



Leonardo Electronic Almanac

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INTRODUCTION

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LEA REDUX: From the Executive Editor,

Roger Malina

With this issue, LEA enters the new millenium with a new transitional format and editorial team. Craig Harris, the founding editor of LEA, has finished his term as editor-in-chief. He will continue with LEA as a guest editor, responsible for a number of editorial projects. We take this opportunity to thank Craig Harris for his vision and innovation in founding LEA in 1993 as one of the first on-line art publications, and we thank Patrick Maun and Craig Arko for their work in making LEA a dynamic and vital part of the art/science/technology publishing scene.

Leonardo/ISAST has put in place a search committee, chaired by Steve Wilson of San Francisco State University, to find a new LEA editor-in-chief. A call for statements of interest has been issued and a number of inquiries have been received from around the world. A short list of candidates will be contacted in late February and invited to send in a more detailed proposal. The Leonardo/ISAST Board of Directors will select the new editor-in-chief at their June 2001 board meeting so that the new editorial team can be in place by the end of the year.

We are interested in your ideas, as readers and as professionals in the field, on the future of LEA. What evolution in the content and form of LEA would you like to see? We all now receive a number of on-line publications, and LEA needs to evolve to respond to the needs that you have as professionals in the field.

We have received a number of reader thoughts and comments. Please send your ideas to:

leo@mitpress.mit.edu

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LEONARDO JOURNAL

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AVAILABLE MATERIAL: LEONARDO 34:2 (2001)

Here is the table of contents of the next issue of the Leonardo journal. All current issues are available online as well as in print through the OCLC, Catchword and project MUSE on-line access systems. For more information on how to access Leonardo electronically, send e-mail to: leo@mitpress.mit.edu.

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LEONARDO DIGITAL REVIEWS 2000.01

Editor-in Chief: Michael Punt
Managing Editor: Bryony Dalefield
Web Coordinator: Sudhira Hay

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During the coming year, Leonardo Digital Reviews will revert to an earlier convention of publishing some of its reviews in abbreviated form here in LEA. As an introduction to this, we have reprinted below the annual report of LDR's activities and a review article by Yvonne Spielmann of Douglas Kahn's book, *Noise, Water, Meat: A History of Sound in the Arts*. As usual, other reviews can be found posted, as they arrive, at: <<http://mitpress.mit.edu/e-journals/Leonardo/ldr.html>>.

< Annual Report: Leonardo Digital Reviews 2000 >

During the past year, Leonardo Digital Reviews underwent some major structural reorganization and was able to respond to changes in the web environment as they affected us. These included the proliferation of scholarly websites that include book and conference reviews as part of their content as well as the inclusion of reviews (often written by the publisher) on commercial retailing sites. It appeared that if LDR was to maintain its role in identifying material relevant to the Leonardo community and developing the discourse in a productive and creative way, then a more complex matrix of reviews and

review-based projects needed to be developed on the site. Consequently, as the opportunity arose, we were able to more precisely define and divide some of the administrative and editorial tasks that the team had shared. In particular, the administration of production was uncoupled from the publication process. This year, we were pleased to welcome Bryony Dalefield as the review coordinator and Sudhira Hay as the web administrator. Kathleen Quillian maintains the flow of material from the publishers to the panelists, and Roger Malina and I have undertaken the respective editorial tasks.

Throughout the last 18 months, LDR has been initiating some prototype review projects that are more complex than the usual "one book-one review" model that will remain the backbone of LDR. Most notable has been Roger Malina's interaction with a number of contributors dealing with Zeki's book, *Inner Vision: Art and Brain*. The results of this project have been unfolding on the LDR site and will appear as a collective document in *Leonardo*. We have also been anxious to collaborate with other review sites that share some of our interests and produce reliable, high-quality material. Although permissions have been obtained, it has not been possible to develop this aspect of our work, and it is hoped that under the reorganization we can collaborate more widely as well as provide reviews of current material and generate discussion and reaction that will inform other aspects of the *Leonardo*/ISAST project, not least its publishing ambitions.

At the beginning of 2000, every member of the panel was invited to reapply for membership on the basis of producing at least one review every twelve months. We were extremely happy with the response and we now have over 70 contributors to the LDR project. The quality and profiles of our panel, and the speed of return (in most instances), has also ensured that publishers will continue to supply advanced copies of relevant material. In short, despite this being a year of transition, LDR has maintained a service to its readership on the web and in *Leonardo*.

