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INTRODUCTION

< This issue >

Craig Harris

This month we are fortunate to have insight into the panel entitled "Crossing the Boundaries: Electronic Art Within & Without", taking place at the College Art Association conference in New York City this month. Lily Diaz has compiled a collection of abstracts and artist statements. There has been a great deal of rumor about the potential demise of the program at the Banff Centre for the Arts, often challenged by Sara Diamond. In the interest of clarifying that situation I am providing a profile of current and upcoming projects and residencies that was recently received. It seems that the Banff Centre is still alive and thriving. Leonardo Digital Reviews is thought-provoking again this month, and several announcements, opportunities and new publications complete the issue.

Keep the material coming in, and please consider sending in articles, profiles, and pointers to new and fascinating activities in the world and on the net!

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PROFILES

< Crossing the Boundaries: Electronic Art Within and Without >

Crossing the Boundaries: Electronic Art Within and Without
The 86th Annual Conference of the College Art Association
New York Hilton Hotel
Diamond Room A
1365 Avenue of the Americas
New York, NY USA
URL: <http://alberti.mit.edu/caa/Conference/1997/prelimprog.html#GE>

Suzanne Schanzer, Conference Coordinator
College Art Association
275 Seventh Avenue
New York, New York 10001, USA
Tel: 212/691-1051, ext. 210
Fax: 212/627-2381
Email: nyoffice@collegeart.org
Friday, February 14, 1997, 9:30am - 12:00 noon

The Annual Conference of the College Art Association

The Annual Conference of the College Art Association provides a national forum for the visual arts. Each year, in a different location around the country, artists, art historians, museums directors and curators, educators, and arts administrators convene to present current research, review trends, exchange ideas, and address problems and issues in the profession. The conference program incorporates over 100 sessions. Among the sessions, a panel

entitled "Crossing the Boundaries: Electronic Art Within & Without" might be of particular interest to LEA subscribers.

Crossing the Boundaries: Electronic Art Within & Without
LiLy Diaz-Kommonen, Session Chair
Email: diaz@mlab.uiah.fi

(It is expected that the chair will direct the panel via a telematic connection from Finland.)

Panelists:

Luis R. Cancel
Susan Dallas-Swann
Kari H. Hintikka
Jenny Marketou
Ioannis Paniaras

Discussants:

David Rothenberg - Philosopher, musician and writer.
Berta Sichel - Art critic, curator and writer.

Objectives

"Nepantla is the Nahuatl word for an in-between state, that uncertain terrain one crosses when moving from one place to another...when traveling from the present identity into a new identity."

Gloria Anzaldua

The objective of this panel is to investigate the idea of electronic networks as new frontier territories in constant states of flux. We are interested in examining how boundaries are defined and recognized. In environments where there is no physical media to administer, how is the role of the artist as communicator and innovator altered? What can be the role of art and the artist in furthering communications in and among virtual communities? Does a lack of physical presence have an effect on the ability of individuals to cross over boundaries? In the electronic realm, can we re-map the traditional notions of the body, the self, and of national and cultural identity?

Abstracts

"Cartographers of Cultural Boundaries: Four Latino Artists"
Luis R. Cancel, President
Esperanto Internet Services
NY, NY, USA
Email: lrc@interramp.com

Drawing on four contemporary Latino artists who participated in the Legacy/Legado: A Latino Bicentennial Reflection exhibition held earlier in Hartford, CT, this paper will discuss the ways in which the work of these artists provides esthetically engaging road maps that give evidence not only of the artists's cultural origins, but also of their struggle to be accepted by the art establishment. I will cite examples that illustrate the artists' use of motifs or symbols drawn from their respective cultural origins. I will also excerpt from the artists' own descriptions of the challenges presented by producing art work that seeks to extend stylistic vocabulary of contemporary art. The four artists are:

Luis Jimenez, an artist who was born and raised in the border town of El Paso, Texas. Jimenez has produced a body of work that explores the geographic and social boundaries shaping the life experiences of

York, Museum of Contemporary Art, Chicago, Glasgow School of the Arts, Scotland, and The New Museum of Contemporary Art, New York. She is an Associate Professor and Co-Coordinator of the Art and Technology Program, Department of Art at The Ohio State University.

"From Utopia to Everyday Life in Cyberspace"

Kari H. Hintikka
Media Lab, University of Art and Design
Helsinki, Finland
Email: cons@uiiah.fi

Since the 1980s, the Internet has developed virtual communities. Unlike text interfaces like MUD and IRC, virtual environments are now three-dimensional and users have visual representations, or "avatars." This new three-dimensionality allows real phenomena to be transported into cyberspace. Examples of this phenomena include the body language people use to make contact in a night club, the ways in which people show warm feelings in public spaces, or the ways in which they fight with each other. Life in virtual environments is no longer about just talking, it is about doing and acting.

The virtual community is often seen as a human utopia, where people help each other and everyone is a friend and this might well have been the situation in the 1980s. However, since the mass invasion of participants in 1994, it has become clear that this utopia is changing into normal city with all kinds of inhabitants. Since the first virtual rape happened in 1992 at LambdaMOO, questions have begun to arise. How do you handle an intruder who steals the virtual identity of another person and creates a bad reputation of him or her? Do avatars have copyrights? Who judges if an avatar is copied or not? Can the virtual community itself keep law and order in cyberspace? Should intruders be judged in real life? Should avatars have social security numbers? How do you ensure and convince others of who you are when spending time in cyberspace?

The cyberspace artist in the virtual realm has often been compared to the gardener in her/his garden. (S)he puts some seeds (rules) to the ground (place), waits and decides whether (s)he likes wild mutations, controlled evolution, or predictable fruits. Cyberspace must be tended to. Cyberspace artwork is a process between artist and participants that is neither static nor pre-defined.

"Intimate Geographies and Electronic Media: Electric Eve"

Jenny Marketou, Multimedia Artist,
Cooper Union, NY, NY, USA
Email: jmarketo@thing.net

I intend to discuss with slides and video clips my recent site-specific environmental installation and interactive video database on CD ROM, "Electric Eve." Created in 1996, the work is an experiment in using interactive technology to create a multimedia environment that challenges users to consider their place as consumers of pre-defined information. It also encourages them to examine the mythology of interactivity/ choice/belief.

The project provides an example of an emerging art practice that has been shaped by the combination of technology, space, architecture, and body as fluid mediums. It seeks to create a new context of experience, and to explore a new relationship between the "eye", the "body" and the virtual world. The virtual space of "Electric Eve" is a place of fantasy that is activated by the viewer who, by interacting with the video database, occupies different imaginary positions. Almost like a performer, these media play back viewers's desires through direct touch on the computer screen.

The main metaphor of this work is "Electric Eve", who, like any another Android, is the syntax created by juxtapositions with no hierarchy. The original source of my inspiration in the construction of "Electric Eve" was the French fiction "L'Eve Future" by Villiers L'Isle d'Adam in 1886. The "Electric Eve" acts first as a lure, a fantasy and trap for the user who is not able to experience or own her/his desires, fantasies and relations in any traditional sense. Everything exists in voltage condition darting around the speed of light that one beholds as glowing pixels and transmitted sounds.

