *Frozen Palaces (Chapter One)*

Agnes Hegedüs:
Things Spoken

Masaki Fujihata:
Impalpability

Like several of their predecessors, Agnes Hegedüs and Masaki Fujihata, two of the artists featured in *artintact 5*, have works on show in the ZKM-Media Museum. And this is no coincidence – the Media Museum was designed as a place for producing and displaying art, and strives to fulfil this expectation by refusing to view media art from a standpoint of completion or to turn contemporary works of avant-garde art into museum objects and thus lessen their subversive impact. We are determined to enable visitors to experience art which is not fixated on object-like artefacts, but instead triggers a receptive process that, taking the real museum space as its starting point, extends into the virtual spaces set up by various artists with a consistently diverse range of idiosyncratic architectural concepts. After all, the ephemeral – 'wild' – modernism which was so often an innovative influence on structures of form and content in 20th-century art has been conserved primarily in writing or, at most, in exemplary archived collections, yet seldom, if ever, displayed in the permanent exhibitions of major museums.

This omission is due not only to the traditionally object-oriented interest of museums, but also to the disinterest on the part of artists determined to shrug off the constrictions imposed by the established art institutions. However, this more or less voluntary rejection of the opportunity to use the museum as a meeting-point for artists, art-works and audiences at the same time exacerbated one of the basic conflicts in the relationship between avant-garde artists and the art public: the reception of art, and in particular of new and unusual expressive forms, is reliant on comparison and the availability of as much time as is needed to absorb the new.

The close co-operation with the ZKM-Institute for Visual Media and the ZKM-Institute for Music and Acoustics means the Media Museum has been able, together with its artists and researchers and not least its visitors, to create a platform allowing art to be encountered in the way described above, but avoiding museum-like remoteness or inflexibility. On the contrary: visitors – and artists, too – are offered shifting perspectives as a basis for changing their ways of thinking and seeing. The Media Museum is interested both in the future and the past, and sees its role as adjunct to art whose limits are still far from having been fully explored; evidence of this potential is provided not least by the three works presented in this issue of *artintact.*

Hans-Peter Schwarz
Director of the ZKM-Media Museum, 1992–2000

PVC[1]
PerformanceVideoComputer Projection and Reflection / Production and Reception
By Gerhard Johann Lischka

Life today is transacted to an extreme degree in the polarization of mind and body – of mediatization and embodiment. Supra-temporal images rain onto our transient bodies. We would like to conquer our physical frailties but still feel the earthly weight that the media, so it seems, escape. Since however the body is itself a medium (of society), this conflict can, if approached poetically, be solved in diverse ways both in the (new) media as well as in the performing arts (body art, performance, etc.). Solved in the here-and-now as event combined with the intensified atmosphere of a gathering of people, and solved in media mastered with artistic means and conveying content in enduring form.

Our world-view is the process of reflection and projection onto our perceptive 'screen' whose pictures come from internal and external sources. This turns us all into interfaces, mediators, or creators in the flow of mediatization. We are producers and recipients at the interface between

1. Working under the abbreviation PVC, we have for some years been fostering artistic/ poetic expression in the fields of performance, video and computer. In doing so, we signal the 'becoming' of our notion of the dynamics of development and openness in these fields. It is geared towards activity and experiment, towards dialogue and the construction of meaning. Participation in the process of reception and production is central to this permanent quest.

   Discernible in the setting for art, in particular, is the current diffusion of a conservatism contradicting the inherent spirit of art, and defining as the latter (= quality) only the known, established and successful. The recognition factor has become a guarantee for values which likewise had to be fought for, however, were not simply given. An ideology

individual and society. We are reliant on the self and yet remain together with, and also against, the others. This constant to-and-fro, this oscillation of perception and actions makes us actors in the drama of the life no living creature can escape. In the everyday, all of us are the interpreters of one or more roles we are capable of playing sometimes better, sometimes worse. Everybody plays the lead in this drama, values their own self above their fellow-players, and participates – as long our stocks of strength and energy suffice – both voluntarily and involuntarily. And for everybody the play ends, inevitably, in death.

 Death is the great mystery around which religion and art could entwine and develop. Because death is a farewell for ever, many cultures see it as an arrival in an Elsewhere. In order to tone down the brutality of death, and the pain it deals out to ourselves and those close to us, we established imaginary images of life in the beyond; but in the course of the present century these images began to disintegrate. Qualities with enduring artistic value have been substituted for the afterlife with the prophesied eternal ecstasy or torture, Heaven or Hell. And there is a wholly general expectation that happiness is something not first attainable in Heaven but

of superior knowledge and certainty is suffocating the openness of the art-work, on the part both of producers and recipients.

However much we admire the palatial and cathedral-like new museums, it is the case that conserving contemporary art has become more important than discussing (accepting and rejecting) art, more important than the poetic act. And this is paradoxical. We are being overrun by the given, by a status quo that arrests rather than sets fire to our imaginative powers.

The innate possibilities of performance, video and computer are naturally being used for consolidation to the same degree discernible in musealization. Performance is show and soap opera, videos are sex-and-crime films or mostly uninspired accumulations of music video clips, and the computer serves, and is, business. This clichéd usage of PVC virtually demands a different, more free, approach to these media. We are searching for these by opening ourselves to projects that project and also reflect the different. We scrutinize our representations in order to present new constructions.

in the here-and-now, through the worship of worldly values and images and the satiation of craving for experiences.

Seen in this light, what was formerly a promise of salvation in the hereafter has been replaced by the gratification of desires in the present. Yet as soon as values of longer duration are involved, art is what represents them. The artists are the communicators and designers of these values. They embark on the search for the drama in the drama, or for something that expresses and heightens this drama of life in a form which, long considered to be binding, is now ruptured and indirect.

But: lacking a form geared towards permanency, how are we to arrive at artistic values with the directness of artistic expression? Firstly, by defining directness as such in a way that views its present form as the product of many indirect steps. Behind this form is a wealth of experience and influences, and interplay with the general situation. A further constituent of the direct representation known as performance art is considered to be the single performance's status as component in the performance artist's system. The artist proves to be such only through the string of performances. We see developments, rejections, ruptures and so on, but always in such a way that a poetic spark marks the difference from the usual, from the drama of the everyday. After all, performance artists are magicians of compressed time, in consequence of which values can even during a performance attain a form by no means inferior to that of the long-term duration possessed by the objects usually described as art. No less importantly, the objects used in a performance, and the photos, films and videotapes produced serve as relics for use in subsequent mental visualization.

When I speak of the drama of life, that also implies the existence of a kind of staging, a form. 'Primitive' people do not exist, never have existed; instead, there are (and were) societies with a specific lifestyle, and interest. Style is that form permitted to the body and its representation within the framework of social norms. The buzzword 'lifestyle' likewise means the

standard. But the latter is subject no longer to an all-connecting ideology or cultural universalism but instead to a dictate of fashion which has stopped catering to taste but obeys an often hysteria-tinged faddishness serving as commercial stimulation. When the perception is permanently flooded with stimuli, eccentricity is the exaggeration needed to gain attention in the first place.

This exaggeration – often faddish tastelessness, often jokes with vulgarisms, often sheer nonsense, etc. – developed together with the media of illusion and the attention-at-any-price advertising that emerged in a parallel development. We react to the unusual as we do to a peacock that spreads out its plume and with its 'thousand eyes' holds us in thrall – makes us compliant, in other words. All this is a downgrading of the commonplace, a declaration that the latter is banal. At the same time, even the 'natural' is not just subjected to discrimination, but also erased by the artificial or, more accurately, the mediatized. Lifestyle is the media darling, the dictate of brandnames and symbols, mediatized life.

Lifestyle is existence between information – or between that which can be displayed within the framework across which we, acting as 'projection screen', are stretched. Our interest pursues the circumstances of life, the time and conditions, the space and its constraints. But we also express our own interests, pledge allegiances, integrate ourselves into a code recognizable to people of similar convictions. We stick to superficialities that signal identity precisely in their difference from other, non-used, codes possessed by other groups.

In this way, even absence of style indicates a style, an attitude to life, an allegiance to something or another. Style is indeed communication, a sign. And if everything is a sign for something – or everything can be interpreted as a signifier of something – then style is the repertoire and accumulation of those signs that permit assignment to take place. Certainly, conspicuous and insistently direct signs exist just as much as do common, hidden or secret signs. The result of their interplay is a system closed or

open in its style, a system in which we define ourselves strongly or
weakly, in which we emphasize the individual or tend to merge into the
community.

Depending on what one does for a living, the style issue – the need to
be distinctive – is to a greater or lesser degree virulent. There is a partial
reluctance to pay particular attention to style. All the same, we fall back
on those forms that speak for themselves. Thus, our actions are always
connected with forms that have created themselves or were created in the
appropriate media. Our interests culminate in activities which, if seen
intersubjectively, are for their own part interactions. This relativizes
actions to the degree that they, carried out for or against something, are
actually always inter-actions.

In the production of things such as goods and knowledge, direct ac-
tion, direct access is increasingly ruptured by machines, programs and
tools of diverse kinds. The direct is screened through diverse stages of in-
directness with the result that the coarse undergoes refinement, the direct
undergoes diversion and cultivation. The question is: to what degree do
we tolerate these ruptures, and is it not the case that via the backstairs of
the emotions we are overcome by 'primordial' desires. In other words –
how far do we allow ourselves to be 'educated' at the point where evolu-
tion has stopped, at the point where we encounter the boundaries of sub-
limation. The point where our deeply underchallenged senses are chan-
nelled only into the sense of distance (AudioVision), and proximity is no
longer able to be experienced.

AudioVision or mediatization began with the success of television in
the post-WWII era, and overcame ever-new hurdles of integrating an even
more 'realistic' form of representation extending up to the digital multi-
media that today surrounds us and is in the process of becoming our real-
ity, our global home. Visuals, sound and text are sliding us towards high
fidelity. Thus, everything is coming together to form a new triangle of
Venus from which we come into the world. The points of this Holy Trin-

ity are tipped with P, V, and C respectively, and between these points we move, and with them we merge, before in turn we tear ourselves free.

Even if older media such as theatre, film and radio are not just surviving but are part of everyday life, TV remains the media that has its grip on the centre of attention. In parallel to global migration, the global reports and shows flashed on to the TV screen (or monitor) have styled movement as motion to the elevated status of incessant migration (tourism). People look out of the window of a car, train or jet and into the screen or the windows. The limit of the incessant flood of images is only the frame that can contain it as a reduction of everything. Noise, hissing, sound and chatter bombard our ears. Much goes accidentally unheard. Or did we hear it after all? Just as film celluloid is visible in its negative form, and to this extent part of Modernism, so the magnetism of videotape and the digital principle of the computer are typical expressions – albeit readable only with the assistance of machines – of the post-modern. The analogue is ceding ever more space to the digital, and the atoms to the bits likewise.

Video developed along with and in opposition to television. As a box, the housing that cased the TV screen was emptied, covered over or combined with other casings; the pictures on the screen were manipulated. Then other content was presented, the message was non-conformity. Compared with the popular success of the TV broadcasters, however, artists' video has remained on the sidelines up to the present, and is scarcely shown on TV. Even if the first video gallery was named the 'Television Gallery', exhibitions and festivals are where video art has survived. However marginal the presence of video art, the more successful the staging of video monitoring which, together with TV, has our life in optical control. Passive and active viewing interlock to form the omnipresence of monitor and camera, they are the closed circuit of mediatization. In order to witness a poetic spark flare up on the monitor, video artists work with a wide range of visual languages that shrug off the usual TV-reality image, the unimaginative camera angle and picture composition, the myth of the

'realistic' image anchored in the documentary style. Working thus differently, the artists succeed in viewing the image as an artistic composition and achieving a visual density that does in fact allow us a glimpse of the remote, of the added- and multi-dimensionality of life. For if we critically view TV and video surveillance as the Janus' head of our times, then we should long ago have begun to describe them as 'near vision'. We see something that comes close, often too close, to us, and even robs us of the remote. The zoom is no less proof of that than the visualization of the macro- and micro-worlds: nothing remains unseen, but our viewing angle is constricted.

As viewers of TV broadcasts, we are always the ones who are at a disadvantage. Caution is not asked for by the predominant visual world, which is looking for eyes brutally turned to all and everything. The stock phrase 'Action!' not only tells actors to take up their pose on the film-set, it signifies the predominance of a film genre offering pure motion.

If we translate video with the literal rendering of 'I see', then we already have a pointer towards a different visual world that promises us vision as enjoyment and pleasure, offers us 'delicate', communicative pictures. Optical communication as the power of disposing over the visual alphabet that opposes the tendency towards numbed viewing as visual illiteracy. To see means to see-in, to undertake the construction of the world-view with the third eye of television, of scrutiny, of visual lust.

In its function of navel to the world and neuronal interface, our third eye has acquired an artificial pendant in the form of the computer as universal machine. The now reduced basic decision – whether or not electric current is flowing – is the basis for a parallel universe that is becoming established as global brain, as information control centre. Similar to the magnetic field, the energetic field of a computer network embraces the planet in order to bundle in global cities information as power. The Egyptian scribe has been replaced by the computer specialist who stipulates program and syntax. Storage capacity and access speed define the

possibilities of the system to which people like to attribute artificial intelligence.

Split up into hardware and software (*res extensa* and *res cogitans*), the interface addresses us, and we it, via keyboard, mouse and monitor, and on the display there is room for parallel and serial interfaces. If the smallest visible information unit is the pixel, then through the concentration and dissolution of the grid of dots and the available bits and bytes we are able to witness the creation from 'nothing' of a second reality enabling us to talk about 0-dimensionality as the counterpart of our 4-dimensional world. The finite meets up with the infinite, and at present both appear to be hypertext which can assume many shapes as the body of writing expands through the continuous process of conjunction and linkage.

If the computer established a foothold as adding machine and codebreaker initially, then became integrated into various fields, and is now the network's information node, surely it is feasible to assume that the significance of bits for this parallel universe is similar to that of genes for the living being. What basic unit already determines how much of the systems in their various manifestations? How artificial is the apparently natural, and how naturally will artificial worlds allow themselves to be represented or even created?

However the computer is advanced or evolves, the question will remain of how we assess the consciousness attributed to flora and fauna and machines as opposed to human consciousness. Or, what kind of consciousness we ascribe to them and promote, and how we do it. Are we prone in this process to overestimate our own form of consciousness that culminates in the question of the meaning of existence and builds up a pyramid of values? How much does the unconscious contribute to consciousness when the latter is provable, but the former keeps itself concealed? Where does the consciousness of machines begin if at some point it is to rival our own consciousness?