Nonetheless, there are things that must be done in the next 12 months. To begin with, a new relationship with *Leonardo Electronic Almanac* in the editorial interregnum means that we will be featuring reviews there on a monthly basis as well as in *Leonardo* four times a year. This calls for more reviews that we can prepare for publication at relatively short notice. For this, we are particularly interested in longer review articles, as for example the one that we feature this month by Yvonne Spielmann, one of our active contributors this year. Second, we must ensure that the design of the "wireframe" site that we have been running since October is upgraded and that links to reviewers' biographical details are active. And finally, we will initiate some creative projects that will maintain the distinct identity of LDR in an environment that has, in recent years, become rather reiterative of what LDR pioneered.

None of what we have achieved would have been possible without the generous work of the LDR panel and its support team---Bryony Dalefield, Sudhira Hay, Pamela Grant-Ryan, Kathleen Quillian, Patricia Bentson and our executive editor Roger Malina---and it is one of the few pleasures in writing an annual report that one is able to say a public thank you to all these people for their intellectual efforts.

Michael Punt, Editor-in-Chief, *Leonardo Digital Reviews*, <ldr@leonardo.org>
January 2001

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Noise, Water, Meat: A History of Sound in the Arts
by Douglas Kahn. MIT Press, Cambridge, MA, U.S.A., 1999. ISBN: 0-262-11243-4.
Reviewed by Yvonne Spielmann.

How do we measure the impact of sound in twentieth-century arts and where is its place in the avant-garde? What is the significance of sound in relation to music as a traditional art form and in relation to quotidian, ordinary and surrounding noise? Is there a specific set of characteristics that qualify sound, or is sound in itself a shifting parameter, varying according to the specific practices and technologies of the auditive at a given time? Interestingly, there is not much scholarly research and writing regarding the introduction of "noise" into music. Nor is there much work that deals with the categorization of sound and music with regard to extra-musical or musical qualities in "new" sounds that surround us in the electronic age that would help us analyze how

"resident noise" and "significant sound" were introduced into earlier artistic systems.

Artists working with new visual media have for some time been interested in crossing the boundaries between hearing and seeing. The film pioneer Germaine Dulac "composed" film like a visual symphony. In the 1970s, video artists Steina and Woody Vasulka developed computer tools in order to explore a new vocabulary and directly manipulate music and image, transferring sound into visuals, while Jean-Luc Godard experimented with his "son/image" productions with video as a medium to dissociate and recombine ordinary sounds and images. More recently, composer Michel Nyman has worked towards an intermediate image-sound relationship in cooperation with film-maker Peter Greenaway and discusses common structuring principles in his theoretical considerations on hearing and seeing.

Filmmakers, painters and writers have not only applied musical patterns in their work but have also undertaken structural comparisons between image, sound and text, questioning how a single medium works in relation to the senses and sensory perception. In the same way, audio arts in the twentieth century show an emerging concern with extra-musical elements that fundamentally change the idea of music through the introduction of machine noises. Expansion in the field of sonic arts can also be seen in the Dadaist "simultaneous poem" and in voices that articulate the actual and/or textual body.

Douglas Kahn's *Noise, Water, Meat* surveys the relationship between sound, music and noise in the period from the late nineteenth to the mid-twentieth century, introducing an overdue discussion of the development of acoustic concepts which, while clearly related to similar ideas in the visual arts, also have a history of their own. The book demonstrates that the multiplicity of audio arts mirrors an increasing complexity within artistic practices where multimedia and intermedia approaches bring together elements of sound, image and text. Given such diversity, we may conclude that there is no single artistic medium, but a constant process of interference and synesthesia.

In introducing this topic, Kahn outlines significant lines of development that explore the differences between noise and music and between sound and music. The understanding of these crucial paradigms is set out in relation to debates on sound as an internal or extra-musical quality of "aurality in itself," which also reflects upon the invention of machines that reproduce and record sound. Kahn then points to the prevalent technological approaches that expand the realm of music and sound into "all sound" (based on the invention of the phonograph) and discusses the transposition from "all sound" to "always sound." John Cage made this distinction after listening to sounds such as the tones of the nervous system and of blood circulation in an anechoic chamber. Finally, Kahn gives a close "reading" of artistic practices that have shaped the idea of music on the whole and, in a precise and staged argument, describes the interplay of sound and technology, namely "inscriptive practices," from an historical perspective.

