



Audio Tutu.

Duo with clarinette player.

Les Arts au Soleil / Aeronef, 1989

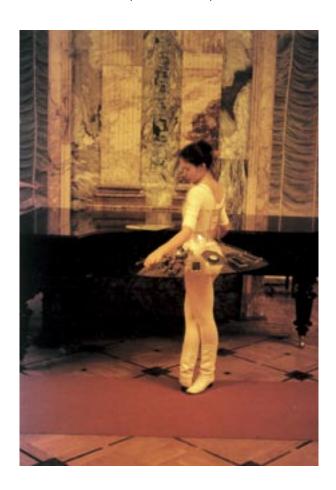
Solar-powered electroacoustic Tutu and (256K) digital sampler

THE AUDIO BALLERINAS

Towards the end of 1988 I had been experimenting with solar cells as a power source for the Uniforms (usually we use rechargeable 12-volt batteries) and came to the conclusion that they had to be mounted on a horizontal surface in order to catch as much of the sun's rays as possible. The artist Susken Rosenthal helped me build a transparent disc-like skirt out of plexiglass that could hang loosely on a belt from the waist. On this surface we placed the solar cells and electronics. A visiting dancer friend who saw the prototype explained that we had created a "tutu" -- the skirt-like piece of clothing that dancers wear in classical ballet pieces such as Swan Lake. This is how Audio Tutus came into existence. We also discovered that the hard but flexible tutus (made out of polycarbonat plastic) were ideal for mounting speakers, microphone jacks and amplifiers, not unlike a disc-jockey's mixing board. Under the guiding impulse of our new chief engineer, Manfred Thiem, we started experimenting with new equipment -- for example, a digital chip (256K) for sampling sounds, an electronic metronome, a photovoltaic resistor (to be used as a light sensor), and a miniature radio receiver. With their photovoltaic sensors the Audio Ballerinas can react to light, not unlike a Geiger counter responding to radioactive substances. The pitch of the sound could change according to the intensity of the light. This occured when either their own shadows or the shadows from their surroundings (tree, clouds) interfered with the direct light as they danced. In effect, they could thus translate their body movements into sound. With their receivers, the tutus rendered audible the radio waves traveling through the air (my favorite sound is actually the "white noise" between the radio stations). In the end, we had a plexiglass dress that could spontaneously pick up sounds, record them digitally, play them back, amplify them, repeat them (via an electronic repetitive "loop"), and alter their pitch. For example, the tutus could record five seconds of the sound of a bell tower ringing nearby and instantaneously play back the sound. The additional electronic features allowed the wearers to change the speed of the loop or the tenor of the pitch (like a rudimentary sampler) to make the bell sound like a heavy brass gong or, in the other direction, a jingling bell. A piece based on this idea, called **Digital Memory**, is at the core of an Audio Ballerina performance. In each place where they perform, the first task of the group was to find a particular local sound -- a sound indigenous to that site or country -- that could be borrowed for this piece. These new technical additions allowed us to do away with the Walkman players and tapes that we had been using previously. In fact, equipped with these "digital memories" (samplers) the Audio Ballerinas had metamorphisized into a sort of mobile ensemble that, instead of playing regular instruments, went around "stealing" (i.e. recording) sounds from around them, altering and re-arranging them into multi-acoustic compositions.

Digital Memory Performances using live sampled sounds

1991. INTERFERENZEN
Art from West Berlin Exhbition, St Petersburg.
Performance with local Bolschoi dancers sampling Lenin's piano at the Lenin Museum (Marble Palace).





Digital Memory Performances using live sampled sounds.



Sampling an Aborigine playing his didgeridoo. Third International Symposium for Electronic Arts (TISEA), Sydney 1993.



Sampling Franzi Kinateder a famous Munich yodeler. Beck Forum, 1993.



The Audio Ballerinas sampling the saxophonist Mats Gustafsson. Kulturbro 2000, Ystad, Sweden

street actions



Miss Riga 310. Latvia 1991.