Is technology a restriction of humankind, or it is a tool for progress?

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"Design of Virtual Identities and Behavior in Cyber Communities"

Ioannis Paniaras
Graduate student in Virtual Identities
Media Lab & New Media Center
University of Art & Design
Helsinki, Finland.
Email: paniaras@uiaah.fi
URL: <http://www.uiaah.fi/~paniaras>

Recent technological research and development have made electronic environments a common reality for an increasing number of users. Life in these 'worlds' springs from the presence of "users" and the interaction between software-based entities. Yet as soon as communication is established and a person has succeeded in entering this metaworld, s/he is confronted with the dilemma of on-line identity and must ask the question "Who am I in the virtual domain?"

The self becomes fragmented and saturated. We become many synchronous selves housed inside the same physical body. The avatars and the virtual communities they form become the medium for consciously experimenting with various behavior categories. Questions emerge: What is a virtual identity? How do we go about creating virtual identities that can be used in daily interactions? Are we heading toward a simulation of real-life social stage in an on-line virtual social storm?

I intend to present a theoretical system composed of identity cells. These cells can be sold as commodities for the virtual visual and behavioral 'styling' that is using computer-mediated communication. These identity components can be seen as a substitute for tangible, style-conscious products. The styling of the virtual persona will be powerful because it springs through flexible digital nature, and can overpass obstacles that are related to the material body.

I envision a system that will permit the design of a plethora of secondary identities capable of portraying the many sides of one's personality. This 'plantation' of virtual identities can be visualized as a virtual identity tree. This Identity Tree is composed of identity cells that equate to software components and personal data. Imagine these software-based behavior modules as the tree's foliage in that they dress the virtual identities of the primary, creative individual who resides at the root of the tree.

IOANNIS PANIARAS is doing graduate research at the Media Lab of the University of Art and Design Helsinki UIAH. He is currently focusing in avatar design development and he is interested in the social and cultural aspects of virtual communities.

< The Banff Centre for the Arts,
Media and Visual Arts Program 1996-97 >

The Banff Centre for the Arts
Media and Visual Arts
Box 1020, Station. 8
Banff, Alberta T0L 0C0
Tel: (403) 762-6260
Fax: (403) 762-6665
Email: arts_info@banffcentre.ab.ca
URL: www-nmr.banffcentre.ab.ca

APOCALYPSE CULTURE

Thematic Residency -1997 Call for Proposals
Residency dates: October 6 to November 12, 1997
Application deadline: February 28, 1997

This two month thematic residency will bring together 70 artists whose work is informed by apocalyptic narratives. International in scope, the residency will cross disciplines and include artists working in ceramics, painting, sculpture, printmaking, video, film, performance and new media. Sub themes include: Ecology; Technology and Disease; War, Machines and Speed; Monstrosity, Horror and Revelation; Mythology, Metaphor and Everyday Life.

WORK/STUDY PROGRAMS 1997

Artistic Director/Executive Producer: Sara Diamond Application
Deadlines: Ongoing Duration: Varies from one week to two years
depending on project requirements.

The Media and Visual Arts department offers employment-related work/study programs in arts administration, curatorial practice, television, digital media and visual arts. These programs are designed to expand and upgrade creative technicians' and other cultural workers' skills, to increase their employability and bring new creative knowledge to technical fields.

Professional arts or cultural organisations, other training organisations, cultural industries, schools, labour and government agencies are encouraged to approach Media and Visual Arts to create work/study partnerships.

Program levels: within each work/study area M.V.A. offers three levels of programs. Level 1 is for emerging creative technicians, Level 2 is for experienced mid-career professionals, and Level 3 is for senior professionals.

TELEVISION and NEW MEDIA GO-PRODUCTIONS

1997 CALL FOR PROPOSALS
Application deadline: ongoing

The Banff Centre for the Arts plays a unique role in the world of Canadian and international television and new media. We work with outside partners to create high-quality television for specialty channels and broadcast. We also encourage projects that explore emerging digital culture such as CD-ROM, multi-media, interactive video, Internet, Web, satellite and fibre services.

The Banff Centre M.V.A. department encourages proposals from independent producers, broadcasters, distributors and interactive companies.

Our excellent facilities include a television studio, EFP packages,

computer graphics, high-quality online suites, an AVID non-linear editing suite, and a high-end new media creation environment. A detailed list can be provided upon request.

DEEP WEB CREATIVE PROJECTS

Application Deadline: July 15, 1997
Duration: Determined by parameters of individual proposals.

Deep Web is a two year Web creation and software development project which offers creation and technical opportunities to Canadian and international artists, designers, production companies and technicians.

The Banff Centre is currently accepting proposals for creative projects that explore various applications of the World Wide Web: artistic, educational, publishing, entertainment, marketing or the Web as a component of a larger multi-media environment such as CD-ROM, interactive video or virtual reality. We will offer artists and producers opportunities to work with Virtual Reality Markup Language, Hyper Text Mark-Up Language, dynamic media and emerging World Wide Web Software. We will also commission Web sites as part of the Deep Web project. Contact M.V.A. or Registrar's for our 1997 brochure.

THE MULTIMEDIA INSTITUTE

Workshops, Symposia and Seminars

Media and Visual Arts is a world leader in interactive and new media. Our workshops and symposia provide unprecedented opportunities to learn creative concepts, producing skills, software, technology and applications in media and visual arts. We create think tanks that explore emerging theory, artistic practice and technologies, we assist companies and producers to develop new ideas and directions. Highlights of our 1996-7 program include: Women in The Directors' Chair; Dance for the Camera; Aboriginal Electronic Publishing; Writing for Series Television; Interactive Screen: a two week international intensive workshop on interactive story; Surfs Up; Interactive Game Design; Production Management in New Media; Haptic Interfaces Workshop; Digital Design; JAVA; VRML; MTropolis; Curating and Conserving Interactive Media: Issues and Debates; Web Design; the Virtual Burstall Pass workshop.

Contact M.V.A. or Registrar's for our 1997 brochure.
Self-directed, TIT and new media co-productions and workshops application deadlines are ongoing.

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LEONARDO DIGITAL REVIEWS January 1997
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Editor: Roger Malina
Coordinating Editor: Kasey Rios Asberry
Editorial Advisors: Chet Grycz, Judy Malloy, Annick Bureaud,
Marc Battier

Review Panel (includes): Rudolf Arnheim, Wilfred Arnold, Marc Battier, Robert Coburn, Shawn Decker, Jose Elguero, Michele Emmer, Josh Firebaugh, Eva Belik Firebaugh, Geoff Gaines, Bulat M. Galeyev,

Thom Gillespie, Francesco Giomi, Tony Green, Molly Hankwitz, Istvan Hargittai, Gerald Hartnett, Paul Hertz, Curtis Karnow, P. Klutchevskaya, Richard Land, Barbara Lee, Roger Malina, Diana Meckley, Axel Mulder, Kevin Murray, Youri Nazaroff, Simon Penny, Clifford Pickover, Sonya Rapoport, Henry See, Kasey Rios Asberry, Jason Vantomme, Misha Vaughn, Rainer Voltz, Christopher Willard, Stephen Wilson

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< Editorial:The Neutrino and the Sydney Opera House >

David Topper
Email: topper@io.uwinnipeg.ca

Sounding like Aesop's fables, the combined tales of the neutrino and the Sydney Opera House have a moral about aesthetic patterns in science and in art. In each of two separate cases (one involving the discipline of physics; the other, architecture), aesthetic factors played a role in convincing theorists to believe in the reality of something that only existed in the mind --- or perhaps better said, something that only existed on paper.