Kahn starts with the assumption that "none of the arts is entirely mute" and that the phenomenon of sound enters the world of music through the emergence of "inscriptive techniques," beginning with Thomas Edison's invention of the phonograph. The phonograph foreshadowed a major shift from a single sound to a world of all sounds, as exemplified in the development of radio and sound for film. As Kahn states repeatedly, it is the artistic avant-garde that strategically responds to technological challenges to use so-called extramusical elements in order to expand traditional art forms and to produce a fusion between sound, music and extramusical noise. Two movements in particular---the "simultaneous poetry" movement in Dada and the futurist statement on "The Art of Noises" (1913) by Luigi Russolo---appropriated noise as an element of music. These movements effectively pulled the ground from beneath earlier nineteenth-century views that made a hard distinction between sound and music.

In his reflections on these two major historical developments, Kahn stresses the fact of their being "Western." While the first movement refers to graphic-inscriptive practices, the second development, that of the futurists, is a conceptual one that involves an avant-garde movement crossing the borders set up in the nineteenth century. In this regard, he particularly highlights Russolo's concept of "resident noise" as a turning point, dissolving the nineteenth-century demarcation lines between music, sound and noise. As much as reproduced sounds and machine noises changed the sounds of the avant-garde, it was Russolo's idea of "resident noises" that introduced "wordliness" into the

realm of sound and music. The dissolution of the difference between sound and music led to "significant noise" and signified a major breakthrough that found its counterpart in the attempts by John Cage to reduce sound as much as possible to achieve both "inaudible sounds" and "small sounds." Cage's central idea that all sounds could be music becomes a prevalent theme of the book, in particular where Kahn's discussion of "always sound" involves the history of complexity in music, which is highlighted by the theories of cluster and glissando, as conceived by Henry Cowell.

Aside from such specialized discourse, Kahn's study will also interest readers who have a broader interest in the development of various arts practices and the emergence of intermedia features related to performance, happenings, the Fluxus movement and theater. In particular, his discussion of hearing and music makes many connections to similar and parallel approaches in the visual arts. The strength of the book lies in its addressing major twentieth-century shifts in the often neglected field of sound arts, so that well-known features in the visual arts appear in a "new," and slightly unfamiliar, light. As a consequence, we gain greater insight into the understanding of art in radical modernism as well as into consideration of aesthetic features specific to audio arts. This confirms the relevance of Kahn's research.

One should note the specific focus of Kahn's writing while bearing in mind current debates on the interrelationship and convergence of various media. Regarding the interplay of music, text and image, this study provides a fresh impulse by shifting the perspective strategically from image to sound. Kahn's stress on the complexity of aurality counters the prevailing orthodoxy of maintaining the visual as the dominant expressive form of media. Kahn consequently explores the conceptualization of sound in itself and further explains how technological developments, such as recording, help to develop a notion of hearing. The book discusses technologies that allow for the realization of certain audio concepts while at the same time giving a historical background to the material. This allows for a better understanding of the more complex chapters, which examine specific moments and movements in the history of sound, such as the "significant noise" of Russolo's "Art of Noises." The study also convincingly accentuates the aspect of war-noises inherent in the idea of noise in the early twentieth century and connects these ideas to a more general approach to immersion. Proceeding from this, the book posits the notion of our being "immersed in noise," that is, that there is always sound and never silence. Through Kahn's skillful contextualization, which considers synesthesia and intermedia as driving forces in the development of new musical forms, the non-specialist reader will have no difficulty understanding the impact of Cage's conclusion that "silencing" means to hear the sounds of silence as music.

Throughout the book, it becomes evident that certain moves in audio---for example, the compression, reduction and reproduction of sound and emphasis on the openness and fluidity of sounds---are closely connected to approaches in the visual and textual arts that expand the limits of a single medium or art. Kahn attributes this connection to the introduction of techniques such as simultaneism, bruitism and the use of noise, as well as the dissolution of single musical elements of glissando and "Lautgedicht." He further discusses the dissolution of such dichotomies as inside/outside, small/large, textual/musical and visual/musical as part of this process of expansion.

