



Leonardo Electronic Almanac

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INTRODUCTION

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< This Issue >

Craig Harris

This month in LEA Pedro Meyer presents a probing perspective on the 1997 Ars Electronica award decisions in the category that included art based on the World Wide Web. This burgeoning arena is just beginning a long evolutionary process that in time will establish some degree of clarity with respect to what constitutes art in this medium. Distinctions between art and the presentation of art are not as forthcoming in the virtual realm, in contrast with more traditional venues, where physical walls form natural boundaries, and where the materials of the art are perhaps not the same materials that are used to present the art. Pedro Meyer exposes the issues in the context of the web site ZoneZero and the Ars Electronica determinations. This discussion warrants more attention, and LEA welcomes considered comments from others.

Singapore artist Lin Hsin Hsin examines effective ways to integrate 3D graphics, artificial reality and the mouse as an interface in "Reduction to Pixels -- using a common human computer interface to create 3D artificial realities." Michael Punt and the Leonardo Digital Reviews team continues its broad topical, media and international coverage, including an editorial on synesthesia by Jack Ox. Jack calls for more discussion about this fascinating realm, and LEA will serve its usual role as forum for such in depth exploration. Check in next month in LEA 6:6, where we will present a detailed article about Colour Music by Niels Hutchison.

LEA presents a profile of Astrolabe, a project that explores the values and ethics of virtual technologies. The site is easy to navigate, and the content is probing. LEA readers are sure to find something of interest there.

The LEA Subscription System

We are finally prepared with our scheme for establishing the LEA subscription system. The LEA Archive of back issues will continue to be available in text form gratis to all visitors to the LEA web site. Monthly text excerpt issues of LEA will continue to be created, and these will also be available gratis, along with content listings for all issues. The excerpt issues will also be sent via email to paying subscribers to inform them about new content available on the LEA site. Full multi/hyper-media archives and current issues will be available to paying subscribers, who will receive instructions regarding access via email.

The new system will be activated soon, so I invite all who have been enjoying the benefits of LEA for free to join us in our growing endeavor by subscribing. I would also like to acknowledge those who have been paying subscribers under the honor system that was established a few years ago. We appreciate the support, and look

forward to your participation in the future. Please keep in mind that we have benefited greatly from generous support from Interval Research Corporation, and that this support has been crucial in developing LEA into its current state. This support is no longer available to us, however, and it is time to establish this formal subscription system in order to continue to publish Leonardo Electronic Almanac. We have an excellent publication plan in place for the future, and we welcome you all to join us as we move into this new stage in our development.

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FEATURE ARTICLE

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< ZoneZero (excerpts) >

Pedro Meyer

Pedro Meyer
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The prestigious Prix Ars Electronica Linz, just sent out a wonderful book presenting the winners of their 1997 awards with a running commentary by the Jury that gave out these awards.

We at ZoneZero had submitted our web site to this competition, thinking that it had a fair chance of receiving some sort of appreciation as a new art form. So we were obviously disappointed when we did not receive so much as a foot note. But in good spirits we accepted the jurors prerogative to dismiss our efforts, after all that is one of the inevitable risks one takes when one enters a juried competition. So nothing to complain about on that level.

Nevertheless I started to read with interest the statement put out by the jury, describing how they worked and thought. To my dismay I discovered, that here was a jury of obviously talented and well meaning people making some of the most absurd statements as to how they proceeded with regard to the guidelines they had set out for themselves.

The jurors of the Prix Ars Electronica, stated the following:

"Museums or galleries where art is on show are clearly not themselves art - unless the building has a very special architecture, but then it would be the building that would earn this definition. And the documentation of a project is hardly ever a piece of art in itself. Nevertheless, the misunderstanding that reproducing or exhibiting analog art on the net will magically produce net art is a very common one, and far too many contestants insist on submitting home pages that merely "contain" art. After browsing them briefly, we invariably dumped them. (In fact, at some point we became rather vicious about it: "Oh, another gallery," we'd say, at that point using the term "gallery" as a generic term for home pages that were basically exhibitions of art)".

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

From my personal experience of having created the first CD ROM ever with sound and images ("I Photograph to Remember", published by Voyager in 1990), I was clear that we were about to enter a new era of how the photographic image would be used, seen and distributed. As

soon as the internet appeared as a serious alternative to the CD ROM as a means of distribution, it was clear to me that it is was only a matter of time for the technology to catch up so that the delivery of sound and images could be done in a serious way over the internet. Today we have already produced several exhibitions that are moving towards such a goal, of having a continuous sound and image presentation. In the pipeline we have a large number of new work which is based on this model of using sound and images. Something that obviously has nothing to do with previous modes of distribution such as magazines, books, or even Galleries.

