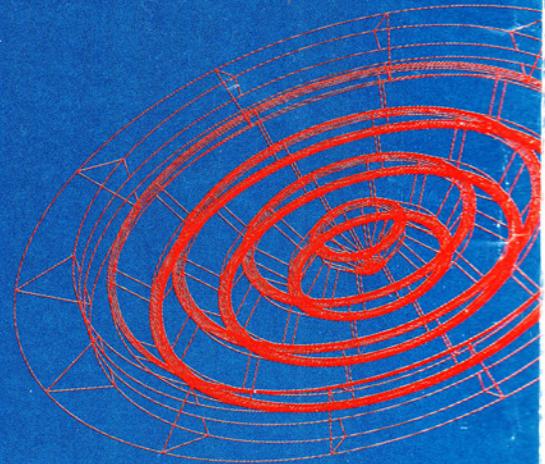


isea98





isea98

02-07 September 1998

A critical event integrating two symposia
with 200 speakers and 100 artists' projects

ISEA98 REVOLUTION Symposium

Liverpool 02-04 September

ISEA98 TERROR Symposium

Manchester 05-07 September

revolution98

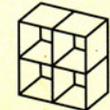
exhibitions and events in both cities

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LIPA



FOUNDATION FOR ART & CREATIVE TECHNOLOGY

Acknowledgments

ISEA98 Partners: Liverpool John Moores University, Manchester Metropolitan University, Foundation for Art & Creative Technology (FACT).

The symposium in Liverpool has been made possible through the efforts of a number of people. We would like to thank all those who offered to convene panels, give papers, presentations / demonstrations and performances; Professor Cecilia Crighton (Director of Liverpool Art School, Liverpool John Moores University) for her constant and unflinching support of the event; Liverpool Art School Research Committee for its financial support; Paul Beesley, Dawn Fantin, Denise Glinister, Joanne Sharkey, Suzanne Wooding, Nikki Witton at Liverpool John Moores University Corporate Events; Madeleine Fletcher at Liverpool John Moores University Trust Office; Janet Martin at Liverpool John Moores University Corporate Affairs; Liverpool City Council for the reception at St. Georges Hall.

ISEA98 Academic Referees: Jagjit Chuhan, Reader in Cultural Diversity, Liverpool Art School, Liverpool John Moores University, UK; Sean Cubitt, Reader in Video and Media Studies, School of Media, Critical and Creative Arts, Liverpool John Moores University, UK; Tessa Elliott, University of the West of England, Bristol, UK; Rachel Greene, Administrator of Rhizome, New York, USA; Peter Hagerty, Photographer and Theorist, Liverpool, UK; Dr. Julia Hallam, Lecturer in Communication Studies, University of Liverpool, UK; Alain Mongeau, ISEA Executive Director, Montreal, Quebec, Canada; Elisa Oliver, Director of Lecture Programmes, Tate Gallery Liverpool, UK; Niranjana Rajah, University Malaysia Sarawak, Malaysia; Marilyn Smith, Professor of Fine Art, Liverpool Art School, Liverpool John Moores University, UK; Ziauddin Sardar, Editor of Futures, London, UK; Dr. Julie Sheldon, Programme Leader Art History, Liverpool Art School, Liverpool John Moores University, UK; Gilane Tawadros, Director of the International Institute of Visual Arts (inIVA), London, UK; Dr. Richard Williams, Lecturer in Contextual Studies, Liverpool Art School, Liverpool John Moores University, UK.

Special thanks are due to Yvonne Berger, Chrystelle Léoty and Iliyana Nedkova for conference correspondence and administration; Jon Barraclough, Mike Carney, Gerard Doyle, Mike Dorrian, and Andrew Weatherstone at Nonconform for the design of symposium materials.

Colin Fallows
ISEA98 Revolution Symposium Director

John Brady
ISEA98 Revolution Symposium Research Co-ordinator



Liverpool John Moores University



LIVERPOOL
ARTS SCHOOL



Foreword

On behalf of Liverpool Art School, John Moores University, welcome to the ninth International Symposium on Electronic Art – ISEA98.

The ISEA event was first staged in Groningen, Holland in 1988 and developed by the Inter-Society of Electronic Arts, from which the acronym originated, and was originally based in Rotterdam. In September 1996 the Inter-Society head-office was relocated to Montreal. The Inter-Society offices maintain an international network of artists, writers, musicians, curators, critics, theorists and activists engaged in diverse ways with electronic arts and media. The annual ISEA symposium is acclaimed for its ability to bring together the international cutting edge of opinion makers concerned with the cultural use of Information Technology.

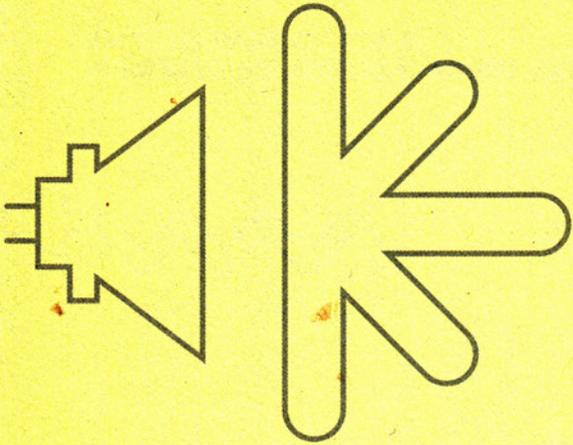
Liverpool John Moores University, Manchester Metropolitan University and the Foundation for Art & Creative Technology have worked together as a partnership to host the International Symposium on Electronic Art for the first time in the UK following host destinations that have included Minneapolis, Sydney, Montreal, Rotterdam and Chicago.

Liverpool Art School hosts the Revolution Symposium at the Liverpool Institute for Performing Arts and the Art School's historic 68 Hope Street building. Together they are a forum and laboratory in which to identify, assert and critique the notions and metaphors of 'Revolution'.

Panel sessions offer wide-ranging responses to the symposium title, representing a variety of critical approaches and perspectives. Liverpool has assembled an outstanding global group of artists, academics, inventors and commentators. They will engage and challenge with a programme of presentations integrating papers, dialogues, workshops and performances. We have been overwhelmed by the response and impressed with the range of panels offered, the variety and calibre of papers within them.

In essence, ISEA 98 comprises two components; the symposium programme which will be held over six days, and the exhibitions and events programme, which features a mix of installations, interactive artworks, performances, music and club projects. The conference programme is split into two three day sessions in each city: ISEA98 Revolution in Liverpool and ISEA98 Terror in Manchester.

The exhibition programme: revolution98 utilises major contemporary art spaces in Liverpool and Manchester. These include the Bluecoat Gallery, Open Eye, The Tea Factory, Tate Gallery Liverpool, Unity Theatre, Cornerhouse, Chinese Arts Centre, Cyberia Internet Cafe Bar, Manchester City Art Galleries and the Museum of Science and Industry.



isea98

REVOLUTION98 Symposium

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General Information

Conference Venue

The venue for the conference is LIPA (Liverpool Institute for Performing Arts) and Liverpool Art School, Liverpool John Moores University where all registrations, Panels, Plenary Lectures, Performances and all academic sessions will be held. The Registration Desk will be staffed throughout the conference.

Wednesday 2 September

Registration: 11.45am onwards, LIPA

Reception: 4.30pm – 6.15pm St. Georges Hall

Performance: 7.00pm – 8.00pm: scanner, Paul McCartney Auditorium, LIPA

Thursday 3 September

Registration: 9.00am onwards, LIPA

Plenary Lecture: 9.30am – 10.30am:

Tim Cole, Co-founder and Managing Director, SSEYO Ltd.
Paul McCartney Auditorium, LIPA

Performances: 7.00pm – 8.00pm:

id battery, in between noise, Keith Rowe, Skyray.
Studio Theatre, LIPA

Friday 4 September

Registration: 9.00am onwards, LIPA

Plenary Lecture: 9.30am – 10.30am:

David Toop, Musician, Writer and Music Curator.
Paul McCartney Auditorium, LIPA

Plenary Lecture: 5.45pm – 6.45pm

Coco Fusco, Interdisciplinary Artist and Lecturer.
Paul McCartney Auditorium, LIPA

Performance: 1.00pm – 1.30pm:

Gregg Wagstaff.
Atrium, LIPA

Performances: 7.00pm – 8.00pm:

Janek Schaefer, Mount Vernon Arts Lab., Project Dark, E.A.R.
Studio Theatre, LIPA

Wednesday 2 September – Friday 4 September

Demonstrations: 9.00am – 6.00pm

MA Multimedia Arts Degree Show 1998, Liverpool Art School, JMU, UK.

MA Multimedia Design Degree Show 1998, Middlesex University, London, UK.

Virtual Reality as a Fine Art Medium Research Unit, Chelsea College of Art and Design, London, UK.

Commedia del Multimedia and Locomotion Pictures, Museum Arad, Kinema Ikon, Romania.

The Layer, Greyworld Sound Installations, London, UK.

Cyberport: Free delegate e-mail access.

Webcast: Will cover the highlights of ISEA98 through the production of a daily electronic magazine transmitted live on www.isea.qc.ca

Basement Gallery, Liverpool Art School, 68 Hope Street

Exhibition: 9.00am – 8.00pm

HOPE – A Collection of Minute Soundworks by International Artists – Audio CD Listening Stations
Liverpool Art School Gallery, 68 Hope Street

Refreshments

Refreshments are on sale in the basement of LIPA throughout the duration of the event.

Complimentary Tea, Coffee and biscuits will be provided for delegates on Thursday and Friday between 10.30am – 11.00am and 4.00pm – 4.30pm.

Publications

The publication stand is located in LIPA and is open on Thursday and Friday from 9.00am – 4.30pm.

Badges

All delegates are issued with badges at registration.

Please wear your badge throughout the conference – it is needed to gain admittance to LIPA.

Your badge must be worn for admittance to the Reception St. Georges Hall on Wednesday 2 September.

Student Helpers

Student Helpers will be working at the conference, identifiable by orange T-shirts.

Transport

Walking into the centre of Liverpool takes between 5 and 10 minutes.

Free Delegate transport by coach:

Wednesday 2 September

LIPA to St. Georges Hall – Depart: 4.00pm Arrive: 4.25pm

St. Georges Hall to LIPA – Depart: 6.15pm Arrive: 6.40pm

Thursday 3 September and Friday 4 September

From Adelphi and St. Georges Hotel to LIPA there will be a shuttle service daily between 8.30am and 9.15am.

Saturday 5 September

For the Liverpool to Manchester transfer coaches will depart at 10.00am from Cathedral Park, Adelphi Hotel and St. Georges Hotel.

Eating Out

A list of restaurants and a location map is provided in the Visitors Guide to Merseyside which is in the Delegates Pack.

ISEA Membership

It is possible to join the ISEA at reception in LIPA.

If you would like further information please contact:

ISEA, 307 Ste-Catherine O #760. C.P. 508, Succ. Desjardins, Montreal Quebec H5B 1B6, Canada.

Tel: 001 514 281 6543 Fax: 001 514 281 6728 E-mail: isea@isea.qc.ca <http://www.isea.qc.ca>

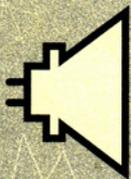
ISEA Business

Annual General Meeting Wednesday 2 September, 1.00pm – 4.00pm

Liverpool Art School Lecture Theatre, 68 Hope Street

Contact Phone Number

To contact the Registration Desk or to leave messages: Telephone 0777 1685872 or 0151 231 3585



Plenary Lectures

Tim Cole, Coco Fusco, David Toop

Tim Cole

Co-founder and Managing Director of SSEYO Ltd. UK.

Tim Cole co-founded SSEYO Ltd in 1990. SSEYO is now a world leader in generative music for sound environments through its popular Koan software range, developed over the last 8 years. SSEYO has also published a number of exceptional generative music releases by pioneering Koan artists including Brian Eno, Jamuud of Loop Guru and Tim Didymus.

The first of many Koan products was actually released by SSEYO in 1994 and in 1996 Internet focused SSEYO was the first company in Europe to release a plugin for Netscape Navigator. SSEYO's massively Interactive Koan Music Control (IKMC) was launched in 1997 and is now integrated with Creative Labs' Internet application Inspire. In 1998 Koan Pro 2 SSEYO's flagship authoring system, was selected by the UK Design Council as a Millennium Product; the first Koan Essentials Morphing Drum + Bass was released in conjunction with Zero-G; and SSEYO worked closely with Greyworld leading to the launch of the Layer SE personal sensing surface.

Cole is a composer, artist and entrepreneur and, together with other SSEYO members, he continues to develop SSEYO's vision of Koan creativity tools and massively interactive Koan sound environments for the Internet, virtual worlds, games, toys, appliances, hyper-instruments, public spaces and communities.

Coco Fusco

New York-based interdisciplinary artist and lecturer, Tyler School of Art of Temple University.

Coco Fusco is a New York-based interdisciplinary artist. She has lectured, performed, exhibited, and curated programmes throughout the U.S.A., Europe, Canada, Australia, South Africa and Latin America. Her collection of essays on art, media and cultural politics entitled English is Broken Here, was published by The New Press in 1995. Her latest performance, a collaboration with Nao Bustamante entitled Stuff, was commissioned by London's Institute for Contemporary Art and Highways in Los Angeles. Her current solo work, a performance installation entitled Better Yet When Dead, was recently featured at the Bienal de Arte of Medellin. From 1989 to 1995, she collaborated with Guillermo Gomez-Peña on a variety of exhibitions, performances and works for radio. Fusco's work has been included in the Whitney Biennial, The Sydney Biennale, The Johannesburg Biennial, The London International Theatre Festival, the National Review of Live Art, The Los Angeles Festival, The Festival 2000 of San Francisco and several other international events. Her videos include The Couple in the Cage, Pochonovela and Havana Postmodern: The New Cuban Art, all of which have been broadcast on public television. She has also curated several art exhibitions, media programmes and performance festivals in the U.S.A. and Europe. Fusco's writings have appeared in a wide variety of publications, including The Village Voice, The Los Angeles Times, Art in America, The Nation, Ms., Frieze, Third Text, Latina, and Nka: Journal of African Art, as well as a number of anthologies. She has also contributed to National Public Radio's Latino U.S.A. She has received grants from The National Endowment for the Arts, The New York Council on the Arts, The New York Foundation for the Arts, The Los Angeles Department of Cultural Affairs, and Arts International, and was a 1994 Mellon Fellow in Critical Studies at the California Institute for the Arts. Fusco currently teaches at the Tyler School of Art of Temple University

David Toop

Musician, writer and music curator, born in 1949 near London. He lives in London.

Recent books include: *Ocean of Sound: Aether Talk, Ambient Sound and Imaginary Worlds* (Serpent's Tail, 1995), *Exotica: Fabricated Soundscapes in a Real World* (Serpent's Tail, Autumn/winter 1998) and a short story: *Acid Burns* - published in *Intoxication: An Anthology of Stimulant Based Writing*, (Serpent's Tail, 1998). Past work includes: *The Rap Attack* in 1984 (now in its second edition as *Rap Attack 2*). He has also written for many publications, including *The Wire*, *GQ*, *The Face*, *Arena*, *The Times*, *Mojo*, *Vogue*, *Dazed and Confused*, *The Sunday Times*, *Billboard*, *Spin* and the *Cambridge Companion to Singing*.

David recently composed the music for the *Aqua Matrix* outdoor show, closing each day at *Lisbon Expo 98* from May until September. Recent solo albums include: *Screen Ceremonies* (Wire Editions, 1995), *Pink Noir* (Virgin Records, 1996) and *Spirit World* (Virgin Records, 1997). Recent compilation albums include: an accompanying double CD *Ocean of Sound* (Virgin Records), followed by *Crooning On Venus*, *Sugar and Poison*, *Booming On Pluto* and *Guitars On Mars*.

Past albums include: *New and Rediscovered Musical Instruments*, released on Brian Eno's *Obscure* label in 1975, and *Buried Dreams* (with sound sculptor Max Eastley), released on *Beyond* in 1994.

In 1978 he recorded Yanomami shamanistic ceremonies in Amazonas, southern Venezuela. Examples of these recordings have been released on *Quartz*, *Touch* and, in 1995, *Sub Rosa*. In 1994 he wrote database material on shamanism, trance, etc. for *The Shamen's* ongoing multimedia project.

David has also recorded collaborations with Paul Schütze, Jon Hassell, Evan Parker, Talvin Singh, Robert Hampson, Bedouin Ascent, Amelia Cuni, Max Eastley, Kaffe Matthews, Twisted Science, Scanner, Witchman, Prince Far I, John Zorn, Flying Lizards, and many improvising musicians, including Evan Parker, Lol Coxhill, Toshinori Kondo and Hugh Davies. He has collaborated with artists in many other fields, including theatre music for Steven Berkoff, Japanese Butoh with dance innovator Mitsutaka Ishii, plus performance art, sound art, sound poetry and television soundtracks.

Performances



REV

Curator: Colin Fallows
Reader in Audio and Visual Arts,
Liverpool Art School,
Liverpool John Moores University.

REV is a programme of live performances presenting the work of a collection of artists currently operating in the world of experimental electronic music. Each of the performers will develop a focused mix of fifteen minutes duration during a two-part sonic soiree. Performances have been invited from sound artists, experimental composers, noise-makers and audio creators concerned with developing (r)evolutionary uses for old technologies in the creation of a vibrant mix of electronic sounds.

A Liverpool Art School research award enabled the appointment of a Visiting Fellow in Sound, the UK based sound artist Robin Rimbaud (aka scanner) who will also create an extended piece at the Liverpool Institute for Performing Arts during ISEA98.

Many of the artists participating in REV will also be appearing on the audio CD HOPE, an international collection of one-minute soundworks, to be published for ISEA98.

Performers:

scanner

Visiting Fellow in Sound, Liverpool Art School,
John Moores University

stopstarting

Wednesday 2 September, 7pm, LIPA

Robin Rimbaud aka scanner conceived stopstarting whilst working in Liverpool during 1998 as a Visiting Fellow at Liverpool Art School, John Moores University. Having recorded various spaces and locations in the city, these were then processed in the studio in Liverpool and are here mixed into live scanned telephonic voices from the aether, radio waves and other indiscriminate signals pulled down from the skies to produce a temporary live sound polaroid of the acoustic data found in Liverpool.

Robin Rimbaud, with his work as scanner, implicates himself in processes of surveillance, engendering access to both technology and language and the power games of voyeurism. Dubbed a 'telephone terrorist', Rimbaud is a techno-data pirate whose scavenging of the electronic communications highways provides the raw materials for his aural collages of electronic music and 'found' conversations. Musician, writer, media critic, cultural engineer, and host of the monthly digital club the Electronic Lounge at the Institute of Contemporary Arts in London since 1994, 'a meaningful nexus of interaction', (The Independent), he is currently at work on a variety of projects.

In 1996 he completed a lecture tour of Australia at the invitation of ANAT (Australian Network for Art & Technology), performed and worked all around Europe, was commissioned by the Centre of Choreography in France to compose the soundtrack to two ballets at the Paris Opera House, curated a series of sound related events in Utrecht and Europe and was last sighted recording and working with Laurie Anderson and Bryan Ferry in a secret bunker. His most recent release is a CD sound portrait of the late UK film director Derek Jarman.

id battery

Los Angeles, California, USA

Width of a Membrane

Thursday 3 September, 7pm, LIPA

Brandon Labelle musician/writer and **Loren Chasse** musician/poet are id battery. Their sonic interests stem from a desire to explore the resonant properties of found objects and spaces. Contact microphones are used to activate the inner sounds of rooms, wood, leaves, stones, etc. the sounds are then manipulated and explored electronically. id battery also contains an element of rhythmic exploration that comes from both artists backgrounds as drummers. Their debut CD Lily Events (Unique Ancient Tavern) received praise internationally. Brandon Labelle is also editor and publisher of the cultural/arts journal *Errant Bodies*, and the associate editor of the film journal *Coil*. His writings on sound have appeared in various publications and his solo CD *Prima Materia* was released in 1997. Loren Chasse is the editor of the audio journal *Ear Ink*.

in be tween noise

Los Angeles, California, USA

helios flying (sound)

Thursday 3 September, 7pm, LIPA

Steve Roden created in be tween noise in order to give his explorations of music and sound their proper place within the context of his visual and fine art activities. Using a combination of broken, found, ethnic, and toy instruments, field recordings, tapes, and electronic manipulation; in be tween noise creates delicate and quiet sound works that explore the acoustic qualities of objects and the layering of sounds. Roden's voice, as well as his use of instruments on which he is untrained add to an intensely personal music. Roden has performed internationally and his in be tween noise CD's have received praise in various international publications. Roden has been an exhibiting visual artist since 1984, with solo and group exhibitions in galleries, museums and alternative spaces all over the world.

Keith Rowe

UK/France

A Dimension of Perfectly Ordinary Reality

Thursday 3 September, 7pm, LIPA

Keith Rowe trained as a painter and has brought many of his artistic insights to bear upon the guitar, redefining the role of that instrument. A founder member of the improvising group AMM, now in its 33rd year, he has also worked in the contexts of indeterminate music and 'peoples process' music. Many have been influenced by his techniques including Syd Barratt and Fred Frith. As well as the many recordings of AMM he has also made solo recordings including *A Dimension of Perfectly Ordinary Reality* (Matchless Recordings, 1990). He has recently formed the ensemble *Music in Movement Electronic Orchestra*.

Skyray

Liverpool, UK

Womb

Thursday 3 September, 7pm, LIPA

Paul Simpson explores the deep in one-man submarine *Skyray* after years spent navigating the congested shipping lanes of popular music. *Skyray's* debut CD *Tranquilliser* (Ochre, May 1998) met with critical acclaim in the British music press prompting Jon Savage in *MOJO* to cite it as his contender for album of the year, describing it as "... disciplined but free, pleasurable but deceptively complex." Liverpool luminary Simpson's next project *Womb* described as an amniotic concerto is set for an Autumn release on the influential *Space Age Recordings* label while 1997's *Neptune Variations* has been chosen by the BBC for use on a weekly TV programme.

Janek Schaefer

London, UK

Tri-phonic Revolutions

Friday 4 September, 7pm, LIPA

Janek Schaefer has devised a performance that has at its core an instrument invented in his bedroom in 1997. The *Tri-phonic Turntable* is a three tone arm, two direction, ultra vari-speed vinyl manipulator. Here the *Tri-phonic* becomes a condensed schizophrenic interpreter with an indiscriminate personality of its own, curated and taught by the operator. Utilising cacophonous reverse *Doctor Who*, detuned percussion instruments and stuttering T.S. Elliott records, the *Tri-phonic* is amalgamated with his '70s school turntable and a hotch potch of cheap repetition machines. The revolution begins here, and ends locked in a groove. A split EP is out on *Fat Cat* records.

Mount Vernon Arts Lab.

Glasgow, Scotland, UK

BLAST

Friday 4 September, 7pm, LIPA

Drew Mulholland and **Martin St. John** present *BLAST*, an intense 15 minute performance that utilises and tests the extremes of the Mount Vernon Arts Lab's bespoke electronics. The devices featured in this concert were all specially built by *Jake Rothman* to the groups own specifications. The *Bass Theremin*, *Ring Modulators*, *Turbine Generator* and *Random Analogue Sequencer* are all connected to interact and the resulting drones, pulses and harmonics are a direct result of the interplay between the circuits.

Project Dark

London, UK

Excited by Gramophones

Friday 4 September, 7pm, LIPA

Kirsten Reynolds and **Ashley Davies** manufacture 7" singles made from vinyl, glass, hair and steel. Using multiple record players as instrumentation, artefacts from their catalogue are seduced into creating sounds characteristic of their nature. *Excited by Gramophones* is an intriguing and witty performance of alluring layers of serenity, serration and capricious rhythms combined to produce unique physically charged and sometimes explosive music. Live video projection shows the full textural detail of these unique artefact singles providing a visual and sonic feast.