In telling these two stories, and in putting forward my proposition that they contain parallel themes, I do not wish to be misunderstood. I believe in the relative autonomy of art and science, and I trenchantly object to what I call Zeitgeist historiography --- the belief that a necessary unity exists in all cultures such that a spirit of the times pervades all modes of thinking and acting [1]. The link between the neutrino and the Sydney Opera House is not some mystical connection that necessarily existed between the scientist who conceived of a new fundamental particle and the architect who designed a singular structure. Rather, the point is less mysterious: there are constraints in all aspects of human thought; these lead to similar patterns of thinking among theorists (independent of their areas of work); and aesthetic factors play a role in this interplay between constraints and patterns. One facet of the aesthetic dimension found in both art and science is revealed in the parallel stories of the neutrino and the Sydney Opera House.

The Story of the Neutrino

The idea of the neutrino was first conceived by Wolfgang Pauli in 1930 as a solution to a problem involving experimental results in beta decay --- namely, the radioactive emission of beta rays (very fast moving electrons) --- such that the Principle (or Law) of the Conservation of Energy seemed to be violated. In a now-famous letter that Pauli sent to a conference on radioactivity in Tübingen (which he did not attend), he proposed what he called a desperate way out of this problem --- the postulation of an as-yet-unknown particle that carried the necessary energy to balance the conservation equation. (Incidentally, at the time, only three elementary particles were known: the electron, the proton and the photon.) The radical nature of Pauli's idea is revealed in part by the reaction of Niels Bohr, certainly no stranger to radical ideas in light of his landmark trilogy of papers in 1913 on the quantum explanation of the atom. Bohr was more comfortable abandoning the Conservation Law in nuclear processes than adding another particle to the world [2] ! Pauli's postulate came at a tumultuous time in his life, which may have been a factor in his desperate solution to beta decay. His mother had recently died, which had left him shaken; he was known to be drinking too much; and 5 days before penning the neutrino letter he divorced his first wife. Indeed, in a letter written 2 months before his death in 1958, Pauli recalled those days and spoke of the neutrino as that foolish child of the crisis in my life [3]. A perhaps tragicomic footnote to all this was Pauli's excuse for

missing the Tübingen meeting --- he attended a ball in Zurich to which he said he was indispensable [4] .

Ironically, Pauli originally named this particle a neutron, but in 1932 the term was used when the real neutron was discovered. The term neutrino was coined by Enrico Fermi, from an Italian word for a little neutral object. Little indeed: practically without mass, the neutrino was to have just enough energy to balance the equation for the Conservation Law; we know today in beta decay that as a neutron transforms into a proton and an electron, the neutrino is ejected. But the neutrino eluded detection for more than 2 decades. Its existence and eventual detection, however, was seldom doubted (despite Bohr's original qualms). In scientific publications from the 1930s to the 1950s the neutrino was treated as if it were real -- whereas, in fact, it only existed on paper. Then, on 14 June 1956, Fred Reines and Clyde Cowan (experimental physicists working on neutrino detection who subsequently won the Nobel Prize in physics for this work) sent the long-awaited message to Pauli. The telegram began, "We are happy to inform you that we have definitely detected neutrinos ..." [5] It most certainly was comforting to Pauli and other scientists that the neutrino's reality was finally confirmed by experiment, but one also suspects that they probably felt this was inevitable. After all, the Conservation of Energy was a widely applied, fundamental law of nature. It also has an aesthetic appeal, as do all equations. Like Archimedes' law of the lever, it states that although the two sides entailed different entities, they could still balance if certain sums were equal. And the neutrino made them equal. There would be, in short, a harmony to nature if the neutrino existed.

The Sydney Opera House

The competition for the design of the so-called Sydney Opera House (really a Center for Performing Arts and now the landmark of the city) was announced in September 1955. Submissions came from all corners of the world. Not long after the closing date of December 1956, the winner was announced: Jorn Utzon (b. 1918) of Denmark, who won for his exceptional design involving arching vaults that would appear as sails flying over the harbor site. The details of how and why Utzon won (apparently he was quite surprised) are lost --- clouded in rumors, anecdotes and conflicting stories by participants. But one thing is clear: the winning model was controversial from the start [6] : Utzon had challenged the reigning architectural dogma of functionalism. Those arching vaults (Utzon called them shells) seemed particularly frivolous and strangely placed; there was no obvious way of visualizing the interior space of the Opera House from its exterior. Moreover, the shells seemed to be randomly placed, thus barring the viewer from getting a visual grip on the solidarity of the structure itself. But, in fact, the shapes of the shells, as Utzon later explained and demonstrated, contain an underlying order --- they are actually sections of a sphere. The Opera House was, as most critics eventually agreed, a fascinating idea for a work of architecture --- if, that is, it could be constructed. Ground was broken and construction began in 1959. The building of the Opera House is a long and complex story, with numerous delays and setbacks; several times it was almost terminated. In fact, in the spring of 1966 when the newly elected Australian government demanded major changes to Utzon's original plan, Utzon resigned and went back to Denmark. According to one account, he never returned [7] . Nevertheless, others stepped in and the Opera House was completed in late 1972 with the official opening in October 1973 --- almost 16 years after Utzon was announced the winner of the design contest.

Now, an event from my student days holds a key to the point of my

discussion here. While studying art in the 1960s, I was puzzled by the fact that although many art books used the Sydney Opera House as an example of contemporary architecture, the published pictures of the building were always of either a drawing or a scale model; none were photographs of the building itself [8]. Of course, a little research revealed why: to my surprise, I discovered the Sydney Opera House did not exist! It was still being constructed. I found this fascinating. Why did this building appear in art books when, in fact, it did not exist? My guess at the time (which I still believe today) is that aesthetic factors prevailed. The structure is such a marvelous example of anti-functional contemporary architecture (among other things) that it must be included in discussions of architecture. That it only existed on paper at the time did not seem to inhibit authors.

So the parallel stories emerge: in both cases, theorists in their respective fields (physics, architecture) chose to treat conceptual entities (the neutrino, the Opera House) as if they really existed (over the periods of several decades for the neutrino, several years for the Opera House) for essentially the same reason (despite obvious differences between the Conservation Law and architectural rules of visual harmony): aesthetic factors gave credence to the need for treating the neutrino and Sydney Opera House as if they were realities before their time.

