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.

Increments © 1984 by Joan Michaels-Paque

Platforms © 1984 by Joan Michaels-Paque

Vol. 5, No. 1

Making Data Real

January 1985
Ylem Notes
by Trudy M. Reagan

Reading about Renaissance Florence, or Paris during the Impressionist and early modern periods, a person is struck by how many eminent artists knew each other face-to-face. While it is certainly true that not every individual artists makes history, fascinating artists who have appreciative peers often do. They work in their work. As Ylem has grown, wonderful people who have been working separately have been able to discover others who understand their quest.

Ylem forums themselves don't give us quite enough chance to build these connections, but lately some of us have been having supper together afterwards. Moreover, an unusual number of parties and field trips are coming up. For perception buffs, we have a reservation for a real "touchie-feelee" one at the Tactile Dome at the Exploratorium on Saturday morning, January 12th. Two weeks later Trudy Myrhh Reagan will host an Ylem party at her house in Palo Alto. She'll show some Ylem slides and make patterns with a low-power laser.

Down in Cupertino on Saturday, February 23, folks who joined Ylem because it is a way to learn about computer graphics will have a golden opportunity. Lilli Duerke has scheduled us to be "invited guests" at her introductory computer graphics class at De Anza College. Class members will help novices use the Apple computers and Koala drawing pads, while others of us try out some of Lilli's graphic software collection. Dan Cannon will arrive at noon to discuss his screen prints. Those with access to an Apple Ile may bring a disk with format DOS 3.3 so that they can be given a small program to use on it. With 40 computers, a good time should be had by all. Finally, on the evening of March 2 in the East Bay, Fred Seitz will host a party in Berkeley, where noon artist Bev Reiser hopes to have her latest piece installed. Fred is the organizer of the conference described by the newsletter insert, and Bev is helping him. (Details for these events are on the calendar.)

Even at forums, more exchange will take place between members from now on. Paper and tape will be provided for members' needs, offerings, and announcements for posting with the other announcements. Attendees are encouraged to bring newsletters from related organizations to lay alongside the Ylem handouts. Finally, something that will promote the exchange of ideas and help Ylem financially will be the Forum Book Exchange. Book (and record) donations may be brought to the forum or any other Ylem gathering. They will be sold at bargain prices at the forum during intermission. And, as always, attendees are encouraged to bring labels of their own.

There are still more benefits in numbers. In 1982 we were able to negotiate a group price for postcard reproductions of several members' works. We plan to do this again. We would like to hear from anyone wishing to participate, or having information about the people who are interested in black-and-white or color. By June we also hope to complete a videotape of Ylem artists' work to show at the conference "The Design Process Case Studies for Tomorrow" (see insert). Another benefit of producing this tape will be that it is a way to show the quality and excitement of Ylem art to schools and corporate donors. This tape will be based primarily on the slide show given last October. However, we are still accepting slides of work! Also, if a videotape already exists of your work, or you have technical advice to offer please call. How to implement this project, and how to use it afterwards will be discussed just before Trudy's party, at 7:30 on January 26th.

Besides the conference on architecture, we also have been contacted by Futureworld, SIGGRAPH '85, and the Stanford mathematics department (see Opportunities section). A surprise package arrived from Japan: a videotape by computer artist Masahiko Kurashima, which we will show at the coming forum. It was addressed to the "Ylem Office", which consists of two file drawers, six diskettes, and a few volunteers.

Considering our reputation, we have done a great deal with very little, but the time is approaching when these contacts may be neglected for lack of help. A public information committee to do mailing, phoning, and making visual presentations at schools, corporations, and other groups, is particularly needed. Also needed is a group to help with SIGGRAPH, which is at last being held in our own backyard. We would be thrilled to hear of ideas for exhibits and demonstrations that Ylem could do. The local SIGGRAPH office in the East Bay could also use some help in the massive effort of planning computer art exhibits for the 25,000 participants. Call Louise Exner at 415/853-8464.

Electronic networking would be a natural for us, if we could find a computer net with an art special interest group that we could join very cheaply. Information needed!

We have all enjoyed the improvements in the newsletter brought by David Healy and Mark Burstein. However, we track their necks out financially to do it. Fortunately, the newsletter sells itself. Give us the names of your friends, and we will send them sample copies. Tell people about us. Those of you reading a sample copy, join and sustain Ylem! Other ways readers may help is to give gift subscriptions, or to invite your company to join as a corporate member. The public information helpers will visit corporations to present Ylem artists' work and describe the additional benefits of corporate membership. Our goal in the coming year is to 20 new corporate members.