The book also goes into previously unexplored areas of research, in particular comparing the flow and flux of sound to the fluidity of water. With intriguing insight, Kahn compares Jackson Pollock's painterly drippings to John Cage's water sounds, Yoko Ono's Waterpiece, George Brecht's "drip music" and, more generally, to the use of actual water in percussion music. The use of water as a compositional device clearly marks a larger shift towards "happening" art, performance and theatricality, which, as the author states, was already being carried out by Pollock.

Where the use of water for "tuning percussion" stresses a contemporary concern with ephemeral qualities in Western music (a concern that has its precursor in Erik Satie, who "was the wettest composer of the time"), the last section of the book discusses physicality and the interrelation of the body and voice in Western culture. By engaging with timely debates on embodiment, Kahn carefully suggests Roland Barthes' consideration of the voice as expressing the body so that the metaphor of "meat voices" helps to interweave different but related artistic practices of "embodied voices." In particular, Antonin Artaud's idea of the "phantasmatic body" and the poetry of Michael Mc-

Clure, which speaks a "beast language," suggest that the voice of the body speaks anything else but the body. The example of William Burroughs, who associated the body with a virus, also fosters a view on the relationship of the human body and the textual body where the body is essentially seen as meat.

After reading through *Noise, Water, Meat*, one is even more surprised by the lack of discussion of the history and theory of sound direction in the overriding debates on contemporary arts and media. Discourses predominantly deal with vision and visuality, even when dealing with audiovisual media. The parallel history of sound art is only occasionally touched upon with regard to the avant-garde's idea of synthesis between all arts (such as music, dance, painting, photography and kinetic). This deficit is also evident in relation to discussions of cinema, a medium that has appropriated devices of sound and music. This may be the legacy of the overriding discourse on arts and artistic practices informed by statements of cultural critics such as Béla Balázs and Georg Simmel, who asserted that the twentieth century was the age of the eye and of visual technical media, namely photography and film. Strikingly, and in contrast to early film theory (for example, Münsterberg and Arnheim), which had imagined the possibilities of sound film, most contemporary film theory hardly considers voice, music and sound; it is as if film were solely visual. Moreover, this imbalance between discussions of hearing and seeing is evident in the field of perceptive and cognitive theory, which also privileges visual topics such as the "intelligent eye" or "eye and brain." Kahn's book makes a timely and valuable contribution to closing this deficit in the way that sound has been something of a neglected orphan in the larger considerations of twentieth-century arts.

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< OLATS News >

Livres & Etudes, New Essay: "For a New Kind of Aesthetics," by Mario Costa
<http://www.olats.org/setF6.html>

OLATS is proud to publish the essay, "For a New Kind of Aesthetics," by Italian philosopher and theoretician Mario Costa. This essay is the text (in French) of a speech that Mario Costa delivered during ISEA 2000 in Paris last December. This essay complements the ones already published and is the first of a new series of online publications that OLATS has undertaken in its "Livres & Etudes" (Books & Essays) section. Various texts by Edmond Couchot, including older, unavailable ones, will follow.

"For a New Kind of Aesthetics," by Mario Costa

Mario Costa's book *The Technological Sublime* (published in 1990; French trans., 1994 ; Brazilian, 1995) was excellently received and was said to have had "the immense merit to propose an operating theory for the analysis of contemporary art" (Annick Bureau). Ten years later, and in view of everything else that has happened in the field of technological-aesthetics production, Mario Costa tries to specify the principles of a new aesthetics. He maintains that the present situation had already been foretold in movements and artists of the historical vanguards (constructivism, Gabo, Moholy-Nagy...), which had been misunderstood by aesthetics and art criticism. Costa then shows how traditional concepts of aesthetics are no longer valid.

In fact:

- production and fruition leave behind the interior life and transform themselves in a sensorial way;
- production leaves symbols and aims to assume a cognitive essence;
- the activation of signifiers replaces the expression of signified (signifié);

- the concept of the "artistic personality" changes into one of "aesthetical-technological searcher;"
- the subject and possession of works incline to be overcome;
- the interior life is projected outside and becomes machinery;
- the concept of form weakens, advantaging that of stream.