Detail of a Ballerina performance
with 4 Audio Sweepers.

Sound: Radio Free Riga and
amplified rakes.

In 1991 I was invited to take part in the INTERFERENZEN Exhibition in Riga, Latvia. The Iron Curtain was in the process of falling but the political situation was still uncertain. I was accompanied bythe technicien Manfred Thiem. We brought with us a plexiglass skirt from West Berlin and, using parts from a locally produced RIGA 310 radio and cassettte player and working overnight in our hotel room, produced a Latvian Audio Tutu. With the help of a local performers we created a performance that started at the main train station and ended at our hotel. As a sound source for the Tutu we played live radio from Radio Free Riga: in the course of the ambulatory performance we drew a large crowd of people.



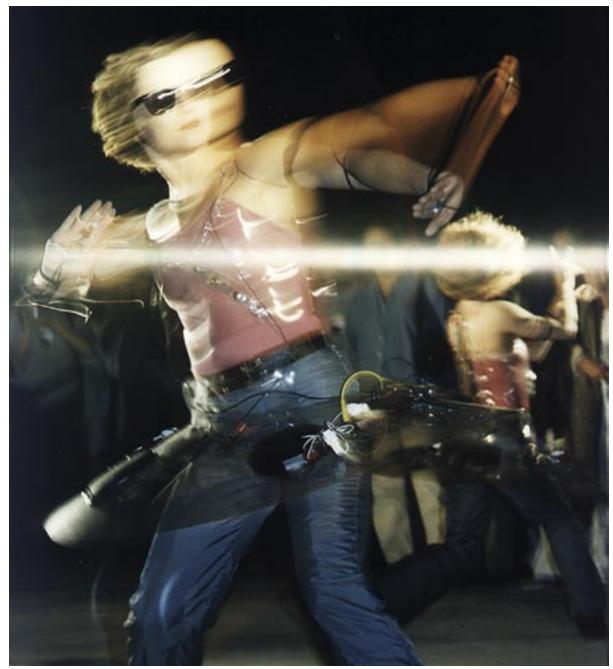


What began in 1989 as a site-specific project (i.e. solarpowered electro-acoustic tutus commissioned by the festival LES ARTS AU SOLEIL, I' Aeronef/Lille) soon blossomed into a full-fledged troup. When I returned to Berlin with the electroacoustic tutus, I recruited a group of local dancers, trained them to operate the tutus, and organized a series of performances in the reunited Berlin. The Audio Ballerinas grew to include a core of 7 dancers, a choreographer, two engineers, and myself as director/manager/ and performer.

Since the conception of the Audio Ballerinas' in 1990 the equipment and choreographies have been systematically upgraded and streamlined. Due to the efforts of the technical staff (Jago Whitehead, Thomas Berndt, Gerrit de Vries) we are now using the 4th generation of Audio Tutus with modular (interchangeable) electronic elements. The performances have been to an extent "standardized": through the experience of international tours and the successive efforts of choreographers Hugo de Carvalho, Lotta Melin and Katja Rotzoll a repertoire of "audio ballets" have come into existence.

For example: the PEEPERS choreography in which light-to-frequency sensors enable the Ballerinas to produce sounds through the interaction of their movements and the surrounding light.





7 / Performances with Electroacoustic Clothes: Audio Ballerinas

Choreographed Sounds and Orchestrated Movements:

Performances with light



8 / Performances with Electroacoustic Clothes: Audio Ballerinas

PEEPERS. Park Sansoucis, Potsdamer Musikfestspiele. 2000 Sensors produce sounds through the interaction of the dancers' movements and the surrounding light.