At business meetings we have discussed ideas for a fundraiser, but have thrown out most of them as being costly in effort, money, and risk. The one that is completely painless is the new, soon-to-be-traditional Forum Book Exchange. Since all materials not sold at forums will be sold at used book and record

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

Ylem Newsletter
Trudy Myrth Reagan, director
Mark Burstein, editor
David Healy, art director

Contribution are most welcome. Drawings, graphic pieces, photos, with explanation, submissions to "Opportunities"; "Calendar"; short book reviews, gallery reviews, or articles are sought.
Synopsis of “The Notion of Motion”
Ylem Forum, December 1984 Stanford
by Mark Burstein

Stanford was abuzz with Christmas festivities, including a crafts fair, entertainment, and hordes of frazzled shoppers and into the belly of the beast came Ylem. The theme of this meeting was “The Notion of Motion” and was presented by Louis Brill.

Our first speaker was Jerome Kirk, creator of magnificently large moving sculptures of exquisite delicacy and balance. (His work was featured on the cover of the last issue of Ylem). The pieces move slowly (“so much of this world is in haste”), and take on entirely different meanings as their configuration changes. Of great and gentle strength, they move rhythmically with the turbulence of the wind. He brought scale models and slides of the bigger pieces, and claims as his inspirations: woman, birds, bicycles, Japanese fans, the palms of Veracruz and the “feel of form”.

Jean Millay, whose biofeedback machines are driven by the electric activity of the brain, spoke on “What you think is what you see, how focus defines reality.” Her major work (also featured in last month’s issue) utilized isolation circuitry to measure the brain’s electric activity (frequency, amplitude) and translate it interactively via a microcomputer to frequency, pitch, tones, and color. Her interests in “resonating bodies in a resonating universe” was documented in slides of her life’s journey through parapsychology, child education, and psychedelia. She brought slides of her influences: the impressionists (“reality is light”), infrared photography, microphotography of bugs, lizard scales, translucent colors, plastic resin sculptures, secondary phenomena (phantom colors) and the final electromagnetic epistemology – all that is, is light.

Larry Cuba next presented some of his entertaining computer graphic movies. The first film, “378”, produced on a Vector General using “GRASS” software, was a parade of dots set to meditative flute music. Their rhythmic choreography produced fountains streaming, turbulence, spheres within spheres. It is amazing how something as abstract as a stream of dots can produce laughter and moans from an audience. The next film “Two Space”, set to gamelan music, was a mosaic of patterns in windows, repeated to a synergistic effect. Optical tricks relying of persistence of vision produced paradoxical patterns of negative space. The field was a galactic playground, somewhat like primitive bark painting designs, on which vector worms roamed freely. He then showed us some of his experiments from work in progress, on Zgrass soft-

ware, a higher level graphic manipulator. This time, using raster graphics enabled Larry’s “Angleworms” to have an extra dimension, using drop shadows. All lines were 0, 45, or 90 degrees to minimize jaggies. They snaked all over the screen, obeying certain laws of formation, breakup, bumping, pattern, movement, gesture. Months of programming and weeks of computing produce just minutes of screen time. Despite the differences in the hard- and software, there was a remarkable consistency of artistic vision and style.

Louis Brill presented a lightshow, an event popularized in the 1960’s, actually invented in the 1920’s by Thomas Wilfred. To the music of Brian Eno, we were transported by mist, clouds, coronas, spectral whispers to a smokey psychedelic moonscape with an opalescent egg. He explained that the system was essentially a controlled light source with an effect wheel, a palette of condenser lenses and reflective textures in different optical relationships.

We then adjoined to whatever “notion of motion” we used as transportation home.
Making Data Real

Making Data Real is the theme of our upcoming forum, and also the business of two of Ylem's corporate sponsors, Pacific Data Images and Gould Electronic's Image Processing Systems.

Pacific Data Images

Pacific Data Images produces 3D shaded computer generated animation for the entertainment industry. By combining skills in both computer graphics technology and graphic design, PDI offers its clients innovative state-of-the-art computer animation. We begin with a story board or a rough idea, and by working with the client's own art director or our in-house designers, produce a polished animated product.

PDI's animation is produced with our own proprietary animation system which creates full-color, anti-aliased, shaded 3D animated images. Camera position and focal length, object definition and position, colors, surfaces types, and lighting are all controlled with a variety of interactive tools and our own "script" animation language. Our tools emphasize quick prototyping and easy modification to animations, since client feedback and changes are so important in our market. Images are created at television resolution, an can be output either to film or directly to one-inch video tape.

