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< This issue >

Craig Harris

The Feature Article this month provides insight into F-USER [Full
Impact - Unified Soul Ejector Resource], a work that places the
video arcade in contrast with the gallery exhibition. The Profile
presents the work of Don Ritter, a well-known interactive video
installation artist and developer of the Orpheus software. LDR
contains its usual collection of in-depth reviews, and we have an
update on preparations for ISEA 96. An important 20th Anniversary
issue of "Computer Music Journal" is now available, and I encourage
those who are interested in computer music to explore and listen.

Web versions of articles and profiles appearing in LEA will be
available soon. Keep that material coming!
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      |   FEATURE ARTICLE    |
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< F-USER - KIT - [Full Impact - Unified Soul Ejector Resource] >

Kit
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Macclesfield
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Email: kits@Generation.net

F-USER took place in two locations within the six story Belgo
building of downtown Montreal. Ground Control was the amusement
arcade Casino Royale. The Crash site was in the gallery Observatoire
4. Cast in the system of gravityâs production both sites are players
in the business of cultural altitudes. Thus accordingly the arcade
is at street level whilst the gallery resides on the 4th Floor, a
little closer to the heavens. For this project kit linked these
ports of high and low Îinteractive cultureâ by virtue of their lost
communication.

F-user questions academic discourses which vilify video games and
amusement arcades . A discourse exemplified by Virilioâs recent
alarmist text in which he sites videogames as being at the
forefront of a western attempt to implement a narco economy to defy
the Latin-based narco capitalism of illicit substances. In the
1990âs ,Videogame interactive behavior has been damned in an
analogous fashion to the 50âs hostility towards teenagers'
'uncontrolled, uncivilized' reactions to rock-n-roll. Within the
current electronic arts arena such attitudes take similar positions
in their distaste for the [when youâre good] unthinking, adrenaline
rush of reactions associated with game playing. It was however
within the distance created by both audiences aversion to the other
space that F-U.S.E.R intended to operate.

In the arcade a white walled game-shell housed a joystick-controlled
Director program. Reflecting the architecture which both gallery and
arcade exist within, the gameâs structure used blueprints of the
building to move between six levels of mediated aircraft crashes. To

travel through the program was to fly through the monitored static
of lost reception, each screen representing a room of the building.
Within each level a single crash was surrounded by its mediated
wreckage, reports, investigations, conspiracy theories, memories,
plus pictures of aircraft and body parts found beyond the impact
point. For this journey you were a dead player traversing walls,
ceilings and floors as a ghost (space) ship looking for the site
where collision with the face of the earth ejected the soul into the
realm of the interface. Upon finding the location of your crash
site, a F-USED sign flashed, as you the spacecraft flew into a
video-game landscape and the gallery location.

In the white walled housing of the gallery laid the incarnation of
the videogame crash - a sit-in game shell embedded in the wall of
distant land's projection. For this housing, a monitor played frame
by frame the last second of a TV being shut off from news programs.
Intermittent with static it became the monitor of lost contact.

Thus the crash site became the point at which perception at a
distance (what Mackenzie Wark calls telesthesia) becomes not only
the collapsed distance of located reports but also the place where
technologies transfer narrative bodies. Events where progressâs
race is defined by the last gasp of the F - USER traveler as s/he
hands over the microphone to the on the scene crew, allowing the
disaster relay to carry on until it passes the tape across the fibre
optic line.
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      |   PROFILES   |
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< Interactive Video Artist Don Ritter >

Donald Ritter
Email: ritter@alcor.concordia.ca
URL:
    http://www.odyssee.net/~percept/

A web site is available that contains documentation on Don Ritter's
interactive video performances and installations. Information is
also provided on Orpheus, an interactive video software which
permits control of full screen moving video through music/midi.
Netscape 2.0 is recommended.

Biography
:::::::::
After beginning an artistic career as a painter and sculptor,
Ritter's work since 1986 has focused on interactive video
performances and installations. This work evolved from his interests
and education in fine arts, performance, psychology, human interface
design, computer graphics and engineering. His video/sound
installations, video performances, telecommunication events, and
video tapes have been presented in Canada, United States, Europe,
Japan and Australia, including the SAM Museum (Osaka), STEIM
(Amsterdam), European Media Art Festival (Osnabruck), Art Institute
of Chicago, the Kitchen (New York), New Music America 89 (New York),
Alternative Museum (New York), Musee d'art Contemporain de Montreal,
Images du Futur (Montreal), ISEA 92 (Sydney) and the Verona Jazz
Festival (Italy). He received an Honourary Mention from Prix Ars
Electronica (Austria) for development of Orpheus, his interactive
video software which permits control of digital video through music.
He has worked professionally with computer graphics and electronic
media since 1979.

Ritter holds a master of science in visual studies from the Massachusetts Institute of Technology/CAVS (1988), a joint honours bachelor of arts in fine arts & psychology from the University of Waterloo (1986), and a diploma in electronics engineering technology from the Northern Alberta Institute of Technology (1979). His graduate education includes film studies at Harvard University, and electronic media studies at the MIT Media Lab. His teachers included film theorist Vladamir Petric (Harvard), film maker Richard Leacock (MIT), scientist Marvin Minsky (MIT), composer Tod Machover (MIT) and artist Otto Piene (MIT). He has worked on numerous collaborative projects with artists and musicians, including trombonist George Lewis (San Diego), percussionist Trevor Tureski, The Shaking Ray Levis, Nick Didkovski, David Rokeby, John Oswald, Amy Denio, bassist Lisle Ellis, Genevieve Letarte, Michel F. Cote, Leo Smith, Tom Walsh, Richard Teitelbaum, Ben Neill, Paul Garrin and Thomas Dimuzio.

He spent four years as a telecommunications and human interface designer for Bell-Northern Research and Northern Telecom. He is currently an Associate Professor of Fine Arts at Concordia University and a Visiting Professor in the faculty of Music at McGill University, both in Montreal.

Selected Installations
::::::::::::::::::::::
Intersection

Interactive Sound Installation
13 x 16m, 40 x 50 ft

This installation presents visitors with sounds of speeding cars traveling across a completely dark exhibition space. The illusion of traffic is created using various car sounds which are played through four pairs of stereo speakers placed at either end of four invisible lanes of traffic. If a visitor is in a lane when a car approaches, this car will screech to a halt. This stopped car will remain stationary with its engine idling, although traffic will continue in the other lanes. When a visitor leaves a lane containing a stopped car, this car will quickly accelerate and continue traveling across the space. If a visitor remains standing in a lane with a stopped car, however, subsequent cars traveling down that lane will smash into the stopped car. Like an actual freeway, safe areas exist between each lane where a visitor may stand without affecting the flow of traffic. An unlimited number of visitors can be accommodated at one time.

