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| INTRODUCTION |
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- < This issue >

Craig Harris

This issue of Leonardo Electronic Almanac presents an eclectic collection of work, reflecting a wide scope of activities. In the PROFILES section there is a view into Harold Cohen's expert system AARON, the current state of this well-known human artist's work creating a robotic artist. We also have an opportunity to explore how a group of video artists interpret the concept of tourism as a cultural phenomenon. The FEATURE ARTICLE this month portrays a new World Wide Web art exhibition that "displays images by artists who work with new aesthetics which are not recognized by the Whitney Museum of New York City." We present an introductory article and a grouping of brief statements about the group of New York-based artists involved in the exhibition. This is a mixed exhibition that includes both traditional and new media art work.

Leonardo Digital Reviews covers a wide range this month, spanning a range from flying machines to kinetic art in Moscow. Harry Rand provides a valuable historical view about art and technology, something that is particularly relevant during an era when technology tends to cloud perspective and the importance of content. Kevin Murray raises some interesting points in his review of the Ylem, Art on the Edge WWW gallery exhibition, such as the lack of a sense of scope from the viewer's perspective upon entering virtual art exhibitions.

Two journals are presented this month, "Terra Nova: Nature and Culture", published by the MIT Press, and "Configurations - A Journal of Literature, Science and Technology", published by the Johns Hopkins University Press. Both of these journals take an interdisciplinary approach that should be interesting to LEA readers, intersecting in their own ways with art, technology and culture.

The Leonardo Electronic Almanac World Wide Web site has been expanding, and people should be aware that directory hierarchies and naming conventions have been transforming. Bookmarks and pointers may need to be changed as a result. Many articles published in LEA since we began publishing since 1993 have now been extracted, and reside in their own area on the WWW site. This bypasses perusing through past issues and contents listings for articles, profiles and gallery works, and will greatly facilitate going directly to items of interest. More work is taking place in the area of developing better resources for presenting thumbnail sketches and in-line images, so it will soon be easier to preview items in the LEA Gallery before downloading huge amounts of data.

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| PROFILES |
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< The Robotic Artist - Harold Cohen's expert system AARON >

Gail Jennes
The Computer Museum
300 Congress Street
Boston, MA
Tel: 617.426.2800x341
Email: jennes@tcm.org

The Computer Museum in Boston, Massachusetts is hosting the world premiere of "AARON," an expert system with its own painting machine built by the celebrated artist, Harold Cohen. Each day from April 1, 1995 through May 29, 1995 the computer-driven robot controlled by AARON creates an original painting.

For the last six years Cohen, who directs the Center for Research in Computing and the Arts at the University of California, San Diego, has been integrating artificial intelligence, robotics and his approach to art into the development of a robot that paints. The result is shown as "The Robotic Artist: AARON in Living Color". AARON is Cohen's continuously evolving, rule-based program, running on a Silicon Graphics Indy computer, which creates the images for painting.

Each day visitors have been able to join Cohen, or one of his assistants, as they select one of the drawings AARON composed overnight and send it to a 486 computer, controlling the robot painter. A small robot arm is carried around a 8-foot x 6-foot table from an array of "brushes," bottles of dye and mixing cups to the area of the painting. Grabbing a cup, the robotic arm places it under a bottle, opens and closes the dye tap, puts the cup in a holder, picks up a brush, dips it in dye, and paints. Over the course of the day a 25-square-foot colored image emerges, depicting people against a variety of settings.

AARON, a highly evolved expert systems, represents more than 20 years of work by Cohen, a painter, who turned to computing in 1968. By then, he had represented Great Britain at the Venice Biennale and been exhibited at London's Tate Gallery. He went to Stanford's Artificial Intelligence Laboratory in 1973 at the invitation of AI pioneer Professor Ed Feigenbaum. There Cohen used the computer to test his theories about image-making, and AARON was born. AARON has evolved from a few rules generating simple shapes to composing complex figures, requiring detailed knowledge, both of its subject matter and of the methods of visual representation. The program draws autonomously, relying on its own knowledge, on a branching structure of rules and on feedback paths from what it has done to determine how to proceed. Since 1974 AARON systems and artworks have been exhibited worldwide, including appearances at the Tate, the Stedelijik Museum, Amsterdam, and the 1985 World's Fair, Tsukuba, Japan.

Since 1989 Cohen has addressed the complex problem of color, explaining, "To write the program, I had to find a way to represent color symbolically: a tricky problem, given that we humans don't seem to deal with color symbolically ourselves." He developed his coloring strategies, writing in the LISP programming language for the screen of his Silicon Graphics workstation. Those strategies had to be translated into terms appropriate to the mixing of dyes by the painting machine. Then a robot had to be

built that could "paint" in a style befitting a fine artist.
A screen-based version of AARON has been installed in the Computer Museum's "ROBOTS & Other Smart Machines" gallery, where an earlier AARON has created drawings since 1987.

< Tourism: Into the 21st Century - a video exhibition >

Nancy Buchanan
Los Angeles Contemporary Exhibitions
6522 Hollywood Boulevard
Los Angeles, CA 90028
Tel: 213.957-1777
Fax: 213.957-9025

The video exhibition *Tourism: Into the 21st Century* is curated by Nancy Buchanan, and includes 11 video makers from Canada and the US, encompassing a spectrum of styles and issues, from personal narrative to activist documentary. The current economic climate has propelled cities around the world to bolster tourism as a primary source of revenue. What is the possible scope of a visitor's vision? What distortions or misunderstandings occur? How are landscape, history, and even residents marketed and subsequently consumed? What new marketing strategies are emerging? Are there conflicts between stimulation of convention opportunities and local needs? Who sets policy for development of hotels, golf courses, amusements? How can strategies of "sustainable tourism" preserve delicate ecological areas; or "community tourism" open new opportunities for local ethnic talents? When a city invests massive amounts of public monies in convention and visitor attractions, what provisions are made for the service workers who work in this industry? Finally, in a time when many have proclaimed the supremacy of the simulacrum, does the constructed image of a place allow any intersection with the "reality" of its daily life? These and other questions are addressed in this exhibition.