Before we move on to other aspects of ZoneZero, let us take a look at the notions expressed by the jurors of Prix Ars Electronica, the one about "a Gallery not possibly being art, other than as a building that houses the art itself". The problem that first comes to mind is that these fine people were caught up in their previous analogue frame of reference and had not been able to move much more beyond that, as their neat architectural metaphor would inevitably crumble when bringing into the equation the two dimensional format of pages, and to make matters even worse, the introduction of sound, or video within the not too distant future.

So then what is ZoneZero? Is it a building that houses art? Or is it a book that presents art? Or is it a movie/ television/ video screen? As I see it, it is all of the above, I don't know exactly if it's either consecutively or simultaneously, but what I am sure of, is that it is not any single one of these metaphors by itself, as they so erroneously concluded.

Now on the question of art. Their naive and short sighted view of our "Gallery" as not being able to be an expression of art became all too apparent when I took each of their own established parameters and applied them to ZoneZero. I will let you be the judge of where the art starts and ends.

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

The question remains, is ZoneZero art, or a new art form? A question also posed in Yazmina Rezas' one act play "ART" which opens in Broadway this winter after having premiered in Berlin, and opened in Paris in 1994. As Louis Menand in the New Yorker describes it, the play is about a white-on white abstract painting that nearly ruins a friendship among three men. A character named Serge buys the painting for an extravagant sum; his friend Marc, invited to admire the new purchase, pronounces it "shit"; the third friend, Yvan, who has no aesthetic views (or is happy to see equal merit in both views), is made wretched by the subsequent bickering, to which most of the play's ninety minutes are devoted.

As Menand reminds us, "The incoherence and inconclusiveness of the aesthetic arguments in 'Art' strike a chord because people have lost any clear sense of what a coherent and conclusive aesthetic argument would look like. This is not the result of dumbing down; it's the result of smartening up. It derives from the view that aesthetic arguments are really only ex-post-facto justifications for art that people happen to like, and this seems to have become the advanced view on the subject".

Last fall when the Times asked seventeen "art-world participants and observers" the question "What is art?", all the experts gave the same response. They said that the question has no answer.

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

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

< Reduction to Pixels -- Using a Common Human - Computer Interface to Create 3D Artificial Realities (excerpts) >
Lin Hsin Hsin

Lin Hsin Hsin
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URL: <<http://www.lhham.com.sg>>

INTRODUCTION

To date, the utilization of 3D geometry to create a virtual representation of an art object has heralded researchers and users across the globe in so far as improving and enhancing higher-dimension computational mathematics to manipulate primitive geometrical shapes and constructing more accurate wired-frame models -- a mandatory paraphernalia instantiated via information technology.

However, the author defies the exacting of such graphical tools in the creation of an artistic object in the virtual world. She asserts: conceptual primitives form mental constructs of an object, the understanding of which is a basic prerequisite for shaping the form of an object amongst many visualization and tactilization concepts. While mastering the control of the motion of a two-button mouse to draw or paint is traditionally perceived as difficult or even impossible, it is now possible. To achieve this, it much depends on the artistry and the human control capabilities of the artist, the willingness and desire to disregard and discard the use of 3D graphical tools in the creation of a virtual object. It is with this willingness, the artist has realized and imparted new understanding of a common day-to-day human computer interface.

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

MATERIAL PROPERTIES

Unlike creating a 3D object in the real-world, one that requires careful studies of material properties explicitly measured by its mechanical properties, physical properties and chemical specifications, creating a 3D object in the virtual world eliminates such studies. Though virtual objects and images are represented by pixels, it is necessary for the user to understand its real-world material properties so that its virtual world replication can be constructed to inherit such properties, and hence be identified and instantly be recognized by a viewer. Consequently, the need of understanding of the science, or rather the art of denoting volumetric density and its intrinsic compression properties. In summary, a virtual world creation has eliminated the need of real-world calibration of real-world material like shear strength hardness, tensile strength and even yield strength elongation. It has alleviated the unpredictable behavior of the coefficient of thermal expansion, thermal conductivity, heat capacity, melting point of the material and the electrical conductivity of the kiln for fear of creating a crackpot for example.

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

SIGHT AND TOUCH SENSES

Sight

As our brain processes information through our eyes, normally sighted people receive 80% of their information input through their eyes. As much as virtual reality must create illusions obtainable through sight, artificial realities must do so likewise. This paper is about the ability to use a simple human computer interface to achieve the illusion of visual field in the virtual world. Like the dinosaurs created in the Jurassic Park in virtual reality, artificial realities represented by abstract, figurative or surrealist form must be able to distinguish, convey, conduct and gain acceptance of its material properties through sight by the viewers. Naive as it may seem to be, It must attract viewers to look and pause, wonder and ask: "is this really created by the computer?"

