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Craig Harris, Executive Editor
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INTRODUCTION

< The Continuing Evolution and Definition of Leonardo

Electronic Almanac >
Craig Harris

Leonardo Electronic Almanac is evolving, as expected. The MIT Press has installed their new file server, and plans are underway to make more resources available to LEA readers early in 1994. I hope to be able to announce soon that artists and authors will be able to deposit visual and audio examples of their work, as a complement to the text-based articles currently being distributed. We are also examining various ways to make formatted text, hypertext, and fully multimedia presentation available. However, in recognition that not all readers have full access to the wide variety of Internet-based resources, we remain committed to providing raw text output of LEA. As Greg Garvey points out in his FISEA 93 report, Rejane Spitz of Brazil reveals an alarming disparity between resources in different countries, indicating a need to approach the dissemination of information with a sensitivity towards such social considerations.

As Internet resources evolve, and as content fills cyberspace with notices, dialog, list servers, gopher services and archives, I continue to seek the appropriate realm for LEA. Many notices about activities around the world are sent to multiple information providers, and it is important to define a focus as clearly as possible, providing some orientation with respect to what our readers can expect. FineArt Forum provides a valuable service, and itself is evolving to offer a variety of resources to the art, science and technology community. When FineArt Forum and Leonardo Electronic News were both generated from the same virtual editorial office, there could be close coordination of content, concentrating notices of events and announcements in FineArt Forum, for example, and using LEN as the venue for more in-depth profiles of media arts facilities and educational programs, bibliographies, and features on artists, such as Judy Malloy's Words on Works. Since the distribution lists for FAF and LEN were the same, we knew what our community was seeing, and we could easily eliminate duplication. As both FAF and LEA explore new resources on the Internet as a medium for providing its readers valuable information, I would like to stress LEA's editorial interest in offering content which continues to complement that which is available within FineArt Forum's sphere of activities, as well as that which is offered by other information resources available on the Internet. At the same time, it is difficult to balance the awkwardness of redundancy with respect to other publications and resources with the time-consuming requisites of perusing multiple, dynamic information sources. The following list serves to restate key components of the Leonardo Electronic Almanac editorial scope, and to encourage participation from within the community to inform others about their activities. Presentation of work in progress is also solicited, in the interest of gaining feedback from the community, a feature which becomes realistic due to the immediacy of electronic publishing.

Artist's Articles
Theoretical and Technical Perspectives

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Reviews and Perspectives of Events, Exhibitions,
Publications and Resources
Organization Profiles
News and Announcements
Dialog

A more detailed Guideline for Submission was published in LEA 1:1, and is available on MIT Press' techinfo gopher service. Information on how to access these services appears at the end of LEA. Readers are encouraged to propose alternative topics and presentation formats.

The LEA editorial scope includes combing through the resources on and off the Internet, exploring the information available for material which is relevant to our readers, and bringing the results to your attention. LEA cannot be all things to all people, but it can become its best cyber-identity through communication of needs by the community, and through the contribution of information and insights. In this way LEA can become more dynamic and interactive in its approach to the exchange of knowledge and understanding, in contrast with the more traditional, paper-based, one-to-many publishing paradigms.

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R E V I E W S & P R E V I E W S

< Report on the Fourth International Symposium >
on Electronic Art (ISEA '93) - continued
Roman Verostko, Greg Garvey

Introduction
Craig Harris

This is the second installment of perspectives on the Fourth International Symposium on Electronic Art. In LEA 1:3 Sonya Rapoport and I gave our impressions of the event. This month Roman Verostko provides a view from the inside, and Greg Garvey probes the details and character from his viewpoint, offering his observations and insights. There is some duplication of information in the report, but editing the authors' comments to reduce redundancy would have resulted in destroying the unity of thought that the individual authors put into their comments.

Susanna Koskinen, Assistant Coordinator of ISEA '94, reports on the upcoming deadlines for the Helsinki event, and on the internet gopher services being implemented to foster advance communication in preparation for the next ISEA. An abbreviated version of Susanna's report appears here, since the extended version either appeared in the most recent FineArt Forum (FAF 7:12), or is available in ISEA Online. Further discussion of FISEA and of future ISEA events will be taking place in that forum, and I encourage LEA readers who have access to the appropriate resources to take advantage of these developments, and to participate in the discussion. LEA is also available as a forum for ISEA discussion, and future issues will offer information as it becomes available.

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FISEA 93, "THE ART FACTOR", ONE MORE ISEA SUCCESS!

The Minneapolis College of Art and Design (MCAD), host for the Fourth International Symposium on Electronic Art (FISEA 93), provided a well orchestrated program which helped define more clearly the significance of this forum along with its strengths and weaknesses. Assessments show clearly that this annual forum is alive and well - and its promise for the future is assured! The theme of this year's symposium, "the art factor", provided a cohesive thread connecting eight exhibition and performance venues and a wide range of presentations in the form of papers, panels, projects and applications. But it was the interaction with presenters, exhibits, and each other that spelled important experiences for individual attendees. Roman Verostko, Program Director, notes that he and his program committee continue to receive messages from delegates around the world with warm thanks and congratulations to MCAD for the ambience and rewards of the symposium experience.

SCOPE. Representing 20 countries and 31 states a total of more than 400 delegates and exhibitors contributed to the success of FISEA 93 held in Minneapolis from November 3 to 7, 1993. Countries represented included Australia, Japan, Finland, Denmark, Sweden, Holland, Belgium, Germany, Austria, France, Italy, Spain, Portugal, the UK, Israel, Canada, Brazil, and the Peoples' Republic of China.

HISTORY & PURPOSE. This conference series was initiated in Utrecht in 1988 to provide a forum for professionals with a specialized interest in art and electronics. Attendees included artists, musicians, scientists, arts critics, curators, educators, and others interested in the use of electronics in the arts. Staged in Sydney, Australia last year (1992) this series is slated for Helsinki in 1994 (ISEA 94) and Montreal in 1995 (ISEA 95).

FOCUS. The theme for the 1993 symposium, "the art factor", was addressed pointedly at the opening session by Jan Hoet, curator of Documenta IX (Kassel 1992). Following his address, a heightened discussion followed wherein he held firmly to the conviction that the "art factor" lay beyond the "glamour of novelty" attached to the medium. Well known for his tenacity and prodding eloquence Jan Hoet stimulated several days of intense dialogue along side the many interesting papers and panels topics.

PAPERS & PANELS. Two full days of papers and panels at the Minneapolis Hilton Towers addressed emerging issues in information processing by artists including technical procedures, related research, and the critical assessment of such art. Illustrated sessions held pleasant surprises such as one by Christian Moller from Germany who showed a

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video of his electronic architecture wherein the entire wall of the museum responded to environmental changes in light and sound.

The diversity of subjects presented is suggested by paper titles such as the "Semiotics of the Digital Image", Patricia Search, Renssalaer Polytechnic, NY; "Cellular Automota Music Composition: a bio-logical inspiration", Eduardo Miranda, University of Edinburg, Scotland; "The Network Without Walls: the redefinition of art in an age of telecommunications", panel led by Greg Garvey (Canada) included Roy Ascott (UK); and the "Aesthetics of a Virtual World", Carol Gigliotti, Ohio State U.

PROJECTS & APPLICATIONS. On Sunday, November 7, throughout the MCAD complex over 30 presenters demonstrated recent projects and applications. Topics in these sessions included practice and experimentation with electronic choreography and cinema, digital photography, networked virtual reality, robotics, telecommunications, interactive architecture, autonomous/sensing sculpture, algorithmic experiments, hypertext, holography, biofeedback, virtual environments, solid modeling (sculpture), and electrostatic copier art.

Examples: "Computers That Dance: Interacting and Composing With the Body", Thecla Schiphorst, Canada; "Telepainting" , David Fodel, Colorado; "Brazil's Cutting Edge, Interactive Works & Moments", Artemis Moroni, Brazil; "Art + Robotics Project an autonomous sensing robotic artwork", Simon Penny et al., Carnegie Mellon.

WORKSHOPS. Over 100 people attended ten workshops held on Wednesday and Thursday, November 3rd and 4th. The ten workshops offered a creative, hands-on aspect to the symposium with topics ranging from navigating the Internet to exploring biofeedback techniques for controlling computer graphics and MIDI music applications. Several topics produced a standing room only crowd of participants and observers, these included Steven Wilson's "Programming Interactive Image, Sound and Quicktime Stacks in Hypercard," Michi Itami's "Computer-generated Imagery and Printmaking" and "Applied Cyberspace: Artists and Existing Network Structures" presented by Eric Thiese. Overall, the workshops were successful--they added a valuable experiential component to the proceedings and provided an arena for learning and group interaction among the symposium attendees.