Fatime Tobing Rony's "On Cannibalism" interweaves King Kong, museums, the World's Fair, tourism and early cinema in a personal narrative about race and identity in the US. Belgian television director Stefaan Decostere reveals Banff National Park in Alberta as a recycling of a mythic past. Decostere's "Travelogue 4: Coming from the Wrong Side", with a score by Canadian composer John Oswald, also incorporates images of the museum and world's fair in order to reveal the lingering heritage of sexism and colonialism. Therese Svoboda uses anthropologist Clifford Geertz's theory of how interpretation is hampered by language' "To See or Not to See" features giant walking sticks of Papua New Guinea which reflect ambivalence toward the "other".

Dennis Darmek returned to Vietnam 20 years after serving with the Marines in the Que Son Mountains. Language lessons in "Crossing the DMZ" form the ground for the video maker's reconciliation with his past. In a second tape, "Hall's Crossing", Darmek offers a very different, abstracted view of tourist views of the American West, with music by Meredith Monk. The priority of nostalgia over history prevails in "Niagara Falls", as Ann Kathryn Ferguson searches for the "perfect" momento. Canadian video maker Gitanjali travels to India to meet her father's family. There, her aunt and uncle recall their own visit to Toronto. Their perspectives on her home are juxtaposed with the artist's struggle with her own Western filter. Marshall Weber, in "The Emotional Tourist", attempts to combat the effects of American anti-Islamic ideology by contextualizing contemporary Egyptian culture in an aesthetic history.

Jennifer Rodes assesses the impact of mountain tourism on a small Nepalese village in "Trekking on Tradition". Nearby, unvisited villages offer striking comparisons of both the positive and negative impact of Western presence. Julie Pritchard Wright examines the point of view of local tourist industry workers; "The Toured: The Other Side of Tourism in Barbados" raises troubling questions about the emotional demands of this occupation. Realize Empowerment Productions, in "The Lombok Controversy", documented negative effects of large-scale resort development, while illustrating how eco-tourism can not only benefit the local population, but provide an experience for visitors in which they become guests rather than unwitting accomplices to environmental destruction. Julia Meltzer has worked with Los Angeles' Hotel and Restaurant Workers' Union for the past year. Her new tape, "Organizing for Justice: Hotel Workers in Los Angeles", records ongoing organizing efforts.

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| FEATURE ARTICLE |
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< Alternative Virtual Biennial Exhibition -
An Introductory Essay and Artist Profiles >

Paul Warren, artist-curator
Interport Cafe
82 East 3rd Street (between 1st and 2nd Avenues)
Tel: 212.780.3440 (Paul Warren)
Tel: 212.614.0747 (Interport Cafe)
Email: pwnr@interport.net
URL: <http://www.interport.net/avb>

[Ed: The exhibition runs from April through June. The organizers recommend using a Netscape 1.1 browser with Times Roman font.]

Art Is A Language -----

The purpose of this exhibit is to present visual art which is based upon an alternative new aesthetic. It is not a rejected aesthetic. It is an ignored aesthetic. And yet this new direction is emerging in progressive music, theater, opera, interior design, architecture, film and dance. In fact, the only major progressive art form which has resisted this direction is visual art. The possible explanations for this refusal are too involved for such a brief essay. However, a few issues should be addressed to better understand the art in this exhibition.

The five artists shown here have consciously accepted an outsidership position from the mainstream progressive artworld. They don't believe that shock-value art, especially art which is generated from a "low culture" aesthetic, continues to function as a vital means of communication. For them, an art which challenges a weak and dwindling middle class is no longer relevant. Or, for that matter, progressive.

This is not to say these artists are nostalgically looking backward into a simpler and rosier past. Each is pushing outward beyond a purely historical use of imagery. In fact, by bringing history back into the dialogue, these artists are using the language of art in ways never seen before.

The title of this essay is "Art Is a Language" because visual

forms have meanings just as words have meanings. And meanings come from history. Even new words are defined according to words which we know. Without historical significance, we can know very little about ourselves and our world.

And yet, art which makes reference to history is quickly labeled regressive by those who uphold a "progressive" agenda (an agenda which is actually based upon mid-19th century thinking). Perhaps this new art, which does not look like our preconceptions of what new art is supposed to look like, is even more shocking.

The art in this exhibition operates upon a different visual language than mainstream progressive art. It is based upon the language of humanism. One might ask why, in this age of violence and marginal values, is this art relevant to our cultural needs? Why attempt to engage the past in order to create new values for the future?

As always, the answer is best found in the work of the artists represented. These artists are well aware of the dominant strategies in current art. As residents of New York City, they have access to exhibitions which the rest of the world can only see in art magazines. It would be relatively easy for them to participate in the dominant aesthetic. These artists also all began as modernist artists. So their art is not based upon an ignorance of the techniques of late modernism. In fact, the more closely one looks at this work, the more one sees indebtedness to modernist and post-modernist techniques and ideology.

Using art history itself as a "meta language," these artists are stretching historical forms to move art beyond self-referential criticism. They do not use these forms to try to recreate fragments of the past, as in certain forms of post modern architecture. They use these forms as a way to resolve the current impasse in cultural communication.

Obviously, if art is to continue to communicate, it must work within the boundaries of its own definition or cease to exist as art. (For further insights on this issue, please read Arlene Croce's superb critical essay in the December 26th 1994 issue of The New Yorker magazine titled, "Why I Won't Review Victim Art"). In closing, perhaps the biggest issue which has been raised by these artworks is that the only way to meaningfully exist in the present is to connect the past to the future.

1995 Alternative Virtual Biennial Artists

Paul Warren

Modern Icons, Sexual Metaphors - What do we actually worship?
I was originally trained as a painter (BFA painting, 1981, from the University of Washington). Most of my work in the early 80's was in the form of multimedia installations and performances. I began painting again in 1990 and began using the computer to make art in August 1993. All work for this exhibition was created using Adobe Photoshop, Macintosh computers, a Umax scanner, a 14" Apple Trinitron monitor and various storage devices.

The Modern Icon series is concerned with approximately 1,000 years of visual idealism. These digital studies merge contemporary and historical icons and question our true motivations. What do we continue to fear? What do we really worship?

Catsua Watanabe

Parallel Universes - History as a metaphor for a humanist future

There is a parallel universe which is like a river. Or perhaps a spiral. We cannot see this other universe so much as feel it, and this feeling has been communicated by art throughout all times and cultures. This feeling is something which we recognize and know immediately, but there is no way, except through art, to describe its existence.