Touch

If the creation of virtual reality's goal allows us to play and tease, then the functions of artificial realities is meant to mime and please. They both share a common goal that is directing information to the tactile and proprioceptive sensors and simulating the sensation of touch in the virtual world. In the absence of robo-receptors attached to a human body, the pixels therein the virtual world, are the one and only element used to communicate tactile information to the human brain.

In the real-world, to successfully stimulate the tactile receptors that lie just below the surface of the skin, audio input, surface temperatures are additional dimensions relaying tactile information to the brain. Artificial realities as represented by ceramics and glassware must be engineered with embedded warmth and be made to invite the urge of touching. The artist has successfully achieved this objective using a common human computer interface to discern enamel from glass, marble from metal with great efficiency and a fraction of the costs in pioneering the creation of a wide repertoire of original and unique virtual ceramics(11) and glassware(12) without scanning, morphing and cut-and-paste process.

CONCLUSIONS

The glorious power of the 3D geometries and the array of 3D computing tools often empowered by the resource intensive high capacity hardware is an overkill for creating 3D objects such as ceramics and glassware in the virtual world. Their inherited robotic remoteness distant realities, the objects thus created lack desire-to-touch sensitivities. Likewise, many of the commercially available quasi user-friendly 3D software packages do not lend credibility to such creation. This paper, fully-substantiated by its accompanied artworks demonstrates a whole new perspective of what a common desktop human computer interface is capable of. As such, it opens up the questioning of what a skillfully trained artist can do to replace the wide repertoire of 3D tools in the said context.

AUTHOR BIO

Lin Hsin Hsin is one of the 200 cyber-personalities in "24 Hours in Cyberspace". She is an Information technologist, Artist, and Poet based in Singapore. Hsin Hsin grew up with numbers, bits and bytes

with brushes and paints side-by-side. Besides living in cyberspace, she has penned more than hundred articles published in computer newspapers, international proceedings and journals. Her fifth book "In Bytes we Travel" is a collection of techno-poems about the Internet. In Real Life, this award-winning artist and poet has had 15 solos and more than 180 group exhibitions in 40 cities across 20 countries in Asia, Europe, North and South America. You can find out more about her from the award-winning Lin Hsin Hsin Art Museum. You can e-mail her in any of the 12 programming languages that she speaks or preferably in English, Chinese, French and Japanese.

[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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< Astrolabe (excerpts) >

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ETHICS WEBSITE - Explores Ethics in Virtual Technologies

Should a virtual world consider real world ethics? This is a question that is receiving increased attention as more and more high-technology tasks and creations are undertaken each day. A team of researchers, under the direction of Carol Gigliotti at The Ohio State University and International Advisory Board have developed a web site, CD ROM and Online-Journal project that explores ethical concerns surrounding society's current reliance on virtual technologies.

The website, "ASTROLABE: Ethical Navigation Through Virtual Technologies" is located at<<http://www.cgrg.ohio-state.edu/Astrolabe/>>. The astrolabe, a medieval instrument replaced by the sextant, once was used as a navigational tool. It is a fitting symbol for this interdisciplinary project that serves the general public, undergraduate classrooms, and practitioners and theorists in academia, industry, and government. The project provides a general resource for the public and also explores concerns surrounding virtual technologies' impact on societal values, offering examples, perspectives, and solutions where possible. Topics include artificial life and intelligence, censorship, identity, privacy, hackers, games, pornography, copyright and intellectual property, technocolonialism, virtual reality, and ethics related to the military, science, medicine, the media and design.

The website offers participation through threaded discussion groups spawned by a "Question-of-the-Week". It also includes the ability to add links and

offer comments and suggestions. Soon to be included is the VRML Ethics Game, which is geared toward undergraduate classroom use in a variety of disciplines. It provides instructors and students with a well organized starting point for examining how virtual technologies may impact ethical judgments in their disciplines.

The website also contains "Astrolabe: the On-Line Journal", which is peer-reviewed and directed toward practitioners and theorists in relevant fields within academia, industry, and government. A special inaugural issue on "technocolonialism" is now available. It will synthesize interrelated ethical concerns surrounding the virtual nature of these technologies.

The CD-ROM is geared towards undergraduate students across disciplines and will be sent at no cost to instructors across Ohio and other selected colleges and universities for use in their classrooms.

Mission Statement:

Decisions about what is right or wrong are inextricably linked to a grasp of what is real and what is true. We approach an understanding of reality and truth through a variety of means. Historically, philosophical thought has offered us various positions on whether attempts at making ethical decisions are based on stable or shifting grounds. Current virtual technology, through its representations or simulations of reality, offers us countless means to reevaluate our perceptions of what reality and truth consist.

Our perceptions of reality and truth are at the very core of human interests. Not only ethical decision-making, but decision-making itself, is based on our acceptance of one version of reality and truth as opposed to another.

