



Leonardo Electronic Almanac

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INTRODUCTION

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< This Issue >

Craig Harris

LEA Volume 7, Number 2 contains detailed information about the presentations at the Media Art Symposium Stockholm 1998 (MASS 98). We presented the event description and Roy Ascott's Keynote talk in LEA Volume 7, Number 1, and we are fortunate to have the the abstracts and presenter biographies in this issue. The event covered a broad spectrum of issues, and provided perspectives from several people whose names will be recognized by LEA readers. LEA 7:2 also includes a new piece for the LEA Gallery, a special piece about Natalie Bookchin's new journal BAD: Burn the Art World Down. Leonardo Digital Reviews includes reviews of Kowol's "Asteroids," Whittenmore's "Journey to the Frontiers of Molecular Medicine," "Old Wine New Flasks," by Hoffman & Schmidt and a perspective on the exhibit "Women, Surrealism and Self-Representation" at the San Francisco Museum of Modern Art.

The LEA subscription system is now functioning, with plans to bring the Leonardo journal issues on line beginning in May. We will feature the Leonardo Monograph Series next month with Michael Century and Thierry Bardini's extensive perspective "Towards a Transformative Set-Up: A Case Study of the Art and Virtual Environments Program at the Banff Centre for the Arts.

As we have mentioned before, we will continue to offer free access to the monthly text issues of LEA, and to some of the content in the LEA text archives. Full access will be restricted to LEA subscribers, and to Leonardo journal subscribers. Electronic registration is required, so see the subscription information for details, and please bear with us during what will hopefully be a brief transition period.

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FEATURE ARTICLE

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< MASS 98 Profiles (excerpts) >

Janet Colletti, et al

Janet Colletti
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MASS '98 - Media Art Symposium Stockholm was programmed by Helene Bostrom and Janet Colletti and produced in collaboration with Konstfack - University College of Arts, Crafts and Design and Stockholm - Cultural Capital of Europe 1998. MASS '98 took place 7-11 December 1998 and consisted of a three-day international symposium organised under the themes Media, Distribution, and Reception.

MASS 98 Profiles/bios

Symposium: Media

What is media art and how has it matured in relation to older media/art forms such as radio, literature and film?

Robert Coover & Robert Arellano
"Lyric and Narrative in Hyperspace"

Robert Coover, author of more than a dozen and a half books of innovative fiction, including "Pricksongs of Descants," "The Public Burning," "A Night at the Movies," "John's Wife," and "Pinocchio in Venice," has for the past decade been teaching experimental courses in hypertext and multimedia narrative at Brown University. His widely translated New York Times essays in the early 1990s on hypertext fiction, "The End of Books" and "Hyperfiction: Novels for the Computer," were the first to bring international attention to this emerging art form. He is the winner of the William Faulkner Award, Guggenheim and Rockefeller Foundation Awards, various Obie Awards for his theatrical works, and the REA Award for the Short Story, among others. He is a member of the American Academy of Arts and Letters.

Robert Arellano is a scriptwriter, scholar, filmmaker, guitarist, teacher and pioneer electronic fiction writer, author of the first on-line hyperzine, LSD-50, which marked the fiftieth anniversary of the accidental discovery of LSD). He is also author of the Internet's first fully interactive novel, "Sunshine 69," one of the most significant new creative works to appear on the Web in recent years. Also known on the Internet as Bobby Rabyd, Robert Arellano teaches hyperfiction workshops and Cuban-American media studies at Brown University.

Heidi Grundmann - "Radio"
Radio Art as Media Art

Heidi Grundmann has worked as a cultural reporter, art and theatre critic, editor and programme producer at the Austrian Broadcasting Corporation (ORF) for over 25 years. In 1987 she created the radio programme Kunstradio-Radiokunst (original artworks for radio), which she still curates. Kunstradio is a 40-minute programme broadcast weekly on the cultural channel of the ORF. Kunstradio has had its own Web site, which contains many art projects and live webcasts, since the beginning of 1995.

Perry Hoberman - "Interactive Art"
An Interactive Artwork is Like a Used Car

Perry Hoberman is an installation and performance artist whose work has been exhibited widely throughout the United States and Europe. He works with a variety of technologies, ranging from the utterly obsolete to the seasonably state-of-the-art. From 1992 to 1995 he was the art director of Telepresence Research, a company specializing in

virtual reality applications. A retrospective survey of Hoberman's work, *Unexpected Obstacles*, was exhibited during the summer of 1998 at the ZKM Mediamuseum in Karlsruhe, Germany, and before that at Gallery Otso in Espoo, Finland. *Systems Maintenance*, a commission from Hull Time Based Arts, premiered at the Conerhouse in Manchester, England, in September as part of ISEA 98, and was also shown at ROOT 98 in Hull, England, and DEAF 98 in Rotterdam. *Lightpools or El Ball del Fanalet*, a collaboration with Galleria Virtual, premiered at the Miro Foundation in Barcelona in November 1998. Perry Hoberman is represented by Postmasters Gallery in New York. He has taught at the San Francisco Art Institute, the Cooper Union School of Art (New York), and the School of Visual Arts (New York).

Symposium: Distribution

What challenges has new media technology placed on the traditional institutions and distribution channels for art?

Timothy Druckrey
"Challenges and Developments"

Timothy Druckrey is a curator and writer living in New York City. He lectures internationally on the social impact of electronic media, the transformation of representation, and communication in interactive and networked environments. He co-organized the international symposium *Ideologies of Technology* at the Dia Center of the Arts (and co-edited the book available from Bay Press: *Culture on the Brink: Ideologies of Technology*). He co-curated the exhibition *Interations: The New Image* at the International Center of Photography, and edited the book published by MIT Press. He recently edited *Electronic Culture: Technology and Visual Representation* and is editing a series called *Electronic Culture: History, Theory, Practice* to be published by MIT Press.