These are urgent questions in view of the pressure to succeed (per-

formance), the dominance of television, and the computer's invasion of all conceivable areas of life. Now that PVC in its established form constitutes the fundamental triad of our age. And since every medium is variable in that it is a system whose elements are dynamic, every medium has many faces, can when used look like something totally different – like an anti-medium (re-medium). Every front has a back, where there is light there is dark, where there is success is failure. Yet who knows what leads to where? Unless one is fired with the urge to see in the media more than merely the message. And is instead tempted to view the applicable medium, when used differently (as an anti-medium), as the means to a liberated and liberating end, while aware that media normally serve the purpose of conformity.

If we pose the question of consciousness, then this also means that we construct an observational meta-plane from which we can survey which operations are being carried out, and how. This observatory stance is composed of projection and reflection, from a disposition that reciprocally adds to itself and is completed by production and reception. This chiasmus, this dual interlacing of interior and exterior, grants us a stance from which it is possible to see through the ambiguity of media, of PVC in this case, and in which the ambivalence, as opposed to merely the immanence, of the established comes to bear.

Projection and reflection are the basic mechanisms of our aesthetic. With our memory we probe for frameworks into which we can integrate whatever the case demands. We analyse by projecting the familiar and structured onto the new. Then we think about references we are able to establish. We reflect upon the meaning of that which we see, hear, and so on, in order to co-ordinate with each other structure and meaning. This process is both productive and receptive, we learn something new, have had an experience, and absorb it. Our world-view is expanded, and we are prepared for different, and other, new experiences.

Since the onset of compulsory mediatization through electronic me-

dia, there has been a previously unknown degree of pressure to produce and receive. And because the production means and the distribution channels necessary for the products are in the hands of a small few, we are initially compelled to be recipients, are exposed to the 'brainwashing' of the media. We are made compliant in order to absorb the *zeitgeist*. Until we take over production ourselves, see through the mechanism, and resolve to represent our own world-view, our own products. After all, reception is something we cannot conceive without production, they are mutual prerequisites making up a divided unity: reception is also production, and production builds on reception. How much must we have absorbed, and how much information must we process, in order to become capable of meaningful production, in order to form our own opinions, not to mention in order to be so informed that production in a constructive sense is the result?

The more necessary reception is today, the more diversified production will purport to be, but the more conformal the products will be. The greater the mass of recipients, then, the more clichéd and insipid the product of reception. The basic unit of reception and production is initially the inner dialogue/monologue, followed by the dialogue between two and more partners, until the direct communication context is taken over by media transmission. Mediatization then follows the familiar patterns of direct communication, but due to the mass of information offers a bombardment of reception demands that causes reception to collapse. This makes it questionable whether a mass circuit of senders and receivers, of production and reception, will ever be able to avoid the coercions of stereotyping. However, the insight that reception is mental production should convince us that production at a high standard is rare, the exception. There is 'much ado about nothing', much redundancy and small talk, but seldom a flash of genius. The latter is a renewed switching point for a

different understanding of reception and production. The poetical spark
flares up both in us and on a corresponding product which brings us to
ourselves.

Translation: Thomas Morrison
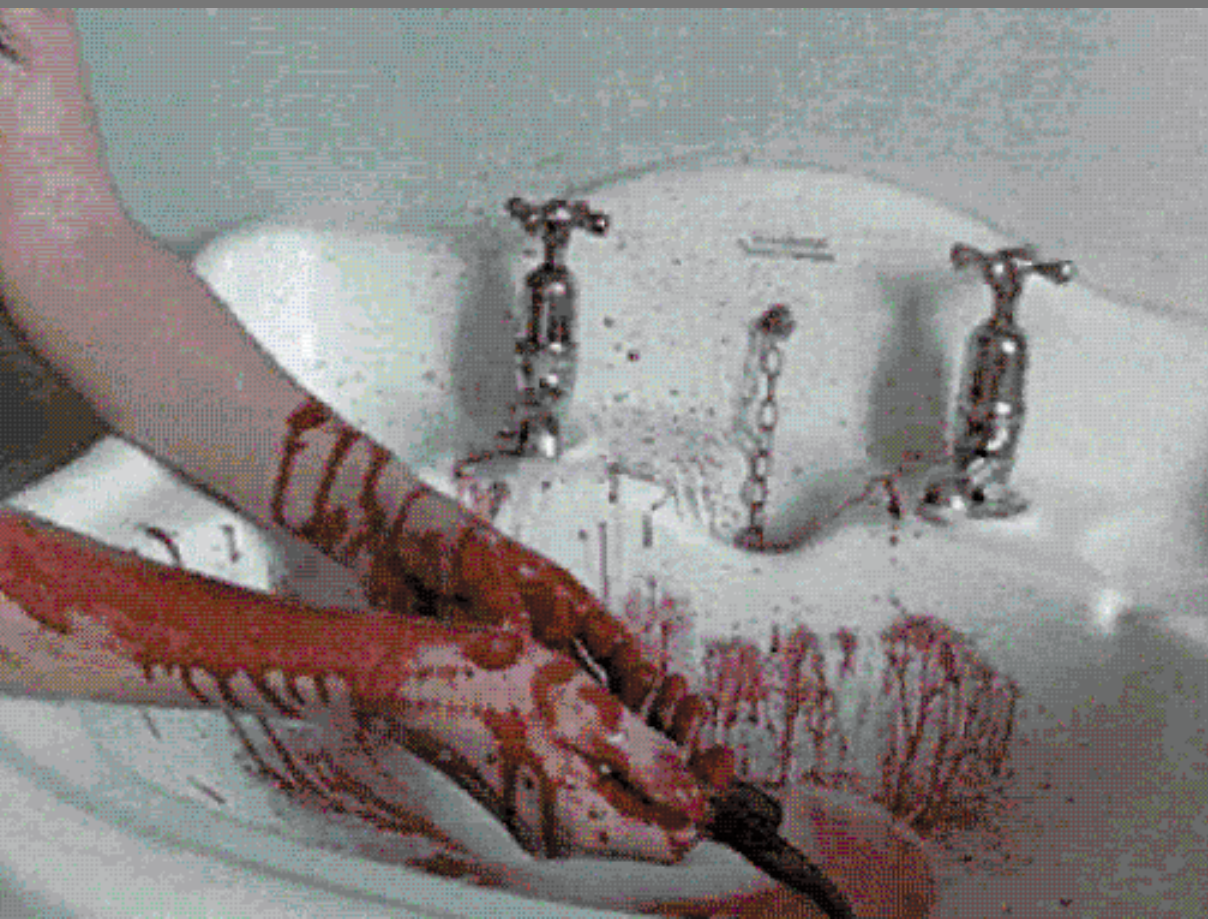
Good Places
Performance, Photography, Imaginary Space

By Tim Etchells

Asked to write about the work he struggles to find frame, a voice, a point of departure. This story is the one he has to tell again and again and in the telling and the struggle to tell he fears that moment where it ceases to mean anything at all, just like a song that is too often sung.

It gets dark outside. The night already cluttered with sirens and cars.

1994. In a room where my son is sleeping. From some place on the Web I'm downloading QTVR[1] movies, scenes and objects, all massively compressed. The lobby of a Vegas hotel. The Berlin Wall at sunset. A tunnel in some unspecified town. All these arriving in Sheffield through a phoneline at 14,400 bps, resolution looking 640 x 480. At sometime well past midnight there's a strip of desert. Blue sky and burning sand. Something wrong with the stitching or ratio – on playback the desert buckles, sways, swims as you move. I like the feel of this place, this shimmering half-world of pictures and pixels.

In one final scene there is a person – some frozen guy carrying coffee through a studio. Unmoveable and unsolvable. He haunts me. Poised in his room forever while I look around the place, searching. A story I can only dream to complete. He is a clue.

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1. QTVR: QuickTime Virtual Reality. Programme used to process photographs as panoramas permitting (virtual) 360° movement through space. (Ed.)

Forced Entertainment & Hugo Glendinning: *Frozen Palaces (Chapter One)*, 1996–98. Screenshot.

To talk about the digital work as fully connected to the rest of one's prac-
tice, as simply another way of approaching the obsessions and problems
one has explored elsewhere, another 'natural' stop on the road between
theatre, photography, performance, and installation. You know that here
above all are questions of interaction and of constructed presence, of vir-
tuality and space, of embodiment, of speed, of mediated intimacy and of
'reading'. But these were so often the things that concerned you before.
Leaving shards so that stories could be made from them, making blank
fragments, making pictures, throwing colours in the air and letting others
have the space to decipher them.

IN A ROOM FULL OF MIRRORS
IS A GOOD PLACE FOR A SHOOT-OUT

Pursuing our interest in the interaction between performance, locations
and photography, the starting point for *Frozen Palaces* is a series of
panoramic scenes staged for the camera in a domestic location, each scene
involving many 'characters' or performers. Photographed and then ren-
dered as navigable panoramas using QTVR the interlocking scenes of the
work explore, as the title suggests, frozen glimpses of complex events.

In the vast house of *Frozen Palaces* time itself has stopped still and the
stillness is posed as a psychic problem. From love affairs through mur-
ders, ghostly levitations, parties and even drunken hallucinations the
events of the piece are halted at some banal or significant moment, while
the viewer alone is free to move, explore and investigate. Confined to an
ocular presence one moves with the discomforting ease of a steadycam-
dream through events in which one may not intervene – a feeling that may
be both pure uncanny and pure 20th century.

In many ways perhaps the work we've made in collaboration with Hugo Glendinning began from shooting publicity images for shows. The market for theatre being structured as it is, creating PR was always to some extent a process of constructing a fiction in advance of the art-work itself – of implying a world, an event or a 'show' which did not yet exist. Snapshots of imaginary acting in sets which were provisional at best, glimpses of a possible future. Perhaps this fact led us, in the end, to projects where photography was the principle, if not the only, medium. 'Performance' just a single moment snatched at one 125th of a second. Nothing more.

Looking back at the first pictures for our theatre pieces *Let The Water…* (1986) and *200%* (1987) it's clear that even these moments staged in a spirit of pragmatism have a life and independence. Indeed, we learned that photographs like these from the earliest days of rehearsal could rapidly acquire the quality of clues for the making process itself. To get the pictures back from first shoots with Hugo was (and still is) often a clarification and a crystalization – a series of glimpses of the work made clear and sharp by the presence of another's eye.

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IN A KID'S PLAYGROUND

IS A GOOD PLACE FOR TWO LOVERS TO MEET

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Creating performances, our first instinct was to build something – a crude construction from old set-materials, a hasty arrangement of a few objects or elements (curtain, table, tarpaulin, scaffolding frame). Making performance in this way, we talked about the way space and objects determine or suggest action – a table demands to be sat upon, a corridor beckons to the traveller, a curtain demands to be opened. There were spaces that would socialize the performance in particular ways, drawing the per-

formers together to interact and other spaces that could render the social scene dysfunctional, casting the performers as alienated, isolated, separate. There were differences to be negotiated in the structures of theatres themselves – the range of raises, stages, black-boxes, prosceniums and studios, each of which would make some gesture possible and another out-of-reach. For us, then, constructed theatre space – and indeed real theatre architecture – were always part of the conversation we were engaged in, right in there with text, soundtrack, action, costume as something from which to start.

When we made work not for theatres but for galleries and public sites we took this question about constructed theatre space (what does it make you *do*?) and applied it in the real world, working out the properties of buses, libraries, old factories, stairwells, and cellars in the sense that these spaces (like any other) construct social relations, viewing relations, performance relations and possibilities for fiction.

In July 1994 (*Dreams' Winter*) there were performers running the great perimeter circle of the reading room in Manchester Central Library, climbing on the tables, yelling into the vast dome of the ceiling and waiting for the echoes to subside. Not so much what you *should* do in the space of the library as what you'd like to do – a kind of intervention 'against' its everyday – an inverse of its function, and, in some ways, as we saw it, a voodoo transformation. What did the director of the library say after the first performance of that piece? That the building wouldn't ever be quite the same again. We took the comment literally. At least in the sense that the shower is not the same place after *Psycho*.

A CROWDED STREET

IS A GOOD PLACE TO STOP AND THINK YOU'RE IN LOVE

Working with Hugo Glendinning we continued this dialogue with the spaces and cities in which we lived and worked – playing the real world as

a series of flimsy photo backdrops and the subways near our rehearsal room as a temporary film-set. Making fleeting interventions in a context made largely out of conrete we've seen performance and photography function as a kind of transformative magic, a voodoo of chemistry. The streets are not the same when you've *played* in them, or let yourself make manifest, in the car park on the edge of town, what Julian Maynard Smith[2] once described to me as 'the fictional parts of oneself'.

IN A CAR
IS A GOOD PLACE TO ARGUE OR TO CRY

Preparing to shoot *Frozen Palaces* in a street just off Brick Lane. It is mid-morning and Robin lies laughing, naked in a bath filled with red-coloured fluid. Preparing to die.

We could see the project, perhaps, as the creation of a speculative history – an overwriting of a real house with photographs of strange events that have never 'really' taken place. Here the house is a memory of what will be imagined, a kind of time reversed. As A. wrote to me, in the disjunctive clarity of note-form:

… it is images that force you to make up a story, by the clues you get in these images. But 'in real' there was never much more than these clues. No story behind. Imagined history, imagined memory …

So much of the theatre and performance we made worked just like that too – shards of narratives that were only ever shards but which activated the juices for making up a story – the viewer framed as an explicit author, a moving point of connection, a joiner-of-dots. Dots. Shards. Signs. In *Speak Bitterness* (1994) it was the litany of confessions, each one a micro-

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2. Julian Maynard Smith: Architect, founded the London-based performance company Station House Opera in 1980. Their work uses spectacle to explore the intimate relationship between people and the environment they inhabit. (Ed.)

narrative, in *Club Of No Regrets* (1993) it was fragmentary scenes from non-existent cop shows and TV movies, in *Emanuelle Enchanted* (1992) and the 11-hour performance *12am: Awake & Looking Down* (1993) it was simply characters set adrift, devoid of context but carrying their stories around as names scrawled on cardboard placards – *Jack Ruby, A Stewardess Forgetting Her Divorce, Lost Lisa, Banquo's Ghost* – the names like so much baggage, like so much common cultural knowledge. The characters (70 or more) appearing in endless silent combination and recombination, like a narrative kaleidoscope at which the viewer must press her eye and set her mind free to imagine.

At the sea
is a good place to talk about the future

To believe in nothing. Not God. And not afterlife. And not spirits. And not forces, energies or otherwise. Nothing. Nothing. Nothing.