We currently compute our animation on Ridges 32 computers. All of our software is written in the programming language "C" under the Unix operating system. We use an IMI 500 real-time vector system of interactive motion design, and Raster Technology framestores for color workstations.
Gould DeAnza
Image Processing Systems

Gould DeAnza Image Processing Systems have an enormous range of applications, as evidenced by their sampler. Some of these images are: enhanced LANDSAT photos of geographical terrain; pseudo-colored astronomical imagery; medical scans; geological maps; battle games for the Army; and television advertising. They write: Let our IP8500 Image Array Processor speak for itself. Several recent options make its performance as dazzling as its picture. The IP8500 memory access and architecture are superior in storage capacity, speed and addressing flexibility. Our new extended memory option quadruples previous storage with up to 20 individual 1024 x 1024 x 8 bit image-tiles based on 64K dynamic RAM memory. Each has independent zoom, pan and scroll, as well as a selectable intensity transformation table. A new high resolution option is also available and includes a video output controller offering 1024 x 1024 pixel imagery in monochrome or full color.

Our Library of Image Processing Software (LIPS) has recently been expanded. A comprehensive, general-purpose package, LIPS will improve all image-processing operations. Its "command processor" and "help" instruction programs also maximize user efficiency and convenience.
Ylem Calendar

Jan. 12, 10:15-11:30
Ylem Field Trip - The Tactile Dome. This is the one exhibit at the Exploratorium that requires a reservation. $3. Info and reservations: Shoshanna Dubiner. 1447 Cabrillo, S.F. 94118; 415/221-3595.

Until Jan. 20
Berkeley Art Center Exhibition - group show features work of Ken Herrick's group on the floor level. 1235 Walnut St., Berkeley, 415/644-6893.

Jan. 24-5

Jan. 26, 7:30 pm
Short Ylem Meeting - before party, same location as next item. Subject: Ylem public relations, and videotaping Ylem slide show.

Jan. 26, 8:30-11 pm
Ylem Business Meeting, Exploratorium - at entrance ask how to find The Classroom. Please be on time. It is a mile from Ft. Mason.

Feb. 2, 11 am
Ylem Business Meeting, Exploratorium - at entrance ask how to find The Classroom, please be on time. It is a mile from Ft. Mason.

Feb. 19, 2-5:30 pm

Feb. 14, 1-4 pm

Feb. 23, 10-1:30 pm
Ylem Hands-on Computer Graphics. De Anza College, 21250 Stevens Creek Blvd., Cupertino, Room S 81. Free, no experience necessary (see Ylem Notes). Enter off Mcclellan Rd., turn left; or, from Stevens Creek, drive all around on Campus Dr. Park on North side of campus behind library. A free copy of a small program will be given to anyone who brings a diskette with format DOS 3.3 for Apple IIe. Info: 408/446-4310, early am or last pm.

Until Feb. 28
Gorgione & Cherry - Holograms, light sculpture, & paintings, Holos Gallery, 1792 Haight St., S.F. 94117; Info: 415/668-HOLO. Mar. 17 - Sept. 16
Tsukuba Expo '85, Tsukuba Science City, Ibaraki Prefecture, Japan. A $2 billion fair of 21st century technology. Info: Fukokuseien Bldg. 21F, 2-2 Uchisaiwai-cho, 2-chome, Chiyoda-ku, Tokyo 101, Japan.

OPPORTUNITIES

Now
Art related to mathematics sought, including computer graphics, geometric design, visualization of mathematics, and polyhedra models, for Stanford Mathematics Department offices. Info: Scott Kim, P.O. Box 9414, Stanford, CA 94305; 415/328-5160.

Apply Soon
Futureworld Expo '85 at Moscone Center, April 18-21, will feature products from many fields robotics to architecture. Product booths are $950 for 10'x10' booth. It also rents space to artists at $9 per square foot, and time to video artists at - Info: Crest Intl', Rick Hens, 940 Emmett Ave. #14, Belmont, CA 94002; 415/595-2625.

Deadline Jan 18

Deadline Jan 20
Birmingham Int'l Educational Film Festival. Catagories include "Mathematics and Science", "Applied and Performing Arts", 3/4" video also eligible. Info: BIEFF, Margaret Miller, Alabama Power Co., P.O. Box 2641, Birmingham, AL 35291.

Slide Deadline Jan. 21

Deadline Late January

Jan. 28 - May 14

Deadline Jan 30
Copy Machine Art: A Juried Show. For PROS send SAS to Art Department, L.A. Harbor College, 1111 Figueroa Pl. Wilmington, CA 90744; 213/518-1000 x370.