My work uses both historical imagery and progressive computer techniques to explore new possibilities for art and aesthetics. I use many methods to create my images, including drawing, painting, collage and working directly in the computer. I have been working almost exclusively with the computer since 1993. The works in this exhibition have been created on Macintosh computers using Adobe Photoshop and various scanning devices.

I went to art school in Japan at Hokkaido Technical College and Zohkei College of Art & Design from 1974 to 1978. In 1986, I moved to Paris, France where I attended Sorbonne University. I moved to New York City in 1992. Additional studies include Royal College of Art in London, Esmode in Paris and the School of Visual Arts in New York City.

Amy Ernst

Renaissance Surrealism - perceptual shifts of western cultural history, by the granddaughter of the early 20th Century master I am a fourth generation artist. My great grandfather, Philip Ernst, was a portrait painter. My grandfather was the surrealist, Max Ernst. My father, Jimmy Ernst, was an abstract surrealist of the New York School and an original member of "The Club." I have studied at Emerson College, Indiana University and the Pratt Institute in Venice, Italy. I have shown from Manhattan to Morocco, and from the coast of West Florida to the Eastern tip of Long Island. Renaissance Surrealism is a synthesis of my studies from Venice, a love of Northern European painting and personal experience.

Vincent Romaniello

Old World, New Dreams - paintings created as if there were a time tunnel to the 15th century
Although it may not be immediately apparent from my imagery, this work is concerned with social issues, history, politics, spirituality, and the relationships of all these elements to each other. For example, the human hand is much more than a simple body part. It's also a positive humanist icon which can symbolize change. Any imagery pertaining to the body implies much more than a simple description.

John Wellington

Industrial Erotica - The convergence of mechanistic and sensual responses
I received my BFA from Rhode Island School of Design in 1983 and my MFA from The New York Academy of Art in 1990. I currently teach painting privately in New York City and with the continuing education program at the New York Academy of Art. I show my work mostly in New York, California and Paris.

In my work, classical themes collide with a modern sensibility. Although inspired by centuries of Western painting, my approach is insistently contemporary due to the restless edge which underlies each image and marks it as undeniably of its own time. This edge is evident in the paintings' settings, which are often drawn from the decaying urban landscapes of Brooklyn and New York City. The rusting bridges between factories or the tiled walls of a subway station are transformed into allegorical fortresses and catacombs,

stripping them of their origins and seeking their heroic possibilities.

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| LEONARDO DIGITAL REVIEWS |
| APRIL 1995 |

Editor: Roger Malina
Coordinating Editor: Kasey Rios Asberry
Editorial Advisors: Chet Grycz, Judy Malloy, Annick Bureaud,
Marc Battier

REVIEW PANEL: Rudolf Arnheim, Simon Penny, Mason Wong, Stephen Wilson, Robert Coburn, Marc Battier, Thom Gillespie, Jason Vantomme, Geoff Gaines, Clifford Pickover, Barbara Lee, Sonya Rapoport, Richard Land, P. Klutchevskaya, Paul Hertz, Francesco Giomi, Bulat M. Galejev, Christopher Willard, Harry Rand, Gerald Hartnett, Henry See, Kasey Asberry, Shawn Decker, Roger Malina, Rainer Voltz, Michele Emmer, Curtis Karnow, Jose Elguero, Youry Nazarov, Irina Presnetsova

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< Editorial Comments by Harry Rand >
Email: SIWP06.NMAA.HARRY@ic.si.edu

People who like art, or are interested in art, do not kid themselves about its technological novelty. The problem with espousing this position is opposition from the blinding glamour of hi-tech -- in every generation. Ultimately painting is a very old technology. It has hardly changed in 40,000 years. The pigments and the applications were worked out in Paleolithic times.

The application by brush or airbrush, the contrast of line against shape, and other technical and formal relationships were present from the earliest surveying examples. By the time of the last inter-glacial period object-field relations were present in highly sophisticated renditions. Compositions which regarded the enframing edge, even on caves' walls, seem to have been considered in the first extant works. Since then, visual art has only been refining and extending the virtuosity of application, exfoliating stylistic changes, and following through the intellectual implications of those primordial issues. Art is very old.

Much evidence, data about art can be communicated to an interested public through new technologies. The allure of on-line electronic "virtual museums" and fancy access should not be too heady. We have been through all this exhilaration before as each new technology came on line and the results were usually not what the inventors or promoters had in mind. In fact, there have been a lot of "virtual" technologies as each advance in symbolic manipulation is a virtual realm, and -- because these representations are an amelioration of the environment by artifice -- symbolic manipulations are technologies.

Language is a virtual representation. The words, "the White House", do a very efficient job of conjuring something not present to the reader. First used about 100,000+ BP, speech is a "virtual reality" because saying the word "dinner" is not the same as eating dinner. After the invention of speech, perhaps 60,000+ years passed before graphic representations were invented. During the inter-glacial and post-glacial period widespread use of visual art developed kinds of representations, for purposes unknown to us now. These cave paintings were virtual realities; they communicate something important at a distance from the original reference. Neolithic culture made the next advance in virtual reality. About 9,000 BP, in Sumeria, 3-dimensional virtual emblems of sheep, crops, people, and commodities came into

extensive use. These tokens and calculi gave birth, over the next couple of millennia, to graphic language signs, writing -- another great step forward. This virtual reality was precise enough and sufficiently permanent to draft binding contracts; scripts were invented to write contracts, not poetry.

Sculpted and painted virtual food in ancient Egyptian tombs saved money compared with regular offerings and had the moral value of eliminating animal and human sacrifices to accompany the boss into the afterlife. Once again, as at Lascaux, art served as "virtual reality". Books are a virtual reality in that one kind of transient representation, speech, is made permanent, and within the book a single idea can be expanded beyond the limits of speech so that a new, and virtual kind of reasoning came into existence irrespective of speech acts. Thanks largely to books, writing is no longer recorded speech: writing is not graphic speech. Next, (with some loss of definition but with the virtue of mechanically multiplied copies) prints, or graphics, circulated replicas of distant images. The original image stayed put and a print dispersed an image everywhere. Prints, and books of prints, afford viewers in different locales simultaneous access to an image. The resulting degeneration of the image cannot be ignored. A book of prints does not equal a virtual museum anymore than an electronic reproduction does. The use of photography makes modern art history possible with its highly exact comparisons of images, but collected photos do not equal a virtual museum either. Although the reproduced photographic image was less degraded than prints, no one suggests that photos substitute for real paintings.