EXHIBITIONS.
The performance components and exhibitions attracted regional visitors with many standing in line for the interactive pieces. Sign ups for the "Brain Wave Rider" were continuously filled throughout the week. This very provocative "interactive" work employing biofeedback technology, was created by the Digital Therapy Institute (Tokyo) led by Keisuke Oki. The viewer, electronically connected to the piece and seated was able to affect the nature of images through meditation by changing from alpha to beta or delta waves. This work, perhaps more than others pointed clearly to the interdisciplinary nature of these symposia and spells out the question about what we

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choose to include in our definition of the "art" experience.

"THE ART FACTOR: International Exhibition of Electronic Art", curated by Brian Szott, MCAD Gallery Director, the show included over 45 works from 8 countries exhibited in the MCAD Gallery through December 16, 1993. Works included new algorithmic pieces by Hans Dehlinger (Germany) and Yoshiyuki Abe (Japan); the transformed and fragile digital images of Kathleen Chmelewski (Illinois); the probing graphic ink jet prints of Carlos Fadon Vicente (Brazil) and a provocative installation by Georg Muhleck (Germany) based on cellular growth and modelled heads of different human races; this installation, "Screen Heads - Automata Simulations" includes an interactive soundspace by Pierre Dostie. Brian Szott noted the importance of emphasizing "the artistic over the technological aspect" of these works at this historic time.

INTERACTIVE EXHIBITION, curated by Scott Sayre Director, Interactive Media Group, Minneapolis Institute of Art, included 12 interactive works installed in MCAD alternative sites including one outdoor robot signaling semaphored messages it received via modem ("Wigwag", Gerfried Stocker and Horst Hortner, Austria). These works, which require varying degrees of viewer interaction provoked questions on the nature of "art". Other works included Greg Garvey's (Canada) popular "Catholic Turing Test", a computerized confessional complete with spiritual counsel and a printed penance. The "Interactive Plant Growing" piece by Laurent Mignonneau and Christa Sommerer (Germany) invited the viewer to touch and feel plant textures (spiny, soft etc) and thus trigger form generators to display growing plant forms. Scott Sayre notes that all of these works demonstrate techniques for "testing the boundaries of the aesthetic experience ..."

FAX ART EXHIBITS curated by Craig Ede, independent artist, St. Paul, demonstrated emerging forms in network art. Craig curated three exhibits: The "Fisea Fax Open", the "Exquisite Fax Invitational" and the "Exquisite Fax Checkerboard". The "Fisea Fax Open" drew 224 faxes from 65 artists. Some did not indicate origin but we can document that artists from at least 16 states and 8 countries participated - Australia, Austria, Canada, Germany, Israel, the Netherlands, the United Kingdom, and the United States.

Notable items included a 20 piece fax assemblage from Margaret Turner (Brisbane, Australia), some grid pattern pieces, a paired stereo view, and several sculptural pieces that were formed by folding the fax paper according to embedded instructions.

The "Exquisite Fax Invitational" drew responses from 64 artists living in 21 states, the District of Columbia and two Canadian Provinces. The "E-Fax Checkerboard", the most satisfying to the curator, linked the work of 29 artists from 11 states and England. The construction method for this piece led to a more unified final image than the cascading method from upper right to lower left that was used in the Exquisite Fax Invitational.

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ELECTRONIC THEATER. This component curated by Scott Sayre, Director, Interactive Media Group, Minneapolis Institute of Art, was screened twice on Friday evening at the Walker Art Center.
From Scott's perspective on the hardware side "brute force computing is quickly losing ground to the "mouse-holder". The jury selections sought balance and diversity exemplifying the full range of technologies from high end to the "home studio".

Work of 21 artists from 9 countries includes a FISEA 93 logo by Ivan Tylevich, an MCAD student. Ivan's piece is derived from his FISEA 93 Poster: "a wired Christ-head immersed in fluid tissue - the human/machine hybrid icon - as the brutal reconciliation site". The piece grips the viewer and forces an experience of a human machine dilemma - will our machines bring us salvation or destruction? Such work is in direct contrast to the gentle, spiritual qualities of Cheung Wai-Kwong's (France) animation, Sous Jantres Cieux, which demonstrates the transformative power of cyberspace.

SOUND/PERFORMANCE EVENTS. Twelve live performances were curated by Homer Lambrecht a composer from Saint Paul who teaches at the University of Wisconsin-River Falls. These works, which employed electronic technologies, ranged widely from solo pieces to dance and ensemble including traditional and non-traditional formats. Events were staged on Wednesday evening at the Ferguson Recital Hall (U of M), Thursday Evening at MCAD and on Saturday Evening at the Tedd Mann Concert Hall. Joshua Fried's (New York) "Travelogue", a heart rending work performed by Monica Maye, demonstrated collision and interaction between a live performer and a recording evoking experiences of exhilaration, despair and dislocation - like those of a traveler. Craig Harris' "inDelicate Balance" gave us poetry through transformed "found sound" with a gentle presence. Cort Lippe's (IRCAM, Paris) Music for Clarinet and ISWP was performed by John Anderson (U of M) demonstrating the powerful potential of "processing" live performance.

THE LISTENING CHAMBER also curated by Homer Lambrecht included 19 works by composers from several countries played during the symposium at the Minneapolis Hilton Towers.

THE ARTIST SLIDE SHOW, representing work of 94 artists was curated by Judith Yourman, Assistant Professor, St. Olaf College and screened during the symposium at the Minneapolis Hilton Towers.

SUMMARY NOTE: The MCAD symposium has made a major contribution marking the successful transition from a biennial to an annual event. Clearly the program was comprehensive providing a full range of opportunities and experiences for this specialized community of artists, educators, and theorists. Budgets limited what was possible in every aspect of the program - exhibits,

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publications, transportation and assistance for presenters. For this reason all presenters and exhibitors are to be congratulated for their contribution. Roman Verostko has expressed a deep gratitude to all those who participated for the generosity of their spirit and help. The FISEA 93 symposium demonstrated that there is indeed a growing community of professionals who are making major sacrifices to see this series go into the future.

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The Fourth International Symposium on Electronic Art was, for this observer, a welcome change from such conferences as SIGGRAPH, where art exhibition has been relegated to a side show to the main events. In Minneapolis, the "Art Factor" was center stage. This slogan, while somewhat opaque, does proclaim unequivocally the focus of this symposium. Roman Verostko and his staff deserve a round of applause for their efforts in putting together a well-organized and attended event, in spite of little government funding and support.

ISEA featured two days of workshops, followed by two days of papers and panels. There were two sound performance events, an evening of electronic theater, three plenary sessions, and a full day of poster sessions. The "Art Factor" and "Interactive Art" exhibitions, Artist's Slide Show and Listening Chamber were ongoing for the duration of the symposium. As an exhibitor in the art show (The Automatic Confession Machine) and panel organizer (Network Without Walls - Redefinition of Art in an Age of Telecommunications), I could not possibly attend the full range of events. I will limit my comments to a selection of events and artwork that are representative of the range of activities. Space and time do not permit consideration and discussion of all art works and presentations worthy of attention.

On Sunday, November 7, during the closing plenary session, presided over by Roman Verostko and Wim van der Plas, we were reminded that one of the primary motivations of the formation of ISEA was to bring artists, engineers, and scientists together to facilitate the exchange of ideas or even foster collaborations. (The point was promptly made that the experiments in art and technology of the sixties and seventies were clearly a failure). While artists were clearly the majority of the conference registrants, the nature of technologically-informed art requires the contributions of engineers and often developments in science and mathematics as sources of direct inspiration.

A number of papers given at FISEA '93 addressed these connections. Trudy Myrrh Reagan, founder of YLEM:Artists Using Science and Technology, addressed this relationship in her presentation "Scientists Doing Art, Artists Doing Science." Brian Evans of Vanderbilt University titled his

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paper "The Implicate Beauty of the Algorithm" and asserted that "Mathematical ideas can not only be a source for aesthetic construction, but can themselves catalyze aesthetic experience." Rich Gold, Director of the Xerox Palo Alto Research Center Artist in Residence Program, described the new technical age of "ubiquitous Computing" where there will be sensors, transducers, actuators and communicating computers embedded everywhere in the home, office and environment. Rather than raising the specter of a brave new world, "This highly sensuous, reactive, and gossipy environment will certainly alter the way in which we work, play and think, and it will have an equally profound effect on the arts.". This vision of feasible technology suggests an even closer link of science, technology and art.

