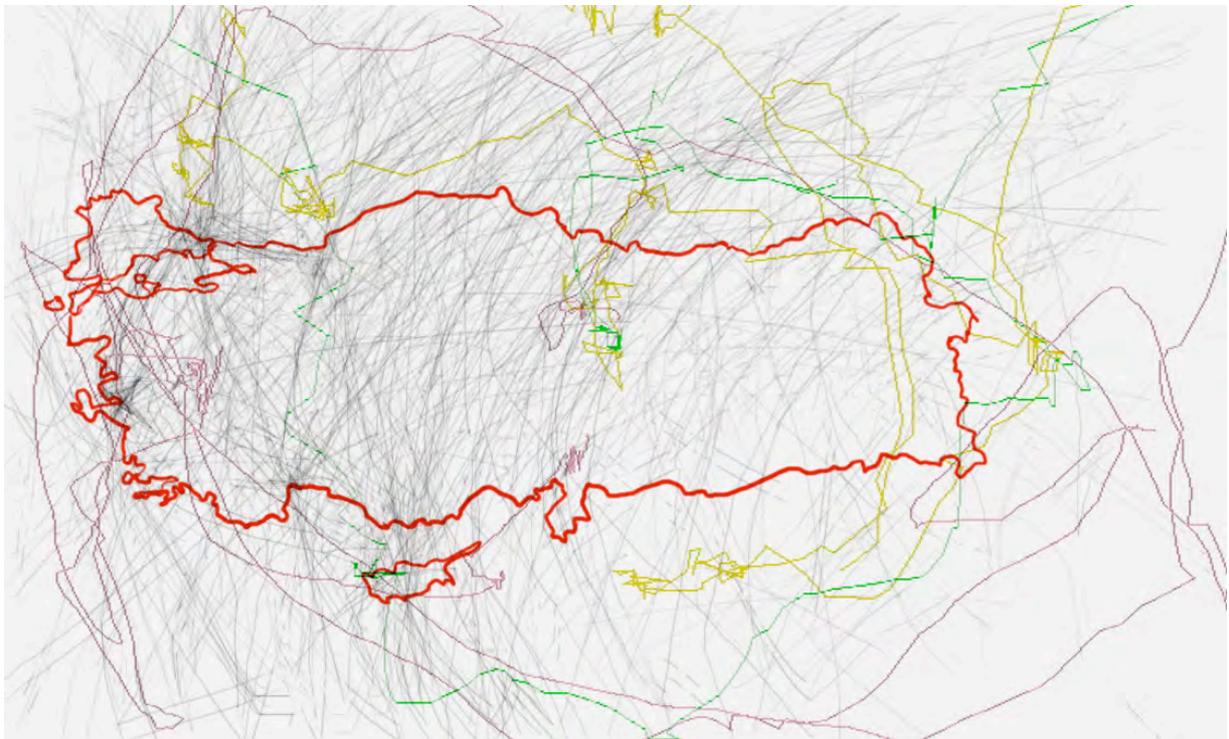


- TRACKS -  
AN INTERACTIVE MEDIA INSTALLATION BY ANDREA ITEN

## INTRODUCTION

"A story should have a beginning, a middle, and an end - but not necessarily in that order."

*Jean Luc Godard*



*Digital drawing (Preproduction)*

I started research for the "tracks" interactive media installation in 2005 after I had seen a diagram in a newspaper that had been supplied by sky guide, the air traffic control centre with offices in Zurich, Switzerland.

For many years my artistic work has focussed on a number of media and in addition to installation and video work, drawing has also always played an important part in my artistic endeavours. This led to a wish, for once, to work with these disparate media within one project and also to involve the exhibition visitor directly.

I experience drawing as something that is tactile and sensuous and I would like to transmit these qualities using a monitor.

The human body plays an important role here as the source and pulse of the newly created spatial structure, whether in generating flight path diagrams that translate the movements of an individual within a space and which are actually created in the seclusion of the studio or as the catalyst for various soundscapes.