"Intersection" creates a space which pivots the viewer between sensations of empathy and tension, presenting an environment that is a metaphor for both modern life and its accompanying anxieties." (Bruce Johnson, Sound Symposium)

Skies

Interactive Video and Sound Installation
11 x 9m, 32 x 27ft

Visitors to the installation encounter four channels of sound, and moving video imagery projected onto the floor. Video imagery (7x 5m, 20x15 ft) is provided by a video projector mounted on the ceiling. The installation is larger than the projected imagery, permitting visitors to walk onto the imagery or in the surrounding area. When no visitors stand on the projection, the sound of crickets is heard

and the imagery presents a night sky containing a moon, covered with
slow moving clouds. This night imagery and sound will continue until
a visitor walks onto the projection. Upon entering the imagery,
visitors discover paths appearing under their feet at specific
locations. If a visitor walks down a path, the night imagery will
transform into a new type of imagery and sound. When a single
visitor walks off a path, the path and associated imagery will
immediately disappear, and the night sky will return until another
path is located.The installation can accommodate an unlimited number
of visitors, although, at least five people are required to activate
all the paths simultaneously. Five invisible paths are contained
within the projected imagery. Discovery of the paths causes
presentation of different images and sounds, according to the
specific paths being displayed. Thirty-two different video sequences
and sound tracks are contained within the installation, their
selection determined by the specific combination of paths being
displayed.

TV Guides

Interactive Video and Sound Installation
8 x 5m, 25 x 15 ft

"...TV has, some feel, introduced a kind of rigor mortis into the
body politic."(Marshall McLuhan, Understanding Media)

Viewers to this installation are confronted with a television which
is illuminated with a spotlight and placed upon a small stage. A
microphone placed in front of the television captures sound which is
amplified and played through a pair of speakers. The television
plays live television broadcasts, presenting viewers with typical
afternoon programming of soap operas, talk shows, advertisements and
TV game shows. The imagery on the television, however, is slightly
obscured by cross hairs within a circle, giving the impression that
the programs and the viewer are separated by a type of viewing
scope. The television program and cross hairs disappear whenever
viewers within the installation move their bodies. In response to
any form of movement, the television sound fades out and the cross
hairs recede into a small circle followed by text on the screen
which requests viewers to remain still. The television imagery and
sound will resume only after all viewers within the installation
have remained still for at least 5 seconds. Each time the sound and
image of the television is switched off in response to viewers'
movements, a slightly different text message is provided on the
screen of the television, such as "Please Remain Still," "Be Calm,"
or "Just Relax."

Orpheus Interactive Software
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Orpheus is an interactive video sequencing software which permits
real time synchronization of computer animated imagery with any form
of live or sequenced music. Orpheus listens to live music and
controls the presentation of animated imagery according to various
musical elements. The music listener portion of the software
provides a musical categorization in real time according to pitch,
loudness, note duration, rest length, tempo, and measure. Each
musical category evokes an associated response of digitally stored
frames, accompanied with a cinematic effect. For example, Orpheus
could present an image of a face laughing in response to a
particular category of music, while another category of music could
present the same face crying. The music could alternate between
these two music categories--up to 30 times per second--and the face
would respond with laughing or crying in synchronization with the
music. Specific associations between music categories and video

frames are specified by a user according to aesthetic and temporal
criteria.

Orpheus is similar to a non-linear video editing system because it
can present video frames and sequences in any order. In contrast to
nonlinear systems, however, editing within Orpheus is controlled by
musical information in real time, allowing image and sound to be
perceived simultaneously. This characteristic allows Orpheus to be
used as a performance tool with video imagery controlled by voice,
acoustic instruments or electronic instruments. Orpheus can be used
in the creation of interactive video performances, within video
installations, and in the creation of video tapes. Video imagery can
be controlled by voice, trombone, trumpet, saxophone, electric
guitar, electric bass, acoustic bass, percussion, keyboards, or any
type of device which provides MIDI output. The imagery used within
Orpheus can originate as 2D animation, 3D animation or digitized
video frames. Orpheus can support images of various resolutions and
colors, up to full screen video resolution(736x482, 24 bits).

Orpheus has been designed to provide complete flexibility in the
creation of synchronized imagery and music. This has been achieved
through the following characteristics:

    *any form of imagery can be used by the software: 2D, 3D,
digital video
    *any form of music can be used to control the imagery
    *various forms of correspondence can be created between imagery
and music

[Editor's Note: Don Ritter's work "Intersection" was presented in
LEA 3:10 as part of Mary Anne Farah's perspective on Images du Futur
1995. LEA readers can revisit this work in the LEA Gallery.]
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         |  LEONARDO DIGITAL REVIEWS  |
         |          May   1996        |
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==
< CD Review: Macedonian Air Drumming >
Macedonian AirDrumming
Bridge Records
GPO Box 1864
New York, NY 10116 USA

Works by Neil B. Rolnick.
Performed by Neil Rolnick and Gamelan Son of Lion (Barbara Benary,
David Demnitz, Nick Didkovsky and Daniel Goode)
Running Time: 56:05

Reviewed by Jason D. Vantomme

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Evanston, IL USA

Neil Rolnick's 1992 compact disc opens with "Sanctus" (1990), a computer-generated tape work composed to accompany Barbara Hammer's film of the same name. Rolnick's focus in this piece (as with others on the disc) centers heavily on the re-composition of sampled materials to form a new work; in the case of this work, the sampled material is drawn from the "Sanctus" movements of masses by Machaut, Byrd, Bach, Mozart, Beethoven and Verdi. (1) The treatment of these materials in this work are often sample speed playback variations. Though this type of effect easily becomes stale, Rolnick has managed to keep the use of the speed variations engaging. Transitions between major sections in the work (and even smaller structural elements) are generally abrupt and shock the listener from one phrase to another. Again, though this kind of effect could easily be overworked, Rolnick has used it adeptly. The middle of "Sanctus" tends to wander slightly, but the listener is brought back into the work with the return of the opening motive about three-quarters into the piece. Approximately one minute before the end of the work, this same motive returns once again to re-establish the work's focus. "Sanctus" is a fine example of constructing rhythmic complexity from already rich and complicated source materials.

The second work on the disc, "Balkanization", was written to be performed live with a MIDI performance system devised by Rolnick. (2) The listener is immediately hit with quick streams of repeated sound events which often tread on the verge of being a continuous timbre (i.e. granular synthesis). These streams lead smoothly into the first of a set of Balkan folk tunes used as source material for the work. The variety that these tunes provided in rhythmic interest and melodic/harmonic material was adeptly utilized by Rolnick to provide an excellent summary of this region's musical diversity. Though the structural intent of "Balkanization" is not often as clear as that of "Sanctus", the composer again provides us with a unifying return of the opening material near the end of the work to serve as a musical guidepost.

