

**CAiiA**

Centre for Advanced Inquiry  
in the Interactive Arts

**CONSCIOUSNESS**

*reframed*

ABSTRACTS

**5**

2/4/5.07.2003

**U W C N**

UNIVERSITY OF WALES COLLEGE, NEWPORT  
COLEG PRIFYSGOL CYMRU, CASNEWYDD

[www.newport.ac.uk](http://www.newport.ac.uk)

---

# CONSCIOUSNESS

*reframed* 5

art and consciousness in the – post biological era

## Abstracts

Abstracts of the Proceedings of the Fifth International CAiiA Research  
Conference held July 2–5, 2003 at the University of Wales College, Newport.

Roy Ascott, Editor

---

## Conference Programme Committee

**Professor Roy Ascott**, Founding Director of CAiiA-STAR, University of Wales College Newport and University of Plymouth, UK. (Chair)

**Professor Ernest Edmonds PhD**, Professor of Computation and Creative Media, Faculty of Information Technology, University of Technology, Sydney, Australia

**Professor Mauri Kaipainen PhD**, Professor of Applied Cognitive and Information Processing Science, Media Lab, University of Art and Design Helsinki, UIAH, Helsinki, Finland.

**Mike Phillips**, MA. Director of the Institute of Digital Art and Technology [i-DAT] School of Computing, University of Plymouth, UK.

**Michael Punt PhD**, University of Wales Reader, and Editor-in-Chief, Leonardo Reviews, MIT Press.

**Professor Jill Scott PhD**, Department of Cultural Studies in Art, Media and Design, Hochschule für Gestaltung und Kunst, Zürich. Switzerland.

**Professor Victoria Vesna PhD**, Chair of Design|Media Arts Department, University of California Los Angeles, USA.

## Abstracts

Conference convened and directed by Roy Ascott  
Conference Manager: Kay Bosanko-Sheady