When a reference -- a shoe or a pornographic image -- ceases to serve as a mere stimulant to the referent (sex itself) we call the situation "perversion". The same is true of art. Nothing substitutes for art except at the cost of perversion, unless art was unattractive to begin with. Often the promulgators of hi-tech substitutes for art simply try to disguise their own discomfort with art. Counting log-ons to "virtual museums" quantifies our success with outreach programs but, in terms of actually acquainting folks with paintings, we might as well count people walking by our museums on the street.

There is a responsibility to the actual and potential museum-going public. Adopting the on-line crowd we should remember not to equate the museum-going public with internet hackers. We should present solid art history, or zoology, or geology, etc., or at least offer shelter for serious art historical research. Leonardo's readers are among the most sophisticated when it comes to both art and science. Therefore Leonardo's readers should be in the forefront of sponsoring and encouraging new technologies while alerting all pertinent parties that such applications are not substitutes for older art. Newtech might generate its own aesthetic. All this has happened before and it will happen again.

< Book Review: A Passion for Wings: Aviation and
the Western Imagination 1908-1918, by Robert Wohl >
New Haven: Yale, 1994

Reviewed by Michael Dashkin
Email: midashkin@jtsa.edu
Tel: 212-260-4285

"A Passion for Wings" is a 320-page, profusely-illustrated book, part one of a projected three-part series which the author terms a "history of a complex of emotions" which greeted the invention and earliest flights of heavier-than-air crafts during the ten years between 1908-1918, the immediate years after the Wright brothers' first flights until the end of the First World War. The author, Professor Robert

Wohl, teaches in the Department of History at UCLA.

Professor Wohl's work is a contribution to a surprisingly small field, albeit one which has grown steadily in recent years. Such work attempts to assess the impact of technological advance upon the social and political life of the modern period, and to chart the marks such advance has left on the artistic and literary production of the period.

The book consists of eight chapters, each of which explores a carefully-chosen event, artist, art movement, literary figure or body of writing inspired by the state of aviation at a given moment. Chapter One, for example, describes the Wright brothers' pioneering efforts, with an emphasis on their exhibition flights in France and the impact these flights had on the French public, other aviators, artists, writers and journalists. The figure of the spectator -- whether present at an airshow such as those the Wrights participated in, or as combat reconnaissance photographer, or as reader immersed in science-fiction novel -- appears throughout these pages. This is a visual history not only in the narrow sense that it draws on visual evidence in the form of painting or photograph. It is about the spectacle of the airplane viewed from the ground below and of the earth as seen from the aircraft above.

Succeeding chapters chart advances in the state of aviation fueled by patriotism, the hope of fame or money, or the requirements of militaries. Aviation presents itself also as aesthetic solution for artists and writers as diverse as H.G. Wells, Italian Futurist F.T. Marinetti, Pablo Picasso, and American novelist Sinclair Lewis.

Historical events, technological breakthroughs and art movements are treated in a careful, thorough, detailed manner. The reader gains a sense especially of the way writers, artists and spectators alike seized upon the image of aircraft in flight as a kind of invigorating tonic for social fears concerning national lethargy or aesthetic exhaustion (the emphasis throughout is Western Europe, although a section does treat Russian artists).

Although Wohl concentrates on literary and visual material from the high culture of the period, his book includes numerous examples of visual material drawn from the mass culture -- notably postcards, photojournalism and posters. These mass culture images are especially resonant of the new social forms (of leisure, spectator sport, work organized around machine rhythms) emerging during this period. In this, these images differ from much of the high culture works discussed, which tend to appear synthetic in their treatment. Further exploration might seek to draw out these differences, to read these high culture images against mass culture artifacts. Especially interesting might be efforts to understand the exuberance and the richly-embroidered fantasy of these postcards and posters -- one of which depicts an aviator scattering flowers over a Springtime stretch of Southern French coastline. How precisely did this technology become linked with such fantasies? Were these utopian images displaced by darker images born out of wartime experience and civil air crashes, or have the two existed as counterpoints throughout the life of aviation?

What emerges (tangentially and insistently) from Wohl's study is the origin of a world we now consider familiar -- so familiar, in fact, that we accept as routine the developments celebrated or feared here. Evident is the birth of a set of familiar figures and paradigms, some of them far removed from aviation proper but brought about in part through aviation's accomplishments. Among these are: the modern athlete in competition against the clock; the celebrity feted in mass journalism and mass publishing; the mass spectacle broadcast in print, radio, film, and television; the development of trend-spotting and

future-forecasting in journalism, popular literature, and among media-generated experts; the origin of a new way of seeing facilitated by flight; the notion that cinema and aviation have a natural affinity for each other.

There are a number of methodological issues raised here which should be addressed by future researchers. Among them: Why has aviation history been, as Wohl terms it, "a walled-off compartment that most historians (have) felt no need to visit"? What methodology is appropriate to a cultural history of technology? If such a methodology relies heavily on images as primary source matter, as does Wohl's work, how will it differ or remain consistent with the methods of art history?

"A Passion for Wings" should be considered not as a contribution to a narrow field (aviation history) within an only slightly broader one (history of technology). Rather it should be considered as a contribution to the history of modernity, an era which, as it recedes into the past, reveals to us more and more of its complexity.

< Exhibit Review: Whirling & Twirling -
Kinetic Art in Moscow >

Reviewed by I. Presnetsova
Irina Presnetsova (designer, graphic artist)
Union of Designers of Russia
Arbatskaya Sq. 1/2
Moscow 121019, Russia.