E.A.R. (Experimental Audio Research)

UK

Data Rape 2000

Friday 4 September, 7pm, LIPA

Pete Kember aka *Sonic Boom* formed *E.A.R.* in 1990 as a solo and collaborative ensemble in order to pursue the more experimental work he had contributed to *Spaceman 3* since the 1980s. This performance uses as its source material and inspiration sounds from the sonic vocabulary of human existence. These include *Domestic and Wild animals*, *Insects and Human voice* sounds of different nationalities and genders. The performance also features a revolutionary type of sound and music generation called *circuit bending*. This process involves taking cheaply available electronic soundmaking toys and adding extra wires, knobs and switches to make new connections between parts of the internal circuitry and chips. This sends data and electronic signals to previously unrelated circuit-board points. Electronically, *circuit bending* provides some of the most astounding, consuming, interesting and surprising noises available. What's more its available to anyone and it costs so little to explore.

Panels

Bio-Architectures, Virtual Cities: The Revolutionary Human-Machine Community

Convenor: Sean Cubitt

**Reader in Video and Media Studies, School of
Media, Critical and Creative Arts,
Liverpool John Moores University**

The new flesh has arrived, synthesised out of silicon and carbon life forms, meticulous in its microscopic anatomy, global in its wired arteries. But has the cybernetic organism of the present-future provided us with anything more than the richness of community, the tactility of communion? And what is the price we pay for a planetary virtual body? The papers in this panel query the outcomes of the interfaces between the new technologies of the city and the new technologies of the body, converging on the problem of communication and community from a variety of perspectives and disciplines.

The panel opens with a session led by the Carnegie Mellon roboticists, whose work demands attention to the goals of human-machine relationships, but also asks us to pause before the utopian-dystopian discourses of cybercultural futurology to discuss where we are now, what is actually achieved and achievable. Later, the panel turns towards the death of privacy, towards social control and social change, to the urban and urbane, the cosmopolitan and the local, the sensual and the spectacular to seek the revolutionary struggles of the hypercity.

Participants:

Gerry Beegan

Wimbledon School of Art, UK.

The Uptodateograph

This presentation argues that around the end of the 19th century a shift occurred in the relationship between the subject and time. A culture of the immediate, the contemporary, the new developed. This consciousness was enmeshed in the development of modern mass media. Communication media promised a connection to the present, specifically to what Benjamin refers to 'homogeneous empty time'.

In the 1880s and 1890s major changes were made in the structure of the media, in photographic imagery, in advertising, in journalistic tone, in the speed of reporting. A satirical report in a British illustrated periodical 'The King' in January, 1900, describes the Uptodateograph. The device comprises a telegraph which conveys animated pictures instantly. So compelling is the Uptodateograph that the entire population of the country lives in the theatre in which it is shown.

The Uptodateograph web site attempts to recreate the Uptodateograph by using material from the media of the late 19th century. These Victorian images and fragmented texts are linked to web sites which form the contemporary Uptodateograph, highlighting their similarities and differences.

Claudia Benthien

Humbolt-Universitat, Berlin, Germany.

Tactile Interfaces and Bodily Communication: The Rhetorics of Touch in Virtual Reality

An integration of the so-called 'lower' senses into virtual reality is presently thought of to be essential: only they are able to grant an authentic feeling of space, atmosphere and 'real' presence. Similarly to the theory of perception from the Renaissance to the 18th century, seeing and hearing are imagined as possibly deceivable, whereas the tactile is able to experience 'reality'.

This paper will analyze and historicize conceptualisations of tactility and the skin in the aesthetics of cyberspace. How is bodily contact imagined? What kind of (phantasmatic) body images are involved? Can subjectivity and individuality remain constitutive, if this new concept of touch is implicitly based on the idea of verbal communication, with a limited code and a linear sender-response scheme? In how far does a new partialization of the body take place, if certain parts of the skin are covered with 'touch suits', whereas others are left out completely? The hidden metaphors of a 'real' contact, which is so often analogized with the medium of touch, will be central to my argument. Theorists like Derrick de Kerckhove and VR artists such as Stelarc will be discussed.

Graeme Brooker

Manchester Metropolitan University, UK.

The Digital City and the Visceral Brain

In the current phase of 'revolutionary' time, characterized by technological progress and accelerated acculturation, the development of mediative digital technologies bifurcates the human biological past and its present cultured self. In Homo Sapiens, the primitive structure which was once in command, has now been relegated to the level of the 'visceral brain' – a condition which may cause extreme unease.

Using the work of the philosopher Jay Appleton, this presentation investigates a series of biological re-readings of architectural space. The modern city, with its oscillating dialogue of past and present forms, instructs our habits of environmental perception. Appleton suggests that these habitual patterns, whilst influenced by various cultural experiences, are not solely a product of these processes, but, they are vestiges of survival mechanisms which were once the dominant instinct. Together with aesthetic choices, these systems drive human instinct and influence behaviour in architectural spaces – a sensuous response to the digital city.

Centre for Metahuman Exploration

Carnegie Mellon University, Pittsburg, USA.

Using Household Appliances to Control Humans, Robots and Cyborgs, Empathetic Avatar/Surrogate Self, Novice Operation of a Desert Rover

www.ri.cmu.edu/metahuman

Long before the advent of computers, humans gained access to technology through simple interfaces. Examples include light switches, the knobs on a radio, and the buttons on a telephone. Reusing these common household interfaces in emerging technologies uses a common language to leverage previous skills and connotations, while affording immediate access to the general public. In this talk we chronicle the development and application of the Telephone/Television Hybrid Interface (TTHI). The television and the telephone, ubiquitous in developed nations, unite to provide remote perception and remote action to convey real-time remote experience, or telepresence. The projection of human will into remote environments is explored through this interface as direct manipulation of the human body, teleoperation of a robot to explore remote environments, and cooperation with a cyborg to experience emotion.

The group will present five recent projects at the Centre for Metahuman Exploration as examples. The TTHI has been used to directly stimulate human muscles ('The Interactive TV Show'), manipulate the arm of an American voter ('Absentee Ballot'), drive a NASA robot through the Atacama Desert ('RoverTV'), pet a bunny rabbit ('Petting Zoo'), and manufacture an experience of remote love ('Project Paradise').

Nina Czegledy

Media Artist/Curator, Hungary/Canada.

Digitized Bodies – Visual Spectacles

The rapidity and magnitude of recent advances in enhanced imaging and visualization technologies, have contributed to a significant shift in common perceptions of the human body. From physics to cosmetic surgery, imaging is changing the way we see. This 'visual' revolution has been achieved through prosthetic science, simulation technologies, informatics, biomedical engineering and most importantly, visualization techniques. The fractured parts can be isolated and when necessary replaced, reassembled. These manipulations created a dramatic change in the relationship between humans and machines. The resulting intimacy became further intensified by theories claiming that consciousness – have opened the door to the possibilities of humanizing electronic technologies. While the ethical and practical features of these developments permeate practically every aspect of our daily life, the consequences are far from clear. Critical discourses by artists working with scientific sources through imaging technologies are of extreme importance. It is in the contemplation of the discourse re the transforming body vis-vis the manifestations of the digital 'revolution' that we might gain a better understanding of our current perceptions and insight onto the future.

Kathy Rae Huffman

Media Artist, Austria.

Females Online

www.thing.at/face

Female networkers, artists and educators have established thousands of active discussion forums, mailing lists, websites and virtual worlds, forming on-line communities that express every variety of female concern, with a primary goal to maintain relationships and connectivity (Cherny, L. 1996. *Wired Women*. Seal Press). The numbers of women on-line have evolved enormously since the 1990s, rapidly closing the gender gap in computer mediated communications.

Global communication, and the art of networking, means something different for women, who gather on-line to support, inform and discuss rather than to establish status. Female Net.communities are social bodies that employ gender difference as a strategy to link real personalities and interest groups side by side with information about technological developments, educational concerns, and teleworking concepts (Sudweeks, F. 1998. *Network and Netplay*. MIT Press). Mailing lists have become an easy to use, easy to set up organizing tool for women.

'Females on-line' will examine several notable international projects where women connect with each other over issues like feminism, cyber-feminism, and grll behavior. It will also address the relationship between face to face events (where discourse is a physical reality) and on-line connectivity, demonstrated in the project Face Settings

John E. McGrath

Experimental Theatre Director, USA/UK.

After Privacy: Surveillance, Sexuality and the Electronic Self

This paper explores the sexual reconfiguring of self and space which is underway in a society of surveillance. Focussing on our desire for surveillance technology, This paper will suggest that surveillance society has less to do with crime prevention and more to do with erotics than we are led to believe. McGrath will investigate bodies which are already re-imagining themselves as organisms which incorporate the camera, the microphone and even the database, sexualising surveillance's temporal and spatial disruptions. Material will include the example of gay gogo dancers in New York who perform for hidden cameras, analysis of the structural similarities between CCTV crime footage and hard core pornography, and an examination of the British media response to the film *Crash* in relation to the phenomenon of speed cameras.

I will develop the argument that new kinds of spaces are being created under surveillance, spaces inhabited by prostheticised selves which are bursting through the binaries of public/private, live/recorded, body/technology. These surveillance spaces and electronic selves are performative, radically unstable and potentially revolutionary.

Gillian McIver

Media Artist and Television Producer Colosseum and Volga Television

Culture, Technology and Power: Creative Leisure and Social Change

www.hotmail.com

The drive and expansion of industrial capitalism has led us to the total realisation of the consumer society. This society is split absolutely between leisure and labour: a leisure society in which we work to obtain the instruments of leisure, the machines of pleasure – and this split organises our thoughts in every way. In our desperation to free ourselves, we rush with open arms to the soothsayers of the technical futures, to the Utopias made possible by technology. We, and they, forget that it is purely a human and social decision how any technology is used. How do we meet the challenge to create the freedom, intellectually and psychologically, that will allow us to use technology the way we dream we are able to: to make a better world?

Through a reconsideration of the work of Henri Lefebvre and Raoul Vaneigem, in identifying and criticizing the passivity of consumer society, this paper investigates the relationships of new technologies, and concepts of media freedom. McIver will refer to her research on the Undercurrents radical video publishers, Adbusters and The Media Foundation, and to her own work in Russian television.

Anno Mitchell

Media Artist, UK.

Social Control and Imaginary Architecture

The exponential growth within the unreal space of the Internet has raised many issues about the application of metaphors to the spaces both constructed and unconstructed. The unproblematic adoption of terms and beliefs from real-space risk duplicating the power structures of the real onto the not-yet-formed. This paper examines the processes and potential outcomes of these vectors, and what reference they have to previous imaginary spaces within the civic environment.

Tsutomo Miyasato

ATR Research Laboratories, Kyoto, Japan.

The Magic Light for Viewing the Inside of Objects. A Supernatural Interactive Display

www.mic.atr.co.jp/

Method:

1. OBJECTIVE:

This presentation proposes a new image representation system which would impress its users as a system offering 'excitement, enjoyment, and discovery'.

2. THE NEW SYSTEM VS. CURRENT SYSTEMS:

Current systems employ CG technology to display the images of, for example, ancient works of pottery in electronic museums. With these systems users can rotate the object by pointing devices so that they can view it from different angles. The Magic Light system has a wholly new feature, however. By putting the magic light to an object on a monitor, observers are able to see the inside part of the object. It looks as if the part of the object gets transparent and hidden part comes out on the surface. It is the effective way to entertain participant by using a light. Also participants can experience sense of discovery, as well.

3. CONCLUSION:

The Magic Light system enables users not just to change the angle from which they view an object, but to see through the object. Example applications would include the ability to read the ancient writings hidden inside a treasure vase.

Margaret Morse

University of California, Santa Cruz, USA

Does Collective Intelligence Have a Body?

The received notion of 'body' as a unique, bounded and coherent entity with mass has been set in question in cyberculture. However, virtual embodiment has existed for centuries. Has there been a revolution in bodies – or is it our concept of the body that is undergoing a paradigm shift? That is, is the body seen through an individualistic lens blind to notions of collective embodiment? (The collective body is not to be confused with political notions of the nation state – it is rather a bottom up creation.) The paper explores the notion of collective and partly virtual bodies with historical examples from religion, economics and philosophy as well as theories of crowds, cities and masses. Offering several examples of collective embodiment in film it turns to representations of virtual embodiment in networks in recent science fiction novels and film (Gibson, Star Trek). If we once questioned whether there is thought without a body (see Lyotard), this paper asks if there is collective (Levy) or artificial intelligence or agency without embodiment.

Andrea Nagy

Artist/academic, UK.

Technological Embodiment of the Female Body and Voice via Radio Transmission

This paper's aim is to comment theoretically on Andrea Nagy's performance art practice and its delivery is as a sound installation.

It explores sound's ability to diffuse through boundaries; either material or abstract and to enter a space where physically the human body is restricted. It acknowledges that sound is both produced and received by the human body and includes arguments surrounding the location of power systems within an electronic culture and the creative attempts of performance artists to address such issues.

The author considers how these principles of sound may be of advantage to western women. How can a woman use her body, her voice and sound technology; in a time-based art form without relegating her body and voice into the realm of the pre-symbolic (as defined by Lacan) and so into the realm of non-meaning?

By analysing the way the female voice is and has been portrayed through recording and live radio transmission, the author will discuss how recording speech is a way of immortalising. A form of eternal life through the continuum of replaying the recorded voice and attempt to show how such a representation always falls short of being.

Ryohei Nakatsu

ATR Research Laboratories, Kyoto, Japan.

Integration of Art and Technology for Realising New Communications

www.mic.atr.co.jp/~nakatsu/

One of the important targets of engineering is to develop technologies that can realize new communications such as human-like communications with computers. In this area, so far, verbal communication has been mainly studied. On the other hand, non-verbal aspect of communications based on human emotion and sensitivity plays a very important role. It is indispensable, therefore, to develop non-verbal communication technologies for realizing human-like communications with computers. As engineering methods to treat emotions or sensitivity have not fully developed yet, collaboration with people in other areas is inevitable. One possible area is art where treating these basic human functions has been the main issue. One of the important functions of art is to transfer the concepts of the author to the audience by appealing to their emotional and intellectual perceptions. In recent years a new type of art called Interactive Art has emerged. Interactive art's target is two-way communications by utilizing various kinds of technologies for interaction. There is a good chance, therefore, that art and technology can work together to realize highly sophisticated communication methods. Based on this basic concept we have started a project to create new communication methods based on the collaboration between artists and engineers.

Simon Penny

Carnegie Mellon University, Pittsburg, USA.

Devirtualisation: Toward a Critical, Embodied Interactivity.

Interactive art is heralded as a great convergence of Art and Technics, the Millennial Gesamtkunstwerk. Artistic practice in general and interactive art practice in particular, partakes of a rhetoric of liberation and individual self-realisation. But the methods of interactive art are premised on the ideology of computer science which is inherently disembodied and is characterised by a paranoid panopticality and Pavlovian control. The many antagonisms between the disciplines are swept under the carpet.

How radical or progressive can an interactive art practice be when it has such foundations? It is critical that artists examine the intellectual history of their adopted tool, the computer.

This paper will outline the philosophical background of computer science with reference to issues of embodiment, situated cognition, emergence and self-organisation, spatial representation and symbolic representation. I will examine several interactive artworks (works of my own and by other artists), identifying their complicity or criticality with dehumanising technical ideologies. I will propose an Art of Devirtualisation, a paradigm of interactivity that refutes the crypto-christian desire for transcendence and re-emphasises embodiment as the locus of being and intelligence; which de-emphasises continuity of data representations in Cartesian spatial terms, and affirms computational techniques which accommodate people, not the inverse.

Andre Plante/Inoue Seiko

ATR Research Laboratories, Kyoto, Japan.

Emotions and Cultural Diversity

www.mic.atr.co.jp/~jjap/

Colours, textures, shapes, sounds and motion are the building blocks for the new digital artist. Understanding the meanings of colours in other cultures is but one of many examples of what is required to effectively convey our emotions to this new and diverse audience. What are the commonalities? What taboos exist? Should we strive to preserve the diversity or will a global language develop? Do we, as artists, have any control over this cultural globalisation? In the recent past, digital art has often been criticized as being cold and mostly deprived of emotional substance. The Internet has also added a new global dimension to art, it has become an outlet for the works of artists and a chance to learn from contemporaries and old masters. Individuals, east and west, north and south, although with unequal means, now have the ability to share their artmaking and interact with geographically distant artists. This global network offers an unprecedented opportunity to learn from other cultures. How can we, as artists, convey our feelings effectively if we do not understand the various cultural codes of our audience? Examples exploring these issues will be presented in order to illustrate the concepts involved in this topic.

Emma Posey

University of Wales Institute, Cardiff, Wales.

Technique in Place and Technology with Reference to Contemporary Fine Art

A sense of place can be successfully manipulated to influence and control people by stimulating a response of recognition and recall. The construction of place parallels aspects of 'technique' which is a theoretical approach to technology. This theory determines technology to be a mode of ordering and an autonomous entity which surpasses the machine (Ellul: 1965). Technique orders space, amongst other things, into specialised, distributed, and efficient places (Lefebvre: 1974). This paper will cite the gallery to be a result of technique in spatialisation. The etymological link of 'art' and 'technology', stemming from the Greek word 'techne', reinforces the argument that both the gallery and the fine art work found within are suitable settings from which to explore the effects of technology on notions of place. Technology can only be confronted from within itself (Heidegger: 1954).

This paper presents contemporary fine art work which address aspects of technique, place, and technology. Artists referred to will include Mike Bode, Graham Gussin, Siobhan Hapaska, Marielle Neudecker, Julian Opie, Bridget Smith, and Elizabeth Wright, in addition to the author's own art work.

Jill Scott

Artist/Curator, Zurich, Switzerland.

The Revolution of the Digital Bodies

Re-Thinking the Body explores the idea that the human body has changed to incorporate virtual (digital), organic (material) and mechanical (artificial) concepts. This paper is a plea to allow for both a fusion and an emergence of these three concepts, which include the unpredictable, wet, sensual and biological organic fluid of the human sensorium, and at the same time to remain conscious of the ethical implications of human manipulation. The presentation will formulate a set of paradigms about the changing idea of the body, taking into consideration the somatic and interactive relationships between the body of the viewer and the machines we create: a nomadic model in which interactivity, post-gendered perspectives, multiple personalities and combinations of immaterial and material surfaces could be re-shaping our spatial and temporal perspectives. While the virtual part of the body model could cross geographical boundaries causing symbiotic metaphors to occur, within the relational networks and techno-zones of interactive art, the organic body of the viewer has shifted from a passive role into a physically active one. Meanwhile invasive mechanical technologies have changed the way we 'see' our body and multiplied our interpretations of it. The above concepts will be illustrated with a set of hybrid environments called Digital Body Automata.

Andrea Wollensak

Centre for Art and Technology, Connecticut, USA.

Positioning the Subject: Surveillance in Digital Mapping

This talk centres around re-mapping the subject using Global Positioning System (GPS). The author will be illustrating points with excerpts of my recent work created in New York City. The work *Drifting: Position Drawings* is a series of large format digital drawings and computer animations. The data is collected by dancers in the Cheng dance group, who are wearing GPS receivers while performing a choreographed work in the streets of Manhattan. The work explores tracking movement in urban spaces, the immediacy of satellite data and the range of error in GPS signals due to government control. GPS was used during the Gulf War by the United States Department of Defense to track missiles and locate targets.

GPS's particular enframing of locality and territory provided the starting points for my investigations. Wollensak seeks to use the representations of movement and time in a manner beyond the literal streams of recorded data. Questions addressed include: where are the lines drawn between freedom and surveillance, absolute and relative, the recording of time and experience of time? The work examines the conditions and controlling factors that define where we are and our relation between electronic and physical locality.

Panels

Computers in Theatre:

New Dimensions for Stage, Actors and Audience

Convenor: Claudio Pinhanez
Research Assistant, Perceptual Computing Group,
MIT Media Laboratory, Massachusetts, USA.

Computers have already changed the production and perception of cinema and music. Choreographers and dancers have in recent years tried to experiment with the possibilities of the new medium. However, the use of computers in theatre is still restricted to a few pioneers, in spite of technological advances that are making more and more feasible the appearance on stage of computer-controlled characters or actors with enhanced bodies.

This panel addresses how drama and comedy can be revolutionised by a new generation of non-human characters and actors, and by novel ways of audience participation. From the current technological limitations and developments to the new possibilities open to play-writers, the objective is to critically examine previous works, to assess current tendencies, and to dream of what theatre can be in the future.

Papers, videos, presentations and demonstrations have been invited from artists, academics, critics and theatre producers concerned with the experimental use of computers in theatre.

Participants:

Kevin Atherton

Chelsea College of Art and Design, London, UK

Gallery Guide

The virtual reality performance piece 'Gallery Guide' is related to Atherton's work with performance art in the 1970's, when he often used film or video in the way he now uses virtual reality, as a counterpoint to 'real time' performance. 'Gallery Guide' however would not exist without his experience of making 'site specific' sculpture throughout the 1980's and 90's. These two areas of fine art practice performance and sculpture seemingly quite disparate from one another in fact have a lot in common in their shared concern for the viewer's position i.e their time and place. In seventies performance art 'real time' was a paramount issue driven by a desire to connect with the viewer's time which was also the time the performance was taking place in. Similarly, the now much missed used term, 'site specific' became a driving force for a generation of sculptors who wanted their work to share the same place as the viewer.

"With the advent of virtual reality which forefronts both the time and the place of the viewer [who has now become the participant] I find myself 'going against the grain'. By this I mean that rather than collude with the viewer in the merger of two realities, the one that they are really in and the virtual one, I am much more interested in disrupting this merger. This might seem at odds with the very nature of virtual reality but by reminding the viewer/participant of the differences between where they really are and where the virtual world tells them they are it is possible to create an experience of two realities simultaneously which is far richer and far more rewarding than the fantasy world of just one." (Kevin Atherton)

George Coates

Director, George Coates Performance Works,
San Francisco, USA.

Theatre and Digital Media

www.georgecoates.org

If new technologies are often indistinguishable from magic it should not be surprising that story tellers and theatre artists are often among the first adopters of new media. Playwrights and directors working in limited live presentation environments are eager to broaden their range of expression using emerging technologies to advance their theatrical objectives.

The integration of electronic media into the theatrical stagecraft tool box, along side fog machines, slide projectors, and reinforced sound amplification, has gradually become an expectation of mainstream audiences. Some experimentalists in live theatre are merging traditional theatre values of virtuosity and verisimilitude with digital media. Emerging intersections of theatre and electronic art are many and increasing. Advances in electronic stagecraft tools include the use of powerful graphic engines that enable live actors to interact in real time in virtual stage sets.

In 1991 at the Siggraph computer graphics conference George Coates theatre company, GCPW, introduced a stagecraft that enables live performers to inhabit projected virtual stage sets in stereographic 3D. Real time data animation allows live performers to improvise with unscripted digital media. Audiences wearing polarized glasses experience volumetric stage space as interactive scaleable sceneography.

On September 26 1998, Blind Messengers, a music theatre production created using digitized cave paintings of California aboriginal muralists, has its world premiere in Sacramento, CA.

Ken Perlin

Media Research Laboratory, New York University, USA

Bringing Interactive Animated Characters Out to the User

Improvisational Animation is an emerging technique for using computer-based technology to create the illusion of responsively intelligent animated characters. A Virtual Improv troupe has some of the properties of live theatre – every performance is unique, and the virtual actors can modify their performances in response to their audience. At July 1998, at the SIGGRAPH Electronic Theatre, our Improv troupe performed the first live theatrical performance by a troupe of virtual actors.

We have been exploring methods of getting our virtual improv actors 'off the screen.' We have created robotic actors that move around in the physical world, and respond, with the appearance of emotion, to the physical actions of people. We've also been developing autostereoscopic displays that create the illusion that a computer graphically generated character is literally in the room, much as if the Princess Leia hologram in the film Star Wars could interact with her audience.

Ken Perlin, an Associate Professor of Computer Science at New York University, directs the Media Research Laboratory and the Center for Advanced Technology. Professor Perlin was the recipient of a 1997 Technical Achievement award from the Academy of Motion Picture Arts and Sciences for his contributions to computer generated special effects for motion pictures.