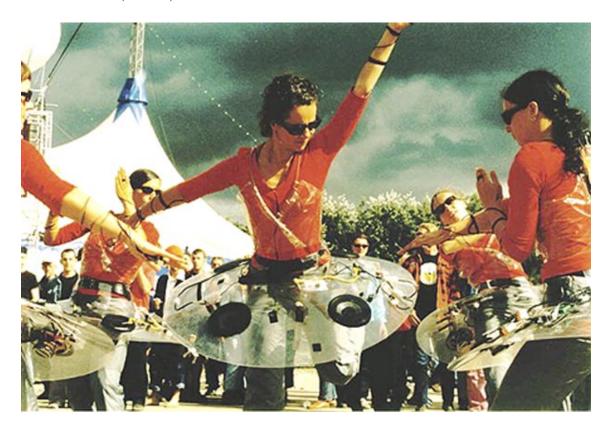
Choreographed Sounds and Orchestrated Movements:

Performances with light



Choreographed sounds and orchestrated movements: Electronic sounds triggered by movement

Yamaha performance and detail (left) of instrument. Lowlands Festival, Holland, 2003.





In the year 2000 while shopping in a local department store I discovered a small child's electronic keyboard manufactured by the Yamaha company. Even with my own rudimentory electronic skills I was able to take it apart and discovered that the keyboard, once disencumbered of its plastic shell and keyboard, was a goldmine of electronic sounds, melodies, and rhythms that could be triggered by other ways than simply pressing the keys of a keyboard. For example by equipping the dancers with mercury till switches they could switch a sound on or off simply by moving their hands (or any other part of their bodies). From the spectators' street-level point of view (remember-the Ballerinas with their wearable technology are always close to their public) it seems like it is the dancer's body that is generating the sound: a group of dancers simultaneously moving their bodies have the effect of an "orchestrated movement" -- in effect it's choreographed sounds that are occurring all around them.

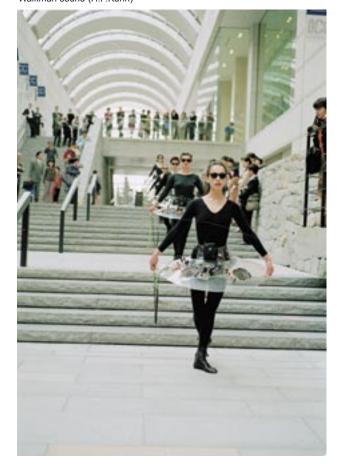
During the Kulturbro festival (Ystad, 2000) I had the group first try out with these movement triggers in their hands, over the course of the years the YAMAHA choreography

has developed into one of the central elements of the AUDIO BALLETS.



Choreographed sounds and orchestrated movements

THE LINE performance, NTT-ICC Tokyo, 1998 Rakes with contact microphones and Walkman sound (H.P.Kuhn)





The Line. INTERFERENZ Exhibition, St. Petersburg 1991. Performance in Catherine the Great's Marble Palace (Lenin Museum) Rakes with contact microphones and Walkman sound (HP Kuhn).

Like the Guitar Monkeys (see catalog AUDIO CLOTHES AND UNIFORMS), the Audio Ballerinas also use Piezo contact microphones in their performances. Instead of attaching them to second hand guitars, they fastened them onto other "instruments", such as umbrellas or a simple metal rods, which function like giant phonograph needles being dragged on the ground and amplified via their electroacoustic tutus. Hence the original title of the piece: The Earth as a Record Player.

Solos, theatres and stages

Ingrid Martinez. Solo Audio Box, double light-to-frequency controller. Cambio Canstante, Venuela, Spain 2003



