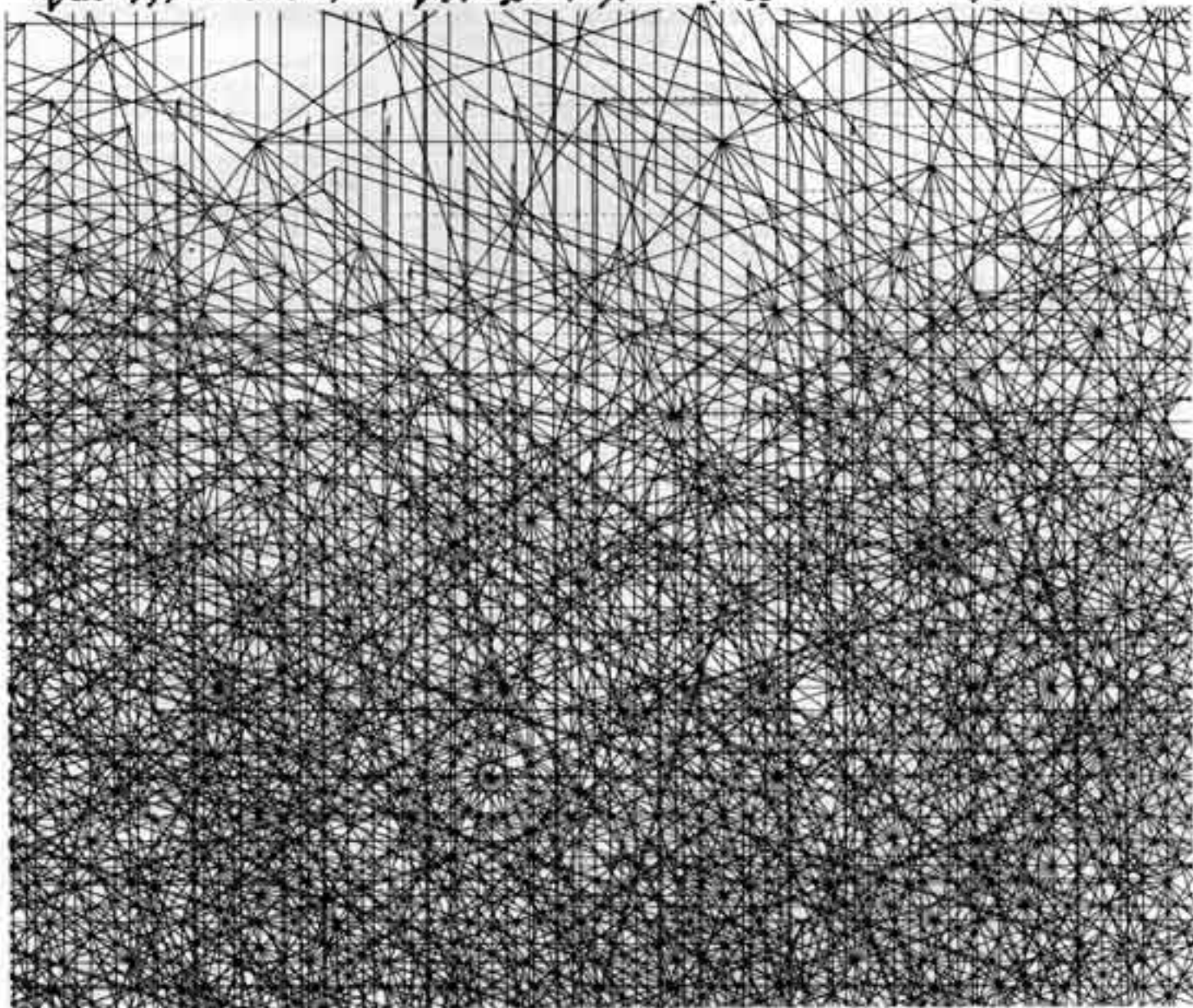


Ylem

ARTISTS USING SCIENCE & TECHNOLOGY

Ylem (Eye-lum): 1. The primordial stuff out of which the universe emerged. 2. An emerging group of artists who believe that science and art enhance each other and human understanding.