Claudio Pinhanez

Media Artist, MIT Media Laboratory, Massachusetts, USA

Computer Theatre

www.media.mit.edu/~pinhanez

Theatre is the performance art that has used computers the least. In this presentation Pinhanez argues that one of the main reasons is the lack of an appropriate computational representation for the fundamental theatrical concept of action.

The talk starts by proposing a categorization for the different ways computer have been used in theatrical performances: electronic puppets, hyper-actors, computer actors, and computerized stages. The presentation addresses through examples how drama and comedy can be revolutionized by this new generation of non-human characters and actors, and by novel ways of audience participation.

As an example Pinhanez discusses his recent work 'It/I', a theatre play where one of the two characters is performed automatically by a camera-based computer system. The computer character reacts to the human actor actions on the stage following the internalized script of the play. After the performance, the audience can go up on the stage and play one of the scenes in the role of the human character.

The presentation also aims to provide the context and to introduce the main questions to be addressed in the panel. From the current technological limitations and developments to the new possibilities open to playwrights, the objective is to critically examine previous works, to assess current tendencies, and to dream of what theatre can be in the future.

Mark Joseph Sigaud

Computer Artist, France.

Why Bring the Virtual World onto a Classic Stage?

www.quarks.com/passages

Speaking about 'Theatre and new mediums' means having a reflexion about what we are waiting from: new, and agree with what is the state of theatre art.

We speak a lot about interactivity, Let's build first the same dictionary, and then we could discuss. New is in opposition with not new, new is equivalent of fear something like UVO... From the antique era we know what interactivity means. But now there is a double language which is accentuated by another topic coming from the new technologies. How could we read speculations in publications and specialised press. And it is amplified when these new technologies meet the arts of the stage. To introduce arts of virtual images on stage you must first have experienced this great and unique world of the stage. Yes we agree it is a sacred place, but we had to try to reposition the scenic arts from their origins. Should the 'theatre' environment change? Should you and us (stage's artists) change greatly and explore totally new REFERENCES, to approach the NEW? Making Virtual scenarios for stage is totally different than making scénarios for Audiovisuals. Virtual on stage is to be considered as a new actor (colours, movements, materials, transformations, representations... are components of what the author calls an actor), and challenges about real time or not is not the essential. Real time must be other than just being a technical boring 'in time' transmitter.

And about let us work, we don't need critics still organised for individual speculations. Nothing exists, we are too young... let us preserve this fabulous freedom which is maybe the last existing in the artistic field. Arts could have a great place in the social disturbed environnements coming.

Panels

Digital Aesthetics

Convenor: Michelle Wardle
Programme Leader, MA Multimedia Arts,
Liverpool Art School,
Liverpool John Moores University.

This panel will question the notion of a digital aesthetic. The debate will centre on the following:

Will digital photographers produce a new aesthetic?

Is there an avant-garde in the digital arts?

Does the WWW provide a revolutionary ontology for art practice?

Is there a quest for greater verisimilitude in digital imagery?

What is the constructed reality of the digital image?

Is there a problem with the notion of a media specific aesthetic?

Participants:

Dena Elisabeth Eber

Bowling Green State University, Ohio, USA.

The Construction of Artistic Truths in Digital Images

Images that present a constructed truth, like digital images, remind us to question the reality factor of any image. With its roots in photography, the digital image has forced artists to reconsider the photograph as a representation of physical reality. Although the photograph never was physical reality, digital images clarify this assertion. Because many artists and viewers assume that photographic representation of physical reality is in essence truth, the ability to construct that truth begs for a new definition of truth.

Embracing this question, some digital artists like Nancy Burson, Ken Gonzales-Day, and Pedro Meyer constructed visual narratives that appeared photographic, yet lacked the physical world referent that their images implied. Since the late 1980's and early 1990's when this kind of construction became popular, many digital artists have grappled with how to define truth in their art, after all this truth is no longer physical reality. This paper will present the art of a few digital artists and advanced art students who have resolved this conflict by defining their own artistic truths.

Mark Little

University of Northumbria at Newcastle, UK.

Towards a Digital Aesthetic

Digital photography is largely banal. Since its inception it has depended on grafting the aesthetics of chemical photography onto its production. In the same way as photography initially borrowed an aesthetic from painters (the Pictorialists) before a purely photographic aesthetic emerged (the Purists), exponents of digital photography have largely depended on the mediums ability to reproduce seamless versions of earlier practices (photo-montage etc.). The debate about digital photography has been sidelined into the already well trodden territory concerned with authenticity (both in terms of the relation of the image to 'reality' and the nature of the intervention of the author/photographer). The debate on aesthetics has as yet to properly surface. Will digital photographers produce a new aesthetic? The technology does not impose these limits upon the practice - rather it is the limits of institutional aesthetics which have come to dominate photographic production.

Norie Neumark

University of Technology, Sydney, Australia.

Time for Sound

As Terry Eagleton and Susan Buck-Morss analysed, 'aesthetics is ... a discourse of the body ... a form of cognition, achieved through taste, touch, hearing seeing smell - the whole corporeal sensorium.' (Susan Buck-Morss, "Aesthetics and Anaesthetics", new formations, Summer, 1993, p.125) Sound has a capacity for a particular sort of affect and effect, moving past the interface, through time and into the body of the user, speaking directly and viscerally to the imagination. But, with the valorisation of speed in multimedia aesthetics and kinaesthetics, there is less and less time for sound. Using a number of works as examples, This paper argues that a central concern for new media aesthetics is to rekindle the sense of hearing, to revitalise listening - not necessarily to replace sight as dominant, but to let the different media and the senses rub against each other. This is essential in any experimental art work aiming to do more than reproduce existing forms and aesthetics - aiming to shift perception. The paper also asks what sort of listening bodies are being habituated, produced by new media? What are the techniques and aesthetics of sound in multimedia and how are they reconfiguring the senses?

Niranjan Rajah

University Malaysia Sarawak, Malaysia.

Installation Art at the End of Geography

www.kunstseiten.de/installation

In the early exhibitions of colour-field painting, the placement of works on the gallery wall was treated as being integral to the presentation. Photographic documentation began to take on a new significance in the light of the transience of the emerging 'installation art'. Indeed, with the impermanent and/or inaccessible qualities of 'site specific' art, photographic documentation has become the surrogate medium of postmodern art. Today, the Internet enables photographic representation along with sound and text to be 'piped' into our homes, as easily as water, electricity or gas. By virtue of Hyper-Text Transfer Protocol (HTTP) all the representations contained on the multitude of servers on the Internet exist in virtual proximity and geographical distance appears to have been eliminated. This paper proposes that as artists 'build' sites on the World Wide Web, they are constructing a revolutionary ontology for art – one in which the distinction of 'site' and 'non-site' will no longer be meaningful. Indeed, they are reconstituting installation art at 'the end of geography'. This paper also presents *La Folie de la Peinture*, an on-line 'installation' at the above website.

Don Ritter

Pratt Institute, New York, USA.

My Finger's Getting Tired: Unencumbered Interactive Installations for the Entire Body

Many interactive artworks are currently being created which provide interactive experiences to single viewers who are usually outfitted with various input and output devices, such as a mouse, data glove or head mounted display. Less common are installations which provide interactive experiences to groups of viewers who are unencumbered with any equipment.

The most popular formats of presenting interactive media currently are the CD-ROM and World Wide Web. Many people are not exposed to interactive installations which are experienced by multiple users simultaneously without any physical input devices.

Although the intellectual experience of screen based interactive art may be satisfying, the physical experience of sitting in a chair, clicking a mouse and entering keystrokes is not satisfying to the physical body. If interactive art is going to become an influential and cultural medium, the entire body—and not just the index finger—must be involved in the interactive and aesthetic experience.

This presentation will discuss the aesthetics of multi-user and unencumbered interactive installations and present documentation on works of this type.

Yvonne Spielman

University of Paderborn, Germany.

Is there an Avant Garde in Digital Arts?

Starting from the question 'Is there a digital aesthetic?', the paper focusses on the revolutionary concept of the avant-garde and discuss whether developments in new media arts that make use of digital technologies can be considered as avant-garde. The history and the theory of the concept of the avant-garde in twentieth century makes clear, that the term avant-garde has been widely used to determine revolutionary developments in arts and politics. The essential characteristic of avant-garde arts, that is to say the strong emphasis on new technologies, might be applied in the discussion of new media arts, in particular when the metaphors of revolution are applied to digitally processed arts. The shift in the arts that is caused by new technologies is often described in terms of a digital revolution. On that basis Spielman would like to compare the issues of the European avant-garde at the beginning of the twentieth century with developments in media arts, where the questioning of traditional aesthetic concepts, such as the image, is effected through electronic and digital tools. The question the author would like to answer here could be this: 'Is there an avant-garde in digital arts?'

Zara Stanhope

Monash University Gallery, Melbourne, Australia.

In Search of a Digital Aesthetic

Is 'digital aesthetics' a valid notion in the late 1990s? Using examples of Australian artists' work in digital media, this illustrated paper contemplates the existence and nature of a media specific aesthetic.

It considers where such an aesthetic might derive from – is it intrinsic to the hardware and software, or adopted from the language of existing art criticism, especially photography or cinema, or adopted from the media of popular culture?

The search for a 'digital aesthetics' begins with a consideration of the appropriateness of art historical precedents such as Henri Focillon's shifting, moving and 'becoming' of forms that can define and generate aesthetic space. The philosophical debate of Focillon, Georg Hegel and Theodore Adorno are considered alongside contemporary dialogues from advertising, news media and entertainment. The potential of locating and employing numerous digital aesthetics are considered in relation to certain media qualities (immediacy, artifice and unreality) through the focus of Gilles Deleuze's reading of Henri Bergson's conception of 'virtuality'. The fluid, changeable and depthless nature of digital space allows the creation of new visual and tactile relations and invites imagining of conventions appropriate to an unnatural, alternative 'real'.

Pete Maloney

Chelsea College of Art and Design, London, UK.

Virtual Reality as a Fine Art Medium Research Unit

www.chel-vr.demon.co.uk/vrunit/pbs/

In 'Work in Progress' real-time virtual reality technology has been used to bring to life a series of drawings in order to examine the possibilities of a life beyond the frame. A still image leaves much to the interpretation of the viewer: virtual reality technology, however, can place us inside the image where we can explore and interact. The work attempts to offer up new paradigms for virtual space as a fluid sketchbook/studio and exhibition space, where ideas can be dynamically realised, documented and presented.

A recurring factor in the creation of virtual reality artworks is the relationship between the artist, the work and the audience. In its current form 'Work in Progress' is intended to be presented by the artist to an audience, drawing on the 'art of memory' techniques discussed by Frances Yates. It acts as a visualisation of a memory space where the layout of the architecture orders the narrative and the placement of objects within the space prompts the recall of significant points to be addressed.

Caius Grozav

Museum Arad, Kinema Ikon, Romania.

Commedia del Multimedia and Locomotion Pictures

Between 1970 – 1989 in the city of Arad (Romania) a research and creation group was active in the field of cinematographic experiment. Since 1990 on Kinema Ikon functions within the Multimedia Atelier of the Arad Museum and switches from film to video tape. From 1995 on, as a result of the recycling of competence, the KI members produced hypermedia works on CD ROM: *Opera Prima* and *Commedia del Multimedia*. In using the new image producing instruments, the new experimental hypermedia works are characterized by a ludic-ironic treatment of the content and the expression forms. Since 1994 the group has issued the experimental review *Intermedia* (offset & CD ROM). *Commedia del Multimedia* by Kinema Ikon group: *Commedia* because of the playful approach proposed with ironic crossreferences where the mythological referent is paraphrased by the digital processing of everyday-objects and analogic frames put on screen by the authors as electronic variations of the labyrinth theme. *Locomotion Pictures* by Calin Man: Using the pretext of Zenon's paradoxes a homage to Black Maria Studio is payed.

About 600 BMPs have been used, programmed to be exhibited, following a simple logic, by the computer, which plays the role of a projection machine.

Barbara Rauch

Middlesex University, London, UK.

MA Multimedia Design Degree Show 1998, Middlesex University

Electronic Arts Research Unit

Liverpool John Moores University, UK

MA Multimedia Arts Degree Show, 1998 Liverpool Art School, Liverpool John Moores University



Convenor: Josephine McCormick
Lecturer in Printmaking, Liverpool Art School,
Liverpool John Moores University.

This panel will question the notion of a digital aesthetic. The debate will centre on the following:

Will digital printmakers produce a new aesthetic?

Is there an avant-garde in the digital arts?

Does the WWW provide a revolutionary ontology for art practice?

Is there a quest for greater verisimilitude in digital imagery?

What is the constructed reality of the digital image?

Is there a problem with the notion of a media specific aesthetic?

Participants:

Raz Barfield

Camberwell College of Arts, UK.

Integrating Digital Technology and Autographic Printmaking

The tremendous potential for exploration and manipulation afforded by the computer is, to a large extent, offset by a corresponding diminution in formal concerns amongst practitioners, and (speaking as a lecturer) this is particularly acute amongst younger students. Exacerbated by the poor (material) quality of digital output, the instant print has a profoundly harmful effect on the essential object nature of the physical artwork.

Fine artists have always subverted or appropriated new technologies to their creative ends; as a painter-printmaker – making art objects – Barfield's concern is integrating digital technologies with traditional processes, such that formal concerns are not denied the printmaker using computers. A working method the author has developed provides a durable image creation process, utilising the computers capacity for exploration and manipulation, but remains susceptible of intervention by the hand of the artist throughout the process.

Other main objectives are: use of overprinted layers of inks, allowing physical planes of colour to create complex visual spaces; wresting colour creation and manipulation from the device, back to the artist; development of cheap accessible methods for artists and students working with limited resources.

Paul Coldwell

Camberwell College of Arts, UK.

Rebelling Against Perfection

It seems obvious to say that software is man made, but this fact does have far-reaching implications. Each program is the structured vision of an individual or group of individuals, through which the artist must work. Decisions concerning the style of a drawn line are made at a conscious level, whereas in conventional drawing, decision-making occurs at a more intuitive level.

In addition, there is the intervention of the display itself, as distinct from the final (printed) output. The screen imposes a notion of completeness from the outset, a structurally uniform matrix of pixels of equal weight – in essence, a perfect democracy of surface. The image is constrained by the dimensions of the screen, compelling the artist to work centrally, to peer in; the perimeters of a piece tending to lose their significance. The screen imposes a viewing distance for both user and viewer.

During output, the technology used in translation and printing applies its own authority and perfection, defying any further intervention.

This presentation will consider the use of computing within fine art practice in ways that challenge the authority of technology whilst maintaining a physical relationship with the work.

Sue Gollifer

University of Brighton, UK.

Intercreativity

www.ctiad.adh.bton.ac.uk/ctiad/sue/sue.html

In the last few years, significant improvements have been made in the technology of output: converting the image on the computer screen to a tangible object, retaining or enhancing its richness of colour, detail and texture. Used with skill and imagination, computers can offer the artist-printmaker an unprecedented variety of techniques, approaches, and working methods a new repertoire of media and processes. The integration of computer-generated imagery with more traditional art-making processes creates opportunities for further creative evolution, enhanced stability of texture and colour and an emphasis on physicality. Images created in this way are often re-digitised for further development and finally exist as both printed and electronic data. They then have the potential to become 'indefinite images' open to reconsideration, revision, collaborative manipulation and cross-disciplinary utilisation via the Internet, in a vastly expanded creative domain. Despite the seductive effect of evolving technologies, it is the new conceptual spaces and their challenge to current artistic practice opened through computing media that are the most exciting areas for creative exploration by artists, allowing access and exchanges utilising previously inconceivable inter-connectivity.

George Whale

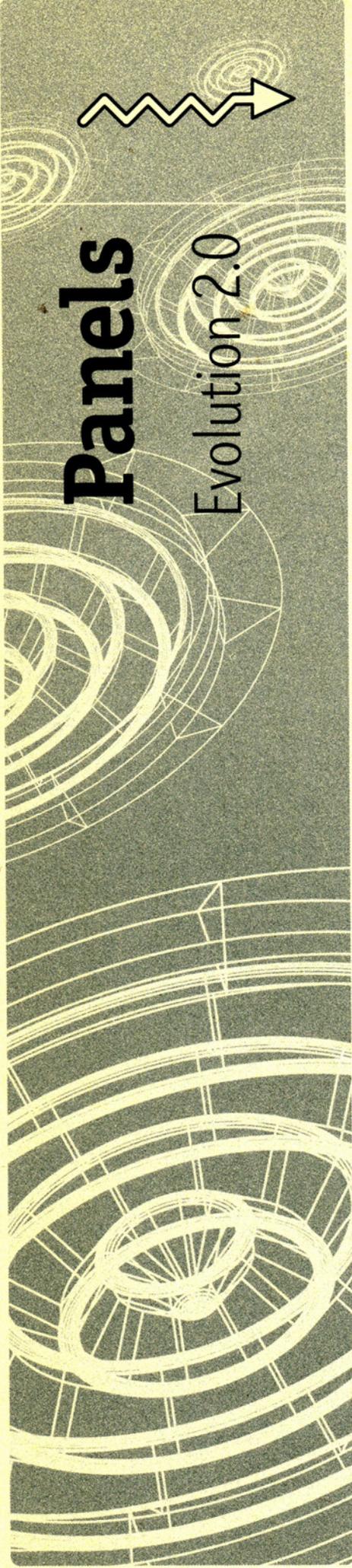
Camberwell College of Arts, UK.

Towards a Synthesis of Text and Image

Multimedia technologies offer unprecedented opportunities for combining textual, auditory and visual content, enabling artists to develop more or less complex interrelations between diverse media, and it is sometimes argued that since digital text, sound and image are all ultimately represented in the same way (as sequences of bits in computer memory) they are therefore freely interchangeable.

In principle, it is not difficult to output any kind of data in any desired form – for example, a stream of text bytes can be interpreted as image data, or output as a sequence of sounds. However, the results of such transcriptions are very often meaningless because of syntactic disparity or dimensional mismatch (text is essentially one-dimensional, whereas images exist in two or more dimensions), or because things expressed in one medium might be difficult or impossible to express in another.

This presentation looks at the uses of generative grammars in forging meaningful connections between text and image, and investigates the potential value of texts as aids to visual creativity.



Panels

Evolution 2.0

Convenors:

Colin Fallows
Reader in Audio and Visual Arts,
Liverpool Art School,
Liverpool John Moores University

Pete Fulwell
Managing Director, Merseyside Online Ltd.

Michelle Wardle
Programme Leader MA Multimedia Arts,
Liverpool Art School,
Liverpool John Moores University.

This panel will examine and contextualize recent work with generative systems. A Liverpool Art School research award has enabled the development and publication of the CD ROM entitled Evolution 2.0, an audio-visual anthology including history, current practice and debate around Generative Arts. Papers, presentations, audio/visual demonstrations and discussion will include a representation of the artists, programme creators and academics who have contributed to Evolution 2.0.

The panel also includes a demonstration and discussion of SSEYO Koan^oasis, the online generative composition created by a networked community of Koan artists described by Brian Eno as "a kind of global music eco system. Each composer contributes a musical 'life form' with its own character and behaviour, and the music is the rich, ever-changing ecology of interactions between the life forms".

Participants:

Peter Beyls

St. Lukas Hogeschool, Ghent, Belgium.

Synthetic Creatures in Context

Computer programming cuts both ways: it utterly constitutes an indirect channel to specify intentions yet it provides a vehicle for conceptual navigation i.e. the pragmatic exploration of ideas and the interactive speculation on their generative potential. Both discrete models like cellular automata and continuous, distributed agents-oriented systems provide a flexible computational environment to explore a wide range of interesting behaviours.

The CD ROM features two interactive applications accommodating emergent functionality; complex overall behaviour follows from the specification of local rules only. The ICA program (Interactive Cellular Automata) maps patterns of cellular interaction to MIDI. Complex polyphonic musical structures emerge from only a few user controlled parameters. In addition, an auto-mutation function allows the system to wander through combinational space by itself.

The second program, called Actors, implements a self-regulating musical eco-system, it is a prime example of artificial life oriented methods used in the context of real-time interactive music systems. Actors features a society of creatures moving in two dimensional space, interacting according to the expression of social affinities. All actors are engaged in a variable network of mutual relationships which translates to a wealth of interacting musical behaviours. The application somehow blurs the distinction between algorithm and controller, it can be thought of as a living interface. Effective exploration of both programs is non-trivial and requires reading the accompanying texts.

Pamela Jennings

SRI International, USA.

The Book of Ruins and Desire

www.sva.edu/alumni2/pamela/MFP/HTML

'the book of ruins and desire', is an interactive, mixed-media sculpture that explores failed synapses and unknown possibilities between desire and communication. An 'open work', where the ambiguities of life, the fuzzy edges of what we perceive and experience creates a web of complex yet universal information. From its wooden case a barely audible voice murmurs 'touch me.' As its metal pages are turned, spoken text juxtaposing philosophical and emotional attributes of desire crescendo and decrescendo. When a page is completely opened video interpretations of Ned Rorem's song cycle, 'Poems of Love and the Rain' are viewable.

Its pages are photo etched printing plates. Its base is crafted in wood. The degree of a turned page as well as it's velocity are calculated via the fuzzy logic inference engine. Through an Opcode MAX interface the data from the inference engine is manipulated to control the qualitative dynamics of the media and algorithmically produced MIDI compositions.

Jane Prophet

Artist, London, UK.

Sublime Ecologies and Artistic Endeavours: Artificial Life and Interactivity in the On-line Project Technosphere

The author chronicles her collaborative on-line project Technosphere, and interactive artwork accessed via the Internet, exploring some of the issues associated with the work. These include a discussion of the process of collaboration between artists, software engineers, animators and visitors to the web site, the thinking behind Technosphere's computer simulated landscapes, and the focus on interaction with, and within, the project.

Technosphere is an on-line project which enables users to design artificial life-forms and send them into a 3D virtual world where they interact with life-forms designed by other users of the web site. The 3D world has fractally generated terrain, trees self-seed at certain heights to make forests and there are desert and mountainous regions in which the cyber beasts artificially 'live'. The current version is a prototype written between March and September 1995

Sonia Landy Sheridan

School of the Art Institute of Chicago, USA.

Generative Systems and Generative Art

A discussion of the relationship of generative art to generative systems with the artist's personal vision as founder of the 1970 - 1980 Generative Systems program at the School of the Art Institute of Chicago. Generative art is presented as primarily associated with the computer's capacity for 'setting in motion' an automated system to create art. It is considered as a part of the artificial life, evolutionary art movement. Generative Systems artists, on the other hand, explored contemporary communication systems using manual, mechanical, electronic, photonic and biological tools. A focus on the art process rather than art making resulted in courses dealing with process, energy and the visualization of time.

Andrew Shoben

Artist, London, UK

Greyworld: Sound Installation

www.greyworld.org

Greyworld is a group of sound installation artists based in London. The group consists of 3 artists from different artistic backgrounds: music, visual arts and crafts. In Greyworld's work, the human is a central part of the Sound Installation and becomes integrated into the heart of the creative process. Their art is created in the main for public space where the highest degree of accessibility is guaranteed.

Greyworld was formed in Paris in 1994 with their first exhibition, Le Lait, in the 13th arrondissement. Other important installations in 1996 were Les Echos de la Gare in the South of France and Shopping in Forum les Halles, Paris. Greyworld's work has since been exhibited throughout Europe, much of which has appeared in print and on television. In 1997 Greyworld created The Layer, a sensitive floor surface that translates movement into generative music. The Layer was first installed in Greenwich Foot Tunnel during the Greenwich and Docklands International Festival in July 1997 and in the Barbican Art Centre. Since these events, The Layer has been shown all over Europe using SSEYO's generative music software as its musical engine. Greyworld's latest multiple, the Layer SE is a small sensing surface for the home.