"ReRebong" is the third work on the disc, and the first (and only) that does not use pre-recorded elements as source material. (3) Like "Balkanization", "ReRebong" opens with a strong rhythmic intensity which, in this case, is overlaid by what initially feels like an opposing figure. The texture built up by the opening of the work leads to a quiet (though strangely intense) plateau at the center of the work. Unlike the previous two works, "ReRebong" transitions slowly between structural elements and allows the listener to relax. Additionally, the use of technology is limited to subtle transformations of the live performers' material, resulting in a work where technology clearly plays a supporting role.

"Macedonian AirDrumming" is the last work on the disc and, like the second work, it too uses source material from the Balkans as its foundation. The piece opens with rhythms dominated by metallic, time-varied timbres (4) and slowly speeds into sizzling granular surges. Once the underlying rhythmic motives become more regular, a whimsical tune arrives; the tune is further joined by flute/vocal-like timbres that lead to a dancing fiddle whose tune is clearly derived from the sounds of the Balkans. Just as the dance quietly fades, Rolnick introduces an oddly placed rhythmic line using timbres reminiscent of a traditional drum kit. The fact that the rhythm appears to close the work is not so unusual, especially given the methods that Rolnick seems to favour, but one must wonder what his motivations were in choosing timbres so unrelated to the rest of the work.

Neil Rolnick's work is very clearly of a particular style --
rhythmic,brazen and clear-cut -- and definitely interesting and
enjoyable. I suspect that many in the "traditional" computer and
electroacoustic music communities have not been appreciative of
Rolnick's style (and at least several others who stray from center)
-- six years later, I hope that many more are. "Macedonian
AirDrumming" is a superbly produced disc and would be an excellent
addition to any contemporary music library.

Notes:
(1) One is reminded here of Robert Normandeau's almost-now-classic
tape piece "Memoires Vives" (1989), where he uses excerpts from
nearly a dozen requiems, including those of de Lassus, Mozart,
Berlioz, and Ligeti among others. "Memoires Vives" can be heard on
Normandeau's compact disc "Lieuxinouis", DIFFUSION i MeDIA, IMED-
9002-CD.)

(2) Unfortunately, the medium of compact disc does not allow the
listener to experience any live element of the work and as a result,
"Balkanization" sounds as if it could have been a tape piece.

(3) Though this is not completely true. Rolnick's liner notes state:
" Rather than sampling my basic material directly into the computer
("Sanctus") or into a sampler ("Balkanization"), the material [for
"ReRebong"] was transcribed and re-arranged for the gamelan
instruments to perform live, to be amplified and processed in
concert. In this piece, the basic material comes from the Balinese
shadow puppet piece "Rebong"..."

(4) It should be noted that time-stretching a sample by traditional
"analog" methods (i.e. slowing down sample playback) produces a new
sample whose frequency is lower. However, stretching a sample by a
large amount (i.e. 8 or 16 times normal) using this method not only
lowers the frequency, but also produces "grainy" artifacts which are
tell-tale signs of this method; this occurs not only in "Macedonian
AirDrumming", but also in "Sanctus". One wonders if this is an
uncontrollable artifact of the technology of 1990 or if it was an
intentional choice by the composer.
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< Book Review: Resisting the Virtual Life, Technolpoly &
   Rethinking Technologies >

Two reviews and a mention
by Simon Penny
Email:penny+@andrew.cmu.edu

Resisting the Virtual Life
James Brook and Iain A. Boal, Editors
Published by City Lights, San Francisco USA 1995

Technolpoly: the Surrender of Culture to Technology
Neil Postman
Vintage Books, 1993 (first published 1992)

Rethinking Technologies
Verena Andermatt Conley, Editor
University of Minnesota Press, 1993

As the flood of preposterous techno-utopian hype about things
virtual (inexplicably) continues, it's a respite when the occasional
sceptical voice is heard above the din. "Resisting the Virtual Life"
is one of those voices, or rather, a small choir of such voices.
This choir has its feet firmly on terra firma. There is a general

sense that history is not over and that it has something to teach us. This is refreshing. One of the more disturbing aspects of techno-culture discourse is the notion that this technology is so new and different that history is irrelevant. This argument has traditionally been made as a defence against historically based arguments, but recently so called 'progressive' voices have (alarmingly) echoed the same line.

The preface by the editors is a salutory assessment of the big picture: "The wish to leave body, time and place behind in search of electronic emulation of community does not accidentally intensify at a time when the space and time of everyday life have become so uncertain, unpleasant and dangerous for so many...But the flight into cyberspace is motivated by the same fears and longings as the flight to the suburbs: it is another "white flight"." (ix) Earlier they note: "Information and information technology are structural supports that business, government and the military cannot dispense with – the flow of information will remain of paramount importance to the expansion and survival of the capitalist world system, as will the intensification and surveillance of labor that the new machines enhance." (viii)

"Resisting the Virtual Life" contains an ambitious twenty-one contributions arranged into four sections entitled: 'the new information enclosures'; 'rewiring the body'; 'degrading work'; and 'the repainting of modern life'. The contributors are as diverse a lot as one might ask. Luminaries of the field are represented: Herbert Schiller, Les Levidow, Kevin Robins and George Lakoff are some of the better known names. The account by Ellen Ullman (a professional programmer) of the culture of those who live 'close to the machine' is as disturbing as it is amusing. Rebecca Solnit's "Garden of Merging Paths" purports to be a history of Silicon Valley but is much more. It becomes an insightful parable on the technological transformation of US society. Laura Miller's "Women and Children First: Gender and the Settling of the Electronic Frontier" argues (as many of us have) that beneath the vapid futurism lies a repetition, an entrenchment, of very traditional roles for women.

In "Soldier, Cyborg, Citizen", Kevin Robins and Les Levidow offer a psycho-analytic assessment of the phenomenon of the military-technological panopticon which scrapes away at the gangrenous flesh of our accumulated rationalisations by introducing the notion of "paranoid rationality": "through a paranoid rationality, expressed in the machine-like self, we combine an omnipotent phantasy of self control with fear and agression directed against the emotional and bodily limitations of mere mortals. Through regression to a phantasy of infantile omnipotence we deny our dependancy on nature, upon our own nature, upon the 'bloody mess' of organic nature. We phantasize about controlling the world, freezing historical forces and if necessary, even destroying them in rage; we thereby contain our anxiety in the name of maintaining rational control" (112)

One could continue discussing each contribution in turn, I'll leave that to the reader. Suffice to say that there are remarkably few contributions which I regretted spending the time on. The authors tend away from vacuous theoretical posturing. There is little in the volume that demands specialist knowledge. Most of it is accessible to reasonably literate undergrads. The quality and general readability of the essays combined with the breadth of issues the volume addresses commends it as a required text in any course on technology and society. This is a good book and very reasonably priced.

It was something of a techno-culture book buying spree. At the same time that I bought "Resisting the Virtual Life", I picked up a copy of "Technolpoly", and another anthology: "Rethinking Technologies".