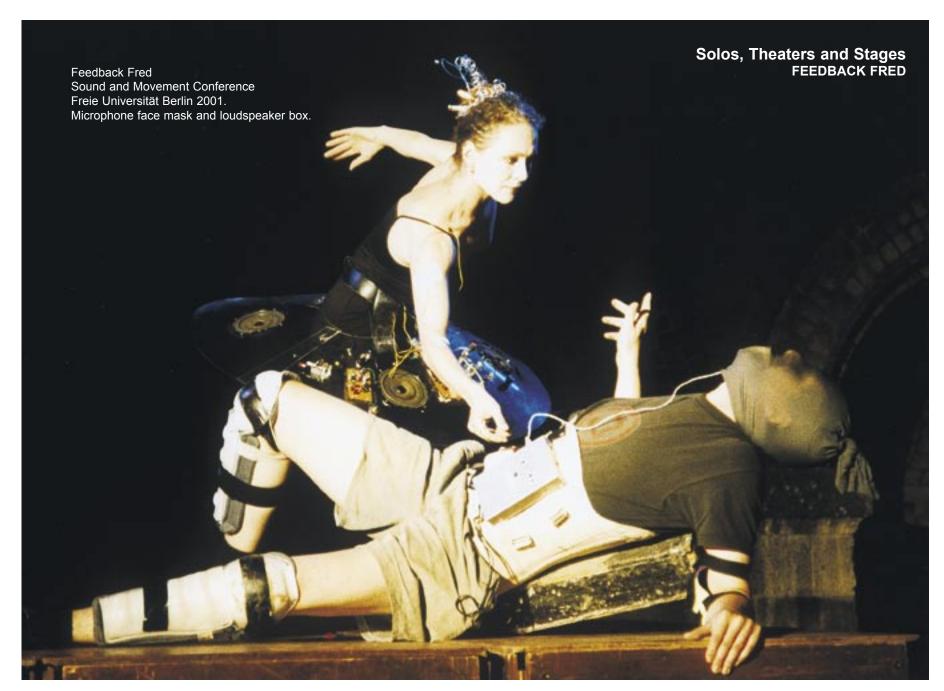


Over the years the Audio Gruppe -- all while fullfilling its various engagements-- has been consequently developing its repertoire. Members of the group --some of which have been involved in the productions for 10 years or longer -- have developed their own solos with a particular instrument and/or costume.

In 1994 Die Audio Gruppe started working with "indoor" theatre spaces: cooperating with the director Elisabeth Zündel at Berlin's Theater zum Westlichen Stadthirschen in *Audio Drama*. In this piece the actors performed within the audience (as opposed on stage and seperated from them) in order to showcase the fact that they were "wearing" their sounds. During this time Elizabeth Brodin perfected her *Seguirya* piece (a dancer moving in a circle of light using a light sensor). Each evening Benoit Maubrey produced his own *Feedback Fred* character wearing an oversize loudspeaker box on his back and "feeding back" his own voice through it via a microphone mask: this personality can likened to a cross-cloning of Hamlet and an electronic-loaded Hunchback of Notre Dame. Two years later *Audio Ballerinas and Electronic Guys* was presented at The Kitchen in New York City: this piece was a collage of different audio characters set in an around the audience.

More audio-figures began to emerge from the collaborative street performances, the Tokyo performances added the Audio Geishas' sampler-and-stroboscope lighting duos to the palette (see catalog AUDIO GEISHAS and ASIAN THEMES). But it was only in 1998 after the creation of the Audio Kimonos that the Gruppe was able to present an evening at Berlin's legendary SO36 club. This piece included 4 Audio Ballerinas, 4 Audio Geishas, and 4 different solos (*Electronic Guy*) with a total of 12 participants. Six months later a similar event was presented at the Malta festival in Poznan in the courtyard of the local classical ballet school where the core personel of the Audio Gruppe was supplemented with 3 of the school's teenage pupils. In February of 1999 DAG was invited to present 3 solo works at the International Dance and Technology Conference (IDAT) in Phoenix,Arizona where the group was able to hold its own against bombastic multimedia "intelligent" stage productions. In this context it is important to note that some of the Gruppe's costumes have muted into highly indivualistic and self-contained sound units. These are individual "phonic" bodies -- not devices of highly developed technology-- that produce their own personal sounds and movements in intimate and close-to-the-spectator performances.