Erkki Huhtamo - "Curating"
"Unexpected Obstacles, or Curating Media Art"

Erkko Huhtamo is an unaffiliated media scholar, writer and curator. He has published numerous studies about media history and media art in ten languages. He is currently working on a book on *Media Archaeology*, to be published in English. He has lectured in different institutions and conferences in the USA, Japan, Australia and various European countries.

Astrid Sommer
Art on CD-ROM

After graduating in theatre studies and further studies in film and cultural management, Astrid Sommer joined the Institute for Visual Media at the ZKM Centre for Art and Media in Karlsruhe in 1993. She has been the editor of ZKM's CD-ROM magazine *artintact* since 1994.

Tony Bennett
"Beyond the Museum? From Curatorial Monologue to Cross-Cultural Dialogue"

Symposium: Reception

What effects have new media technology on aesthetics, vision, politics, place and science?

Martin Jay - "Vision and History"

Astronomical Hindsight: The Discovery of the Speed of Light and Virtual Reality

Martin Jay is Professor of History at the University of California, Berkeley, where he specializes in European intellectual History; Visual Culture, and Critical Theory. He is the author of numerous books, including *Cultural Semantics: Keywords of the Age* (University of Massachusetts Press, 1998); *Downcast Eyes: The Denigration of Vision in Twentieth-Century French* (University of California Press, 1993); *Force Fields: Between Intellectual History and Cultural Criticism* (New York, Routledge, 1993); *Fin-de-Siecle Socialism and Other Essays* (New York, Routledge, 1998). He is also the editor of many books including *Vision in Context: Historical and Contemporary Perspectives on Sight* (with Teresa Brennan) (Routledge, 1996). He is on the editorial boards of *Theory and Society* and *Cultural Critique*.

Neil Spiller

"Soft Objects - Architecture and Advanced Technology"

Neil Spiller is a practicing architect. He is the Diploma/Master of Architecture course director at the Bartlett School of Architecture, University College, London. He is the author of the book *Digital Dreams - Architecture and the New Alchemic Technologies* (1998). He is co-editor of *AD Architects in Cyberspace*, editor of *AD Architects in Cyberspace II* (1998) and formerly editor of the monthly *Building Design Interactive*. He is co-editor with Peter Cook of the forthcoming book *The Power of Contemporary Architecture* (1999). He lectures around the world and his work has been exhibited and published worldwide. He is currently working on a complete monograph of his project work, entitled *Mutated Topologies*, for AD, together with graphic designers Vaughan Oliver and V23, famously known for their album cover designs.

Jennifer Terry

"Gender/Technology"

Jennifer Terry is associate professor of comparative studies at Ohio State University. Her concentrations are history and cultural studies of science and technology; gender, race and sexuality; feminist theory; social theory; American studies. She received her PhD from the History of Consciousness programme at the University of California, Santa Cruz. Her forthcoming book is titled *An American Obsession: Science, Medicine and the Place of Homosexuality in Modern Society* (University of Chicago Press 1999). She has contributed to numerous anthologies and edited many books, including *Processed Lives; Gender and Technology in Everyday Life*, eds. Jennifer Terry and M. Calvert (Routledge, London 1997); *Deviant Bodies: Critical Perspective on Difference in Science and Popular Culture*, eds. Jennifer Terry and J. Urla (Indiana University Press 1995). Jennifer Terry lectures widely in the area of gender and technology and was co-coordinator in 1994 of a year-long series on gender and technology co-sponsored by Comparative Studies and the Wexner Center for the Arts. She is on the editorial board of the *Journal of the History of Sexuality*.

Lars O Ericsson - "Aesthetics"

Liquid Aesthetics - For a Fluid World

Lars O Ericsson is an art critic and associate professor of philosophy at Stockholm University. He holds a BA in Russian and Philosophy, and a Ph.D in Philosophy from Stockholm University. Lars O Ericsson teaches the philosophy of art at Stockholm University and the Konstfack, University College of Arts, Crafts and Design, Stockholm. He has been an art critic for the Swedish daily newspaper *Dagens Nyheter* since 1987 and a regular contributor to *Art Forum* in New York.

He has published numerous books, catalogues and articles on contemporary art.

Geert Lovink
Media Politics

Geert Lovink is a write and journalist based in Amsterdam. He is a founding member of Bilwet/Adilkno (Foundation for the Advancement of Illegal Knowledge), and has previously been a member of the editorial staff of the media journal Mediamatic. Bilwet was founded in 1983 as a collective of artists and authors originating from the squatters' movement and illegal radio in Amsterdam.

Wiebe E Bijker - "Sociology of Technology"
"The Social Construction of Technology & the Digitalization of Cultural Heritage"

Wiebe E. Bijker is professor of technology and society at the University of Maastricht. He was trained as an engineer in applied physics and studied philosophy.

He is presently Dean of the Faculty of Arts and Culture, and directory of the Netherlands Graduate School for Science, Technology and Modern Culture. He is also founding co-editor of the MIT Press monograph series Inside Technology. He recently helped to create the Maastricht McLuhan Institute for European studies of digital culture.

... [Content omitted: Ed.] ...

[Ed. note: the complete content of this article is available at the LEA website: <<http://mitpress.mit.edu/e-journals/LEA/>>.]

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| PROFILE |

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< LEA Gallery Feature: BAD: Burn the Art World Down >
Patrick Maun and Natalie Bookchin

Patrick Maun
LEA Gallery Editor/Curator
Email: <pmaun@bitstream.net>

Curatorial Statement

The story is that Coyote lost his skin on a bet. This loss revealed him as a simple trickster. Once loaned the coat of a beaver (to whom he lost his skin in the first place), he is accepted by the badgers as one of their own. In much the same way the tricksters documented in the new journal BAD: Burn the Art World Down have borrowed the skins of some of media arts' most respected Badgers. BAD's tricksters prefer anonymity, but their ranks can surely be culled from the groups such as rtmark, easylife, and etoy. Over the past several years, their actions and performances and pranks have been discussed, argued over, and often times executed, in online mailing lists such as 7-11, Rhizome and American Express. This movement, these actions, the mailing lists and individual artists are often bolted down under the

unfortunate moniker of "net.art." While the term itself (not to mention its very existence/cohesion) is constantly under debate, its artists and organizations have managed to Shanghai the attention of the artistic mainstream -- reportage includes the New York Times, Art Forum, exhibition at Documenta X, the Guggenheim, the Walker Arts Center and many others.