Published by the University of Wales College, Newport

ISBN 1-899274-26-X

British Library Cataloguing in Publication Data

A catalogue record for this book is available from  
the British Library

© 2003 University of Wales College, Newport

# Contents

<b>Preface</b> .....	VI	<b>Kieran Lyons: Military avoidance in 1912. Duchamp and the Jura-Paris Road</b> .....	13
<b>Eril Bailly: Real Virtuality: The Authenticity of Electronic and Non-electronic Environments</b> .....	1	<b>Roger F Malina: Dark Energy, Dark Matter, Art and Epistemology</b> .....	13
<b>Paul Brown: The Idea becomes a Machine: AI and Alife in early British Computer Arts</b> .....	1	<b>Christina McPhee: (an) Architecture, Eros, Memory: the NAXSmash Project</b> .....	14
<b>Mauro Cavalletti: Creative Communities in Networked Hybrid Spaces</b> .....	2	<b>Daniel Meyer-Dinkgräfe: Simultaneity, Theatre and Consciousness</b> .....	14
<b>Donna Cox: Metaphorical Vestiges on Info-Viz Trails</b> .....	3	<b>Eduardo Reck Miranda: How can Music from Artificial Life Sound Natural?</b> .....	15
<b>Geoff Cox and Adrian Ward: Why Look at Artificial Animals?</b> .....	4	<b>Armando Montilla: Facts about 'P-E-M' (Psycho-enhanced Memberships) You must know about</b> .....	15
<b>Anthony Crabbe: Design against Nature</b> .....	5	<b>Shaun Murray: Breeding, Feeding, Leeching</b> .....	16
<b>Nina Czegledy: Bio Magnetism</b> .....	6	<b>Clive Myer: The Interactivity of the Moving Document as the Diegetic Space of Consciousness</b> .....	17
<b>Char Davies: A Painter's Preoccupations: Towards New Work</b> .....	7	<b>Paul Newland, Chris Creed &amp; Ron Geesin: MEDIATE: Steps Towards a Self-Organising Interface</b> .....	17
<b>Evgenija Demnievska: Happenstances</b> .....	7	<b>Gordana Novakovic: Electronic Cruelty</b> .....	18
<b>Margaret Dolinsky: Sharing Virtual Reality Environments across the IGRID</b> .....	8	<b>Paul O'Brien: Culture, Ecology and the Real</b> .....	18
<b>Ernest Edmonds, Linda Candy, Mark Fell, Roger Knott, Alastair Weakley: Art and HCI: A Creative Collaboration</b> .....	8	<b>Garth Paine: Interactive, Responsive Environments – A Broader Artistic Context</b> .....	19
<b>Maia Engeli: Re-visiting Space – Instantiations of Evolving Notions of Space in Architecture, Vr and Computer Games</b> .....	9	<b>Robert Pepperell: Towards a Theory of Conscious Art</b> .....	19
<b>Andrea Gaugusch: (Re)Constructing (Non-)Dualism</b> .....	9	<b>Kjell Yngve Petersen: Our Body as Primary Knowledge Base</b> .....	20
<b>Diane Gromala: A Sense of Flesh: Old Habits and Open Wounds</b> .....	10	<b>Mike Phillips and Chris Speed (P. Anders, M. Beck, G. Bugmann, G. Grinsted, E Miranda, A. Montandon): Arch-OS v1.1 [Architecture Operating Systems] Software for Buildings</b> .....	21
<b>Yolande Harris: Score Space: Inhabiting the Musical Score</b> .....	10	<b>Michael Punt: Seeing it Through: Science, Phenomena and the Postbiological</b> .....	22
<b>Eduardo Kac: Life Transformation – Art Mutation</b> .....	11	<b>Niranjan Rajah: Cinematic Soteriology: Techniques and Effects in Tamil Bakthi Cinema</b> .....	22
<b>Alex Shalom Kohav: Super Interactivity: Art, VR, Viewer Transformation &amp; Mega Consciousness Reassessed</b> .....	11		
<b>Jim Laukes: From a Darkness and a Rhythm</b> .....	12		
<b>Lucia Leão: Labyrinth and Consciousness: Telematic Experiments and the Process of Expanded Consciousness</b> .....	12		

<b>Julia Rice:</b> Search for Utopia – Human Consciousness and Desire .....	23
<b>Thecla Schiphorst:</b> Movement Architectures: Shifting Methodologies in Interface Design .....	23
<b>Yacov Sharir:</b> The Absent Body .....	24
<b>Diana Slattery and Charles René Mathis:</b> Interstellar Messaging, Xenolinguistics, and Consciousness; LiveGlide Meets the SETI Enterprise .....	25
<b>Karin Søndergaard:</b> Artistic Strategies for using the Arts as an Agent through the Creation of Hyper-Reality Situations .....	25
<b>Adriana de Souza e Silva:</b> From MUDs as Space to Space as a MUD – cell phones in Art and Public Spaces .....	26
<b>Ioanna Spanou and Dimitris Charitos:</b> Towards Defining “Atmosphere” and Spatial Meaning of Virtual Environments .....	27
<b>Stahl Stenslie:</b> Symbiotic Interactivity in Multisensory Environments .....	27
<b>Susana Sulic:</b> Cyvers Expressions .....	28
<b>Hal Thwaites:</b> The Immersive Experience of OSMOSE and Ephémère: An Audience Study .....	29
<b>David Topping:</b> Art and Information .....	30
<b>Jane Tormey:</b> Assimilating Consciousness: Strategies in Photographic Practice .....	31
<b>Nicholas Tresilian:</b> Archiving Art in the Post-Biological Era .....	31
<b>Ron Wakkary:</b> Pete and Repeat were Sitting on a Fence: Iteration, Interactive Cognition and Design Theory .....	32
<b>Claudia Westermann:</b> Who Plays the Nightingale? .....	32