Audio Ballerinas and Elisabeth Brodin Peeper Performance Yokohama City Museum, 1997.



Solos, Theaters and Stages

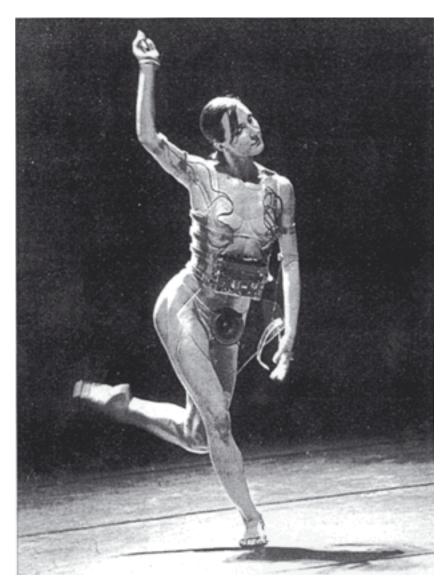


Feedback Fred. Spiral Hall, Tokyo, 1997.



Feedback Fred, 12 volt 30 watts. Sound and Movement Conference, Freie Universität Berlin 2001. Microphone face mask and loudspeaker box.

Solos, Theaters and Stages



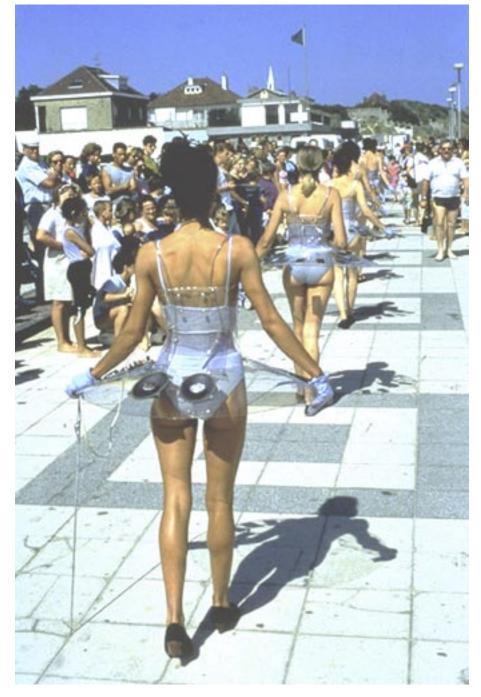
In 2002 I was approached by Berndt Schindowski, chief choreographer at Musiktheater im Revier (Gelsenkirchen Opera House) who commissioned me to create 12 electroacoustic costumes for **HIGH FIDELITY**, an opera on Elvis Presley. His wish was to adapt the Digital Memory choreography to a dance piece using the late singer's songs (in effect:: sample, play back, and distort the original songs through the dancers' movements).

During a recent festival In Seoul I had discovered portable samplers that were used by Korean merchants to sell their ware at local produce markets -- recording and amplifying their own voices with the daily prices of fruit and vegetables. They functioned on the 12-volt batteries of their small trucks and were very dependable. These were integrated into the new costumes. The engineers Thomas Berndt, Gerrit de Vries and Jago Whitehead re-wire the devices in the same way as the Ballerinas' Tutus: pitching mechanism to alter the sound and photoresistors to enable the dancers to alter the sound via light.





Solar events





Detail of a solar-powered Audio Tutu: the LINE performance. 1990, Festival les Arts au Soleil/ Aeronef, Lille, France. Electroacoustic Tutu, solar cells, piezo microphone and metal rod.

In 1991 the Audio Ballerinas were invited to perform at the **European Land Art Biennale** in an open coal mining area near Cottbus. In this situation we demonstrated alternative energy forms in a performance context.

Photo below right: solar-powered electroacoustic Tutu amplifying a piezo microphone scraping along the abandoned train tracks.