The premiere issue of BAD, edited by artist Natalie Bookchin, attempts to give a new respectable skin to the various pranks of identity theft, agitation and aesthetic terrorism against the artistic mainstream. While many of these actions can be seen as simply random occurrences, BAD gathers them under one banner and brings a new cohesiveness to the events. BAD revels in, while simultaneously criticizing, the deeds of this diverse net.art movement.

The journal's format mimics that of other internet art 'zines like Switch, CTHEORY and Perforations. BAD contains documentation on various BAD actions, information on (somewhat questionable) exhibitions, subscription information ("It's Free"), includes editorial content and is liberally sprinkled with ad banners.

Balancing on the line between document, critique and art, BAD provides insight into an art and technology movement which purposefully, and critically situates itself outside of both the art and technology industries, and as such, provides an important place of reflection for those involved in these very fields.

About the Editor of BAD

Natalie Bookchin is an artist living in Los Angeles where she teaches at the California Institute of the Arts, in the areas of Art and Integrated Media.

She exhibits her work, lectures and performs frequently in the States, in Europe and in cyberspace. Her recent works have been reviewed on TV, radio and print, including ABC National Radio and The New York Times on-line and off.

She is currently working on translating a short story by Jorge Luis Borges into an interactive narrative. The story unfolds as a user moves through a series of games loosely based on classic computer games from pong to space invaders. This work will be presented on the Internet and as an arcade game.

... [Content omitted: Ed.] ...

[Ed. note: the complete content of this gallery feature is available at the LEA website: <<http://mitpress.mit.edu/e-journals/LEA/>>.]

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LEONARDO DIGITAL REVIEWS
1999.02

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< Book Review: Old Wine, New Flasks >

Old Wine, New Flasks
Reflections on Science and Jewish Tradition
Roald Hoffman & Shira Leibowitz Schmidt
New York: Freeman & Co, 1997

Reviewed by Kevin Murray
Email: <kmurray@mira.net >

This innovative book takes on a variety of formats. 'Is Nature Natural?' is written as an exchange of letters. 'Bitter Waters Run Sweet' is shaped by contributions to a mailing list. And 'The Flag that Came Out of the Blue' contains a play in three acts and two intermezzi. Other chapters may seem more conventional, though the hopscotch jumps between ancient and modern prevent a reader lapsing into familiar patterns of thought.

The book is based on the idea of symmetry between religion and science. It is focused principally on the biblical science of herbs, dyes and natural symmetry. However, it is not so naive as to suggest a scientific basis for biblical beliefs, as some creationists might expect science to 'prove' the earth is only a few thousand years old. The dialogue between rabbi and laboratory technician is made possible by an understanding of the fragmentary basis of truth. This logic accounts for the rich mix of sources that have created the book.

The discussion of dyes is a good example. During the time of ancient Levant, dyes were the most precious commodity. Tyrian purple was equivalent in cost per weight to gold. With the loss of dyeing technologies, there have been various attempts to recover the historical methods, first, and then develop cheaper synthetic versions later.

Hoffman and Schmidt don't stint on the irony: 'Today, indigo is made synthetically in sufficient quantity to dye about a billion pairs of blue denim jeans a year. The dyeing of each pair consumes 3 to 12 grams of indigo. Then you try for a long time to get part of the dye out in the pre-washed designer jeans. We've come a long way (or have we?) from a rebellion in the biblical tribe of Levis.

Old Wine, New Flasks is a powerful example of the creative force of dialogue: between old and new, religion and science, female and male, orthodox and liberal. If you weren't interested directly in the material contained between the covers, I'd recommend reading it simply for the mental stimulation. Take it and drink.

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< Exhibit Review: Women, Surrealism and Self-Representation >

Women, Surrealism and Self-Representation
San Francisco Museum of Modern Art
January 9 through April 20, 1999

"But what kind of a legacy?"

-A dialogue between Sonya Rapoport and Barbara Lee Williams.

Sonya Rapoport

Email: <rapop@socrates.berkeley.edu>

URL: <<http://www.lanminds.com/local/sr/srapoport.html>>

Barbara Lee Williams

Email: <delano@pacbell.net >

BLW: Opening this exhibit -- dedicated to three generations of women artists who were deeply influenced by surrealism -- with two of Dorothy Cross's confrontational and eerie works was effective and unexpected. Most of the pre-exhibition comments by the curators focused on the legacy of surrealism's first generation of female artists, so I rather expected the show to open with their work. But I liked the stylistic contrast between Cross's two pieces: the photograph, "Mantegna and Crucifix", with its in-your-face eroticism, is boldly contemporary while the creepy, life-sized mannequin "Virgin Shroud," a headless bride shrouded in a satin gown and cowhide, achieves the ironic humor and bold presence of some of the original surrealist objects. Yet, both provoke the viewer by arranging simple objects or images of individual power in disturbing juxtapositions.

SR: Although the first generation of women surrealists is important to support the curators' hypothesis, their work is not as impressive visually as it is historically. I think an exception is Kay Sage's strong oil "Small Portrait", composed of industrial(ized) basketweave forms. Even Dorothea Tanning's paintings- like "Jeux d'enfants" which are often praised --seem to me, strictly illustration. The 'Virgin Shroud' is a looming opener but in spite of the 'devil's' horns made of stuffed cows teats, it would never hook me. The horns are playfully ominous but I find the use of such "unconventional" materials trite and the total impact physically and psychologically static. This sculpture may be a clever reference to the early surrealist mannequin but it is too heavy-handed.