And yet to talk so much about ghosts, about places haunted, about shadows, about dreams and presences. Because if culture *is* politics, which it undoubtedly is, it is also the space in which we are haunted (by our stories and histories) and the language in which we make ghosts for ourselves, and the means by which, in the end, we must exorcise our ghosts.

In a room, looking down on the city
is a good place for cops and criminals to meet

Did I tell you that in our theatre work *Let The Water …* (1986) the four protagonists try to deal with the idea of their own deaths, and that the best way they can find do it is by acting out their own deaths just like those in the movies? A series of near-comical tomato-ketchup splatter scenes, a game-cum-ritual that gets more and more glorious, more and more violent, desparate, romantic and out-of-control. Biology (death) and culture,

then, are wholly intertwined. There's a question in *Quizoola!* (1996), our six-hour marathon of 2,000 questions, which may be asked and answered in any order, the question is: *What was grief like before television?*

And the answer I always imagine: *It's impossible to say.*

Bleeding, slumped against the fridge
is a good place to die

Interface. For *Red Room* (installation, 1993) we structured the space like an unfolding narrative with the viewer herself as the major player. Exploring with a torch, finding visual and narrative fragments, coming to a corridor through which one had to pass, shoulder-to-shoulder with the walls – the piece was no more and no less than an encounter with a constructed interior, its surfaces covered in photographic fragments and textual clues.

There are stains on the page which, I believe, are her tears

But whereas our gallery projects like *Red Room* and the subsequent *Ground Plans For Paradise* (1994) created environments to be travelled through in which photography featured as both process and sculptural object, QTVR has allowed us to create in *Frozen Palaces* and its sister-project *Nightwalks* (1998) a world or space in which photography is, in effect, its substance.

Indeed, for us the use of QTVR as we are employing it lies somewhere precisely at the border between installation, cinema and photography. From installation it takes the active, seeking and mobile gaze of the viewer in 3-dimensional (albeit virtual) space, from cinema it can reference the conventions of moving camera and point-of-view, and from photography it can allow us to render the world as a still moment, a place in which time has been halted.

It gets to be night. And he thinks again of all these media – theatre, performance, installation, film and CD-ROM. And of how presence and intimacy was most of all what they sought to make in any of them. As if each form were just another route through different codes and frames to the same half-reachable goal – to stage an encounter, to make possible a meeting (with another, with a world, with a self).

He writes that presence is something which has to be made – produced in the strangest of places, at the borders of codes. He writes about the intimacy possible in distance. About blankness and projection. About love and e-mail. About the strange meeting one has with the figures of Frozen Palaces. *About contradiction.*

He writes about the need from the outset (back in 1984) to make a theatre that dealt with 'being in the same room' as the public – about how they sought a transparency of presence, a simplicity which seemed to cut through the framing of the theatre and invoke in its place a directness that, if it wasn't more real, was at least unquestionably more intimate, more, as they liked to say, human scale. The difference between performing and acting. The difference between watching as an audience and watching as a human being.

In their Rotterdam installation Secret Places *(1997) the public could wander in the semi-darkened gallery as the performers sat together, in pairs and in threes, dimly lit, eyes closed continuously for three long days and talking all the time, asking questions, telling stories. About their memories and their places from the city outside. The performers as sealed objects with which one had unbearable contact. Distance. Intimacy.*

He makes some notes for a friend concerning the design of a book they are working on.

The book, he says, needs to make eye contact.

That's all there is to say.

The Space of Performance: Forced Entertainment's Frozen Palaces

By Peggy Phelan

The Sheffield-based theatre ensemble Forced Entertainment has made its name in performance art or, as they say in the United Kingdom, 'live art.' Performance art attempts to stage an encounter with the spectator through the unpredictable frame of human presence. *Frozen Palaces*, Forced Entertainment's foray into the virtual, suggests however that the boundary between the live and the mediated is frayed and permeable. The erosion of this boundary has been, of course, much noted: Robert Wilson's performances are often long celebrations of new lighting techniques made possible by computerized innovations, and television news has rendered the 'live' an increasingly scripted event. Conversely, computer wizards and animators have dedicated themselves to capturing 'spontaneous' human thought and motion in the fields of artificial intelligence and movie animation.

More interestingly and more pointedly, *Frozen Palaces* gestures toward what is at stake, philosophically, in collapsing the boundary between the live and the mediated. *Frozen Palaces* highlights the force with which non-animation haunts the living. Theatre practitioners and performers understand the strange duality that leads the living to both crave and dread 'the dead space' that blooms in the center of the field we still call human presence. Corpses, the debris of drunken parties, the clichés of the crime scene, are all rendered in the visual content of the still photographs that make up the 'image content' of *Frozen Palaces*. Hugo Glendinning, the photographer, exposes the *tableaux vivants* of an

oddly familiar theatre of death. The spectator's silent scrolling through virtual space carries the aroma of the belated and posthumous: the event that comprises the dramatic action has occurred before the spectator's arrival. History has already happened and the spectator-witness is left to decipher its elusive causes and meanings. Using QuickTime VR, *Frozen Palaces* asks the viewer to link the traces generated by the still photographs into some kind of plot by moving across and between them. This movement sequence creates a narrative construct, a quasi-logical structure of cause and effect that might justify mapping movements across the space of the image. But even as one tries to create such a justification for one's journey, the constraint and coercion of one's choice becomes palpable. With so much to choose from, you might think you have a choice. But all the options are pre-selected and the entire spatial field is itself contained by the mathematics and materiality of the frame of the computer screen. The very act of mapping and charting the space, however, erodes the comforting illusions of democracy, 'interaction,' and pleasure. We become conscious of the limitations and enforcement at work in Forced Entertainment's play.

Beginning in 1984, Forced Entertainment has been devoted to creating a different kind of art spectator, one closer to an ethical witness than to a passive viewer. Questioning the nature of the ethical responsibility provoked by witnessing the deaths of strangers, a situation that is the consequence of our absorption in and by the televisual spectacle, Tim Etchells, the ensemble's writer and director, highlights Forced Entertainment's meditation on the nature of witnessing acts and scenes one sees but cannot fully comprehend. In the preface of a collection of essays entitled *Certain Fragments: Contemporary Performance and Forced Entertainment*, Etchells reflects on

the strange responsibility of the city and its endless crowds and half-glimpsed lives, or of the media space with its images everywhere, always, already. That (lucky) experience of having seen only two real dead bodies and yet thousands upon thousands of TV corpses –

real deaths and fictional deaths, mediated deaths. We wanted to speak of what it felt like to live in this space – of second-, third- and fourth-hand experience. [1]

Theatre and performance art thrive in the space between first and second hand experience. Attempting to plot dramas that are always in some fundamental sense in a relation of alterity with the real, performance gains its power by making the culturally marked space we call 'art' into something utterly necessary for the interpretation and animation of that culturally marked space we call 'life.' Without such artificial and artifactual animation, the difference between death and sleep would be much more difficult to discern. The woman lying supine on the couch in *Frozen Palaces* can be either. It takes the animation of art to give a plot to her image, an animation that the witness supplies by mapping her story in relation to the other still photographs that are contiguous with hers.

But to speak of the animation of the virtual is already to engage in a paradoxical gesture. And it is this paradox of the virtual that a performance-based epistemology can begin to unfold.

The common idea that the virtual can 'stand in for' the real allies it with art's long-standing fascination with realism, resemblance, and verisimilitude. But whereas realism-based novels, films, performance art and theatre offer the spectator an identifactory model that says 'you are s/he', virtual reality says 'you are here'. To be more specific, theatre's screen is primarily psychological-emotional, while virtual reality's screen is primarily spatial-technological. Both are based on the notion that substitutes and stand-ins can function with the same force as the real. This belief is also the cornerstone of psychoanalysis itself: Freud argued that a psychic event can have the same force as an empirical one and spent his life elucidating the material effects of phantasmatic images,

1. Tim Etchells: *Certain Fragments: Contemporary Performance and Forced Entertainment,* London and New York: Routledge, 1999, pp. 20–21.

scenes, desires. He suggested that all art-work stems from a desire to sublimate a sexual aim into a non-sexual one. Further, he argued that sexual energy was remarkably adaptable: it could be converted into non-sexual energy without losing any significant force.[2] But Freud tended to downplay the affective supplement that sublimation also produced: the grief and longing that emerge after one defers or gives up the sexual object. Art-making, in this sense, is also the composition of a history of an often repressed mourning.

Regardless of whether or not a work of art makes this substitutive function visible, as Brecht attempted to do with his alienation effect, or if it attempts to make it seamless, as most Hollywood films try to do, the underlying structure of substitution is the same. From the signifier of the linguistic economy to the paper currency of the financial economy, the unavoidability of the surrogate renders all structures of exchange occasions for mourning and melancholia. Performance art attempts to interfere with this economy by staging encounters between living people in the same spatial-temporal context; virtual reality builds on the substitutive economy and extends it into non-realistic and non-linear realms.

Forced Entertainment's *Frozen Palaces* doubles the standard surrogacy of performance art by presenting performers who appear as still, arrested images in an elaborate stage set that frames the shadow of the inanimate, the force of deferral and death in all artistic production. It is the increasing instability of the line between life and death that animates most of Forced Entertainment's work.

Part of what live performance knows is the impossibility of maintaining the distinction between temporal tenses, between an absolutely singular beginning and ending, between an absolute line between living

2. See Sigmund Freud: '"Civilized" Sexual Morality and Modern Nervous Illness.' – *The Standard Edition of the Complete Works of Sigmund Freud*, ed. James Strachey et.al., Vol. 9, London: Hogarth Press, 1906–1908, especially p. 87.

and dying. Performance and theatre have lived for centuries in the space created by those 'betweens'. Forced Entertainment is fascinated by the montage we make between public and private histories. Summarizing the major preoccupations of the company's work in a 1994 retrospective performance entitled *A Decade of Forced Entertainment*, Claire Marshall, who joined the company in 1989, speaks of the strange ways in which history is mapped onto the space in which public and private events are witnessed:

They [Forced Entertainment] drew a map of the country [England] and marked on it the events of the last ten years – the sites of political and industrial conflict, the ecological disasters, the show-biz marriages and celebrity divorces. On the same map they marked the events of their own lives – the performances they'd given, the towns and cities where they stayed, the sites of injuries and fallings in and out of love. […]
   They drew a map of the country and marked on it events from the rest of the world. On this map the Challenger Space Shuttle had blown up in Manchester in 1985. The Union Carbide Bophal Chemical Works which had exploded in late 1984 was located in Kent. The siege of the Russian Parliament Building in 1991 had taken place in Liverpool.[3]

What Forced Entertainment mapped, in other words, was that complex process by which a public event arrives in the spectator-witness's consciousness. When the Challenger 'slipped the surly bonds of earth' it arrived in Manchester because someone in the company was there to witness and receive it. The spectator of that televisual exploding multiple death was in Manchester when the image of the trauma caught up with her and she took it in. This notion of cognitive and psychic mapping makes history then a much more actively composed present-tense performance than a passively experienced set of past events.

When Marshall notes that the group marked on their map 'events of

3. '*A Decade of Forced Entertainment*. Performance text by Tim Etchells and the company with photographs by Hugo Glendinning.' – *Performance Research*, Issue One, Routledge, 1996.

the rest of the world', she implicitly indicates that the rest of the world comes to them sizzling across fibre-optic cables, electronic pixels, wire services, and satellite dishes. But as these events go whizzing by they mean nothing – in fact the information cannot be 'read', or made meaningful, until it is mapped onto some system that makes sense. This system is necessarily now both technological and affective, both collective and personal. The witness to *Frozen Palaces* must undertake a similar performative journey in order to read and interpret the relationship between the images that arrive and fade on the computer screen. This process of appearance and erasure, of the witness-spectator's animation and motion amid photographic scenes of stillness and death, emphasizes the duality of our experience of death.

Frozen Palaces plays a small but significant part in helping us begin to untangle the knotted relationship between one's experience of individual, personal death, and one's witnessing of the history of death. The weight of the history of death at the end of this century is especially acute. Part of what is difficult to bear about death is its double temporal hold on us, and its double emotional hold on us. Death is an event we anticipate but have no image for: we cannot see its specific form in our own lives. Perhaps we associate death with 'nothingness' and the void, precisely because we cannot be sure what image our own death will take. And yet, having said this, one must also rush to say that our current imaginary is saturated with images of death. All of these public images of death, then, serve as a kind of collective, historical backdrop for our reveries of both anticipation and dread of our own death. This projection and repression of the image of death pulsates at the heart of human presence itself.

Death, in short, pivots around the distinction between performance and performativity. That distinction might, at least initially, be understood as the movement between singular presence and collective iteration. Performance involves the act being made in a singular dimension of

space-time, while performativity signals the iteration of the act that pre-cedes and succeeds the one which the spectator apprehends in the present tense. Thus each singular experience of death is interpreted through the iterative force of the collective history and future of death. The performativity of death renders it banal (just as one cannot escape with only one image of Princess Diana, neither can one escape with only one image of death); while the singular performance of one's own death (or the death of one's beloved) makes vivid, however briefly, the loss of language, narrative systematicity, and iteration in which death as a unique act might be understood and communicated. Death is an act that can only achieve meaning in and through the observation of the other, the spectator-witness. The specificity of individual death ruptures the flow of death's collective performativity. The observer of that death, perhaps temporarily, falls out of the meaning-machine and hallucinates another real, even while witnessing that the beloved has died only to be newly recognized as the already living in the mind of the grieving witness. This process suggests that we might beginning to redefine death. Perhaps it is no longer a unique once in a lifetime event. Perhaps death is beginning to be, like all our images, something we can pass around, pass through, and repeat forever.

This art-work was made by John Latham and was given to Jeffrey when he was l
It's like collision of piece of hose, a garden hose, and this religious book as if th

The Arts Of Oneself[1]
Eighteen observations on personal memorabilia
By Tjebbe van Tijen

I

My hand is already over the waste-basket when suddenly I hesitate: maybe I shouldn't? This time I keep the thing, many more times I throw it away. Still, over the years, my house is filling up with objects and documents that have survived the ordeal of being classified as waste – things I keep onto for later; to help me remember. These are often not purposely produced as memorabilia (in the way of souvenirs, picture postcards or photo snapshots) but are objects to which I personally give an extra meaning, changing their category from utensil of daily life to personal treasure. There is a story with each such object, mostly invisible and therefore needing to be told. Language 'to make the invisible visible', says Krzysztof Pomian in his study on the origin of the museum, and he invents a special word for such objects whose status has changed from that of utility to representing what cannot be seen. Pomian uses the term 'Semiophors', based on the Greek words for 'sign' and 'carrier'.[2] These memory objects, these personal memorabilia mostly relate to those who are, or were, dear to us – family, friends, lovers or people we admire. First of all, bodily things: umbilical cord, foreskin, hair of children or lovers; the first teeth in a box; nails; blood-stained garments; traces of semen and

1. This is a shortened version of a longer text, the complete version can be found at <http://www.iisg.nl/~tvt/tijen03.html>.
2. Krzysztof Pomian: *Der Ursprung des Museums. Vom Sammeln*. Berlin: Klaus Wagenbach, 1988, p. 49.