Computer music has had a long tradition of exchange between composers, mathematicians, engineers, and scientists. Martin Herman, a composer and educator from the California State University at Long Beach discussed the increasing use of dynamic mathematical models for algorithmic composition. Eduardo Reck Miranda introduced his experimental music composition system called CAMUS (for Cellular Automata MUSic), using cellular automata, an approach widely used to model a range of scientific phenomena.

The infusion of artistic concerns in Virtual Reality demands a great deal of engineering capability, impossible without a team of researchers. In her address to the second plenary session Brenda Laurel, writer and researcher on interactive media and interface design, offered several "tips on getting along" in the development of a complex artistic project titled "Placeholder" involving the Precipice Theatre Society, an environmental activist theatre company, and an engineering staff, realized at the Banff Centre for the Arts in Canada. "You have to fall in love. Not necessarily with each other, although that helps - but with a vision of what you are trying to do together."

Yet it is clear that the goals and intent of the scientific enterprise remain fundamentally different than that of art making. In his Postscript to "The Structure of Scientific Revolutions" (1969) Thomas S. Kuhn writes: "A scientific theory is usually felt to be better than its predecessors not only in the sense that it is a better instrument for discovering and solving puzzles but also because it is somehow a better representation of what nature is really like." Today even Photo-Shop artists are more interested in the distortion and manipulation of appearance than making an accurate representation or reproduction of nature.

The issue regarding the refereeing of submitted papers conflates this distinction between goals. Should a personal artistic statement reported in a paper be subject to the same rigors of judgment and tests of repeatability as was cold fusion in a bottle? Perhaps the distinction becomes clear when artists confuse their output with doing science, as well as when scientists make the equivalent claim. Fractals readily come to mind in this regard. It is

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also clear that ISEA may some day leave behind the crutch of scientific justification as electronic art comes into its own.

ISEA remains by far the most important venue for bringing together like-minded individuals whose artistic output is quite varied, yet who share a conviction regarding the role of art, technology and the avant garde. Jan Hoet, Artistic Director of the Museum of Contemporary Art in Ghent, Belgium, Artistic Director of Documenta IX, and President of the International Association of Art Critics, in his remarks to the opening plenary session challenged not only these assumptions but questioned perhaps the foundations of an aesthetic based on technologically-informed art, be it computer graphic, installation, network or virtual reality art. He expressed a distaste for much of the interactive art that was on exhibit, and in the following days was seen in heated exchanges with artists. Several conference attendees felt his outlook was inappropriate to a symposium like ISEA. However, artists should take heed, because such attitudes are indicative of the ongoing marginalization of technological art by the critical and curatorial community. It is important to understand why such opinions are embraced, with the corresponding resistance to the exhibition of technological artwork.

Workshops ranged from the "IRCAM Signal Processing WorkStation (ISPW): Strategies and Approaches for Live Interaction" led by Cort Lippe & Zack Settel of IRCAM to "Using Multichannel Biosignal Input Devices for Controlling Computer Graphics and MIDI Music Applications", organized by Timothy Desley, Electronic Media Artist, Cray Research. Unable to attend these courses, I did, however, keep a close watch on the activities of a presenter in my panel, Eric Thiese, producer of "Jacking-In: a monthly series on Cyberspace Literacy". In "Applied Cyberspace: Artists and Existing Network Structures" Eric provided tips on low costs access to the Global Matrix and suggestions on how to connect, to locate, and to access resources on a variety of networks.

Papers and Panels covered a wide range of topics and formats. Some criticism was leveled at those who simply read the paper verbatim as published in the FISEA '93 proceedings. Why bother? The more successful presentations made use of multi-media support and commented extemporaneously. Rich Gold's presentation already mentioned perhaps came in a close second to Delle Maxwell's and Annette Weintraub's "A User's Guide to the Electronic Cliche" in terms of wit and satire employed to deliver a serious message. Maxwell and Weintraub remind us that "Cliches may reveal inadvertent truth, but they are by definition limiting. If electronic art is to develop its own forms we need to recognize them and move on." Simon Penny's panel "Coping with Hyperculture" followed in a similar but initially less-jaundiced vein. Mr. Penny suggested the automobile as a model of the integration of technology into the fabric of society and culture, and for the maturity of the design of the user interface - once you know how to drive you don't need a reference manual. In contributing to this same panel Peter Lunenfeld

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complains of the science fictionalized discourse of contemporary theory. In his discussion of meta-commentary and the life cycle of techno-future vapor theories, Lunenfeld unearths a very relevant aphorism of Lord Byron: "That novelties please less than they impress." (Lunenfeld p. 12)

Carol Gigliotti gave a cogent and well-researched presentation entitled "Aesthetics of a Virtual World." The thought of Wittgenstein offered an alternative to Cartesian Dualism: "Wittgenstein shows us the possibility of our language being the embodiment of our sensation, thereby allowing us to imagine the possibility of the oneness of mind and body." Add to this Brecht's dramatic theory that wishes to "empower" the spectator to decide what action should be taken. In further consideration of feminist political theorists who articulate what may be called the "care perspective", Carol Gigliotti points to the definition of an ethical aesthetic for guiding the creation of virtual worlds. This discussion was complemented by "Semiotics of the Digital Image" by Patricia Search and the talk "Interactive Art & Aesthetic Experience" by George Shortess.

By far the most impassioned presentation was that of Rejane Spitz of Brazil. In "Qualitative, Dialectical and Experiential Domains of Electronic Art" Rejane brought to the attention of the primarily European and North American audience the unique conditions of art, technology and economics in South America. Of particular fascination was the revelation that the working poor are offered access to banking machines which are now a common denominator in the Brazilian socio-economic strata. She challenged claims of egalitarianism and the democratizing power of technology by raising the important issues of access to technology in a society of extremes of wealth and poverty. In coming years, as more artists from different cultures around the world attend ISEA, these issues must be addressed.

A panel that deserved the exposure and dealt with a subject ostensibly of great interest to a large number of conference attendees suffered from some unfortunate structural flaws. "The Computer: A Tool for Sculptors" presented the personal reflections and experiences of a total of 7 male sculptors. By the time the fifth panelist spoke of his first encounter with computer technology, the audience was numbed to these first person accounts, no matter how compelling. The sheer repetition devalued the significance of each. It goes without saying that women should have been represented. The slide presentation was frenetic - slides of all the artists were shown again and again in rapid succession during the speaker's presentations.

Because of the large number of sculptors using computer technology, this panel might have been organized as a mini-conference, allowing each speaker more time to do their work justice. I should emphasize that this subject definitely belongs as part of ISEA. Sculptor Rob Fisher has been a pioneer and leader in the use of computer technology and has compiled extensive documentation of the range of the practice. It is really a question of a

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suitable and selective (juried?) mix of presentation formats such as papers, panels and poster sessions. For ISEA in general, as the membership expands, the conference committees must come to grips with how to effectively foster inclusion and fair representation of all artists active in the field and yet preserve manageable presentations.

Spurred on by the special issue of Leonardo on the subject of Telecommunications (1991), edited by two of the panelists Carl Eugene Loeffler and Roy Ascott, my intention in organizing the panel "The Network Without Walls: Redefinition of Art in an Age of Telecommunications" was to assess the recent activity in this field and look to the future. To my regret Gene Youngblood, who has based a theory of the avant garde of the telecommunication work of Kit Galloway and Sherri Rabinowitz of the Electronic Cafe, was unable to attend. In his place Eric Thiese did an excellent on-line review of some of the current network capabilities available to artists such as the use of FTP, MOSAIC, and the University of Minnesota's GOPHER. Fred Truck, who recounted his own long involvement in the field did an admirable job in presenting the work of Carl Eugene Loeffler's "Networked Virtual Reality." Roy Ascott critiqued the contemporary obsession of the art of appearances and the accompanying excesses of the pretentious discourse of cultural theory. He describes a paradigm shift where "We are on that evolutionary spiral which has returned us to a more Taoist desire for flux and flow, for change and transformation." Cyberspace is seen as a matrix of human values. Not unlike the conclusion of Carol Gigliotti, there is a moral imperative demanded as we construct art of cyberspace. Likewise, Brenda Laurel, who spoke last on this panel, invoked the notion of the body in the encounter with network technology. Referencing "post biological body hacking" as the deconstruction of the body, she spoke of the sense of embodiment and sensory richness that is potentially lost in the exchange and exploration of the "many-selves" discovered on the matrix. I concluded with the suggestion of logging on the bio-net which, like cyberspace, continues before and after each of our brief on-line sessions.

