

YLEM

Artists Using Science and Technology

NEWSLETTER

Post Office Box 749,
Orinda CA 94563

Ylem (Eye-Hum): The primordial stuff out of which the universe emerged in the Big Bang.

January/February 1990

YLEM FORUM "A MUSICAL EXPEDITION"

Tuesday, January 16, 8 pm, The Exploratorium, 3601 Lyon St. San Francisco

Be transported by music from deep forests, Indonesian Theatres, and hi-tech studios in this most unusual Ylem forum.

Recording everything from birds to elephant seals in the wild, yet obtaining good sound quality, is an adventure.

Paul Matzner, founder of the Nature Sounds Society, will tell about it and play the results.

Drawing upon the Library of Natural Sounds run by Matzner, composer **Wendy Reid** has created "Tree Pieces" which combine forest sounds with various instruments. She teaches music at Holy Names College in Oakland.

Jody Diamond, just back from a year in Indonesia where she was a Fulbright Scholar, will show video of strange contemporary variations on traditional theatre and music in Bali. She is the director of the American Gamelan Society, and teaches Indonesian music at Mills College in Oakland.

Hi-tech music for interactive computers and voice will be performed by Jody Diamond, voice, and two computers. The composer, **Larry Polansky**, and **Phil Burk**, will perform on the computers. Polansky is music editor for *Leonardo*, and co-author of HMSL, a popular computer music language.

The solar spectrum is the specialty
their own prisms, and set

of **Martha and Alex Nicoloff**. They make
brilliant, pure, prismatic colors in motion,
"performing" to music. They

will play the
videotape that
recently
won them
an NEA
grant.

Open to the public
and wheelchair
accessible.

Admission for
non-members
is \$3.

Electronic music
illustration, Myrah and
Rosell Keegan, 1990



EXHIBITS

A NOTE TO OUR READERS

Please send notices of exhibits, etc. about art related to science and/or technology to **Ylem Newsletter**, T.M. Reagan, ed., 967 Moreno, Palo Alto, CA 94303. Members may also use the Ylem mailing list for invitations to their shows (details on back page).

NATURE'S PATTERNS

Through January, M-F 9-5, Oakland

Reception Jan. 12, 5-7:30 pm

(with sci. images slides at 7 pm)

Ylem founder Trudy Myrrh Reagan mimics cellular patterns and mountains as seen from space by wrinkling on both cloth and paper. The Japanese technique used is called shibori. **American Institute of Architects, 499 14th St. #210, Oakland (near 12th St. BART); 415-464-3600**