<b>Julia Rice:</b> Search for Utopia – Human Consciousness and Desire .....	23
<b>Thecla Schiphorst:</b> Movement Architectures: Shifting Methodologies in Interface Design .....	23
<b>Yacov Sharir:</b> The Absent Body .....	24
<b>Diana Slattery and Charles René Mathis:</b> Interstellar Messaging, Xenolinguistics, and Consciousness; LiveGlide Meets the SETI Enterprise .....	25
<b>Karin Søndergaard:</b> Artistic Strategies for using the Arts as an Agent through the Creation of Hyper-Reality Situations .....	25
<b>Adriana de Souza e Silva:</b> From MUDs as Space to Space as a MUD – cell phones in Art and Public Spaces .....	26
<b>Ioanna Spanou and Dimitris Charitos:</b> Towards Defining “Atmosphere” and Spatial Meaning of Virtual Environments .....	27
<b>Stahl Stenslie:</b> Symbiotic Interactivity in Multisensory Environments .....	27
<b>Susana Sulic:</b> Cybers Expressions .....	28
<b>Hal Thwaites:</b> The Immersive Experience of OSMOSE and Éphémère: An Audience Study .....	29
<b>David Topping:</b> Art and Information .....	30
<b>Jane Tormey:</b> Assimilating Consciousness: Strategies in Photographic Practice .....	31
<b>Nicholas Tresilian:</b> Archiving Art in the Post-Biological Era .....	31
<b>Ron Wakkary:</b> Pete and Repeat were Sitting on a Fence: Iteration, Interactive Cognition and Design Theory .....	32
<b>Claudia Westermann:</b> Who Plays the Nightingale? .....	32

# Preface

Welcome to the Fifth International Conference of Consciousness Reframed. Last year the meeting was hosted in Perth, Western Australia. This year we are back in Caerleon where the Conference was first convened in 1997. Throughout this series of conferences a consistent level of excellence, originality and insight has been maintained in the papers presented – a clear indication, I believe, that the issue of consciousness in the arts, and the significance of science and technology in this context, is of dynamic relevance to contemporary theory and practice.

The issues signalled in these abstracts, together with the many submissions to previous conference proceedings, provide a rich exploration of what I refer to as the *technoetic* principle in art, and, taken as a whole, constitute a valuable archive of the ideas that are informing emergent fields of transdisciplinary theory and practice. Many perspectives can be brought to bear on the technoetic, post-biological condition of art, and whether they are poetic, scientific, spiritual, ethical, or social, they occupy a place at the cutting edge of our 21st century's aesthetic adventure. Matters of mind, and the navigation, and perhaps eventually explanation, of consciousness are of cardinal significance to both art and science, just as they have always been at the very centre of the search for knowledge and our exploration of the numinous in previous, even archaic, cultures.

If one were to seek a rubric that comprehensively defines our ambition for these conferences it could perhaps be found in the *I Ching*, that most ancient compendium of noetic understanding. The hexagram *Ting*, the Caldron, as eloquently translated by Richard Wilhelm, refers to "the cultural superstructure of society. Here it is the wood that serves as nourishment of the flame, the spirit. All that is visible must grow beyond itself, extend into the realm of the invisible". I take the wood, in our modern world, to be technology, and the realm of the invisible, to be our intellectual destination.

I believe I speak for a large and growing constituency when I thank the contributors to the present conference for the important and stimulating contributions they bring to the understanding and advancement of this complex and evolving field.

We are all extremely grateful to Kay Bosanko-Sheady, our brilliantly organised and endlessly resourceful conference manager, for the tireless and detailed care she brings to every aspect of the conference. She has been at the administrative heart of every conference from the start, and I would not have effectively realised this series without being able to rely on the total professionalism and enthusiasm she has always committed to it.