In many ways the poster sessions, where individual artists presented current projects for 45 minutes, were the highlight of the conference. It was impossible to attend all, since three artists were scheduled to present simultaneously throughout Sunday morning and early afternoon. Some highlights include Simon Penny and Robert Raeseman - "Art + Robotics Project" where the robotic artwork PETIT MAL was unveiled and threatened to follow spectators while repeating the query "Am I art?". David Blair, creator of "Wax or the Discover of Television Among the Bees" discussed the emergence of a new independent electronic cinema. In "Brazil's Cutting Edge: Interactive Works and Moments" Artemis Moroni presented three interactive installations combining robotics, computer-aided music, sensors and fractals. From 2:00 - 2:45 I ran from "Neurohacking: Using Multichannel Biosignal Input for Computer Graphics Applications" By Hsueh-Yung Koo and Tim Desley to Thecla Schiphorst's presentation of "Lifeforms",

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a 3D tool for creating and viewing choreography, and then arrived out of breath to hear the end of Henry See's warning about the potential monoculture resulting from the overuse of terms such as "hyper" and "interactive" in his talk titled "Hypermedia, Virtual Reality and Interactivity: 6 Cliches in Search of a Publicist".

Some of the posters sessions that I regret missing include: "Beyond Text, Beyond Hierarchy: Communication in Cyberspace" by Wayne Draznin; "Beyond the Book: Computer-based Literature" featuring multiple contributors in a discussion and demonstration of computer-based poetry, hypertext, and critical discourse; "Dancing with the Virtual Dervish" of Diane Gromala and Yacov Sharir; "Recent Experiments in Holopoetry and Computer Holopoetry" by Eduardo Kac" and Digital Cable TV", an illustrated discussion of the Amsterdam public access model and "Black Hole TV" of Raul Marroquin.

Many questions, comments, criticism, and suggestions were raised regarding the format of papers, panels, and poster sessions. Certainly poster sessions are uniquely important for the opportunity for artists to talk about their work and for others to become familiar with this work. The difficulty is how to accommodate all requests and at the same time offer a variety of presentations that match interest, while making it possible to attend those presentations one wishes to without having to compete with multiple simultaneous presentations.

There have been recommendations regarding the selection topics of discussion that would be addressed by a round table panel format which hopefully would encourage increased exchanges in preference to straight lectures. This is an idea worth pursuing, already successfully done at SIGGRAPH a few years ago. However it should not be done at the expense of well-organized panels in alternative or, depending on one's point of view, traditional formats. Likewise the presentation of papers should be preserved with the proviso or requirement of a demonstrable proposal for the incorporation of multi-media.

On Wednesday evening November 3rd was the first and by far the better of two SOUND/PERFORMANCE EVENTS, the second being held on Saturday evening. Joshua Fried's "Travelogue", composed for two synchronized audio tracks and live performer, was one of the more interesting performance works. Vocalist Monica Maye listened to one track which the audience could not hear, and was instructed to imitate exactly what is heard (for the first time) over the headphones. The audience hears the other track, consisting of a musical accompaniment to the singer's attempts to perform as instructed with every word and expression, intact and with no lag time. The composer admits that this is an impossible task, but this is the desired result. The composer appropriates through quotation the idioms of pop and dance music. The effect is successful due in large part to an animated performance by Ms. Maye.

The "Tuning of the Tide" featured the composer, Eduardo Reck Miranda, on violin. Miranda has done extensive

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research in Artificial Intelligence, discrete mathematics and algorithmic composition, which is evidenced by his use of Cellular Automata as discussed above. A great sensitivity to detail was demonstrated in the selection of continuous and discrete sounds based on the human voice generated by FM, wave shaping, and format synthesis. The incorporation of the Brazilian Portuguese: "O povo oprimido passa fome!" (The oppressed people are hungry!) in the middle of the composition shows a concern for the paradox of the progress of technology versus intractable social problems of ecological devastation, human rights, and racism. However we might sympathize with these concerns, they did not warrant the length of this composition. One might advise Miranda of a basic right to brevity.

Rick Bidlack's analysis and MIDI transcription of Conlon Nancarrow's player piano work "Canon X (Study #21)" featured no live human performer, but was nonetheless just as compelling, where a 53-note sequence is played through a series of repetitions and transformations with a dramatic "crossing" the theme rendered in slow and fast tempos.

In "Triple Play" for three pianos by Joseph Koykkar deftly wielded insistent octave doublings and repetitions as the building blocks of a well-proportioned compositional architecture. This work demanded a coordinated live performance from pianist Todd Welbourne that likewise exploited MIDI to synchronize and acoustic piano receiving data from a computer with a second digitally-sampled grand piano tuned in 1/8 tones. The composer suggests this instrumentation is motivated by the convention of performer and tape, but that the result is really much closer to the experience of acoustic chamber music.

Each of the two evenings of the SOUND/PERFORMANCE EVENTS shared the shortcomings of featuring a cavalcade of composers. On Saturday evening at the University of Minnesota's spacious Tedd Mann Theater, a good portion of a presumably sympathetic audience left before the end of the concert, having been exhausted not only by several days of workshops, panels, and parties, but then by two merciless Mandala live digital video dance works and several overly long compositions for acoustic and digital instruments.

Steve Kenny's composition for the new music ensemble Zeitgeist promised much in using a network of computers running NEXTSTEP and video projection, where the graphical iconic score was composed as it was being played. However, several minutes of watching right to left scrolling of this notation required more effort than this viewer cared to exert to continue to follow the score. Such a display of notation, while required for the performance, cannot substitute for an artfully crafted and edited interactive graphics display.

By contrast, Craig Harris' work "inDelicate Balance" set itself apart from the rest of the evening's offerings, not only by being a reasonable length, but in content as well. Performing live keyboards with the elan of a virtuoso, Mr.

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Harris employed an eclectic sampled soundscape with projected images that strove to reconfigure a listener/viewer's perception of a documented but yet imaginary environment.

If there are to be marathon concerts featuring multiple composers, it may well be advisable for programmers of future ISEA concerts to either limit the length of compositions or to schedule many shorter concerts featuring the work of at most two or three individuals throughout the day and evening. Another suggestion would be to have a more balanced representation of a variety of compositional styles and performance practices, from experimental to academic concerns.

The Electronic Theater naturally will present a large number of works already seen in such venues as SIGGRAPH. But a conference such as FISEA '93 also guarantees the inclusion of less well-known low budget works, produced on low end equipment but often with superior artistic aesthetics. James Duesing's "Maxwell Demon" of 1991 is a favorite previously seen at SIGGRAPH, but still maintains its kooky odd-ball lo res aesthetic after two years. The much higher resolution "Data Driven: The Story of Franz K" by Chris Landreth is a portrait of the solipsistic artist, rendered as a surreal 3D zoomorphic hybrid chain smoker. Alain Mongeau's "Minute Georienne" of 1992 is an homage to an artistically frustrated Armenian film maker. This reviewer found Troy Innocent's "JAWPAN" by far the most wry, witty and clever of the bunch, depicting that curious Japanese taste for kitschy cuteness in computer graphics while delivering solid, maximum impact entertainment!

Curators of art exhibits face a similar problem of sorting through the large number of technological-driven works being created and undoubtedly submitted to shows such as FISEA '93. The 2D component entitled the "Art Factor" was surprisingly compact. The exhibit featured a broad selection of national and international artists. Several are familiar names from other 'digital art shows' whereas others were from the Minneapolis region. This exhibit was representative of the diversity of approaches to computer-generated art, and that was perhaps both its strength and weakness.

In 1993 the work being produced shows that artists are increasingly subordinating the overtly technical aspects to the artistic vision. This is what might clearly distinguish the work here from what has been seen in digital art shows of the past. Yet some works do show signs of digital fetishism and technological preoccupations. Overwrought Photo-Shop montages were little in evidence. At the same time, several pieces are obviously informed by the tradition of printmaking, utilizing a vocabulary first seen in photo silkscreen, etching and lithography.