BLW: Since I liked this opening set of works, I wasn't disappointed until I moved through the exhibit; then I found myself unhappily comparing the premise of the exhibit with the works displayed. To illustrate the legacy of surrealism's female artists, the show needed a clear definition of the original movement as well as vivid and significant works from the original group. Frankly, the argument that these early female artists wielded a profound influence is thrown into question by the deeply problematic paintings by Lenore Carrington, Leonor Fini and Remedios Varo included in the show. Yet there were other women surrealists who produced strong, original work. Where, for example, are the photographs of Dora Maar and Lee Miller Penrose?

SR: I understand that it was difficult to borrow some artworks for the exhibit because of concerns that an all woman show would devalue the work. In any case, I did not expect a blockbuster, nor did I expect an erotic eye-opener such as Cindy Sherman's photo of a raised backside with its huge open anus. I addressed the exhibition as a redefinition of surrealism within the context of the "Information Age." Surrealism did begin as a literary movement and evolved, in the visual arts, alongside synthetic cubism, abstraction, and conceptualism. Because of surrealism's easily discernible imagery such as animals, body parts and facial features, it was an accessible art form for the public, and had profound influence on women-artists-to-be. Remedios Varo's works at the Academy of Science almost twenty years ago, had a huge impact

on me. I couldn't believe that another woman was using science as an art subject! And in this exhibition Merit Oppenheim's "X-Ray of M. O's Skull" has similar impact.

BLW: The Oppenheim photograph was wonderful - and especially appropriate since, with the inclusion of her huge dangling earrings and multiple rings in the X-ray, the photo sounded a humorous and intentionally "female" note. Of course, this is a later work, dated, I believe, 1964. Fortunately, the exhibit also included several small black and white transgender self-portraits by Claude Cahun, which vividly evoke the early period and raise questions about sexuality and identity that still resonate today. Another strong presence from the early years is Frida Kahlo. Her ferocious "Self-Portrait with Thorn Necklace and Hummingbird" derives much of its power from the surreal associations of pain and suffering suggested by the necklace with its sharp thorns against her skin, though she decried being a surrealist.

SR: That's it - these women did leave a legacy of funneling a feminine vision into their art that eventually evolved beyond the early Freudian and scientific references; and even beyond Frida Kahlo's charismatic cries of which I am a bit tired. But I agree, Claude Cahun does sustain a contemporary vitality with her blatant androgynous self-imagery. These silver gelatin prints border on conceptualism. Also, their quintessential diminutive format (3-3/16 x 3-7/8) and soft tones are ingratiating.

BLW: What did you think about the work of the next generation? I adored the nasty eroticism of Eva Hesse's repulsive "Untitled or Not Yet," a set of hanging fishnets filled with sand and polyethylene -- although it seems a creative stretch to categorize this work as a "self-representation!" And, as always, I was charmed by the freshness and immediacy of Louise Bourgeois' wooden totems, especially 'Pregnant woman' -- which is so primitive in form, finish, and subject -- as well as her painting "Woman-House," which echoes the original surrealists' provocative associations of things and people. Even so, I would link this work back to surrealism at large (Miro, Ernst, Magritte) rather than to the first generation of female artists presented here.

SR: Eva Hesse has certainly broadened to a succinct abstraction, a surrealism that goes beyond explicit self-portraiture; and to a degree, so has Louise Bourgeois. But I am not in complete empathy with the latter's work. I find it a bit polished -- but her phallic bronze totem covered along one length by continuous breast forms, one above the other, is an unforgettable work of art. It is a striking androgynous companion to Hesse's balls encased in fishnets which I find beautiful. The Yayoi Kusama cloth figure with protruding elliptical pillows continues in a similar vein, but is, unfortunately decorative and without Hesse's magic.

BLW: Kusama's work has a limited resonance for me; it seems both dated and contrived, but I absolutely agree that the most impressive pieces in the exhibit are contemporary. For example, I was utterly chilled by Paula Santiago's delicate, baby-white "infants' clothing" created out of skin-like rice paper, blood and hair.

SR: I, too, experienced a chill from Santiago's "Hupil" but the chill was initiated by the thought "where are the children" rather than from the objects themselves. Yayoi Kusama's mixed media "Silver on Earth" has a dress without body that, for me, is more convincing as an eerie spectacle. Many times children seem to be used as a ploy for emotional reflex. However, the gentle references to infants in Eva Hesse's untitled oil (Self-Portrait) and Kahlo's "Frida and the Miscarriage" do convey sincerity.

BLW: Some of the other contemporary references to "self" were particularly bold and refreshing. Kiki Smith's "Siren," a life-sized, cloth torso with a tiny blue bird for its head (and another hovered over its vagina), recalled the historic Surrealist mannequins which depended upon similar illogical and/or Freudian associations, although "Siren" is far more light-hearted. Cindy Sherman's images also seemed an appropriate presence here given the theme of self-representation, but at least one of the curators' choices - the mannequin with her plastic behind hoisted in the air that you mentioned earlier - was silly considering this artist's truly provocative work.

SR: Oh Yes, that Cindy Sherman! But the Kiki Smith does give a delightful kick. Its sequined blue-bird pecker, one on the head and one below that substitutes for the clitoris, is among the more interestingly liberated expressions. Dorothy Cross's photograph, a masturbatory suggestion with a cross takes its cue overtly from a reference to Salvador Dali's "The Great Masturbator"; and Annette Messager's "Piece Montee, no.2 " references Dali's above portrait in which a praying mantis is attached to his mouth. Messager paints a phallic tongue in an open mouth from which limbs flow in a vomiting cascade. I liked this spontaneous gush and preferred it to her elegant signature work, "Histoire de Robes".

BLW: Of course, several of the works represent a playful updating of the overt sexuality of surrealism, especially its obsession with the female nude and with (implicit and explicit) male sexual impulses -- all of which is a significant, if not key, part of the movement's legacy. To me, the surrealists' legacy of sexuality as a subject in art -- with or without Freudian associations - seems second only in import to their use of the subconscious -- dreams, fantasies -- as subject.

SR: Because of this movement, the surrealist woman artist was given a legacy to be naughty and brazen, but she also became nervous. Janine Antoine's video of wringing hands are no longer either restricted or protected as in Merit Oppenheim's "Pair of Gloves." And a surreptitious hand holds a flower under the nose of an anxious pig in Lindee Climo's oil painting, "Pig with Moly Plant" (1996).