## **Roy Ascott**

Conference Convenor  
Director Centre for Advanced Inquiry in the Interactive Arts

**From MUDs as Space to Space as a MUD – cell phones in Art and Public Spaces**

**Keywords:** Hybrid Space, Cell Phones, Multi-User Environment, Interface, Mobility

Cell phones transform our experience of space. The emergence of new mobile technology devices such as cell phones, PDAs, laptops, and wireless technologies create a new manner to connect to the Internet. First, they are responsible for a novel generation of cyberspace nomads – people who are always connected and who connect while moving through physical space. Therefore they transform both concepts of virtual and physical. Moreover it is possible that what we understand by Internet will also change due to the use of these technologies. Consequences can be also observed on social and communication relationships. During the last decade, connection to the Internet was achieved mostly by means of a desktop computer and cables connected to the telephonic network. These interfaces caused virtual space to be considered disconnected from physical space. Today, we identify a hybridization of space since virtual is coming closer to physical.

This paper argues that mobile phones virtualize space by enfolding distant contexts into the present context. Either via voice or Internet connection cell phones change the perception of geographical distances and

promote ubiquitous connection while one moves through space. At first this paper discusses how the emergence of a mobile and smaller interface to connect to the Internet is responsible for a hybridization of space, blurring borders between physical and digital. Then, the act of

moving through physical space is compared to the experience of inhabiting a virtual environment, since it is possible to connect to people who are not present but even though change the nearby context. Traditionally multi-user environments have been seen as spaces – sociability places, which in order to be inhabited needed to be taken apart from physical space. On the other hand, urban space starts to become a multi-user environment when a new mobile interface brings virtual space into public space, changing the way people perceive space and interact with each other. The isolation of cyberspace in the last decade required users to create avatars in order to design the body across the screen. Since one could not really be at the other side, it was necessary to represent the physical body. Now nomadic technologies bring virtual closer to physical, and people become walking avatars, moving constantly between both instances.

Finally, art is going to be used as a context to illustrate the passage from virtual to hybrid. Specifically for this study, works from Brazilian artists are going to be analyzed. The first piece is a 3D multi-user environment called "Imateriais", which was presented at the event with the same name produced by Itaú Cultural in São Paulo (1999). For the second phase, emphasis is given on artist Giselle Beiguelman, who develops works with nomadic technologies and interventions in public spaces. Of all the countries in Latin America, Brazil is leading in cell phone penetration. Therefore, it is a very representative country concerning the hybridization of space in Latin America.



# DIRECTORY OF AUTHORS

**Eril Baily**

Sydney College of the Arts,  
University of Sydney, Australia  
3/69 Windmill Street, Millers Point,  
NSW, 2000, Australia  
corsof@dada.it

**Paul Brown**

CACHe @ Birkbeck, University of London  
3 Aydon Crescent, Corbridge, NE45 5EB, UK  
paul@paul-brown.com

**Mauro Cavalletti**

Parsons School of Design, New York  
501 Hicks Street apt 304, Brooklyn,  
NY, 11231, USA  
mauro@rga.com / mcavalletti@hotmail.com

**Donna Cox**

National Center for Supercomputing  
Applications, University of Illinois, USA  
605 East Springfield, Champaign,  
IL, 61820, USA  
cox@ncsa.uiuc.edu

**Geoff Cox and Adrian Ward**

STAR & Signwave, UK  
c/o i-DAT, University of Plymouth,  
School of Computing, Drake Circus,  
Plymouth PL4 8AA, UK  
geoff@generative.net / adrian@signwave.co.uk

**Anthony Crabbe**

Nottingham Trent University,  
School of Art & Design, UK  
Bonington 209, Burton Street,  
Nottingham, NG1 4BU, UK  
anthony.crabbe@ntu.ac.uk

**Nina Czegledy**

Independent, Canada  
300 St. Clair Ave. West, Toronto,  
M4V 1S4, Canada  
czegledy@interlog.com

**Char Davies**

Immergence Inc  
CAiiA-STAR, UK  
3837 rue De Bullion, Montreal, Quebec  
H2W 2E2, Canada  
char@immergence.com