THE RESILIENT SPIRIT

Through January, M-F 9-5, Menlo Park, CA

Reception Jan. 19, 5:30-7:30

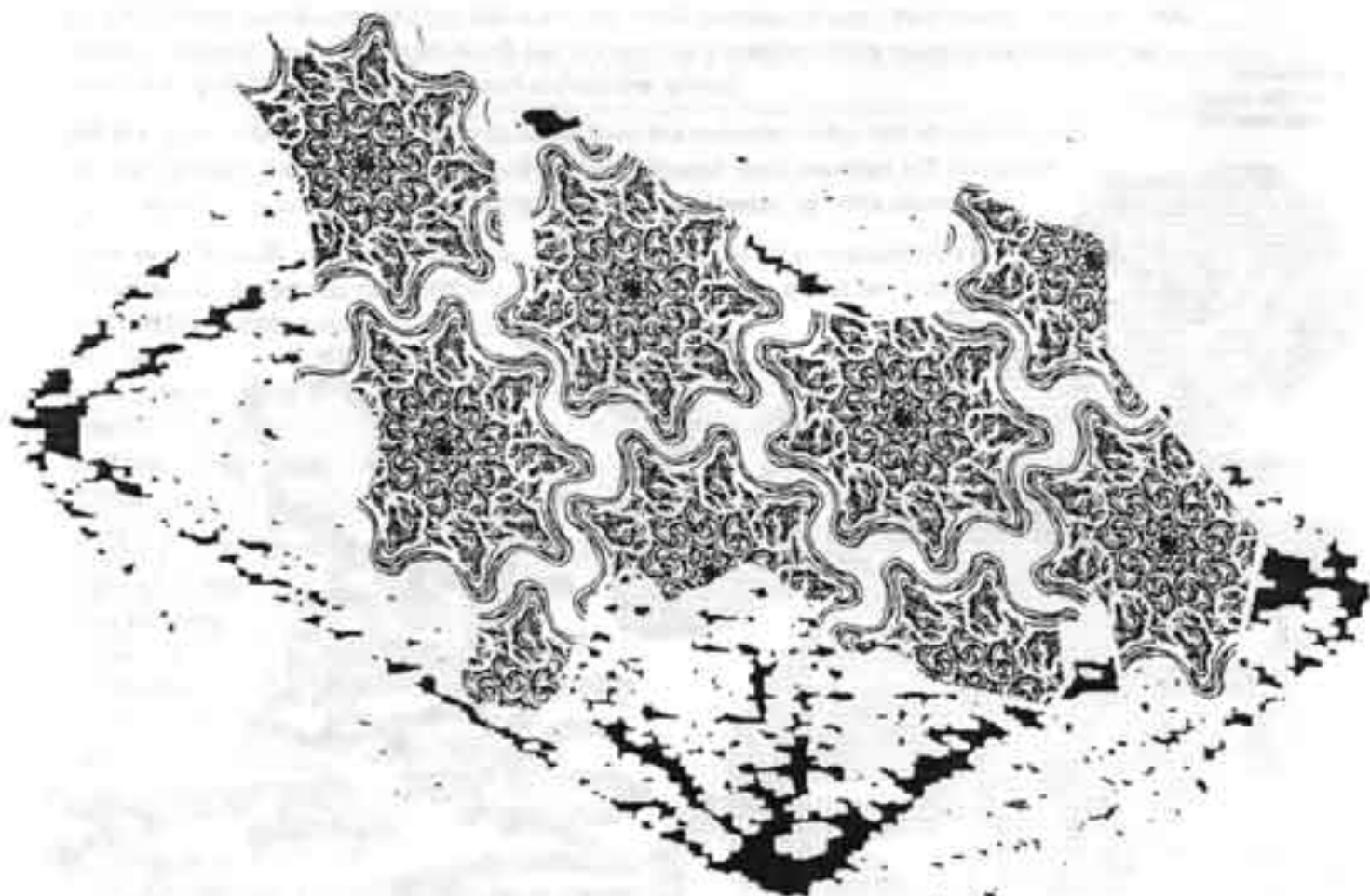
(with video of Honduras, 7 pm)

Acrylic paintings based on Trudy Myrrh Reagan's visit to El Salvador and Honduras in 1988, one of which was published in *Commonweal* this December. **Menlo Park Administration Bldg., 701 Laurel St., M.P.; 415-858-3380**

FACE/FACADE

Through April 30

An interactive outdoor installation by Brian Rust, complete with periscope, sound funnels, and megaphone (which the neighbors will adore). **Beside the San Francisco Art Commission Gallery, 155 Grove St., S.F.; 415-558-4445**



"Aenebic World" Russell Rogers, 1990

NEEDS AND OFFERINGS

YLEM NEEDS FIELD TRIP COORDINATOR

Annually (or oftener) Ylem conducts a computer graphics tour of a local company. This year it will be arranged by Ken Sakatani, who teaches computer graphics at De Anza Collge in Cupertino. In the months between forums we used to have field trips and studio visits. Maybe Trudy was just at loose ends because her kids had just left home. At any rate, they were lots of fun and astonishingly easy to arrange. Other duties have overtaken her, but we all miss these informal opportunities to get together and see remarkable things. If you hanker to do this for us, we may cover some new territory, too, since Trudy's field trips were almost always close to her home. If you live outside the S.F. Bay Area, consider forming an Ylem chapter. Contact **Trudy Myrrh Reagan, 967 Moreno, Palo Alto, CA 94303; 415-856-9593**

LETTERFORMS &

CAPTURING LIGHT T-SHIRT

The Exploratorium is offering a most unusual T-shirt in conjunction with its *Capturing Light* exhibit. It is pre-treated with photo emulsion, ready for you to create an image using your favorite opaque object. Children's sizes S M L, \$12.50 (members 10.63); Adult sizes S M L XL, \$14. (members \$11.90). **Exploratorium Store, 3601 Lyon St., S.F. 94123**