Costa's essay concludes by indicating the tasks of contemporary aesthetic-technological research and of the strategies that one should follow in the actual organization of art systems.

Annick Bureau, <bureau@altern.org>

< Leonardo Call for Papers : The Role of Artists and Scientists in Times of War >

We live in a time when war, far from being eliminated from the planet, is a continuing fact of life for many. Some wars are overt military wars, others are endemic situations of social and economic conflict.

What are the roles of artists and scientists in times of war? How can we be useful? How can our work contribute to new approaches? Historically, the work of some artists and scientists has been instrumental in shaping perceptions and initiatives.

Leonardo editorial advisor Michele Emmer and Leonardo seek papers discussing these and other topics that address the role and work of artists and scientists in times of war.

Texts that are being published as part of this project include the following:

Published in Vol. 34, No. 1 (2001):

- MICHELE EMMER: Artists and War: Answers?
- BULAT GALEYEV: Open Letter to Ray Bradbury
- JOSEPH NECHVATAL: La beauté tragique: Mapping the Militarization of Spatial Cultural Consciousness

Forthcoming:

- UBIRATAN D'AMBROSIO: Mathematics and Peace: Our Responsibilities
- ALEJANDRO DUQUE: New Media as Resistance: Colombia
- MATJUSKA KRASEK: The Role of Artists and Scientists in Times of War
- SHEILA PINKEL: Thermonuclear Gardens: Information Art Works about the U.S. Military-Industrial Complex

Please send manuscripts or manuscript proposals to Michele Emmer <M.Emmer@iol.it> and to the Leonardo editorial office: LEONARDO, 425 Market Street, 2nd Floor, San Francisco, CA 94105, U.S.A. E-mail: <isast@sfsu.edu>.

< 2000 Leonardo New Horizons Award >

Leonardo/ISAST is proud to announce the recipients of the 2000 Leonardo New Horizons Award for Innovation in New Media: Gregory Barsamian and Graham Harwood. Gregory Barsamian creates dream-based animated sculptures---zoetrope-like machines that produce three-dimensional animations. In these works, he fashions narratives composed of images from the unconscious and presents them on spinning armatures in a darkened space. His most recent traveling exhibition, Innuendo Non Troppo, was shown in Tokyo and throughout the United States. He lives and works in New York. Graham Harwood is a member of

the technological media group Mongrel, which focuses on collaborative, socially engaged products---art, software and workshops. Harwood started out in the 1980s working with publications on such topics as working-class culture and new media in culture and society, moving on to studies and work in programming and education. Most recently, he was commissioned by the Tate Gallery, London, to produce an exploration of the Tate collection, the history of Millbank and its prison, and a "reversioning" of the Tate's web site. Harwood lives and works in London.

The New Horizons Award was established in 1986 to acknowledge the numerous challenges faced by artists as they strive for exposure and recognition. These challenges are amplified for artists working with new media and techniques---especially artists pushing the boundaries of the integration of art and technology. With the New Horizons Award, Leonardo/ISAST seeks to recognize emerging artists for innovation in new media. The 10 finalists for the New Horizons Award for 2000 were selected from a larger group nominated by members of the Leonardo/ISAST community around the world. These artists share a commitment to the incorporation of technology and to the achievement of significant imaginative content, yet employ many diverse types of media with dramatically different aesthetic results.

The finalists were (in alphabetical order):

Gregory Barsamian (U.S.A.), a sculptor whose kinetic and animated works probe fundamental dilemmas of human existence;

Bruno Buesch and Tina Cassani (France/Switzerland), two multimedia artists who produce global radio-network events;

José Wagner Garcia (Brazil), who has employed a range of technology to create a multi-level installation probing environmental concerns in the Amazon basin;

Graham Harwood (U.K.), whose interactive video fictions (e.g. Rehearsal of Memory) combine stunning aesthetics with a profound social conscience;

Toshio Iwai (Japan), who creates vivid, yet playful, interactive audio-visual and sound pieces;

Tran T. Kim-Trang and Karl Mihail (U.S.A.), two video artists who also create complex installation works that probe the ethical implications of science;

Melinda Rackham (Australia), whose screen-based digital art, sculpture and online (Web) art (e.g. Carrier) examine a provocative range of subjects from identity in the digital world to online sex;

Marie Sester (France), who blends architecture with sound and video art to force re-examination of modern environments;

Igor Stromajer (Slovenia), a Web and performance artist whose work ranges from street performances to "megapathetic symphonies" and radiophonic sound/digital art;

and Fabian Wagmister (Argentina/U.S.A.), the creator of an enormous international Intranet project, Worship, which has resonant historical and social content.