This project, questioning the ethics and values issues involved in the development and use of these virtual technologies, will use those same virtual technologies of representation and simulation which it questions. Using the technology in question to provide an environment in which broad and varied segments of the public will confront, and address these issues, will encourage an involvement with the technology. It is in this way that critical thought begins and is translated into action. In order for positive change in these technologies to take place it is important for the general public to be comfortable with the technologies, comfortable enough to be critical.

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

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

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LEONARDO DIGITAL REVIEWS
May 1998

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< Editorial: Color Me Synesthesia >

Written by Jack Ox

Email: <jackox@bway.net>

Synesthesia is a brain anomaly in which one experiences the sensations of a sense other than the one being stimulated.

I believe that this condition is similar to absolute pitch in that some people are born with it, while others can be trained to acquire it in a lesser form, as in relative between sight and sound, or smell and sound, when one constantly practices making associations. From my own experience this can happen. Long years of developing syncretic relations between color and musical tonality or vowels, and between landscape and/or architectural form and musical structures, have made it easy and even natural for me to see sonic forms.

There is a long history of experimentation with synesthesia in scientific testing of physical phenomena, and in complex systems of equivalences which have been logically and structurally worked out. "Eye music" or "Augenmusik" was practiced during the 15th and 16th-centuries in which some compositions were notated to visually convey certain qualities of the music. For instance, the notes could be blackened when texts expressed grief or laments as well as in association with some individual words such as night or dark.

Since the late 19th-century fascination with synesthesia has resulted in some very imaginative explorations of the phenomenon. These include the color organs of the late 19th century, and the works of composers and visual artists Scriabin, Messian, Schomberg, Kandinsky and Klee. These endeavors will be discussed at length by C. van Campen and Greta Berman in the first two articles to be presented in Leonardo's special ongoing section on synesthesia.

Now, at the end of the 20th century we find ourselves engaged in a flurry of synesthetic activity. The Internet has multiple web-sites devoted to the subject, in part due to the concept of Intermedia named and defined by noted Fluxus artist and thinker Dick Higgins. The basic idea behind intermedia is that structural elements from two or more different media should be combined into one. Certainly all Intermedia does not involve synesthesia but it often leads to it.

The idea of Intermedia has become a very lively issue in our own time, especially because computers make this kind of interaction easier to perform. Whether or not an artist uses a computer to enter the world of sense interactivity does not matter, for many artists have been influenced by Information Theory, a way of thinking which has become very natural to us in the 1990's.

Leonardo invites artists and theorists to send in papers describing

works which exist, or will exist, somewhere within the realm of synesthesia. They can come from either an exploration of natural born synesthetes or from the carefully worked out world of structural equivalences. This is an ongoing topic which should begin to uncover the quantity and quality of thinking in this area, and the creative results.

Notes:

Please see Jack Ox, with Peter Frank, "The Systemic Translation of Musical Compositions into Paintings", Leonardo, Fall 1984 [vol. 17 nr. 3] ;

Jack Ox, "Creating a Visual Translation of Kurt Schwitters' s URSONATE, Leonardo Music Journal, 1993 [vol. 3, pp. 59-61] for information on the author' s system of equivalences between sight and sound.

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< Book Review: Cybertext, Perspectives on Ergodic Literature >

Written by Espen J. Aarseth,
Johns Hopkins Press Baltimore,
London, 1997
203 pp., illus. hardcover \$45.00 paper \$14.95
ISBN 0-8018-5578-0; ISBN 0-8018-5579-9

Reviewed by Judy Malloy
Email: <malloy@artswire.org>

The diverse roots of computer-mediated narrative -- Vannevar Bush' s Memex; Ted Nelson' s idea of hypertext; database theory; interactive art; artists books; films; postmodern literature to name a few -- have been extensively discussed elsewhere. [1] However, since the late eighties when Infocom adventure stories were chronicled in the pages of Byte, Compute and A+ Magazine [2] early computer games with narrative elements have not been widely studied.

In Cybertext, Perspectives on Ergodic Literature a slim volume that covers adventure games, automated poetics, MUDs, hypertext and a few other forms of computer-mediated games and literature, the author defines cybertext as "a machine for the production of variety of expression" --stating that "when you read from a cybertext, you are constantly reminded of inaccessible strategies and paths not taken, voices not heard." He appropriates the word "ergodic" from a physics term that derives from the Greek words "ergon" and "hodos", meaning work and path. "In ergodic literature, nontrivial effort is required to allow the reader to traverse the text," he explains.

Resulting from a three-year Ph.D Scholarship from the Norwegian Research Council, Cybertext, Perspectives on Ergodic Literature contains multiple references but seldom rises above the sources. [3] Nevertheless, different perspectives, even if limited, are useful in any emerging media. This book is of interest to students of computer-mediated literature because it approaches both computer games and hypertext in interface terms.