Vol 5 No. 3

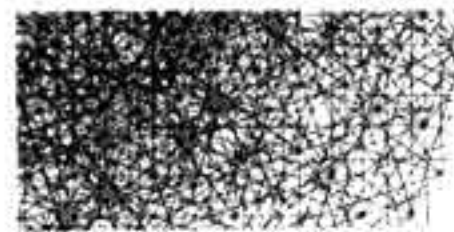
Prestidigitation

June 1985

by Mark Burstein



The cover shows a detail from a rendering of a 10 dimensional "cube" drawn about 13 years ago, when graphic hardware was less sophisticated. Mark Burstein, programmer and currently the editor of Ylem, devised an algorithm for generating n-dimensional "cubes" whose "edges" were of equal length. He writes, "I had been working on this algorithm since I had seen a similar drawing in a math book when I was about ten. I spent many hours drawing 4-, 5-, and 6-dimensional cubes by hand, but my "software" burned out in the middle of a 7-tope. I prayed that someday there would be a machine which could do things like that. The first time I had a chance, I programmed a computer to do any dimension, and it produced lovely 7-, 8-, and 9-topes, but I guess the 10-tope just blew its mind, hence the occasional asymmetry.



This newsletter is published bi-monthly and distributed to members of Ylem. Membership application is on page 7.

Ylem Officers

Beverly Reiser, *president*
Bill Henderson, *vice-president*
Fred Stitt, *secretary*
Penny Robertson, *treasurer*
Mark Burstein, Bob Iahl, *editors*
David Hesly, *art director*
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Lilli Quirke, *hospitality*

Contributions are most welcome. Drawings, graphic pieces, photos; with explanation; submissions to "Opportunities", "Random Access"; or "Calendar"; short book reviews or articles are sought.

ART AND HOPE

Although art is my life, I do not let it mask what is happening around me. Recently, through my church I became friends with a refugee family. One of the men in the family wears a scarf around his neck because he breathes through a tube. By chance, a Death Squad sent to kill him had been interrupted. Soon afterwards, someone discovered him slumped over (which had prevented some loss of blood), and had gotten him to a hospital.

When cattle prods and electric carving knives intended for everyday uses are adopted for torture and mutilation, when computers are used for surveillance and the coordination of weapons systems, what earthly good does it do for artists to play around with paints and personal computers?

In the arms talks, I watch the super-powers circling each other warily like two crocodiles, and see similar behavior in the halls of Congress, and I reflect upon a new kind of fractal repeating pattern: just as the brain can be divided into its reptilian, mammalian, and higher cortical functions, so cultures appear to have these same aspects. Where great power is at stake, the most probable exchanges are the responses of reptiles in struggle. However, under the right conditions a mammalian problem-solving attitude can be observed. Examples are the actions of a few people in positions of power; local government and civic groups; and reporters and commentators (including satirists). Finally, in a crazy affirmation of hope, a thin cortical layer composed of thoughtful and imaginative people, singly and in groups, fight the uphill fight to hold up that which is best in all of us for all to see. Some of these are artists.

As long our world lasts, as long as we can preserve it, we are going to have these anomalies. Michaelangelo was hired by a Borgia Pope. We all know what the Borgias were famous for, but how much more detail we carry around in our heads about Michaelangelo's life and works! Why? Because his vision is important to us. It is not the job of the artist to despair and reflect nihilism back to society. This way is death. Those who doubt it can go and spend twenty minutes reading punk rock album titles at their local record store. Instead, just as Outward

Bound leaders demonstrate to younger people where they stand in relation to the natural world, so artists show where each of us stands with respect to other beings, the enormity of space and time, and the flow of beauty that existed even before anyone was there to realize it. This is the artists' version of "right mindfulness". Science has had to say about space and time, and mathematics a lot about beauty. For this reason, elements from these subjects are being incorporated into some of our works of art.

In a world where politics usurps the power of technology and subverts it to its own ends, we need artists engaged in subverting tools like computers to create their own visions of right-mindfulness. Ylem will give four of these artists a chance to share their work and thoughts about it at the next Ylem forum. Besides the usual presentations, the program will provide time for them to discuss some larger issues.