I'd chided myself for not reading "Technolpoly" since it came out. A book with such a catchy title automatically puts itself on the must read list for anyone interested in techno-critique. I just didn't get around to it. Though first published in 1992, the general tenor feels dated, it's telling that only ten of the sixty references in his bibliography date from 1985 or later. Haraway, Virilio, even Guy Debord, John Berger and Armand Mattelart are absent from his list, let alone Deleuze and Guattari, Serres, Foucault, Baudrillard, Lyotard and the rest of the french post-structuralist gang. Ellul and Mumford figure strongly.

Postman's structuring argument is that human culture divides itself into three periods with respect to technology: the tool using; the technocratic; and the technopolistic. This is an interesting if somewhat pessimistic analysis. In contrast to the technocratic, the condition of technopoly is one in which the logic of industrial production comes to control not just economic thought, but cultural and philosophical thought as well. The book is full of amusing and pertinent (often literary and philosophical) factoids. Ultimately his support for his argument feels anecdotal.

Postman offers us no way out; the subtitle "the surrender of culture to technology" says it all. Most disappointing is that Postman never suggests possible emancipatory or potentially democratising aspects of any technologies, let alone offer any recipe for resistance, subversion or detournment.

Much of the texts reads like a thinly veiled sermon on moral collapse. The relentlessness of this tone became draining to me, ands began to echo "it ain't like the good old days".

I hadn't noticed "Rethinking Technologies" before. I assumed it was new but the copyright is 1993. This is not a review, I haven't finished it yet. All the indications are that there's a lot to chew on, the first part: "Questioning Technologies" includes contributions by Paul Virilio, Felix Guattari and Avital Ronell. Later sections include "Technology and the Environment", "Technology and the Arts" and "Technology and Cyberspace". I hope to offer a review of this volume in the not-too-distant future.

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< Book Review: Thinking Things Through:
   An Introduction to Philosophical Issues and Achievements,
   by Clark Glymour >

Reviewed by David Carrier
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The aim of this paper is to evaluate Clark Glymour's important recent book "Thinking Things Through" [1] from a somewhat unexpected vantage point. I want to consider the broad view of philosophy he develops, then take issue with one point of detail - the discussion of what he calls primitivism. I ask questions about a concern Glymour mentions, but does not develop in depth - the relation of his inquiry to politics or, more broadly, to what he calls questions

about "how we can best conduct our lives" [2]. Finally, I say something about the relevance of Glymour's book to visual art.

"Thinking Things Through" is an obviously magnificent book, an analysis whose clarity, comprehensiveness and range are worthy of the highest praise. Under the guise of providing a mere textbook, Glymour offers the best account I have read of some very fundamental philosophical issues. Identifying him as thinker who inspires argument from someone like myself with very different interests is to praise him very highly; an extremely decisive writer in dealing with points of detail, he never loses track of the broad themes. Glymour's topics fall outside my areas of professional competence; I am not competent to argue for or against his broad thesis about the nature of scientific explanation, whose evaluation in any case depends upon mastery of the details of Glymour's program. Nor do I have an alternative to his approach, and so my critical questions mostly are genuine questions to which I have no real answers. I always dislike reviewers of my work who pick on points of mere detail. Here, in arguing with one small point, I intend to raise large issues. In order to write this paper, I have to pretend to be more confident than I have any right to be. I identify Glymour as a "logical positivist," using that useful term in a loose descriptive way, not as a term of abuse as is sometimes done. As he says in the first sentence of his earlier book "Theory and Evidence", there are many differences between him and the earlier philosophers associated with that school of thought [3].

Very often the history of philosophy is studied and taught without explaining why that history is worth studying. Reading commentaries on Descartes or Spinoza, it is easy to feel that the commentators are pursuing this project for its own sake, like working at a very complex cross-word puzzle, without asking what is the interest of setting all these details in place. Since the classical texts are difficult, it is natural to treat them this way; but what proper motivation of discussion demands is some explanation of why such exegesis is worthwhile. In art history, the situation is different. Giotto's successors learned techniques unkown to him, and yet, this does not diminish the aesthetic value of his work. His paintings have intrinsic value. In literature, similarly, great texts deserve scrutiny because of their artistic value; we need not ask, if this author's way of thinking, or morality, is acceptable today; we need not accept Jane Austen's view of things, or Flaubert's, to think their novels deserving of attention. But in philosophy we seek truth, and so the situation is different. To the extent that Descartes' or Spinoza's argumentation is bound up with the limits of the science of their day, why should we take an interest in their writings, except insofar as we are interested in doing history of philosophy for its own sake?

Descartes believed that only spiritual substances could think. Observing that the most elaborate known mechanical devices had relatively few parts, he concluded that no such apparatus could think.

"It is not conceivable that . . . a machine should produce different arrangements of words so as to give an appropriately meaningful answer to whatever is said in its presence. . . . it is for all practical purposes impossible for a machine to have enough different organs to make it act in all the contingencies of life in the way in which our reason makes us act.""

"Automatons never answer in word or sign, except by chance, to questions put to them . . . [4]"

Descartes could not imagine twentieth century technology and so his claims are merely of historical interest. Aestheticians often treat Kant's writing on aesthetic experience with the greatest respect, although he often discussed things he had never seen, but only knew about from books.

"Bold, overhanging, and . . . threatening rocks, thunderclouds piled up the vault of heaven, borne along with flashes and peals . . . the boundless ocean rising with rebellious force . . . make our power of resistance of trifling moment in comparison [5]."

As Alain Corbin has explained, going to the beach had became fashionable; and so even a non traveler could easily pick up these much discussed ideas about the sublimity of the ocean [6]. When Kant made very strong claims about the universality of aesthetic judgment, to me, though not to many of my fellow aestheticians, it seems fantastical that a provincial eighteenth century writer who never saw many pictures could understand aesthetic judgment as it is practiced in our present day museum culture. "Hardly any painters, except the Venetian and especially the Flemish," Hegel writes, "have become perfect masters of colour; both of these groups lived near the sea in low-lying country intersected by fens, streams and canals" [7]. In his history of the High Renaissance, Sydney J. Freedberg elaborates on just this point:

"The atmosphere of this sea-borne city heightens the existence of seen things. Colour is deepened in the damp-saturated air and sharpened by the sea-reflected light, which also may make complicating interactions among colours [8]."

Although he never went to Italy, Hegel's account anticipates modern discussions of Venetian art. One claim fundamental for Glymour is that philosophy should not be especially, or centrally concerned with its history. In "Thinking Things Through", Glymour shows interest in philosophy's history insofar as it leads towards the present. In that way, philosophy for him is like the sciences; physicists are not primarily interested in the history of physics. Looking ahead to the present, the history of philosophy, as Glymour tells it, is the story of the movement towards present day computer science and the ways in which it has utterly transformed traditional philosophy of mind. The central figures in "Thinking Things Through" are Aristotle, Ramon Lull and some other medievals, Descartes, Leibnitz, Boole, and Frege in what certainly is, in part, a nonstandard history of philosophy, because their work anticipates our concerns. "The human brain is a biological computer and the cognitive activities of humans are produced by computational procedures within this biological computer" [9]. These philosophers are important because their work led us towards this view. There is not reason to care much about the details of the argumentation of Kant, Hegel, Nietzsche or many, many other figures who are thought by historians of philosophy to be highly important; these philosophers were on the wrong track. By contrast, Lull who discovered in the thirteenth century that "reasoning can be done by a mechanical process" [10] was headed in the right direction.