Deadline Feb. 1
National Educational Film & Video Festival. Catagories include "Physical Sciences & Mathematics", "Film as Art". Info: NEFY, Sue Davies, 314 E. 10th St., Oakland, CA 94606; 415/465-6885.

Deadline Feb. 1
San Francisco Int'l Film Festival. Catagories include "Experimental", 3/4" video also accepted. Info: SFIEFF, Stephen Horowitz, 3501 Calif. St. #201, S.F. 94118; 415/221-9055.

Slide Deadline, Feb. 1
Exhibition Screening, All Media. Proposals accepted for screening for 1985-6 exhibit schedule. Send 20 slides, resume, & SAS to: Susan Moldenhauer, Mgr., Smith Gallery, 102 Visual Arts Building, Penn State University, Park, PA 16802.

Deadline Feb. 1

Deadline Feb. 11
Just a Minute - TV Works. Media: any 60 see. video or film or 2-D work. Juried. Info: TV Works, School of Art, CalArts, 24700 McBean Parkway, Valencia, CA 91355; 213/300-9618.

Deadline Mid-February
Atlanta Film & Video Festival. Catagories include "Experimental". Info: AFGV, 972 Peachtree St. #213, Atlanta, GA 30309; 404/874-4756.

Deadline March 15
SIGGRAPH '85 Art Show. Media: Computer Art. Info: SIGGRAPH '85, 111 E. Wacker Dr., Chicago, IL 60601; 312/644-6610.

Deadline Mar. 23
State Capitol Vietnam Veterans Memorial. Design for sculpture or monument. Awards. Open to Ca. artists only. For PROS send SAS to: Dept. Veterans Affairs, 1227 "O" St., Sacramento, CA 95814.

Ongoing
Animation Classes: multi-year program that is the only one in a Northern Ca. community college. At least one entry-level course is offered each quarter, as well as one advanced course. All are evening classes. Info: Tom Finchbaugh, Film Studies Dept., De Anza College, 21250 Stevens Creek Blvd., Cupertino, CA 95014.

March 2, 3:00
Ylem Party at Fred Stitt's 18 Evergreen Dr. Orinda. 415/254-6039 At end of long driveway, park on street.

continued on Page 7
Random Access
by Mark Burstein

Ylem Notes continued from Page 2

stores, their subject matter doesn't have to be
relevant to our members' interests. As soon as
donations become tax-deductible, we will let
you know in the newsletter.

Information about any of the above, and
especially offers to help with public
information, videotaping, or SIOGRAPH '85
may be directed to the Ylem address, or Trudy
Myrrh Reagan at 415/856-9993.

Opportunities continued from Page 6

Winter and Spring Quarter, 1985

Computer Graphics Classes. Art 53,
Introduction - use Apple IIe, Koala lo-res
graphics tablet, learn simple programming; Art
54a, Art and the Computer - some experience
needed. Both hi-res and lo-res graphics,
programming. Info:- Lilli Quirke, Art Dept.,
De Anza College, 21280 Stevens Creek Blvd.,
Cupertino, CA 95014.

Deadline May 30

Creativity and Madness. The American
Institute of Medical Education invites
participation in its conference. Please send an
outline, summary, or copy of your paper to
AIM ED, Program Comm., 2625 W Alameda
Ave. #304, Burbank, CA 91505.

Pacific Grove seeks proposals by visual
artists in all media interested in participating
in future public art projects. Send proposal w/
20 slides of recent work to: The Pacific Grove
Art Center, 568 lighthouse Ave., P.O. Box 633,
Pacific Grove, CA 93950; 408/375-2208.

SIGGRAPH, S.F. Chapter - has meetings
to discuss aspects of computer graphics that
are fairly technical. Info:- Lou Katz,
415/530-8870.

Buckminster Fuller Institute has moved
from Philadelphia to Los Angeles, where it
plans to create a permanent facility with
archives. Many special projects are in the
works. Ruth Asawa, one of his former
students, is on the board of directors. Send for
a Dynamax Artifacts Catalog, or send $8 for a
newsletter subscription: Buckminster Fuller
Institute, 1743 S. La Cienega Blvd., L.A., CA
90035; 213/837-7710

Exploratorium membership, $30, entitles
you not only to free admission and a
subscription to their award-winning popular
science magazine, but other discounts and
privileges as well. Info: Exploratorium, 3601
Lyon St., S.F., 94123; 415/563-7337.