No one can nowadays be surprised by an exhibition of Kinetic Art. In Russia, as in the whole world, the artists have been working in that field since the '60s: they are building up models, writing scripts of actions, shooting films, taking up holography, motorizing wooden and metal constructions, etc. And still the opening of the exhibition "Whirling and Twirling" was not an ordinary event. It coincided with the publication of the book "Kinetism", written by Viacheslav Koleyshul, the organizer of the present show. Then, the opening of the exhibition became an interesting show by itself. The live models demonstrated kinetic costumes, the visitors touched and put into action various objects, and artists themselves even managed sometimes to play music on their constructions. And also the fact that the exhibition was hosted not by a museum or a gallery but by a kino-centre where the collection of objects about the history of Russian cinematograph is kept -- represented the relationships between the Kinetic Art and the Cinema in a different way. It could be regarded as an attempt to establish a real wide cooperation between the medias. The catalogue of the exhibition (unfortunately it is not yet printed) had to be a separate piece of Kinetic Art and Design. Following the title of the show Vladimir Chaika designed a round object 10 cm in diameter. It was supposed to bind the pages with the help of a long screw or a spool -- just the way colored paper selectors are designed.

For sure, the exhibition represented not all of the contemporary Russian Kinetic Artists and trends. But even looking at the works of five artists and of one creative group (The Design-Buro "Prometheus"), the spectators could realize the broad palette of artistic possibilities of Kinetism: from brutal wooden objects by Andrei Sokolov, reminding one of water-mill mechanisms -- to dynamic illusions of the phantom three-dimensional (3D) pseudo - holographic compositions by Viacheslav Koleichuk; from joyful painterly geometric reliefs with lams, propellers and buttons by Leonid Borisov -- to inversion of the photographs in the composition by Alexander Lavrentiev; from pop-art compositions by German Vinogradov with balancing elements -- to video art and light-and-music films by Design Buro "Prometheus" directed by Bulat Galayev. Each of the works had its own potentials of interactive game with the spectator. In order to put to action any of the

compositions by Andrei Sokolov -- "The Labouring," "The Wheel with a Surprise," "The Totem," "The Polyphon Structure" -- a person had to apply a considerable physical power. But he was rewarded afterwards for his efforts by a drawing that came out of the machine, by the action of the mechanism, or by different sound effects. All the objects looked like they were very old, prehistoric pieces with scratches and cracks.

In works of an other artist -- Koleichuk -- the spectator was asked to switch on the motors of kinetic photocollages, composition with the lenses, or "The Living Line" consisting of the curved 3D piece of wire which seemed totally flat in the white box and was as if pulsating like an electronic sinusoid. The slow motion created a meditative effect. Different and totally unusual visual effects were created by pseudo-holographic compositions of the same artist. Three-dimensional geometric images formed only by specks (patches of light) in the space gave the feeling of a scientific experiment or a magician's trick at the same time. It's not so easy to build up interactive devices. Another participant -- Alexander Lavrentiev -- had the chance to realize that. He constructed a kinetic composition consisting of round photographs taken with a fish-eye which were rotating by means of a handle and a series of rubber pulleys. In a couple of days it had to be repaired once and again. Performing potentials of kineticism were well exploited during the opening of the exhibition -- the fashion show of costumes by Koleichuk, based on self-tensile string-rod-net structures -- and during special evenings dedicated in turn to every participant. The artist could meet his fans and explain his credo. During such a party Boris Stuchebrjukov played with his "Razor Structures," while German Vinogradov made a real performance with singing, dancing and magic. In fact the work by Stuchebrjukov, "A Monument to the Unknown Artist," was an action piece. It consisted of a real palette and three brushes, which had candles inserted instead of the hair.

Strange as it may seem, the personal evenings of each of the artists who participated in the exhibition attracted more poets and writers than artists. The poets found new stimulus for their work in the exhibition space. There were parallels found between kinetic images created by words or by visual physical materials. Double-meaning words and word-palindromes introduced by the poets had the same mechanism of representing the unity of different stages in one object as the kinetic work. The artists in their turn had discovered that the rhythmic repetitions in poetry had the same meaning as cycles of motion in the kinetic composition.

The documented action, or the pure action, was represented in the videotapes created by the Design-Buro "Prometheus" directed by Bulat Galayev. These films were interesting and unusual, and played the role of the bridge between the kinetic art as an exhibition object and the art of moving images on the screen.

One can say that the exhibition was a success. The curator from the Kinocentre Irina Kokkinaki spoke with pleasure about the young visitors -- students and school children -- who came here just to "play," for whom there was a small oasis of strange non-commercial life here, different from the street life of the city during the New Year holidays of 1994-1995.

< WWW Review: KIDART, International Computer Graphics Forum >
URL: <http://WWW.UC.EDU/~kidart/>

Reviewed by Kasey Rios Asberry
Email: kasberry@sfsu.edu

Although the World Wide Web is growing every day in numbers of sites the scope of its offering can be disappointingly predictable. Ever so often, and this is what keeps us interested, someone (or ones) takes steps toward actualizing the potential of hypermedia. Beyond immaculate graphics and humming organization what is longed for in this nearly unexplored dimension is evidence of communication previously impossible. At KIDART, an on-line exhibit of artwork exchanged between people aged 10 to 15 years old from Sweden, Brazil, Denmark, the Netherlands, Russia, Slovenia, Uruguay and the U.S., also a group of works about "Outer Space". With the fresh form and vivid color characteristic of children's artwork this exhibit transcends merely being charming and not just because it hasn't been relegated to the refrigerator, although that is significant since access to technology and voice is so clearly related in the culture that is growing up around lightening fast communications. But there is even more at work at KIDART. It's about imagining futures that include travel to Pluto, and conversations between people that don't conform to political boundaries, experiencing this as normal. It's also about placing tools in the hands of people with imagination and watching with respect and interest to see what they will make.

< WWW Review: YLEM, Art On The Edge >
URL: <http://www.exploratorium.edu/Ylem/ylemhome.html>

Reviewed by Kevin Murray
Email: kmurray@werple.mire.net.au

YLEM offers artists their own corner of World Wide Web to exhibit work. It deserves to be included in any listing of 'art links' as a convenient site for taking in work from a range of media, including digital photography, robotic sculpture, interactive media, 2-D images and music. This quirky list is bound to evolve as the site is used more frequently.

Most of the pages promote work that can be found off-line. For example, the pages of Jim Pallas' 'robotic sculptures' offer a wide audience for what is otherwise site specific work. (We can only marvel at Pallas' powers of persuasion to be able to install radical electronic works in places of social authority, such as works for the US Senate and law courts.) Despite the graphics, we are still left with the 'idea' of the work rather than its experience.