In the chapter titled "Paradigms and Perspectives," for instance, Aarseth examines cybernetic sign systems in the computer game Dark Castle. He also examines user interaction in other computer games including Breakout and Lemmings. However, given that this purports to be a book about literature, the study would have been more relevant if he had included some of the more complex narrative games -- such as Myst or Robert Pinsky' s Mindwheel.

In the chapter "Intrigue and Discourse in the Adventure Game," he gives a brief history of the adventure game genre and chronicles an

extensive session with Marc Blank's Deadline. The chapter on hypertext aesthetics includes an analysis of Michael Joyce's Afternoon which Aarseth looks at structurally -- mapping the work and counting the lexias.

But surprisingly, although he suggests that MUDs are a "meaningful, intelligible mode of literary communication", MUD based works of literature, such as Carolyn Guyer's HiPitched Voices project or David Blair's WaxWeb are not included. In fact, highly interactive, collaboratively creatively computer narratives are completely overlooked in this book.

Notes:

1. Technocriticism and Hypernarrative, (Modern Fiction Studies 43:3, Fall 1997. N. Katherine Hayles, Guest Editor) released at approximately the same time as Cybertext by the same publisher (Johns Hopkins Press) is a comprehensive and inclusive resource that contains informed literary from a variety of viewpoints.

2. Resources from this period that look at computer games in narrative terms include: Abbe Don, 1990. "Interactive Fiction", Art Com Magazine 10 (9) and 10(10) and Mary Ann Buckles, 1989. "Interactive fiction as literature". Byte 12, 135-142.

3. Jane Yellowlees Douglas' "'How Do I Stop this Thing': Closure and Indeterminacy" (In: Hyper/Text/Theory, edited by George P. Landow Baltimore, Johns Hopkins Press, 1994) is, for instance, much more interesting than Aarseth's academic summary of her criticism.

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< Book Review: The Most Beautiful Molecule, The Discovery of the Buckyball >

Written by Hugh Aldersey-Williams
John Wiley & Sons, New York, 1995
339 pp, illus. Paper, \$16.95.
ISBN: 0-471-19333-X

Reviewed by Cliff Pickover
Email: <cliff@watson.ibm.com>
URL: <<http://sprott.physics.wisc.edu/pickover/home.htm>>

Buckminsterfullerene, the chemical discovery that is the subject of this fascinating book, is a rather strange substance. Discovered in 1985, the molecule possesses not only a beauty -- due to its striking resemblance to a geodesic dome -- but also novelty and a range of striking applications. Amazingly, the molecule, and related compounds, were the subject of the ten most cited chemistry papers in 1992. One paper a week appeared between 1985 and 1990.

In The Most Beautiful Molecule, Hugh Aldersey-Williams describes the events leading up to the discovery of the "buckyball," as buckminsterfullerene is commonly called. In the words of the author, it was an example of "classic bootleg science -- the research being done on the back of other, funded projects, and when time would allow. Yet its commercial implications are probably immense."

This is a classic example of serendipity in scientific discovery -- no one explicitly set out to discover this spheroidal sixty-atom molecule of carbon. As so often occurs in science, there is little correlation between the extent to which a project is funded and the importance of the resulting discoveries. This is why general basic science must be funded, so that researchers can be receptive to lateral thinking and serendipitous discoveries that will occur as they pursue knowledge.

The molecule's unusual molecular architecture and properties quickly led corporations such as AT&T, DuPont, Exxon, and IBM to invest millions of dollars in order to investigate potential applications. The most apparent characteristic is the hollowness of the cage shape, large enough to trap an atom of any element on the periodic table, and offering the prospect of fascinating modification to the properties of the element so trapped. The unique structure suggests potential uses as lubricants, industrial catalysts, and drug-delivery systems (e.g., targeted cancer therapy).

My favorite part of the book comes at the end where Aldersey-Williams speculates on the future use of this wonderful molecule -- where a whole microworld made up of carbon structures such as interconnecting domes and tubes may be used in the emerging field of nanotechnology. I love the idea of using carbon in its various assemblies (fullerenes, "onions," nanotubes -- all discussed in the book) as a kit of parts for future projects in nanotechnology. There are many other uses including electrical superconductivity and biological activity against the virus that causes AIDS. Related cage-like tubes and molecules can suck up metal atoms and show a range of novel electrical properties. The recent detection of nanotubes coiled like telephone cords and in other bizarre patterns suggests that scientists should soon understand new physical and chemical rules to be harnessed in the manufacture of new, versatile structures.

Anyone interested in science, serendipity, and beauty will appreciate this well-written book. As Hugh Aldersey-Williams notes, "It is the beauty of the molecule and the serendipity of its discovery that remains the buckyball's chief seduction."