References and Notes

1. David Topper, On a Ghost of Historiography Past, *Leonardo* 21, No. 1, pp. 76--78 (1988).
2. Laurie M. Brown, The Idea of the Neutrino, *Physics Today* 31 (September 1978) pp. 23--27.
3. Abraham Pais, *Inward Bound: Of Matter and Forces in the Physical World* (New York: Oxford, 1986), esp. pp. 314--315.
4. Brown [2] p. 24.
5. Christine Sutton, *Spaceship Earth* (Cambridge, U.K.: Cambridge Univ. Press, 1992) p. 44.
6. John Yeomans, *The Other Taj Mahal: What Happened to the Sydney Opera House* (Victoria, Australia: Longmans, 1973).
7. Frank C. Keil, *Godzilla vs. Mothra and the Sydney Opera House*, *Mind and Language* 6, No. 3, 239--251 (1991).
8. For example, see the photograph of a scale model in the *Larousse Encyclopedia of Modern Art*, Rene Huyghe, ed. (London: Paul Hamlyn, 1965; translated from the French edition of 1961) p. 306. Also Sigfried Giedion, in the 1967 edition of his classic *Space, Time, and Architecture* (Cambridge, MA: Harvard Univ. Press), devoted over 15 pages to the incomplete Sydney Opera House.

< Book Review: The Poetics of Perspective
by James Elkins >

The Poetics of Perspective
James Elkins
Cornell University Press. 1994.

Reviewed by: Tony Green
Email: t.green@auckland.ac.nz

This is the most useful publication to date on Perspective. Since it is involved with the history of representation in the West, it is a subject of central interest to art history. Elkins recognizes the importance of the way we view the rise of perspective as crucial to our complex discourses concerning art.

He shows that our perspective on Perspective has always been caught between disciplines. Hence our difficulties in reconciling the different readerly demands placed on mathematics, optics and the interpretation of art.

At the centre of his discussion is the classic and highly influential essay by Erwin Panofsky: "Die Perspektiv als 'symbolische Form' ". For Elkins, who reads the first six paragraphs very closely indeed, this typifies the modern tendency to take Perspective primarily as metaphor (a symbol of cultural and intellectual attitude), based on its creation of "space". He shows, however, that Perspective in the Renaissance was never more than a bundle of heterogeneous practices, often combined in one picture, concentrated not on space but on the rendering of objects.

The book is evidently a compressed version of Elkins' six volume doctoral thesis. In spite of the often too evident foreshortening of the text to about 280 pages (plus an invaluable 37 page bibliography) Elkins manages to lead us through the main arguments. Even without more space for demonstrations and analyses, this book should shake up our notions of this important subject.

< Book Review: Gombrich on Art and Psychology,
Edited by Richard Woodfield >

Gombrich on Art and Psychology
Edited by Richard Woodfield
(Nottingham Trent University).
Manchester University Press,
Manchester, U.K. and New York, NY,
USA, 1996. 271 pp. \$69.95. ISBN: 0-7190-4769-2.

Reviewed by Istvan Hargittai
Email: hargittai@ch.bme.hu

I am always amused when there is a company and X says something and Y tries to explain that what X really meant was this and this, and a heated discussion ensues about what X may have meant, while the somewhat bewildered X is looking over, being ignored completely. The discussion of Gombrich on art and psychology is not like that. All contributions had been submitted to Gombrich (b. 1908) and on two occasions Gombrich felt compelled to make comments which are duly printed following the relevant chapters. Referring to some detailed analysis of the extents of his belonging to the "Vienna School" of art history, Gombrich remarks, "I don't think it matters to what extent I belong to the Vienna school or any other school, of course all absorbed views and problems from our teachers, but my present interests lie on a very different plane, as any reader of my writings (and possibly of my future writings, if I live so long) will be able to judge."

It is truly fortunate that Gombrich could review the contributions and before the seemingly careful plot of the story of Gombrich's patricide of his "spiritual grandfather" Alois Riegel might be taking off (see the contribution "The Vienna School's hundred and sixty-eighth graduate: The Vienna School's ideas revised by E.H. Gombrich," by Jan Bakos, Institute of Art History, Slovak Academy of Sciences), Gombrich sets the record straight. He states that the

fact that he knows the principal works of Riegel better than many of those who write about him does not mean that he is obsessed with Riegel.

Another tour de force of the book is that one of the 13 contributions is actually by Ernst Gombrich himself, titled "Four Theories of Artistic Expression."

To me the problems of visual perception are of special interest of Gombrich's teachings discussed in this volume (see, for example, the chapter "Form and its Symbolic Meaning" by Chang Hong Liu and John M. Kennedy, University of Toronto). This is also where modern science and technology may provide further raw material if not the answers to the questions in the study of the psychology of art. In the discussion of form and its symbolic meaning, the consensus shown by subjects playing Gombrich's game with circles and squares is examined. Current research employing magnetic resonance imagery (MRI) provides mapping of the responses of the human brain to the visual experience of circles and squares. Significant differences in brain laterality are observed, for example, in these responses by females and males. It appears also of interest to investigate the dependence of responses on the actual conditions of the mind at the time of the recordings. It is expensive research but an unexpected bonus may be the byproduct helping the analysis of visual perception and art appreciation. The first step should, of course, be to see whether there is any discernible correlation between the measurements and the psychologists' and art historians' findings. Whether or not there is a correlation, in either case the matter seems worth pursuing.

In another contribution, "Orders with Sense: Sense of Order and Classical Architecture" (by Joaquin Lorda, University of Navarra), the infinite symmetric patterns created in the kaleidoscope are characterized, in agreement with Gombrich, as at first fascinating and then soon becoming boring. This is contrasted by architectural design as capable of arousing (presumably permanent or, at least, long-lasting) interest and pleasure. The discussion then moves on to the snow crystals, likening them to the patterns in the kaleidoscope rather than to the architectural marvels. Lorda even illustrates the snow crystals with a drawing which, very much to the point, looks like, and is, an ornament. "A game of this kind," Lorda laments, "does not have human rules; our sense of order can read little in this redundant glacial geometry; the sense of meaning becomes paralysed: there is nothing here to understand."

Before I would comment on this description of the snowflakes, I would like to introduce two quotations related to snowflakes and architecture. Thomas Mann is giving a most eloquent description of the beauty and symmetry of the snowflakes in *The Magic Mountain*, ". . . the exquisite precision of form displayed by these little jewels, insignia, orders, agraffes --- no jeweler, however skilled, could do finer, more minute work. . . Yet each in itself --- this was the uncanny, the anti-organic, the life-denying character of them all --- each of them was absolutely symmetrical; icily regular in form. They were too regular, as substance adapted to life never was to this degree --- the living principle shuddered at this perfect precision, found it deathly, the very marrow of death --- Hans Castorp felt he understood now the reason why the builders of antiquity purposely and secretly introduced minute variation from absolute symmetry in their columnar structures." The last sentence is very telling about the potentials of beautiful and perfect architecture becoming boring and lifeless.