IT'S THAT TIME AGAIN

Those whose subscriptions expire June 1st, which includes anyone who joined between April and October, will find an envelope enclosed. Our fiscal year also begins June 1st, and since the majority of people renew at this time, it is important to have your prompt reply so that we will know how much we have to spend on Ylem activities in the coming year. Your helpfulness is appreciated!

Renewing members are also urged to fill out the new Ylem Yellow Pages questionnaire, which conforms to the way the database is set up. This will eliminate previous misinterpretations, and give us up-to-date information. The Yellow Pages of artists is proceeding quietly, and may become a directory in a few months.

HI-TECH SUMMER

On Sunday, June 16th at 1:30, Ylem plans a field trip to Holographix in Emeryville, for a demonstration in the exotic technology of making holograms. (See Calendar for details). Holographix will give a substantial discount on class fees to Ylem members.

Our Fourth Annual Computer Graphics Field Trip will be to

Ylem Calendar

July 6- Aug 31,

Stairways To Heaven/First

Triangle site specific installation by Julianne Fritzell, De Saisset Museum, Santa Clara Univ.

July 17 - Sept. 2

Frontiers of Chaos, an exhibition of first visual images of the dialectic between chaos and order, at the Exploratorium. Computer-generated images based on research into field of experimental dynamic systems from work of mathematician Heinz-Otto Peitgen & physicist Peter H. Richter.

July 18

Outdoor performance (Frost Amphitheatre) featured taped computer tracks and live instruments

July 3-15

Computer Art Exhibit, Central Calif. Arts Center, Modesto. Information: (209) 529-3369

July 15-29, M-F 10-4, Sat. 10-3

International Student Poster

Contest by art students on computers. In co-op. with School of Visual Arts in NY, Academy of Art College, 688 Sutter St, San Francisco.

July 16-28, Reception July 19 5-8

Light and Energy Computer-inspired art by four artists. Nathan Hart Gallery, 437 Hayes St., SF

July 19, 20, 21

CADE '85 Annual Meeting and

Workshops Graphics Computers in the Classroom: Outlining Goals and Developing Curriculum (meeting alongside SIGGRAPH) Meet with, learn from educators who use computer graphics programs in a wide variety of academic settings. To be held at Travelodge at the Wharf Hotel at Fisherman's Wharf in San Francisco. For more information contact Clay Gordon, Executive Director, ACA-DE, P.O. Box 408, South Plainfield, New Jersey, 07080. Phone: (201) 756-9278.

July 20-28

Invisible Cities, an interactive computer graphics audio-visual work based on author Italo Calvino's novel presented at the Exploratorium.

July 20, 21, 27, 28

films and videos on computer

graphics and animation will be shown at the Exploratorium Weekend Film Program. It will run continuously from 1PM-5PM. Will show Two Space by Larry Cuba & more.

July 25-27

Stanford Conference on Design

contact the Stanford Alumni Assoc. Stanford Ca 94405 Cost is \$350.00

July 17-Sept. 5

Reception Aug. 19, 7-9 PM,

Aug. 18, 2 PM Meet the artists,

Pixel, Matrix and Muse, Artists

and Computers. Juried show co-

sponsored by YLEM: San Mateo Arts Council Gallery, Twin Pines Park, 1219 Ralston, Belmont CA (20 miles S. of SF near Caltrain station)

July 19-20, 10-5PM, July 21, 10-

7:30PM Input/Output Computer

Graphics Festival. A hands-on event, in co-operation with SIGGRAPH, to explore and generate computer images, San Francisco Museum of Modern Art, Van Ness at McAllister. Free with museum admission.

July 21, 3-5 PM

Wavelengths Preview, Music, lasers, Demo., training for a cadre of people to do movement with light at July 27th event. - This is your chance to ask questions! Theatre Arts of Marin Theatre, 5th and Cottage, San Rafael, CA

July 21, 7:30PM

Art and the Computer, Projected computer images by Ed Tannenbaum, Larry Cuba; talk by Gene Youngblood and Ed Emshwiller (in co-op with SIGGRAPH), San Francisco Museum, Address above. \$7.50 students and ers. \$4.50 From City Box Office

July 22-26

SIGGRAPH '85 by American Computer Mfrs., Moscone Center, S.F. Open to the public: Computer Art Show, \$3. Vendors area, \$15 Evening video show at the Exploratorium, \$25 if any tickets are left (doubtful). Tickets at door.