BLW: Oppenheim's grey-blue suede gloves with their delicate painted veins, vividly demonstrated the historical distance of the original surrealist movement. I suddenly realized how long ago this movement happened; in the 1920s and 1930s when soft, ladylike gloves were the norm. The animism of these elements and objects --hands, shoes, a mirror, a child's dress -- is one aspect of this show that rings true to me. Such vivid linking of apparent identity and associative potential is sometimes dark and sometimes humorous, and always elevated beyond considerations of the artist's gender. In fact, several of these pieces -- like Cross's jarring cow-teat shoes-- transcend the original models.

SR: What I find so interesting is that some works do transcend the original models and I think it is because they evoke a feminism. The materials are soft, caressable and decorative. Flowers proliferate. Personal messages dominate. In art of this moment, content concerning women's issues is being updated politically. This has culminated in an art form, beyond the purely visual that is a hypertext format. Surrealism has completed its literary-art cycle.

BLW: That's a wonderful perception and it goes beyond my original notion that the opening up of content was a great part of Surrealism's legacy. Moreover, if the women of the original surrealist movement were struggling to express themselves in the profound way offered by

surrealist theory and beliefs, the contemporary artists who followed them seem liberated and able to create simply as artists, as human beings who then choose to focus upon their femaleness as part of that humanness.

SR: This is an important show for the implication of the surreal legacy in general, not for the uneven quality of its art. The fact that the early women surrealists existed and depicted their "stories" is legacy enough. Women artists came out of the closet.

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< Book Review: Asteroids >

Asteroids:
Their Nature and Utilization, 2nd edition
Charles T Kowol
John Wiley & Sons
1996
ISBN: 0-471-96039-X

Reviewed by Kasey Rios Asberry
E-mail: <kasberry@humanorigins.org >

Charles T. Kowol prepared this field guide while serving as Senior Project Engineer for Allied Signal Corp. in the Near Earth Asteroid Rendezvous Mission based at the Applied Physics Laboratory, Laurel, Maryland.

Unlike recent popular environmental holocaust films such as "Deep Impact" this slim volume surveys the field of asteroid study with remarkable depth. It includes glossary, index and bibliography as well as a variety of useful graphics and historical photos (all black and white). In addition to cataloging asteroids as discovered, Kowol collects and compares theories of asteroidal evolution, their relationships to other bodies such as comets and their implications for planetary system formation. The second part of this book's dual focus is upon the technology that supports the study and exploitation of asteroids such as telescopes, cameras and spacecraft powered by sunlight. Kowol asserts that though now they seem prohibitively distant, asteroids "are treasures, waiting to be seized". By mining them he suggests that humans can extend our reach off of Earth and into space. Kowol would not discourage the popular fascination with the potential destructive power of asteroids. Instead he welcomes this apprehension as an opportunity to expand asteroid research.

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< Book Review: Your Future Self: A Journey to the Frontiers of Molecular Medicine >

Hank Whittenmore
Thames and Hudson, New York,
1998. 160 pp. \$ 27,50, hardcover.
ISBN: 0-500-54223-6.

Reviewed by Istvan Hargittai
Email: <hargittai.aak@chem.bme.hu>

The opening quotation of one of the 10 chapters of this book is from Albert Einstein, "The most beautiful thing we can experience is the mysterious. It is the source of all true art and science."

With the rapid advances of biomolecular sciences our knowledge is multiplying at a high rate yet the field does not seem to lose its mysteries. This is so, notwithstanding the fact that an increasing amount of the rapidly acquired information is also becoming visually

attainable. Yet these mysteries are at least becoming more accessible to broadening audiences and this is not a small achievement either. Direct microscopic photography and computer imagery have contributed to the progress and its opening up for a the public too.

Hank Whittenmore is a true master of sorting out and presenting the available information. The material of this volume has grown out of a project, which carried the very telling title, Out of Sight: Imaging/Imagining Science, presented in 1998 at the Santa Barbara Museum of Art in California. In fact, as this volume witnesses, all this is not so much out of sight anymore. Jonathan Lipkin is quoted as saying. "Visualization is key to science." Indeed it is to all cognitive processes.

The book contains 120 illustrations in color and a few in black and white. We see cells and DNA molecules, genes and viruses, the brain and even the mind(?). The commentaries help the reader get oriented among the abundance of illustrations. The author was assisted by outstanding scientists and artists, schools and organizations in compiling this uniquely attractive collection of images. The introduction is followed by 8 chapters of collections drawn from scientific research and experience. The last chapter has a direct involvement from the arts in it. I say direct involvement because the previous chapters are also artistic in their choice and presentation. The book closes with a helpful glossary of biological and medical terms and with the listing of the sources.

The subtitle includes the term "molecular medicine", doubtless a popular expression. Some will remember though that a few decades ago the introduction of this term was viewed as quite extraordinary. However, healing at the molecular level, genetic engineering, and even cloning, have, indeed, become part of our lives and expectations. This book brings then these and many other concepts much closer to the reader and browser by appealing to our probably most sensitive sense. It is also remarkable that many of the microscopic and computer images appear so artistic. For this reason the boundary is blurred between the purely scientific sections of the book and the last chapter with the direct involvement of the arts.

And this makes me feel strongly about issuing a caveat to point to the importance of delineating the two roles lest some think that one can be replaced by the other. Although art and science appear in unison in depicting the mysteries of molecular medicine, there are vast differences between them. Scientific research consumes tremendous resources in bringing out the understanding of the molecular world and the living organisms, leading to the utilization of this knowledge for the betterment of human life. The visualization is a useful and instructing byproduct in this endeavor. The arts provide helpful means both in sensing these mysteries and communicating them to broader audiences but this also shows their much more restricted role in this improbable undertaking of learning and subduing our worlds.