This year's New Horizons jury included: Donna J. Cox, professor, School of Art and Design/National Center for Supercomputing Applications, University of Illinois at Urbana-Champaign; Hervé Fischer, Daniel Langlois Chair in Digital Technologies and Fine Arts, Université Concordia FIAM, and co-chair of La Cité des arts et des nouvelles technologies de Montréal; Ginette Major, chair of Le Café électronique de Montréal and co-chair of La Cité des arts et des nouvelles technologies de Montréal; Roger Malina, astronomer and executive editor of Leonardo; Rejane Spitz, artist and professor of art at PUC-Rio University, Rio de Janeiro, Brazil; Annette Weintraub, media artist and professor of art at The City College of New York; Benjamin Weil, Curator of Media Arts, San Francisco Museum of Modern Art; and San Francisco Bay Area art critic Barbara Lee Williams.

For more information about the Leonardo Awards Program, contact Leonardo/ISAST, 425 Market Street, 2nd Floor, San Francisco, CA 94105, U.S.A. E-mail: <isast@sfsu.edu>. Web site: <<http://mitpress.mit.edu/Leonardo/>>.

< "Leonardo" - The Microtonal Musical Piece >

"Leonardo" premiered on 16 May 1997 in New York City in a performance featuring Johnny Reinhard on bassoon, David Eggar on cello and Vito Ricci on guitar. The performance was part of the Microtonal festival, "Microtonal May," and occurred as the first part

of a four-part series devoted to the performance and dissemination of microtonal music. Although part of that festival, "Leonardo" is still rooted in the tonal complex of the jazz idiom with strong excursions into microtonality. The score is to be seen ultimately as a painting after Picasso's "Three Musicians." The players are asked to create an aural medium to ride the listener into the interior of the cubist landscape and out into the frontiers of emptiness behind the figures. "Leonardo" is a durational timepiece, interrupted only by occasional fermata pauses for the execution of stylized, improvised solos. The notation includes specific quartones, multiphonics, extended techniques and a retuned guitar. "Leonardo" exists both as an audio soundtrack and as a video. The title was a tribute to the journal Leonardo, which features excellent cross-over events of performance and media. "Leonardo" is now being considered for raw material for dance and animation by a number of choreographers in New York. ---Edgar Grana <edgar@perfekt.perfekt.net>.

< The Spirit and Power of Water >

OLATS/Virtual Africa <<http://www.olats.org/africa/avva.shtml>>, in collaboration with the River Festival <<http://www.olats.org/festival-eau>>, announces the realization of a multicultural and interdisciplinary 3-year project focusing on the cultural and scientific contexts of water, entitled "The Spirit and Power of Water." This project will originate in the African continent, a land known as the cradle of humanity but also recognized as one of the first victims of highly critical problems in the supply and purification of water. Starting with artistic and scientific studies in the African context, we will explore some ramifications so that other continents can examine the role and significance of water in the artistic and cultural activities of human societies. Water, a linking substance per se, will be used symbolically to link different cultures and to initiate dialogue and reflection between artists and scientists. Water has always held a privileged place in humanity's imagination and artistic creation. In Africa, like anywhere else in the world, water is very often seen as a living substance inhabited by spirits, by supernatural beings that humans have imagined to explain natural phenomena and aspects of the human condition. Around the ambivalent and extraordinary world of water, some myths, legends, fairy tales and ritual religious practices have crystallized.

For more information on the project, contact Jocelyn Rotily, curator <jocelyne.Rotily@wanadoo.fr>.

< Christa Sommerer Joins the LEONARDO Editorial Board >

Christa Sommerer is an internationally renowned media artist working in the field of interactive computer installation. She is currently an artistic director and researcher at the ATR Media Integration and Communications Research Lab in Kyoto, Japan, where she leads a research team on designing interactive environments that combine novel human-machine interaction experiences, artificial life and evolutionary image design. She is also an associate professor at the IAMAS International Academy of Media Arts and Sciences in Gifu, Japan; Guest Professor at the University of Art and Design in Linz, Austria; and a research Fellow at the MIT Center for Advanced Visual Studies in Cambridge, Massachusetts.