Panels

Mediated Nations

Convenor: John Byrne
Senior Lecturer in Contextual Studies,
Liverpool Art School,
Liverpool John Moores University

Using MED TV as an exemplar, this panel looks at the historical and contemporary uses of communication technologies which have sought to disrupt, subvert and/or revolutionise dominant and received notions of cultural identity. John Byrne, as a member of the MED TV Advisory Group, has developed the panel in liaison with Hikmet Tabak (MED TV, Director), Mamoste Musa Kaval (MED TV, Zaningeha MED) and Joe Cooper (MED TV, Producer)

MED TV is an independent satellite broadcasting company, based in London and licensed by the Independent Television Commission with studios in Denderleeuw on the outskirts of Brussels. MED TV represents the full cultural, political and religious diversity of a global Kurdish Diaspora. As the Kurds themselves have no politically recognised country, MED TV has increasingly provided a virtual identity for a historically, politically and geographically dispossessed community.

Papers, presentations and demonstrations have been invited which provide similar examples of how broadcasting technologies (Radio, TV, Video, Digital etc.) have been used in the production, distribution and exchange of diverse racial, political, sexual and cultural identities.

Mediated Nations will culminate in the screening of a unique broadcast of MED TV's Zaningeha MED (University MED) programme. This will take the form of a discussion programme with live phone-in, fax and e-mail interactivity to be hosted at MED's Denderleeuw studios in Brussels. The unique nature of this event will be that the broadcasting agency of a stateless nation will be participating in a section of an international conference, to which delegates can contribute, and which can be received across Europe, the Middle East, North Africa and large parts of the former Soviet Union. MED TV will be recording this programme for future broadcast in Kurmanci.

Participants:

Marguerite Byrum

John Hopkins University, Baltimore, USA.

A Manifesto for Electric Propagandists

There are no new theoretical structures. There are only moments which redetermine the dynamics of theoretical structures (history). One such theoretical structure is Revolution. As participants in this thing named the 'Information Revolution', we allow our productions to become propaganda (political rhetoric). Because of this naming operational and programmatic political and economic ideologies (institutions) determine the fields (such as that of 'Art') in which we articulate. The borders of these fields are the limits of cultural legibility. Institutional ideology limits the numbers of revolutionary fighters (Artists). It thus divides and weakens the Revolution. Spontaneous dialogue must not be compromised by ideology. It must occur in spaces other than the field of legitimate aesthetics, and in unconventional dialects. The concept of a 'status quo,' when (over)determined by the field of aesthetics, is a danger to free dialogue. The challenge to the Artist, in our new moment of (Information) Revolution, is to create open dialogue, or discourse. 'Quality' must no longer be determined by the Institution (i.e. University), but must be redefined according to the genre and intent of each and every articulation. Every labourer in this field of Information must therefore be an Artist, and every Artist a labourer.

Jose Carlos Mariategui

Alta Tecnologia Andina, Lima, Peru.

Techno-revolution

www.ata.org.pe

Revolution implies many things in the technological age, but its basic principles are sometimes forgotten. Revolution also means struggle, contest and dispute, resulting in constant creation. Our social objectives are intimately related with technology and new ways of creation, because the new technologies are nowadays fundamental tools (weapons). It is also important to understand two things: (1) the role of the industrialized countries over the underdeveloped ones and (2) the importance of the latter in the creation and exploration of their identity using new technologies. Underdeveloped countries are continuously struggling against their own identity, much more than the western world. This is why it is very important to promote centres for digital creation, in other words, centres for the research of art and science. The current kinds of technological development in Latin America helps the proliferation of technical training centers (low-level education) but not the opportunity for students to test for themselves, creating and inventing their (our) own future. Identity, cultural diversity and technology, a creative of ideas and thoughts will help us understand the past and also create our future.

Dee Dee Halleck

Deep Dish Satellite Network.

Deep Dish Satellite Network

The tactic of using time on satellite for diffusion by community groups has been the premise of Deep Dish TV. Deep Dish compiles local programming from across the United States (and international programmes as well) around specific themes such as health care, housing, militarism and justice and has rented time on commercial transponders. The principle targets for Deep Dish transmissions are the receivers (dishes!) at local cable channels, where the programmes are then taped and used on local access and educational channels. Central to any project for constructing alternatives, is the necessity of a vigilant opposition to commercial media. The notion of non-commercial public interest media is in direct opposition to the commercial logic that has overtaken the world. We need strategies that take initiative, that go beyond the flea-market, beyond being parasites, beyond cyber hacking. If we want to stop the Titanic, we need to study ice berg construction.

Olga Kisseleva

Associate professor, Montpellier Paul Valery University

Anticipated Future

- Controller and Controlled: interchangeability

www.spb.ru/biennale/proj/howareyou/

www.mygale.org/04/kisselev/index

In our culture the anticipated future has replaced the historical past as the most fundamental and decisive reference. Web artistic activities is a typical example of such anticipated future. It is a science fiction object. Technically it can be realised today but psychologically our society is not ready for it yet. Seemingly trivial insight crystallizes more and more to the fundamental finding of scientific and philosophical search for an consistent view of life. The high speed of the process creates a situation: from one side the illusion of overcoming of psychic trauma of the meeting with a fake reality (and any meeting with any kind of reality becomes a trauma); and, from the other side the interweaving of human extensions into the common nervous network. Virtual reality constructs a future gadget that transposes beings from the present to the 'reality' programmed and controlled by the past. Controller and controlled are transitional notions; their interchangeability can be revealed in diachronic as well as in the synchronic systems. However, while it was previously possible to juxtapose the positions of controller and controlled, in the mass-mediatised society the face-to-face opposition is vanishing in the network of cables and wires.

Hikmet Tabak

Director, MED TV

Introduction to MED TV

www.med-tv.be/med

MED TV is a UK based Kurdish language satellite station which seeks to provide a normal range of news, entertainment and cultural programmes to Kurds, to all those in its footprint of Europe, North Africa and the Middle East. The unique history of the Kurdish people, divided by territorial borders and dispersed as refugees around the world, is what makes MED TV an extraordinary enterprise. Satellite technology of the modern world, often seen as an implement to abolish cultural differences, can also be a tool to preserve them. MED TV has followed a policy of giving equal prominence to all Kurdish dialects and makes special provisions for the religious interests of different Kurdish groups. The service is valued alike by Kurds in Europe, cut off from their native region and by Kurds in Turkey, where education, broadcasting and publishing in Kurdish is illegal. MED has received reports of Kurds listening to the station even in Iran - where all satellite dishes are banned. The use of Kurdish and the assertion of Kurdish identity is the subject of intense political controversy; and MED TV, from its beginning in 1995, has to develop in the face of a well-funded campaign to close the station down. Yet still MED TV has survived and flourished and is now in its fourth year of transmitting to a potential audience of 30 million, 18 hours a day. During the ISEA Mediated-Nations panel we all have an opportunity to participate in one of MED's programmes - Zaningeha MED (University MED). The panel of invited guests in our Brussels studio together with all the viewers will have the opportunity to look at the impact of technology on cultural identity.

Panels

Paradiso Artificiale – Rehearsals For Death: Avatars and the Post-Biological Experience

Convenor: Yannis Paniaras

VRML Designer – Interactive Developer, Silicon Graphics – Cosmo Software, California, USA.

Avatars and the present social and cultural phenomena they generate indicate that the first waves of avatar populations are increasingly penetrating the barrier that divides the physical from the virtual status. Avatars are successfully establishing virtual societies in networked virtual communities and they represent the first immigration waves in the territories of networked virtual reality. Are avatars a temporary fashion destined to be consumed from the public curiosity or are they representing a real revolution in how humans will establish agency in virtual environments?

This panel will focus on the subject of avatars, user representation and avatar centric user behaviour in online virtual communities, analyze how avatars function as a personality interface and throughout a discussion and demonstrations try to draw a descriptive framework for the displaced self as it becomes manifested through its confrontation with the revolutionary forces of networked virtual reality. If identity is being revolutionised by becoming exposed to the forces of multiuser technologies – an identity which becomes temporary and custom-tailored within the context of the virtual society - does this situation represent a revolutionary exodus that opens the doors of rampant transformation as it becomes apparent that there are no fixed boundaries for the representation of the self? Are avatars truly revolutionary? Towards what avatar design genres should we be aiming for? What are the alternative narrative ways for agency and user interaction within networked virtual societies?

Participants:

Charlotte Chiang

Okupi Limited, London, UK.

Steve North

Okupi Limited, London, UK.

Bad Men, Good Men and the Data Ganger Cometh

Ever since internet chat has become popular, the majority of chat users have indulged in the anonymity it provides and enjoyed the most adventurous yet safe way of socialization that has ever happened to mankind, role playing is no longer the actors' privilege and cross gender internet romance become everyday soap opera. The introduction of 3D chat worlds and avatars have even further transformed the abstraction of anonymity: the way people use avatars does not swear by the quaintness of identification but the potential of metamorphosis.

The authors followed a group of teenagers and recorded their avatar behaviors in an attempt to explore the degree that gender myth have effects on the way boys and girls choose avatars to represent themselves. Apart from the usual courting process, teenagers incline to control over the look of their avatars, they like to pick and mix the body parts, not dissimilar to the ways they dressed their Barbie dolls and Action Men a few years back. Except that Barbies now like to wear Ken's clothes and have mohican hair! If avatar is experienced as a practical mode of coping with external situations and events, does it mean that our world has evolved into an ultimate state of transvestism?

Jenny Marketou

Cooper Union School of Art, New York, USA.

Smell Bytes

An art project with two components: a) Website and b) a computer mediated video projection/installation for four video channels.

During the panel presentation the author discusses her reflections on the new complexities in the implementation of her web intervention project 'Smell Bytes'. The project is a cyber thriller based on forms of communication on the net and particularly in creating a virtual world based on database, where an intelligent agent/avatar, an on-line vampire of scent lives to possess the essence and body odor of the netizens. He lurks on on-line teleconferences, such as CU See ME, and squats the netizens driven by the desire of their 'body odor' and their facial symmetry and beauty. His insane quest takes him beyond boundaries. He grabs the participants' profiles, processes them, analyses them according to their facial beauty and symmetry, and correlation to their body odors, he compresses them, evaluates and transforms them into smells and flavors, and saves them as menus and smell bytes.

'Smell Bytes' is taking as a starting point the cultural importance of the Avatar and artificial intelligence in the virtual worlds. Increasingly netizens of the developed world are judged by data imprints they leave behind them. Whether this is a data from consumption patterns who is becoming our virtual profile, or genetically determined traits which define us by odor data. But how can we give shape to a personality without a body? Can such entity be accepted as real? Is the replacement or partitioning of the profile which causes a great terror or the visualization of any data into a profile rating can be presented as an avatar? Or maybe one day we will discover that we are literally chemical reactions?

Yannis Paniaras

Silicon Graphics - Cosmo Software, California, USA.

Digital Courts

www.cosmosoftware.com

Yannis Paniaras' presentation will give emphasis on the implications of virtual identity design in the process of constructing our presences in social virtual environments.

The ritual of cultivating a personal visual experience is being relocated in the virtual domain. Design practices from the real world are being transferred into the virtual society.

With the help of 3D technologies and design expertise we construct representations that ideally reflect our inner worlds and temporary emotional status. The costumed avatar becomes a 'mask' for the resident of a society manifested within the prohibited sphere of immateriality. While we participate in the spectacle 'from a distance', unable to inject our physical bodies, our awareness for a potential post-biological existence is nurtured.

Does the avatar represent the prologue for the resurrection of an entity liberated from the torture of our material incarceration?

Mark Rudolph

VRML and Java Artist, Montreal Quebec, Canada.

**Trance, Fixation, Serenity and Death:
Meaningful Repetition:
If there is One Moment only,
let it be here in the falling Snow.
Out on the Wild grasslands, I am You**

The questions which face us all in regard to our own death, and the experience which occurs and follows, are the fundamental questions for an art form whose 'places' are the dream-like narrative stages for a 'Virtual Theatre.' These non-corporeal spaces provide rehearsals for the experiences which may be difficult or impossible to represent in any other way due to the overwhelming intrusions of our physical presences. It is common for us to represent aspects of our experience in 'characters' and 'identities' which are familiar to us all but are fragmented in the chess game of a narrative of conflicting and cooperating motivations and reasons. However, in what sense does a character in the Virtual Theatre have a 'body', and in what sense a 'viewpoint' and a 'presence'? And within the experience of non-deterministic and repeatable narrative, what is the sense of the 'tragedy' of fate, the certainty of 'objective' experience, the agony of one-time choices, and the finality of a present moment? Could it be that these new aspects of narrative provide rehearsals for the experiences we are to have after we are dead? And can we reveal a beauty so sublime and satisfying that we will be happy to 'be' its narrative existence 'forever', or without time?

Panels

Revolution of the Public Sphere

Convenor: Dr. Emma Roberts
Lecturer in Contextual Studies,
Liverpool Art School,
Liverpool John Moores University.

Publics, audiences, communication: how, if at all, have the new technologies infiltrated the relationships between people? The panel commences with a session on the oldest interactive art, the theatre, where digital technologies have raised the ante in a wild gamble with the randomness of performance. The panel moves on to explore issues of networking. Now that the information paradigm is in crisis, and the outlines of cultural exclusion have been drawn across populations accessing or refused access to the net, how are we to reconceptualise the human dimension? Perhaps the revolution is over, and we lost: the same genders, the same 'races', holding on to the anchors of power as the tides of change embrace everything but white masculinity. Is it possible that in place of revolutionary community, all we have achieved is public relations? To understand these issues, we turn to history, as it is lived, as it 'weighs on the minds of the living like a nightmare' in Marx's words. Is historical process over, leaving us with conservation of artefacts and attitudes? Or has some awesome new process begun, sweeping away the discretion that has governed self and other, subject and object, dominant and resistant, to produce the grounds for a (r)evolutionary front in the digital ecology?

Participants:

Tessa Elliot

University of the West of England, Bristol, UK.

Pose in the State of Flux

Computer software is not just the vehicle of production, it's also the driver. It shapes not only the way we perceive the machine but also the way we form representations, and in turn the way we perceive the world. The 'universal' machine can be infinitely redefined, it is raw material, given form and structure by the theory and language of programming. Because of its multiple manifestations the computer can be described, at any one time, as a pose in a state of flux. This 'pose' however, is, more often than not, shaped by programming teams, operating systems and application software whose development, for the most part, is in the hands of corporate, military and marketing concerns. Artists are often caught in the dual bind of expansion and enclosure, with the hardware and software manufacture of needs, arousing and satisfying new wants, creating a cycle of dependency. As the surface definitions of the calculating machine become more convincing, seductive and all pervasive, individual and collective agitation is necessary if antidotes to the enclosure of our new common land are to be found.

Maria Fernandez

Carnegie Mellon University, Pittsburg, USA

Post-Colonial Electronic Media Theory?

During the last two decades, post-colonial studies and electronic media theory have developed in parallel to one another but with very few points of intersection. This paper suggests that the two fields have had opposing goals. Post-colonial studies have been concerned primarily with European imperialism and its effects. In the eighties and early nineties, electronic media theory was concerned with establishing the electronic as a valid and even dominant area of artistic practice a function which might be seen as colonizing. A survey of critical writing in the two areas discloses an overwhelming preoccupation with issues of the body, subjectivity, identity, history and agency which could be used imaginatively towards common ends. The theorization of topics such as feminism, place, community, race and representation at present seem to be at odds in the two fields. Can Post-colonial and Electronic media theory be productively reconciled? what obstacles stand in the way of such a reconciliation? This paper will examine these issues as a first step towards imag(in)ing, theorizing and performing a post-colonial electronic media theory or an electronic media theory of postcoloniality.

Neil Grant / Lawrence Giles

Manchester Metropolitan University / Salford University, UK.

Arming the Gallery

This paper seeks to address a number of issues that impact upon the relationship of the gallery to the advance of electronic arts practice. The discussion centres on notions of fear and control and is based on research carried out in 1996 / 97.

The gallery has and continues to function as a controlled broadcast channel where content is defined and verified by a select few. With fixed or linear works the curator has been able to control the nature of presentation within the gallery and consequently the nature of audience interaction. This has further reinforced notions of creative authorship as artists and curators collaborate to build up cultural capital within an established hegemony. The advent of multi-channel global broadcast systems and the exploitation by artists of interactive technologies represents a major challenge in terms of the gallery curatorial response.

Fear is particularly evident in relation to online interactive installations where what appears within the gallery space is out of the curators control. The evidence from our research leads us to believe the fear of losing control of the presentation content limits the gallery to a closed channel when in fact the space could be seen as a unique 'device'.

Josepha Havemann

Media Artist, Berkeley, California, USA.

Are There Revolutionary Electronic Ethics?

Ethics, by definition are neither electronic nor revolutionary! Ethics represent a society's moral code which has been developed indigenously throughout its history or modified through contact with neighbouring cultures. Ethics represent a society's mores, often more theoretical than practical. Even if carved in stone, the practice of a people's ethical system wavers according to circumstances.

Examine what happened to the Euro-American copyright ethic, the advent of software piracy and the rapid popularity growth of personal computers. Or look at the early Internet, whose users developed an appropriate ethical/etiquette and how, due to the broader based tidal wave of general and commercial use, that code is suffering from serious erosion.

Changing circumstances can create a short-circuit in a society's ethical system which may favor the practical values over the ideal.

As we see with sub-cultures such as those of commerce or the military, which have their own ethics. The widespread explosion of media in global communications has created other sub-cultures which establish their own mode of ethics adapted from the parent societies' code. To date these have been western and relatively homogeneous, a situation that will be changing through interaction with very different cultures.

John Hopkins

Artist / Educator, Iceland.

word-dialogue-Light-revolution-action: breaking the glass

This presentation circulates through Dialogue as a revolutionary tactic and its relationship with technology – both the mediating effects and the successes of extending the voice and the self. The personal occupation of technologically mediated space can be a powerful energy source and inspiration to (r)evolution. The history of mediation is also the history of humans seeking to lessen the impact of raw nature and human aggression on their physical being. Language may be thought of as a primal mediating technology, and in that sense, the further mediations imposed on communications between humans – those mediations that are more commonly referred to as technology, are merely additional obstructions to understanding that overlie language. None-the-less, in this moment, it is still possible to speak, and to listen, and to understand. In the very same moment that mediation stresses our attempts of attentive presence with the Other, it becomes more imperative to engage in Dialogue and in the creation of spaces in which Dialogue might flourish. Dialogue stimulates genesis, transformation, and revelation in life – it is a revolutionary art itself when in critical juxtaposition to silence. Dialogue, as pure expression of heart and soul, is the core of all meaningful activism.

Roshini Kempadoo

Media Artist, UK.

Time Frames

'Time Frames' will use digital media to comment on two subjects – that of time and memory. Within the parameters of digital technology, time and memory both 'factual' and 'imaginary' will be explored around issues of race and difference; tracing and tracking stories that network, map and are collected as contemporary references. The work will explore the concept of journeys. The most profound effect of the physical journey is the experience of cultural and social difference. While, the mental/imaginary journey can be free from anxiety, a utopia where the self and family are constructed into an experience of similarity and the familiar. Using the internet and CD ROM format, the author is interested in looking at the effects and junctures of these acts. How is digital technology effecting our individual and collective knowledge and memory – our cultural specificity? Are alternatives sites and significant shifts of emphasis beginning to break up the predominance of the myth of 'white, western' stories as we know them?

Pervaiz Kahn

Artist, Birmingham, UK

Partition

From the 'inner' cities of Britain to the 'outer' cities of the 'third world' the promise of new technologies is hailed as the way forward. This will be an exploration of issues raised by the 'new technologies revolution'.

"The genius of an inventor like Leonardo da Vinci lay in his ability to recombine the then separate systems of biology, mathematics, engineering and art. He was not so much an originator as a synthesiser. There have been few people like him over the centuries, because the ability to hold that much data in one's own biological memory is rare. Now however, the technology of recombination is available in the computer. The problem now for would-be cultural producers is to gain access to this technology and information. After all, access is the most precious of all privileges, and is therefore strictly guarded..." (Critical Art Ensemble)

Patrick Lichty

Artist, Ohio, USA.

The Panic Museum: Memory and Digital Alzheimer's in the Information Age – Exhibition and Conservation in the Digital Arts

In an era where an increasing number of cultural forms are shifting into the emergent digital media such as the Internet and CD ROM, numerous questions arise from these practices vis-a-vis our reco(r)ding of these events and their place as engrams in the cultural memory. The creation and experience of the arts in the digital age is moving from the exhibition of art as material trace of a process to that of performative act.

Secondly, media such as CD ROM create technological difficulties related to the obsolescence of said media. Paul Virilio states that technology is compressing all societal constructs including time and the acceleration of technological production itself. From this, we are presented with the challenge of presenting works that may be ephemeral due to software and hardware incompatibility problems. This, in a sense, likens the dawn of the digital arts to the Classical period of drama, in which many plays were written, but only a handful survive.

Susanna Paasonen

University of Turku, Helsinki, Finland.

... and there was light!

Rhetorical Performances in the Digital Realm

www.muunet.net/ground

According to 'cyber-critic' Sadie Plant, through the Internet future is already present, (-) 'breaking through the endless deferral of human horizons short-circuiting history, downloading its images into today. (...) Cyberrevolution is virtually real.'

Embeddedness of Internet and the digital media in the discourses of revolution; creation of new terrain, new configurations of time, space, and identity, is well documented by this point. What is perhaps more rarely touched upon is the discursive nature of this revolution, which is articulated with concepts derived from cyberpunk fiction. To put it another way, revolution is to a large degree a question of rhetoric.

This rhetoric is more than word games: phenomena such as 'cyberspace' are being produced through language, along with fantasies and political agendas. These conceptual formulations are performative in creating the phenomena they describe. This, again, raises important questions of agency and answerability, on which the paper will focus here. Paasonen discusses rhetoric and agency, especially in the context of feminist theory on the revolutionary aspects of digital arts. What kinds of agencies and agendas are they linked to? What kinds of new worlds are being created?

Michael Punt

University of Wales College, Newport, Wales, UK.

So What's New About This Revolution?

Rethinking History

This paper asks why, given the general agreement that the periodisation of the history of technology as a series of revolutionary ruptures is unsustainable, many respectable sources refer to our present condition as revolutionary? The idea that technology shapes culture in such dominating ways that we can use terms such as the stone age, iron age, bronze age, is now so discredited that it is surprising that in quite sophisticated contexts we still read of the digital age and the electronic revolution. History, the reconstructive process, and history the sets of realities which took place, are now so self consciously distinct that the idea of a revolutionary moment after which nothing is the same again is generally understood to reflect a selective memory rather than any recognisable condition in culture. So what does it mean when scholars and commentators claim that we are undergoing a revolution? This paper opens that question, not in terms of the meaning of the reconstructive processes that insist upon revolution, but the technical realities of our time. It concludes that the very technology which has alerted us to the unreliability of history has also endowed us with revolutionary ways of remembering using digital storage.

Norma Wagner

Concordia University, Montreal, Canada.

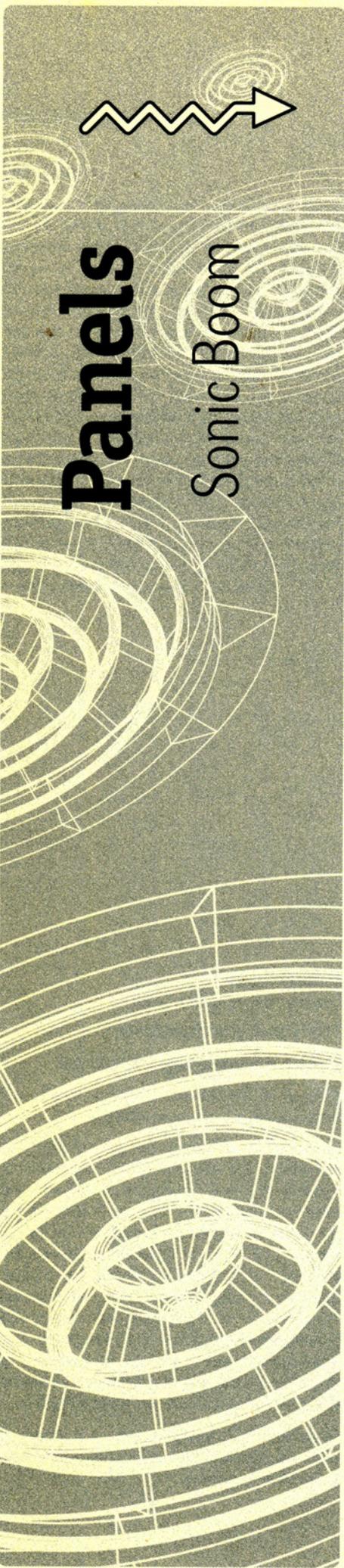
The Eschatological Expectation

www.fofa.concordia.ca/wagner/default/html

Research on the historical relation of religion and technology in a cultural studies approach.