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<<http://mitpress.mit.edu/e-journals/Leonardo/ldr.html>>

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| OPPORTUNITIES |
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< Virginia Center for Computer Music Graduate Assistantship >

Alicyn Warren, Assistant Professor
McIntire Department of Music
112 Old Cabell Hall, University of Virginia
Charlottesville, VA 22902
Tel: (804) 924-3052
Fax: (804) 924-6033
email: <alicycyn@virginia.edu>
URL's:
<<http://www.virginia.edu/~music/VaCenterCompMusic.html>>
<<http://presto.music.virginia.edu/VCCM>>

Virginia Center for Computer Music (VCCM) and McIntire Department of Music announce a 1999-2000 Graduate Assistantship in Computer Music

The Department of Music offers a Master of Arts degree in Music, with concentrations in Composition, History and Criticism, and Ethnomusicology.

The VCCM studios include UNIX-based workstations (SGIs, and Pentiums running Linux), Macintosh workstations combining MIDI and digital audio, and several different types of MIDI controllers. Digital video work can be done in UVA's New Media Center. A CD of works produced at the VCCM by faculty and graduate students will be released this year on the Centaur CDCM series.

< California Institute of the Arts, School of Music >

California Institute of the Arts School of Music

David Rosenboom
Dean, School of Music
California Institute of the Arts
24700 McBean Parkway
Santa Clarita, CA 91355-2397 USA
Tel: 805-253-7817
Fax: 805-255-0938
Email: <david@music.calarts.edu>
URL: <<http://music.calarts.edu/>>

Position Announcement: two positions in composition

The California Institute of the Arts, School of Music seeks composers of significant professional stature with teaching experience to fill two full-time positions in its Composition Program. It is anticipated that one appointment will be made at a senior and one at a junior level. Both positions may involve teaching graduate (masters) and undergraduate students. Together, these positions will include teaching assignments in composition, composition techniques, musical literature and aesthetics, theoretical and analytical topics, new media technologies, and approximately 0.50 FTE in the undergraduate, core curriculum. Advanced facility in composing and teaching composition for instrumental and vocal media is expected. While skills in new technology are desirable, understanding and affinity for the aesthetic and artistic concerns of new media and interdisciplinary

art making are essential. Successful candidates will be expected to participate fully in the process of building and shaping CalArts composition programs for the future. We also seek a candidate interested in developing methods of teaching music theory and musicianship skills that can be applied to multiple musical styles.

CalArts School of Music is committed to supporting experimental directions in music combined with strong training in the disciplines essential for new generations of composers to succeed in establishing their musical voices. Experience with the other disciplines represented at CalArts will be considered an asset, as will an ability to perform in some capacity. Applicants must be able to relate knowledgeable to current and changing trends evident in today's student body. Depending upon qualifications, the senior applicant may be eligible for appointment to the Roy E. Disney Family Chair in Musical Composition.

CalArts is an independent college with a strong commitment to the contemporary arts. Schools of Music, Visual Art, Theater, Dance, Film/Video and Critical Studies and programs in integrated media and interdisciplinary art making interact in a lively, atmosphere. The School of Music offers studies in composition (instrumental and computer music and new media), world music (Indian, African, Indonesian), performance (instrumental and vocal), jazz and African American music, musical arts, and music technology and is committed to developing curriculum integration among these various programs. See the web site for further information about CalArts.

Send letter, CV and three letters of reference. Do not send additional material unless requested. The School of Music is interested in identifying prospective minority and women candidates. EOE/AA. Deadline and starting date: Positions are open until filled. Earliest possible starting date is July 1, 1999.

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ANNOUNCEMENTS

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< VIII International Festival of Electroacoustic Music >

VIII INTERNATIONAL FESTIVAL OF ELECTROACOUSTIC MUSIC
"SPRING IN HAVANA 2000"

Organizing Committee
VIII International Festival of Electroacoustic Music
Calle 17 esq. a I No. 260
Primer piso, Vedado, C.Habana 10400, Cuba
Tel: (537) 30-3983
Fax: (537) 66-2286 or (537) 33-3716
Email: <lnme@artsoft.cult.cu>

Havana City, January 15, 1999

We are pleased to inform you that the Cuban Institute of Music and the National Laboratory of Electroacoustic Music of Cuba are organizing the 8th edition of the International Festival of Electroacoustic Music "Spring in Havana 2000" which is going to take place from March 5 (Sunday) to March 11 (Saturday) of 2000 and will be dedicated to the 80 Aniversary of the Birth of Master Juan Blanco.

This event will present works of electroacoustic music for tape only, mixed, performances and multimedia spectacles, lectures workshops and expositions.

Due to the magnificent reception obtained by the previous edition in March 1998 among the participants, next Festival will developed its activities at the rooms and yards of the colonial houses, the squares, museums and military fortress of the ancient time of the Spanish colony all inside the Historic Center of Havana City (Patrimony of the Humanity for UNESCO).

The present economic situation of our country make impossible for us to assume your costs of airfare, lodging and food, but we can offer you very special prices at the Historic Centers hotels.

If you are interested in participating, you can send us your proposal by email, you should include a brief curriculum vitae (around 200 words), your personal address and fax number, in order to send you the official invitation.

Please, send the works, scores, videos, etc., before December 15 1999.

The Festival program will close on December 30 1999.

< VIth Brazilian Symposium on Computer Music >

VIth Brazilian Symposium on Computer Music
Dr. Rodrigo Cicchelli Velloso (symposium chairperson)
Departamento de Composicao
Escola de Musica da UFRJ
Rua do Passeio 98
Rio de Janeiro RJ
20021-290 Brasil
Tel: + 55 21 2401391 ramal 38
Email: <sbcm99@infogene.ctc.puc-rio.br>
URL' s:
<<http://www.inf.puc-rio.br/~sbc99/programa/sbcm.html>>
<<http://www.di.ufpe.br/~glr/CM/sbcm99.html>>

The Symposium

The Brazilian symposia on computer music have consolidated the position of the country in the field. The 6th Brazilian Symposium on Computer Music will be held in Rio de Janeiro, during the 15th Annual Congress of the Sociedade Brasileira de Computacao (SBC) from 19 to 22 of July. The symposium is organized by NUCOM, the computer music branch of SBC.