The argument for this position assembles a great mass of materials in a way that does justice to the great achievements of cognitive psychology and computer science. What then would be the argument for an alternative position to Glymour's, for the view that the study of history of philosophy is intrinsically valuable? This is the natural challenge he proposes to his critics: write an alternative history as rich, suggestive and plausible as his. The great philosophical texts, it might be argued, embody deep wisdom because they have withstood the test of time, demonstrating their capacity to educate

many generations. When present-day American conservatives give this sort of argument, I always am disappointed that they do not have the courage of their convictions and demand that Latin and Greek be brought back into school system so that students can study canonical writers in the original languages. The notion that the test of time by itself establishes anything about the validity of a way of thinking is puzzling [11]. If a building is old and remains standing, that shows it was well constructed. That a philosophical theory is venerable does not by itself show that theory to be true, or even plausible. There is no reason that a false view might not endure for a very long time. It would be very easy to compile a large collection of all the foolish things Plato, Aristotle and the other canonical figures had to say about science, morals and many other issues. The marvelous feminist Luce Irigaray has devoted a book, "Speculum of the Other Woman", to the comically misguided accounts of philosophers discussing women [12]. They were men of their time, writers whose claims today have to be read selectively, if they are to seem at all plausible.

Doing philosophy, it might be said, is so bound up in its history that this activity is impossible to perform without an acute historical sensitivity. My hunch is that such a vision can only be defended by showing how philosophy amounts essentially to something more than the philosophy of science; I mean by that, how philosophy does something other, and different than science. This anti-scientific view has been defended in our day by such otherwise extremely diverse figures as Heidegger and Wittgenstein. In a one page analysis, supplemented by a long footnote, Glymour discusses what he calls primitivism, the rejection of "the scientific description of the world as a place of things, events, and processes that are in themselves indifferent to human concerns, and in which the emergence of human consciousness and intentionality constitute phenomena to be explained" [13]. His primitivists include Wilhelm Dilthey; John Dewey; Heidegger; and Sartre, Maurice Merleau-Ponty, Paul de Man, - with qualifications, Camus; and, in his bibliography, "Philosophy and the Mirror of Nature", the book by his former Princeton colleague, the former analytic philosopher who nowadays identifies himself as a pragmatist, Richard Rorty. What links all these philosophers together is concern with "the sort of anthropomorphic conception of the world that we use in our everyday lives, a conception in which we think of things in terms of their utility to us and others and their significance as symbols." Primitivism, Glymour correctly observes, is a view of philosophy held by many non-professional philosophers - by literary critics for example. I would characterize primitivism in a perhaps different way: it is the residue of a religious world view, what is left behind of such anthropomorphic ways of thinking when their theological justification is abandoned.

Glymour does not claim to offer much of a positive argument against primitivism. Nor, it must be said, does he characterize that position in detail, or show any interest in its nuances. The strongest argument against primitivism made in "Thinking Things Through" is the positive demonstration of the efficacy of a scientific world view. Inevitably the philosophers who have sought to resist logical positivism seem to be fighting a rearguard action, offering ever weaker positions as science advances. Like many of us discussing something we detest, Glymour is brief. He claims not just that primitivism is wrongheaded, but that because it "emphasizes social authority rather than the autonomy of individuals and . . . denigrates rationality . . . ," it is politically pernicious [14]. Allowing that some philosophers he admires had dreadful political views---Frege was, in unpublished work, an anti-Semite---Glymour seems to claim that primitivism tends to be associated with bad

political positions. Insofar as a philosopher rejects a scientific
world view, Glymour suggests, he or she will tend to have nasty
politics.

End of Part One: Please see
http://www-mitpress.mit.edu/Leonardo/reviews/books/carrier.html
for the balance of the review.
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< Award Review: "Science for Art" Prize >

Luis Vuitton Moet Hennessy "Science for Art" Prize
Reviewed by Roger Malina
Email: mason@mitpress.mit.edu

The Luis Vuitton Moet Hennessy (LVMH) company awards an annual
"Science for Art" prize to "scientists whose work can be directly or
indirectly be applied to crafts or industries with an artistic or
aesthetic vocation (cosmetics, painting, ceramics, sculptures,
fragrances, food, oenology...)". I have had the pleasure of serving
on the LVMH jury for the last two years and after this year's jury
session thought it of interest to comment on my experience with this
Prize. The professional world seems to be divided into those who
think that "all Prizes are a terrible idea" and "Prizes are a good
idea and a way for a profession to advance its agenda". As someone
who has served on a number of juries I find myself in the second
camp - and my experience with the LVMH Science for Art Prize has
overall been a positive one. Over the years (9 so far) the LVMH
Prize has managed to build up a good reputation and recognize a very
worthy group of scientists (including Pierre-Gilles de Gennes,
Semir Zeki, Benoit Mandelbrojt, Jean-Pierre Changeux - to name a few
that might be known to a Leonardo audience). In spite of the
sponsorship by a multinational corporation perhaps not known for its
association with the fine arts (luggage, perfume, liquor...), the
Prize awarding is carried out professionally, with a relative lack
of self interest or bias, and no pressure on the jurors (only that
the awards must be "explainable" to a broader public). The awarding
of the Prize allows the company to achieve some honest public
relations goals as well as be visible to, and aware of, a scientific
community relevant to its business. This year the Prize was awarded
for work in "The Genesis of Form: I. Biological and Biomimetic
forms". Entries covered fields of science from molecular biology,
genetics, combinatorial chemistry, medicine, enzymatic catalysis,
dendrimer chemistry, etc.). This year the Prize was awarded to
Elliott Meyerowitz for his work unraveling the mysteries of flower
development, and also to his colleague Enrico Coen. These scientists
have succeeded in modifying the genetic material of plants so as to
modify as desired the resulting structure and form of their flowers.

One can think of few scientific topics of such potential interest to
artists as "the genesis of form". The coupling of natural forms and
artistic creation has been a strong strand in art making from
prehistory to the renaissance to the present, with seminal works
such as D'Arcy Thompson's, or the work in fractals and now in
genetics and artificial life providing links between the quest of
the scientist and that of the artist. The techniques of genetic
engineering and combinatorial chemistry have for the first time
provided sharp tools for manipulating the processes of natural form
creation. Where horticulture and agriculture were used to shape the
selection of "desirable" natural forms over human history, now we
have at our disposal the tools to design them ab-initio (and to
discover whether our hubris will have a commensurate time constant).
Where scientists of D'Arcy Thompson's generation sought underlying
mathematical understanding, todayâs molecular biologist would
challenge what understanding can be gained by mathematical

patterning - in the words of one juror that "comparaison n'est pas raison"(similarity is not causality).