DETECTING FORGERY

A Brazilian is asking us if we know of anyone who has used image processing and pattern recognition techniques to establish that a particular painting is a forgery. Information on the relevant literature on the subject, other experts and institutions who would know about this would also be helpful. **Joao Candido Portinari, Projecto Portinari - PUC, Rua Marques São Vicente 225, Rio de Janeiro, RJ 22453 BRAZIL; FAX 5521-512-5233; Bitnet: PUCRJPP@BRFAPESP.BITNET**

LETTERFORMS AND ILLUSION

Perhaps some of you saw Ylem member Scott Kim's strange letterforms in the December issue of *Omni*. Like the sample shown, they make visual puzzles he calls inversions. His 1981 book, *Inversions*, has been republished by W.H. Freeman for \$11.95. Moreover, he and Robin Fe Samelson have designed a jolly Macintosh software disk to go with it. It enables others to play with inversions in an interactive way. *Letterforms & Illusion*, \$39.95. CA residents add 7.25% tax; shipping is \$3.50. Available from **Look Twice, P.O. Box 50697, Palo Alto, CA 94303; 415-328-6583**



Inversions by Scott Kim

CHAOS AT THE MUSEUM

The Exploratorium is planning exhibit materials and events around Chaos and Fractals. It invites interested people to stay in touch for planning meetings, or to offer suggestions. Contact **Luisa, The Exploratorium, 3601 Lyon St., S.F. 94123; 415 563-7337**

WINGS OF PEACE AROUND THE WORLD POSTER

Ruth Asawa, an Ylem member whose work is in the Guggenheim and the Whitney collections, and whose public fountains are all around San Francisco, has recently designed a poster. It honors the Japanese girl dying of radiation-caused leukemia who tried to fold a thousand cranes before she died. \$40 (\$100 signed by the artist) Available from **The Sadako Project, P.O. Box 67, Santa Cruz, CA 95063**

OPPORTUNITIES

SISEA CONFERENCE SUBMISSIONS

Deadline Feb. 1 for abstracts

For the Second International Symposium on Electronic Art (SISEA) in Holland, Nov. 12-17 1990. Needed: Proposals for papers, workshops, performances, and art. These should treat these topics: Computer graphics, animation, image processing; hi-tech music, and its integration with electronic images; video and interactive art; computer-assisted dance and poetry; modern communica., AI and robotics in art. Also, R & D in new media, artist interfaces, systems integration, music encoding standards, how to implement worldwide database and e-mail for artists, as well as a permanent electronic arts TV channel; last but not least, aesthetics! For detailed guidelines: SISEA, **Westerhavenstraat 13, 9718 AJ Groningen, The Netherlands**; phones: 31-50-138160, 31-50-138343; FAX 31-50-138242; e-mail SCAN@HGRRUG5

HUMBOLDT STATE UNIV. FILM & VIDEO FESTIVAL

Deadline Mar. 5

Film & video by U.S. artists for Apr. 2-7 festival. \$3000 awards. Fee \$25. Info: Humboldt State Univ., Arcata, CA 95521

SIGGRAPH '90 ART, VIDEO SHOWS

Deadline for art: Feb. 27

Deadline for video: May 8

The SIGGRAPH annual conference is the biggest showcase for computer art. The shows are well-documented and often travel. Special attention this year to works which could only have been done on a computer. (SIGGRAPH: Special Interest Gp., Graphics, Assn. of Computing Machinery). Info: **SIGGRAPH '90 Art Show, Tom Linehan, Visualization Lab, College of Architecture, Texas A & M, College Sta., TX 77843; 409-845-3465; FAX 409-845-4491; tom@archone.tamu.edu**