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< Web Review: The Inter-Communication Center of Tokyo >

The Inter-Communication Center of Tokyo, Japan
URL: <<http://www.ntticc.or.jp/ic95/>>
Featuring a net gallery "Telematic Performance" by Paul Sermon

Reviewed by Axel Mulder
Email: <amulder@cs.sfu.ca>

This site contains works from artists around the world, available globally via WWW communication protocols, and locally in three venues equipped with terminals for Netscape, VRML and HotJava access. The opening screen of this site is very hard to read, mainly due to a bad choice of background, that reminds me of a stereotype italian or french table cloth littered with cut-out newspaper headings. As it turned out, I only checked the "museum guide" page at the very end of my exploration of this site, while I should have done this at the very beginning. I guess I overlooked it as a link.

Intro messages by ICC committee members are well written, although many of them address, very poetically though, the, by now, cliché of the global village. The "net gallery" page, a menu of art projects has some links that are not working and one or two links to pages that are in Japanese. I couldn't find a detailed description about the net gallery page, but I must assume these projects were all curated and exhibited by the ICC at one time or another. Interestingly, I could find out quicker what each art project was about by reading the bios of the artists involved instead of trying to figure out the art project web pages themselves. The "media & art square" page, a list of ICC's homepage faves, includes a link to Pizza Hut. Having seen the Japanese work mentality it is not hard for me to imagine why ICC recommends this web page (:-)). But really, what does Pizza Hut have to do with media & art? Unfortunately, quite a few links under the "meet" and "create" heading appear to be outdated. Although there are some useful

websites linked, I can't really say this "homepage of homepages" is bang-on. To me the most interesting part of this page is the way they have created categories by grouping web pages according to their utility for humans (although the "connect" and "meet" categories are not very distinct).

The features on Paul Sermon's work and Masaki Fujihata's project with NTT is textual only, which makes these pages rather dull. Some (links to) picts are just the minimum I would think!

All in all, the net gallery is the most substantial part of this site, with some links to interesting art projects. But this site needs a lot of work to come level with the ICC itself as a center for media art.

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< Design Culture: An Anthology of Writing from the AIGA Journal of Graphic Design >

Steven Heller and Marie Finamore, eds.,
New York: Allworth Press, 1997
ISBN 1-880559-71-4.

Reviewed by Roy Behrens
Email: <ballast@netins.net>

It is mind boggling to think that Steven Heller, who is a senior art director at The New York Times, has now written, edited, or co-edited more than 60 books on graphic design and design history. Even more astonishing is that many of those volumes are among the finest, most innovative books on the subject, among them *Graphic Style: From Victorian to Postmodern*; *Borrowed Design: Use and Abuse of Historical Form*; *The Business of Illustration*; and *Design Literacy: Understanding Graphic Design*.

Since 1985, Heller has also edited the American Institute of Graphic Arts' journal, and in this anthology, he and it's managing editor have collected nearly 80 essays that appeared first in that magazine. Sixty-two authors are represented by lively, accessible articles on a wide range of design-related topics, including skateboard graphics, designer 'zines, and placing an order with a sign company. Students will understand and enjoy nearly all the selections. Among our favorites are interviews with Saul Bass, Gyorgy Kepes, and Barbara Kruger; a memoir by Michael Beirut about learning to draw with Jon Gnagy; Brad Holland's masterful essay about the primacy of Picasso (titled "Picasso Rex"); and a hilarious illustrated piece by Ross MacDonald and James Victore about designers' use of martial arts (e.g., "the 10 percent kill fee chokehold" and "the editor throw") as protection from "underhanded backstabbing business practices." (Review by Roy R. Behrens, reprinted from *Ballast Quarterly Review*, Vol 13 No 2, Winter 1997-98)

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< Conference Review: Scriabin's Celebrations in Moscow >

I.Vanechkina
Teatralnaya str, 3, fl.3, 420111,
Kazan, Russia.

Last year, 1997, can rightly be called "Scriabin's Year".

January marked the 125-th anniversary of the birth of the composer, and in November - the 75-th anniversary of Scriabin's Museum. The Scriabin Museum held on this first occasion a rather short international conference "Prometheus of the 20-th century" (January 7-8,1997). Nearly all reports made during this conference were practically "interdisciplinary" in character since they took account

of the versatile gamut of Scriabin's creative activities and interests. The titles of the papers alone are very indicative : "Skriabin and philosophic thought of Russia in the early twentieth century" (E.Kut'ina, Moscow); "Scriabin's personality in the creative work of the painter L.Pasternak and the poet B.Pasternak (Yu.Sternin, Moscow); "The latest Scriabin's sonatas - the path to "Mystery" (A.Bandura, Moscow); "On newly found score of "Prometheus" with additional Skriabins' s marks in light line" (O.Tompakova).