Photo below left: 7 East German volunteer Ballerinas with solar-powered electroacoustic Tutus and "apple" radio receivers. The radios are sold as electronic kits and can be powered by electrodes inserted into apples. Instead of apples we used solar cells: in the course of this dark-to-dawn performance (5 to 8 AM) the Audio Tutus gradually reacted to the increasing daylight: playing at first white noise and later -- when the sun has fully risen -- amplifying a cacophony of local radio stations.





Theatre and Events



AUDIO GUILLOTINE. Festival Perspectives. 1989 Saarbruecken.

Detail from the AUDIO OPERA (with R. Buron) for the 200th commemoration of the French Revolution.

Guillotine, Electronic Guy, Audio Ballerina (with breaking glass sound), loudspeaker boxes with politicians' voices.



the ELECTRONIC GUY. Performance solo 1989 to present

Electroacoustic tuxedo, sampler, guitar and radio receiver.

General Statement

GENERAL STATEMENT (partly from 1991):

The art we make is not "high tech", it's normal. The electronic tools we use are cheap and commonplace and can be found inside a lot of toys that litter a child's playroom floor. Furthermore integrated circuits (ICs) can even add to a person's charm. Loudspeakers have long been integrated into modern homes, mass transportation, and public spaces -- wherever you find people, you'll find loudspeakers. It seems only logical that both these elements be combined: even your neighborhood policeman beeps and crackles as he walks his beat. The Audio Gruppe's equipment and computer chips are obtained from surplus electronic parts, they're essentially modern junk. When you superimpose them over peoples' bodies it may look kind of strange at first, but so did "Walkmans" (and for that matter telephones) when they came on the market. Fitting people's bodies with interactive sound-making devices gives the performance a sense of immediacy and surprise -- especially when encountered "live" on the street. At the same time I feel that by equipping traditional clothing (uniforms, tutus, kimonos, tuxedos) with modern technology I'm seeking to create something meaningful and exciting: an Audio Ballerina and her equipment is nothing without her classical tutu, no more an Audio Geisha without her loudspeaker-studded kimono or an Audio Peacock (see catalog) without his multimedia plumage. I cannot work without a reference to the past...or for that matter to the world around me: one of the key aspects of my work is its interdisciplinary character -- situated somewhere between the worlds of avantgarde music, sound art, dance, theatre, performance, street theatre, fashion, and electronic art.



E. Brodin solo. Baitz mit Klang Festival 1994.

1952 born in Washington, D.C.

1975 Bachelor of Arts Diploma from Georgetown University

lives since 1979 in Berlin / since 1990 in Bruck o.T. Baitz (near Brandenburg)

Performances and Festivals (a selection):

2004 "Sonoric Atmospheres /Ostsee Biennale der Klangkunst.

- -- AUDIO IGLOO, sound sculpture in the Singuhr-Hörgalerie, Parochial Church/Berlin.
- -- Thailand New Media Art Festival/Bangkok.
- -- "Soundscape & Shadow" Musikfestival .Denkmalschmiede Höfgen.
- -- Lowlands Festival, Holland.
- -- Schweriner Kultursommer.
- -- LEM Festival (Gracia Territoria Sonor), Barcelona.
- -- BUGA Park Potsdam, AUDIO PEACOCKS, gARTen event.

2002 AUDIO BALLERINAS, Location One, NYC.

- HIGH FIDELITY production, Musiktheatre im Revier, Gelsennkirchen (co-production with Berndt Schindowski).
- -- AUDIO PEACOCKS, Artist in Residence at Lieux Publics, Marseille.
- -- Hamburger Bahnhof, Museum fuer Gegenwartskunst, Berlin.
- -- Potsdamer Festspiele.

2001 KunstMuseum / Wolfsburg.

- -- Berliner Festspiele.
- -- New Haven Festival for Arts and Ideas.
- -- Seoul Performing Arts Festival.
- -- Medi@terra, Athens.
- -- Musee des Arts et Industrie. Saint-Etienne.
- -- FETA Festival, Gdansk.