Agnes Hegedüs: *Things Spoken,* 1998. Screenshot.

lipstick on love-letters; garments from first baby dresses to ladies' under-wear; shoes and handkerchiefs; scarves and hats; spectacles and false teeth. And then, things we inherit – often things that have lost their practical use but are too young to be classified as 'antique', things kept not for their price or prestige, but for emotional reasons, because they help us to re-member.

II

Objects purposely made for recollection, like the souvenir, seem to be of another order. Whether mass-produced trivia from holiday resorts or the work of local artisans, the owner will still have a personal recollection when seeing or showing such objects. Here again, the object is a trigger for personal narrative. The souvenir belongs to the tradition of pilgrim-age, of bringing back home relics, proof of a long journey, often some-thing for which there is a claim of direct contact with a holy person or place, something with supernatural power. The ease and comfort of mod-ern travel does not compare with the hardship of pilgrimage in former times, yet the souvenir is still a relique, a carrier of some quality of the 'holy land'. Pilgrimage and pillage, tourism and plunder – parallels exist between the modern souvenir industry and the stealing of sacred objects from far away and foreign cultures in previous centuries, when the booty taken home was sold, stored and put on show in the treasure rooms of temples and palaces, in private curiosity cabinets or *Wunderkammers*, in national museums; acts expressing both contempt and interest for the strange and foreign. This love/hate relationship has been transposed to modern times by tourism, through its mass-produced representations of the authentic, adapted now to what tourists are supposedly expecting. The plundering of artefacts has developed into the plundering of cultural values, the mimicking of forms of expression and ways of life that have disappeared already or are in the throes of disintegration.

Some objects are not typical of a certain region or country, but emanate some kind of yearning or nostalgia for distant times and places that did not even exist. Miniature rustic houses, small models of indistinct fishermen's boats, glass spheres, with and without snow flakes, showing minuscule landscapes. There has always been an industry producing what some call 'tat'. John Windsor offers a definition of what 'tat' objects represent: 'Not what the past was really like, but what customers like to think it was like', in other words: 'today's picture of yesterday'.[3] Bad taste and clichés, kitsch and tat – the highbrow will refrain from acquiring such detestable objects, though maybe inwardly, there is something left of a child's open mind, of being strongly attracted by such taboo things. One explanation of the origin of the word 'kitsch' says it derives from the German verb 'kitschen', meaning to collect rubbish from the street. There is also an association with the spontaneous activity most young children show when they start to pick up for their 'collection' anything they fancy – stones, sticks, feathers, leaves. The rejects of other people and of nature are collectibles to a kid, who will enjoy discovering similarities, comparing them, grouping them, arranging them in attractive displays, showing them to others, often with small stories and explanations.

IV

Many 'grown-ups' are attracted to the organized recycling of rejects in the form of jumble-sales, flea-markets and bazaars. Here the 'childish thing' is made somewhat acceptable, packaged as trade, but – alongside the incentive of making a good deal, finding a bargain – the main fascination is remembering. Such chaotic displays of goods stimulate our ability to recollect, they are collective memory theatres with their mishmash of

3. John Windsor: 'Identity Parades.' – *Cultures of Collecting*. Eds. John Elsner and Roger Cardinal, London: Reaktion Books, 1994, p. 55.

obsolete utensils, kitsch and tat – all waiting to become a personal symbol of a specific moment in someone's life. One aspect seeming very relevant to personal memorabilia is the ordering of goods in such markets – the spatial taxonomy, the daily reconfiguration of disparate things thrown together by the fate of the day. I dare to say that creative chaos is the preferred system for personal memorabilia. The shoe-box archive with a mixture of personal papers and photographs is one of the best examples of this practice. Each time a document is searched for, each time something is shown, a new (dis)order of the contents will be established. Such messy containers are a stimulus for new associations, new comparisons, new ways of recollecting the stages of one's life, they are very much a model of the way we remember.

V

The personal snapshot, the photograph with which we try to capture unique, spontaneous moments of our lives, is the mass-produced memory device of our time. Though the snapshot is generally seen as a purely pictorial device, belonging to the realm of the visible, its social function is strongly narrative. When friends, even complete strangers you happen to meet, show you pictures, they will offer explanations and stories. As your eyes follow the narrator's finger pointing out details and you listen to the stories, it is striking how many references are made to what cannot be seen in the picture itself. It is often boring for others to look at the pictures we took, because we see so much more in – or through – them, we recall what remained outside the frame, what happened just before or after, the smells, temperature, atmosphere, aura.

VI

One century ago, George Eastman came up with photographic film which was more light-sensitive and produced on a roll, meaning multiple pictures could be taken easily. 'You press the button, we do the rest,' was

the slogan that changed the status of photography from stiff posing ('the head-on stare' at a fixed camera on a tripod) to the informal amateur 'snapshot'. Mass production and advanced distribution systems have changed the status of modern photographs, which have become 'items of passing interest with no residual value to be consumed and thrown away.'[4] This quote on the change in usage of photographs was published only ten years ago, and now, with the advance of digital imagery, it applies to the photograph itself, which is becoming more volatile and dematerialized. Optical film will be replaced by the electronic memory card, and the visual display of television set and home computer will enable the instant melting of frozen moments. Zapping through TV channels and surfing the Internet will be followed by similar navigation strategies for our electronic family album. Though there will still be a need for tangible objects, for the photograph as print (especially because of its portability), the progressing miniaturization from desktop to palmtop will decrease the amount of enduring memory devices.

VII

When I try to explain remembering and the passing of time, spatial metaphors come to my mind first. 'Looking back' and 'in retrospect' are commonly used phrases. The French philosopher Henri Bergson is one of the critics of this conception of time:

Time should not be conceived spatially and memory is to be viewed as itself temporary, as the piling up of the past on the past, no element is simple present but is changed as new elements are accumulated from the past.[5]

Marcel Proust's famous series of novels *In Search of Lost Time* is con-

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4. John Tagg: *The Burden of Representation*. Essays on Photographies and Histories. Basingstoke: Macmillan Education, 1988, p. 56.
5. Henri Bergson (1910) quoted in John Urry: 'How societies remember the past.' – *Theorizing Museums. Representing Identity and Diversity in a Changing World*. Eds. Sharon Macdonald and Gordon Fyfe. Oxford: Blackwell, The Sociological Review, 1996, p. 48.

structed on Bergson's theories, which emphasized man's creative abilities and intuition as instruments for understanding the universe.

> Yes: if, owing to the work of oblivion, the returning memory can throw no bridge, form no connecting link between itself and the present minute, if it remains in the context of its own place and date, if it keeps its distance, its isolation in the hollow of a valley or upon the highest peak of a mountain summit, for this very reason it causes us suddenly to breath a new air, an air which is new precisely because we have breathed it in the past, that purer air which the poets have vainly tried to situate in paradise and which could induce such profound a sensation of renewal only if it had been breathed before, since the true paradises are the paradises we have lost.[6]

Earlier in his novel, Proust admits that other people are 'merely show-cases for the very perishable collections of one's own mind.'[7] In the same way he observes that his thought uses 'for its own selfish purpose' the products of other writers, 'as though they had lived a life which had profited only myself, as though they had died for me'[8]. Proust understands that in return he will be consumed by others:

> Saddening too was the thought that my love, to which I had clung so tenaciously, would in my book be so detached from any individual that different readers would apply it, even in detail, to what they had felt for other women.[9]

VIII

Reading and rereading these passages of Proust I am thrown back to my own life and the therapeutic function of writing, to my attempts to halt time, to try to go back in time even, after the unexpected and sudden death of my girlfriend, who was bitten on the lip by a wasp while sitting

6. Marcel Proust: *In Search of Lost Time*, Vol. 6: 'Time regained'. Transl. by Andreas Mayor and Terence Kilmartin, revised by D. J. Enright on the basis of the Bibliothèque de la Pléiade edition of 1989, London: Vintage, 1996, p. 221.
7. Ibid., Vol. 5: 'The Fugitive', p. 637.
8. Ibid., Vol. 6, p. 263.
9. Ibid.

with friends on a roof-terrace one hot summer evening, eight years ago now. Death was almost instantaneous due to what the doctors named an anaphylactic shock. The very night the messenger of doom had visited me, I started to write:

At the cross road of night and dawn this is being written//the dead-line is alarmingly close//will your funeral appear in time?//You are not deceased, but dead//still by looking intensively in the mirror I can see your eyes in mine, talk with you…

I continued to write for several months, mostly late at night when I felt most desperate. Sitting at my computer at home, both rereading and writing, also in public places, on train journeys, in cafés in foreign countries. I would also enter the hand-written texts into the computer, and at some point I would rephrase and smooth the text, reading it half-aloud to myself. Eventually I would stop changing the text, afraid that by polishing sentences too much my feelings would be lost in the shavings. Fixing my memories in writing soothed me, gave me the feeling I had halted time – not for long, but for the duration of the process of writing and reading. It was, and still is, an almost wholly private journal. More than a year later I printed a few copies and included them in a series of memory boxes containing scrolls of digitized pictures of memorabilia of my girlfriend, photographs, a sound tape of the funeral and samples of her collection of favourite perfumed soaps. A few close friends got such a big box with the message that they need not read the text now, that it was there as a testimony for later. Contemplating objects related to my beloved, arranging them in a series of picture scrolls, writing a personal journal, making a limited set of copies and distributing them, was a way of externalizing my suffering, it did not stop it, but made the pain more bearable. It was a ritual for sharing grief, for finding a mode of mourning and bereavement as well as keeping track of attempts to establish new relationships.

IX

'The normal fate of a journal is to be destroyed,' notes Malik Allam in his study on 'intimate journals, a sociology of personal writing'.[10] Allam has tried to shed light on what normally remains invisible, the intimate diaries, journals of people who have no intention of publishing them, who in most cases do not even show them to members of their family or to friends. It is a study of the 'diarist' who retreats to his room to have a tête-à-tête with himself through his notebook. As a sociologist, Allam faced a delicate task: it is difficult enough to ask someone about the existence of an intimate journal, let alone to say you want to read it and then talk about it. His solution was to 'interrogate the diarists without reading their journals'.[11] The reasons for writing a journal and the process of writing differ: to resolve bad relationships, to say what can not be said publicly, to control depression, to assist one's thoughts. In his study there are examples like that of Claude, a 47-year old man, who started to write at the age of 19. He says he was influenced by reading the journals of Anne Frank, and has difficulty in filling the emptiness he feels in life. In his journal he writes about the homosexuality he keeps hidden from the world outside: 'He describes himself as someone who has no love life, but a life with paper.'[12]

X

Claude must have seen some association between Anne Frank and her family's hiding from the Nazis in the Amsterdam 'Achterhuis' and the hiding of his own homosexuality. He mentions Anne's journal as an example for him to follow. He has no intention of 'coming out', of showing his journal to others, although the fact that he participated in Allam's

10. Malik Allam: *Journaux intimes, une sociologie de l'Ècriture personnelle*. Paris: Edition L'Harmattan, 1996, p. 7.
11. Ibid.
12. Ibid., pp. 105–106.

project may be a step in another direction. Writing her diary was a very intimate, private affair for Anne. Although the circumstances are incomparable, the starting point of the two diaries is the same:

I hope I shall be able to confide in you completely, as I have never been able to do in anyone before, and I hope that you will be a great support and comfort to me.[13]

This is what Anne Frank writes on the front page of her first journal on 12 June 1942, the moment when she embarks, like Claude many years later, on a 'life with paper'. There have been controversies over how the published text of the diary relates to the original manuscript, and recently the debate has flared up with the surfacing of a few 'missing' pages. In a review of several studies dealing with this long-standing conflict, the Dutch author Ian Buruma writes: 'Since it contains so much, readers get different things from the diary, just as they would from any complex work,' and adds that, in the end, 'everyone wants his own Anne'.[14]

XI

The house I live in was also used as a hiding place for Jews during the war. It is situated on the former edge of the Jewish Ghetto established in 1941 in the inner city of Amsterdam. I've lived here for 23 years, and it must have been two decades ago that while cleaning the attic I found in a crevice between the roof panels and their supporting wall a series of dusty packages. Inside the wrappings of what was once perhaps brown paper, there were some personal papers, a calendar, a passport, crinkled photographs, pieces of soap, a packet of razor blades, two lipsticks, a bag with tallow powder, and a small box of coffee beans. All these things belonged

13. *The Diary of Anne Frank*, the critical edition prepared by the Netherlands State Institute for War Documentation. Eds. David Barnouw, Gerrold van der Straan, London: Viking, 1989, p. 177.
14. Ian Buruma: 'The Afterlife of Anne Frank.' – *The New York Review of Books*, 19 February 1998.

to L.C., a Jewish man who apparently had owned a music shop and also performed as a kind of clown, as could be seen on some of the photographs – which explains the make-up utensils. Naturally, I read and reread all the documents, trying to make sense of them. I hardly succeeded. The notes in the calendar (a pocket diary of 1942, published by the Dutch branch of Siemens in The Hague) were especially difficult to understand. It is not clear whether they have any connection to the dates, and their content is most puzzling. While writing this article on personal memorabilia, I felt the urge to look once more at these traces of people who lived in the same house as me. Off I went up to the attic, and found the dusty archive box that functions as a sanctuary for their souls. Reading the calendar of 1942 again and skipping over sentences that seem to have no relation, I occasionally found some that express, over consecutive pages, despair, agony and fear: 'That they were people who acted with horrid gravity'; 'a sinister suspicion flashed through his mind'; 'he was allowed to stay, true only conditionally, but still he was allowed to stay'; and, one of the last entries, 'Nature does not care about human crime or human suffering and that morning the sun was shouting more brilliantly than ever'. The last sentence is written on a page that opens on Sunday,

7 July 1942, so maybe there is a meaningful chronology after all. The rest of the diary remained blank, except for a packing list at the back. Again I shiver while reading the very small, neat handwriting with over 30 things 'not to forget'. I need not list them all:

… small linen bag with darning wool, nail brush, padlock, safety pins, toothpaste, shaving cream, 2 pairs of pyjamas, 2 shirts, 2 towels, writing utensils, 5 pair of socks …

I have looked at these memorabilia perhaps five times in all, and every time I am so shocked. So far I haven't dared to try to find out if this man or any of his relatives survived the destruction machinery that awaited them. Being an archivist myself, the last thing I would do is to add these

humble traces to the huge cemetery of the State War Archives or whatever other institution professionally accumulates human misery. As long as I live in this house, these disintegrating objects and dusty papers might better remain here so I can regularly pay my respects to L.C., who is still sharing his house with me.