Several reports immediately dealt with Scriabin's light-musical conceptions and ideas. The author of the survey I. Vanechkina (Kazan) has analyzed all known performances of "Prometheus" within the period from 1915 up to now; she has illustrated her report with a large number of slides and video records which were presented to Scriabin's Museum by the Prometei Institute.

After that the paper entitled "Skriabin and his light symphony: myths and reality" and delivered by B.Galeyev, Director of Institute "Prometei" (Kazan) was transmitted via television, so to say, in "virtual" performance. The artist V.Afanas'ev (St. Petersburg) reported about his attempts to realize ideas of music-colour synthesis on a canvas. The reports of other participants, e.g., A. Okada (Japan) were very substantial too, but their themes are outside the scope of Leonardo interests.

The entire complex of public events devoted to the Museum's jubilee were scheduled to be conducted during the whole November 1997. At the day of opening of these events a number of surveys were made about the Museum (T. Rybakova, director of the Museum, M. Petrova and O. Tompakova, workers) followed by interrelated reports: "Materials about Scriabin's "Light Symphony" in the Museum Depositories" (I. Vanechkina) and "Contribution of Scriabin's Museum into Light-Music Art Development (B. Galeyev). These two reports were made by Kazan specialists and were presented, both in this case, in "virtual" form, that is, from a television monitor. (For majority of Russian scientists, trips to other cities are almost impossible because of the lack of financial means, and it seems that such conferences held in genre of video-art will become usual in Russia [1]).

On other days of this jubilee's month campaign a number of memorial meetings were held, e.g., "Skriabin and poet Baltrushaitis", "Preliminary Action" (with poems and music of Skriabin himself). Also several piano concerts were performed . The final day, November, 30, was devoted to the international relations of the Museum. The video film "Skriabin in London" (producer L. Grigor'eva) was presented which tells about the attempts (which unfortunately proved unsuccessful) to perform "Prometheus" in 1914 on Rimington's light organ. In all these events one can note the amplification of research which accented Scriabin's ideas of art synthesis and their development at present both in Russia and abroad.

[1] from B.Galeyev (corresponding editor) - Editing this text, it suddenly occurred to me that it would be very splendid to make the multigure installation in which all participants - conference chairman, lecturers, and discussion participants - act from the monitor screens a good addition to all other our installations!

< Digital Review Notes >

Read the full versions of these and other reviews of digital media, arts, sciences and technology at the LDR web site, collected online since 1994.

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

New Features:

This month we welcome new panelists: Yvonne Spielmann, Andreas Broekmann, Mike Mosher, Fred Andersson, Sean Cubitt, Michael Leggett & Jack Ox. Please see their bios and contact information online at the above URL (choose "Panelists").

Check LDR RAW for the most up-to-the minute submissions of reviews and editorials.

Contact Leonardo Digital Reviews at <ldr@msp.sfsu.edu>

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| ANNOUNCEMENTS |

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< Electronic Art and Digital Design in Barcelona >

SCHOOL OF DESIGN ESDI
Marquis de Comillas, 79-83
08202 SABADELL (Barcelona)
Tel: 34-3-726-3369
Fax: 34-3-726-8183
Email: <prensa@esdi.es>

Launching of the new degree course - 1998-99 Academic Year

The SCHOOL OF DESIGN ESDI located in Sabadell-Barcelona has created a new degree course, which is a pioneering and really innovative proposal in Catalonia and the whole of Spain: ELECTRONIC ART AND DIGITAL DESIGN.

Whereas Electronic Art has been taught at degree level for over a decade in several countries of Europe and in the United States, in Spain there are still no universities that offer degrees in this field.

The new degree that ESDI will offer as of September this year will be directed by the specialist in Media Art, Claudia Giannetti, and is a fundamental step for higher education in Catalonia and Spain. It is also a commitment to the future, insofar as it will promote cultural, aesthetic and technical education in the field of present-day art and design, in accordance with the new tendencies of the world of contemporary art in the digital era.

Objectives of the degree in Electronic Art and Digital Design

The multiplicity of media, systems, instruments, formats and artistic modes requires new knowledge and innovative creative potential. ESDI offers a solid training that promotes the development of creativity and of artistic language, together with a wide knowledge and practical and technical mastery of the new digital tools.

It will teach degree courses in three main areas:
- Audiovisual arts: video art, computer graphics, 2D and 3D computer-assisted animation, etc.

- Interactive art: hypermedia (CD-I, CD-ROM, etc.), interactive facilities, virtual reality systems, etc.
- Network design and art: Web Art, projects in the Internet and via satellite, 3D telematic works, etc.

Duration of the courses and qualifications awarded

1st cycle: three academic years - Diploma in Electronic Art and Digital Design
2nd cycle: one academic year, plus final thesis (one semester) - Degree in Electronic Art
Degree in Digital Design

What is ESDI?