Sommerer originally studied biology and modern art at the University of Vienna. In 1992, she teamed up with French media artist Laurent Mignonneau. They created interactive computer installations such as Interactive Plant Growing (1992--1993), Anthroposcope (1993), A-Volve (1994), Phototropy (1995), Riding the Net (2000) and many others. They currently work on a large-scale A-life system for the telephone, called IKI-IKI Phone. Their interactive artworks have been called "epoch-making" for their use of natural interfaces to create a new language of interactivity based on artificial life and evolutionary image processes. These works have appeared in numerous exhibitions and are permanently installed in media museums and media collections around the world. Sommerer and Mignonneau have won major international media awards, including the Golden Nica Ars Electronica Award for Interactive Art. Christa Sommerer has published numerous

research papers on artificial life, interactivity, interface design and complexity and has lectured extensively at universities, conferences and symposia around the world. She is a committee member and reviewer for various international conferences and has organized workshops and panels at international conferences such as AlifeVII (Portland, 2000), KES2000 (Brighton, 2000) and ART-Science-ATR (Kyoto, 1997). In 1998, together with Laurent Mignonneau, she edited the book Art@Science, published by Springer Verlag in Vienna and New York (ISBN 3-211-82953-9).

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< Editorial Board Member JYrgeren Claus >

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< Margaret Morse Joins the Leonardo Book Series Committee >

Margaret Morse teaches in the Film and Digital Media Department at the University of California at Santa Cruz. She is the author of Virtualities: Television, Media Art and Cyberculture (Indiana Univ. Press, 1998) and co-author of Hardware, Software, Artware (Cantz Verlag and ZKM, 1997), as well as numerous essays and articles on subjects ranging from the erotics of listservs and what cyborgs eat to whether or not robots might feel pain.

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FROM CREATIVE DISTURBANCE

Leonardo/ISAST is a founding community of Creative Disturbance, a company whose goal is to connect artists with funding and resources for their innovative projects. Further information can be found at <http://www.creativedisturbance.com>. We encourage all LEA readers who are seeking support for their projects to submit them to Creative Disturbance. Members of Creative Disturbance receive the monthly ejournal EMERGENCY. We republish here, with permission, a recent column by LEA Editorial Board member Michael Naimark.

< Where Are the Anthropologists? >
By Michael Naimark, <michael@naimark.net>

This past fall, I had a chance to visit Expo 2000 in Hanover, Germany. Over a decade in the making, it was expected to rival the Paris Exposition Universelle of 1900, where 47 countries showed 83,000 exhibitions, including sound cinema, electricity and Art Nouveau, to over 50 million visitors.

World Fairs ought to be great. They are a chance for one to physically co-exist with international architecture and artifacts, to encounter cultural diversity with exhibi-

tors and visitors, and to experience unique, large-scale special venue media (Imax, for example, grew out of Expo '67 in Montreal). But something went wrong in Hanover: attendance was less than half the expected 40 million, the Expo ended up with a two-thirds of a billion dollar debt and CNN labeled Expo 2000 "bland."

I managed to blitz through 44 of the 50 pavilion buildings in two days (with a press pass, as I have done since Expo '86). It was a curious disappointment, and a consistent one. It seemed as though all the attractions were designed by the same U.S. ad agency. Instead of "here is what we're proud of" it was "here is what we think you'll like," and instead of "here is the way we express ourselves" it was "hey, we have the same style and high-tech as you." Someone put the melting pot on "homogenize," and the results were useless flash and volunteer colonialism.