July 23 9PM-1AM, July 24 11-4

9PM -1AM, July 25, 11-4

A5R Hospitality Gallery of

Techno-Art by 18 artists. Includes interactive performance in evenings. Twin Palms Gallery, corner Brannan & Embarcadero (near Moscone).

July 24 1-5PM Drop In

YLEM Get-together. Out-of-town members attending SIGGRAPH and local ones share their work. Others can look on, too. Sautome Ill room, Meriden Hotel, 50 Third Street. (one block from Moscone).

July 24-28, indoor exhibits,

July 26-28, outdoor exhibits

San Francisco Arts Festival, Civic Auditorium, Civic Center Plaza, Grove and Larkin Sts.

July 27, 2PM

Computer Art Lecture-Demonstration, by Dan Cooper. Nathan Hart Gallery, 437 Hayes, S.F.

July 27, 8:30 PM receive inst.,

9:30 PM perform.

Waveforms. Hundreds of participants needed to create waveforms around edge of lagoon at sunset (see article). YLEM people urged to bring own hand-held light source. Marin Center, San Rafael, CA. For information: Laser Affiliates, 2047 Blucher Vly. Rd, Sebastopol, CA 95472 (707) 823-7171 (See Article).

July 30-Aug 10

Fashion and the Computer.

Designers, illustrators show work and demonstrate methods of using computers, from Macintosh to Quantel, in this application. Academy of Art College, 688 Sutter St., SF.

August 3, 12:30 PM

YLEM Business Meeting, Upstairs Lounge, Tressider Union, All members welcome.

August 3, 2-5:30 PM

YLEM Forum, "Life", Cypress Room, Upstairs - Upstairs - entrance near Men's Room, Tressider Union, Stanford, (directions on back cover). - Free. Bring friends and art to share. Also book donations for YLEM book sale.

August 10,

Half Life Network, a cooperative mailart publication, invites you to participate in 1985 publication year. Send best mailart-copyart, color it, collage it, slit it, cut it, etc. Send 150 copies of work, and receive a copy of the magazine and other documentation that develops. Theme is "TV Special". Send to Mythsonian Inst., D. McLean, Art Department, Glassboro State College, Glassboro, N.J. 08028

Deadline: August 15

Designer Cash Exhibition, design your own cash, send several designs, include your name on your Designer cash. Send to Designer Cash, Art Department, Memorial Hall, Des McLean, Glassboro State College, Glassboro, N.J. 08028
An exhibition of Designer cash is scheduled for September 1985 in Memorial Gallery.

Aug. 15-17

Digicon 2nd International Conference on the Digital Arts. For more info: contact Marilyn Oliver, Box 177, 1068 Homer St. Vancouver, B.C. V6B 4W9 (604) 689-0636/0638

Until Aug. 16

Canadian Holography Holos Gallery is hosting the first major West Coast exhibition of holograms from Canada. For more information contact Gary Zellerbach at (415) 668-4656.

Deadline: August 20

Existencilism send brief political, progressive or humanistic statement, receive it back as cut stencil, apply it in public place, take a photo of it, send photos back by August 20. An exhibit will be arranged. Send to Stencils Over The World, Art Department/ Memorial Gallery, Glassboro State College, Glassboro, N.J. 08028.

Aug. 25 1PM

YLEM field trip Ca Marine Mammal Center, Fort Cronkite. Can take 11:30 muni bus #76 from train depot or other stops, walk uphill to Center. Bring picnic lunch.

Waveforms

October 5-8

The 5th Annual Symposium on Small Computers in the Arts

will be held in Philadelphia at the Hilton of Philadelphia. The symposium brings people together interested in using computers as a tool in the arts. Will cover dance, music synthesis, composition, animation and graphics. For more information contact Symposium, POB 1954, Philadelphia, PA 19105.

Resources

Bakken Library of Electricity in

Life, 3537 Zenith Ave. South, Minneapolis, Mn. 55416 Use of electricity in medicine, Biology & Electrophysiology, (electric fish, etc.)