A work like Bruce Shapiro's "in Memory of Yoshitori Hattori" sets itself apart because the visual and tactile presence of what appears to be an 'aluminum American flag', and is not overt about its digital origins. Rather it is about the intolerance and violence intrinsic to

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American culture. Char Davies' "Drowning (Rapture)" exploits the medium of the high resolution 3D images synthesized to create an image at the appropriate scale, making for a psychological and emotive experience that could not be achieved in any other way. In "The World's Greatest Bar Chart" Roz Dimon in self-conscious parody makes a virtue of computer artifacts and conventions of business graphics. With "Aduc" Eduardo Kac brings a complexity to holographic composition that demands that a viewer interact and construct meaning rather than simply complete the piece by mere perception of the 3D image. Works by Dorothy Simpson Krause, Annette Weintraub and Joan Truckenbrod demonstrate a sophisticated handling of the technology to achieve a mature personal aesthetic. Carol Flax's work conveys with no hesitation an explicit political critique of mass communication.

"These are the Days", by the Australian John Tonkin, is a stunning synthesized computer graphic animation of an endless ream of paper falling to the floor. This installation is simultaneously concerned with modeling different physical phenomena, such as gravity, elasticity, and aerodynamics, and with metaphors that can be associated with streams of paper and gravity: the record of transactions of daily life (automatic tellers, supermarket receipts); the passing of time; waste and consumption; even the meditative state. This installation is designed to be displayed on a vertical video format that emphasizes the presence and content of the continuous image, not the medium. Along with Bill Seaman's "The Exquisite Mechanism of Shivers" it is unfortunately one of only a handful of full motion (digital) video installation works in the exhibition. Seaman's elegant interactive version allows the viewer to select "Words" from a menu of poetic text that in turn "triggers" the display of full motion image sequences with modular music segments. The viewer can navigate through this rich database of image/music/text discovering new meanings, "canned" chance combinations, and visual and textual puns derived from the matrix of content.

What the "Art Factor" demonstrates is the pluralism of styles and sensibilities which come as no surprise in our post-modern culture. However, what might be demanded from a critical and curatorial view is an approach that is more selective according to a thematic or stylistic basis. In 1993, given the amount and variety of digitally-generated art, the survey show as a curatorial approach is not only unwieldy, but no longer appropriate. Digital art is losing its explicitness as digital art and is rapidly being subsumed as a part of art making. As a result it will hopefully lose its marginal status in the art world.

Out of economic necessity, the Interactive Gallery presents the work of a smaller number of artists. The interactive installations were located throughout the MCAD building, and required a determined viewer to seek them all out. An entire TV studio was given over to "Interactive Plant Growing" by Laurent Mignonneau and Christa Sommerer. The location of this elegant interactive installation was an improvement over the elbow to elbow crowding of installations when this piece was exhibited in

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August for Machine Culture at SIGGRAPH '93. Unfortunately, due to some technical limitations, the growth algorithms ran at less than optimum speed.

One had to make reservations well in advance to test ride Keisuke Oki and the Digital Therapy Institute's "Brain Wave Rider", a game machine directly controllable by Alpha, Beta, Theta or Delta brain waves of the player. Wearing a helmet with incessantly flashing LEDs in your peripheral vision one sat facing a monitor controlling the speed of a fly over a 3D landscape accompanied by a techno rave beat punctuated by an occasional explosive derailment when your concentration failed. Not recommended for a hangover.

My "Automatic Confession Machine - A Catholic Turing Test" featured software Version 2.1 with a simplified user interface, reinforced keypad, and more extensive catechism lessons in the form of religious admonitions. As pontificating pundits had predicted, the amount of sinning increased with each passing day during the symposium. By late Sunday, the recidivist sinners had once again worn off the AMEN from the Amen key.

With "VNS Matrix" a group of four Australian cyberfeminists with an attitude (Josephine Starrs, Julianne Pierce, Francesca da Rimini and Virginia Barratt) have successfully redefined the role and image of women in art and technology with their interactive (art) computer game "All New Gen." Gen is "terminator of the moral code, saboteur of Big Daddy Mainframe. Her mission - to subvert and corrupt cyberspace." This multi-media desktop game also was an effective sound installation where listeners could put on head phones and enter a soundscape of the virtual VNS Matrix in medias res. Francesca da Rimini's cyberpunk prose alone is worth the listen.

Sonya Rapoport's "Sexual Jealousy: The Shadow of Love" combines the gamelan-inspired algorithmic multi-channel composition of Michael McNabb with images from Aubrey Beardsley, Indonesian shadow puppets, and Jungian mythological symbols in a computer-assisted interactive installation in which a participant explores sexual jealousy and methods for coming to terms with these feelings. This carefully and artfully constructed "self-help" software package makes the user a protagonist in a 'shadow' play under the user's control, where lessons in coping are taken from soap opera clips. In this way personal emotional subjective states are linked to symbolic psychological representations, which in turn become the components of the narrative of self-discovery and revelation which then controls the generation of music. Interactive multi-media compositions such as "Sexual Jealousy" suggests a new direction for the musical tradition of grand opera, while focusing on the intensely personal.

As with the "Art Factor" the works included in the Interactive Gallery begin to cast aside the limitations of the genre of interactive art, and begin to assert themselves as truly independent works of art. As Jan Hoet writes: "This period seems to be over for many of the

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areas of electronic possibilities, now legitimized areas in their own right. The glamour of the novelty is no longer the prime seductive adventure." As many practitioners of the technological arts already know, the computer is not merely a tool. Tim Binkley of the School of Visual Arts suggests that it is more than a medium. Sometimes when it is 3am it appears to be a way of life. If Rich Gold is right, art and technology will be ubiquitous and inescapable.

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< Report on ISEA '94 - Deadlines and ISEA Online >
August 23-28,1994 - Helsinki, Finland

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ISEA' 94 deadlines

The following are the deadlines for ISEA' 94.

January 1st 1994
- Exhibition/Concert/Performance
- Network & Other Projects/Workshops & Courses

February 1st 1994
- Papers & panels/Round tables
- Electronic Theatre/Listening Space

April 1st 1994
- Poster Sessions/Institutional presentations

ISEA ONLINE 1 January 1994, Internet

Beginning 1st January 1994 there will be an online discussion forum for topics of ISEA' 94 - The 5th International Symposium on Electronic Art. It is a lively forum for discussion prior to the artistic event in Helsinki, Finland. The online conference can be reached from throughout the world, wherever there is an access to Internet. It will contain all the information about ISEA' 94, an ongoing discussion with a hypertext interface and possibility to view audio and image information.

The aim of ISEA ONLINE is to go deep into the discussion already by the time of the conference. We are also trying to involve different disciplines to attend, because the issues do not only concern those already working in electronic media, but are becoming more and more relevant to everyone. As electronic forms of information are defining our mental and physical environment, they have become the focus of our culture. In course of the discussion various points of view can be brought up, fought out and developed further.

This collision of different points of view is the actual subject of ISEA' 94.

THE TOPICS OF ISEA' 94

SPACESCAPES The electronic arts create new sets of spatial

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concepts and experiences. ISEA' 94 assesses the aesthetic and social implications of this paradigm shift. The topics addressed may include: Merge - Immerse: the merging of human body and electronic space and of inner and outer space. Programmed Spaces: the natural, cultural and social environments of the electronic era. Post-biological existance in the age of HIV. The pleasure of living in the reconstructed nature: The role of design, architecture and ecology in defining the environment. Spatial Aesthetics: topographies of art and experience.

HIGH & LOW ISEA' 94 aims at a critical investigation of 'high' and 'low', a pair of opposing terms used to designate both technology and culture. Spectacular Technologies: historical perspectives on spectacle apparatus The cultural history of the individual's response to media: high tech meets low human? The artist and the technomarket: avant-garde or advertising? Military technology or ecology as the forerunner of technology? Gender in extinction ISEA' 94 GAME ARCADE: Live to score! EAST MEETS WEST

THE NEXT GENERATION ISEA' 94 looks to the future of electronic media and its young users by focussing on questions of psychology, learning and ethics.Interactivity or Interpassivity? Logic and creativity: The role of the computer in the duality Beam up to a world without teachers: Is a new psychology needed for electronic kids? Edutainment: Do computer games really advance learning? Virtual Literacy: narrative structures and patterns of reading brought about by multimedia and computers.