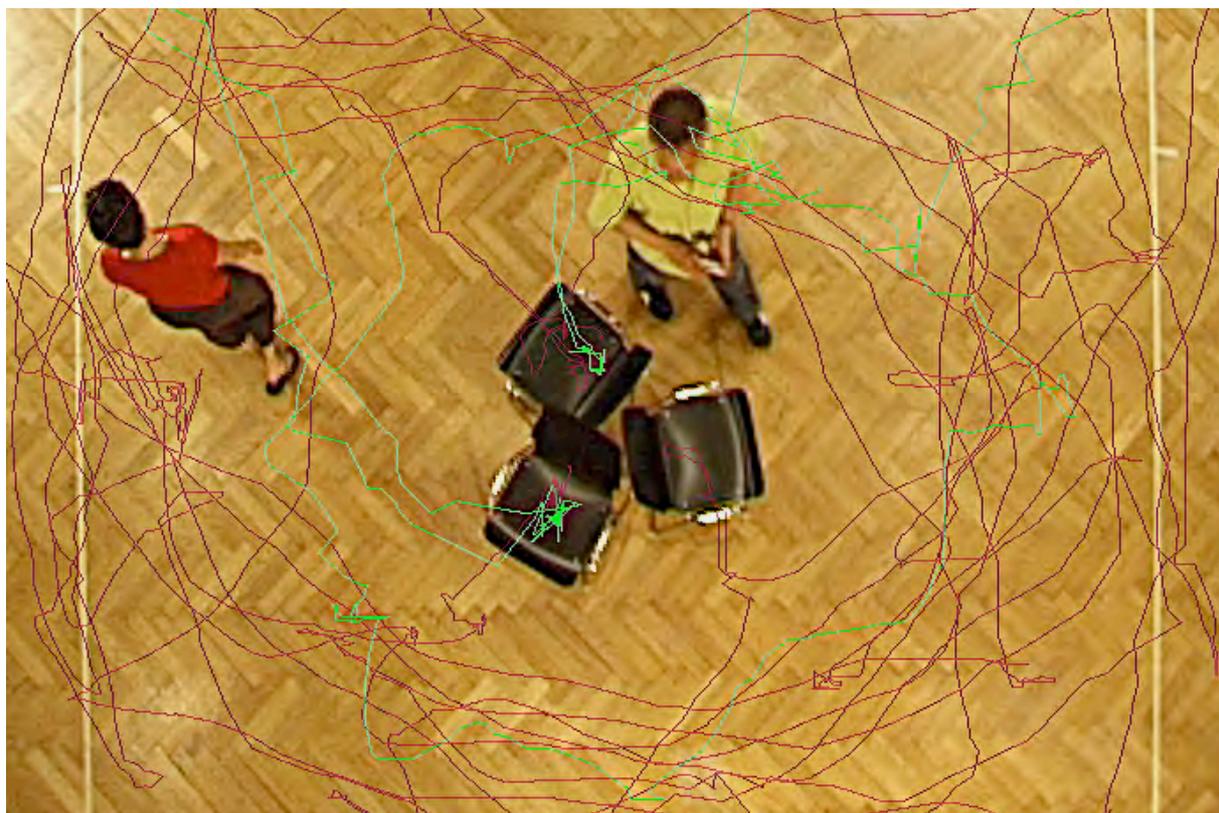
### Web log

This is how I dived into the world of "tracks" after having visited the sky guide offices at Zurich airport, and as so often happens when working on an artistic project: reality catches up with you and begins to make a connection with broader issues in society.

I studied the work of other artists on the subject of borders and happened onto a film made by Chantal Ackermann called "De l'autre Côté" in which she shows very clearly what it means to live close to the Tortilla Curtain in the USA and Mexico. Europe's expansion eastwards has also raised many questions, dramas involving refugees from Africa have played themselves out in Spain and elsewhere over and over again and most of the Africans are sent back to their homeland. We have managed to avert the danger, for the time being, of an avian flu pandemic, which shows us that viruses are no respecters of borders. In New Orleans, victims of hurricane Katherine searched for their houses with the help of "Google earth" software and "plane spotters" detected unclassified planes belonging to the CIA at a military air base in Frankfurt.

The first sketches using the Wacom tablet and test video recordings of tracking in space are also part of the contents of the blog that time and again led to adaptations in the project being made.

You can find the web log at [http://www.andraiten.ch/tracks\\_log/](http://www.andraiten.ch/tracks_log/) (in German only).