With it a much earlier Japanese statement resonates exceedingly

well. The following quotation is from the "Essays in Idleness", translation of Tsurezuregusa by Kenko Yoshida, 1924-31 (quoted here after D. Keene, 1981, C.E. Tuttle Co. Publ., Tokyo), "In everything, . . . uniformity is undesirable. Leaving something incomplete makes it interesting, and gives one the feeling that there is room for growth . . . Even when building the imperial palace, they always leave one place unfinished."

I have two comments. One is that architecture may acquire all the good and negative features of the kaleidoscope if we are not watching out and avoiding the traps of perfect and virtually endless repetition, and other features, of geometrical symmetry. The other is that at a closer inspection the snowflakes have not only the tremendous variety in their general shapes, this has been noted by many, but, at close enough inspection, there are minute variations in the six directions of even the seemingly most perfect snowflake. These tiny variations diminish nothing in their beauty and symmetry but may suffice for the interested eye to enhance their intriguing intricacy of the execution of design. Then, depending on the background of the observer, the association of the external shape with its origin in the internal arrangement of the water molecules, all interconnected by the fragile yet rigorously distributed hydrogen bonds may be the source of further marvel and contemplation, everything except getting bored. In taking issue with Mann and Lorda, or, for that matter, with Gombrich, I am suggesting that the patterns of the Kaleidoscope and patterns in architecture have potentially more in common than the snowflake designs with either, unless the snowflake design comes from a master drawing or the computer rather than from nature. In the symmetries involved I am suggesting to delineate geometrical symmetry which is rigorous and "material" symmetry (using the term suggested by the Russian crystallographer and symmetrologist, A. V. Shubnikov) which allows imperfections. The strict symmetry concept in the geometrical sense restricts its utilization to giving yes and no answers only whereas there is a wide range for symmetries if we follow Hermann Weyl, and, indeed, the ancient Greeks, in relaxing the meaning of this term and extend it to include harmony and proportion.

Returning to what Joaquin Lorda has to say about the snowflakes, he concludes with an important caveat according to which "were the forms [of the snowflakes] sketched in greater detail they might become more interesting." This is an important warning about the significance of scale and resolution that play a decisive role in our perception of various forms. This is but an example of how thought provoking Joaquin Lorda's chapter, and this whole volume, and ultimately, the teachings of Ernst Gombrich are.

< Book Review: Catching Ourselves in the Act:
Situated Activity, Interactive Emergence, Evolution,
and Human Thought
by Horst Hendriks-Jansen >

MIT Press, Cambridge, MA, U.S.A., 1996.
370 pp. Trade, \$35.00. ISBN: 0-262-08246-2.

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

This book proposes various explanations of human and animal behavior based on "situated activity," interactive emergence, and history of use. Topics covered: natural selection, artificial intelligence (AI), and learning. In the final chapters, the author argues that human behavior and thought can be explained using these terms, and

he cites recent studies of the interactive behavior of new-born infants and the role such behavior plays in concept formation and language development.

Over the past few decades, it has become evident that traditional AI is limited as an engineering tool for building systems that can respond in real time to open-ended, ever-changing environments of the kind in which intelligence is really needed. Some suggest that the various disciplines under the heading of Artificial Life may be of great value in creating robots that can respond in "creative" ways. For example, recent work in situated robotics has revealed that meaningful (although primitive) behavior can emerge without the need for internal representations. In other words, it is possible to build a robot that follows walls without having to put any representation of a wall inside its controlling mechanism. There are no explicit programs inside the robot that instruct it to follow walls. Walls need not be formally defined in order to produce this behavior. Even though the robot won't follow the same wall in exactly the same way each time it nears the wall, it can be respond to the wall with behavior that singles out walls as a meaningful feature of its environment. This interactively emergent behavior of wall-following may lead to more complex behavior.

"Catching Ourselves in the Act" suggests scientific explanations of development and learning that link various disciplines such as sociology, anthropology, and situated robotics. It provides an overview of autonomous agent research and artificial life, and explores the impact of situated robotics in understanding human psychology.

The book is not light reading but should be of great interest to those interested in computational models of the mind.

< Book Review: Some Cities, by Victor Burgin >

University of California Press,
Berkeley and Los Angeles, 1996 223 pp.
\$19.95 ppbk.

Reviewed by Molly Hankwitz
Email:ata@atasite.org

Occasionally it seems the form of a book speaks more of its overall intention than form might ordinarily imply. There is a subtlety of meaning to be derived from artist/theorist Victor Burgin's new work on his travels, "Some Cities", a 223 page book with 175 black and white photographic illustrations in paperback. It is actually a photographic artists' book with text.

"Some Cities" is a travelogue with an insightful, analytical writing style to coincide with page after page of minimalist photographs taken from Northern England to his present home in northern California. It is an itinerary including stops in Sheffield, Berlin, Malmo, Warsaw, Woomera, New York, and the islands of Stromboli and Tobago. It is a modern (some may say postmodern?) inquiry about spaces and places, memory, childhood, looking, distance, loss, perspective, urban history, social and architectural change. Underlying the spare black and white images which are focused in the main on public spaces, urban information systems, and the places of transportation is a stylish text in which Burgin occasionally breaks through into substantial descriptive writing, for example his discussion of displacement of laboring classes in England or the new multimedia libraries (mediatheques) arising in French cities and spaces of information underlying public infrastructures and new

technologies and urbanism. At times the text moves from personal, anecdotal, even extremely casually directed remarks, into deeper theoretical terrain, enabling a suggestive, sustainable landscape to vibrate between text and image, a landscape of mediated, it would seem, by the traveler, floating somewhere between diary, document, memory, space and desire. Burgin's photographs express these relationships to the cities in which he finds himself, taken as they are of places one might pass through rather than actually connect with for any extended period of time. The photos are of passages, passings, phenomena and moments.

Thus, "Some Cities" has a dissonance to it; a joy and an anguish, a deliberate reductive and reluctant quality. Its form is interactive, suggestive of artists' books from the late-sixties and the seventies such as Sol Lewitt's early works, the emptiness of Ed Ruscha or more recently the travelogues of Martin Kippenberger. Picture for picture one can enter this book at any point. The book is a space. The book is about space. Text forms a narrative. Richly reproduced photos layer the narrative like so many memories or snapshots. One experiences travel at its heart; emotional engagement or lack thereof with the places which one visits in a travel scenario and annotates. There is a Benjaminian reverberation to "Some Cities" disparate critical style. One image, reminiscent of a dream, of a woman standing with her back to us in a hallway is repeated, reiterating Burgin's main thesis that memory of place, space itself is integrally tied to childhood, loss and integral memory.

A tenuous, often broken foray into subjectivity and space, a glimpse at places close to the author's heart, some less known to him "Some Cities" is a meditation on the role of the traveler as well as a kind of obtuse anti-document in which experience cannot be known.

The photos are interesting intersections of public and private. The text is poetic and intelligent. Overall the book lends itself to being perused and gives us a refreshed look at where the work of Victor Burgin, ex-member of the artists' group Art + Language, now a Professor in the Board of Studies in History of Consciousness at the University of California, Santa Cruz, public artist, photographer, theorist and widely published writer for his books "In/Different Spaces" (California, 1996), "The End of Art Theory" (1986) and the collection "Thinking Photography" (1982) is at present.