ISEA ONLINE shall be started by short commentaries on the topics. It shall be followed by a free discussion and an edited forum for articles. ISEA ONLINE is based on the World Wide Web hypermedia service which can be viewed with a program called Mosaic. It is available for Unix, Windows and Mac at FTP.NCSA.UIUC.EDU. You can use programs like FTP (or Fetch for Macintosh) to retrieve the files from NCSA.

In case Mosaic does not run on your computer you can - use Lynx, available at for example ftp.nic.funet.fi. - use even linemode www. Source and binaries for all of them should be available among other places in ftp.funet.fi directory /pub/networking/services/www. - telnet to info.funet.fi and login as info. Then select www and lynx and run it from there - One interface that at least should work on any kind of terminal is linemode www which can be tried with telnet info.cern.ch.

If none of these suits you, you can mail to isea-forum-request@uiah.fi for information about ISEA. That way you will receive the updates regularly, and your name and address will be added to the isea-forum discussion list. A mailserver may also come online later in case there's need for email access to ISEA archives. If you haven't contacted ISEA' 94 before and would like to be updated, please request for information at isea@uiah.fi. The URL for ISEA ONLINE is http://www.uiah.fi/isea. These above addresses will start working on January 1st 1994
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PUBLICATIONS

< The Computer Artist's Handbook, Lillian & Lauren Schwartz >

THE COMPUTER ARTIST'S HANDBOOK: Concepts, Techniques, and Applications
Lillian Schwartz, Lauren Schwartz
W.W. Norton, 1992,
ISBN:0-393-02795.
Craig Harris

336 pages with 152 color and 106 black and white illustrations.

Lillian Schwartz draws upon her vast knowledge, understanding and experience to create this book, resulting in an informative and insightful perspective on art, technological development, and the challenges that individual artists face in working on the technological frontier. Readers are provided a unique historical perspective with respect to her work with the pioneers of computer technology and artistic applications, as well as the history of art in human civilization. One also gets the added benefit of experiencing the growth of an artist developing alongside of the technology in the personal tales found in the book. In fact, the book is filled with anecdotes, including reports about her creative relationships with such people as Ken Knowlten, Norman McLaren, Pierre Boulez, Max Mathews, Jean-Claude Risset, and others. These stories support specific points being discussed, offering insights into the creative process and the methods used to solve specific problems. The book further includes views into comparative training techniques between drawing on paper and creating visual art on computer.

The book provides a foreword by Arno Penzias, Vice-President of Research at AT&T Bell Laboratories, and an Introduction by Timothy Binkley, Director of Computer Graphics Program at the School of Visual Arts. Their respect for her determination and creativity is obvious in their words, as is their understanding about the important role that artists and creative applications plays in developing new technologies.

> In this book, Lillian shows how she had to struggle to reshape the computer into a storehouse of tools. From algorithms to Zen, her personal anecdotes describe her battles with (and triumphs over) the computer, thereby giving the reader an approach that puts the artist in command of the technology underlying the medium.
> Arno Penzias, Foreward

> Lillian Schwartz's accomplishments stand tall above the new horizons of computer art, and any serious student of the field will want to learn from her struggles and her triumphs. This book issues a challenge for us to emulate her uncompromising determination in searching

> for meaningful creative expression in the midst of a sometimes overwhelming technological environment.
>
> Timothy Binkley, Introduction

In this era of hyper-text and hyper-media, it is fascinating to watch the cross-fertilization between media. The evolution is not merely a one-directional mapping and development from paper to computer. As new technologies develop, the former technologies also absorb aspects which emulate the capabilities of the new. In the case of the computer, many of the applications developed in many fields emulated the paper-based procedures. In music, for example, much of the computer-based development was based on emulating traditional acoustic instruments, and even today we still see a predominance on traditional methods and procedures in the computer-based music resources. At the same time, the capabilities discovered in the new technology affects our perspective of what is possible with the old technology. To use the music analogy again, there has been a unique cross-fertilization during the last 40 years between the computer-based and acoustic instruments and musical processes, resulting in the creation of music for acoustic instruments emulating the sounds and processes discovered using electronic techniques.

In The Computer Artist's Handbook Lillian Schwartz has created a pallette of graphic icons, representing a variety of concepts, which permeate the book as annotations and as guideposts during reading and review of the book's contents. She covers such topics as animation, approach, art analysis, art history, artificial intelligence, brushes, color, dimensions, editing, exercise, input, output, perspective, resolution, scanning/digitizing, technical discussion, the artist's eye, video. These pictorial icons are designed to reflect these ideas. The icons serve to guide readers to specific concepts, to provide a comprehensive expression of complex issues by offering a variety of perspectives. This method also helps to indicate the threads of like concepts embedded throughout the book, and the graphic technique emulates a pick and choose approach in the hard copy publication which emulates procedures one would follow when working on a computer.

The book offers numerous pictures to illuminate ideas. Caption text does much more than provide a brief title, date and photo credit. Schwartz and Schwartz summarize concepts in the body text, and elaborate on the concepts in order to clarify further. Caption text appears in a different font size, so even when the length could become confused with the body text, differentiation is clear. A 1/3:2/3 (approximately) vertical block separation provides a basic template, which is massaged according to the specific situation. Design was clearly a serious consideration in creating the book, and Lillian approached it creatively and effectively.

The book contains some subtle characteristics which did not go unnoticed. For example, Schwartz uses both "his" and "her" in speaking generally about artists, indicating a sensitivity to issues of gender without becoming a

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dominant feature.

I found the book refreshing and illuminating. The stories were enjoyable, the insight into Schwartz's process was supportive, and the details were generally useful. Admittedly, it is difficult to create a publication which can serve both novice and professional. Schwartz achieves this with finesse, and I was not left with the overall impression that I was being inundated with details which were all too familiar. One can quickly peruse the discussion to ascertain the relevance for the specific reader or context, and maneuver throughout the book.

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< New Plans for FineMedia - FineMedia online n_e_w_s & FineMedia Interactive >

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Georg Puluj reports on new Plans for FineMedia, the Quarterly Magazine for Media Culture, resulting in the creation of FineMedia online n_e_w_s - The Online Magazine for Culture & New Media, and FineMedia Interactive - a CD ROM-based publication.

The German news magazine DER SPIEGEL writes in a review of a guide to the Internet,
"It is a curious fact that, in spite of expanding data networks, there is still a need for bound books to explain the electronic tools of the future to the general public."

This phenomenon is indeed not only curious, but also anachronistic. With our network publication "FineMedia online n_e_w_s" we hope to prove that things can be done differently--in fact, things have to be done differently if the electronic media are to avoid a loss of credibility. This is why we are pleased to announce the following important changes at FineMedia, the media culture magazine that first appeared at the beginning of the year:

1. FineMedia will no longer be distributed in printed form for the time being.
2. Two independent divisions are being created as a result.

- Georg C. Puluj will issue FineMedia online. New articles will be fed into the Internet and sent to subscribers as soon as they are available. The FineMediaCalendar, which provides an overview of international events, will be stored in the LINK-M network for retrieval in constantly updated form.

- Arthur Schmidt will publish FineMedia Interactive, a CD-

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ROM for Apple Macintosh and Silicon Graphics systems. He will also act as artistic director, editor, and producer.

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PROFILES

< Interactive Media Festival >

Lisa Goldman, Director
Interactive Media Festival
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The Interactive Media Festival is an international juried competition, gallery and performance celebrating definitive works of interactive media and art. It will culminate in an evening of live, interactive performance at the Universal Amphitheater in Los Angeles, CA on June 7, 1994. A Festival Gallery exhibit will be open to the public June 6-8, 1994 at the Los Angeles Convention Center, during Seybold's Digital World conference.

The following is an excerpt from Jonathan Seybold's introduction to the festival, indicating his perspective on the need and goals of the event.

It is clear that from now on, it will be the creative efforts of people who need to communicate and entertain - who have something to teach or say, to amuse or excite - which will set the course of the digital revolution. It will be the programs, the titles, the stories and the services that will determine where, when and how the technology is used. The new markets will be created by the artists and technicians who use interactivity to inspire us, enlighten us or entertain us in new ways - to lead us to experiences we could never have had before.

But we are just beginning to explore the possibilities of interactive media. In the past, it has taken a generation or more to begin to understand how to use a new art form. This time, it is vitally important that we do everything we can to accelerate the process.

This is what the Interactive Media Festival is all about. The Festival will provide a public focal point for the creation of new media. It will reach out beyond the "techie" community to draw in the larger creative, educational and communications communities - and society at large.