This is a unique opportunity to visit Rio de Janeiro, one of the most beautiful cities in the world and a leading Latin American cultural center. During the symposium there will be concerts, papers and lectures on topics at the cutting edge of computer music technology. Researchers and musicians interested in the interplay between computer technology and music are invited to submit papers and compositions

Topics of Interest

This year we are giving special emphasis to "Musical Composition and

Computing Technology".

The topics include, but are not limited to:

- * Acoustics, Diffusion, Sonorization
- * Audio Hardware Design
- * Audio Signal Processing
- * Sound Synthesis
- * Artificial Intelligence
- * Psychoacoustics and Cognitive Modeling
- * Computer Aided Music Analysis
- * Computer Aided Musical Education
- * Real-time Interactive Systems
- * Music Data Structures and Representation
- * Music Notation, Printing and Optical Recognition
- * Systems and Languages for Composition
- * Artificial Life and Evolutionary Music Systems
- * Internet Applications
- * Multimedia Integration
- * Computer-Aided Musicology

A selection of papers will be considered for publication in Organised Sound, Cambridge University Press.

Guidelines for submission

Papers

Papers describing on-going or concluded research must be submitted in a preliminary version containing no more than 8 pages (Times Roman 12, and 1.5 interline space). Portuguese is acceptable for preliminary submissions but for the final camera-ready papers English is required.

Authors must state the topics on the cover page (refer to topic list above).

Please e-mail submissions to Geber Ramalho <glr@di.ufpe.br> or Eduardo Miranda <miranda@csl.sony.fr> as MS Word 97, pdf or postscript files. Alternatively, indicate the URL where your document may be found.

Tutorial and demonstration proposals

Proposals for didactic demonstrations in any area of computer music will be considered, including demonstrations of commercial products (software or hardware).

They will fall under the following categories:

- * Introductory level intended for students and those outside the computer music field. Topics can range from popular music tools to more complex applications (e.g., Orchestral MIDI Sequencing Technique, Algorithmic Processes in Contemporary Music, etc.);
- * Advanced applications for more experienced practitioners (e.g., Digital Signal Processing in Music Composition).

Tutorials shall take place 19 July, followed by the symposium opening in the evening. Exhibition of products will continue to 22 July. Proposals should include a survey of topics and an indication of duration. Presenters should be prepared to supply most or all of their own equipment. Online tutorials are welcome, to be accessed by

participants through web browsers during and after the symposium.
Online tutorials should be operative no later than 24 May.

Please e-mail proposals to Robert Willey <rw@libnet.com.br>.

Compositions

The Music Selection Committee invites submissions in the following categories:

- * Music on Tape (DAT or CD)
- * Pieces for Instruments and Electronics (Tape and/or Live)
 - Solo Instrument
 - String Orchestra (a)
 - Jazz Ensemble (b)
- * Algorithmic Instrumental Pieces
 - Solo Instrument
 - String Orchestra (a)
 - Jazz Ensemble (b)

(a) String Orchestra: 4 (1st violins); 4 (2nd violins); 3 (violas);
3 (cellos); 2 (double-basses)

(b) Jazz Ensemble: 5 saxophones (2.2.1) also doubling flutes;
5 trumpets; 4 trombones (3.1); piano; drums; percussion;
electric guitar; electric bass

Pieces composed within the last five years and no longer than 10 minutes will be preferred. Candidates may submit up to three works.

All entries must be accompanied by the attached Entry Form, along with a short CV and program notes. Music for Tape requires submission of a DAT or CD recording. Mixed Pieces (solo, string orchestra or jazz ensemble plus Tape) require submission of the full score, the tape part (DAT or CD) and a recording of the piece. Pieces for Instruments (solo, string orchestra or jazz ensemble) and Live Electronics require submission of the full score, a recording of the piece, and a detailed description of the equipment employed. Algorithmic Instrumental Pieces require submission of the score and information concerning the computing technology (i.e., analytical discussion plus illustrations of patches, tables, etc.)

Submissions shall be sent at the candidate's own expenses. Under no circumstances will the symposium's organizing committee be liable to customs duties or any other cost arising from an application. Entries, whether select or not, will not be returned. Submissions will be added to NUCOM's music library, located at LaMuT (Escola de Musica da UFRJ). Candidates are therefore advised not to send originals.

Please send submissions to:

SBCM99 - Music Selection Committee,
a/c ARTE ELETRONICA - PUC-RIO,
Rua Marques de Sao Vicente 225,
Predio Genesis - Sala 16 B,
Rio de Janeiro - RJ,
22453-900 Brazil
Email: <sbcm99@infogene.ctc.puc-rio.br>

Important dates

March 5, 1999 - Deadline for postage of compositions
March 19, 1999 - Deadline for postage of papers, tutorial proposals

and demonstrations

April 22, 1999 - Notification of acceptance

May 24, 1999 - Deadline for final camera-ready papers

< New on OLATS >

OLATS/Leonardo Observatory For The Arts And The Techno-Sciences

URL: <<http://www.cyberworkers.com/Leonardo>>

The Leonardo Observatory for the Arts and the Techno-Sciences (OLATS) is a web site mostly in French dedicated to art, science and technology.

OLATS' activity is structured around 4 main poles :

- * special projects ("Virtual Africa", "Rencontres du 13 avril" about the cultural perspectives on space) ;
- * a "multimedia resource center" that includes reviews of CD ROM, reviews of web sites, but also bibliographies, other resource site in the field, etc. ;
- * Books and Studies whith in-depth researches ;
- * Pioneers and Pathbreakers, documenting the works of key artists of the history of art and techno-sciences.

With OLATS NEWS, we'll keep you posted of the new developments on the site. If you don't want to receive this information, send us a mail at <bureaud@altern.org> indicating your email address and we'll remove you from this list.