**Evgenija Demnievska**

Association Co-Resonance, France  
2, rue Garibaldi, Montreuil, 93 100, France  
edemnievska@yahoo.com

**Margaret Dolinsky**

Indiana University Bloomington, USA  
Sofa, 1201 East Seventh Street,  
Bloomington, Indiana, 47405, USA  
dolinsky@indiana.edu

**Ernest Edmonds, Linda Candy, Mark Fell,**

**Roger Knott, Alastair Weakley**  
University of Technology,  
Sydney & Loughborough University, UK  
PO Box 123 Broadway, NSW 2007 Australia  
ernest@ernestedmonds.com  
l.candy@lboro.ac.uk, m.j.fell@lboro.ac.uk  
r.p.knott@lboro.ac.uk  
a.j.weakley@lboro.ac.uk

**Maia Engeli**

CAiiA-STAR  
Heinrichstrasse 267, Zurich, 8005, Switzerland  
me@i-dat.org

**Andrea Gaugusch**

CAiiA-STAR  
Freyung 6/5, Vienna, 1010, Austria  
andrea.gaugusch@chello.at

**Diane Gromala**

Georgia Tech, USA  
34 Daniel Avenue SE, Atlanta, 30317, USA  
diane.gromala@lcc.gatech.edu

**Yolande Harris**

Carrer de Calabria 91, 4-2,  
08015 Barcelona, Spain  
yolandeh@terra.es

**Eduardo Kac**

School of the Art Institute of Chicago, USA  
1167 S. Clarence Ave, Soak Park,  
Illinois, S60304, USA  
ekac@artic.edu

**Alex Shalom Kohav**

Freelance Artist & Writer, USA  
3768 St Vincent Place, Boulder,  
Colorado, 80301, USA  
kohav@attbi.com

**Jim Laukes**

CAiiA, University of Wales College Newport  
2203 N. Dodge Blvd, Tucson, AZ 85716, USA  
laukesy@yahoo.com

**Lucia Leão**

Puc Catolic University,  
+ Senac-cca São Paulo, Brazil  
Al Curibita 121, Santana do Pamaiba, São  
Paulo, Brazil, 06500-00  
lucleao@yahoo.com

**Kieran Lyons**

University of Wales College, Newport  
CAiiA-STAR, UK  
29 Bridge Street, Chepstow, NP16 5EZ  
k.lyons@1649.ndo.co.uk

**Roger F Malina**

Laboratoire d'Astrophysique de Marseille,  
France  
Traverse du Syphon, BP 8, 13376 Mareille  
Cedex 12, France  
rmalina@alum.mit.edu

**Christina McPhee**

Independent, USA  
PO Box 7063, Los Osos, CA, 93412, USA  
christina112@earthlink.net

**Daniel Meyer-Dinkgräfe**

Dept of Theatre, Film and Television Studies,  
University of Wales Aberystwyth, UK  
Parry William Building, Penglais Campus,  
Aberystwyth, Ceredigion, SY23 3AJ  
dam@aber.ac.uk

# DIRECTORY OF AUTHORS

**Eduardo Reck Miranda**

Faculty of Technology,  
University of Plymouth, UK  
Drake Circus, Plymouth, Devon PL4 8AA, UK  
eduardo.miranda@plymouth.ac.uk

**Armando Montilla**

Co-lateral (Cluster of Lateral Thinking  
and Experimental and Radical Advanced  
[city] Lab), Spain  
P O Box 5295, Barcelona, 08080, Spain  
amontilla@co-lateral.org.ve

**Shaun Murray**

Independent, UK  
53 Sumner Buildings, Sumner Street,  
London SE1 9JY  
shaun.murray@virgin.net

**Clive Myer**

The Film Academy, University of Glamorgan,  
Pontypridd, CF37 1DL, UK  
cmyer@glam.ac.uk

**Paul Newland, Chris Creed & Ron Geesin**

University of Plymouth, UK  
School of Art, Design and Media, Winston  
Churchill Avenue, Portsmouth, Hants, PO1 2DJ  
paul.newland@port.ac.uk,  
chris.creed@port.ac.uk, ron.geesin@port.ac.uk