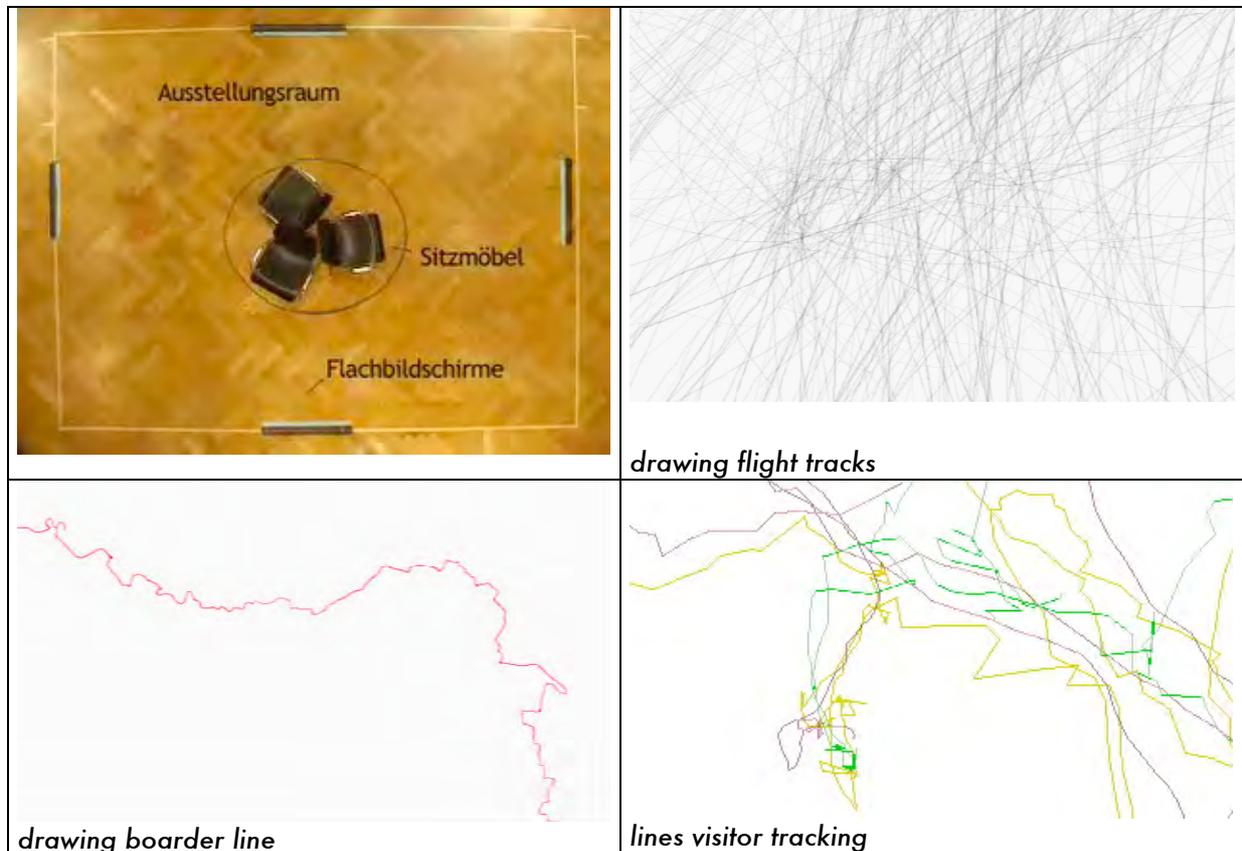
The "tracks" interactive media installation documents the process of drawing. A simple line becomes a flight path, a national border, and at the same time maps out the exhibition space.

What does that actually mean?