The SCHOOL OF DESIGN ESDI was created in 1989 through a combined initiative of the industrial, educational and institutional world. Three years later an association agreement was signed with the Ramon Llull University (URL), the first private university in Spain. By means of this agreement, the students of ESDI obtain the degree qualification awarded by URL.

The objective of ESDI is to promote the culture of design and to provide the educational, technological and research media that are necessary to make this possible. The school therefore offers interdisciplinary courses that promote a plural and integral education in accordance with contemporary trends. To promote research and the professional improvement of its students, ESDI has created a work placement programme through several collaboration agreements with local institutions and companies.

ESDI is located in Sabadell, a town that forms part of the greater Barcelona. It is 25 minutes from Plaza Catalunya (centre of Barcelona) by car and 30 minutes by train or metro.

Facilities and Services

ESDI is located in an old textile factory that won the Bonaplata Restoration Prize in 1991 for the rehabilitation scheme. ESDI has a floor area of 10,000 sqm on four floors. The spacious and modern facilities of the School and the policy of teaching in small groups allow the classes and workshops to be conducted comfortably and effectively. There are 16 classrooms of 90-140 sqm, five workshops of 200 sqm and a workshop of 900 sqm for large constructions; laboratories; a photographic set; four computer classrooms covering 400 sqm equipped with PCs, Macs and workstations connected to the Internet and a wide range of peripherals (plotters, scanners, digitisers, printers, etc.); a library; and sundry services (graphic material shop, copy service, bar, etc.).

Other Qualifications of ESDI

The School of Design also awards the Degree in Design through the Ramon Llull University in the following specializations:

- GRAPHIC DESIGN

- INDUSTRIAL DESIGN
- TEXTILE AND FASHION DESIGN

< Secession Gallery - Call for Entries >

Ian Pollock and Janet Silk
Secession Gallery
Leona Terrace Research Center
20 Leona Terrace
San Francisco, CA 94115
URL: <<http://www.sirius.com/~ps313>>

HIGH SPEED ART

Secession Gallery is seeking artists for a temporary public exhibit: HIGH SPEED ART. This exhibit will not take place in a gallery; instead it will take place "in the streets." We hope to create an exhibit that addresses the increasing impact of speed (and the tools of speed) in our lives. The art can be static or mobile, and could relate to or include cars, skateboards, bicycles, trains, planes, computers, and telephones.

Artists working in all media are encouraged to apply. Venues for projects may include, but are not limited to: rooftops, bus advertising space, construction barriers, and storefronts. Artists could use signage of any kind, radio broadcasts, sound installations, performances, and interventions. Artists will receive stipends.

If you are interested in being considered for this exhibit, please send:

- 1) documentation of recent work
- 2) A one-page letter describing your interest in the show and your general approach toward the project (not a specific proposal).

HIGH SPEED ART TIMELINE:

June 23 Deadline for letter of interest and documentation of work
July 7 Finalists selected
August 3 Deadline for final proposal
October 15 Exhibition opens

< Charter/Charte Art Forum >

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Since the official presentation of the Souillac Charter for Art and Industry at Telecom Interactive last September, the work has been advancing steadily. In preparing this year for a follow up to the charter we would like to make a large-scale effort to determine what is actually going on in different aspects of the field.

We are compiling a database of projects and programmes in art and education that can be effectively articulated to industry, governmental and non-governmental organisations (NGOs), and institutions interested in helping to build the network. With this we hope to stimulate direct and (where necessary) brokered dialogue between, on the one hand, industry, government and NGOs and, on the

other, artists, arts organisations, education programmes and network initiatives.

Specifically, we would ask for:

1. Information on the artistic use of the network, on people and projects involving real interactivity using any form of networking. These need not be restricted to use of the internet and the web, but include all forms of networks that permit interactivity between the artist, his or her work and the spectator / participant. All forms of art are involved - performing arts and plastics arts, art using space-time...
2. Information on programmes in education: Examples of the use of interactive communication tools for new forms of teaching, content for the wired classroom, innovation and invention with the network in all its forms, internet, the web and high-speed connections.
3. Teaching whose focus is the communication space: Information on educational programmes that discuss, dissect, analyse and teach about the new communication space, as well as programmes in art and science, art and technology, transdisciplinary approaches and collaboration.

Given the very positive response we have had to the charter, it is clear that there is a very great interest in what is going on. We will be developing methods over the next several months to make that work more available to interested partners and explore different forms of communication bringing practitioners in the arts together with potential collaborators.

We would be very grateful for any information that you can give in the form of names, addresses, e-mail addresses, web-sites, etc. of people you feel ought to be included. We value your recommendations as a first filtering process of an enormous mass of information out there, so any evaluation you can give of the work, however short, would be very welcome.

We will keep you informed about the formatting of any information you provide. Thank you in advance.

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