The more exclusively on-line artists shared a 'new age' vision in which personal experience -- memories, dreams, fantasies -- is the prime focus of creative endeavor. Regular Web exhibitor Diane Fenster posted works under the title 'Work in Progress' which demonstrate the very high-standard of image-making that is currently accessible. Divided into cantos, her digital photographs present an engaging synthesis of digital and manual techniques (reminiscent of Mike and Doug Starn's photographs). The world of each work remains intensely personal; as one caption reads, 'I bear my earliest days in my flesh'.

This subjective focus extends to the 2-D images, such as Dot Krause's sample of mystic icons. The universal and particular combine in the inward private experience of the artist. To quote from her statement, her work dwells 'on timeless personal and universal issues; hopes and fears, wishes, lies and dreams, immortality and transience'. The 'new age' values that develop within Web culture do prompt some serious questions. One of the celebrated effects of the global information network is the erasure of geographical boundaries. Here is pause for thought. Does the transcendence of territory lead also to the decline of ideology and political difference as motives of artistic production? With politics made irrelevant, the realm of intimate personal experience may be the only thematic substance remaining. Having sounded

that note of concern, there's still much to be said about the nature of an on-line exhibition. Though a gallery is considered 'public' space (compared to the artist's studio), the visitors share time and space with the work. By contrast, the on-line display is more like a radio broadcast, available to incidental as well as deliberate witnesses. Unlike the radio, however, on-line art has the capacity to register each act of looking. As well as logs of 'hits' and 'domains', it is also possible to provide a visitor's book for comments. Virtual curators will be intensely busy for the next few years designing appropriate electronic showcases.

With one or two exceptions, none of the artists' work on YLEM was autonomous to the web (webgenic?). The interactive multimedia pages consisted of advertisements for CD-ROM wares. As art promotion, YLEM is superb, providing not only images of latest works but also biographical data. This is its current limitation as a web site. Annette Loudon's images move towards this possibility. Her site is a pictorial monologue about virtual rape. Sinister depictions of the male techno-fetishistic gaze are undercut by the tragic figure of a rape victim, bleeding in the corner. As with many Web exhibits, though, the images are too large for the small screen, presenting walls of image with no points of entry for visitors. She certainly chose a powerful theme, but presents it as a familiar and very unsubtle appeal to victim psychology. The 'masking' available with HTML links provides ideal material with which to lure visitors into a trap. Actually engaging the visitor's desire would be a far more effective way of making the point.

A useful point of reference here is the exhibition by Joseph Squier, <http://gertrude.art.uiuc.edu/ludgate/the/place.html>, 'just outside the place'. The sequence entitled 'Life with Father' is also a monologue, but it begins with an idyllic picture of paternal authority which turns sour in future screens.

Linear exhibitions of image sequences make evident a striking feature of on-line exhibits: the visitor's initial ignorance of scale. Normally, when entering a gallery, it is easy to estimate the scale of the exhibition and distribute one's attention accordingly. The same is certainly true of reading a book. But stepping into a Web gallery is another matter entirely. It seems at times that the screens will go on forever. What the experience lacked was the 'envelope' which implicitly informed visitors of the demands of the art they were on the verge of engaging with.

The fact that this 'envelope' is not a ready made element of Web space should be a powerful creative tool. First, in making virtue of a necessity, scale could be deliberately conveyed in the opening screens (e.g., with an architectural metaphor such as The Tate Gallery collection on CD-ROM). Second, the potential anxiety felt by visitors that their engagement may be without end is potentially a very useful emotional device (why not find places for visitors to get lost?) It is in thinking 'strategically' that web artists might counter one of the natural enemies of art on Internet: the compulsive urge to click. With knowledge of the sea of choices available on WWW, the restless desire to follow links does not help anyone actually get to a place where the contemplation of art is possible. It is in making solutions to this problem that some of the best new web art might emerge.

< Reviewer's Bio: Roy Ascott >

A pioneer of telematic art, Roy Ascott's seminal projects include "Terminal Art US/UK", 1980, "La Plissure du Texte: a planetary fairytale", Electra, Paris 1984, "Aspects of Gaia", Ars Electronica, Linz 1989. He has published more than eighty theoretical texts, many translated into French, Italian, German, Spanish, Japanese. He is an advisory editor of Leonardo and of Leonardo Electronic Almanac, and

co-editor of "Connectivity: art and interactive telecommunications" (1991). He lectures widely in Europe and North America.

The CEC Brussels, French Ministry of Culture, UNESCO, Nippon Telephone and Telegraph, Ars Electronica Center Linz, Cardiff Bay Art Trust, the European League of Institutes of the Arts, and the International Symposium on Electronic Art are amongst the many organisations which consult him. He was an International Commissioner for the Venice Biennale in 1986 (Tecnologia e Informatica), and is a jury member of Prix Ars Electronica Linz and the Interactive Media Festival San Francisco. Former President of the Ontario College of Art in Toronto, Dean of the San Francisco Art Institute, and Professor for Communications Theory at the University of Applied Arts in Vienna, he is now Director of the Centre for Advanced Inquiry in the Interactive Arts (CAIIA) at the University of Wales College, Newport.

<http://caiiamind.nsad.gwent.ac.uk>

< End of Leonardo Digital Reviews - May 1995 >

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| ANNOUNCEMENTS |
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< The Digital Dialectic: A Conference on the Convergence of Technology, Media & Theory >

Peter Lunenfeld, Graduate Faculty
Art Center College of Design
1700 Lida Street, Pasadena, CA 91103
Tel: 818.568.4710
Fax: 818.795.0819
Email: peterl@artcenter.edu

Art Center College of Design, Pasadena
The Ahmanson Auditorium
August 4-6, 1995

The Digital Dialectic is an interdisciplinary jam session about what is happening to our visual and intellectual cultures as the computer recodes technologies, media, and art forms. This single track conference brings together scholars and artists who combine theoretical investigations with analysis of the possibilities (and limitations) of the technologies involved in digital art and media. The digital dialectic grounds the insights of theory in the constraints of practice -- offering conceptual tools based on a user's understanding of how these media are created and work. This conference will build an aesthetic theory for the 1990s, carving out a discourse that is neither mired in the past nor overly enamored of the new.