Technology as eschatology (or the eschatology of technology) and the millenarian redemption of humanity. A critical investigation of inherent and archaic metaphors, such as the return from the suburbs to Paradise, the recovering of humankind's lost divinity, the exercising of god-like knowledge and powers, the investing of technological acceleration with spiritual significance. The necessity for the rigorous re-examination of infatuation with unregulated technological advance and disdainful disregard for, even depraved indifference to, mortality. With reference to David T. Noble's 'The Religion of Technology: the divinity of Man and the spirit of invention', Knopf, N.Y., 1997.

On questions of 'the religious sense' and persons of vision who precipitate, produce the crises in dimension, in dimensions of meaning.



Panels

Sonic Boom

Convenor: Colin Fallows

Reader in Audio and Visual Arts, Liverpool Art School, Liverpool John Moores University.

This programme of presentations and demonstrations investigates and celebrates the work of artists and inventors from across the twentieth century who have created, recorded and performed with electronic musical instruments – from analogue to digital and from the revolutionary to the eccentric.

Papers, presentations and demonstrations have been invited from artists, inventors, academics and broadcasters concerned with experimental electronic music and its instruments of production – their design, manufacture and performance.

A Liverpool Art School research award enabled the appointment of a Visiting Fellow in Sound, the UK based sound artist Robin Rimbaud (aka scanner) who will also make a presentation in Liverpool during ISEA98.

Participants:

Joel Chadabe

Electronic Music Foundation, Albany, New York, USA.

The Interactive Instrument: A Brief History

Interactive means mutually influential. As against a traditional instrument that produces no more than what its performer specifies, an interactive musical instrument contains algorithms that share control of the music with its performer, thereby causing the music produced by the instrument to contain some unpredictable information to which the performer reacts. The historical context for such instruments was the notion of functioning system that grew out of the systems theories of the 1950s, and the modular synthesizers of the 1960s made it possible to create functioning musical systems such as those developed by Salvatore Martirano and the author. By the 1970s, other composers, in Paris, San Francisco, and New York, had begun to work along similar lines. By the 1980s, the idea became widespread and many composers in North America and Europe were creating and performing with interactive instruments. In 1986, 'M', a commercially-available program designed to create interactive systems, was developed at Intelligent Music, a software company that Chadabe formed in upstate New York. By this time in the 1990s, the idea has become manifest also in interactive media and it is likely to develop further in that direction.

Max Eastley

Artist, London, UK.

Natural Systems

"Nature and Art: no sooner do they seem to flee each other, than they come together. In me, too, the antagonism has disappeared, and they seem to attract me both equally." (Goethe)

A presentation of Max Eastley's investigations into natural phenomena and change as applied to music, painting, sculpture, architecture, theatre and performance. Using examples of his own work he will discuss the objective of creating a synthesised organic art form that, through the operations of chance, interacts with a constantly changing environment and merges the distinctions between natural and artificial.

Heidi Grundmann

Producer, Kunstradio, Vienna, Austria.

Improvised Radio

www.thing.at/orfkunstradio

Radio is everywhere. Radio sound is everywhere. The sound of radio is the sound of our time. We have become so accustomed to the presence of the sound of radio in our private spaces that we hardly notice it. For most of us the radio has become a friend, a companion for the driver, for the solitary worker, for the invalid. For many it is often an unwanted and unavoidable intrusion. Unavoidable because it has become a natural sound, always potentially present waiting to be heard. The voices of strangers from distant places wake us in the morning, bring us information about distant events, persuade us to buy things. Popular music is radio music. Radio music is the same wherever the radio is heard. Radio sound is everywhere on the planet and it is always the same sound. Radio sound. Radio is the instrument of our time.

The 'Kunstradio' presentation will discuss how the instrument radio is changing under the impact of digitalisation and the new communications technologies and how this instrument is being played by artists. Since 1990 there has been a series of international radio art projects involving many artists working simultaneously in different physical and media spaces around the globe. They have been developing an image of what radio and the sound of media are becoming in the age of the convergence of mass media, telecommunications and the computer.

Kunstradio – originally just a weekly radio-art programme on the National Austrian Radio ORF – has become one of the crystallization points of artistic production in this new on air -on line- on site context.

Zina Kaye

Artist, New South Wales, Australia.

(humble under-minded) psychic rumble

www.va.com.au/radioqualia/

Electronic space is a vacuum – it has no structure or architecture in which sound can resonate. This paper will discuss recent research in methods of articulating sound in electronic space using metaphors of structure, and will reference recent work.

John Kefala-Kerr

The Karaoke Opera Company, Newcastle-upon-Tyne, UK.

Bouquets and Backing Tapes: Karaoke Opera

Karaoke and opera inhabit the cultural margins, existing as complex and rarefied instances of musical performance. They share common points of contact in terms of their semi-public origins as well as the role and importance of technology – opera with its history of elaborate stage gadgetry and effects, and karaoke with the 'representational technologies' of recorded sound and video.

The rich semantics inscribed beneath karaoke's seemingly superficial surface reveal relationships which, it appears, are implicit within, and symptomatic of, human interactions with technology. Karaoke provides a loaded paradigm for a set of technology dependent practices, relationships and themes within which musical material is coined. Karaoke looks to the popular song and the star singer as the locus for a mimetic ritual not of 'self-transformation' (as one would find in the related culture of the exercise video) but of 'self-transportation'.

Karaoke Opera's appropriate this paradigm, casting their narratives and sequences within its borrowed frame of reference, yielding a novel metaphorical and performative framework wherein the use of microphones, backing tapes and video projections serve to activate what we may dub 'karaoke discourses' ie. those to do with identity, utopian self-actualisation (the DIY ethic), narcissism, social fragmentation etc. These themes are embodied within a species of technology-interactions which inhabit both the private and the social sphere, confuse traditional distinctions between performer and audience, and invariably constitute both a (revolutionary) response to, and a (colonial) product of, processes of post-industrialisation and hyper-commodification. These positions are variously celebrated and satirised in The Karaoke Opera Company's work.

Brandon Labelle

Sound Artist, Los Angeles, California, USA.

Genius Loci: Music, Carnality and Contact-sound

Beginning with the experience of listening – the perceptual flux of sonic stimuli overwhelming the body – Labelle is led to consider the process by which music arises out of and refers back to this sensual experience of listening. The continual unfolding of the sounds around us exist as a perceptual phenomena within and against which we locate ourselves the sensual flux of sonic stimuli forms patterns through which the world becomes knowable. Yet this sonic excess exists as more than just information. It unfolds as part of the flow of the beating of time and place, the very sensuality of the material world in which we are enmeshed. Music as sound is constituted by the phenomena of listening – its very materiality is defined by the perceptual flux of sonic stimuli. In this way music is always somehow wrapped up in the soundscape of the physical world. Yet as a cultural project it also extends the phenomena of the sound-world. This extension functions as an imaginary response to the materiality of the world: it defines its own space, traces a tender map of a possible reality.

Todd Winkler

Brown University, Rhode Island, USA.

Mapping Movement to Sound: Recent Sound Installation & Dance Projects using Movement Sensing Systems

Devices for translating movement into computer data hold great promise for producing interactive music in dance works and installations. Motion-sensing dance challenges choreographers and composers to discover believable links between specific movements and the sounds they produce; connections that are both convincing to an audience and empowering to the dancers. This requires hours of training and experimentation in order to craft an appropriate response system for each new work. Sound installations pose a different set of problems since they must attract and hold the attention of novice "users," inviting them into the space and encouraging them to move. In either case, compelling material will help these works go beyond the simple novelty of making music "out of thin air."

This paper presents two years of research and creative work using interactive movement systems, culminating in the productions *Dark Around the Edges* with Walter Ferrero and *Songs for the Body Electric* with Gerry Girouard. Both works utilize the Very Nervous System (VNS), a motion-sensing device, created by David Rokeby, which uses video cameras to report the location and speed of dancers to a computer. Similar systems monitor participants in two installations in which movement alters projected video and music.

Peter Zinovieff

Inventor, UK.

Electronic Music Studios (EMS)

Peter Zinovieff will give a presentation on examples of the inventions of the Electronic Music Studios (EMS) including the now legendary VCS3 and Synthi A – the first portable music synthesisers ever to be produced commercially. For a time the British companies synthesisers (designed by Peter Zinovieff) rivalled the American Moog. Electronic Music Studios Instruments have been used by a broad variety of artists since the 1960s and are currently going through something of a renaissance as they are rediscovered by a new generation of sonic experimentalists in the late 1990s.

Panels

Sound Government always leads to Revolution



Convenor: Dr. Nigel Helyer
Senior Lecturer at the Sculpture,
Performance and Installation Studio,
Sydney College of the Arts,
The University of Sydney, Australia.

This panel will present a series of position papers designed to identify a vital mix of current theoretical issues in sound-art. We shall examine of the implications of sound oriented design for computer objects and the resonances of the new materialities of digital space – Get physical as we contemplate computers as organs of digestion and excretion, transmission and emission – Listen up to the ‘evolutionary’ relationship between sound, image, tactility in the age of Multi Media and get in touch with the very physical (and psychological) relationships established between Sound, the Body, Memory, History and Architecture.

The papers will be followed by a combined panel and audience discussion structured around a series of highlighted topics, bring your own earplugs.

*Nigel Helyer will also present a poster session concerned with the potential relationships of sound-art to ideology and politics. The poster entitled *Metamorphoses in the Silent Forest* will focus on two recent complex sound-installations which use metaphors of silence and silencing in the natural environment as a means to illuminate the politics of colonial expansion.*

Participants:

Nigel Helyer

Sydney College of the Arts, Sydney, Australia.

RPM – Virtual Bodies Meet Real Sound

www.personal.usyd.edu.au/~nhelyer

RPM will deal with the very physical (and physiological) relationships established between Sound, the Body, Memory, History and Architecture.

This nexus will be explored and counterposed with the incremental dis-embodiment of aural experience within the histories of recorded sound, where the spatiality so vital for the fundamental operational categories of sound experience, surroundedness, immersion, directionality and depth have been effectively restrained within a representational schema.

Such a repression of the architecture of spatio-temporality is not dissimilar to the digital processing of sound which promises to return the collapsed ambient space as Virtual Space, where time and space are naturalistically re-deployed as metaphors literally standing-in for themselves. But why should we be interested in such faux Newtonian reconstructions in which visual grammars cuckold the metaphoric richness of aural experience – only to finally lose perspective in the Virillian chimera of speedspace? – a domain in which sound simply disappears! Can the experiential world of sound be reinstated to coexist with the representational domain of vision?

Sophea Lerner

University of Technology, Sydney, Australia.

Things That Go Ping

What kind of object is a sound? And what does object oriented design mean for sound design? Perhaps there is an underlying contradiction between the discrete symbolic functions of computers as we know them today and the indiscreetness of sounds as resonances of matter in space... A brief examination of the implications of sound oriented design for computer objects and the resonances of the new materialities of digital space.

Norie Neumark

Revolting Sounds: The Body / Machine with Organs

Organs are figured, experienced and heard differently by different cultures and at different moments of history. This paper will explore and listen to organs as they are being reconfigured in computer culture. The paper is based on a sound work for radio and installation that the author is currently working on. In the paper, as in the sound works, Neumark wants to fracture the 'natural' body and listen differently. She will do this through two figures: (1) travelling and journeying, and (2) the computer as a revolting machine-organs of digestion, excretion, and transmission.

(1) Organs on the move. Historically in the West organs have moved around the body (the wandering uterus being the most errant) and shifted in their relations to emotions and consciousness. Moving South and East, organs decentre from Western individuated incarnations, reconfigure the relationship between inside and outside, and re-centre themselves and bodies – differently, untranslatably. How can they be listened to?

(2) Computers as organs of digestion and excretion, transmission and emission. Much recent theory and discussion about computers places them in the realm of the brain or the mind, as if the body ('meat') has been erased or left behind. While this does address an important aspect of the changed kinaesthetics, it doesn't get to the heart and viscera of the matter from a sound artist's point of view. As you scan in your images or digitise your sounds, you subject them to a digestion process carried out by you and the computer together. As digestion it can revolt and turn ugly, produce unexpected eruptions, and most excitingly, result in a noisy, undisciplined indigestion.

John Potts

Macquarie University, Sydney, Australia.

Revolution Sounds Like.....

Cultural hierarchies, including the hierarchy of the senses, are never static; as new media evolve this hierarchy of the senses also changes. What may appear revolutionary in the short term takes its place in the broader perspective as part of a cultural evolution. This is reflected in the transition from an oral culture to a literate one, from a literate culture to a mass media society, and from the electronic world of mass media to the more interactive process of digital multimedia. These general transitions may themselves take a revolutionary – in the sense of revolving – turn. Different media represent the world by different means, placing emphasis on a particular sense at the expense of others; we can expect that the emerging new media technologies will inflect the human sensorium in a new way – or, perhaps, in a way that comes closer to previous configurations. This presentation includes discussion of innovative electronic artworks by Knowbotic Research and Auditorom, as examples of new media art which privilege the role of sound.

Panels

St. Petersburg 3.0



Convenors: Colin Fallows
Reader in Audio and Visual Arts,
Liverpool Art School,
Liverpool John Moores University
and Alexander Kahn, St. Petersburg Writer,
Broadcaster and Producer of the Russian Service,
BBC World Service.

This panel seeks to examine and contextualize the work of a group of radical St. Petersburg based artists, musicians and writers currently working with electronic media. Led by the artist / catalyst, Timur Novikov, the group will share the art and ideas of the New Academy in St. Petersburg with ISEA98.

Papers, presentations, declamations, ideas and critical responses have been invited from the St. Petersburg based artists, musicians and writers described as "... the first manifestation out of the New Russia that actually impresses me ... so weird looking, and it arises from such unique cultural and economic circumstances ... This might become the first digital art movement that really matters." (Sterling, Bruce (1998) 'Art and Corruption', WIRED 6.01, January).

*This programme builds on links with St. Petersburg's artistic cutting edge established more than a decade ago when Liverpool based ARK published the LP *Insect Culture* by *Popular Mechanics* (ARK Records, 1987) the large scale multi-media event *Perestroika in the Avant Garde* (involving *Pop Mekhanika* and the *New Artists*, Liverpool, 1989) and the first Russian techno 12 inch *Sputnik of Life* by the *New Composers* (ARK Records, 1990).*

Participants:

Valery Alahov/Igor Verichev/Yuri Lesnik

Musicians/Performers, St. Petersburg, Russia.

New Composers

The New Composers are 15 years old now. The project was formed in 1983 in St. Petersburg (Leningrad) on the base of a sound recording studio in the Drama Theatre, where Valery Alahov and Igor Verichev worked as sound producers and made soundtracks for performances. There the concept of their creation was worked out. As in performances, where the subject was the basic item, in New Composers albums the subject or conception was the defining factor, surrounded by a musical palette, lyrics and technical sounds and effects. Finally the performance-collage was worked out. For example, the first album of the New Composers, *Space Between* where the samples of Russian Cosmonauts, engineers, messengers, orders from space command centre, famous phrases of politics and scientists were used. The most frequent are the basic phrases, which the New Composers with the help of tape-montage ordered in another way, or changed the meaning, creating new lyrics. Well-known soviet songs or compositions were the musical material, phrases were combined or went in turn episodically. Owing to that way of creating, the project got its name - New Composers. Popular-science topics were the most frequent subject of the New Composers. Myths and legends gave fantasy freedom in using special effects or occasional tricks, which the New Composers created in their studio.

In 1997 the New Composers organised a club, *Science-Fiction* (in the Planetarium, Leningrad), where two popular-science lecture-compositions for children and adults were created: *Contacts of the 3rd Way* (about UFO's) in 1988, and *Legends of the Starry Sky* in 1989. In 1990 the New Composers were invited to Ark Records in Liverpool, and their first single *Sputnik* was recorded. It became the first Techno single in the history of Russian dance club life and the New Composers became famous as the first Techno group in Russia.

Ekaterina Andreeva

Curator at the Russian Museum, St. Petersburg, Russia.

Computer Generated Photography and Neoclassical Sensibility

Photography was at first an utterly technological art. In the 20th century its development is connected with the idea of technological progress, which has enabled photography to become a prosthesis of vision, providing it with inhuman sharpness and superspeed of fixation and thus reinforcing the value of the photograph as documentary evidence. Thus developed straight photography (which was considered an auxiliary to painting or an underdeveloped form of cinema). For many years staged photography was excluded from this process of examining the world with the aid of the camera. The new technologies burst this system from within making visible the potential of manipulated images in hyper-illusionistic photographic tableaux vivants which are even more convincing than straight photo's as testimonies of the visual truth. Computer generated photography presents virtual images, which could never have been. It deduces things from images just as Platonic ideas serve as the models for existence. Like plasma, computer montage makes numerous layers of images visible. Armed with new technical possibilities, it strengthens the hallucinogenic surrealist experience of sandwich printing or the use of mirrors. As a result, the very idea of new technologies transforms from a means of additional memory into a magical machine that produces doubles of mental reality. Oswald Spengler defined the phenomenon of exploiting technology as a magical means for producing illusions as the characteristic feature of Hellenism, which he compared with the forthcoming post-industrial society. There is an idea that in computer generated art photography as such comes to an end because daylight loses its importance as the vehicle of image, and the suggestive tie between reality and its image loses force. It is worth remembering that photography has been called mild murder. In Russian, death is defined as "uhod na tot svet" - literally the departure to the other light. The scanning of photo's, the transformation of chemical processed images into digital ones is exactly such a departure. The transposition of images "to the other light" and their return manifestation is the essential domain of the practice of art. In computer generated photo's this practice returns to the Greek notion of "techne" and realises the principal project of art: the representation of the unrepresentable. The significance of this project is connected with the reactualisation of the experience of the classical European art. At very least the most successful and sophisticated projects in the computer art of the last three years represent "archaic", not "futuristic", design

Andrei Khlobystin

Art Critic, Curator and Art Historian, St. Petersburg, Russia.

Economy of Holy Energy

On a base of any philosophy and any technology (if we see it as a "prosthetic appliance") - from the stone axe to chemical drugs and cloning - lies an ethic (axiom). Russian culture/philosophy, art, science, literature, etc. is more religious and mystical than rational. It propounds the ethical question in a very radical way. To understand what is going on in Russia these last ten years: what can be called a "schizo(contra) revolution" - total non-stop crisis of identity for everybody, the collapse of any subject or narrative etc. - it is necessary to revise the history of Russian culture in the 20th century. Without this we cannot understand the creative "schizo (contra) revolutionary" strategies in contemporary St. Petersburg (based on economy of holy energy), which are the object of the author's research. New accents means new names: from animal-trainer and gardener up to scientist-utopianists and holy saints. Two persons will be identified.

First A.A. Bogdanov (1873-1928) - bolshevik leader, medical scientist, economist and science-fiction writer. He created a new science - "Tectology" - some moments of which are "proto-cybernetic". Everything in the world is an energy ("Machism" - from Ernst Mach).

Another figure V.I. Vernadsky (1863 - 1945) - was a geologist and creator of the theory of "Noosphere". This theory states that culture, our reason, dreams, etc. are a part of nature (the universe) in the same way as the atmosphere, geosphere, biosphere, etc. These theories are full of Hellenism/God/Eros as world energy - is everywhere and the iconoclastic spirit. This kind of idea we can find in Western anthropology in the study of shaman magic in the 1960s - 70s ("Castaneda's" world as a conscious energy), and science-fiction (Stanislaw Lem's "Solaris", filmed by Andrey Tarkovsky in 1972).

Julia Staussova

Sculptor, St. Petersburg, Russia.

Virtual Kingdom of Beauty

Virtual Kingdom of Beauty is a "Sculpture". It includes the presentation wall for projection of three-dimensional interactive computer animations, many slide projections and wooden sculptures. The observer equipped with stereoscopic glasses enters the world of digital and real art work. This world is simultaneously historical and contemporary, deals both with mythology and the current reality. It is to be experienced as if it was a dream. The "Sculpture" features a group of sculptural presentations. Using the digital world's latest technology it incorporates ancient aesthetic principles to develop a composition. Effects of disintegration and growth, gliding and flying, metamorphosis and morphings are put into practice. The viewer will be able to hold conversations with 3-D busts which one could assume to be speechless. The internet-version is planned. The exhibition will combine both an artificial and classical aesthetic. Virtual Kingdom of Beauty is a forum which superimposes on ancient sculptures seen as symbols of beauty images of Kings and Queens, Princes and Princesses living today. The images of Majesties and Royal Highnesses will be scanned to allow their 3-D measurements to be modelled together with sculptural elements of ancient mythology into one virtual unity.

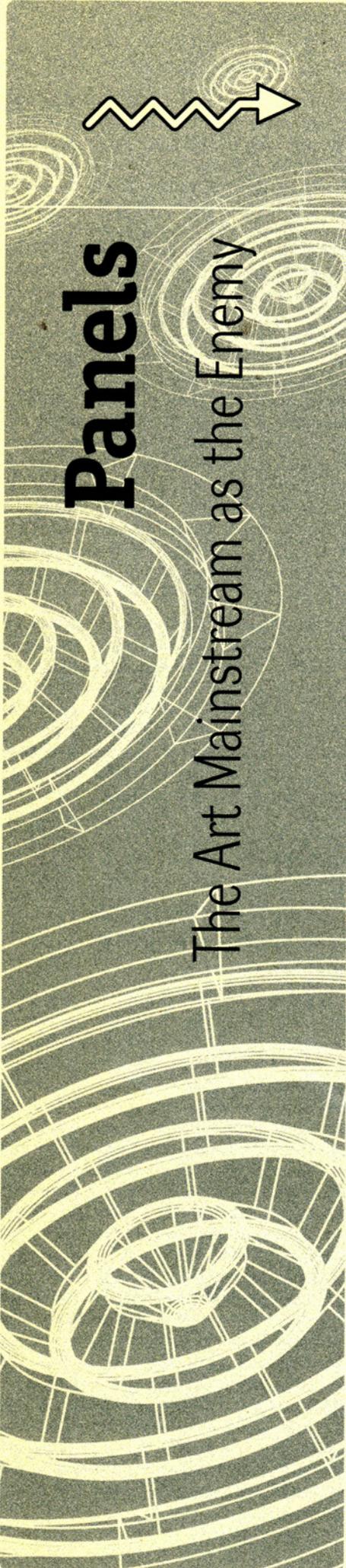
The virtual sculptures correspond with the busts of the artistic installation. The project is a three-step process: the Royal personages are scanned, artistically sculptured within virtual reality and finally produced out of wood by machine. A series of breathtaking interiors of Royal palaces will be projected onto the walls and ceiling of the exhibition space, harmonically combining virtual space and sculptures. The spectator will be able to make a new type of journey through beautiful worlds.

Olga Tobrelut

Artist, St. Petersburg, Russia.

Films: Party - Love Story M. Monroe and V. Mayakovsky and Manifesto of Neo-Academism

The film Party comprises two parts and the plot is presented in the semi-tragic/semi-ironic way. The New Actors perform for the first time in this film. The New Actors are artists, musicians, fashion models, art critics by profession and they are already well known as personalities in the local cultural situation. They are selected for precise roles to present the modes of their behaviour and personal styles. The main characters in this story are famous cultural heroes of the Russian 19th - 20th century, who inspired not only the world cultural policy, but myths, film stars, amateurs and fans. Each part of the film comprises a story which never happened in reality. But the plot is based on the quotations from the products of writers and poets who are presented in the film like characters: Pushkin talks to Gogol and Mayakovsky to Marilyn Monroe. The quotations are well known for the Russian audience since childhood and the film works like a rebus or enigma, amusing and philosophical at once. The plot is worked out around the game on the billiard table. We trace the fantasises of the beloved. On the green table cloth as on the green field. The film as the art work will be interesting because of the combination of the new technologies and the old traditional idea of the film still structured as a picture.