As I read the applications of these scientists I was struck how indeed they view their work often in visual ways - familiar with their microscopic or nanoscopic landscape just as we are with our macroscopic one. Sometimes mathematics is their handmaiden, sometimes industrial application their spur.

They often appealed to compelling images, science/aesthetic concepts of elegance and simplicity. They speak as architects, designers, builders, tinkerers - working with organic and inorganic material, just as a sculptor or architect works with stone, steel, glass and wood. They are not just studying or understanding nature, but are agents provoking and modifying natural changes and processes.

I was also struck how absent was any discussion of the ethical or humane considerations that concern so many outside the fields of genetic engineering. Chimeras created from combining the genetic material of a quail and a chicken, new tools that allow genetic manipulation, techniques that alter the color of and patterning of fish or fowl, all described with the breathless conviction that is vindicated by the medical and commercial applications, and by a confidence that more knowledge is good. Yet, as I think back to the art juries that I have worked on, there too artists proposed and presented their works, the sometimes deliberately outrageous concepts, with a confidence and conviction that artmaking was essential to a human and humane society with little reference to the constraints and hesitations of sponsors and audience. Often insistent that their work should be outside the concerns of society, not beholden to the immediate agenda. Yet how clearly the agenda of molecular biology or the electronic arts are embedded in the cauldron of multinational drugs or mass media and entertainment. Wherefrom Wisdom!

The LVMH Jury also decided this year to award a Special Prize to Stanley Prusiner, whose work on the newly discovered pathogens known as "prions" had particular immediacy. Prions are suspected to be the infectious agents responsible for the bovine ailment known colloquially as "mad cow disease". This disease is now known to cross animal species (sheep to cow, and probably cows to humans) and the European Common Market decided to ban beef from England on the claimed basis of its potential danger to humans. Prusiner worked for many years with his unpopular scientific thesis that prions were a new kind of infectious agent - one whose potency was due to the shape of the molecule rather than any particular viral or microbacterial activity. Indeed prions are totally harmless in one geometric structure, but lethal in another. Progress of the illness occurs as one shape of the prion begins to dominate over the normal shape. The Jury could not find a way to describe how the discovery of prions was applicable to "an industry with an artistic or aesthetic vocation", but felt that the discovery of pathology associated with geometry was truly in the theme "The genesis of forms" and one that brought art and science together.

Next year the LVMH Prize will again be awarded for scientific work in "The Genesis of Forms" but will be for work in the physical sciences, mathematics and the earth sciences. Scientists interested in submitting for the award should obtain application information from LVMH, Science For Art, 30 Avenue Hoche, Paris 75008, France or LVMH, 2 Park Ave, Suite 1830, New York NY 10016, USA. Fax 1-212-340-7620. LVMH also awards an annual Art Prize for work relevant to the theme of the Science Prize.
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Editorâs Note: Leonardo Digital Reviews is available on the WWW at
        http://www-mitpress.mit.edu/Leonardo/ldr.html.
Comments to the editors may be made to
        davinci@uclink.berkeley.edu.
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<   END LEONARDO DIGITAL REVIEWS MAY 1996 >
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           |  PUBLICATIONS  |
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<   Computer Music Journal 20th Anniversary Special Issue:
    The State of the Art >

Stephen Travis Pope, Editor
Computer Music Journal, MIT Press
Email: stp@create.ucsb.edu
URL:
     http://www-mitpress.mit.edu/Computer-Music-Journal/

Computer Music Journal's 20th anniversary special issue on "The
State of the Art" has appeared. The contents listing, "About This
Issue" description, and a CD index are included below. There is more
information on our world-wide web site.

Computer Music Journal 20:1--Spring, 1996
Title: 20th Anniversary Issue: The State of the Art

About This Issue

This is the 20th anniversary issue of "Computer Music Journal" and
it covers a broad range of activity within the field. The editor's
note is a "mission statement" for the Journal; reader comment is
invited.

In the opening article, Joshua Cody speaks with Paul Lansky, who is
widely respected as a composer of instrumental and electroacoustic
music, and also as a software developer for his cmix language. They
discuss a number of interesting musical and technical topics. The
accompanying CD begins with Mr. Lansky's recent composition "Word
Color."

The history of computer music and a "snapshot" of the current state
of the art, science, and engineering discipline is given F. Richard
Moore, long a contributor to "Computer Music Journal" and active
member of its editorial advisory board. The article, "Dreams of
Computer Music-Then and Now," is presented in terms of several
generations of dreams and realities for the practitioners of
computer music.

Over the four issues of Volume 20, "Computer Music Journal" will
publish a series of survey or overview articles under the title of
"The State of the Art." The first installment includes five short
contributions by noted authorities writing on their respective areas
of expertise. Under the title "That was Then-This is Now" Laurie
Spiegel--arguably the grande dame of computer music--presents
several interesting premises about the new philosophy of
electroacoustic music production and presentation. Johannes Goebel
discusses our level of success in meeting the promise of digital
music in his note on "Freedom and Precision of Control." John R.
Pierce--one of the founders of the field--also addresses the
original promise and potential of new instruments. A more technical
"Perspective on Computer Music" is given by Roger B. Dannenberg, and
Xavier Rodet has written up his assesment of "Recent Developments in

Computer Sound Analysis and Synthesis."

One of the most exciting areas of computer application in music is real-time performance interaction and "interactive composition." In their in-depth article, Jean-Claude Risset and Scott Van Duyne introduce and evaluate their work using Max with a computer-controlled acoustic piano in Risset's work "Duet for 1 Pianist."

The KTH rule system for singing synthesis is a new system of performance rules for life-like computer interpretation of musical scores using a custom-designed speech synthesizer. The system is based on work at the KTH in Stockholm over the last 20 years. Gunilla Berndtsson describes the hardware and software used in several generations of the system, and presents the new singing rules and their use in musical contexts.

The topic of synthesis and transformation is addressed by Larry Polansky and Tom Erbe in their article on "Spectral Mutation in Soundhack." They describe extensions to Erbe's popular Soundhack program that implement various modes of cross-synthesis and spectral morphing.

The reviews include several events, publications, recordings, and products. Frequent Journal reviewer Robert J. Owens writes up the 1995 ACM SIGGRAPH conference and Anna Sofie Christiansen discusses the CCRMA 1995 summer concert. Under the publications, T. X. Monda and Miller Puckette present two different views on Trevor Wishart's important new work "Audible Design." There are also five (!) recording reviews.

A wide range of hardware and software new product announcements closes the main text of the issue.