XII

   In the attics of homes all over the world, in the backs of cabinets and bottom of drawers, lie testaments to the lives of many forgotten women. Scrapbooks, books constructed of the scraps of lives, […] multilayered records of life experiences.

These are the opening sentences of a draft text on 'scrapbooks' by Georgen Gilliam, who is specially interested in personal scrapbooks by women containing ephemeral mementoes of their lives: 'letters, photographs, clippings, invitations, locks of hair, dance-cards'.[15] Such scrapbooks – documents and objects collected as evidence of personal experiences and relationships – rarely contain much written text. They may occasionally be shown to others, but mostly in an intimate, private atmosphere. During such showings the meaning of the objects and documents will be explained, though some scrapbooks might have written captions. Gilliam quotes many recent studies on the subject, often from a feminist perspective, which point out the exclusion from literary and historical studies of this feminine form of expression, the lack of understanding about gender differences in self-representation. When compared with the autobiography – the favourite form of male self-expression – the women's scrapbooks show 'a lack of self-focus'. Gilliam refers several times to women's making of 'quilts', a traditional art-work 'constructed out of pieces of clothing, scraps and bits gathered from the outgrown garments of a woman's family', and draws an analogy with the way these

15. Georgen Gilliam: 'Scrapbooks.' – <http://slisweb.lis.wisc.edu/ggilliam/scrapbooks. html>.

scrapbooks, and women's autobiographical writings in general, are composed.[16] We can go even further back in time to find similar examples of the usage of personal notebooks in the 'hypomnemata' of Greek-Roman culture:

> One wrote down quotes in them, extracts from books, examples and actions that one had witnessed or read about, reflections or reasonings that one had heard or that had come to mind. They constituted a material record of things read, heard, or thought, thus offering them up as a kind of accumulated treasure for subsequent rereading and meditation.[17]

This is part of an article by Michel Foucault in which he describes how this form of writing and reading was not so much 'a narrative of oneself' but a collection of 'what one has managed to hear or read' with the aim of 'the shaping of the self', and he quotes Seneca on its function:

> We should see to it that whatever we have absorbed should not be allowed to remain unchanged, or it will not be part of us. We must digest it; otherwise it will merely enter the memory and not the reasoning power.[18]

XIII

There are also intimate writings, pictures not consciously made public, things one sometimes finds by chance. Your heart starts to beat a bit faster. Blood rushing to your face, you look and read, feel somewhat ashamed to enter someone else's private world, but keep on reading … Around 1963 I lived for a summer in a squatted house in Haarlem. I was attending classes in sculpture at a new experimental art academy. The squat was a 17th- or 18th-century house on the river in the town-centre,

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16. Gilliam refers to Ilene Alexander, Mary Johnson and Marilyn Motz, full references can be found at <http://slisweb.lis.wisc.edu/ggilliam/scrapbooksbib.html>. A similar theme can be found in Estelle C. Jelinek: *Women's Autobiography: Essays and Criticism*. Bloomington, Indiana: Indiana University Press, 1980, p.17.

17. Michel Foucault: 'Ethics, Subjectivity and Truth.' – *The Essential Works of Michel Foucault*, Vol. 1. Ed. Paul Rabinow, London: Allen Lane, 1994, p. 211.

18. Ibid., pp. 212–213.

and with a friend we were sharing a kind of attic, where apparently lots of other people had drifted by. Amongst the debris lying around there I found a notebook with a series of letters describing a couple's adventurous journey through Northern Africa. Apparently, the letters had never been mailed. I have forgotten the details of those letters, but not the thrill it gave me to read something not meant for me. It must have been incidents like that which pointed me the way to another profession than that of a sculptor: to that of an archivist of modern social movements, whereby my main interest has always been in acquiring personal archives, be it during someone's lifetime or, as often happens, posthumously. The ceremonial in which the transfer from private to public is realized is often very schizophrenic in character – on the one hand the donor, or heirs, full of the importance for posterity of everything being made available to researchers and the public; on the other hand, whole lists of restrictions imposed on the archiving institution in order to control the possible representations constructed from the material.

XIV

It is in personal correspondence that writing paper becomes transparent. We have an image of the other while writing, and can see ourselves when we read what we just wrote. Thus, a letter becomes magnifying glass, mirror and telescope at the same time. I think that the personal letter, the correspondence between two people, is one of the most constant forms of expression throughout history.

To write is thus to 'show oneself', to project oneself in view, to make one's own face appear in the other's presence. And by this it should be understood that the letter is both a gaze that one focuses on the addressee (through the missive he receives, he feels looked at) and a way of offering oneself to his gaze by what one tells him about oneself.[19]

Michel Foucault offers this summary of the classical ideas of letter-

19. Ibid., p.216.

writing held by Seneca and Demetrius, and it sounds like an analysis of the writing of letters 20 centuries later.

XV

Engraving and writing have always been employed in metaphors relating to the way we remember, how we externalize what was on our mind, how we make a prosthesis for the mind, and create 'artificial memory'. We use the terms in everyday speech: something is 'engraved' or 'impressed' or 'indelibly stamped' on the mind. And metaphors of remembering have kept pace as the techniques of note-taking, depicting and recording have changed over time – from impressing a seal into wax to writing with a pen on paper, painting a picture, photographing, recording with a phonograph, on film, on videotape, with a computer. The latest (multimedia) computer is a device allowing us to create almost unlimited combinations of still or moving image, sound and text. Many people see a similarity between the working of their own mind and the coding and decoding processes that form the basis of the computer's function. At the beginning of the 20th century, Sigmund Freud similarly employed a device called 'Wunderblock' – a 'mystic writing pad' – as a metaphor for the working of the mind: writing and over-writing, only parts being retained.[20] Freud had a lifelong obsession with archaeology, and there is a striking parallel between his interest in the subject and the development of his theories. The 'clearing away, layer by layer, the pathogenic psychical material' is comparable 'with the technique of excavating a buried city'.[21] Much in the same way as the archaeologist uncovers, dates and reassembles objects, then tries to replace them in their original context, the

20. Sigmund Freud: 'Notiz über den "Wunderblock" (1925 [1924]).' – *Studienausgabe Sigmund Freud*, Vol. III: 'Psychologie des Unbewußten'. Eds. Alexander Mitscherlich, Angela Richards, James Strachey, Frankfurt/M.: Fischer, 1975, pp. 365–369.
21. Freud quoted in: John Forrester: 'Mille e tre: Freud as a Collector.' – *Cultures of Collecting*. Eds. John Elsner and Roger Cardinal, London: Reaktion Books, 1994, p. 226.

psychologist tries to uncover the past of his patients. Freud was also a collector of archaeological objects, his workplaces in Vienna were filled with them. He started to collect after the death of his father in 1896, when he was going through a period of self-doubt and self-analysis. The antique objects – mostly rings, scarabs and statuettes – comforted him in this period of grief, and by the time he died his collection had grown to over 3000 pieces. Already in 1895, Freud had analysed why old maids keep dogs and old bachelors collect things like snuffboxes: the former as a substitute for a life companion, the latter out of the need to make a 'multitude of conquests'. His observation that 'every collector is a substitute for a Don Juan Tenerio' was applicable also to himself, and likewise his conclusion that these kind of things are merely 'erotic equivalents'.[22] To many of us, such an analysis is too much of a value judgement, containing as it does an implicit hierarchy, an accepted standard according to which some personal and emotional relations are good, and some are bad. Nowadays we might feel more comfortable with the acceptance of a wide variety of relational forms, not just interpersonal but also between humans and any other chosen object of affection.

XVI

Personal memorabilia can be almost anything. We can express ourselves through the collecting of objects we fancy, things we choose as personal representatives – works of art, any kind of antiques, books, gramophone records, CDs, videotapes, postage stamps, coins, matchboxes and cigarette packets, bags of sugar, wristwatches, wine bottles (empty or full), furniture, houses, cars. Depending on your 'class', the money you can spend and the amount of space you have, the objects can be 'real', or replicas, reproductions or small-scale models, although the latter do have an extra function, making us feel in possession and in control, like a giant,

22. Ibid., pp. 232–233.

a king of the toys, a God-like master of a miniature world. Many people find comfort in collecting objects because they can gaze at them without them gazing back. The French writer Jean Baudrillard detects a similar relationship with pet animals, which are also collectors' items. Extending this relationship to encompass any collectable object and following Freud's observation of 1895, he wrote:

> This is why one invests in objects all that one finds impossible to invest in human relationships. This is why man so quickly seeks out the company of objects when he needs to recuperate.[23]

Some even say that collecting is the chief mode of our culture: 'not politics, not religion but collecting".[24] It is interesting to note how human urge to collect is represented as an elementary human faculty in the literature on the history of the modern museum, as for example Reinhard Brandt did in his contribution to a congress on museology: 'Those who don't collect are unable to live, and are instead themselves degraded to material and collected.' A collection always needs to be more than one thing, knowledge is based on comparing and ordering of different things: 'Knowledge requires collection.'[25]

XVII

Man has been a collector from his very beginnings, not so much a toolmaker, a hunter with a weapon. 'In collecting food man was also incited to collect information,' writes Lewis Mumford, who notes how the two pursuits went together:

> Constantly picking and choosing, identifying, sampling and exploring, watching over his

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23. Jean Baudrillard: 'The System of Collecting.' – *Cultures of Collecting,* op. cit., p. 14.
24. Sarat Maharaj mentioned by John Windsor in 'Identity parades.' – *Cultures of Collecting,* op. cit., p. 50.
25. Reinhard Brandt: 'Das Sammeln der Erkenntnis.' – *Macrocosmos in Microcosmo. Die Welt in der Stube*. Ed. Andreas Groth, Opladen: Leske & Budrich, Schriften zur Museumskunde, Vol. 10, 1994, p. 26. (Own translation.)

young and caring for his own kind – all this did more to develop human intelligence than any intermittent chipping of tools could have done.[26]

Mumford has offered some counter-speculation in the field of archaeology, arguing that the surviving material evidence of stone flints, from which the term 'Stone Age' is derived, does not attach enough value to the much wider use of organic resources in the same period. The anthropologist and computer scientist Andreas Goppold prefers to use the term 'fibre age' – be the fibrous material hair, sinew, leather of animals, or of vegetable origin.[27] Both Mumford and Goppold mention the way humans copied the animal arts such as nest-building, weaving and spinning. Mumford places a special emphasis on the use of containers, and notes how functions of the human body were externalized: the mimicry of hands, mouth, stomach, womb and breasts in holes, hollow natural objects, baskets and pots. One might even extend this concept to communal containers like houses, towns, canals, ships, railways, and airplanes. All of them are containers to sort, store and transport goods for later use. In the same line of thinking, elderly people can be seen as repositories of the oral tradition; the pot is often deployed as a metaphor for their memory. It is in this process of collecting, storing and retrieving that the shift from the concrete to the symbolic took place, that language developed, that things acquired meanings other than their practical utility as food or tool. In early times, the selection and associative grouping of things might have been a playful activity that helped to express abstract ideas by combining concrete objects to generate what we now call 'metaphor' – a carrier of meaning.

26. Lewis Mumford: *The Myth of the Machine: Technics and Human Development.* (Vol. I) San Diego: A Harvest Book, 1967, p. 101.
27. Andreas Goppold: 'Morphologies of Cultural Memory.' Projekt Leonardo-Leibniz, Universität Ulm, Abteilung Anthropologie, 1996. (See also <http://www.uni-ulm.de/uni/intgruppen/memosys/>.)

XVIII

The waste-basket that opened this chain of observations can be used as such a metaphor, as a container to store what we intend to forget before throwing it away, because in order to be able to know, we have to throw things away, to make selections, to decide for ourselves what is meaningful or not.[28] To keep everything is impossible. Keeping too much makes us a slave of our own collection. Keeping nothing turns us into nobody. The worst thing is when a disaster or act of violence robs us of our material memories; not only the past becomes less visible, but the future is obstructed, too. We can only contemplate the future by looking backwards, contemplating the past. This means we need to be decisive, to survey the past every now and again and choose what is destined for the refuse collector, for the collective dung heap, or to be burned – plaguing our contemporaries with exhaustion fumes while it is recycled as electricity (for nothing is lost, everything becomes something else). And when we have put our garbage out on the street, neatly packed in grey plastic bags (as even in this final stage one tries to refrain from showing oneself), that is the moment of people the Dutch call 'morning stars', who roam the streets in search of refuse that is still useable, just before it is officially collected as waste. Some neatly take their pickings without leaving a trace, others rudely tear open the bags and scatter their contents while rummaging for something to be taken home, where it will begin a new life in a different context, or sold at the flea-market. On one such morning, a wind blows along my street and playfully whirls some papers through the air, some with pictures, some covered with writing. Looking out my window, I see someone taking a few fast steps, picking up a paper,

28. For a longer exposé on the organisation of forgetting and remembering see my article 'Ars Oblivivendi.' – *Ars Electronica Festival 96*: *Memesis. The Future of Evolution*. Eds. Gerfried Stocker and Christine Schöpf, Vienna/New York: Springer, 1996, pp. 254–261. Also available at <http://www.iisg.nl/~tvt/tijen01.html>.