Panels

The Art Mainstream as the Enemy

Convenor: Paul Brown
Editor of Fine Art Forum,
the network news service of the Arts,
Science and Technology Network (ASTN),
Queensland University of Technology Australia.

The art mainstream (academies, commercial and state galleries) ignored the field of art & technology for almost 30 years. After it had become fashionable in the early 1990s they did adopt it but did so in a way that ignored or undermined the 'significant' agenda and served only to perpetuate their own outmoded paradigm.

In particular the art mainstream promote work where the value (whether aesthetic or monetary) is intrinsic to the work. This places the mainstream's adoption of art & technology as an extension of modernism (and of the concept of the avant garde) rather than a change to an extrinsic value system (in the context of postmodernism).

The panellists will address this theme from the point of view of: the academy, (Paul Brown); the museum (John Conomos); the practitioner as a subversive (Vuk Cosic and TMark) and the art & technology field as an establishment in its own right (Matthew Fuller).

Participants:

Paul Brown

Fine Art Forum, Queensland University of Technology, Australia.

Initiation and the Academy

www.bounce.to/paul_brown/
www.cdes.qut.edu.au/Fineart_Online/
www.bounce.to/fineart_forum

The academies of art have failed to respond to the challenge of new technologies. They teach students how to push a mouse about and use 'shrink wrapped' apps, which emulate traditional media, whilst simultaneously undermining attempts to develop a curriculum that can address 'significant' issues and knowledge development. They are constrained by fear of the unknown and restrained by the new 'rational' economics of higher education which prioritise funding for developments that earn immediate benefits (like enrolment income) rather than for 'prestigious' developments like a reputable (albeit potentially subversive) arts program.

The digital domain offers an emergent metamedium which has not yet consolidated and cannot therefore be named. Attempts to deal with long-term 'pre-strategic' research are often put aside in favour of programs that apply existing linguistic modalities and exploit historical media metaphors. Academic teaching is obsessed with late modernist rhetoric and the application of language where 'scholarship' replaces metalinguistic activities like creativity. The emergent culture questions and undermines the academy and its role in the initiation of new creative talent. Historical models like the development of photography, motion pictures or post impressionism suggest that the new media are likely to mature outside of and despite of the academy.

John Conomos

Media Artist, Theorist and Critic, Sydney, Australia.

Curators and Collectors

This paper will address some of the more pressing theoretical and curatorial issues facing the new media technologies and the postmodern museum. Too often established curators and museum directors are ignorant of the relevant socio-cultural formations, histories, effects and contexts of the new media in their problematic museological efforts to contextualise them in our post-mechanical age.

Consequently, artists, technologists and academics who are concerned with the new computer-inflected media are poorly served by the postmodern museum's attempt to present itself as a mass medium spectacle in our individual and collective lives. There is a pronounced aesthetic and ethical abdication evident in the more recent ahistorical drive to present the new technical media in the high-modernist 'white cube space' (O'Doherty) of today's museological landscape.

We need to remind ourselves that galleries, museums and the academy are obliged to examine contemporary museological practice in the context of a critique of amnesia as a mass-mediated malady of late-capitalist culture. This is not new in itself, as Andreas Huyssen has recently reminded us, with Adorno's, Benjamin's and Heidegger's inter-war writings on culture's obsession with memory and the fetish nature of mass cultural forms.

The postmodern museum, despite its celebratory rhetoric of online avant-guardism, should be interrogated in terms of how today's cybernetic virus of amnesia is problematising memory in everyday culture. Further, there is also a curatorial refusal (particularly in Australia, but noticeable elsewhere as well) to acknowledge the new media arts as a valid integral part of the overall conceptual and material architecture of the museum today.

Vuk Cosic

Artist, Slovenia.

One Artist – One Art System, the case of net.art.

www.vuk.org/

After the heroic couple of years of the emerging net.art, and it's whole ecology of mailing lists and festivals, it is possible to consider the passed experiences and create a front line report.

Such individual and collective practices that are involved in offering inovative models for creation and perception of art in the context of the Internet will be discussed, with the emphasis on artists browsers, alternative DNS and simillar projects.

Matthew Fuller

Writer and Theorist, I/O/D.

The New Establishment

www.backspace.org/ioid/

www.mongrel.org.uk

The diversity of digital culture outside that of the narrow definition of electronic art is far greater than that within it. A consideration of and engagement with a wider panoply of cultural, technical and political forms is an essential precondition for a democratisation of marginalised electronic and mainstream art. The best electronic art rejects the option of forming an alternate or parallel establishment. Instead, it puts into place an anti-disciplinary, anti-elitist culture of synthesis.

@™ark

Anonymous Art Collective, USA.

Economies of Art

www.rtmark.com/

In the matter of funding their endeavors, @™ark and its workers face a condition familiar to nearly every USA artist, and to others as well: there are virtually no government grants to be had. Foundations are few, and direct corporate grants are rare in the USA – especially for activities that have no bearing, or, worse, have desired negative impact, on the 'bottom line' of the donating corporation or corporations in general.

One way that @™ark has resolved this impasse is by profiting from the fundraising intelligence that has accumulated in the corporate world. @™ark has now successfully implemented a 'mutual fund' system for its projects, complete with 'celebrity fund managers,' in order to make project investment more palatable. @™ark is also considering methods culled from the political sphere: direct canvassing of pledges for actions against specific companies ('bond issues') and somewhat covert solicitation of funds from foreign groups with shared interests.

We will discuss these ideas, and also display some of the promotional tools (videos, brochures, etc.) we have employed to popularize @™ark and @™ark projects among our contributor base.

Panels

Virtual Interventions: Digital Avant-Gardes



Convenor: John Byrne
*Senior Lecturer in Contextual Studies,
Liverpool Art School,
Liverpool John Moores University*

Julia Knight
*Senior Lecturer in Media Arts, University
of Luton and editor of *Diverse Practices –
A Critical Reader on British Video Art*, 1996.*

This panel aims to critically and theoretically contextualize the use of electronic media in the production of radical and oppositional art practices which have sought to disrupt dominant notions of artistic production, distribution and exchange. The panel will be developed in relation to three key issues:

- 1. How have uses of analogic and digital reproductive technologies been deployed to disrupt dominant notions of art, artistic production, aesthetic experience and audience reception?*
- 2. What have been the critical, political, racial, sexual and cultural impact of these media in the development of radical, oppositional and or revolutionary art practices?*
- 3. How are contemporary uses of electronic and digital reproduction addressing, developing these themes and issues through radical and oppositional art practice?*

Papers, presentations, demonstrations, ideas and critical responses have been invited from historians, critics, philosophers, artists and curators who engage with this debate.

Participants:

Horit Herman-Paled

Oranim College, Kiryat Tivon, Israel.

The Disappearance of the Art Object

www.mofet.macam98.ac.il/~horit_a/horit.htm

These auratic shapes fill physical spaces and mirror endless outward and inward transactions of cultural codes.

Inscribing dominant western cultural codes into an art object produces a unique commodity with speculative exchange value. While the visual representations etched onto the object grant it its integrity, they are held captive by its definition as a commodity.

Digital technology functions as a means of producing, distributing, and viewing cultural codes, never becoming an art object. This disappearance of the object emancipates the art producers, their production, and their viewers, from the bondage of the mirrored object situated in the commercial context.

Stripping the artistic codes from their material objectivity, freeing them from the constraints of the art market, delineates new possibilities for making art, which is oppositional, radical and autonomous.

The possibility of a state of mind of detachment from material objectivity, combined with the digital means of creation, can extricate a stream of free imagination that would melt into endless web arrangements of distribution. This could result in a practical context functioning as a metaphor for fragmented society.

Are these the conditions for the collapse of the hegemony of the art object?

Julia Knight

University of Luton, UK

Redefining Terms? 'Artist' and 'Audience' in New Media Art

Artists have been quick to start exploring the potential of new media technologies for artistic expression. New media technologies have also attracted much critical interest since their interactive capabilities promise the possibility of a greater engagement on the part of the audience through physical participation in the artwork. Thus claims are frequently made that digital artworks are empowering the user while redefining the artist as a collaborator or facilitator.

Implicit in such claims is the suggestion that artist and user now play virtually equal roles in the creation of artworks. This paper will argue that this is simply not the case. Through an analysis of the discussion, promotion and exhibition of new media art, it will suggest that there is an inherent problematic with regard to the ways in which new media art is promoted and presented in the gallery context. This problematic has resulted in the critical and practical neglect of the real-life user and the continuing privileging of the artist. The paper will argue that this inhibits digital artworks from fulfilling their interactive potential and will demonstrate how this functions to limit the possibilities of building a wider audience for new media art.

Rosemary Laing

Media Artist, Sydney, Australia.

Brownwork / Greenwork

Foremost in my mind are ongoing questions of how to continue to navigate issues of representation at this point in time. My speculations have revolved around how to make images which mark and map our perceptual relations to the technologically ailed momentum of the late 20th century. Rapid transitions from here to here and from now to then have a tendency to obscure or blur whatever is in between, confronting us less with a memory of presence, than the experience of never being present, never static, always rather betwixt arrival and departure, and under the intensity of velocity and transmission.

My activities have necessitated the trespass into zones occupied by the possessors of the architectures and apparatuses associated with the accelerated geographic transit of jet planes – both commercial and Air Force. In 'Greenwork' the familiar landscape view is ruptured, aerialized and re-translated as thousands of points of electronic information. It pictures a terrain flown over by aeroplanes and punctured by invisible passages of information-in-transit. 'Brownwork' has been a consideration of how to conceptually unravel notions of labour and intention – in which technical invention, information and the momentum of proposed motion become inextricably linked.

Steve Mann

University of Toronto, Canada.

Surveillance Situationist – Humanistic Intelligence

www.wearcam.org

Humanistic Intelligence (HI) is a new field of research that challenges the notion that machines such as cameras should emulate human thought. Instead, HI asserts that humans and machines should be inextricably intertwined in a single synergistic unit where the 'intelligence' arises directly because of the human in the feedback loop of some (e.g. photographic) decision-making process as described in <http://hi.eecg.toronto.edu/hi.html>

Connected Collective Humanistic Intelligence emerges as a new kind of intelligence when multiple humans are in the feedback loop of this process. CCHI challenges J.G. Ballard's notion that we must choose between social interaction and machine interaction, for it transforms the cyborg entity into part of a community. Moreover CCHI facilitates intimacy and close synergy among individuals separated by vast distances.

Most importantly, however, is the ability of the individual or the collective to re-assert itself in the face of hegemonic forces stripping us of our dignity and humanistic property.

Mark Palmer

Staffordshire University, Staffordshire, UK.

Difference and the Virtual

Considering the notion of revolution, it is often tempting to consider the 'new' as revolutionary in itself, begetting the temptation to cast the whole within its light, inevitably leading to its own dogmatism. Thus, intrinsic to the questioning of revolution (in both senses), must be the questioning of world and our bond with it.

A thinker who addresses issues pertinent to our consideration of the 'digital revolution' is Gilles Deleuze. In his 'counter history' of philosophy, we see the development of the Bergsonian notion of the virtual. The virtual, often seen as a possibility which seeks realisation, is seen as something real (difference in itself) which undergoes a process actualisation. The virtual has no identity, no connection with the one and the same, it is a multiplicity which is explicated into identity. Thus we can consider a sensibility where the virtual is that from which the phenomena of the world emerge.

The hypothesis explored is that within the multiplicity and immateriality of the digital, we find, if we abandon the simulation of a reality which subverts its own, the most radical means that we have of encountering a sensuality of the virtual; and the revolutionary power of the digital.

Frank Reipe

Media Artist, Bremen, Germany.

ARTWARPEACE

www.thing.de/artwarpeace/

ARTWARPEACE sculpture plan is an internet/real space project built by Frank Riepe and Michael Falkenstein. Settled between virtual space and real space we are building projects concerning real space and internet. Projects are planned and constructed in the net where you find the work in its own special appearance. The real space appearances are events, happenings, video, sculptures or installations. The places for our works are any kind of public space as cities, museums, festivals or the internet.

Freie Scholle – AWP

The idea of happiness, settlement of worlds and the desire to achieve private happiness drive people on. The urbanisation of our planet is a land-art project lasting several millennia. The protagonists are those who searched for happiness and built the houses for future generations.

Learning from the settlement and building societies, we have founded Freie Scholle – AWP.

A settlement community that offers inexpensive purchase of your own home; the House of Happiness in which happiness is virtually preordained. With the aid of ancient wisdom, holistic insights, demands of the labour movement and scientific facts, we have created a system of components that guarantees happiness and satisfaction for the inhabitants.

Panels

Visual Languages



Convenor: David Crow
Head of Graphic Arts, Liverpool Art School,
Liverpool John Moores University

David Crow is currently involved in research projects based around the exploration of visual language in a typographic framework. His research partner is Yaki Molcho (Co-Director, Tel Aviv Centre for Design Studies). Earlier this year, a Liverpool Art School research award enabled David to initiate a programme of work on a dual alphabet font which will be realised through a publication entitled 'Dialogue'.

As part of this panel, the research team will present the work alongside discussion of the issues raised. This will follow an introductory session on the transitions in visual language.

Artists, designers, academics and theorists, will contribute to these developments and their interpretation at ISEA98.

Participants:

Gene Berryhill

Berryhill Productions, California, USA.

Symbols, Pictures and Signs: Social and Psychological Meaning

Symbols give meaning and order to the universe as we know it. The simple shapes of the cross or X, triangle, circle and square emerge as symbols with applications to the sun, moon, stars and the tree. These images represent and transfer social and psychological meaning. They frequently combine the practical and spiritual. Many alphabets are made up of a series of circles, squares, crosses and triangles, born out of the ancient pictographs, which was the first attempt at written communication. These basic symbols still prevail as contemporary logos as they carry significant innate meanings related to wholeness, completion, harmony, and security. The logo/symbol can be realistic or abstract, or a combination. Abstract forms can often evoke a much greater emotional response than realism.

Humans think in analogies and metaphors; symbolizing can be the visual expression. Abstracted application means that the created symbol represents an object or thing. Visual abstraction is needed to express our inner and outer environments as they combine, integrate, take on new meanings.

People will always be drawn to the aesthetic and vulnerable to its power. Therefore, consciousness of graphic symbolism is in our future and society should be aware of what is changing our lives.

David Crow

Liverpool John Moores University, UK.

Yaki Molcho

Tel Aviv Centre for Design Studies, Israel.

Dialogue

The story of Genesis recounts the confusion bestowed on language as a means of halting the progress of the Tower of Babel. The unified purpose of mind which characterised this society was the direct product of a common language. The most effective means of dividing society was to fragment its language.

As Dwight Bolinger points out, the number of languages in use today are still in the thousands, although very few, one or two perhaps, can be understood by the communities involved. Today we witness the confusion at increasing frequency as the desire for international communication and travel multiplies. Marshall McLuhan's 'Global Village' becomes an increasingly accessible place. With the discovery comes fresh challenges in communications for both individuals and corporate bodies.

Although it might be argued that we all have a national interest, a national identity to cherish impart to our new partners in dialogue, there remains an urgency to highlight our commonalities rather than our differences. The international traveller may often be surprised to find that, beneath the surface, their preconceptions are confounded. Their attitudes toward a speaker are illogically entwined with their attitude toward a form of speech.

The multiplicity of existing languages is attributed to the divorce of meaning from form. The meaning of the smallest units is scarified so that they can be re-assembled to form an infinite number of signs. This leap into the arbitrary, which has generated so many alphabets, has supplied a rich and complex system of differences for us to attach our prejudice, jealousy and mistrust.

The manufacture and export of corporate products has often traded on these perceptions by turning stereotypes into unique selling points.

National myths are authorised and underpinned through publishing and packaging.

Despite this questionable display of the selective and manipulative redefinition of national identities, commercial excursions into international language have nevertheless brought the alphabets and icons together on the same object. Naturally, this is usually confined to the level of instruction, warning and command. However, there remains a juxtaposition of differing codes where before we encountered our own familiar hand.

This diorama of languages commonplace on displays and instruction manuals for electronic goods, the statutory lists on food packaging and the directional signs in public spaces all strive to find a common speech necessary for consistent corporate communications.

As a visual artist, this is an invitation to seek ways of giving visual form to a common international speech, a speech which is appropriate for an international dialogue to set against the multinational monologue of directional and cautionary signs.

In the muddled narrative of everyday life, dialogue is the most common means by which we convey information to each other.

We must ask ourselves whether the field of cultural production should reflect only the needs of the economic field. Are we satisfied that the economic field reflects all the needs of its various societies.

Neil Grant

Manchester Metropolitan University, UK.

Moving Words of Seduction

In the context of the television medium typography has until relatively recently been largely absent as a creative element within advertising. This is in sharp contrast to the status placed on the typography in print based advertising where the relationship between the copy content and how it is typographically represented is considered crucial to the success of the advertising message. During the last decade the introduction of the desk top publishing and the development of digital typefaces has created an experimental typographic culture which has inevitably found its way into television advertising. This study examines the development of the application of animated typography in pursuit of a seductive message. The work focuses on the exploitation of the animation potential of the digital medium and the new screen reading capabilities of a contemporary audience. The work also looks at how written words move from a fixed medium to a fluid one can inform the development of web hosted communication.

Jon Hitchen

Liverpool John Moores University, UK.

Shorthand – Beaufonts

"It's a words into symbols – symbols into words thing" Beaufonts will present a case study of their symbol generating typo-utility 'ShorthandLite' and discuss various issues surrounding digital typography, generative work, interactive page design and the relationship between screen and paper based graphics. Beaufonts is a loose collective of designers based in Liverpool, Manchester and London.

Joe Magee

Designer, Manchester, UK.

Reproduction

Working as a freelance digital image-maker, Joe Magee has had over 500 digital images published – from the New York Times to Liberation. He currently has weekly images in The Guardian and The Independent.

Reproduction, the current stage in an evolving exhibition project, is a series of digital images which draws parallels between geneticist and artist – both compulsively reconstructing in pursuit of the intangible.

Gerard Mermoz

Coventry University, UK.

Re : vo-lut(te).ion

Shifting the strategy from the customary ground where arguments are constructed and fought with slogans (for or against the 'revolutionary' claims made in the name of new technologies, or whatever the issues at hand), the paper invites us to acknowledge the working of metaphors on their own claims to truth; starting with a discussion of the spatial implications of the revolution metaphor. This, in turn, provides a methodological ground for further analyses, leading towards identifying the epistemological requirements for the development of new forms of authoring and assessing the respective roles of authoring, designing and programming in a digital environment / platform [What is a (digital) author?]. The discussion is illustrated with specific to examples of digital work [including the authors own multimedia typographic work 'Re: (s) ist - ance (s)'], in which all efforts are made to place technology 'at the service of the mind'. Throughout, the paper insists on the importance of acknowledging and examining the functional interactions between communication strategies, artistic forms and genres and the constraints of codes. Finally, the paper concludes with a few concrete methodological suggestions about how we might interpret and respond to the claims and counter-claims that digital technologies are 'revolutionary'.

Scott Oram

Liverpool John Moores University, UK.

Five Miles of Liquid Fire: Making Sense of Spectacle, Looking, and Illuminated Art in Blackpool (1879 – 1998)

Despite recent efforts by the media to re-assure the public that 'Computers Don't Bite', technophobia remains a very real problem for those producers, manufacturers etc. who crave interactive response en masse to the electronic arts. Fears of dystopian 'virtual' futures only serve to reinforce (potential) consumer concerns about the breakdown of real communities and allied risk of isolation. Widespread fears of new technologies, are, of course, not new concepts with which to deal; and history is useful in pointing the way to a means of acceptance, via design, which has allowed the consumer to: interact with; feel comfortable with; and, ultimately, make sense of, many electronic innovations. By using Blackpool Illuminations (1879 – 1998) as a case study, this paper will argue that the 'first' revolution in the electronic arts in Britain owed much of its acceptance by the people to an interblend of spectacle; extended community participation and popular imagery. For interactivity with the electronic arts to take place on a mass scale, there must also be willing 'consumer' participation on a mass scale – perhaps a re-visitation of the value of spectacle, therefore, might provide one of the channels through which the technophobe might enter and engage more 'comfortably' with the 'second' electronic arts revolution.

Michael O'Shaughnessy

Liverpool John Moores University, UK.

The Concept of Fortune

The faint sounds of Radio Four drift down Honeybee Lane from Buttercup Cottage where a bearded spinster sits at an old oak desk. A ginger tom cat sleeps undisturbed at her feet whilst she applies the finishing touches to Mr Wrinkles' waistcoat with a fine sable paintbrush. The mouse in a waistcoat represents the traditional view of illustration in relation to other art and design practices.

This presentation looks at how we can reconcile the traditional approach to drawing with modern digital media practices. The work itself is based on the writings of Ancius Boethius AD 480 – 524 and is about the concept of fortune. He wrote about the relationships between man and nature, good and evil.

Julian Stone

Manchester Metropolitan University, UK

A Study of the Changing Role of Typographic Education Within the Context of Hypermedia

This paper outlines the main tenets explored in a recently completed research program at Manchester Metropolitan University in which:

Different approaches to typographic education are recognised.

Qualitative data collected through a series of interviews with lecturers in UK educational institutions enables the production of a Taxonomy of factors effecting typographic education.

Further, an exploration into the field of higher educational objectives, and later hypermedia research provided the framework in which to produce a hypermedia program targeted specifically at undergraduate students. There follows an account of an experiment involving a sample of undergraduate graphic design students. An experimental condition aimed to test the program both in terms of short term (surface processing) knowledge retention, as well as recording students attitudes towards working within the hypermedia context. Working within the same project, the control condition subjected participants to the current student-centred methods as practised in the majority of current graphic design courses.

Subsequently, students from both groups were required to participate in a short typographic workshop, after which their visual contributions (pertaining to depth processing of knowledge), were assessed and correlated with other findings. Finally, a discussion of results, the educational validity of the experiment, and suggested improvements to the program are set forth.

Panels

Work

Convenor: Dr. Richard Williams
Lecturer in Contextual Studies,
Liverpool Art School,
Liverpool John Moores University

The questions addressed by "Work" revolve around the nature of digital artworks. In what senses, for example, can they be said to exist? In what ways do they come into being? By whom are such works created? In what ways are they consumed?

Some papers here concern themselves with notions of authorship, questioning whether the accessibility of digital art and its ease of distribution has replaced traditional relationships between producers and consumers of art. The historical sources of such notions include structuralist and semiotic thought, such as the critiques of authorship made by Roland Barthes and Michel Foucault in the late 1960s. They also include practices such as conceptual art, dating from the same time. By using common materials, mass reproductive techniques, and involving the audience in the production of the artwork, conceptual art and related tendencies set out to bypass conventional forms of artistic consumption. Consideration of these historical practices and debates is a major part of several papers here. Others present a more practical demonstration of the nature of the digital artwork.

Participants:

John Levack Drever

Dartington College of Arts, Devon, UK.

The Exploitation of 'Tangible Ghosts': Conjectures on Soundscape Recording and its Re-appropriation in Sound Art

www.dartington.ac.uk/PerformanceTechnology

This paper is born out of my experience as a sound artist and sound art consumer who engages in the procurement, application and exchange of soundscape recordings; an ambivalent engagement which is aesthetically rewarding yet on reflection deeply unsettling. The aim of this paper is to give some disclosure on why this apparently harmless procedure, ie. the routine of soundscape recording/sampling/abstracting (or 'disembodying'), editing, retouching, processing, recontextualising..., may result in a durable confrontation with terror and disgust. In order to aid this endeavour – to verbalise a personal and intuitive response – the author will be referring to writings on photography, taking the photograph as an analogy for the sonic record. Also he will be dealing primarily with the recording and representation of human utterance in sound art, as it is the most recognisable and inherently the most intimate and familiar material to humans.

Nina Edge

Artist, Liverpool, UK.