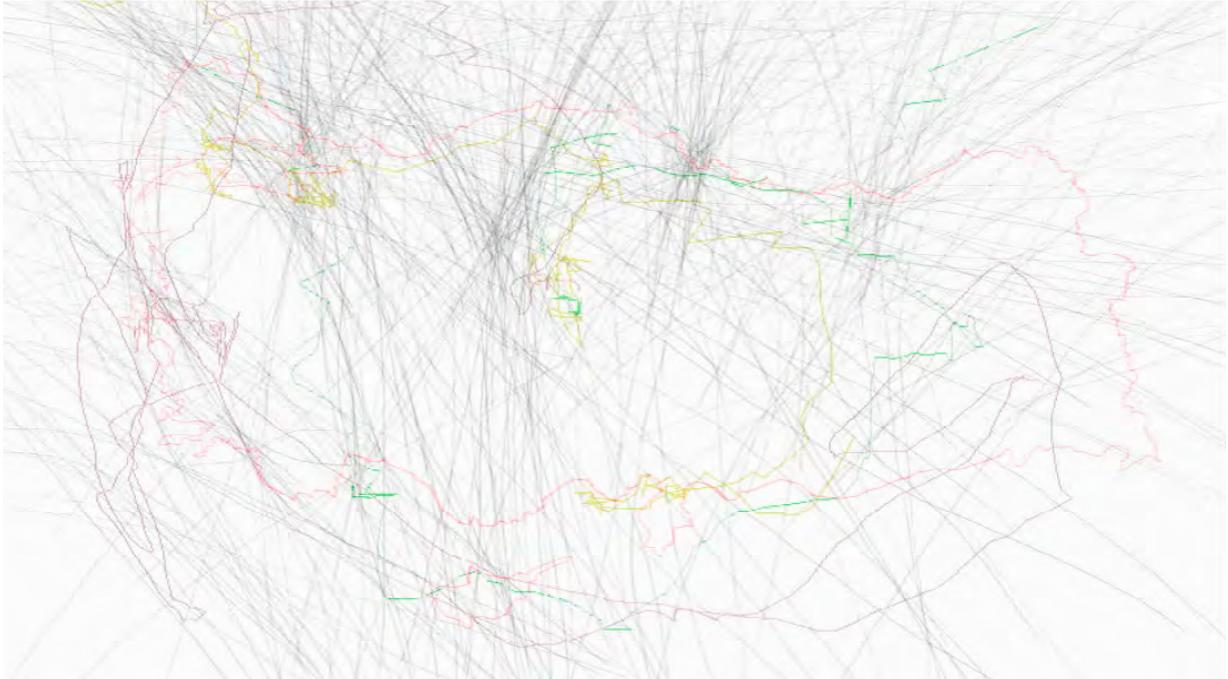
## DRAWING

When visitors enter the exhibition space, they will see large flat screens on the walls and a seating arrangement. On the screens are dense black-line grids against a white background. Line drawings develop on these grids tracking the number of visitors and the locations in the room at which they stop. The latter appear as dense spots – junctions (airport centres). The layers overlap and become what we recognise as a traditional drawing on a sheet of paper. Collections of line bundles, changes in direction, fines traces of redrawn lines unite to give the unique aesthetics that lend the drawing its pictorial quality.

Non-linear in this case applies to the digitised version of the drawing that has not developed according to the chronology of an analogue drawing process, but on the basis of algorithms that correspond to the behaviour of the visitors.



The translation of fictitious flight paths from various countries gives the drawing its topography and fixes it with forms we identify as coastal regions of larger continents and islands. In order to create these drawings, I refer to flight maps that are generally available and clearly show along which paths aircraft make their way from place to place. Rhythmic diagrams appear on the screen as a result of this drawing process when combined with the movements of the exhibition visitor. They will differ significantly from my former drawings and images made on paper as they are the result of a preproduction DVD.



*Digital drawing (preproduction)*

If the audience crosses certain fixed points within the space, fragmentary broken red border lines appear in the "tracks" and the outlines of a map as we know it from our school years can begin to be discerned on screen.

Iceland, Japan, Senegal, Turkey, meandering red lines with their political dimensions draw themselves. These lines represent the territories over which governments have negotiated and fought, more or less organically developed, that divide our globe into nations.

## THE PUBLIC AS PART OF THE INSTALLATION

The public too leaves temporary trails behind on the screens: its behaviour in the exhibition space is permanently tracked and translated into lines. Similar to the flight paths, the space tells tales of streams of visitors that differ clearly in their movements from the flight paths and borders. It is probable that the majority of trails will skirt the seating arrangement. This spatial arrangement has first to be tried out in a test space in order to create the best starting arrangement. The digital drawings on the screen should present the same quality that is found with traditional drawings on paper.

## SEATING ARRANGEMENT AT THE HEART OF THE EXHIBITION



*Model of the installation*

### *Sound*

A seating arrangement has been planned in the exhibition space. When visitors sit down they trigger gentle soundscapes from the interior that correspond to the country being shown on the monitors. Pistachio shells being cracked out, ringing bicycle bells, the slap of sandals on rich soil or the snake charmer's flute at the Moroccan market place allow the visitor to stop and reconnect to individual memories. The public can relax, listen to the sounds and relive memories of past journeys.

A diversity of world areas is presented, each differing strongly in volume, flavour and rhythm and encapsulating what is typical of each place. We do not, however, make use of national anthems or well-worn clichés but have recorded moments in each of the selected countries.