While "Some Cities" attempts to be a statement of personal experience it falls short of the mark by remaining too abstract, perhaps even unfinished. What international culture doesn't need, especially from theorists, is yet another excursion into the predictable wasteland of post modernity. Yet Victor Burgin's solid, passionate writing on urban history contrasts with a plethora of bad publishing on the subject and overly intellectual attempts to assuage human reality. His offbeat and unusual takes on architectural space are most pleasurable pronounced. Hopefully, this will be Burgin's trajectory in any future publication.

< Reviewer's Introduction: Eva Belik Firebaugh >

Eva Belik Firebaugh
Email: fireball@easynet.fr

Eva Belik Firebaugh was born in 1969, in Brno, Czech Republic, defected to Montreal Canada in 1980, moved to the United States in 1985. She currently lives in Europe (since 1994).

Ms. Belik earned a Bachelor of Architecture from Rice University, Houston in May 1994 and a Bachelor of Art and Art History from Rice

in May 1992. Currently Ms. Belik works as an architect for the office of Jean Nouvel in Paris, France. She worked at the Leonardo office in Berkely during the summer of 1988, and as a corresponding editor for the subjects of Eastern European Art and Solar Art. She is daughter of the kinetic artist Jaroslav Belik who was also published by Leonardo.

< Classified Advertisements >

The Conceptual Design/Information Arts area at San Francisco State University offers studio courses that integrate theoretical studies on topics of culture, new technologies and art as research. Examples of courses taught include: Conceptual Strategies, Robotics & Electronics, Interactive Media & Conceptual Art, Biological Systems, Explorations in Word in Image. Practice and Theory in Emerging Technologies, Computer Programming and Narrative, Telecommunications based Art. Professors include Stephen Wilson and George Legrady. Undergraduate and graduate students (MFA) are invited to apply. Web site: <http://userwww.sfsu.edu/~infoarts>

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< Digital Review Notes >

Leonardo Digital Reviews is review journal published regularly as a section of the Leonardo Electronic Almanac. Leonardo Digital Reviews covers publications, conferences, events and publicly presented performances and exhibits. The focus is the work of artists, scientists, technologists and scholars dealing with the interaction of the arts, sciences and technology. Topics covered include the work of visual artists, composers and multimedia artists using new media and technologies in their work, artists dealing with issues and concepts from contemporary science, the cultural dimensions of science and technology and the work of scholars and historians in related fields.

Specifically, we publish:

- a) Reviews of publications in electronic formats (CD, CDROM, CDI, on-line, diskette, WWW, etc ...).
- b) Reviews of print publications, events, conferences, and exhibits dealing with art, science and technology.

Accepted reviews will be published in Leonardo Digital Reviews. Reviews of key works will also be considered for publication in the Leonardo Journal and Leonardo Music Journal published in print by MIT Press.

Authors, artists and others interested in having their (physical) publications considered for review in Leonardo Digital Reviews should mail a copy of the publication to Leonardo, 236 West Portal Ave, #781, San Francisco, Ca 94127, USA. Event and exhibit organizers, and authors of virtual/electronic publications and events interested in having their event reviewed should send information in advance electronically (only) to:
davinci@uclink.berkeley.edu

Individuals interested in being added to the Leonardo Digital Reviews review panel should email (only) their curriculum vitae to:
mason@mitpress.mit.edu

We are particularly seeking reviewers who can review material in other languages than English.

Unsolicited reviews are not accepted by LDR.

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< End Leonardo Digital Reviews January 1997 >
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| PUBLICATIONS |
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< Electric Sound: The Past and Promise of Electronic Music >

Electric Sound: The Past and Promise of Electronic Music
by Joel Chadabe
Prentice-Hall
370 pages, photos
ISBN: 0-13-303231-0 (Paperback only)
URL: http://www.emf.org/store_electricsound.html

Joel Chadabe's "Electric Sound: The Past and Promise of Electronic Music" deals comprehensively with the history of electronic music. Based on interviews with 150 musicians engineers and entrepreneurs, Chadabe traces the development of electronic musical instruments from Thaddeus Cahill's Telharmonium at the turn of the century to the MIDI synthesizers of the 1990s. Also provided are discussions of sound synthesis, new approaches to performance, the use of computer algorithms as aids to creativity, and approaches to music on the Internet are included. "Throughout history and throughout the world", writes Chadabe, "people have used available technology to make music. It should come as no surprise that electronic circuits are used to make musical instruments in the twentieth-century electronic age.... My goal in this book is to make the history of electronic music clear for any interested person, whether professional, student, nonelectronic musician, or observer."

"Electric Sound" has received accolades from composers and educators who find it both informative and inspiring.

< New Versions - CD-ROM from Zakros InterArts >

New Versions, by David Berry
AltVideo, Gulture Productions
POB 11935
San Rafael, CA 94912, USA
Tel: 800.343.5540
Fax: 201.652.1989, 201.652.1973
Email: tmcndy@aol.com
URL: <http://www.gulture.com/altvideo/nv.htm>

CD-ROM avail from Zakros InterArts/New Music Theater
614 York Street, San Francisco, CA 94110, USA
Fax: 415.282.4228
E-mail: info@zakros.com
URL: [http://www.zakros.com/.](http://www.zakros.com/)

"New Versions", the first video distributed under the new AltVideo label, combines layers of film, animation and digital effects in an effort to elevate the music video experience into a "new, personal, passionate art form". Creator David Berry was the Industrial Light and Magic optical cameraman who won an Academy Award for Visual Effects in 1985 for his work on the film "Cocoon". Collaborators on this project include Belen Garcia-Alvarado, of San Francisco's

Zakros InterArts and composers Turkantam and Randall Packer.

What eventually became "New Versions" was begun in 1986. The piece consists of eleven short, narrative vignettes. "There was no script," said Berry, "I just shot whatever I thought might be interesting, and the pieces sort of evolved. Much of the work can be likened to a free form video sketch book."

The images of ten of New Versions's segments are synchronized to music created by Italian composer and musician Turkantam. Turkantam's music is a fusion of traditional instruments and modern technology. Randall Packer, a pioneering composer/media artist in the integration of live performance and interactive multimedia, provided music for the one remaining segment. Packer is the former director of the acclaimed Multimedia Studies Program of San Francisco State University.

"New Versions" is 60 minutes in length.

< Leonardo Journal : Papers on Art and Biology >

George Gessert, Leonardo Editorial Advisor
Email: ggessert@oregon.uoregon.edu

The editors of Leonardo invite LEA readers to submit papers about art and biology. Possible topics include, but are not limited to:

- the history of plant and animal representation
- imagery of DNA, cells, chromosomes, and proteins
- art about HIV
- art about extinction
- art and genetics
- ecofeminist art
- artificial life
- land art, ecological art, and other kinds of expression in

which living things are integral to the art work. Theoretical, scientific, technical or historical texts related to the topic are also sought.