The Artists' Survival Manual by Judy
Klayman with Cobett Steinberg, $13, paper,
$23, hardcover. Available from Bay Area Lawyers for the Arts, Fort Mason Center
Bldg - C, S.F., CA 94123

The Studio of Visual Technologies is a "high-tech
atelier dedicated to the advancement of technolo-gically-based art" and, incidentally, our newest
corporate sponsor. It was "created by artists who
integrate scientific insight and artistic expression
by incorporating new technologies, new media or
new forms of presentation. Affiliated artists are
provided with funding and facilities to develop the
production processes necessary for The Studio's
atelier to publish multiples of their work. These
limited editions are marketed to collectors through
an extensive network of fine art galleries." They
are currently involved with the work of renowned
artist Bill Parker, whose plasma sculptures (glass
spheres which contain electronic circuitry and
complex ionized gases) to create visualisations in
the "living energy" of the fourth state of matter.
His sculptures can be found in the permanent
collections of the Smithsonian, the Museum of
Science (Boston) and our own Exploratorium.
Write Tracy Sampson, Visual Technologies Cor-
poration, 125 Elm Street, P.O. Box 266, New
Canaan CT 06840. (203) 966-4392.

Random Access Items

Member Jon Alexander writes:
"I have a deep interest in space technology and
its implications for all people. Specifically, I
work to deflect policies which would secure
space as an expanded arena for the arms race.
Part of that work, however, involves
promoting the life-affirming potential of space.
As might be expected, this dual approach has
been somewhat problematic. Members of the
right political spectrum are suspicious of or
hostile to arms races, while members of the
left political spectrum are suspicious of or
hostile to space technology. There are
exceptions - and I would like to learn of the
exceptions among Ylem members.

The Progressive Space Forum, of which I am
co-founder, needs more input from artists. My
own contributions include the group's logo and
a bumper sticker. But we could use the services
of artists proficient in illustration, newsletter
design and paste-up, and promotional graphics.
Payment for these services depends on the level
of foundation support the Forum receives in the
coming year (recent "nibbles" are promising). More than likely, however,
payment would be quite modest. Please contact
me at Flying Mountain Graphics, 1272
Sacramento #101, San Francisco, CA 94109:
415/673-1079."

Jon also reports that like physicians,
businessmen, and computer professionals
before them, artists have formed a committee
called Artists for Social Responsibility. Its
address is 78 E. Biltmore, Mill Valley, CA
94941.

For Tetrahedron Lovers

The next issue of Leonardo, Vol. 18 No.4, 1985, will carry an article by one of our
Canadian members, Julian Rowan:
"Tetrahedron Modelling: Art/Science
Metaphors for Order in Space". It proceeds
from models of space-filling polygons and
experiments with water crystals to his
reflections on the apparent orderliness of the
universe. At the end, more than a page of
references gives a wealth of material for
additional study.

A Note of Appreciation

The Graphics Gathering, which will soon hold
its 5th Annual Valentine's Festival on February
17th (see calendar), is a remarkable high-energy
happening that was one of the chief
inspirations for Ylem. Howard Pearlmutter,
who moved here from Princeton in 1979, was
anxious to make new contacts. Beginning in the
fall of 1980, Howard the Whirlwind put his
telephone in overdrive to bring together all the
far-out people, art, soft/firm/hardware ideas
he could stuff into one room for a
spontaneous combustion. They didn't always
ignite, but they were always informal and fun.
Not only did Howard show Trudy Reagan that
meetings she had thought of holding were
feasible, but he prodded her into passing
around sign-up sheets at his gatherings that
fall. Finally, the first Ylem meeting was held
one week after the First Annual Valentine's
Day Graphics Gathering.

The gatherings moved with Howard to Santa
Cruz, and are held less frequently now, "but
there will always be one at Valentine's's".

Ylem Newsletter Application
Send to Ylem, G37 Moreno, Palo Alto, CA 94303

NAME

ADDRESS

PHONE

ZIP

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NAME

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Jan 20 1985
Making Data Real
February 2, 2-5:30pm, room C 260, Fort Mason Center, Marina & Laguna, San Francisco

Human Tissues in 3-D, videotape by
Pacific Data Images
Maps as Art, Donna van Dijk
Jan Reindfisch, curator, Euphrat Gallery
Japanese Computer Graphics, videotape
by Masahiko Kurashima

Presented in co-operation with the Fort Mason Center and the Golden Gate Recreation Area.
Free and open to all - bring friends, bring art to share.
Bring books for the "Ylem Book Exchange"!

Directions: Take Hwy. 101 to Lombard St., go north on Laguna 5 blocks. Turn right into Fort Mason Center.
Bldg. C is on the far right. By bus: take #30 Stockton, get off at Bay and Laguna. Info: 415/ 856-9593.