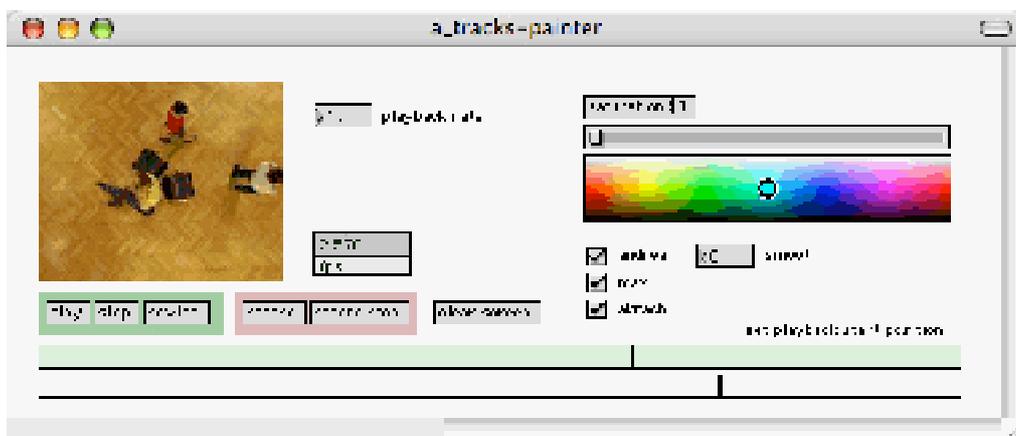
For the past year, each time I hear of friends or students who are leaving on a journey I give them a small hard-disk recorder with a microphone that looks like a set of headphones so they can bring back fragments of sound. This has turned into a sound archive from China, Japan, Turkey, Senegal, Australia, Morocco, Sweden, USA, Germany and Corsica that is being used by Max Spielmann – the sound specialist.

### *Sound in motion*

The exhibition space itself will be linked up via a surround system to a soundscape that is attuned directly to the visitors and which changes according to how they move within the room. In this way I would like to create a level of perception that is not present in the traditional presentation of drawings.

The public creates a changing soundscape through its direct relationship with it via the ear and by the physical path it draws through the space. In contrast to the seating arrangement's sound, this soundscape is organised from the outside and spreads via small loudspeakers from the edges inward creating the ambience of an airport transit lounge. The hum of the air conditioning system, the sound of the wind, the roar of engines, the sounds that are typically associated with being in transit on arrival or before departure in an airport where we leave the familiar behind and wait to be transported to another part of the earth.

The external interactive soundscape represents the airport with its no-man's land atmosphere, which creates its own dimension that differs from the sound memories associated with the seating arrangement.



## PROJECT DEVELOPMENT AS A PROCESS OF FINE TUNING

Approximately one and a half year ago I received a production grant from the national department of culture/sitemapping to examine the basis of "tracks" and formulate the project so that it could be adapted. The difficulty inherent in this process of documentation was that we had to call on techniques (for example, spatial tracking using a video camera, the results of which could then be programmed) for which we had not planned. As we did not yet have access to the positioning system we had managed to find, we had to settle for another approach.



*Digital drawing (production)*

My sketches and drafts should not be confused with the end product, this refers in particular to the drawings, which are at present still in the form of a sequential document: a more powerful computer, the time-consuming programming process, and a high-resolution monitor are necessary in order to produce the work as planned.

What still remains to be done on "tracks" is the layering and fine-tuning of the technological soft- and hardware components and the conversion of the drawings. The balance between the act of drawing in its unspectacular immediacy, the soundscape, and the movement of the visitors within the space has to be fine-tuned and its timing coordinated. A laser positioning system made by SICK AG, Germany also still has to be adapted to our needs.

We are also planning an experimental phase using students and other people who are interested in the process that will take place in the media space at HyperWerk (FHNW, University of Applied Science Northwestern Switzerland).

## TEAM

I have already worked together with Andreas Krach and Max Spielmann on the interactive media installation Somnia on the subject of sleep. I would like to briefly describe the process we followed and my position as the artist/author:

I work thematically and my works arise out of an idea that fascinates me and drives me to translate it into various media.

It may be a picture, a text or a story that I try to portray spatially.

I enjoy working with Andreas Krach and Max Spielmann because they take an active approach to the various subjects. They involve themselves in more than the technical aspects and contribute their own thoughts and ideas, which in turn makes them a part of the process of analysis and development.

Andreas Krach has moments of remarkable creativity during the conceptual stage as well as during project realization. (His areas which cover architecture, media design, programming and the practical skills of a carpenter meant we were able build the whole stage for the Somnia installation ourselves.)

Max Spielmann has been responsible for all the sound design and music on my videos since I began working as an artist.