PROPOSALS: Interested authors should send manuscript proposals, including article title with an abstract or short outline of a proposed text, to George Gessert at the email address listed above.

Please note: Leonardo highlights articles by artists about their own work. We do not publish interviews. Leonardo also publishes articles by theorists covering movements, trends, or issues in art.

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<p>OPPORTUNITIES</p>

< Positions at the University of Maryland
Baltimore County Art Department >

Steve Bradley, Assist.Prof. of Art
Dept. of Visual Arts
University of Maryland Baltimore County
Tel: 410.455.2721
URL: <http://umbc7.umbc.edu/~sbradley/>

The University of Maryland Baltimore County, Art Department has several positions that are still open for candidates to apply. Two in Computer Art & Foundations, and one (maybe two) in Time-Based Computer Art. One in Art History, Film, and Graphic Design. There will be a group from UMBC at the College Art Association Conference

coming up in two weeks, Feb 13-15. The deadline has been extended due to a late mailing of the job listing..... 20 slides, cv, teaching philos., 3 letters. IF you have a portfolio of original prints and can be in NYC please sign up for an interview at the conference.

< Research Opportunities in Music Cognition -
The Netherlands >

Department of Personnel & Organization
Faculty of Social Sciences
Catholic University Nijmegen
P.O.Box 9104
6500 HE Nijmegen, The Netherlands

At the Nijmegen Institute of Cognition and Information (NICI) of the Nijmegen University a new research team will be set up, supported by the Dutch Foundation for Scientific Research (NWO) as the PIONIER project "Music, Mind, Machine". This project aims at improving the understanding of the temporal aspects of musical knowledge and music cognition using computational models. The research is interdisciplinary in nature, with contributions from musicology, psychology and computer science.

There are a number of studies planned, grouped according to the following perspectives: the computational modeling methodology, the music domain itself, and applications of the findings. The methodological studies are concerned with the development of cognitive modeling languages, the study of (sub)symbolic formalisms, the development of programming language constructs for music, and the evaluation of physical metaphors in modeling expressive timing. The domain studies focus on specific temporal aspects of music, such as beat induction, grace note timing, musical expression and continuous modulations in music performance. In these areas both the construction of computational models and their experimental validation will be undertaken. The theoretical results will be applied in e.g., editors for musical expression for use in recording studios.

In order to realize these aims, a multi-disciplinary research group will be formed, in which teamwork and collaboration play a crucial role. It will be expected that all team members are actively involved in building the team and the realization of the project's aims. The demands on the team members will be high, conducting innovative and internationally recognized research. However, in return, the research environment will provide advanced research training and technical support, including a high-quality infrastructure and facilities. The following positions are vacant:

Post-graduate/research-assistants. vacancy number 21.1.97

A number of post-graduate (AiO) positions is available in a research program leading to a Ph.D. degree (in the Social Sciences or in Computer Science). These positions require an excellent background in experimental/cognitive psychology, musicology or computer science, with preferably additional expertise in one of the other disciplines. Programming experience is essential. Experience with Lisp, Macintosh, and studio hard- or software is an advantage. Appointment will be full-time for four years, or 8/10 for five years. Gross salary will be fl. 2114 per month in the first year, increasing to fl. 3775 in the fourth year, based on full-time employment.

Computer Scientist. vacancy number 21.2.97

This job requires a Masters degree in Computer Science. A thorough knowledge of object-oriented and functional programming styles is requested, as well as experience in programming in Common Lisp and CLOS.

Knowledge of the Macintosh system, MIDI and audio applications is an advantage. He/she will assist in the development of cognitive models and prototype/demonstration programs, the setup and maintenance of system software for the team, and the design and support of WWW applications. Appointment will be full-time for five years. The maximum salary, depending on experience, will be fl.7125 gross per month.

More Information

More information on the project and a description of the planned studies can be found at <http://mars.let.uva.nl/honing/>. Employment will begin July 1997. The Faculty of Social Sciences intends to employ a proportionate number of women and men in all positions in the faculty. Women are therefore urgently invited to apply. The selection procedure may entail an assessment of collaboration and communication skills. Applications (three copies, in English or Dutch) including a curriculum vitae and a statement about the candidate's professional interests and goals, and one copy of recent work (e.g., thesis, computer program, article) should be received before March 28, 1997

Please mark envelope and letter with the appropriate vacancy number.

< Summer Workshops at the Conservatory of Music
at Oberlin College >

Office of Outreach Programs
Conservatory of Music, Oberlin College
Oberlin, OH 44074
(216-775-8044)
Email: anna.hoffmann@qmgate.cc.oberlin.edu
<http://timara.con.oberlin.edu/dept/wrkshp.htm>

The Conservatory of Music at Oberlin College invites participation in the twelfth annual series of workshops in electronic and computer music, June 15-29, 1997. The workshops are designed for high school and college students, teachers, professional musicians, and hobbyists. These workshops are for anyone who wants to enrich their understanding of new music media.

The workshops are Macintosh based and the topics we cover include:

- sequencing (Vision, MusicShop, Performer)
- music printing (Finale)
- synthesizer programming (Galaxy)
- sampling (Sound Designer, Alchemy, TurboSynth)
- alternate MIDI controllers
- algorithmic composition (MAX)

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| ANNOUNCEMENTS |
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< transMedia '97 - 10th VideoFest >

Podewil

Klosterstrasse 68-70 - D-10179
Berlin, Germany
Email videofest@mail.contrib.com, videofest@mediopolis.de
URL: <http://www.mediopolis.de/videofest/videofesd.html>
<http://www.mediopolis.de/videofest/welcome/html>

May 23 - June 1, 1997

The annual VideoFest is relaunching itself this year as "transMedia '97", a ten-day international media festival. Innovative, state of the art technology applications will be reviewed. The international Digital Media World exhibition will take place parallel to transMedia '97, which will present the opportunity to discuss the whole range of transmedial works and basic tools. transMedia '97 is running under the loose theme, or intention, of questioning philosophical and social effects connected with technological developments and uses.

The festival is seeking entries in the following two genres:

MULTIMEDIA - VIDEO - INNOVATIVE TELEVISION: The creative interface between these media territories and the inherent interaction between art and commerce will be a central theme of this year's festival. Video, computer animation, tv production, digital cinema and multimedia projects that have been produced since 1995 can be submitted.

VIDEO INSTALLATIONS AND PERFORMANCES: We will exhibit classic video-sculptures as well as space-related installations, based on interactive or networked systems. We are especially interested in entries for performance concepts.

CRITERIA: transMedia '97 will present a discussion of electronic and digital media in light of contemporary content and creativity. There are no thematic or formal limitations. Works exploring new forms of presentation will be given special consideration. The festival does not, however, consider itself a showcase for new technologies. Artistic and independently produced works are preferred. Strictly commercial works are not excluded, but should be submitted before their public or commercial release.

FURTHER EVENTS: Artists, companies, producers and educational institutions will be provided with a platform to present their ideas, concepts and projects to a broad audience.