TIME ARTS EVENTS

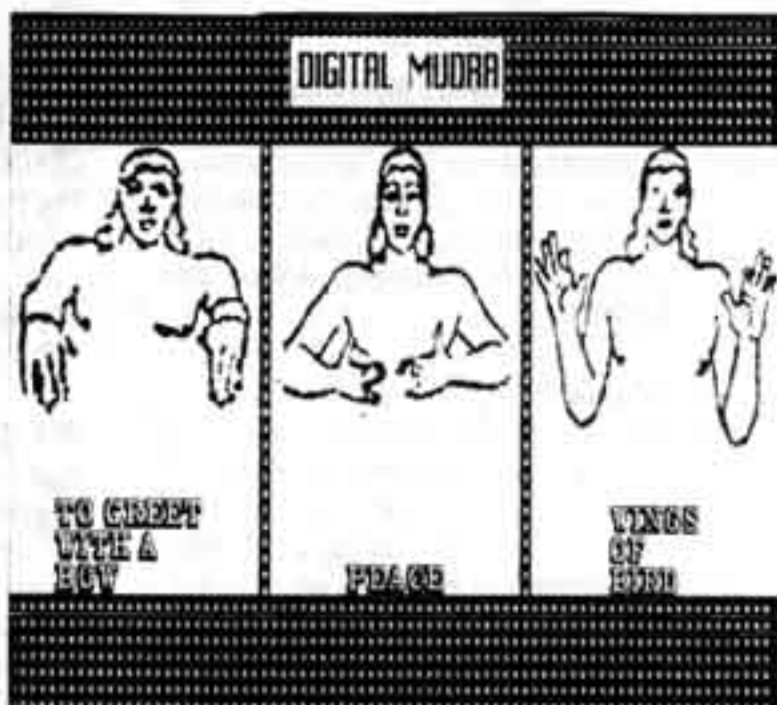
Proposals sought. Randolph Street Gallery. info: **Mary Jo Schnell, 756 N. Milwaukee, Chicago, IL 60614**

NANOART

Call for papers dealing with artworks on very small physical scales. The call also includes the new scientific and technological developments which allow the design and fabrication of microscopic mechanisms (nanotechnology) and molecular size processes. Other related areas include: The history of miniature art; genetically engineered art work; artworks invisible to the naked eye; scientific visualization of microscopic phenomena. **Leonardo**, attn. **Pam Grant-Ryan, 1442-A Walnut #75, Berkeley, CA 94709**; e-mail to Pam Grant-Ryan at isast@garnet.berkeley.edu. Include your postal/mail address.

NEW HORIZONS AWARD

The International Society for the Arts, Sciences, and Technology (ISAST, the organization that publishes *Leonardo*), is offering its New Horizons award in conjunction with the USA-UK Fulbright Commission 1990-91 Arts Fellowship in Light Transmission and Electronic Art. The commission will select a British and an American artist for this dual award through open competition. Info: **Dr. Stephen Blodgett, Council for International Exchange of Scholars, 3400 International Drive NW #M-500, Washington, DC 20008; 202-686-4000**



"Digital Mudra", Sonya Rapoport, Software with John Watkins

I long to-greet-with-a-bow peace on the wings-of-bird.

WHO'S CONNECTED TO WHOM?

Many of the most interesting items in the Ylem Newsletter calendar are from an electronic bulletin board called *F.A.S.T.* (Fine Arts, Science, and Technology) that comes from **Claudia Colan, Art Dept., Univ. of Massachusetts, Amherst, MA.** Locally, it can be accessed through the WELL. It is nested inside another interesting art bulletin board, ACEN (Art Com Electronic Net). ISAST in Berkeley is helping, too... Contact **Judy Malloy, ISAST, 1442-A Walnut #75, Berkeley, CA 94709.** *F.A.S.T.* is looking for interesting notices to post (even if they receive them through a dingy post office), including news of your art-sci-tech shows.

Commenting on e-mail, Roger Malina of *Leonardo* says it has become a good way for artists to maintain international contacts. On the other hand, he notes that most people take information off, but don't respond. Why? Speaking as your editor, I can attest that it takes about 8 steps to get to the information that I need, (and I always goof up!), so the process is somewhat painful and expensive. I don't wish to prolong it by chatting or browsing. I look forward to the day when I can write a macro for all the passwords and menu selections. I also look forward to the day when e-mail addresses are as easy to read and type as phone numbers. By the way, my logon is ...IWELLtrudy.

Some Ylem members who are enthusiastic about e-mail are Nancy Frank, David Newman, Eleanor Kent, Judy Malloy, Josepha Haveman, and Rod Willmot. Willmot, a poet, joined after the *Ylem Directory* was published, so here is his address: **535 Duvernay, Sherbrooke, QC, CANADA J1L 1YB.** He has done interesting work in hypertext (poetry on the computer that branches like a computer game).

Please tell us how can Ylem encourage the use of electronic communication. Should it add a line or two to its data base for e-mail and FAX addresses? What are the best connections that we as artists could make, and how could Ylem help the process?