looking, glancing briefly, and then dropping it again – a story failed to be
written; but who knows what will happen a little further down the street,
out of my sight …
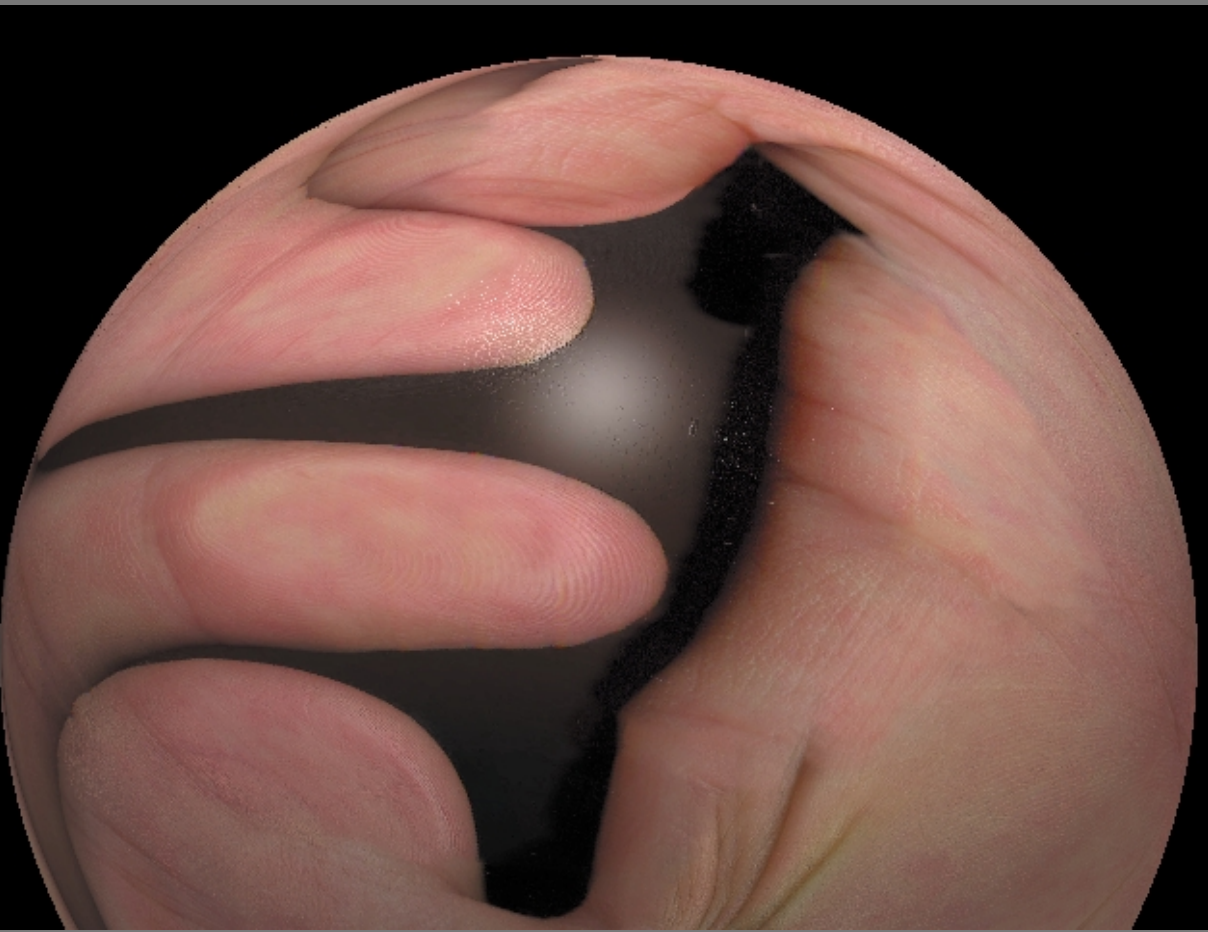
On Touching the Intangible
Notes on several works by Masaki Fujihata

By Hans-Peter Schwarz

In the language of music typology, Masaki Fujihata's latest work *Impalpability*, which was produced specially for this edition of *artintact*, would be described as a finger exercise – a miniature bravura performance, a playful divertimento on those questions which lend content and meaning also to the Japanese artist's major installations. How does virtual space shape the way people think, recognize and act?

In order to make as conspicuous as possible the problem of virtual space's seeming inaccessibility to at least one human faculty, namely the sense of touch, Fujihata generates an image of the human skin and transposes it to a virtual ball. No less round is the computer trackball he chooses as interface and sole point of intersection at which people can take up tactile contact with the virtual image.

Manipulation – in the literal sense – of the ball interface produces identical movements by the virtual ball of skin, and after a while an unexpected, irritating result sets in: one has the sensation of touching not just the interface but the image itself, of absorbing the information to some degree haptically, as Fujihata put it in the concept paper he wrote on the project.

The question of what makes a computer-generated image so different from a likeness of reality produced with traditional means is one which has preoccupied Fujihata ever since he began his artistic exploration into the computer. After a traditional Japanese art education which even today

Masaki Fujihata: *Impalpability,* 1998. Screenshot.

remains fixated on the plane, he began to consider the attempts at image-oriented computer graphics current in the early 1980s, and quickly became aware of the field's limitations.

His early works testify to the attempt to develop a visual apparatus that could make plain the differences between photography, which for mis-en-scène always remains dependent on a previous reality, and the reference-free simulation of reality. In the foreword to his own anthology of the most important computer graphics, Fujihata states that his selection criterion was less to identify the most advanced technological solutions for achieving the most photo-realistic simulation of reality than to get to know and describe the motivation behind the inclination of artists, scientists and programmers to formulate their image concepts as digits and algorithms.[1]

Having learned that a computer image has more in common with painting and sculpture than with (as is commonly assumed) photography or video, Fujihata began to tackle the phenomenon of the computer-generated sculpture. In 1982, he exhibited a series of miniature sculptures derived from mathematical permutations. However, even these works failed to make clear – or sufficiently clear for Fujihata's purposes – that their origins lay in algorithmic calculations.

The apparatus enabling him to give his visions space and form only came with the interactive image carrier and the potential it offered. Fujihata's first larger work, which is based on the concept of man-machine interaction is *Beyond Pages* (1995). The prototype of this virtual, multimedia book is in the collection of the ZKM-Media Museum.

Beyond Pages simultaneously represents Fujihata's departure from the traditional genres of sculpture and painting with the goal of incorporating into his aesthetic strategies both physical and virtual three-dimensional space. The situation encountered in the installation initially

1. *The Treasures of Computergraphics*. Ed. Masaki Fujihata, Tokyo: JustSystem, 1998.

strikes the user as familiar: a small room with a table and chair, fronted by a wall with a small opening next to which a clock and a closed door are being projected. To complete this everyday workplace scenario, a real pen lies on the table along with the projected image of a book.

This sense of the familiar is placed in question once the user 'opens' the projected book, and the initially revealed tokens of silent contemplation – letters and illustrations – audibly start to move: pages rustle, Japanese symbols are sounded out loud, image objects mutate. Finally, the virtual trappings encroach upon the physical environment: actuation of a light switch projected as a book illustration causes the real lamp on the desk to light up, physical contact with a virtual door-handle makes the projected door swing open to reveal a small Japanese girl, who mischievously stares at the visitor before vanishing.

The confusion to which Fujihata exposes visitors to *Beyond Pages*, initially rousing a smile and even audible mirth, is part of a cunning aesthetic strategy. After all, the viewer is quick to identify what lies behind the so harmlessly presented multimedia reading session. The images and letters of the virtual book are not merely semantic set pieces in a one-way literary communication process, not re-productions but manifestations, satisfying to the human eye, of an algorithm which can also be used to control machines if activated through contact with an appropriate interface.

That computer-generated images are something other than images of reality, and the virtual spaces they shape something other than the rooms we can physically experience – this is also the subject of Fujihata's *Global Interior Project* (1995), an expanded-reality installation which was awarded the Golden Nica at the 1996 Ars Electronica in Linz.

Global Interior Project is constituted by two planes of action. A white cube with edges 2 metres in length functions as a terminal with a window opening onto the virtual realm, while a kinetic sculpture made up of 18 small white cubes transfers into the real space any changes and manipula-

tions the participants effect in the virtual space. Communication in *Global Interior Project* has the goal of illustrating the differences between experiencing the real and the virtual on the basis of an interpersonal (as opposed to man–machine in *Beyond Pages*) communication process mediated by the computer installation.

During his artist-in-residency at the ZKM-Institute for Visual Media, Fujihata is at once expanding and focusing the range of virtual experience offered by *Global Interior Project*. His new installation *Nuzzle Afar* (1998) attempts to de-randomize communications constructed with the aid of avatars[2] in virtual space, and to point it in one direction. Two virtual space stations located at different places image the progress through virtual space of the avatars associated with the participants. In this way, the user can track down the avatar of his communication partner. If two avatars meet, a new virtual world is created. This world is locked, however, and the two human counterparts of the avatars must join forces to find the key that will open it.

To some degree, *Nuzzle Afar* represents a highpoint in Masaki Fujihata's well-nigh 20-year search for an aesthetic apparatus enabling viewers to literally go through for themselves the strangeness of a computer-generated visual world. What in our eyes seems a more or less familiar reproduction, a simulation of parts of our experience actual, becomes in Fujihata's art-spaces a navigation tool through the largely unexplored reaches of virtual space – a tool that facilitates Fujihata's real concern: communication from person to person.

Translation: Thomas Morrison

2. Avatar: Icon/object representing the user in virtual space. Derived from 'avatar' (Sanskrit) – the descent to earth of a deity in human or animal form. (Ed.)

Seeing, Touching, Imagining

By Masaki Fujihata

Our eyes are greedy. They devour everything. As long as the pupils are open, they salivate in anticipation while searching for interesting things, things they have never seen before.

Why have our eyes become so greedy? Because they have already seen everything. Because all they have seen has already been absorbed and made their own. In the beginning, just seeing did not mean possession. The act of mimesis first made possession possible. For example, the mammoth was possessed by primitive men when they drew their prey on the cave wall. We absorb what we have seen by drawing it as an act of mimesis. This is the process of providing with form something that is formless.

In the course of a long time, we have absorbed many things – we have accumulated in ourselves the casts of impressions made from these things. Every time we see something, visual perception leads to understanding by comparing the perceived object with the casts within us. The casts are not only preserved in personal memories but also in the greater collective memories formed by our genes, our societies and cultures.

This process of committing objects to memory has speeded up in modern times because photography replaced the technology of drawing. Today, for some reason, people even find reassurance in the simple act of taking a photograph. For example, everyone taking holiday souvenir snapshots poses identically on the same spot. Not only does this act record the fact that one has really been in a certain place at a certain time, but photographing may also replace the act of recording an event by the

technique of drawing and serve to provide the thrill of giving form to time and space.

This taking of snapshots and viewing of photographs becomes a type of training through which one gains the ability to instantly go to any place. Even if one is physically not there, it is possible to absorb the place. When that happens, travelling merely becomes a process of confirmation; already, anybody can visit places ranging from the South Pole to the coral reefs and even the moon. Thus, there is no place in the world we haven't seen or been to.

Everybody is beginning to understand the nature of photography. Someone, somewhere, takes a picture every day. The same physical expression articulated in the drawing of a mammoth on a cave wall is at work when we press the shutter-release button on the camera.

Yet painting and drawing (until dethroned by the rise of photography) had as their original function the commitment of things to memory. For example, portraits were drawn to keep a record of one's countenance, but this function has been taken over by photography. If recording means the technology of reproducing a subject on a surface in the same manner by which the eye perceives the object, painting has undergone a major change by transferring this aspect of technology to photography. The subject of paintings has changed from things which the eye could see to things which could not be observed by the naked eye. In other words, the subject changed from concrete objects to abstract themes. Moving from distorted tables to layered faces, painting entered the process of abstraction which ended up with colours and forms being the sole elements of the image.

Today one can say that painting has become one of the forms of philosophical expression. Instead of depicting a subject which can be seen directly, it has become a medium for expressing the relationships among objects and light, or between persons, by using lines and colours. A relationship formerly unable to have a form has started to appear with form. People undoubtedly gain a sense of happiness through the ability to give

form to a formless abstraction within themselves. One can say that painting has been able to advance one step further by the invention of an instantaneous technology such as photography.

Whether people desire it or not, new technologies change how we see things and how we live. Currently, the new technology lies in computers which are changing our consciousness. Of course, visual perception continues to be changed through these new technologies, just as photography changed our way of seeing. But such changes are difficult to observe on the surface since computer technology, although in part fundamentally different from other technologies, has been used merely as a source of special effects and the end product continues to be delivered on ordinary media such as film and television.

The essential difference between computer technology and other image-producing technologies lies in the fact that it is not recording the image of an actual object. All physical qualities and phenomena are captured as numerical values and are output as an image (numerical values). What the computer captures is a numerical value that is a weightless and abstract concept with no relation at all to the visible machinery of the computer. Furthermore, the numerical values, which only existed as a concept, now take on a real existence in this machine. Numbers are activated and inhabit the computer.

In the workings of computer graphics software, co-ordinate changes are plotted according to the laws of perspective, and lighting and texture are calculated according to physical laws. Because the software contains various physical laws which are taken into account in order to mimic reality, it is possible to produce a photo-realistic image. This is a technology allowing the photo-realistic expression of a subject which has no physical presence. It is a machine able to bring into reality the very dreams we see at night; it is a tool which allows us to change formless abstract concepts into images.

These images give a revolutionary form of pleasure to our greedy eyes. For example, computer graphics can make visible phenomena such as the never-before-seen movements of DNA molecules, or the results of simulation experiments in a particle accelerator, and so on. We have achieved a new form of visual perception which goes beyond the enhanced perception provided by binoculars and microscopes, and which is not based on observation but on a method of simulation. In a manner of speaking, computer graphics is the 'telescope of concepts'. In this way, we can now see things which were previously invisible.

Beyond this point, the issue of 'interactivity' is a further step on our path of perception, recognition, and knowledge leading into the 21st century. In addition to perceiving and understanding an image compiled from data, it will become increasingly possible to thrust one's hand directly into the image. For example, we have all had the experience of being lost in our thoughts while gazing at the flow of a river. The river is a subject to look upon, but it is at the same time a subject we can interact with directly by throwing in a stone or immersing a hand into the flow. By interacting with the subject, we change the subject, and by observing this, we deepen our understanding of it. Thus, there is interactivity in a river, but we don't go so far as to claim, 'The river is interactive' – even though this type of interactive experience provides us with a sure confirmation of reality. Through actual contact with the subject, through the relation of reality to our action, we can in that very instant feel a strong sense of reality in this world. This is a point where we can go beyond the reality which was formed by 'the telescope of concepts'.

     Although interactivity is a factor which provides us with a sense of reality in a manner that differs from visual perception, it seems we have given little deep thought to interactivity because it is such an ordinary, taken-for-granted element. By introducing a computer, we can analyse

the interface which lies between our apparatus of sensory perception and the real world.

One can immerse one's hand into the real river. At that moment, the hand becomes an important interface which is opened to the world. The hand is a part of our body which moves according to our will and thus is an interface under our complete control (or so we believe). Furthermore, there is unified input from both the eyes and the hand in this interaction with an actual river. It produces a condition of complete unity between tactile and visual perception through the artificial interface. When we can interact with simulated reality without knowing it was simulated, the virtual has been actualized into reality.

Here lie two choices for future development. One is to build up a complete interface which connects visual and tactile perception. Another approach is to use the discrepancies between visual and tactile perception and to bring into existence an impossible realness. The first approach offers an extremely suitable topic for technological research. However, it is the second approach which contains the key to insight into how we relate to the world. Yet I do not think connecting visual and tactile perception is that simple. The only thing which can connect the two is the imagination we have nurtured so far. This is the most significant problem and theme for the development. In which way can these two elements connect?