This is followed by the extensive program notes for "Computer Music Journal's" 20th Anniversary compact disc, which includes compositions and extended musical examples that tie in to the articles in this issue. The CD are Paul Lansky, Lejaren Hiller and Leonard Isaacson, Jean-Claude Risset, Emmanuel Ghent, Laurie Spiegel, John Chowning, Jean-Claude Risset, Larry Polansky and Tom Erbe, Gunilla Berndtsson, and Gerald Bennett.

Front cover. The front cover bears the title "The Dance Around the Golden Calf" and was composed by the Swedish visual artist Anders Ribbung based on photographic sources from photographer Annika von Hausswolff and with post-processing by Stephen Travis Pope. This image also appeared on the cover of the classic CD Welcome to LuckPeople Center by LPC on the MNW label.

Back cover: The images on the back cover are 3-D spectral plots from the work When Timbre Comes Apart (1992-95) by J?ran Rudi (music) and Roger O. Nordby (graphics). The work was realized at the University of Oslo in Norway under the auspices of the Norwegian Network for Technology, Acoustics and Music (NoTAM). The sounds were realized using Apple Macintosh and Silicon Graphics Inc., Indy computers, and the Symbolic Sound, Inc. Kyma system. The visual idea was based on using a sonogram as the data set for rendering. 4-D curves were drawn manually to describe the camera placement relative to the spectrum, and its movement along the time axis. The notation included camera angle, focus and which characteristics the material in the rendering model should have. The camera choreography chosen with the intention of augmenting the musical development, either by focusing on the strong sounding parts of the spectrum, or by showing connecting elements. More complete program notes, as well as additional images, can be found on the world-wide web at the URL

http://www.notam.uio.no/~joranru. A video tape of the entire piece
can be purchased from the composer by sending electronic mail to
joranru@notam.uio.no.

Journal Contents

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    Roger B. Dannenberg
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    Xavier Rodet
Real-time Performance Interaction with a Computer-Controlled
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    Gunilla Berndtsson
Spectral Mutation in Soundhack
    Larry Polansky and Tom Erbe

In addition there are reviews of events, publications and CDs.

CD Contents

To accompany the article "An Interview with Paul Lansky" by Joshua
Cody
1 Paul Lansky--Word Color
        12:45
To accompany the article "Dreams of Computer Music-Then and Now" by
F.
Richard Moore
2 Lejaren Hiller and Leonard Isaacson--The ILLIAC Suite
   (1957, excerpt-2nd movement)
        2:58
3 Jean-Claude Risset--Computer Suite for Little Boy (1968, excerpt)
        3:20
4 Emmanuel Ghent--Phosphones (1970-71, excerpt)
        1:38
5 Laurie Spiegel--The Orient Express (1974, excerpt)
        4:47
6 Laurie Spiegel--Improvisation on the Alles Machine (1977,
excerpt)
        3:00
7 Laurie Spiegel--Harmonia Mundi (1977, excerpt)
        2:20
8 John Chowning--Turenas (1972)
        8:40

To accompany the article "Real-time Performance Interaction with a
Computer-Controlled Acoustic Piano" by Jean-Claude Risset and Scott
Van Duyne

9 Examples illustrating the MIDI feedback effect
        0:12
10 Examples demonstrating that the time lag between excitation and
   response depends upon loudness

0:18
11 Excerpt of "Doubles" from Jean-Claude Risset's "Duet for One
Pianist"
        0:16
12 Beginning of Anton Webern's "Variations" opus 27 nr 2
        0:10
13 Beginning of "Extensions" from "Duet for One Pianist"
        0:34
14 "Fractal" Chord
        0:38
15 Stretching Factor
        0:16
16 Excerpt of "Resonances" from "Duet for One Pianist"
        1:00
17 "Kaleidoscope"
        1:44
18 Excerpt of "Metronomes" from "Duet for One Pianist"
        1:40

To accompany the article "Spectral Mutation in Soundhack" by Larry
Polansky
and Tom Erbe

19 "Study: ba ba birthday have you any star" (Larry Polansky)
        1:43
20 Electro-acoustic mutation examples (Larry Polansky)
        1:26
21 Mutation examples of recorded (LP) excerpts (Tom Erbe)
        2:11
22 Mutations of children's voices (Larry Polansky)
        1:04
23 Mutations of time-stretched children's voices (Larry Polansky)
        1:18
24 Original sounds used with PAST (Christopher Langmead)
        0:24
25 PAST morphs (Christopher Langmead)
        0:30

To accompany the article "The KTH Rule System for Singing Synthesis"
by
Gunilla Berndtsson

26 "Kyrie"
        0:32
27 Gerald Bennett--Limmericks
        3:08

28 Brigitte Robindore--Comme etrangers et voyageurs sur la terre
(1992, excerpt)
        2:08

One can order this issue, or the Computer Music Journal Volume CD,
by
contacting MIT Press at telephone (+1-617) 253-2889; fax (+1-627)
258-6779;
electronic mail journals-orders@mit.edu; or on the world-wide web at
the URL
http://www-mitpress.mit.edu/Computer-Music-Journal/.
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                       | ANNOUNCEMENTS |
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< CALLING ALL DUCHAMPIANS >

Dew Harrison
CAIIA - Centre for Advanced Inquiry in the Interactive Arts
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I am proposing a project entitled "Deconstructing Duchamp" which
requires 25 participants to lateralise the 'Large Glass' by
reconfiguring "The bride stripped bare by her bachelors, even" from
a 2D field into 25 interlinked elements across the Network field.
Each element of the 'Glass' e.g. The chocolate grinder, 9 malic
moulds etc., will be a web-site for gathering ideas, theories,
quotes, diagrams, illustrations, sounds, and images relating to that
element. Where this information touches, involves or points the way
to another 'Glass' element a direct link is made. The project needs
each of the 25 participants to be responsible for one element/web-
site's design, data input, linkage and update.

This should make an exciting project transposing the 'Large Glass'
into a global web of 25 interlinked web-sites, possibly a new
interpretation in itself, certainly an explicit display of Duchamp's
associated thoughts and ideas held within this piece of work and
hopefully an illustration of the poetical and philosophical magic of
his thought.

BIOGRAPHY:
I am a doctoral research student at CAIIA where my current research
involves the meeting of hypermedia, concept-based art and the
cognitive models of associative thought which underlie both. The
work processes under the title "Hypermedia Systems: the
interpretation and creation of concept-based art" and is concerned
with creating coherent linkage systems of multi-media thoughts and
ideas, fully interactive, collaborative and easily accessed by any
user. I am about to undertake a critical analysis of the conceptual
structure implicit in Marcel Duchamp's "Large Glass", the Case-Study
for this inquiry. It is intended to transpose this art work, as a
semantic network system, into hypermedia to examine and determine
the underlying conceptual architecture.
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< ISEA96 Update >

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Seventh International Symposium on Electronic Art
September 16-20, 1996, Rotterdam, The Netherlands.