I also need the time when I work alone in my studio, where I carry out all the groundwork for my videos, texts, drawings, photographs and installations.

Over the past three years, drawing with charcoal has become very important to me, which begs the question whether these works deserve their own context for an (inter)active public.

For this project the collaboration with the following additional partners is planned:

Leander Herzog: Programming Basel/Switzerland

Dr. Sabine Gebhardt-Fink: Research for spatial questions / Art collection/Kunstmuseum Basel Stadt, Researcher at HGKZ/University of applied arts/Zurich

Peter Paul Kubitz, Collaborator, Director, Museum of Television Berlin/Germany

Andreas Vogler: Architect, Munich/Germany

## THE ROLE OF THE VISITOR

As I have been working with video as a medium since the late eighties with all the changes in technology and production that have taken place, my work has been positioned almost exclusively at video festivals, on television, or in institutions with a media orientation. My experience of the art market and most established institutions leads me to see them as largely unadventurous.

My aim is to place the public at an exhibition on an equal footing. For the "tracks" installation this means:

What kind of world do you want to have and how do you perceive the space around you when you leave this altered exhibition space?

Globalization is a subject that concerns us all, the discussion on inequality is only one of many.

I would like "tracks" to have an active, participating audience, one that takes the pencil in its own hand and draws. For the upcoming questions that concern us all, we need to remain open minded and curious.



## EXHIBITION SPACE

Tracks is suitable for presentation at media festivals, in exhibition spaces or museums that with an ongoing interest in new media. It is also suitable for group exhibition cycles focussed on borders, cartography, or performance space. And of course new approaches to drawing.

Airport transit lounges would be appropriate as a exhibition location.

We plan to store the work in flight cases so that it can travel around the world with ease.

## TECHNOLOGY

The solutions that we developed to fulfil the technical objectives, the non-linear reconstruction of the analogue drawing process and the translation of patterns of spatial motion into the dynamics of the installation content will be explained more in detail below:

The first step of digital image construction is an exact parameterisation of every single line of the analogue drawing process. The position, direction, intensity and dynamics of each line are digitised as it is created. Each drawing results in a complex set of data, in which every line can be accessed individually. This makes it possible to access multiple steps of the drawing process in parallel and to re- and deconstruct them in combination with the visitors' patterns of physical motion inside the installation space. During the installation, this process takes place in real time and is independent of the order in which the analogue template was drawn. This makes it possible to associate individual lines or groups of lines with specific patterns of spatial motion. The digital image emerges and decays depending on the motion of the spectator.

Another issue is how to record and interpret these movements without inflicting a video-surveillance system on the visitor or manipulating the installation space by laying a touch-sensitive carpet for example. This can be achieved using the latest industrial laser technology for spatial measurement. This means that the omnipresent techno-eye of the tracking camera can be set aside and the technical limitations of traditional video-tracking are overridden. Two discreet, invisible lasers are placed on opposite sides of the installation. They continuously scan the positions of the visitors and deliver information about changes in the spatial configuration.

The way this system functions by broad scanning of space is similar to the functioning of radar technology used both in aviation and in securing national borders.

### *Acknowledgement:*

The most popular use of these systems to date in the art context is anti-theft protection of paintings in the form of vertical laser curtains. Interaction with these devices is generally not appreciated.

## ANDREA ITEN

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Born on the 4th of November 1959, Citizen of the Cantons Glarus and Zug, Switzerland.  
Lives in Basel and Berlin. Works in the fields of Drawings, Installation and New Media

### EDUCATION AND PROFESSIONAL DEVELOPMENT:

- 1966 - 1973 Primary school, 6 years, High school, 3 years,
- 1974 Diplôme 1 + 2 de langage de l'Alliance Française, Neuchâtel
- 1975 1st Certificate of Cambridge, London
- 1976 - 1980 School for teachers of nursery school, certificate as teacher
- 1980 - 1985 Nursery school teacher

### ARTISTICAL DEVELOPMENT:

- 1985 Free Courses in the Art School of Lucerne,
- 1985 -1986 Primary Level (Sculpture, Graphics, Painting) at the Art School of Lucerne (1 year),
- 1986 - 1989 Painting - Art School of Basel (3 years),
- 1987 - 1989 Audiovisual Class - Art School of Basel (2 years)  
Continuing education in photography, film and music (electronic studio) at the Art School of Basel and the Academia of Music, Basel.
- 1966 - 1990 Violin lessons for 22 years, play in several orchestras.
- 1989 - 1991 Assistent to Prof. P. Jenny, Dep. of Arts and Architecture at the Technical University of Zurich (E.T.H.).
- Since 1990 Work as an independant artist
- 1997-2002 Member of the art council, Canton of Basel-Land  
Curating and restauration of the collection of new media
- 1999 Workshop with Marcel Odenbach, Hans Nieswandt about Sampling  
Workshop with Fred Van der Kooji, about Light
- 2000 Directing assistant of Tim Staffel, Basel Theater
- Since 2000 Guest lecturer at HyperWerk/University of Applied Science Northwestern Switzerland- Academy of Art and Design