The Digital Dialectic takes place the weekend before the opening of SIGGRAPH '95 at the Los Angeles Convention Center. Those already planning to come to SIGGRAPH will be able to extend their trip to include this event. In addition, there will be scholars interested in the implications of new technologies who will come to Southern California specifically to attend this conference. Finally, there is the huge audience for these issues already present in Southern California: scholars at USC, UCLA, Caltech, Cal Arts, etc.; entertainment industry members concerned with the convergence of Hollywood and Silicon Valley; artists and designers branching out into new media; and, of course, the vast public already obsessed with these issues.

When the future writes the history of how the computer transformed culture, the 1990s will be seen as the decade that made "content" count. The Digital Dialectic's speakers are neither prophets nor business consultants: they won't be talking about what to do this quarter or next. They are, however, uniquely suited to think about the "big picture," and just as important, to caution against hype. The Digital Dialectic is a unique conference, which will appraise content with tools that go beyond buzzwords and address the use value of theory.

Concurrent with The Digital Dialectic, the Alyce de Roulet Williamson Gallery at Art Center will mount Digital Mediations, an exhibition of seven international artists who are using digital and interactive media. These include Jim Campbell, Ken Feingold, Sara Roberts, Bill Seaman, Christa Sommerer/Laurent Mignonneau, and Jennifer Steinkamp. The show is curated by Laurence Dreiband, Erkki Huhtamo, and Stephen Nowlin and runs from August 6 to October 1, 1995. Opening reception, Saturday, August 5, 6:00-9:00 PM. For more information call 818.396.2244.

The Panelists

- + William J. Mitchell -- Dean of the School of Architecture and Planning at the Massachusetts Institute of Technology and author of Bits: Space, Place, and the Infobahn
 - + N. Katherine Hayles -- English Dept. at UCLA, author of Chaos Bound: Orderly Disorder in Contemporary Literature and Science
 - + George Landow -- Professor of English and Art History, Brown University, author of Hyper/Text/Theory
 - + Brenda Laurel -- Interval Research, virtual reality expert and author of Computers as Theater
 - + Michael Heim -- philosopher, author of The Metaphysics of Virtual Reality
 - + Christian Muller -- Frankfurt-based architect specializing in interactive environments and installations
 - + Florian Brody -- New Media Consulting, Vienna, formerly technical director of the Expanded Book Project at The Voyager Company
 - + Carol Gigliotti -- Education and Technology Liaison, Wexner Center for the Arts; Department of Art Education, Ohio State University
 - + Lev Manovich -- University of Maryland, editor of Tekstura: Russian Essays on Visual Culture
 - + Peter Lunenfeld -- Art Center College of Design, founder of mediawork: The Southern California New Media Working Group
 - + Erkki Huhtamo -- Professor of Media Studies, University of Lapland, Rovaniemi, Finland
- Robert Stein, Founding Partner, The Voyager Company, New York

< MONO/PROD: a Mail Art Show >

Conrad H Ross
Art Department
Auburn University
Auburn, Alabama 36849 USA
Email: rosscon@mail.auburn.edu

MONO/PROD - Mono Production is a new mail art show dealing with issues of printmaking/painting, exploring the multiple in terms of "gesture", monoprint, monotype and the "unique" in terms of content, relevance, value and worth. The exhibit will occur in the spring of 1996 in Auburn, Alabama, U.S.A. Precise dates for the exhibition, place and additional sponsors pending artist response.

All entries will be exhibited. No works will be returned. Format - 8 1/2" x 11" (20.3 cm x 25.4 cm). An additional 8 1/2" x 11" sheet of explanation, critique, written statement of word/words may accompany each entry (not necessary, but invited/encouraged). Documentation will be furnished to all exhibitors.

Deadline: December 31, 1995.

< SCAN '95 >

Steven Berkowitz
Small Computers in the Arts Network
61 East 8th Street, Suite 229
New York, NY 10003-6494

The Small Computers in the Arts Network (SCAN) announces the 1995 Annual Symposium & Computer Music Concert, scheduled for November 3-5, 1995, at the Benjamin Franklin Science Museum in Philadelphia, PA, USA. SCAN is a network of computer artists and musicians who gather each year during the first weekend in November in Philadelphia to exchange ideas and work. Papers are presented, a gallery exhibition is presented, a concert is held, and a proceedings is printed.

Presentations

Please submit a summary of the creation of visual or audio images utilizing computers in a unique way. Describe the means of presentation by including visual and/or audio support materials in the form of slides, video tapes (VHS or Hi8), audio tapes (cassette, DAT, or CD), or other appropriate media.

Performances

Please submit audio recordings (cassette, DAT, or CD) of performable music composition utilizing computers in a unique way. Describe the means of presentation by including video recordings (VHS or Hi*) of this or previous performances.

All Proposals

Include an artist's statement, an explanation of the enclosed work samples, and a resume. Provide self-addressed-stamped envelopes for return of materials, if desired. Do not send original materials. Submissions must be postmarked by July 31, 1995.

< Experimental Television Center Residency Program >

Ralph Hocking, Director
Experimental Television Center
109 Lower Fairfield Road
Newark Valley, NY 13811
Tel/Fax: 607.687.4341

Applications are being accepted for the Residency Program at the Experimental Television Center. The program offers artists the opportunity to study the techniques of video image processing during a five-day intensive residency. Artists are instructed in the operation of the system and then use the equipment themselves in the creation of new works. The imaging system includes such discrete devices as colorizers, keyers, TBC and frame buffer. Also included are several Amiga computers, one dedicated for use with a Toaster, expanded memory and genlock, integrated with a patching

matrix.

This program is open to artists from Throughout the US, and supports all genres which approach video as a unique art practice. Participants in the program have complete aesthetic control over all aspects of the projects.

Artists must have prior experience in video production. Applications must include a resume and a project description which indicates how image processing is integrated into the work. First time applicants are asked to send a videotape of recently completed work, either 3/4" or VHS formats, along with a self-addressed-stamped envelope if you wish the work returned. Please select a five day period along with alternate dates during the period September 1995 through January 1996.

Interested artists are encouraged to write the Center for further information, including a complete list of equipment available.