**Gordana Novakovic**

Smartlabcentre, Central Saint Martins  
College of Art & Design, UK  
40b Cavendish, London, NW6 7XP  
gordana@infonoise.net

**Paul O'Brien**

National College of Art & Design,  
Dublin, Rep of Ireland  
101, Bertram Court, Dublin, 8, Rep of Ireland  
obrienp@ncad.ie

**Garth Paine**

De Montfort University, UK  
Music, Technology & Innovation, Clephan  
Building, The Gateway, Leicester, LE1 9BH, UK  
GPaine@dmu.ac.uk

**Robert Pepperell**

Polar/School of Art Media and Design,  
UWCN, UK  
31 Bryngwyn Road, Newport, NP20 4JU, UK  
pepperell@ntlworld.com

**Kjell Yngve Petersen**

Boxiganga, Denmark  
Bjørnsonsvej 85, Valby, 2500, Denmark  
kjell@boxiganga.dk

**Mike Phillips and Chris Speed, P. Anders,**

**M. Beck, G. Bugmann, G. Grinsted,  
E Miranda, A. Montandon**  
Institute of Digital Art and Technology /  
STAR, University of Plymouth, UK  
Drake Circus, Plymouth, PL4 8AA, Devon, UK  
mphillips@plymouth.ac.uk

**Michael Punt**

Deputy Director of CAiiA, UK  
26 Bridge Street, Chepstow, NP16 5EZ  
mpunt@easynet.co.uk **Niranjan Rajah**  
CAiiA-STAR  
103, 5135 Newton St, Burnaby,  
VSH ITS, Canada  
niranjanrajah@hotmail.com

**Julia Rice**

St Cyres Comprehensive School, Penarth,  
South Wales, UK  
6 Brookside, St Dials, Cwmbran, NP44 4NB, UK  
Julia.rice@ntlworld.com

**Thecla Schiphorst**

Simon Fraser University, Canada  
1128 Rose Street, Vancouver, B.C.,  
V5L 4K8, Canada  
thecla@sfu.ca

**Yacov Sharir**

University of Texas, Austin  
Department of Theatre and Dance,  
Austin, Texas, 78712, USA  
sharir@mail.utexas.edu

**Diana Slattey and Charles René Mathis**

Academy of Electronic Media,  
Rensselaer Polytechnic Institute, USA  
CII 9015, 110 8th Street, Troy, 12180, USA  
slattd@rpi.edu

**Karin Søndergaard**

Boxiganga, Denmark  
Bjørnsonsvej 85, Valby, 2500, Denmark  
karin@boxiganga.dk

**Adriana de Souza e Silva**

Federal University of Rio de Janeiro /  
University of California, Los Angeles, USA  
3777 Mentone Ave. # 313, Los Angeles,  
California, 90034, USA  
silvaad@ucla.edu

**Ioanna Spanou and Dimitris Charitos**

Escuela Tecnica Superior de Barcelona,  
Spain & Department of Communication and  
Media Studies, Greece  
Providencia 72, Gracia, Barcelona 08024 /  
Zoodohou Pigi 67-69, Athens, 10681, Greece  
huanna77@yahoo.co.uk / vedesign@otenet.gr

**Stahl Stenslie**

Academy of Media Arts, Cologne, Germany  
Peter Welter Platz 2, Cologne, 50676, Germany  
stahl@khm.de

**Susana Sulic**

Researcher in Fine Arts, Writer and  
Independent Curator, France  
21 Rue Poliveau, Paris, 75005  
sulicsu@hotmail.com

**Hal Thwaites**

Concordia University, Communication  
Studies Dept, Canada  
1625 de Maisonneuve West, apt, 2607,  
Montreal, Quebec, H3H 2N4, Canada  
h.Thwaites@sympatico.ca



## ABSTRACTS