DEADLINE: February 15, 1997

Works must arrive at transMedia before this date. Only VHS preview-copies will be accepted, for multimedia please check the instructions on the application form. Costs of dispatch and returning (only if requested) are to be paid by the entering party.

SUBMISSION: Visit Videofest's web sites for more information on submission regulations and submission forms.

< 15TH International Joint Conference on Artificial Intelligence >

August 23-29, 1997

15TH International Joint Conference on Artificial Intelligence
(IJCAI-97)
Nagoya, Aichi, Japan
Procom International Co., Ltd.
Shuwa Kioicho Park Bldg 1F

3-6 Kioicho, Chiyoda-ku, Tokyo 102, Japan
Tel: +81-3-3234-2361
Fax: +81-3-3234-4456
Email: procom2@beehive.twics.com
URL: <http://ijcai.org:80/ijcai-97/>

This international conference features papers, panels, invited talks and workshops designed to explore and debate recent developments in the field of artificial intelligence. Panels will explore the interaction between AI and other areas of computing, and titles of invited papers include "Creativity and AI", "Modeling Social Actions for AI", "Remote Brained Robots" and "The Role of Language in the Origins of Intelligence".

Two related events that may be of particular interest to LEA subscribers are the Workshop on Artificial Intelligence and Music, and The Second IJCAI Workshop on Computational Auditory Scene Analysis (CASA-97).

Workshop on Artificial Intelligence and Music

HIRATA Keiji
Nagoya Congress Center, Nagoya, Japan
Tel: +81-462-40-3658
Email: hirata@nefertiti.brl.ntt.jp
URL: <http://ijcai.org/ijcai-97>

Music researchers, musicologists and music psychologists are invited to attend and contribute to this workshop on AI and its musical applications. The aim is to develop a framework of research evaluation that can be assessed and categorized from a common viewpoint. We will address a broad range of issues starting at the informal end, with cultivating a general ethical attitude and exploring the general significance and difficulties involved with evaluation, and move on to the more specific, by developing concrete evaluation methodology, criteria, and procedures and discussing specific issues involved with individual practice, such as subjective/objective duality in music. Brief presentations, panels and discussions will be included. The position papers of the attendees will be printed beforehand as IJCAI-97 working notes, and will be handed out at the workshop.

SUBMISSION: Provisional attendees are requested to submit their position papers (extended abstracts), together with other submission material. Submissions will be reviewed by the organizing committee. Participation is limited to 30 attendees. Submission details are available at <http://ijcai.org/ijcai-97>

DEADLINE: March 1, 1997

Computational Auditory Scene Analysis (CASA-97)

CASA - 97
Hiroshi "Gitchang" Okuno
Nagoya, Aichi, JAPAN
e-mail: okuno@nue.org
URL: <http://www.nue.org/CASA97/>

The purpose of IJCAI-97 workshop on Computational Auditory Scene Analysis (CASA' 97) is to bring together researchers from various disciplines including AI, automatic speech recognition, signal processing, psychoacoustics and psychophysics, and robotics, and application engineers who are engaged in or interested in computational auditory scene analysis. Through presentations and

discussions, it is hoped that the workshop will facilitate the exchange of ideas among researchers and to bridge the gap between basic researchers and application engineers.

Issues of modeling, sound processing, representation, audition, architecture and application will be discussed. The list of challenge problems proposed at CASA' 95 is available at the CASA' 97 Web page (<http://www.nue.org/CASA97/>).

SUBMISSIONS: Submit a copy of a full paper (limited to 5000 words), or an extended abstract (approx. 2500 words) electronically to casa97submission@nue.org or by surface mail to Hiroshi G. Okuno, CASA' 97 NTT Basic Research Laboratories 3-1 Morinosato-Wakamiya Atsugi, Kanagawa 243-01 JAPAN

(NOTE: Electronic submissions are strongly encouraged. The e-mail should contain an unencoded (or compressed) PostScript file. All submitted papers will be reviewed by the workshop committee.)

DEADLINE: February 20, 1997.

POST-WORKSHOP PUBLICATION: Selected papers will be published as a book edited by the workshop committee. This book is a successor of the book, *{\it Computational Auditory Scene Analysis}*, consisting of the selected papers from the IJCAI-95 workshop on Computational Auditory Scene Analysis (CASA' 95), which will appear soon from Lawrence Erlbaum Associates.

PLEASE NOTE: Workshop participation is not possible without registration for the main conference (International Joint Conference on Artificial Intelligence, IJCAI-97 -- see following listing).

< Journees d' Informatique Musicale >

Journees d' Informatique Musicale (JIM' 97)
Bibliotheque de la Part-Dieu, Lyon - France
Tel: (33) 4 720 737 00
Fax: (33) 4 720 737 01
Email: jim97@rd.grame.fr
URL: <http://www.grame.fr/jim97>

June 6 - 7, 1997

The JIM 97 computer music conference invites musicians and researchers in computer music to submit papers, posters, video presentations and other applications concerning any subfield of computer music, including and not limited to:

- Formalization and representation of musical structures
- Formalization and modelling of musical knowledge
- Environments and languages for musical composition
- Automatic composing and arrangement systems
- Tools for musical analysis
- Musical editing and publishing systems
- Optical score recognition softwares
- Musical performance modelling and simulation
- Software and hardware interfaces for musical performance
- Sound synthesis systems and environments
- Musical instruments modelling
- Signal analysis and processing systems
- Sound spatialisation and acoustic modelling
- Software and hardware systems for interactive music

- Automatic recognition and extraction of musical parameters
- Musical perception modelling and simulation
- Normalization, archiving and transmission of musical information
- Real-time systems and protocols for computer music
- Reports from musical research centers

DEADLINE: March 1, 1997

SUBMISSIONS:

For detailed information regarding submission criteria and formatting, please visit the JIM '97 web site or contact conference organizers.

< ISEA 97 Deadline Extension >

Joelle Rabion
 ISEA97 Conference Coordinator
 School of the Art Institute of Chicago
 Department of Art & Technology
 112 S. Michigan Avenue, 4th Floor
 Chicago, IL 60603
 Tel: 312/345-3571
 Fax: 312/541-8078
 Email: isea97@artic.edu
 URL: http://www.artic.edu/~isea97

The ISEA97 Call for proposals deadline has been extended until Feb 14. Please see our Web page at <http://www.artic.edu/~isea97> for details and to apply.

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LEA
WORLD WIDE WEB
AND
FTP
ACCESS

The LEA Word Wide Web site contains the LEA archives, including all back issues, and the Leonardo Electronic Gallery. The Profiles and Feature Articles have been extracted from the back issues, and reside in their own sections of the site. It is accessible using the following URL:

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

Back issues, submission guidelines and LEA Gallery files are available via ftp anonymous, using the following method:

```
ftp mitpress.mit.edu
login: anonymous
password: your_email_address
cd pub/Leonardo/Leonardo-Elec-Almanac
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Editorial Address:
Leonardo Electronic Almanac
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Tel: (612) 362-9390
Fax: (612) 362-0097
Email: harri067@maroon.tc.umn.edu

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