Postmark Deadline for applications: July 15, 1995

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| PUBLICATIONS |

< Terra Nova: Nature and Culture >

David Rothenberg, Editor
Terra Nova
Department of Social Science and Policy Studies
New Jersey Institute of Technology
University Heights
Newark, NJ 07102 USA
Tel: 201.596.3289
Fax: 201.565.0586
Email: rothenberg@admin.njit.edu

A new quarterly journal, Terra Nova: Nature and Culture, will begin publication by the MIT Press starting in January 1996. Terra Nova will explore how environmental issues are at the focus of general cultural debate of our time. Essays, reportage on environmental disasters and solutions, fiction, poetry, art, and all forms of reflection on the human relationship to nature will be included. Contributions from philosophy, literature, history, anthropology, geography, environmental studies, psychology, politics, activism, and the arts are encouraged. Terra Nova will be professional and refereed, though it will cross the boundaries between disciplines to show how serious discussion of the problem of nature appears in many fields of creative inquiry. Terra Nova aims to become a journal of major cultural importance, to show that environmental issues are really part of the mainstream of cultural critique and commentary, dissolving the borders between the academic and the readable.

Subscription information:

MIT Press Journals
55 Hayward Street
Cambridge, MA 02142 USA
Tel: 617.253.2889
Fax: 617.258.6779
Email: journals-orders@mit.edu

< Configurations - A Journal of Literature, Science and Technology >

Editors: Wilda Anderson, James Bono, Kenneth Knoespel
The Johns Hopkins University Press
P.O. Box 19966
Baltimore, MD 21211 USA
Fax: 410.516.6968
Email: jlorder@jhunix.hcf.hju.edu

"Configurations", a journal of literature, science and technology recognizes the significance of the work of 'configuring', and acknowledges the importance of the multiple discursive communities that shape the cultural and social production of literature, science, technology, and medicine. While configuring is traditionally thought of as theoretical, mathematical, literary, rhetorical, and tropological, 'Configurations' affirms that configuring can also be visual, graphical, geometrical, instrumental, material, and embodied.

The community of readers for "Configurations" includes researchers and practitioners in:

- + history, sociology, anthropology, rhetoric, and philosophy of science
- + literary history and criticism
- + art history and media studies
- + the cognitive sciences
- + other areas of science, technology, and medicine

At the forefront of research on some of the most significant critical problems to emerge in recent years, "Configurations":

- + addresses a wide variety of issues associated with the historical production, cultural dissemination, and social uses of "technical" knowledge and practices
- + explores the relations among literature, the arts, science, technology, and medicine
- examines the differences and similarities between the behavioral and natural sciences and the function of creativity and invention in each
- + probes the texture of scientific practice and knowledge, including the study of the role of technology and instruments in theoretical, experimental, field, and clinical research
- + evaluates the impact of these evolving forms of technical embodiment on society and culture
- + combines the insights of established critical practices with recent advances in science studies
- + provides a forum for scholars from different academic, interpretive communities to exchange ideas and expand the tenets of 'literature' and 'science' beyond their traditional boundaries
- + devotes special issues, forums, and essay clusters to major figures or themes
- + publishes an annual bibliography in each volume.

"Configurations" is published three times a year by Johns Hopkins University Press, for the Society for Literature and Science, in cooperation with the Georgia Institute of Technology.

The Society for Literature and Science was founded in 1985, and fosters the multi-disciplinary study of the relations among literature and language, the arts, science, medicine, and technology. The Society has its own Speakers' Bureau and holds an annual convention.

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| INFORMATION |
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< Intelligent communication cards needed in Argentina >

Cesar P. Verdes
Cabildo 3093 10 F (1429)
Capital Federal - ARGENTINA
Tel: +54(1)-703-4497
E-mail: live@byte.satlink.net

We are looking for companies that can provide us with intelligent cards, random access, protocol 12C, under ISO 7816 - 1/2 with at least 2Kbits of memory capacity. These kind of cards are used in public phones. We have only one French company called GEMPLUS that sells this kind of cards to TELECOM and TELEFONICA in Argentina. I hope you can help us to find another seller in the world.

Thanks a lot.

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^.....^

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| ACKNOWLEDGMENTS |
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Leonardo/ISAST gratefully acknowledges Interval Research Corporation for support of Leonardo Electronic Almanac.

|
| LEA
| FORMAT
| CONVENTIONS
|

The following describes the format or markup conventions used in creating Leonardo Electronic Almanac. The function of these conventions is to facilitate perusal through the text, and to make it easier to create conversion programs to various text readers.

- =====: Section Heading Delineation - 62-character sequence
 - ****=: Item Delineation within Section - 62-character sequence
 - : Separator for subsections within items.
 - < : Begin Item Title - search for the character "<" followed by two spaces
 - >: End Item Title - search for two spaces followed by ">"
 - |_ or _|: This sequence takes you to the next SECTION TITLE.
- Item titles and author/contributor names appear exactly the same in the Table of Contents and at the location of the actual item.
Section names appear in all capital letters, and appear with all letters in sequence with no spaces (PROFILES, REVIEWS, etc.).

The preferred placement and format for address headers at the top of each item, preferably organized in the following way:

- Contact Person
- Organization
- Street Address
- City, State, Postal Code and Country

Tel:
Fax:
Email:
URL:

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| AND |  
| FTP |  
| ACCESS |  
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The LEA archives, including the Leonardo Electronic Gallery, has been moved over to the World Wide Web site, which is now accessible using the following URL:

<http://www-mitpress.mit.edu/LEA/home.html>

The following are the specifics about ftp access for Leonardo Electronic Almanac:

```
ftp mitpress.mit.edu  
login: anonymous  
password: your_email_address  
cd pub/Leonardo/Leonardo-Elec-Almanac
```

Currently only back issues, submission guidelines and a limited number of current files are available via ftp. Check the README file for the most current information about the contents in the system.

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| LEA |  
| PUBLISHING & |  
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Editorial Address:
Leonardo Electronic Almanac
718-6th Street SE
Minneapolis, MN 55414-1318
Tel: (612) 362-9390
Fax: (612) 362-0097
Email: harri067@maroon.tc.umn.edu

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===== < End of Leonardo Electronic Almanac 3(5) >
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