## REPRESENTATIONS AND EXHIBITIONS:

### Group Exhibitions (Selection)

- 1990 Ill. International Biennale of Video (MAMM), Medellin by invitation of the Swiss Government, Dep. of the Arts, Annual exhibition at the Kunsthalle, Basel,
- 1991 "An Ort und Stelle", Group-project at the Factory Stückfärberei, Installation for the Swiss Glass-Museum, Romont, commission of the Canton Zug,
- 1993 Annual exhibition at the Kunsthalle, Basel
- 1994 Annual exhibition at the Kaserne Klingental, Basel and Kunsthaus Glarus
- 1995 Annual exhibition at the Kunsthalle, Basel and Kaserne Klingental, Basel
- 1996 Invitation of Kunstverein Baselland, Spengler, Münchensten, Installation  
Kunsthaus Glarus: Körper, Identität, Irritation; Installations/  
Viper Luzern, Swiss Television, Videotape
- 1997 Kunstautomat Zürich/ Eternit AG Niederurnen/ Kunsthaus Baselland, Installations
- 1998 Viper Luzern, Videotape, Swiss Television/ Station Engel, Pfegerinnenspital Zürich, Theaterproject
- 1999 Kunsthaus Aarau, Speisesalon/, Viper Luzern, Videotape/ Regionale, Kunsthalle Basel, Drawings, Installation/
- 2000 Videonight, Grand Hotel, Filmfestival Locarno/ Kunstraum City West, Zürich, Installations
- 2001 Videoex, Kaserne Zürich/ Unternehmen Mitte, Basel for Pro Helvetia (Installation)/ Regionale, Plug-in, Basel, Installation/
- 2002 Theater Etc, several Swiss Cities, Video/ Frozen Flowers, Gallery Margit Haldemann, Bern/ Kunstpanorama Luzern/
- 2003 Theaterhaus Gessnerallee Zürich, Installation/ Kunsthalle Palazzo, Liestal, Commission of Canton Basel Land, Drawings, Installations, Tapes/Fink forward/ Project with San Keller, publication
- 2004 Jury work Regionale for plug-in/Basel and Theaterfalle Basel
- 2005 behind the eyeball, VideoEx Zurich  
*freaks I see life*, video tape, non-deleted, Glarus  
*subrosa*, photography and embroidery, Kunsthaus Glarus
- 2006 *behind the eyeball*, Viper Basel, beamon/Kino Camera, Basel  
*abroad*, video tape, FreulerPalast, Näfels
- 2007 *Velo & Kunst*, paintings, Kunstmuseum Oltn

## Solo exhibitions

- 1990 Videoinstallation *"Von innen und von aussen"*  
("From the inside and the outside"), Train Station Basel,
- 1992 *"Fixpunkte"*, Installation, mixed media, Kunsthaus Glarus
- 1994 *"Dome"*, Videoinstallation, Perth Institute for Contemporary Arts,  
PICA, sponsored by Pro Helvetia
- 1995 *"Letter to Maimouna"*, Videotape, 40Min, broadcasted by Swiss TV,  
Kunsthaus Glarus, Shedhalle Zürich
- 1999 *"Drop"*, *"Stories across the oceans"*, Installation and Internet Project,  
Kunstraum Aarau
- 2002 *"Somnia"*, Installation, Kunsthaus Glarus

## COMMISSIONS, GRANTS, AWARDS:

- 1989 Commission of the Canton Zug,
- 1990 Commission of the Canton Glarus,
- 1991 Grant for a cultural exchange to the Gambia,  
Canton of Basel-Land,
- 1993 Commission for the Videotape ("Letter to Maimouna")  
Cantons Basel-City and Glarus,
- 1994 Christoph Merian Foundation,  
IAAB - International Studio at Fremantle, West Australia.
- 1997 Commission of the cantons Basel City and Land. for Installation  
*"drop"*. Commission for art and architecture, Hotel Rössli, Filzbach,  
Kanton Zürich.
- 1999 Dr. Anne Marie Schindler Award
- 2001 Commission of the Cantons Basel-City, Land and Glarus for the  
Installation *Somnia*
- 2004 Grant Swiss Federal Office / sitemapping for preproduction mixed  
media project *„tracks“*
- 2006 Grant Swiss Federal Office / sitemapping for production mixed  
media project *„tracks“*