2000 Monaco Dance Danses Forum, Montecarlo.

- -- Tollwood Festival, Munich.
- -- Postdamer Musikfestspiele, Potsdam.

1999 IDAT (International Dance and Technology Conference), Phoenix, Arizona.

- -- Danzdag, Kulturhus Aarhus, Denmark.
- -- "Audio Ballerinas and Electronic Guys", Theatre am Hallesches Ufer / Berlin.
- -- AUDIO IGLOO, commissioned electro-acoustic sculpture at Hull Time Based Arts, UK.
- -- Les Nuits Savoureuses de Belfort, France.

1998 MALTA Festival, Poznan, Poland,

- -- Stockton Riverside Festival, UK.
- -- International Symposium for Electronic Arts, Chicago.
- -- "Audio Ballerinas and Electronic Guys" USA tour. The Kitchen (NYC).
- -- MALTA Festival, Poznan, Poland.
- -- Stockton Riverside Festival, UK.
- -- Stedelijk Museum, Amsterdam
- -- Sound Art Festival, Krakow.

1997 AUDIO GEISHAS, ICC-NTT Tokyo City Opera House.

- -- ISEA, Chicago.
- -- Ostranenie Festival, Stiftung Bauhaus / Dessau.

1996 XIX International Triennale Exhibition of Milan.

- -- SONAMBIENTE Sound Art Festival, Academy of Arts, Berlin.
- International Street Theatre Festival, Holzminden (1st Prize for "Mobility and Flexibility").
- -- "Audio Ballerinas and Electronic Guys" Tour/ USA, The KITCHEN (NYC), Scena Theatre (Washington, D.C.), Buskers Fare (NYC).
- -- KRYPTONAL Festival, Berlin.
- -- 38eme Rugissants, Grenoble.

1995 Krakow (THE KRAKOVIAN MEETINGS).

-- Sound Art Festival, Hannover.

1994 "Audio Drama", Theatre zum Westlichen Staathirschen, Berlin.

- -- International Symposium for Electronic Art, Helsinki
- -- "Audio Drama", co-production with Theatre zum Westichen Staathirschen, Berlin.
- -- German Television Video Prize, SWF, Baden-Baden.

1993 MEDIALE, Hamburg.

- -- Art and Computers, University of Moscow.
- -- "Augenlied", Schloß Pluschow, Mecklenburgische Künstlerhaus.
- -- BECK Forum, Munich.
- -- ULTIMA Festival. Oslo.

1992 Cleveland Performance Festival, Ohio.

- -- The Night of Electricity, Rotterdam.
- -- TISEA, Sydney.

1991 Europeen Land Art Biennale, Cottbus, Germany.

1990 Festival les Arts au Soleil,, Aeronef Lille, France.

- -- Sound Symposium, St. John's, Newfoundland,
- -- "Urbane Aboriginale". Berlin.

1989 Festival PERSPECTIVES, Saarbrücken.

1988 Festival des Arts Electroniques, Rennes, France.

- -- "Parcours Sonores", Musée de La Villette, Paris.
- -- Festival of Europeen Street Theatre, Aurillac, France.

1987 STEIRISCHE HERBST, Graz, Austria.

-- Galerie Giannozzo. Berlin.

1986 ARS ELECTRONICA, Linz, Austria.

- -- The Mattress Factory, Pittsburg, Pa.
- -- Berlin Atonal Festival.

1985 Bundesgartenschau 85, Berlin.

- -- "Berlin in the Gasteig Art Center", Munich.
- -- Alternativa IV. Lisbon.

Commisioned works (corporate events): BMW, VW, Volklingen Huetten, Hahn Meitner Institut/Berlin, Nokia, Sony Entertainment, NTT/Tokyo, Louis Vuitton / Seoul.

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