The ISEA Foundation and the Rotterdam Festivals Foundation would
like to welcome participants to the Seventh International Symposium
on Electronic Art. The symposium brings together experts on all
aspects of artistic applications of electronic technology in a
scientific, creative and educational forum of scientists, artists,
policy makers and all other specialists in the field of the
electronic arts. The five day event will offer lectures and hands-on
learning experiences by international experts on the current state
of the electronic arts. Papers, pannels, poster sessions and round

tables, selected by the International Program Committee, will be presented on the most recent developments in computer graphics, computer animation, computer music, video art, interactive art, including CD ROM and Internet applications, artistic applications of robotics, computer aided literature and dance, etc. There will be special focus on Networked Art and on education as a means to bridge the gap between artists and scientists. Other symposium events will include an art exhibition at the symposium site, a larger exhibition organized by V2, R96 and the Dutch Photo Institute, an Electronic Theater, Concerts and Performances. During and directly following ISEA96, numerous other Electronic Art events will take place in Rotterdam, ensuring that your visit will be a fascinating one. The Dutch Electronic Arts Festival (DEAF96), including a large exhibition, concerts, performances, A Web Site Exhibition and an Internet project in the Harbour Simulator, as well as the public events organized by the Rotterdam Festivals Foundation, deserves your special attention.

The Organizing Committee plans a stimulating and challenging Symposium where artists, scientists, technologists, curators, writers, students and teachers can exchange expertise and ideas and come away with a broadened sense of the potential within their fields. Your participation is an integral part of the succes of the program and we look forward to meeting you in Rotterdam, September 16-20.

LOCATION
The Symposium will be held at the 'World Trade Center' (WTC) Congress Center, Beursplein, Rotterdam. During the Symposium the organization can be reached at the WTC by telephone: +31-10- 405 44 44. Trains leave every half-hour from Amsterdam's Schiphol Airport to Rotterdam Central Station. Train traveling time is less than an hour. There is a local airport in Rotterdam with connections to several European destinations. The WTC is located right in the city center, 10-15 minutes walking distance from Rotterdam Central Station and can also be reached by the subway as well (Beursplein/ Churchillplein station). The Workshops and Tutorials will be held at several locations in Rotterdam, the Hague and Amsterdam.

R96 FESTIVAL 'THE NEW TEMPTATION'
ISEA96 is part of the 'R96' Festival.
Right at the start of the 1996-7 cultural season, Rotterdam Festivals presents the second edition of a series of new art and culture programs. The title of this years festival was chosen to highlight the influence of new media on art, culture and the city. R96 takes place from 19 to 29 September, at several locations in the heart of Rotterdam. During these 10 days, the festival will offer a wide range of activities in all disciplines, which can roughly be divided into an art program and a city program. The art program consists of exhibitions, symposia, theatre, dance and music performances. R96 will be programming the remarkable play 'Elsinore", a dazzling gold version of Shakespeare's Hamlet by Robert Lepage, in the Rotterdam Schouwburg. During both weekends, the city program offers a 'behind the scenes' view of organizations where applications of electronic and digital technology play a vital role for work and daily life. A city tour leads the public through the World Trade Center, a Police station, the library, MarineSafety harbour simulator and Media school. In each location, the interpretations of a different artist will give new meaning to the information present. For those who own semaphones, the 'Buzzer Game' is the perfect guide. In the evening, R96 presents the first 'Non-Audible' pop concert and a spectacular multi-media party.

A preliminary program of accepted long and short papers, as well as

a group of workshops and tutorials, is now available. LEA readers should contact the ISEA 96 Secretariat for additional details, as well as information regarding fees, hotels, and other activities.

ISEA96 FESTIVAL

EXHIBITION
An art exhibition will be held at the site of the conference, featuring, among others, the latest electronic art from Japan. (In cooperation with ISEA-Japan and the Japan Foundation).

ELECTRONIC THEATER
ISEA96 shall host a Film and Video Show of computer animation and video art.

CONCERTS AND PERFORMANCES
One evening will be reserved for those interested in viewing and listening to a series of international computer music concerts and electronic art performances.

OTHER EVENTS IN ROTTERDAM, THE HAGUE & AMSTERDAM

DEAF 96: DIGITAL TERRITORIES
The Dutch Electronic Art Festival, organized by V2-Organization, consists of exhibitions,a symposium presentations, concerts, performances and various special events. Furthermore, the DEAF symposium will be presented as part of ISEA96. More information on DEAF is presented on the other side of this folder

PONTON MEDIA ARTLAB
WWVC Spui 189, The Hague
The World Wide Video Centre invited Stefaan Decostere (in 1994), General Idea (in 1995), Ponton European Media Art lab, Bill Viola and Rem Koolhaas to develop a project for the privalite windows of the festival premises. The Ponton project 'Numud' will not be unfolded until September 1996, however the web site will be premiered by April 26th. 'Numud',a virtual display of social architecture, focuses on interaction and communication on different levels; providing, generating, and initiating content. The Interactive proces between artist, scientist and Ponton is based on the idea that traditional public space lost its communicative role. Technical development, specialisation and social isolation are leading to new forms of communication.
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         |   OPPORTUNITIES   |
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< Opportunities at CyberGold, Inc. >

Mary K. Glaeser
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DATABASE ADMINISTRATOR - Design and administrate a large relational database. Have extensive exp. w/ Sybase and Solaris. Also need: C/C++ and Unix.

WEB MASTER - Manage the design + content of an extremely busy,

service oriented website. Must know + use HTML 2/ 3, Perl, Unix,
CGI scripts, images, video, and sound. VRML and secure WWW
knowledge a plus. Must have good English + a sense of design.

PROGRAMMERS - Work from program specs and be a self starter.   Web
based exp. in UNIX, C/C++, CGI-Scripting, Sybase/Perl or Perl, and
HTML/HTTP constructs needed. Must have market based exp. Bkgrd in
DB theory, language design, or computational linguistics a plus.

Being built by the Founders of TOPS, we are a market-oriented
company w/ an opportunity to make a significant social impact.
Located in Berkeley, on-site work is required.
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< Visiting Artist at the School of the Art Institute of Chicago >
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Chicago, IL 60603.

THE SCHOOL OF THE ART INSTITUTE OF CHICAGO, Visiting Artist, Art & Technology
Department, one-year appointment. Start Sept. 1996. MFA and teaching experience
required. Strong exhibition or performance history and ability to teach innovative
curriculum is essential. Teach electronic/computer media at both undergraduate and
graduate levels in interdisciplinary fine arts programs. Experience in one
or more of the following necessary: electronic media installation, kinetic art,
interactive multimedia, telecommunication art, VR, computer animation, algorithmic
composition, computer programming, electronics. Include resume, video/slides/tapes of
work, 3 references, SASE.Applications are due on June 24, 1996 and may be
accepted until the position is full.

The School of the Art Institute of Chicago is an Equal
Opportunity/Affirmative Action employer/educator.
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