For example, what would compel somebody to shatter Michelangelo's marble statue *Pietà* with a hammer? What might drive one to it? One aspect of such an urge may possibly be a deficiency of the imagination which connects visual and tactile perception. It is natural to want to touch what one sees. However, when that is not possible, this gives rise to inexplicable irritation. On one hand this confirms the magnificence of the artwork. Yet there is something wrong in thinking one would understand the source of the irritation by crossing the boundary and picking up the

hammer. It demonstrates that modern society has become insensitive to the spiritual and supernatural power which would have prevented the act of destruction.

A presence (a piece of art) which is so superb that it simultaneously makes the beholder want to touch it and at the same time prohibits the act of touching is rare. This means it is an artificial object possessing in itself some natural power which makes it difficult to approach. And to ignore this and to try to directly and roughly interact with it would be wrong. It would indicate a severe flaw of the senses.

This is also an ambivalent issue, but if there were such a state of supreme bliss in which the senses were united completely, it would be a fully satisfied, complete world which would not require any imagination at all. Such a world would be a world of death. Important is not the attainment of total bliss, but the endless intention of reaching this fulfilment.

Incidentally, we do not want to touch an object we have never seen before. Seeing something for the first time, the indexes of various objects we have seen are retrieved from our memory and consulted. And we imagine what we would feel if we were to touch it. That would be a feeling not yet translatable into words; memories from the cellular level from within the body are called up and an examination takes place. If this concerns a subject which can only be seen, such as a poster or a video, we do not need to worry about the subject invading our side of reality. There would be no need to delve deeper into it. However, things get complicated when the subject is endowed with interactivity. We become compelled to directly touch the subject.

And if we touch the subject after a certain amount of deliberation, the subject suddenly disappears as an object of visual perception and the distance between self and subject is reduced to zero. This is a condition in which the object and a part of the body merge. Such an action requires an intimacy which allows the acceptance of the subject. It means one permits

the union between self and subject, and ultimately requires the 'loss of sight'. One would be blind. That is what it means to touch.

The act of touching involves the creation of a pressure which is directed towards the body with the surface of the skin as a contact point. Thus the subject is perceived, not on the surface of the skin, but as a change of pressure within our body. 'To grasp the subject in one's hand' signifies the casting of a corresponding mirror image by the subject. That is tactile perception. To know through touch is in fact synonymous with probing into the body. What we consider to be a tactually perceived object on the outside is in fact something attainable only through changes of pressure within ourselves.

The act of perceiving through touch, in other words, is like the immersion of an eyeball probing the inside of flesh. That would be the observation of a sightless eyeball. And then, the experience of touching the subject reverses into an experience of being touched by the subject. Ultimately, the entry of an outside factor into ourselves is the very principle of pleasure through touch. The pleasure of interaction thus requires a sure responsibility towards one's inner self. To interact with the subject requires courage. Seeing evokes the tactual imagination, and touching in turn leads to the deeper understanding of seeing. This aesthetic point of contact is made by the human imagination.

If an artificial interface is introduced at this point of contact, various bizarre phenomena may occur. The operability and design of the interface as well as the response time may affect the quality of tactile perception. Some interfaces mask parts of our senses, others amplify certain senses. In consequence, there is a grave problem concerning the imagination in the relationship between the sense of touch given through the interface and the possible degree of manipulation of the visual information. The highest degree of imagination is required to act as a sort of bridge in the confusion between sight and touch or the gap between the two perceptions. And the mysterious power to answer this demand is a human ability. As long as we

342   live we have the freedom and power to imagine anything and everything. Our hands are as greedy as our eyes. Yet this computer-created world doesn't even offer the marble which in works like those of Michelangelo might have been the target of destruction. This lack of substance leads to impalpability. In turn, impalpability makes this world curious and at the same time empty.

Translation: Didi S. Hirokawa

Forced Entertainment & Hugo Glendinning

Forced Entertainment ist ein Ensemble von Künstlern um den Autor und Regisseur Tim Etchells mit Sitz in Sheffield, Großbritannien. Die gemeinsame Arbeit seit 1984 umfaßt eine große Bandbreite verschiedenster Medien und Kontexte – von Performance über Installation bis zu Projekten mit digitalen Medien. Tourneen führten die Truppe duch Europa und die USA/Kanada. Die jüngsten Projekte wurden an so verschiedenen Orten präsentiert wie dem Skulpturenprojekt Münster, dem Walker Arts Centre, Minneapolis, dem ICA, London oder der Cubbitt Street Gallery, London.

Hugo Glendinning ist Fotograf und hat mit vielen wichtigen zeitgenössischen Künstlern und Tanz- und Theaterensembles zusammengearbeitet und deren Arbeit dokumentiert. Seine redaktionellen Fotoarbeiten erscheinen in verschiedenen britischen Magazinen und Zeitungen, seine Projekte im Kunstbereich beinhalten Auftragsarbeiten aus Europa und den USA.

Forced Entertainment is a permanent ensemble of artists based in Sheffield, UK, and led by Tim Etchells. Their work together since 1984 spans a wide variety of media and contexts from performance through installation and digital media and has been seen widely in the UK, throughout Europe and in the USA/Canada. Recent projects have been presented in places as diverse as the Münster Sculpture Festival, the Walker Arts Centre (Minneapolis), the ICA (London) and Cubbitt Street Gallery (London).

Hugo Glendinning is an arts photographer who has documented and collaborated with a wide range of leading performance and fine art practitioners. His editorial photography appears in many British magazines and newspapers, while his work in arts publicity includes commissions from North America and throughout Europe.

Forced Entertainment

Tim Etchells (künstlerischer Leiter / Artistic Director), Robin Arthur, Richard Lowdon, Claire Marshall, Cathy Naden, Terry O'Connor (Performers), Verity Leigh (Verwaltung / Administration), Helen Burgun (Marketing), Eileen Evans (Education), Andy Clarke (Production)

Forced Entertainment & Hugo Glendinning

Gemeinsame Projekte / Collaborative projects

Cardboard Sign Photographs, photographs, 1992
Red Room, performance/installation, 1993
Hotel Photographs, photographs, 1994
Ground Plans for Paradise, installation, 1994
Looking Forwards, photographs, in: *Performance Research Vol. 1: The Temper of Times*, 1996
Frozen Palaces, interactive work for CD-ROM, 1996–98
DIY, semi-fictional documentary, 10 min, directed by Tim Etchells & Hugo Glendinning, 1997 (Golden Gate Award for the Best Short Documentary at the San Francisco Film Festival, 1998)
Filthy Words & Phrases, video work, 7 hours, directed by Tim Etchells & Hugo Glendinning, 1997
Nightwalks, CD-ROM, 1998
Spin, CD-ROM, 1999
Rules of the Game, photographs and texts, 1999
Hotel Binary, video installation, 2000
Scar Stories, performance and installation, 2000

Starfucker, digital film, 2001
My Eyes were like the Stars, digital film, 2001
Kent Beeson is a Classic and an Absolutely New Thing, digital film, 2001
The Last Mile Home, digital film, 2001

Ausstellungen (Auswahl) / Selected exhibitions

Cardboard Signs, ICA, London, 1992 / Arts Centre, Gloucestershire, 1993
The Hotel Photographs, The Dukes, Lancaster / The Gantry, Southampton, 1994
Surrogate, ZKM, Karlsruhe, 1998
Void Spaces, Site Gallery, Sheffield, 2000
Mousonturm, Frankfurt, 2000

Hugo Glendinning

Ausstellungen (Auswahl) / Selected exhibitions

The Single Figure Drill, Hull Arts Centre, Hull, 1986
Dance Work, The Place Theatre, London, 1991/93
Dance and Portrait Work, The Green Room, Manchester, 1992
Performance Photography, CCA Glasgow, 1994
Gamblers, Dogs and The Lottery – The Art Casino, The Barbican Art Gallery, London, 1995
Portraits of Artists in July, The Whitechapel Gallery, London, 1996
Pictures of (E)motion, Tanz Performance Köln, Cologne, 1996
Islington Festival Commission, photo installation, London, 1997
Art 98, Contemporary Art Society, London, 1998

Forced Entertainment

Publikationen (Auswahl) / Selected publications

Tim Etchells, 'Diverse Assembly: Some Trends In Recent British Performance.' – *Contemporary British Theatre*, Ed. Theodore Shank, London: Macmillan Press, January 1994.

Tim Etchells and Richard Lowdon, 'Emanuelle Enchanted: Notes and Documents.' – *Contemporary Theatre Review: British Live Art*, Harwood, Summer 1994.

Tim Etchells and Hugo Glendinning, 'Red Room: Photographic Documents.' – *Art & Design*, October 1994.

Forced Entertainment, 'Speak Bitterness (Text Fragments).' – *Language aLive*, Issue One, Suffolk: Sound & Language, 1995.

Tim Etchells, 'Eight Fragments on Theatre & The City.' – *Theaterschrift*, No. 10, December 1995.

'A Decade of Forced Entertainment. Performance text by Tim Etchells and the company with photographs by Hugo

Glendinning.' – *Performance Research*, Vol. 1, No. 1, Routledge, Spring 1996. Deutsch auszugsweise in: Forced Entertainment: 'Ein Jahr verschärfter Unterhaltung.' – *Flamboyant: Schriften zum Theater*, Heft 4, 1996.

'How Long Do You Have To Have Lived Somewhere Before You're Allowed to Lie About It? Interview with Tim Etchells.' – *Live 4: Freedom Machine*, Ed. David Tushingham, London: Nick Hern Books, 1996.

Tim Etchells, 'Repeat Forever.' – *Shattered Anatomies*. Artists' publication, ed. Adrian Heathfield, Bristol: Arnolfini Live, 1997.

—, 'Se pendre et se retrouver / Losing & Finding.' – *TransEuropeenes*, No. 11: Theater and the Public Space, Paris, Fall 1997.

—, 'Hier sind 26 Buchstaben / Here Are 26 Letters.' – *Theater Etcetera*, eds. T. Broszat, G. Hattinger, Munich: Spielmotor München e.V., 1997.

—, *Endland Stories*, London: Pulp Books, 1998.

—, *Certain Fragments: Contemporary Performance and Forced Entertainment*, London and New York: Routledge, 1999.

Hugo Glendinning, Tim Etchells and Forced Entertainment: *Void Spaces*, exhibition catalogue, Sheffield: Site Gallery, 2000.

Tim Etchells: 'On The Skids: Some Years of Acting Animals.' – *Performance Research: On Animals*, Vol. 5, No. 2, Routledge, 2000.

—, 'Permanent Midnight.' – *Small Acts. Performance, the Millennium and the Marking of Time*, ed. Adrian Heathfield, London: Black Dog Publishing Ltd., 2000.

—, *The Dream Dictionary (for Modern Dreamers)*, London: Duckworths, 2001.

WEBSITE

http://www.forced.co.uk

Geboren 1956 in Tokio, lebt und arbeitet in Kanagawa. Er studierte von 1975 bis 1981 an der National University of Fine Arts and Music, Tokio, und ist seit 1990 assoziierter Professor an der Faculty of Environmental Information, Keio University, Kanagawa; seit 1999 Professor an der National University of Fine Arts and Music, Department of Inter Media Art, Tokio. 1995 kuratierte Fujihata die Ausstellung *The Future of the Book of the Future*; er hat außerdem zahlreiche Bücher herausgegeben.

Born in Tokyo in 1956, Masaki Fujihata lives and works in Kanagawa. He studied at the National University of Fine Arts and Music, Tokyo, from 1975 to 1981. He was appointed associate professor at the Faculty of Environmental Information, Keio University, Kanagawa, in 1990, and professor at the Department of Inter-Media Art of the National University of Fine Arts and Music, Tokyo, in 1999. He curated the exhibition *The Future of the Book of the Future* in 1995, and has published several books.

Auszeichnungen / Awards

Grand Prize, Video Culture Canada, Toronto Harbour Front, 1983

State-of-the-Art Prize, 'Online', Wembley Conference Centre, UK, 1984

Golden Nica, distinction Interactive Art, Prix Ars Electronica, Linz, 1996

Promotional Prize, L'OREAL Grand Prix, L'OREAL Art and Science Foundation, Japan, 1997

First Prize, distinction Theatre/Exhibition, Multimedia Grand Prix '97, Tokyo, Japan, 1997

Werke (Auswahl) / Selected works

One-Man Show, animation film, 8mm and 16mm, 1980

Message from Machine, interactive installation, 1981

Mandala 1983, computer animation, 1983

MIROKU-Maitreya, computer animation, 1984

The Mind of Gaze Beyond Technology, computer images, 1984

Geometric Love, computer sculptures, 1987

Forbidden Fruits, computer sculptures, 1990

Ape Call from Tokyo, computer graphics, 1990

Removable Reality, interactive installation with Kei'ichi Irie, 1992

Inside Eye, micro-machined sculptures, 1993

Impressing Velocity, interactive installation, 1994

Beyond Pages, interactive installation, 1995 (collection of the ZKM-Media Museum, Karlsruhe)

Global Interior Project, shared virtual environment, 1995

Impalpability, interactive work for CD-ROM, 1998

Nuzzle Afar, shared virtual environment, 1998

Impressing Velocity, interactive installation with flight-simulation platform, 1999

Small Fish (with Kiyoshi Furukawa, Wolfgang Münch), interactive music CD-ROM, 1999 (published in ZKM digital arts edition No. 3, ed. ZKM, Ostfildern: Hatje Cantz, 1999)

Vertical Mapping, shared virtual environment and installation, 2000
Light on the Net @Barcelona, Internet installation, 2001
Collective Off-Sense, shared cyberspace, 2001
Field-Work@Hayama, interactive installation, 2001
Orchisoid, movable plant robot, 2001

Einzelausstellungen (Auswahl) /
Selected solo exhibitions

Salon SHU, Tokyo, 1980
Xerox Knowledge-in,Tokyo, 1981
Livina Gallery, Tokyo, 1984
Ginza Graphic Gallery, Tokyo, 1987
Gallery Mirage, Tokyo, 1990
ICC Gallery, Tokyo, 1994
Kunst- und Ausstellungshalle der Bundesrepublik Deutschland, Medien-KunstRaum, Bonn, 1997

Gruppenausstellungen und Festivals
(Auswahl) / Selected group exhibitions
and festivals

Siggraph '83, Detroit, 1983
Computer Animation Film Festival, London, 1983
Siggraph '84, Minneapolis, 1984
InterGraphics, Tokyo, 1984
24. Festival International de Televison de Monte Carlo, Monte Carlo, 1984
1st International Animation Festival, Hiroshima, 1985
The Museum of Modern Art, New York, 1986
Art Directors Club Gallery, New York, 1990