There was, to be sure, some edgy, interesting stuff, but so little. The United Arab Emirates had a great CircleVision film, using the nine-screen panoramic movie format to combine their own cultural pride with an Internet theme. The Finland pavilion housed a multi-sensory landscape in a soundproof space with soil under foot and forest scents in the air, combining a static panoramic painting with several video projectors on pan/tilt heads that served as "movie spotlights." The Dutch pavilion produced a six-screen short film that was fast, richly detailed and witty. The strongest architectural statement was made by the Swiss, whose pavilion was a dense labyrinth of stacked, solid, roughhewn wood beams, with nothing inside but a small café and roving, improvising musicians. In the theme pavilion area, the "Knowledge" exhibition included a large, dim, open space with dozens of human-size robotic blobs (designed by the ZKM) wandering, flocking and responding to visitors. And the enormous Africa Hall was a refreshingly real bazaar, with scores of booths from 40 African nations selling their wares.

Only six interesting attractions? Why was everything else so, well, bland? I couldn't help wondering, Where are the anthropologists? If anthropologists purport to be the experts on humankind and cultural diversity, where were they? Why aren't anthropologists taking a more central and pro-active role in international presentation and use of new media technologies?

I know an anthropologist (folklorist, actually) who has tried to take such a role, and his story is relevant. Alan Lomax is an 85-year-old ethnomusicologist who has lived mostly in New York and has recently suffered a stroke. In the 1930s, he and his father, ethnomusicologist John Lomax, made the first audio recordings in the field (using a 500-pound audio recorder given to them by Thomas Edison's widow). By the 1960s, Alan Lomax had amassed the largest collection of recorded song and dance from around the world. By the late 1970s, Alan became convinced that the emerging multimedia technologies could be used to make this material easily accessible to everyone, and called his dream the "Global Jukebox." He believed that it would enable everyone to discover their own cultural roots and to learn how they fit into the world picture.

By the early 1990's, Alan and his team had built a first-pass version of the Global Jukebox. The system was complex and its interface a bit clunky, but almost everyone who experienced a demo was utterly astounded. It seemed clear that the Global Jukebox would have popular and commercial appeal. His fans have included George Bush (Sr.), Brian Eno, Jerome Wiesner and Mick Jagger. He has received numerous foundation grants, the U.S. Presidential Medal for the Arts, and was named one of the 1998 "Wired 25" (see <http://www.wired.com/wired/archive/6.11/wired25.html?pg3D13>). As an anthropologist, Alan Lomax has been as media-savvy and pro-active as any. But Alan has been struggling for funding for years, and the Global Jukebox remains under-funded and unfinished. It seems to have fallen into an abyss between content and technology, between the academy and pop culture, and between world-saving and moneymaking. With all the rhetoric in the media industry around internationalism and "content," where are the anthropologists?

I found 5,000 of them last month at the American Anthropological Association's annual meeting, held this year in San Francisco. The AAA has 33 different sub-fields (for example, I am a longtime member of the Society for Visual Anthropology section of the AAA), with many diverse, parallel sessions.

The big news in recent anthropology is around a scandal "unparalleled in the history of Anthropology" (see <http://www.anth.uconn.edu/gradstudents/dhume/darkness.htm>). A new

book, *Darkness in El Dorado* by Patrick Tierney, accuses several notable anthropologists, biologists and filmmakers studying the Yanomami people in the remote rain forests of Northern Brazil. These accusations include human rights violations, deadly genetic experimentation, doctoring data and staging film sequences. It is ugly, and passions run deep on both sides. A high-visibility excerpt of the book appeared in the *New Yorker* magazine, and the tweedy, scholarly community of anthropologists freaked.

The last big scandal in anthropology remains unresolved (see <http://www.uiowa.edu/~anthro/webcourse/lost/Tasaday/Tasaday.htm>). Remember the Tasaday, the isolated Stone Age, cave-dwelling, "gentle people" discovered in the early 1970s in the remote southern Philippines? National Geographic magazine did a feature on them in August 1972, and NBC news made a documentary (1972). But over the next two decades, details accumulated suggesting that the Tasaday were local farmers paid to act "Stone Age" as part of a property scam masterminded by a Marcos crony. Today, most everyone living in the Philippines takes for granted that the Tasaday incident was a cruel hoax and most of the anthropology community agrees. But the rest of the world continues to have fond memories of these "gentle people," with no reason to doubt their authenticity.

The point is that far-off cultures and indigenoussness are no longer marginalized areas of study, confined to a small community of academics. "The others" now have web sites and you will get e-mail from them someday soon. Their art and culture have value, while the international media industry spends billions of dollars missing the mark. The anthropological community can play a major role here, and I, for one would heartily welcome them.

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