Scuzi (trans. the excuse)

A representation of electronic visual data from a series of activities which relate to the language of machine code. There are no significant electronics, in these digital artworks. The discourse may be digital but the work is not electrical.

An interim summary of interactive research, now in its third year from events and actions across the UK, in mainland Europe and the USA.

Jenny Jones

Media Artist, UK.

Reproductive Work and the Creation of the Digital Image

What happens when as a pregnant woman you are simultaneously interpellated by both art and cyberspace? This paper examines the social value of reproduction within the body of the same producer. The author situates her own experience (to avoid my possible dismissal as 'case material') by reviewing a range of writings on motherhood. These are in turn related to discourses of the posthuman. Finally, Jones documents the experiences of becoming-mother and becoming-digital artist, identifying transient sites which go unseen and unnoticed by western culture.

Nelia Justo

Artist, Sydney, Australia.

Art Practice

"Throughout the past six years my sculptural work has embodied abstract notions of technology by re-circulating technological objects and methodologies within the realm of the biological and decorative. Historical and cultural sources, materials employed and forms on which the work are based, are all integral to one another." (Nelia Justo)

Recent work has explored the hybridisation between formal iconography of dress (as expressed in a range of traditional cultures) and woven textiles with contemporary iconography and functions of electronic media. A key metaphor linking these two divergent areas being the emblematic use of decorative inscription, of rank or gender in the former, juxtaposed with the caricatural, symbolic structures of electronic media. This metaphor has continued in most current work, historically relating the trade of goods between Europe and Asia and its subsequent effects on cultural and technological development.

"I am also curious in exploring apparent taboos which often prevent technologically based arts forms from addressing cultural, spiritual or ritual aspects of the social world. The conventional orientation of technologically based work, in its critique of the body for instance, often refers to it as a set of physical limitations to be extended by prosthetic devices and VR systems. My work however, regards the body as an expressive, social being existing within a culture, within a history." (Nelia Justo)

Ryszard Kluszczynski

University of Lodz, Poland.

Note on Digital Aesthetics

The basis for contemporary digital, interactive, multimedia art were created in the sixties and seventies. It was conceptual art to lay fundamentals for the present state of art, together with its products (emanations): performance art, happening, installation art. The most important characteristics of conceptualism, which are relevant for the aesthetics of new media art are:

- rejection of the idea of producing beautiful objects – forms treated as vehicles for aesthetic values, replaced by textual artistic praxis; – dematerialization of artwork;
- split between material arrangement (artefact) and its semantic extension (artwork);
- relations as new values.

Some of those features got new shapes (and entered into new structures) in post-conceptual, palimpsest-like artworks, which bridged conceptualism with formal art. But nowadays interactive arts accept again main conceptual principles. There are some changes, which do not damage, however, conceptual spirit:

- semantic object is being transformed into immaterial one;
- split between artefact and interface has been established.

In general, there is a sort of continuation between conceptual art and contemporary hipermedia art activities, as well as a close structural connection between them. This is a reason for the idea of building digital aesthetics on the conceptual fundamentals.

Maja Kuzmanovic

Media Artist, Utrecht, Netherlands.

Anti-Author(ity) Manifesto: Digital World is a Plane

www.euronet.nl/~dubois

The Present continues, as a time of transitions. Time that smears over the Past and the Future, blending them in the present moment. No need for nostalgic yearning for the chronicles of the past: colonial museum in flames. Culture in transition has its own aesthetic forms: eatable books in networked performances, data-tattooing of avatars, poetic enactments of terroristic graffiti, Freytag pyramid devoured by hypertext-viruses, formulaic episodes rising as architectural patterns, interwoven MOO-textures: in digital storyScapes traditional dichotomies converge. Digital and physical realities merge together into hybrid forms of social and aesthetical contacts. When virtuality becomes tangible, even stable grounds of the physical world seem to be fleeting and unreliable. Vision is blurred by the inestimable focus, linear time exploded into a web of space-time linkages, authority and hierarchy loosing control over their credibility. This instability and frictions between the two worlds might be the strange attractors for contacts between remote concepts and communities. The question is how do we weave the fabric of a language in transition, while the fibre still rips open randomly, through system-crashes, censorships, copyrights and incompatibilities? What impulse can tie a knot and bridge the ruptures? The answer could be: Touch.

Peter Lee

Camberwell College of Arts, London, UK.

Revolution in Representation

We have entered the greatest of all eras in human history, the Information and Communication Revolution which will dwarf any previous revolution including the industrial and technological revolutions of the recent past.

The proliferation of visual imagery is a major component of this revolution, causing society to change the manner in which it communicates information from the literal to the visual and especially the photoreal image. The notion of the photorealistic image as a canon of visual reality in computer graphics is already beginning to be displaced as greater information is demanded from 2D representations of three-dimensional spatial worlds.

This presentation concerns the representation of object surfaces in virtual 3D compositions using coloured linear contouring (with a restricted colour palette) to facilitate transcription to fine art printmaking media. The method arises from the authors earlier work and offers new options for control in the making of divisionistic type images.

Jean-Paul Longavesne

Ecole National des Arts Decoratif de Paris, France.

The Touch of Art in the Age of Digital Paintings. Digital Irony?

www.ensad.fr/longa/fete/

It is expected that machines will be able to generate paintings on canvas in real time autonomously, creating new choices in areas of artistic reproduction and production; replacing the pictorial hand movement of the painter. Then will emerge radically new questions, concerning the understanding of art and even the nature of our relationship to the creation. The convergence of the real and virtual worlds impacts today not only communication and information, but also art in its modernity with such importance, that painters may not ignore the possibilities offered by the development of interfaces during the last decade. Faced with the possibilities offered by data processing painting, the artist must reconsider the relationship between the artistic gesture and the paint on the canvas namely the relation between the invisible and the visible, between palpable product and model, between picture and its symbolic double and the contribution of the metaphorical, mathematical, intellectual and sensual to the essence of the pictorial work.

The digital irony holds in that, henceforth the pictorial image, escaping the sphere of metaphors, is joining the world of models, at the same time that the potential image that seeking to compensate its clean limit, propose tactility, textural and pictorial analogies that allow it to interface real & virtual worlds.

Louisa MacIver

Duncan of Jordanstone College, Dundee, Scotland, UK.

Chastity belts, Voluntary incarceration, Sexual politics & Art

"Like art, sex is fraught with symbols: a perfectly humane eroticism may be impossible....desire is intensified by ritual limitations. Hence the mask, harness and chains of sadomasochism" Camille Paglia

"The Pledge of Fidelity, The Pledge of Self Discipline" is an investigation into the psychological and anatomical effects of wearing a female chastity belt.

"For 2 months I wore a chastity belt, recording my thoughts and feelings on a personal cassette recorder. The result was an installation, produced in collaboration with Karen F that took the form of an audio visual diary; a documentary of a performance work which confronted the politics of body ownership, sexual power and control.

In using my body as the site for social research my intention was to begin to understand through experience what it is like to give up the rights to my body sexually". (Louisa MacIver)

Nancy Reilly-McVittie

Manchester Metropolitan University, Manchester, UK.

The Presence of Absence (A-gain)

The Presence of Absence (A-gain) aims to explore the relationship Timothy Leary promulgated between the hallucinogenic drug culture of the 1960's and the computer/ virtual world revolution of the last twenty five years. The concept that utopian ideologies can not deliver more than they promise will be a running concern. The interrogation of the materials takes the form of an interactive performance game. The chair establishes a structural game which allows the members of the panel to contribute their materials through a process of association with other materials being presented. The material is drawn from divergent sources and uses different technologies.

The idea of the game structure allows for a 'performative' element to ignite insights from an association of materials. Using a low grade performance environment the forum will engage in the notion of remembering. A memory is a re-constructed experience that operates, as the 'earth Mother' of all 'virtuality'. Like all Mothers in the act of reminiscence the articulation of an accurate picture is a fleeting image coloured by time.

Gill Melling

Manchester Metropolitan University, UK.

Removing the Goal Post

www.bmbient.demon.co.uk/

Revolution considered through a textual eruption of poetic play, whereby interactivity and digitalisation de-centres the author, may be a way of also de-centering the polarisation associated with the term 'Revolution'. A critique must emerge of the way new technologies are appropriated, read and thus written, becoming perhaps fetishized; a repetition of 'toys for the boys', where the immediacy of result and control take precedence over ephemerality and jouissance?

As Barthes suggests 'As institution, the author is dead... but in the text...I desire the author.' (Roland Barthes, *Pleasure of the Text*, Hill and Wang, 1975, p.27) Therefore how does this desire form the interactive space in its image? If desire and fetish can be read for a vacillation and deferral rather than a projection and a goal, surely the uniqueness will be removed from new technology as the answer, to a re-reading of the materiality of existing and traditional creative processes.

Perhaps the question then becomes whether new technology can shift the emphasis of practice into a reconsideration of cultural product, where the value of interactivity of process; between people, people and machines, person and materials or machine and materials, displaces that of finished article.

Julianne Pierce

Artist / Curator, Australia.

The Mutant Offspring of Information Economies

With the advent of the world wide web came the idea of a globally connected network of information and on-line communities. It was part of the ideals of the post-industrial 'information age', promising immediate connectivity, instant access and ease of communication. The hype and promise of this new era has been created and radically influenced by the information moguls - whose communications and media corporations control a huge proportion of global information. In an ironic twist, empire-builders such as Murdoch, not only output the information, but influence or own the methods of transmission such as computer and satellite networks, television, the cinema and information superhighway.

This nexus of information command and control creates a situation where the content is driven by profit, and the nature of information is dictated by the tenets of consumerism. Whoever controls this information influences and dictates not only global economies, but the global status quo. Information is big business, and its influence is exerted in all spheres of public and private life. Media corporations directly influence state regulation of telecommunications law and ownership, so in many ways the state succumbs to and is indebted to these media empires. The concept of information in the late 1990s is intertwined in a highly complex process of relationships between the state, media corporations and the public sphere.

The mutant offspring of information economies' will dissect the mass media, opening up the body of information for analysis and scrutiny, it will ask the question - how as cultural thinkers and practitioners can we work as active agents in defining and creating a diverse and smart information culture? Artists are no longer passive agents... we must engage and use the tools of information to understand the nexus of state and power which is driving the new digital era.

Birgit Richard

Johann Wolfgang Goethe University, Frankfurt, Germany.

Modelling Death to Get Real Death. The Re-construction and Repetition of the Live/Death Ambivalence in Artificial Life.

In light of the possibility of creating artificial life in a computer processor, the question arises as to whether a phenomenon like death is even a matter of significance in a binary world that appears to be infinite and eternal, and what relationship exists between these death phenomena and the real thing. We can differentiate between two forms of immaterial death: artificial death as a programmed parameter, and self-emergent death in accordance with the biological model. At first sight the new arising virtual worlds appear like paradise before the original sin, places without the determination of existence. From the point of their basic technological characteristics virtual worlds seem to be built for eternity. So aging and death have to be implemented artificially. A phenomenon like death has to be existant in cyberspace because digital and biological worlds are built up analogically as parallel, not as opposite worlds. The leading principle for all artificial worlds and creatures is the paradigm of a double death by Jacques Lacan (symbolic/absolute-natural death) and an undefined twilight zone between the two deaths. The presence of a virtual death in the artificial world is for sure, but how can it be defined? Is virtual death a mutation or a transformation into other living forms avoiding bringing things to an actual end or are the artificial reconstructing and reanimating something that is already lost in reality like forms and rituals of coping with death? By looking at examples like computer-gaming (Doom, Creatures) and electronic gadgets like the Lovegety and the Tamagotchi this paper tries to find out about the symbolic forms of death in artificial worlds.

Mary Stieglitz

Iowa State University, Ames, USA.

The Photographic Image: Revolution / Iteration

This illustrated presentation explores the intersections of photography with painting in the nineteenth century, and with computers in the twentieth century. Both a theoretical and historical perspective, it accounts for the aesthetic, technological, and ideological factors that shaped photography. Early photography revolutionized image making, and visual imaging is again being redefined in the electronic era.

The camera transformed visual information in the nineteenth century. Digital technologies now reiterate the ways we create and perceive photoimages. Photographic perceptions change. We attributed a veracity to photographs rarely accorded other visual arts. Photos were never 'real', yet new skepticism has evolved with digital photography's manipulative dexterity. Selection, manipulation, and outright fabrication of the image from camera to print always occurred. Early photographs were staged, composited and otherwise contrived. Photography invariably intersected with other methods, producing hybrid forms.

Current interplay between photography and digital technologies elicits new formulations. Confluence and collision occur when new tools combine with conventional techniques, yielding hybrid forms. Intersections provide fertile straits for contemporary imagery. The artist remains the source of ideas; tools and techniques only serve. The conceptual and visual encounter endures.

Projected images, from early photographs through cutting edge contemporary works, illustrate the dual revolutions of photography.

Greg Wagstaff

University of Dundee, Scotland, UK.

Utopianism: From Cage to Acoustic Ecology

In January 1992, seven months before his death, John Cage presented his lecture - 'Overpopulation & Art' at the Center for Humanities, Stanford University. Cage relates various ideas about social change; the role of art (or artlessness), globalisation, education, and environmental concerns. Cage's position - social / anarchistic / libertarian - is that social revolution must occur at a grass-roots level: that change is bought about through positive individualism not government dictates; an (electronic) democratisation of knowledge; that art, or more specifically creative mind, is part of this gradual revolution - a utopian transformation.

Gregg Wagstaff will be reading John Cage's 'Overpopulation & Art' with a simultaneous performance of Cages Four 6 composed in the same year. This will be followed by a paper presentation discussing Cages text and a broader socio-environmental artistic discourse in the light of an Ecological paradigm. In particular, the relevance of Social Ecology (Murray Bookchin) and the emerging discipline of Acoustic Ecology (the study of the effects of soundscape on the physical responses or behavioral characteristics of species living within it).

Simon Yuill

University of Dundee, Scotland, UK.

grammar-law-algorithm

The user of a computer-based work operates as a subject under the conditions and restraints of the algorithm which generates and controls that work. The algorithm describes a grammar of possible events open to the interpretations of the user. The user's responses to and interactions with the algorithm are judged in terms of legal and illegal operations. The algorithm is an act of law that sets forth a structure of potentials only ever realised through action and deed.

These propositions are addressed through a reading of Jewish Law informing an examination of interactivity in terms of personal ethics and signifying practice. The Law is a set of potentials for Jewish life, continually negotiated through one's daily living, through which one identifies oneself as both subject and proponent. The deeds and festivals of Jewish observance recall, through the re-enactment of Biblical and legal texts, the historical basis of one's subjectivity. Through one's actions one is immersed in the Law, one interacts with the Law and realises the Law. Observance of the Law is an interpretative activity conducted in the first-person, present tense.

From this context the paper opens the questioning of our living with and within the law of algorithmic construction.

symposium timetable – thursday 3 september

plenary address: Tim Cole 9.30am – 10.30am, Paul McCartney Auditorium, LIPA

registrations 9.00am onwards break 10.30am – 11.00am lunch 12.30pm – 2.00pm break 4.00pm – 4.30pm

11.00am – 11.30am	11.30am – 12.00pm	12.00pm – 12.30pm	2.00pm – 2.30pm	2.30pm – 3.00pm
Bio-Architectures, Virtual Cities: The Revolutionary Human Community LIPA, Floor 4, Room 24				
Simon Penny Devirtualisation: Toward a Critical, Embodied Interactivity.	Centre for Metahuman Exploration Using Household Appliances to Control Humans, Robots and Cyborgs, Empathetic Avatar/Surrogate Self, Novice Operation of a Desert Rover	Centre for Metahuman Exploration Using Household Appliances to Control Humans, Robots and Cyborgs, Empathetic Avatar/Surrogate Self, Novice Operation of a Desert Rover	Anno Mitchell Social Control in Non-Real Architecture	Graeme Brooker The Digital City and the Visceral Brain
Computers in Theatre: New Dimensions for Stage, Actors & Audience LIPA, Floor 4, Room 33				
			Claudio Pinhanez Computer Theatre	Mark Joseph Sigaud Why Bring the Virtual World onto a Classic Stage?
Evolution 2.0 LIPA, Floor 4, Room 23				
Sonia Landy Sheridan Generative Systems and Generative Art	Jane Prophet Sublime Ecologies and Artistic Endeavours: Artificial Life and Interactivity in the On-line Project Technosphere.	Peter Beyls Synthetic Creatures in Context	Pamela Jennings The Book of Ruins and Desire	Andrew Shoben Greyworld: Sound Installation
Mediated Nations Liverpool Art School, Ground Floor, Room 7				
Jose Carlos Mariategui Techno-revolution	Dee Dee Halleck Deep Dish Satellite Network	Marguerite Byrum A Manifesto for Electric Propagandists	Olga Kisseleva Anticipated Future – Controller and Controlled: Interchangeability	
Paradiso Artificiale – Rehearsals for Death: Avatars & the Post-Biological Experience LIPA, Floor 4, Room 25				
			Yannis Paniaras Digital Courts	Charlotte Chiang/ Steve North Bad Men, Good Men and the Data Ganger Cometh
Revolution of the Public Sphere LIPA, Floor 1, Atrium Studio				
Neil Grant/Lawrence Giles Arming the Gallery	Patrick Lichty The Panic Museum: Memory and Digital Alzheimer's in the Information Age – Exhibition and Conservation in the Digital Arts	Michael Punt So What's New About This Revolution? Rethinking History	Roshini Kempadoo Time Frames	Susanna Paasonen ...and there was light! Rhetorical Performances in the Digital Realm
Sound Government Always Leads to Revolution LIPA, Floor 5, Room 8				
Nigel Helyer RPM – Virtual Bodies Meet Real Sound	Sophea Lerner Things That Go Ping	Norie Neumark Revolting Sounds: The Body/Machine with Organs	John Potts Revolution Sounds Like.....	
St. Petersburg 3.0 LIPA, Floor 4, Room 23				
Work LIPA, Floor 4, Room 49				
John Levack Drever The Exploitation of 'Tangible Ghosts': Conjectures on Soundscape Recording and its Re-appropriation	Nina Edge Suzi (trans. the excuse)	Jenny Jones Reproductive Work and the Creation of the Digital Image	Nelia Justo Art Practice	Ryszard Kluszczyński Note on Digital Aesthetics

3.00pm - 3.30pm

3.30pm - 4.00pm

4.30pm - 5.00pm

5.00pm - 5.30pm

5.30pm - 6.00pm

Andrea Wollensack

Positioning the Subject:
Surveillance in Digital Mapping

Kathy Rae Huffman

Females Online

Andrea Nagy

Technological Embodiment of the Female
Body and Voice via Radio Transmission

John E McGrath

After Privacy: Surveillance, Sexuality
and the Electronic Self

Gillian McIver

Culture, Technology and Power:
Creative Leisure and Social Change

Ken Perlin

Bringing Interactive Animated
Characters Out to the User

Kevin Atherton

Gallery Guide

George Coates

Theatre and Digital Media

Jenny Marketou

Smell Bytes

Mark Rudolph

Trance, Fixation, Serenity and Death: Meaningful
Repetition: If there is One Moment only, let it be here
in the falling Snow. Out on the Wild grasslands, I am You

Hikmet Tabak / Joe Cooper
MED TV

Introduction to MED TV

Hikmet Tabak / Joe Cooper
MED TV

John Hopkins

word-dialogue-Light-revolution-action:
breaking the glass

Digital Print

LIPA, Floor 5, Room 8

Raz Barfield

Integrating Digital Technology
and Autographic Printmaking

Paul Coldwell

Rebelling Against Perfection

Sue Gollifer

Intercreativity

George Whale

Towards a Synthesis of Text and Image

Ekaterina Andreeva

Computer Generated Photography
and Neoclassical Sensibility

Olga Tobrelut

Films: Party - Love Story M. Monroe
and V. Mayakovsky and Manifesto
of Neo-Academism

Julia Straussova

Virtual Kingdom of Beauty

Andrei Khlobystin

Economy of Holy Energy

Valery Alahov / Igor Verichev
Yuri Leanik

New Composers

Maja Kuzmanovic

Anti-Author(ity) Manifesto:
Digital World is a Plane

Louise MacIver

Chastity belts, Voluntary incarceration,
Sexual politics & Art

Nancy Reilly McVittie

The Presence of Absence (A-gain)

symposium timetable – friday 4 september

plenary address: David Toop 9.30am – 10.30am Cocu Fusco 5.45pm – 6.45pm, Paul McCartney Auditorium, LIPA.

performance: Gregg Wagstaff 1.00pm – 1.30pm, Atrium, LIPA

registrations 9.00am onwards break 10.30am – 11.00am lunch 12.30pm – 2.00pm break 4.00pm – 4.30pm

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12.00pm – 12.30pm

2.00pm – 2.30pm

2.30pm – 3.00pm

Bio-Architectures, Virtual Cities: The Revolutionary Human Community

LIPA, Floor 4, Room 24

Tsutomu Miyasato

The Magic Light for Viewing the Inside of Objects
A Supernatural Interactive Display

Ryohei Nakatsu

Integration of Art and Technology for
Realising New Communications

Andrea Plante
Inoue Seiko

Emotions and Cultural Diversity

Margaret Morse

Does Collective Intelligence Have a Body?

Jill Scott

The Revolution of the Digital Bodies

Digital Aesthetics

LIPA, Floor 5, Room 08

Yvonne Spielman

Is there an Avant Garde in Digital Arts?

Zara Stanhope

In Search of a Digital Aesthetic

Dena Elisabeth Eber

The Construction of Artistic Truths
in Digital Images

Mark Little

Towards a Digital Aesthetic

Niranjan Rajah

Installation Art at the End of Geography

Revolution of the Public Sphere

LIPA, Floor 1, Atrium Studio

Maria Fernandez

Post-Colonial Electronic Media Theory?

Norma Wagner

The Escatological Expectation

Pervaiz Khan

Partition

Josepha Havemann

Are There Revolutionary Electronic Ethics?

Tessa Elliot

Pose in the State of Flux

Sonic Boom

LIPA, Floor 4, Room 23

Peter Zinovieff

Electronic Music Studio

Joel Chadabe

A Brief History of the Interactive Instrument

Brandon Labelle

Genius Loci: Music,
Carnality and Contact-sound

John Kefala-Kerr

Bouquets and Backing Tapes: Karaoke Opera

Max Eastley

Natural Systems

The Art Mainstream as the Enemy

LIPA, Floor 4, Room 25

Paul Brown

Initiation and the Academy

Vuk Cosic

One Artist – One Art System,
the case of net.art.

Virtual Interventions: Digital Avant Gardes

LIPA, Floor 4, Room 33

Steve Mann

Surveillance Situationist - Humanistic Intelligence

Julia Knight

Redefining Terms? 'Artist' and 'Audience' in
New Media Art

Horit Herman-Paled

The Disappearance of the Art Object

Frank Reipe

ARTWARPEACE

Rosemary Laing

Brownwork/Greenwork

Visual Languages

Liverpool Art School, Ground Floor, Room 7

David Crow
Yaki Molcho

Dialogue

Gene Berryhill

Symbols, Pictures and Signs:
Social and Psychological Meaning

Jonathon Hithchen

Shorthand, Beaufonts

Julian Stone

A Study of the Changing Role of Typographic
Education Within the Context of Hypermedia

Neil Grant

Moving Words of Seduction

Work

LIPA, Floor 4, Room 49

Peter Lee

Revolution in Representation

Jean-Paul Longavesne

The Touch of Art in the Age of Digital Paintings.
Digital Irony?

Gill Melling

Removing the Goal Post

Julianne Pierce

The Mutant Offspring of Information Economies

Birgit Richard

Modelling Death to Get Real Death.
The Re-construction and Repetition of the
Live/Death Ambivalence in Artificial Life.