Finally, is it an enabling medium, or one more nuisance that keeps us stuck in front of a machine not doing creative work?

SWEET GOODBYES

On the *F.A.S.T.* network a Berlin artist was recruiting people to help photographically document the graffiti on The Wall at New Year's. The Wall is 144 Km (90 miles) long and has on both sides what he says is "some of the most amazing graffiti found anywhere on the planet." We only hope he was in time, since it is being dismantled enthusiastically.

FIVE KNITTED FRACTALS by Eleanor Kent

"Pixel Gears"
computer graphic by Eleanor Kent



After several years of working with computer graphics, I wanted to make something tangible that I could hold in my hands yet still work with computers. I also wanted to explore the astonishing beauties of fractal designs which historically had been made only after the invention of computers. I used pictures from *Frontiers of Chaos* by H.O. Peitgen and P.H. Richter, enlarged on a xerox, then traced onto graph paper to make knitting patterns. Knitting with thick, sensuous wools and light silks gave me the pleasure of touching the material and also reminded me of the textile origins of computers with the Jacquard looms of the 19th century. By slowing down my hands, I was able to observe and think about the complexities of fractals and to make comparisons between the building of designs by stitches and by pixels.

Although the correspondence of pixel to knitting stitch is not precise in these pieces, the experience of translating the design to knitted fabric gave me an understanding of how computer images are constructed, and the connection between discrete stitches and the turning on and off of electric pulses. It also allowed me to ruminate on fractals as boundaries, the infinite self-replications inherent in fractal makeup, and the realization of an order that was originally perceived as chaos or at least complexity beyond comprehension. The experience made me more visually aware, and I learned how to "read" fractals and other kinds of complex information-laden, pixel-built images.

And finally, by knitting computer designs I enjoyed reconnecting the exhilarating discoveries of computer sciences with the gentle, ancient world of making cloth.

EVENTS

POLAROID MANIPULATIONS

Jan. 13 & 14, San Francisco

By artists Niki Ghini and Richard S. Beckett. Beginning with their quickly developed image, artists spray paint, use plastic and found objects or incorporate words, to otherwise transform the original Polaroid effect. A new craft for those seeking instant gratification. Bring your loaded Polaroid camera or just come and watch. 12 to 5pm. One of many events and exhibits celebrating the invention of photography at **The Exploratorium, 3601 Lyon St., S.F.**

YLEM FORUM

Jan. 16, 8 pm, San Francisco

See details on front page. **Exploratorium, 3601 Lyon St., S.F.**

EDWARD T. HALL ON "THE HIDDEN DIMENSION"

Jan. 17, 8 pm, San Francisco

Cultural anthropologist Hall will discuss "non-visible" cross-cultural communication and invisible measuring rods in everyday life. Author of *The Hidden Dimension*, *Beyond Culture*, and *The Silent Language*. Free with museum admission, but reservations advised. **Exploratorium, 3601 Lyon St., S.F.: 415 563-7337**

EXPERIMENTAL ANIMATION

Jan. 20, 2pm, San Francisco

Bay Area animator Seth Olitzky will show *Ballet Frenetic*, and discuss experimental animation techniques **Exploratorium, 3601 Lyon St., S.F.**

THE WAY THINGS ARE

Jan 21, 1 & 3 pm, San Francisco

In this hilarious video, Swiss artists Peter Fischli and David Weiss set in motion a series of Rube Goldberg-like chain reactions. **Exploratorium, 3601 Lyon St., S.F.**

CYANOTYPE WORKSHOP

Jan 20 & 21, 1-3:30 pm, San Francisco

With artist Melanie Walker. Iron salts are used rather than the more light-sensitive silver salts, so no darkroom is required. A bright blue print results. Free with admission, but reservations are required. **Exploratorium, 3601 Lyon St., S.F.: 415 563-7337**

DIANA BURGOYNE

Jan. 29-Feb. 11, San Francisco

Performance Feb. 10-11, TBA

Artist-in-residence Burgoyne will prepare a performance exploring the relationship between electrical circuitry and the internal electric neural circuits of the human body. **Exploratorium, 3601 Lyon St., S.F.: 415-563-7337**

PINHOLE CAMERA WORKSHOP

Feb. 11, 1-3:30, San Francisco

Make a lensless camera with artist Jo Babcock, who has made cameras out of suitcases and VW vans. Free with museum admission, but reservations required. **Exploratorium, 3601 Lyon St., S.F.: 415 563-7337**

10TH ANNUAL DIGITAL VALENTINES DAY

Feb. 17, some location in Silicon Valley (or S. F.)