The Festival will search out, select, display and honor the most exciting interactive products from any and all applications, world-wide. It will foster dialogue about what workds, what does not, what is good - and why. Most of all, the Festival will bring broader awareness

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of the creative work already being done in interactive media and encourage and honor the pioneering creative artists who are inventing our future.
Jonathan Seybold

The Interactive Media Festival is a joint business venture of Cunningham Communication, Inc. and Seybold Seminars, is supported by Motorola, Inc., and is produced in association with The American Film Institute. The event's charter indicates its commercial orientation:

To provide insight crucial for the market clarification and development of interactive media and art, through a worldwide search for definitive examples of this new form of expression.

However, given the interaction between pure research, creative applications, and commercial interests with respect to the development of new technological resources, it is promising to note the hosts' recognition of the importance of the role that artists play in the process. A Delegation of Nominators is comprised of a diverse and international group, responsible for selecting works to be included in the competition. Perusing the list of members on the Delegation of Nominators reveals a considered approach to including people from a variety of fields, interests and countries, exemplified by the folowing short list of 13 out of 75 delegates:

Roy Ascott, Centre for Advanced Inquiry in the Interactive Arts, Gwent College - Wales UK
John Perry Barlow, Electronic Frontier Foundation - New York, NY USA
George Coates, George Coates Performance Works - San Francisco, CA
Tim Druckrey, International Center of Photography - New York, NY USA
Anne Marie Duguet, Universite de Paris I - Paris, France
Scott Fisher, Telepresence Research - Portola Valley, CA USA
Erkki Huhtamo, MuuMediaFestival - Turku, Finland
Joichi Ito, Techno Culture Analyst - Tokyo, Japan
Katharina Gsollpointner, ARS Electronica - Linz, Austria
Jeffrey Shaw, Zentrum fur Kunst and Medientechnologie - Karlsruhe, Germany
Jon Snoddy, Walt Disney Imagineering - Glendale, CA USA
Atau Tanaka, IRCAM, Centre Georges Pompidou - Paris, France
Gary Warner, Australian Film Commission - Sydney Australia

The evaluation of work will revolve around five criteria: interactivity, informational value, entertainment value, aesthetic quality, and design effectiveness. In this context, interactive art is defined to be art which incorporates an audience of one or more in the process of presenting the work. In contrast, a performance work which is based on a performer interacting with a computer system, played for a static audience would not be considered interactive. Developers, artists and others

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interested in posting descriptions of their interactive projects for consideration by the delegation are invited to write to info-request@media.festival.com.
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< Documentation of Electroacoustic Music in Europe Project >

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The "Documentation of Electroacoustic Music in Europe" contains data about european studios concerned with the production and/or the research and teaching of electroacoustic music, as well as data about works which have been produced or conceived there. The documentation contains a Studio List, two differently sorted Work Lists, and Index, and a list of Abbreviations Used. A complete data bank containing all entries is available on diskette only. An update to the present documentation is planned. The Studio Address List includes the mailing addresses, with telephone/fax/email, of 252 european studios, as well as information about studio equiopment. The Studio Work list includes 5,991 productions from 52 studios. The Composers Work List contains 8,157 works, including works from private studios and "independent" composers which do not appear in the studio work list.
The project is directed foremost to music researchers concerned with the "serious music" category of contemporary music, as well as to composers in this musical genre, and to co-workers in the numerous studios worldwide. Through these individuals and interest groups, it is also hoped that an ever-widening contact will be made with music producers and organizaers; with editors of publishing houses, readio establishments, newspapers, etc.; with libraries and training centres; and with all other interested parties around the world.
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< MRIS and TIME - New Resources on the Internet >

Dr. Kimberly C. Walls
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Music Research Information System (MRIS) and TIME Are Now Available

The Music Research Information System (MRIS) is a gateway to research information in the fields of music education, music psychology, music therapy, and music medicine. MRIS is a project of the Institute for Music Research at the University of Texas at San Antonio and is sponsored by a UTSA Strategic Initiative Grant. MRIS is the gateway to CAIRSS, a bibliographic database of music research literature, and TIME, a bibliographic database of music software and software archives, as well as remote music services.

The Technology in Music Education database (TIME) is a collection of information about music instructional software. Software products including computer programs, hypertext stacks, CD-ROMs, videotapes, videodiscs, and music classroom systems are eligible for listing in TIME. TIME includes publisher's descriptions and independent reviews of all types of music instructional software as well as availability information. In addition to the software review database, IMR will serve as an archive of music instruction software which may be viewed by potential users.

TIME is in the beginning stages of data collection. Lists of software have been gleaned from many sources, but more reviews and products to be reviewed are being sought. Presently TIME consists of a directory of text files but will soon have the capability of full-text searching. If you have any comments, questions, or corrections about our data PLEASE contact the project coordinator. TIME will continue to grow.

Any person wishing to include music services in MRIS, post music announcements, publish software reviews, or archive software should contact the project coordinator.

USING IMR COMPUTER SERVICES

VIA MODEM (2400 baud)

Dial (210) 561-8000
Press return
At Local> type
c runner
At login type
imr
At Password press return

VIA GOPHER
Point your gopher client to runner.utsa.edu 3000

VIA INTERNET

Type
telnet runner.utsa.edu
At login type
imr
At password press return
D

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ANNOUNCEMENTS

< Exhibition: Handle with Care >

Susan Alexis Collins
Email: 100065.2047@CompuServe.COM

"HANDLE WITH CARE" by Susan Alexis Collins is an interactive installation commissioned by THE MUSEUM OF

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SCIENCE AND INDUSTRY IN MANCHESTER Liverpool Road, Castlefield, Manchester, UK, and is on show from DECEMBER 1993 until DECEMBER 1994 in the world's first railway warehouse (1830)

Each viewer choreographs their own experience of the space, as sensors such as are currently used in warehouses to control the movement of goods for storage, are here used to trigger sounds, images and robotic movements. The piece evolves irregularly, depending on the number of viewers, and the level of exploration of the space at any given time.

Certain elements of the work relate to items listed in two stockbooks which were found in the Warehouse and which date back to the turn of the century (such as whole sheep, pork bellies etc). Others are drawn from a more universal engagement with man and mechanisation and more particularly the nature of the space itself - the passage of goods, the passage of people, and the passing of time.
****

< BMI Student Composer Awards 1994 >

Ralph N. Jackson
BMI Student Composer Awards
320 West 57th Street
New York, NY 10019 USA

BMI announces its deadline of February 11, 1994 for submission of materials for the 42nd Annual Student Composer Awards for 1994. The panel of judges includes chairman Milton Babbitt, with Ulysses Kay seving as a permanent consultant. The competition is for student composers of the western hemisphere who are currently enrolled in accredited public, private, or parochial secondary schools, in accredited colleges or conservatories of music, or studying privately with recognized and established teachers. $16,000 in prizes are awarded.
****

< Cal State University Los Angeles First Annual Computer Music Festival >

Dr. Peter Terry
Music Department
Cal State University, Los Angeles
5151 State University Dr.
Los Angeles, CA 90032

The Cal State University, Los Angeles Music Department announces a call for tapes for the first Annual Computer Music Festival. They are looking for a diversity of styles and approaches. Composers whose works are chosen are required to attend the event on Saturday, April 2, 1994 on the campus of CSLA. Submissions should include an entry fee of $7.50 US per composition, with checks and money orders made out to CSLA Music-Computer Festival. The fee will entitle all applicants to a set of tickets to all Festival Concerts and Events. All compositions will be considered for performance during the 1994/95 season and on the 1995 festival as well.
Tape compositions in any style of under 10 minutes in

duration. Preference will be given to pieces mixed to DAT. Works by students, women, minorities and composers working outside of a university environment are encouraged. The committee is interested in works for saxophone and tape, and for clarinet and tape. Submit a tape and score these these works.
Deadline for receipt of materials is January 15, 1994.
****
< Report from Art & Science Collaborations, Inc. (ASCI) >

Cynthia Pannucci
Art & Science Collaborations
PO Box 040496
Staten Island, NY 10304
Tel: (718) 816-9796

Cynthia Pannucci, Artistic Director of ASCI reports on their activities, and encourages travelers to New York City to attend meetings of their organization. ASCI continues to produce its "Art & Technology Speaker Series" in the Great Hall at Cooper Union in New York City. The January-May series of visual presentations will include diverse topics such as: robotics; feminist engineering; architecture inspired by the biological study of plants and animals; Machineworks and other art idioms related to the Art and Technology Continuum; and the behind the scenes engineering and technology at the Metropolitan Opera House. This is a unique opportunity to view the career work of artists such as Dennis Oppenheim, David Durlach, and Deborah Natsios. Contact ASCI for the calendar and for directions to the Cooper Union.