3.00pm - 3.30pm

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4.30pm - 5.00pm

5.00pm - 5.30pm

5.30pm - 6.00pm

Claudia Benthien

Tactile Interfaces and Bodily Communication:
The Rhetorics of Touch in Virtual Reality

Nina Czegledy

Digitized Bodies - Visual Spectacles

Emma Posey

Technique in Place and Technology
with Reference to Contemporary Fine Art

Gerry Beegan

The Uptodateograph

Norie Neumark

Time for Sound

Don Ritter

My Finger's Getting Tired: Unencumbered
Interactive Installations for the Entire Body

Zina Kaye

(humble under-minded) psychic rumble

Todd Winkler

Mapping Movement to Sound:
Recent Sound Installation & Dance Projects
using Movement Sensing Systems

Heidi Grundmann

Improvised Radio

John Conomos

Curators and Collectors

®™ark

Economies of Art

Matthew Fuller

The New Establishment

Mark Palmer

Difference and the Virtual

Jo Magee

Reproduction

Scott Oram

Five Miles of Liquid Fire: Making Sense of
Spectacle, Looking, and Illuminated Art
in Blackpool (1879 - 1998)

Mike O'Shaughnessy

The Concept of Fortune

Gerard Mermoz

Re : vo-lu(ta)tion

Mary Stieglitz

The Photographic Image: Revolution/Iteration

Gregg Wagstaff

Utopianism: From Cage to Acoustic Ecology

Simon Yuill

grammar-law-algorithm



revolution98

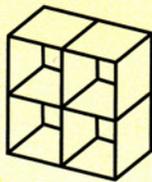
exhibitions and events in Liverpool and Manchester

revolution98 is the largest and most ambitious programme of electronic arts projects ever staged in Britain. Taking in more than 100 diverse projects by artists from over 25 different countries, it takes place simultaneously in Liverpool and Manchester and can be found in galleries, theatres, bars, clubs, trains and on the internet.

revolution98 is organised by the Foundation for Art & Creative Technology as part of isea98. ISEA, the annual International Symposium on Electronic Art is the foremost event of its kind in the world. isea98, the ninth symposium, has been organised as a partnership between the Foundation for Art & Creative Technology (FACT), Liverpool John Moores University and Manchester Metropolitan University.

FACT takes great pleasure in welcoming all isea98 delegates to Liverpool. We hope you'll join the thousands of visitors to revolution98 in enjoying the six weeks of exhibitions and events staged across the cities of Liverpool and Manchester.

**For ticket information and programme updates,
call the revolution98 hotline: 0151 707 9533**



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Telephone +44(0)151 709 2663 Facsimile +44(0)151 707 2150
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Liverpool

Albert Dock

Nigel Helyer

Bluecoat Gallery

Keith Piper
Elizia Volkmann
Andrea Zapp

Bluecoat Concert Hall

Mercurial States Roundtable

Cafe Internet

Top 20 Websites

Cream

Granular Synthesis
Sub. merge

LIPA

REV

Open Eye Gallery

Kristin Lucas
Black Box (Rory Hamilton, Phillip Lai, Jake Tilson,
Jane & Louise Wilson, Graham Wood),
Su Grierson, Kristin Lucas

Revolution Bar

Heavy Rotation

Tate Gallery

Willie Doherty

Tea Factory

manol Atorrasagasti & Yan Duyvendak
Gina Czarnecki
John Fairclough & Maureen Lander
Nina Fischer & Maroan El Sani
Nelia Justo
Luke Jerram
Feng Mengbo
Suzanne Treister

Telewest Communications

Tapio Makela & Susanna Paasonen

Trains

AudioRom

Unity Theatre

Le Corps Indice, Haruo Ishii

Manchester

Castlefield Gallery

Nedko Solakov

Chinese Arts Centre

Tonebalance

Cornerhouse

Johan Grimont
Perry Hoberman
creenings Programme

Cyberia

Lucia Grossberger-Morales
Top 20 websites

Dadi Building

Adele Myers
Revolting
Virtual Revolutions

Green Room

Doocot
Illuminations Television

Holden Gallery

Luchezar Boyadjiev

Museum of Science & Industry in Manchester

AudioRom
John & Paul Butler
Concept House98
Judith Goddard
Jennifer & Kevin McCoy

Revolution Bar

Heavy Rotation

revolution98 Curatorial team

Director: Eddie Berg
Lead Curator: Charles Esche
Revolting Project Manager: Micz Flor
Project Manager and Curator: Cindy Hubert
Associate Curator: Virtual Revolutions: Iliyana Nedkova
Project Assistant: Fee Plumley
Associate Curator: Sound & Music: Helen Sloan
Associate Curator: Mercurial States: Mickela Sonola

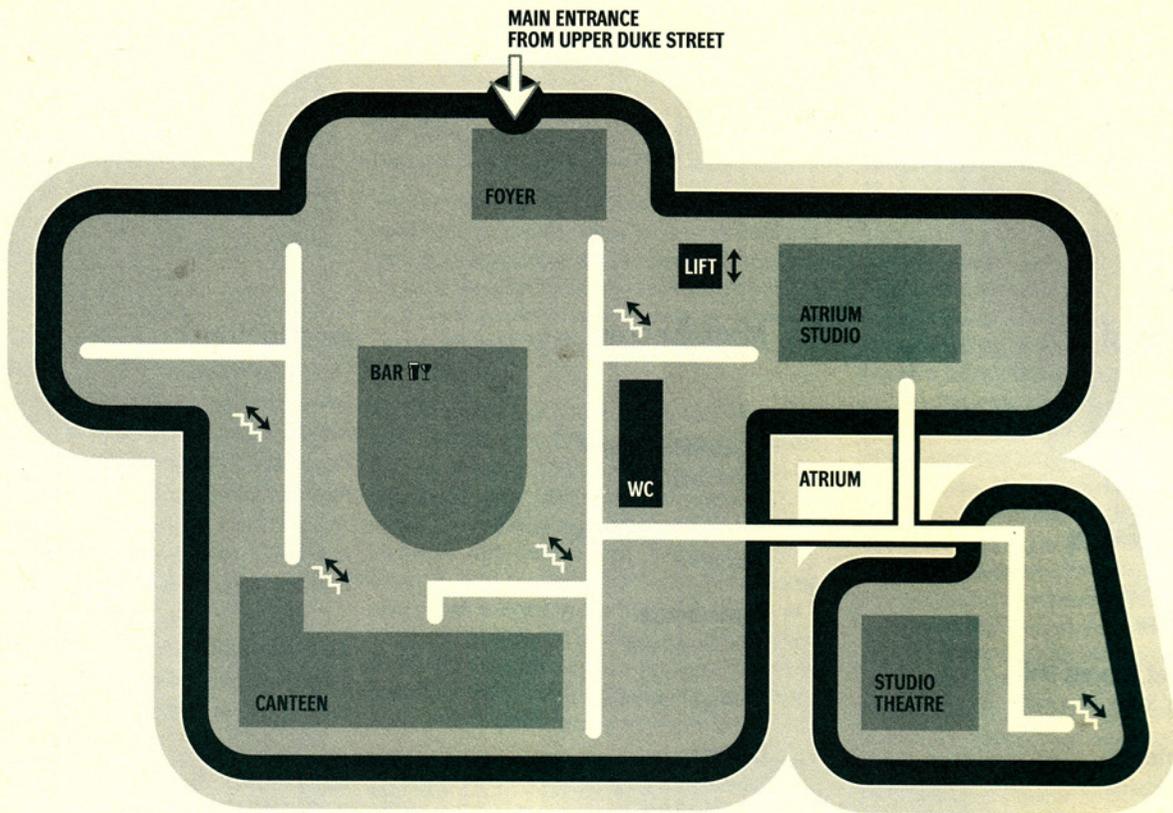
revolution98 Project advisors

Steven Bode, Colin Fallows, Bush Hartshorn,
Helen Sloan, Mike Stubbs, Christine Van Assche

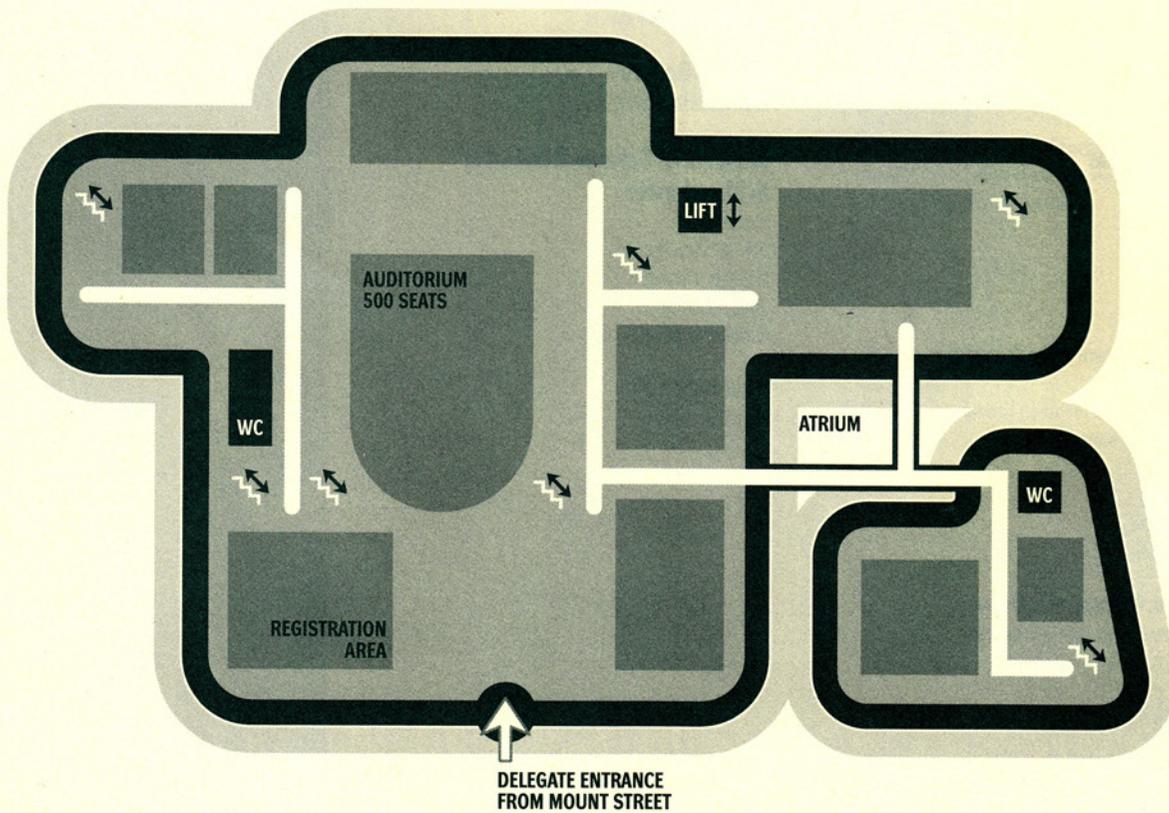
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Virtual Revolutions: vr@fact.co.uk
Collaboration Programme: cp@fact.co.uk
Imaginarium: imaginaria@fact.co.uk
Eddie Berg: berg@fact.co.uk

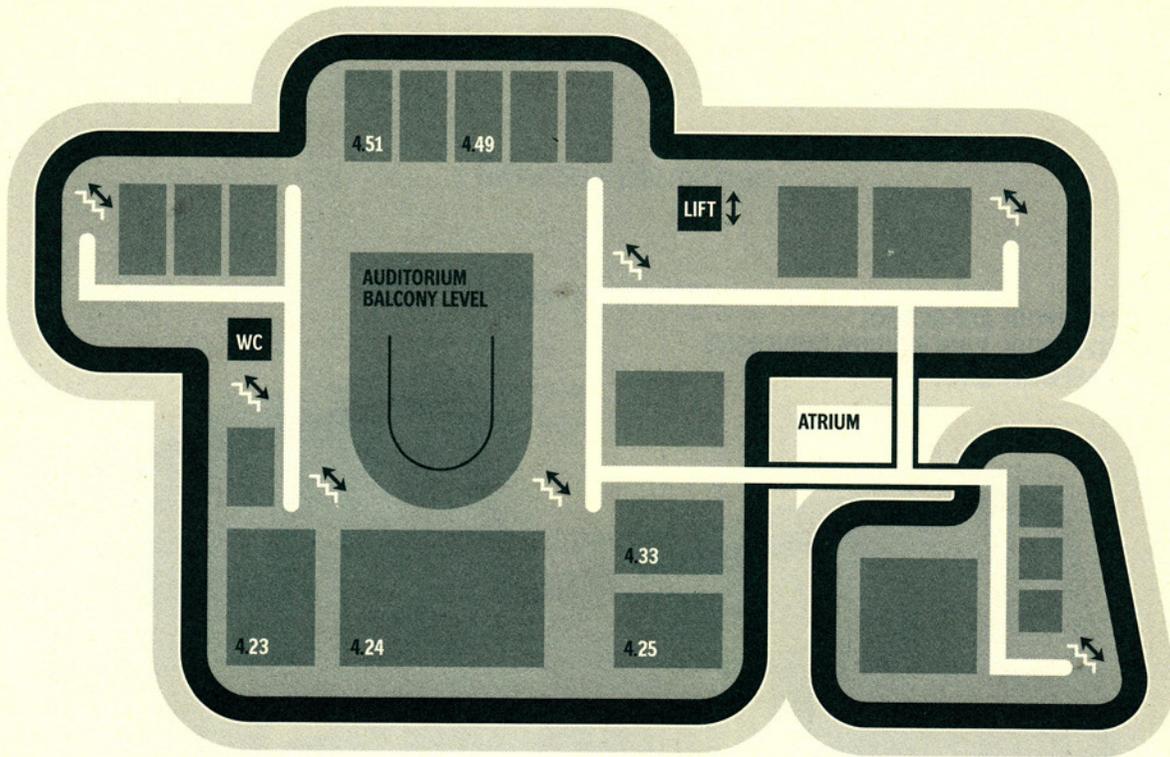
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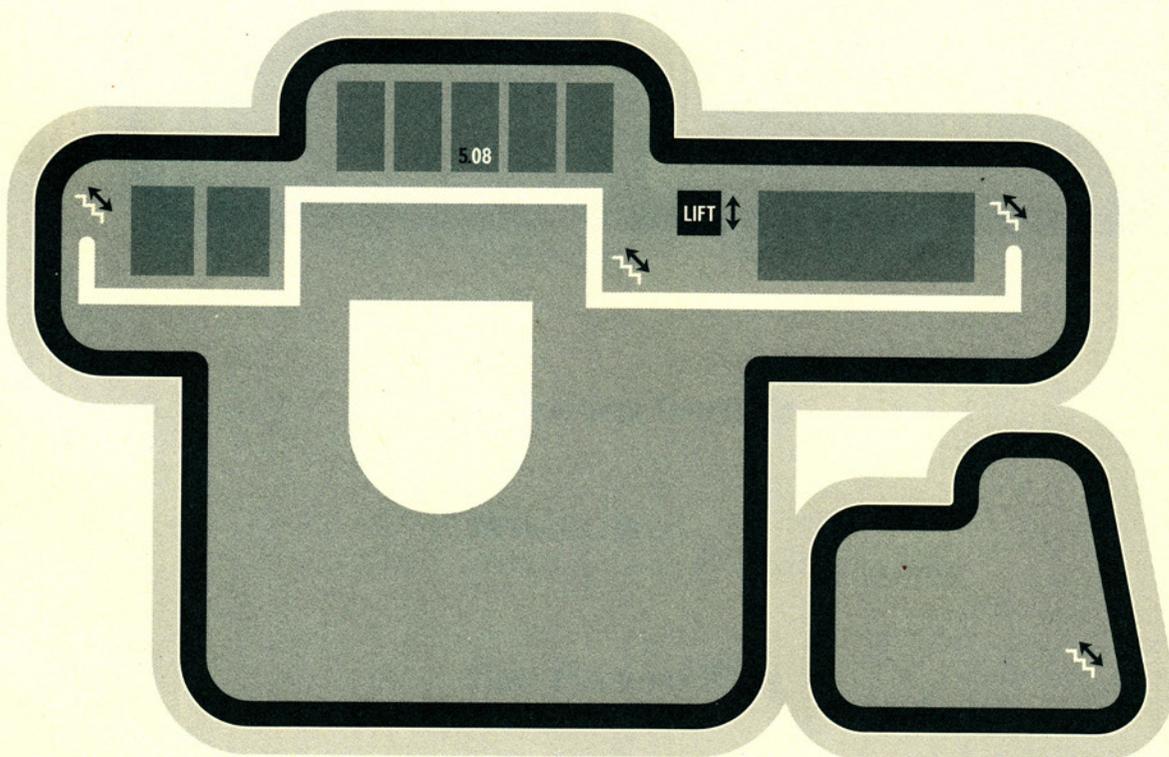
**LIVERPOOL INSTITUTE FOR PERFORMING ARTS (LIPA)
LEVEL 2. GROUND FLOOR**



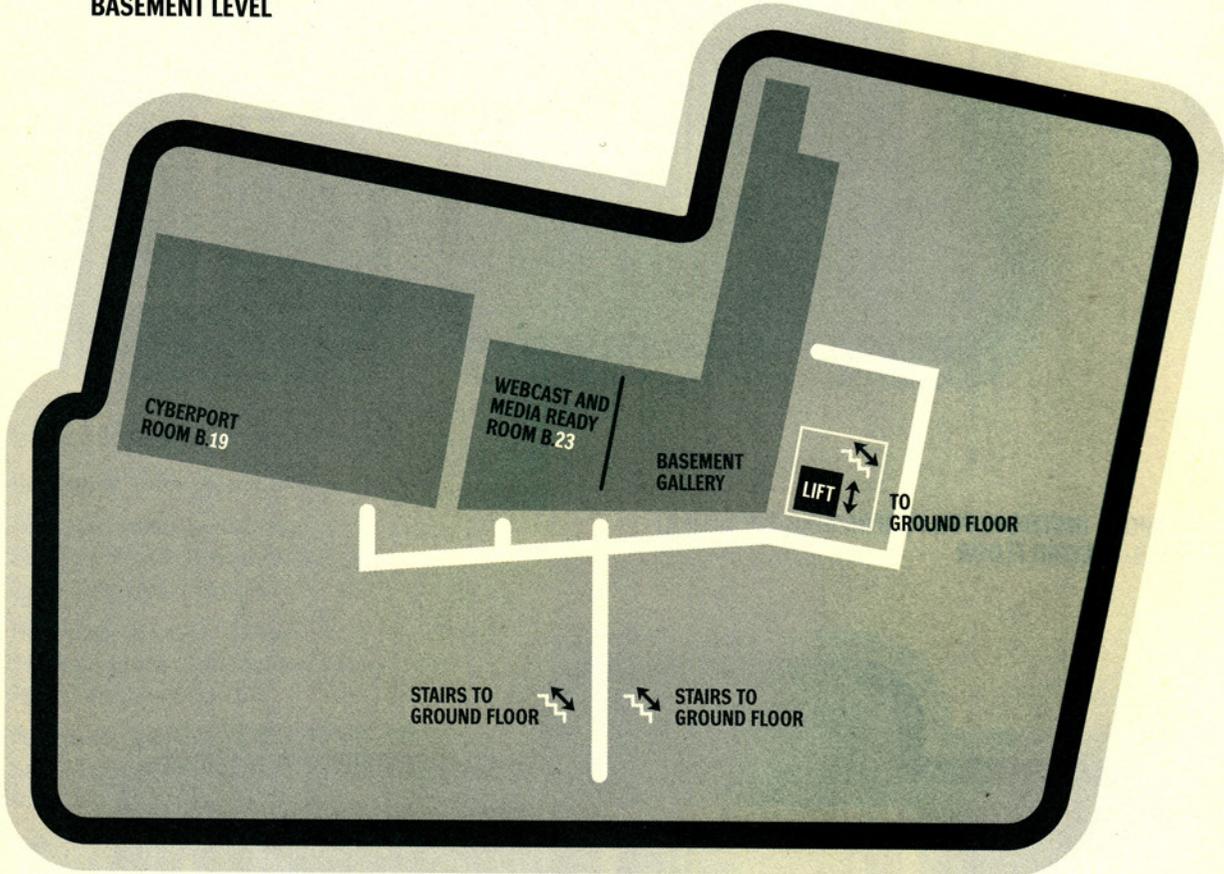
LIVERPOOL INSTITUTE FOR PERFORMING ARTS (LIPA)
LEVEL 4. FIRST FLOOR



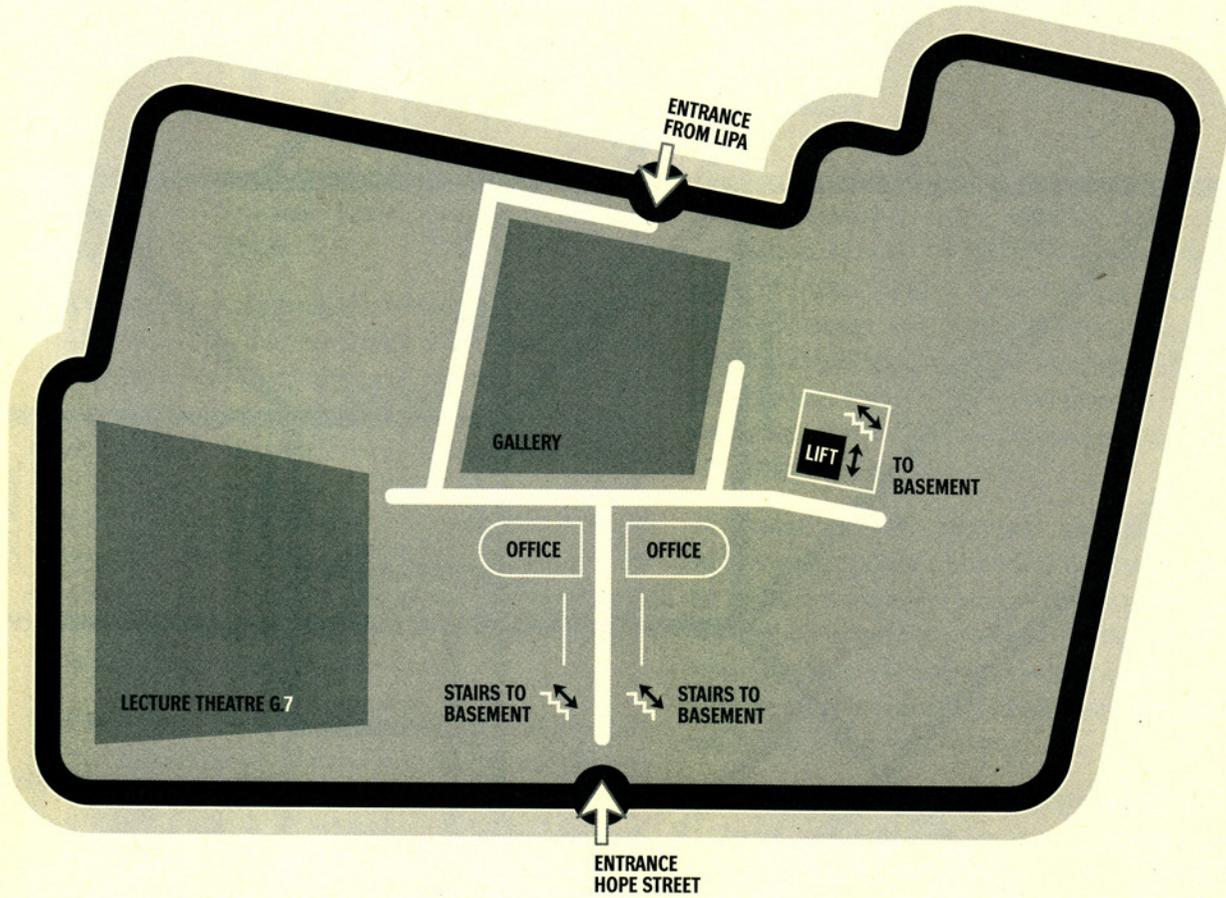
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LEVEL 5. SECOND FLOOR



LIVERPOOL ART SCHOOL
LIVERPOOL JOHN MOORES UNIVERSITY
BASEMENT LEVEL



LIVERPOOL ART SCHOOL
LIVERPOOL JOHN MOORES UNIVERSITY
GROUND FLOOR



**MAP OF LIVERPOOL CITY CENTRE
SHOWING VENUES, HOTELS AND RAILWAY STATIONS**