"The First Organism" by A. Calms-Smith *Scientific American* June '85 Proposes that the first "organisms" might have been inorganic clay crystals.

Leonardo Magazine will soon publish an issue devoted to Jakob Bronowski.

Using Computers to Create Art

Steven Wilson, Prentice Hall \$25 Will be available soon.

Opportunities

No Deadline

The National Museum of Women in the Arts The first major museum in the world honoring the achievements of women artists past, present, and future. For more info: 4590 MacArthur Boulevard, N.W. Washington, D.C. 20007

Deadline July 19

TechnoBliss/TechnoFear - exhibitions to be held January 1986 in conjunction with University Institute on Technology & Society seeks artists working in all media. Submit slides/proposals to K. Detweiler, Art Dept. /University of Santa Clara/ Santa Clara CA 95053 (408)554-4594.

Deadline Aug 2

Film Arts Foundation a program of direct grants to Bay Area film and videomakers. Noncommercial film and video projects in three areas: short personal works, project development & completion and/or distribution. Applicants must be residents of the 9 Bay Area Counties. (415) 552-8760.

Deadline Sept. 13

The American Film Institute Independent Filmmaker Program 1986 grant applications. For more info: Independent Filmmaker Program, AFI, 2021 North Western Ave. P.O. Box 27999, Los Angeles, CA 90027. (213) 856-5448

Deadline- Dec. 31

Adolph and Esther Gottlieb Foundation awards grants to mature, creative painters and sculptors. The grant is available to painters & sculptors who've been involved in mature phase of their work for a period of at least 20 years, and are in financial need. Applications & slides are requested of all applicants. For more info: Adolph & Esther Gottlieb Foundation, Inc., 380 West Broadway, New York, NY 10012

Nancy Gorglione and Gregory Cherry of Laser Affiliates are presenting "Waveforms" an outdoor laser sky illumination and audience-participatory light and sound performance, taking place Saturday, July 27th at 9:30 pm at the Marin Civic Center in San Rafael. Waveforms will feature groups carrying special illumination sources, windchimes, and soft-voiced musical instruments.

Participating groups will be divided into five waveform lines, or "wave trains." The wave trains' synchronized movements will be coordinated in color and form to create the waveforms of the electromagnetic spectrum. The simple syn-copated movements of the participants will be reflected in the lagoon waters. Live music will be played by musicians from the Ali Akbar Khan school, and argon lasers will trace patterns in the sky.

YLEM members are especially encouraged to participate (and we will get a donation for each member!). There will be a preview, Sunday July 21 at 3 pm at the Theater Artists of Marin Theater, 5th and



Cottage, San Rafael (not required but an opportunity to learn more about the technology (chemiluminescence, lasers)).

Please bring your own battery-operated light source (such as a modified flashlight with a gelatin filter). Be creative. No

"blasters" (high-intensity) please. No cameras. Also bring gentle musical instruments, or windchimes.

YLEM participants should arrive at the Civic Center, right off the freeway at the San Pedro off-ramp by 8:30 pm. Come earlier and have a picnic! Meet by the lagoon at 7.

To coordinate with other YLEM members: call Ralph Stapenhorst (N. Bay) (707)763-9118 (before 9pm) Louis Brill (SF, E.Bay) (415)664-0694; Trudy Reagan (P. Alto) (415) 856-9593; or Bill Henderson (S.Bay) (408)353-1673.



Random Access

continued from page 3

marily a collection of his articles published under the same name in Scientific American (the title is an anagram of its predecessor, Martin Gardner's, column Mathematical Games). Whimsical, wonderful, provocative, and brilliant as always, he addresses (a random sample): self-referentiality (including a short story written *entirely* in self-referential sentences, entitled *This Is the Title of This Story, Which Appears Several Times in the Story Itself*); number numbness; sexism; Chopin; typography; magic cubology; LISP; AI; nonsense; psychological games of cooperation and defection; and the state of the world. For anyone inhibited by the formal logic systems of *GEB* or the stochastic eclecticism of *The Mind's I* this book is an ideal introduction to one of the great thinkers and writers of our age.