Acquisitions by Canton Basel-Land, Canton Basel-Stadt,  
Canton Glarus, Canton Zürich and Private Collectors

MAX SPIELMANN

University of Applied Sciences Northwestern Switzerland, Academy of Art and Design,  
Institute HyperWerk

Position: Board of directors, responsible for media production & interactive systems

Currents works:

AV-media as tool for processdesign within sociocultural campaign (Migration/Integration –  
International peace work)

UNESCO World heritage JAB – Sustainable development, Visitor information and  
guidance systems,

Background

Schools and studies of medicine in Basel/Switzerland, medical degree 1984

Since 1980 Music and music production, sound design and soundtrack for video and  
interactive media

Since 1984 Consultant for health economics and communication

Since 1987 Video- and Audioproduction (Director, Author) for documenteries

Since 1990 Interactive Media production (Author, Scenography) for public campaigns,  
Museums and Exhibitions

Since 1995 Staff member of HyperStudio

Since 1998 founding member and board of directorof the Institute HyperWerk

max.spielmann@fhnw.ch

ANDREAS KRACH

\*1972 in Neuendettelsau, Germany

1978-82 Primary School Hilpoltstein

1982-91 Gymnasium Hilpoltstein

1991-94 apprenticeship as a joiner

since 1994 work as a freelancer in furniture- and interior-design

1995-2002 studies of architecture and media-design at the "Bauhaus University",  
Weimar

Diverse courses and works at the "studio for electroacoustic music" at the "Hochschule  
für Musik Franz Liszt", Weimar

diverse projects and installations in the field of acoustic art

collaboration with the austrian art radio ORF for the "Ars Electronica", Linz, 1999

work at the computer center of the "Bauhaus University", Weimar

1999-2000 Artist in residence at the "Center for Art and Media Technology - ZKM",  
Karlsruhe

since 2001 works as lecturer in the subject of interaction programming at "HyperWerk",  
University of applied Science, Basel, Switzerland

**selected works since 1999:**

1999 "I/Osonic", generative sound installation for computer networks and physical  
rooms, "Limona-building", Weimar, contributing to "Sound-Drifting", a project of the  
austrian art-radio for the "Ars Electronica", Linz, 1999

1999-2001 diverse interactive installations and technical support for "fusion", a series of  
telepresence events, University Weimar in cooperation with the University of California,  
Los Angeles and the College of fine Arts, Sydney

1999 "sonoscope", interactive audio-installation for the exhibition "net-condition", ZKM,  
Karlsruhe

2000 audio- and interaction-design of the installation "vergence", german pavillion at the  
Expo 2000, Hannover

2001 "sample and hold", acoustic conception and opening concert for the festival  
"backup-new media in film", Weimar

2003 "in tanks and pipes", 14 channel sound installation in an ancient power plant,  
Weimar, a coproduction with the German National Theater Weimar

### **Selected supports since 2000:**

2000 sounddesign for "robotlab", a experimental art project, using industrial robots, ZKM, Karlsruhe

2000 furniture and interface prototyping, setup for "beyond hierarchy", an interactive videoinstallation by Jill Scott for the exhibition "Vision Ruhr", Zeche Zollern, Dortmund, Germany

2001 audio-hardware development for the company "Ecotech", Enviroment- and animal-voice-boards for educational systems and museums

2001/02 conception and realisation of the exhibition setup and programming for "somnia", a videoinstallation by Andrea Iten, Kunsthau Glarus, Switzerland

2002 conception and installtion of the interactive audio-components of the exhibition "Meereswelten", Museum of Oceanography, Stralsund; Germany

2002 sensor- and interaction-design for the Prada Flagship Store Tokyo, at "HyperStudio", Basel, Switzerland

2004 programming support for "bad blood", an interactive videoinstallation by Marlene McCarty, New York, shown during the "ART Basel" festival at "plug-in", center for digital art, Basel, Switzerland, and at the "Kunsthalle" St. Gallen, Switzerland

2005 software prototyping for the pre-stages of "tracks", a videoinstallation by Andreas Iten, Basel, Switzerland