Graphics Gathering reunion! Free-form, non-commercial, free-of-charge conclave of information artisans participate in creating the state of the art. Choice location sought. Info: **Howard Pearlmuter, 408-425-8700**

TECHNOLOGY ENTERTAINMENT DESIGN 2 CONFERENCE

Feb. 22-25, Monterey, CA

The convergence of new technologies, the media, and design is the subject of this all-star conference. For example, well-known presenters in the computer area are John Scully, Bob Abel, Alan Kay, Jaron Lanier, and Ted Nelson. Both the business and creative sides of various fields will be addressed. \$695. Reservations: **TED2, 1621 W. 25th St., #281, San Pedro, CA 90732: 213-831-4225**

NOTES FROM AFAR: ADVANCES IN STEREOSCOPY by Jan Gjessing

Jan Gjessing, Ylem's member in Norway, is a specialist in 3-D. While stereo photography has been around a long time and recent publicity has focussed on holography, his contribution demonstrates that the stereo medium still has some advantages over holography. It was presented to the 7th International Congress for Stereoscopy in Frankfurt last June. He may be reached at Skøyenåsvn 4 c, 0685 Oslo 6, NORWAY.

Take Off Your Glasses!

Imagine yourself in a good chair enjoying stereophonic music. In front of you, 2 or 3 meters away, is a large screen one meter high and only one millimeter thick. A push of the button provides you with a crisp and clear 3-D scenery and natural depth composition. No viewing device is necessary. Besides, all your 3-D shows will work with ordinary projectors and equipment, except that the light-dimming polarizing filters are thrown away. No modification of the projectors is needed. All you need is the new screen.

A scenario for the future—or today's reality?

Since 1967, I have experienced this and several other types of autostereoscopic screens. The first type, which works by front projection, reflects the image back from a slightly curved metallic surface, which has a very fine horizontal layer of microgrooves. No lenticular optical elements are used. Different types exist. Even multiple viewpoints have been obtained, allowing 3-D views to be seen by several persons at once.

Another type is the transmission screen. It offers excellent separation between left eye and right eye images, which allows high contrast pictures to be projected. The image can appear to recede normally, or to stick out from the surface.

Since these displays are point focal types, the effect only works from one viewing position. It is a very personal and exclusive way of watching a 3-D show. But it does away with viewing aids and special projecting equipment.

Since no international agreement on standards exists, it seems likely that various manufacturers will battle it out with competing systems. This may cause delays, but nevertheless, I expect production units with true parallax stereoscopic displays could be on the market before the year 2000.

"Waldsterben"

The show The background story is a dead forest, not in the highly polluted regions of Central Europe, but in the very heart of the "unspoiled" environment of Jotunheimen in western Norway. Most of the old pine trees in Vettismarki have been killed by fluorine gas from one of the biggest aluminum plants in Europe, situated in nearby Ardal.