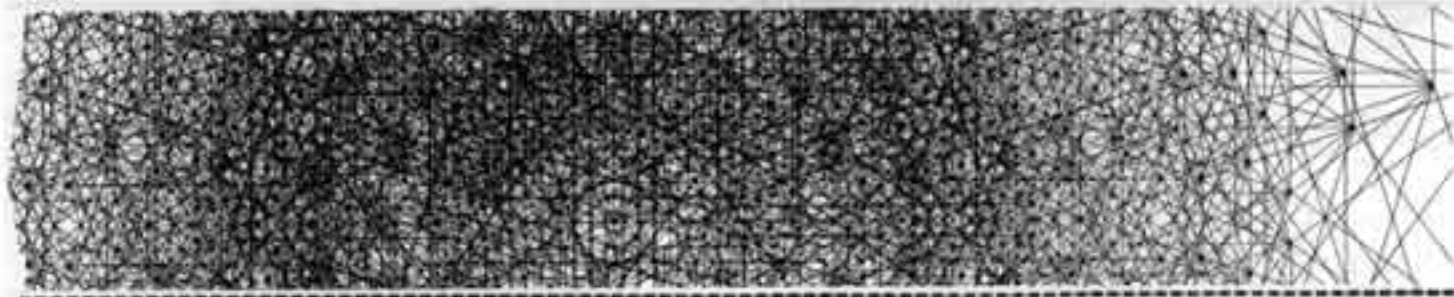
The Whole Earth Review

Thanks for the mention (No. 46, May '85).



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SIGGRAPH HOSPITALITY

Hosts

If you can offer lodging to far-off Yiem members who attend SIGGRAPH '85, fill out the following and send to: Lillian Quirke, 20251 Reinell Pl., Cupertino, CA 95014 by July 7th.

NAME _____
ADDRESS _____
CITY _____ ZIP _____
HOME PHONE _____
WORK PHONE _____
_____ miles to downtown S.F.
Near transit to downtown S.F.? _____
Can accommodate _____ persons.
Other info: _____

SIGGRAPH HOSPITALITY

Visitors

If you need lodging fill out the following and send to: Lillian Quirke, 20251 Reinell Pl., Cupertino, CA 95014. by July 7th.

NAME _____
ADDRESS _____
CITY _____ ZIP _____
HOME PHONE _____
WORK PHONE _____
Will have car _____
Number of people in party _____
Other info. (allergies, etc.): _____

Membership

Subscription

Send to Yiem, P.O. Box 749, Orinda, CA 94563

NAME _____
ADDRESS _____
CITY _____ ZIP _____
PHONE _____
I would like:
 to receive a sample issue
 a year's membership. \$20 is enclosed.
 newsletter only. \$15(U.S. dollars) is enclosed.

Next Forum

"Prestidigitation" — *Strange and Wonderful Uses of Computers by Artists*

June 8, 2-5:30 pm, Education Bldg., San Francisco State University

Interactive Installations, Computer encounters with the public. Stephen Wilson.

The Fabric of Technology, A weaver pushes the limits of a powerful plotter. Susan Brown.

Visual Music, Computers, electronics, and lasers. Ron Pellegrino.

Lights, Action, Beauty, Pulsed light on-site sculpture. Milton Komisar.

Panel Discussion, The Artist's Kluge: Transending the Technology.

presented in co-operation with SFSU Art Department

Free-bring friends and art to share! Contribute items to booksale (proceeds benefit Ylem).

Bring these directions with you! Take Hwy. 1 (19th Ave.) to Holloway and turn West. Find campus map display to locate Education Bldg. on West side of campus. Or take Muni Metro "M" car from downtown.



Computerized Street Events:

I placed sensors hooked to a computer in two store windows for the Bookspace Gallery on a busy street. Passersby could control video and sound events by touching the sensors. For example, in the "Memory Melody" subevent, the computer allowed the viewers to add five computer generated notes to a cumulating tune which was built of all the choices (stored on disk) that previous passersby had made. At the end of the month the tune gave a historical recounting of the pattern of choices. The piece turned itself on and off automatically and ran even when the gallery was closed.

Ylem

P.O. Box 749, Orinda, CA 94563

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