ASCI is seeking 30-second video tapes documenting a single artwork/installation which uses fiber optics for a panel presentation by Cynthia Pannucci, at New York City's first Fiber Optic Fair on February 16, 1994. The event is sponsored by the Designer's Lighting Forum of New York, and Pannucci will show what is being done with this technology by artists. Deadline: January 20, 1994. Send tape, information & Self-Addressed Stamped Envelope for return of materials.
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< Arts Festival of Atlanta >
September 17-25, 1994

This festival offers a venue for artists in the fields of installation, performance, video, and other artistic fields, with a focus on collaborative works, new works, and works-in-progress.
Tel: (404) 885-1125 for application, guidelines and deadlines.
****
< Tellus - 25th Anniversary Sound Art Compilation >

Carol Parkinson or John McGeehan
TELLUS
Harvestworks
Audio Media Arts
Tel: (212) 431-1130
Fax: (212) 431-8473
Email: jfxm@echonyc.com

 ISSN 1071-4391 ISBN 978-0-9833571-0-0

TELLUS, the audio series of experimental and electronic music, theater, poetry and art celebrates its Tenth Year with a collector's edition.
TELLUS was created in 1983 to further the aesthetic of sound art, and to bring attention to the art form as an integral part of the artistic community. It was the mission of TELLUS to collect, produce, document and define the art through publishing works from local, national and international artists. The founding editors are Joseph Nechvatal, a visual artist, Claudio Gould, a curator, and Carol Parkinson, a composer and sound artist. The editors worked with contributing editors, who proposed themes and collected the best works from their field. Historical works are juxtaposed with contemporary, unknown artists with well-known artists, and high art with popular art, all in an effort to enhance the crossover communication between different mediums of art - visual, music, performance and spoken word.
****

< International Conference on Media Futures: Policy & Performance, Griffith University, Australia >

Sharon Clifford
Institute for Cultural Policy Studies
Faculty of Humanities
Griffith University Qld 4111 Australia
Email: B.Jeppesen@hum.gu.edu.au
Fax: 61-7-875 5511
Tel: 61-7-875 7772

Sharon Clifford announces that the Institute for Cultural Policy Studies (ICPS) at Griffith University is organizing an International Conference which is to be held in July 1994, entitled Media Futures: Policy and Performance. The venue is going to be the Gold Coast in Queensland, Australia. ICPS will host the event with the Centre for Multimedia Research and Development at Griffith University in Brisbane, Queensland.

Topics include new technologies, telecommunications, media, policy, programming and consumption patterns.
****

< Report from the Studio for Creative Inquiry, Carnegie Mellon University >

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Telecommunications and Virtual Reality
Studio for Creative Inquiry
Carnegie Mellon University
Pittsburgh, PA, USA 15213-3890
TEL: (412) 268-3452
FAX: (412) 268-2829
Email: cel+@andrew.cmu.edu

Carl Eugene Loeffler reports on the following select activities:

~Virtual Ancient Egypt,~ at the exhibition ~Virtual Reality: Emerging Medium,~, opened at the Guggenheim Museum, New York on October 23, 1993. ~Virtual Ancient Egypt,~ is a reconstruction of the Temple of Horus. The application is a joint effort involving Loeffler and Lynn

Holden, Research Fellow, STUDIO for Creative Inquiry, Carnegie Mellon University.

At Virtual Reality Vienna-93 the premier of ~Virtual Polis.~ was presented. People from three different locations, including Pittsburgh, Tokyo and Vienna - VRV'93, were the inhabitants of a virtual city, as a dynamic example of networked virtual reality. They explore a city that is sound intensive, inclusive of high-rise buildings, private domiciles and a park. Tele-existence is an essential aspect. The Japan paritication is organized by SONY Computer Science Laboratory, in conjunction with the conference Interactive Systems and Software.
****
< SPIE's Holography Listserver >

Announcing SPIE's Holography Listserver

SPIE - The International Society for Optical Engineering
P.O. Box 10, Bellingham, WA 98227-0010 USA
Voice: 206/676-3290
Fax: 206/647-1445
E-mail: spie@mom.spie.org
Telnet & FTP: mom.spie.org

SPIE - The International Society for Optical Engineering is a non-profit technical society dedicated to advancing engineering and scientific applications of optical, electro-optical, and optoelectronic technologies through its publications, symposia, and educational courses. SPIE is dedicated to bringing you quality electronic media and online services.

SPIE's Holography listserver is part of the ongoing expansion of our OPTOLINK Online Services. It is one of many planned listservers in specific topical areas. We hope that it can serve as a useful communications tool by providing an easy way to reach individuals with similar interests.

Most members of SPIE's Holography Working Group are also subscribers to the listserver, as are many other individuals who have joined the listserver since its launch two months ago. The listserver is open to anyone interested in holography; however, it is not to be used for commercial purposes, such as advertising products or services, except in connection with an information request from another member of the listserver.

If you wish to participate in this listserver, send an e-mail message to info-holo-request@mom.spie.org with the words:
    subscribe info-holo
in the body of the mail message. Please note that commands are NOT case sensitive.

SPIE's listservers are an e-mail list "exploder." This means that messages sent to info-holo@mom.spie.org are distributed to all members of the list. Please note that if you "reply" to a posting, your reply will be sent only to the person whose message you read. To respond to the entire listserver group, you must send your message to the

info-holo@mom.spie.org. (This structure is necessary so that the entire group is not subjected to “bounced” messages or message loop problems.). Listservers are an excellent way to communicate with others working in your field. You can post questions, answer others’ questions, discuss recent developments and techniques, solve problems, and find resources. Subscribing to the group means only that you see what is posted; there is never any obligation to respond or contribute, however, your participation is encouraged to create a useful resource for information and innovative discussions.

For complete instructions on how to use the Holography listserver, as well as a full list of services and instructions for other OPTOLINK online services, such as downloadable Proceedings abstracts, selected articles from OE Reports, world event calendar, publications listings, employment board, etc., send an e-mail message to:

info-holo-request@mom.spie.org

with the single word HELP in message-body. Our automated mail server will send complete information to your e-mail address.

SPIE has two additional listservers, one for Biomedical Optics, and the other for Electronic Imaging. If you would like to subscribe to either list, send a message to:
info-bios-request@mom.spie.org
or
info-ei-request@mom.spie.org
with the words:
subscribe info-bios
or
subscribe info-ei
in the body of the mail message.

Listservers for many of SPIE’s Working Groups will be added in the coming months. If you have further questions or need assistance, please send a message to info-holo-service@mom.spie.org. You will receive a response from an SPIE staff member.

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LEA SUBMISSION GUIDELINES & PAST ISSUES

The Submission Guidelines for Leonardo Electronic Almanac are available on MIT’s techinfo system, which is also their gopher service. To access this telnet to techinfo.mit.edu.

select 2) Around MIT - Offices & Services/MIT Press.
select 22) MIT Press
select 5) Journals 1993

select 6) Leonardo Electronic Almanac
select 1) Guidelines for Submission

Past issues of Leonardo Electronic Almanac are available through MIT's list server system. To get an index of the archive, send email to listserv@mitvma.mit.edu. The "subject" component of the email message is irrelevant, but the body of the message should contain "INDEX LEONELEC". The output of this request looks like this:

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LEONELEC 93-00001   PRV OWN V      77   857 93/10/07 08:05:56
-> Leonardo Electronic Almanac - Volume 1, Number 1
LEONELEC 93-00002   PRV OWN V      73  1577 93/10/06 13:00:25
-> Leonardo Electronic Almanac - Volume 1, Number 2
```

To retrieve an issue of LEA, send email to the same list server address, with a message body containing "GET LEONELEC FILETAG", where the FILETAG is replaced with the file number appearing after "LEONELEC". In the above example, one would request "93-00001" for LEA 1:1, and "93-00002" for LEA 1:2.

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|        L E A            |
| P U B L I S H I N G &   |
| S U B S C R I P T I O N |
| I N F O R M A T I O N   |
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========== < End of Leonardo Electronic Almanac 1(4) >
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