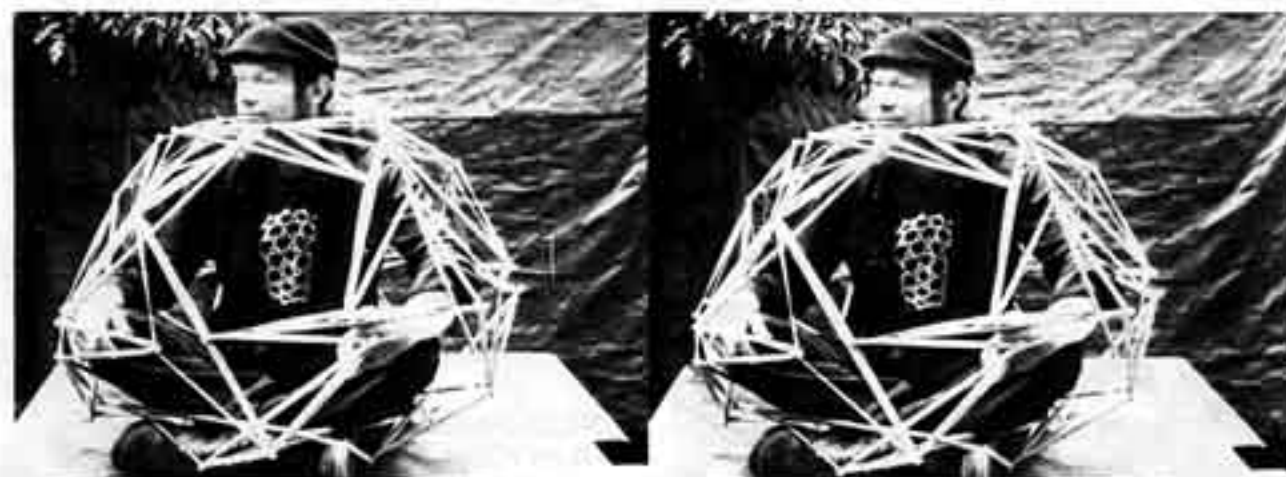
After a fast descent through the atmosphere, we soon move far into the cells inside the trees, looking at the state of the membrane structures as we hover above it. This trip also takes us through scenes as we watch the acid rain destroying forest and vegetation. Suddenly, this odyssey comes to a halt, showing a landscape with no trees, only a weird sky. Irreversible changes might turn this into lasting reality.

How the show was made Except for a few natural photographic shots, all visual imagery was made with what I call a "3-D Optical Image Multiplexer and Scanner." It was made for six Kodak 2050 projectors equipped with dissolve units. Two of them were used for extra, animated effects like moving clouds. Music was by Pekka Sirén of Finland.

The 3-D Multiplexer and Scanner The 3-D optical image multiplexer is a new, powerful tool for artistic use, which provides a way to create and manipulate extremely complex 3-D processes. It is not just a single piece of hardware, but consists of several subsystems, any of which can be combined at will. The basic unit is a Kodak 2050 projector, which has been rebuilt to be fitted with various internal devices. Some important features:

- A real time stereoscopic process with single lens system
- The ability to transform some 2-D scenery into proper 3-D
- Perspective manipulation in all axes of any created 3-D process or image

Other important features are too technical to list here, but write the artist for details.



"Dymexion Workshop" Stereo Pair by Gerard Timmons, 1989

Our thanks to Josepha Haveman, who recently produced the Ylem Newsletter for a year, for designing the template in PageMaker for the current newsletters.

Please send a membership application and sample newsletter to (me) (my friends) at:

NAME _____

ADDRESS _____

CITY _____

Membership is \$25 per year. Students \$15.
Send to Ylem, PO Box 749, Orinda, CA 94563.

ylem

Quality is the basic element of our strategy. What makes us America's third largest coal producer is a strategy based on quality. High-value, low-sulfur coal. And long-term utility contracts. Quality. Now, the Big Bang theory says everything sprang from an element called ylem. We say no, the element is quality. For our latest quarterly report, write: AMAX, Dept. 15W, Box 4475, Grand Central Station, New York, NY 10963.



Is nothing Sacred!
—Tom Pruehlman

This is your newsletter !!!

Please continue to send me notices of events, needs, opportunities, our exhibitions & talks, and sharp B & W art. Mac disks welcome!
Deadline: 20th of each month.

Trudy Myrrh Reagan
967 Moreno
Palo Alto, CA 94303 (415) 856-9593

MAILING LABELS OF YLEM MEMBERS, are available to Ylem members for \$20. Info: Fred Stitt, (415) 254-0639.

Get your copy of the **YLEM VIDEO**. Features 26 artists. 1/2" format \$24., members \$12. Mark Briggs, 3601 Kelso Ct., San Jose, CA 95127

YLEM

Artists Using Science and Technology
P.O. Box 749, Orinda, CA 94563

Ylem: Artists Using Science and Technology is a non-profit organization.

President - Beverly Reiser
Vice-President - Trudy Myrrh Reagan
Secretary - Fred Stitt.
Membership development - Eleanor Kent
Newsletter staff - Russell Reagan,
Trudy Reagan, Josepha Haveman

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Roger Malina, *Astrophysicist*
Larry Shaw, *Curator, Exploratorium*
Stephen Wilson, *Art Dept. SFSU*

**January/
February
newsletter**

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