< Fourth biennial Charles Fowler Colloquium on Innovation in Arts Education >

1999 Charles Fowler Colloquium: "Enlightened Advocacy"

UMD Conference and Visitor Services

Tel: (301) 314-7884

Email: <umdconf@accmail.umd.edu>

URL: <<http://www.lib.umd.edu/UMCP/MUSIC/Fowler99.html>>

April 16-17, 1999

The fourth biennial Charles Fowler Colloquium on Innovation in Arts Education at the University of Maryland in College Park will take place on April 16 and 17, 1999. Focused on the theme "Enlightened Advocacy: Implications of Research for Arts Education Policy and Practice," the colloquium will also discuss priority issues in arts education research for the next decade.

This two-day colloquium will feature addresses by five renowned experts in arts education, presenting a wide variety of opinion and information: Liora Bresler, Professor at the University of Illinois College of Education; James S. Catterall, Professor of Urban Schooling at UCLA; Richard Deasy, Director of the Arts Education Partnership; Elliot W. Eisner, Professor of Education and Art at Stanford University; and Frances H. Rauscher, Professor of Early Childhood Development at the University of Wisconsin, Oshkosh. These speakers will welcome questions from participants, lead small-group discussions, and be available for informal lunchtime conversations with registrants.

Dr. Bresler has focused her recent research and writings on aesthetic education and qualitative research methodologies, both in the context

of elementary school arts curricula. Dr. Catterall is an expert in education policy whose academic interests include equity in education policy and the methodologies employed by teachers in at-risk communities. Mr. Deasy's Washington, DC-based Arts Education Partnership is a group effort of more than 100 national organizations committed to promoting arts education in elementary and secondary schools throughout the country. Research and writings of Dr. Eisner have focused on the development of aesthetic intelligence and on the use of critical methods from the arts for improving educational practice. Dr. Rauscher's much-publicized multi-disciplinary research focuses on the relationship of music cognition to other cognitive domains in preschoolers, adults and animals.

Other research and descriptions of activities in arts education will be showcased at a poster session on the theme "Strong Arts, Strong Schools," the title of one of Charles Fowler's last books. The Colloquium is named for Fowler (1931 - 1995) who dedicated his career to improving and strengthening arts education programs in America's schools, and who left an endowment at the University of Maryland Foundation to be used to further innovation in arts education through colloquia and publications. Abstracts for poster sessions are welcome until February 16, 1999. To submit, see the Web site address below.

Pre-registration is required. Registrations received by March 15, 1999 are \$150.00 US (March 16 and later, \$200) per person. (Continental breakfasts, lunches and a reception are included.)

< Symposium on Artificial Intelligence and Musical Creativity >

Symposium on Artificial Intelligence and Musical Creativity at the AISB' 99 Convention, 6th-9th April 1999 Edinburgh College of Art & Division of Informatics, University of Edinburgh

Programme Chair: Geraint Wiggins, Edinburgh, Scotland.

URL: <<http://www.dai.ed.ac.uk/~geraint/aisb99/>>

Call for Participation

The AISB' 99 Convention will be held in Edinburgh from 6th - 9th April 1999. It will consist of 10 workshops and symposia on a wide range of themes in Artificial Intelligence and Cognitive Science. An underlying theme of the Convention this year is the study of creativity, though not all of the events include a creative element. Further details of AISB' 99 may be found at the conference web site.

Participation is invited for the Symposium on Artificial Intelligence and Musical Creativity, a three-day symposium running from 6th-8th April 1999 inclusive.

For many years, researchers have studied computer applications to music. More recently, computers are increasingly being used in the study of human musical behaviour. On one hand, musical communication gives us a unique window into human cognition, preceding, some have suggested, linguistic communication in developmental terms. On the other, computer programs which simulate intelligent musical behaviour endow their users with considerable advantages in practical work.

Creativity is at the centre of musical behaviour, not just for the composer, but for anyone who interprets music, either as performer or listener. Following on from the successful International Congress in Music and Artificial Intelligence, at Edinburgh in 1995, this

symposium aims to explore a wide range of aspects of musical creativity, from simulations of composition and improvisation, through analysis and automated performance, to more philosophical questions of the nature of musical meaning.

The symposium organisers received 40 extended abstracts in response to their call, of which 25 have been selected, by anonymous peer review, for presentation in the proceedings. The full list of titles may be found on the AISB'99 web site.

The symposium is open to all researchers, from AI or musical backgrounds

< RMPD'99 - Creativity & Computer >

Rencontres Musicales Pluridisciplinaires 1999
C R E A T I V I T Y & C O M P U T E R
March 19-20, 1999, Lyon, France

Yann Orlarey
GRAME, 9 rue du Garet, BP 1185
69202 Lyon, France
Tel: +33 (0)4 72 07 37 00
Fax: +33 (0)4 72 07 37 01
Email: <orlarey@rd.game.fr>
URL: <http://www.game.fr>

The 5th Pluridisciplinary Musical Meeting : "Creativity and Computer", will be held in Lyon during the Musiques en Scene festival, the 19-20 of March. The conference is organized by Grame and the Bibliotheque Municipale de Lyon, with the support of the French Ministry of Culture.

Lecturers : Hugues de Chanay (U. Lyon 2), Louis Panier (U. Lyon 2), Dominique Fober (GRAME, Lyon), Stephane Letz (GRAME, Lyon), Chris Chafe (CCRMA, Stanford), Jean-Pierre Ginisti (U. Lyon 3), Guy Theraulaz (CNRS, Toulouse), Jean Pierre Chupin (Ecole d'Architecture de Lyon), Jean Marc Avrilla (CapcMuseum d'art contemporain de Bordeaux), Jacques Madelaine (GREYC, Caen), Hugues Vinet (IRCAM, Paris), Eric Tosan (LIGIM, Lyon), Martine Rondet-Mignotte (Artiste, Lyon), Valery Grancher (Artiste, Paris), David Cope (UCSC, Santa-Cruz), Jean-Pierre Balpe (U. Paris 8).

For more information, registration and the detailed schedules of the conferences and concerts, please check our web pages (in French):
<http://www.game.fr/RMPD/RMPD99/RMPD99.html>.

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