Spiral Hall, Tokyo, 1992
Nikko Gallery, Tokyo, 1993
Itoki Gallery, Osaka, 1993
InterCommunication '95, On the Web, ICC Gallery/Spiral Building and P3, Tokyo, 1995
Siggraph '96, New Orleans, 1996
Ars Electronica, Linz, 1996/1999/2000/2001
DEAF, Dutch Electronic Art Festival, Rotterdam, 1996/98
ISEA, International Symposium on Electronic Art, Rotterdam, 1996
WestBank Gallery, Savannah, Georgia, 1997
Connecticut College of Art, Connecticut, 1997
Interaction '97, Ogaki, Japan, 1997
Exit, Maubeuge, 1997
Cyber, Lisbon, 1997
VEAF, Vancouver Electronic Arts Festival, Vancouver, 1997
SONAR, Festival of advanced music, Barcelona, 1997
Cyber-Monde, Montreal, 1997
Miyagi Modern Museum, Japan, 1998
Mediatech, Florence, 1998
Surrogate, ZKM, Karlsruhe, 1998
Cartoombria / Fondazione Umbria Spettacolo, Perugia, 1999
net_condition, ZKM, Karlsruhe, 1999
Perspective Budapest, c3, Budapest, 1999
Stuttgarter Filmwinter, 2000
Sony Center Berlin, Music Box, Berlin, 2000
transmediale, Berlin, 2000
Exploding Cinema, International Film Festival Rotterdam, 2000
The Electronic and Digital Art Show, Johannesburg, 2000
Digital Alice, Media City, Seoul, 2000
ICC, Tokyo, 2000
Warsaw Music Autumn, Warsaw, 2000
Millenium Dome, London, 2000

Vision Ruhr, Westfälisches Industriemuseum Zeche Zollern, Dortmund, 2000

Tsumari-Triennale, Niigata, Japan, 2000

Robot_meme, Museum of Emergent Science and Industry, Tokyo, 2001

Yokohama Triennale, Yokohama, 2001

BUZZ Club, PS1, Long Island City, New York, 2001

New York Center for Media Arts, Long Island City, New York, 2001

Fundació La Caixa, Barcelona, 2001

Steirischer Herbst, Graz, 2001

Publikationen (Auswahl) / Selected publications

Masaki Fujihata, *Geometric Love*, Tokyo: Parco publications, 1987.

—, *Forbidden Fruits*, Tokyo: LibroPort, 1991.

—, *Rewinded Futures*, Tokyo: JustSystem, 1995.

The Future of the Book of the Future, exhibition catalogue, ed. Masaki Fujihata, Tokyo: JustSystem, 1995.

Colour as A Concept, Ed. Masaki Fujihata, Tokyo: Bijutsu-shuppan-sha, 1997.

The Treasure of Computer Graphics, ed. Masaki Fujihata, Tokyo: JustSystem, 1998.

Masaki Fujihata, *Art and Computer*, Tokyo: Keio University Press, 1999.

Kiyoshi Furukawa, Masaki Fujihata, Wolfgang Münch, *Small Fish Tale – Active Score Music*, Linz: AEC and ORF, 2001 (DVD-ROM).

Website

http://www.ima.fa.geidai.ac.jp/~masaki

Agnes Hegedues

Geboren 1964 in Budapest, lebt und arbeitet in Karlsruhe. Sie studierte Fotografie und Videokunst an der Akademie für Angewandte Kunst, Budapest und anschließend an der Minerva Akademie, Groningen, der Kunstakademie Enschede und am Institut für Neue Medien, Städelschule, Frankfurt/Main. 1992 war sie Gastkünstlerin am ZKM-Institut für Bildmedien.

Born in Budapest in 1964, Agnes Hegedues lives and works in Karlsruhe. She studied photography and video art at the Budapest Academy of Applied Arts, followed by the Minerva Academy, Groningen, the Kunstakademie, Enschede and the Institute of New Media, Städelschule, Frankfurt-on-Main. In 1992, she was artist-in-residence at the ZKM-Institute for Visual Media.

Auszeichnungen / Awards

Prisma-Preis für Computerkunst, Hamburgische Kulturstiftung, 1993
Honourable Mention, distinction Interactive Art, Ars Electronica, Linz, 1993
Sparky Award, Interactive Media Festival, Los Angeles, 1994

Videoarbeiten / Video works

Hierosgamos, 1:30 min., 1987
Translation, 5:00 min., 1988
Ise d'oil, 4:30 min., 1988
Bubble Order, 5:30 min., 1988
And Grind Hard Stones to Meal, 6:30 min., 1989
Image to Paul Klee, 4:30 min., 1989
125. Fragment, 5:00 min., 1990
Plain Plane Playing, 10:00 min., 1990

Videopräsentationen (Auswahl) / Selected video screenings

Symmetry-Asymmetry Conference, Hungarian National Gallery, Budapest, 1989

EMAF, European Media Art Festival, Osnabrück, 1989
World Wide Video Festival, Den Haag, 1989
Art Video Hongrie, Strasbourg, 1989
Video und Malerei, Akademie der Künste, Berlin, 1989
Videofest 90, Berlin, 1990
Fête de cinema, Palais de Tokyo, Paris, 1990
XI. Video Art Festival, Locarno, 1990
Les instants Video, Marseille, 1990
WRO, Sound Basis Visual Art Festival, Wroclaw, 1990
Fukui International Media Art Festival, Fukui, Japan, 1990
Artech, Art et Nouvelles Technologies, Etampes, 1991
Video del Este, Granada, 1991
Videoformes, Clermont-Ferrand, 1991
Internationale Kurzfilmtage, Oberhausen, 1991
Film et video experimentaux, Jeu de Paume, Paris, 1992

Installationen und interaktive
Arbeiten / Installations and
interactive works

Plain Plane Playing, kinetic video sculp-
ture/video installation, 1990
Unstable, computer-graphic installation,
1990
4 Space, interactive computer-graphic
installation, 1991
RGB VW, computer-graphic installation,
1991
The Fruit Machine, interactive computer-
graphic installation, 1991 (collection of
the ZKM-Media Museum, Karlsruhe)
Handsight, interactive computer-graphic
installation, 1992
The Televirtual Fruit Machine, interactive
telecommunication project, 1993
Between The Words, interactive computer-
graphic installation, 1995
conFiguring The Cave (with Bernd Linter-
man, Jeffrey Shaw, Leslie Stuck),
interactive computer-graphic environ-
ment, 1996 (collection of the NTT
InterCommunication Centre, Tokyo)
Memory Theater VR, interactive com-
puter-graphic environment, 1997
(collection of the ZKM-Media Museum,
Karlsruhe)
Things Spoken, CD-ROM, 1998
Sprache der Dinge, interactive multimedia
installation, 1998
Their Things Spoken, DVD-ROM, 2001

Ausstellungen und Festivals
(Auswahl) /
Selected exhibitions and festivals
(Kat. = Katalog / Catalogue)

Gallery René Coelho, Amsterdam, 1990
Das belebte Bild, Art Frankfurt, Frankfurt-
on-Main, 1991 (Kat.)
MultiMediale, ZKM, Karlsruhe,
1991/93/95 (Kat.)

Artec, Nagoya, 1991/93 (Kat.)
Ars Electronica, Linz, 1992/95 (Kat.)
V2_Organisation, s-Hertogenbosh, 1992
(Kat.)
Mediale, Prisma Art Gallery, Hamburg,
1993
Artificial Games, Medienlabor, Munich,
1993
Video Arco, Madrid Art Fair, Madrid, 1993
(Kat.)
Muu Media Festival, Otso Gallery, Tapiola,
Finland, 1993 (Kat.)
Siggraph '93, Anaheim, 1993 (Kat.)
IC '93, Beam Gallery, Tokyo, 1993 (Kat.)
Interactive Media Festival, Los Angeles,
1994
Artifice 3, Paris, 1994 (Kat.)
Interaction '95, Gifu, Japan, 1995 (Kat.)
Arslab 2, Torino, 1995 (Kat.)
Cebit, Telecom stand, Hanover, 1995 (Kat.)
Institute for Contemporary Art, London,
1995
Kunst- und Ausstellungshalle der Bundes-
republik Deutschland, Medien-
KunstRaum, Bonn, 1995
ISEA, International Symposium on
Electronic Art, Montreal, 1995
Butterfly Effect, Kunsthalle, Budapest,
1996 (Kat.)
Phantasmagoria, Museum of Contempo-
rary Art, Sydney, 1996 (Kat.)
Surrogate, ZKM, Karlsruhe, 1998
Dark Room, Museo Universitario Con-
tempránero de Arte, Mexico City, 1999
Contact Zones, Cornell University, Ithaca,
New York, and Gallery of Photogra-
phy, Mexico City, 1999
WRO '99, 7th International Media Art
Biennale, Wroclaw, 1999
ISEA, International Symposium on
Electronic Art, Paris, 2000
Vision and Reality, Louisiana Museum of
Modern Art, Humblebeak, Denmark,
2001

Biografische Notizen / Biographical Notes
Autoren / Authors

Tim Etchells

ist Autor und Regisseur von Forced
Entertainment. Siehe S. 345.

is writer and director with Forced
Entertainment. See p. 345.

Masaki Fujihata

siehe S. 349

Gerhard Johann Lischka

Geboren 1943, lebt in Bern. Gerhard
Johann Lischka ist Kulturphilosoph und
Schriftsteller; zu seinen zahlreichen Ver-
öffentlichungen als Autor und Herausge-
ber gehören u.a.: *Über die Mediatisierung.
Medien und Re-Medien* (Bern, 1988),
Splitter-Ästhetik (Bern, 1993), *Schnittstel-
len. Das postmoderne Weltbild* (Bern,
1997), *Kunstkörper – Werbekörper* (Köln,
2000). Von 1986–1999 war er Herausgeber
der Taschenbuchreihe ›Um Neun. Am
Nerv der Zeit‹ (Benteli). Er lehrt u.a. am
San Francisco Art Institute, an der F&F
Hochschule für Kunst und Medien Zürich,
der Hochschule für Theater Bern und der
Fachhochschule für Technik, Wirtschaft
und Gestaltung, Aargau.

Gerhard Johann Lischka was born in 1943.
A cultural philosopher and writer, he
has authored and edited publications including
*Über die Mediatisierung. Medien und Re-
Medien* (Bern, 1988), *Splitter-Ästhetik*
(Bern, 1993), *Schnittstellen. Das postmo-
derne Weltbild* (Bern, 1997), *Kunstkörper –
Werbekörper* (Cologne, 2000). From 1986
to 1999, he edited for Benteli the 'Um
Neun. Am Nerv der Zeit' paperback series.
He teaches at the San Francisco Art
Institute, the F&F Hochschule für Kunst
und Medien, Zurich, the Hochschule für
Theater, Bern, the Fachhochschule für
Technik, Wirtschaft und Gestaltung,
Aargau, and other institutions. He lives in
Bern.

Peggy Phelan

Peggy Phelan ist Autorin der Bücher *Unmarked: The Politics of Performance* (London/New York, 1993), *Mourning Sex: Performing Public Memories* (London/New York, 1997), *Art and Feminism* (Oxford, 2001) und *Death Rehearsals* (in Vorbereitung). Von 1997–99 war sie Fellow des Open Institute, New York, im ›Project on Death in America‹.

Peggy Phelan is the author of *Unmarked: The Politics of Performance* (London/New York, 1993), *Mourning Sex: Performing Public Memories* (London/New York, 1997), *Art and Feminism* (Oxford, 2001) and *Death Rehearsals* (forthcoming). From 1997 to 1999, she was a fellow for the 'Project on Death in America' at the Open Institute, New York.

Hans-Peter Schwarz

Hans-Peter Schwarz war von 1983–90 Kustos am Deutschen Architekturmuseum in Frankfurt/Main, von 1992–2000 Direktor des ZKM-Medienmuseums und von 1994–2000 Professor für Kunstgeschichte an der Hochschule für Gestaltung Karlsruhe. Seit 2000 ist er Rektor der Hochschule für Gestaltung und Kunst Zürich/Museum für Gestaltung Zürich. Zu seinen Veröffentlichungen zur Architektur- und Kunstgeschichte und zur Kulturgeschichte der Moderne gehören u.a. *Die Architektur der Synagoge* (Stuttgart, 1988), *Das Haus des Künstlers. Zur Sozialgeschichte des Genies* (Braunschweig/Wiesbaden, 1990) und *Medien-Kunst-Geschichte* (München/New York, 1997).

Hans-Peter Schwarz was custodian at the Deutsches Architekturmuseum, Frankfurt-on-Main, from 1983 to 1990, director of the ZKM-Media Museum from 1992 to 2000, and professor at the State Academy of Design, Karlsruhe, from 1994 to 2000. He was appointed rector of the Hochschule für Gestaltung und Kunst, Zurich/Museum für Gestaltung, Zurich, in 2000. His publications on architectural and art history and on the cultural history of modernity include *Die Architektur der Synagoge* (Stuttgart, 1988), *Das Haus des Künstlers. Zur Sozialgeschichte des Genies* (Braunschweig/Wiesbaden, 1990), *Media-Art-History* (Munich/New York, 1997).

Geboren 1944 in Den Haag, lebt in Amsterdam. Tjebbe van Tijen realisierte zwischen 1964 und 1969 Skulpturen, Happenings, Environments und Expanded-Cinema-Aktionen. Er war Kurator am Dokumentationszentrum für moderne soziale Entwicklungen, zunächst an der Universitätsbibliothek Amsterdam, später am Internationalen Institut für Sozialgeschichte Amsterdam (1973–93). 1988 gründete er die ›Projekte Imaginäres Museum‹ und entwickelte seitdem verschiedene interaktive Installationen, die sich mit der Dramatisierung von Information beschäftigen. Zu seinen aktuellen Forschungsprojekten gehören ›Literary Pyscho-Geography of Edo/Tokyo & Amsterdam‹ und ›Unbombing the Cities of the World‹.

Born in The Hague in 1944, Tjebbe van Tijen lives in Amsterdam. He has produced sculpture, happenings, environments and expanded cinema events (1964–1969) and was curator of the Centre for the Documentation of Modern Social Movements, first at the University Library of Amsterdam, later at the International Institute of Social History, Amsterdam (1973–1993). He founded 'Imaginary Museum Projects' in 1988, and since then has created diverse interactive installations based on the dramatization of information. Current research projects include 'Literary Pyscho-Geography of Edo/Tokyo & Amsterdam' and 'Unbombing the Cities of the World'.

Impressum / Colophon