

presents:

# "PHYSICS AS METAPHOR"

NASA physicist Adolph Smith: "Dissipative Structures, or Swimming Against the Entropy Tide".

Sculptor Julianne Frizzell relates her impermanent sculptures to the modern physicists' view of matter (Is it 'there'? In what sense?).

Fiber artist and cartoonist Gertrude "Myrrh" Reagan discusses complementarity (How can something be opposite things at once) with the aid of her works.

Slides: Richard Bowman's paintings relating to energy and radiation.

Also Happening:

Display of science-related art by members and attendees. Bring some!

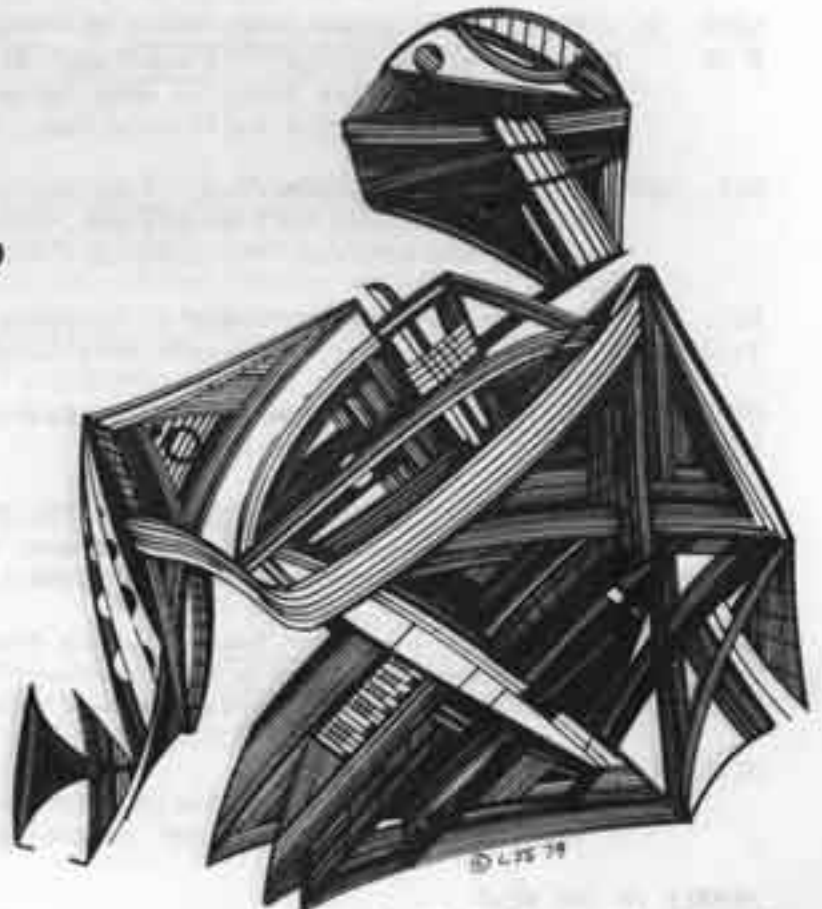
SATURDAY,

September 19<sup>th</sup> 1981

2-5 PM

Fort Mason C-370  
Laguna & Marina  
SAN FRANCISCO

FREE



"The Great Think Tank" by Justin Shoemaker.



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## ARTISTS USING SCIENCE & TECHNOLOGY

**Ylem** (I-lem): the  
primordial stuff out  
of which the universe  
emerged (fr. Greek,  
matter).

### SEPTEMBER 1981 - CALENDAR

- SEPT. 19 - Ylem Bimonthly Meeting, "Physics as Metaphor", Fort Mason C-370,  
SAT. 2-5 Laguna & Marina, San Francisco. Bring art to share, and books for  
Perpetual Booksale. (This is a painless fundraiser: bring art or sci-  
ence books & magazines you no longer need. Mark with modest prices.  
Sales receipts to benefit Ylem.)
- SEPT. 30 - Scott Kim's Booksigning Party for Inversions, reviewed in the Games  
8 PM column of the Scientific American. A knack for puzzles, letterforms, &  
computing enables Scott to make letters do indescribable shennanigans.  
Printer's Inc., 310 California Ave., Palo Alto.
- OCT. 10-11 - The Graphics Gathering, "Interactive Media", (tentative), Palo Alto  
Cultural Centre, 1313 Newell Rd., Palo Alto. Put on by computer graphics  
people and artists. For info call Robin Samuelson, (415) 493-1028.
- OCT. 23 - { Computer Music Dance Concert, Computer Graphics Demo., Reception for  
7:30 PM { David Kroos show, Sunnyvale Arts Center, 550 E. Remington, Sunnyvale.
- OCT. 27- { "Circuit Imagry", Serigraphs by David Kroos, Sunnyvale Art Center,  
DEC. 5 { 550 E. Remington, Sunnyvale.
- NOV. 4 - { "Art, Science, & Technology", slide show by Ylem artists Steve Zins,  
WED. 8 PM { Marty Kahn, Gertrude "Myrrh" Reagan, and Amanda Marsh. Sunnyvale Arts  
Center, 550 E. Remington, Sunnyvale.
- OCT. 27 - "Trick or Treat for Space", at On Broadway, 435 Broadway, San Francisco.  
8 PM Eric Burgess narates a performance, "The Hitchiker's Guide to the Solar  
System". A costume party follows. Come as your favorite alien.

#### ALSO OF INTEREST

L.A.S.E.R. (Laser Arts Society for Education and Research) gives classes,  
sponsors events using laser technology. PO Box 42083, San Francisco 94101.

#### MEMBER IN THE NEWS

Eleanor Kent has a one-person show of her copy art series, "Honey Woman"  
in Mexico City, Centro Universitario Cultural, Odontología #35; OCT. 1-16.

NOTES ON THE ARTISTS

"The Great Think Tank" - cover

Justin Shoemaker is the penname of Leonard Saposnek, who lives in Pleasant Hill. He has been an incurable doodler since childhood. His drawings were first reproduced by copy machine for his kids to color. A printer friend suggested technical pens for greater precision, and he became obsessed with fine-line resolution. He broke the 425 lines-per-inch barrier (beyond which printers claim the eye cannot resolve differences) by fine pens and specially dilute inks. He emulsifies his ink with fluid used to clean printing presses. 600 lines per inch is possible, he found, and he is pushing the limit further.

Some of his drawings have been reproduced with metallic instead of white backgrounds. His printer cuts them by laser on black-coated metal plates used to make printing plates.

With the help of Carl Rosendahl, he hopes to animate the drawings on Carl's computer.

Arches, page 5

Marty Kahn is a graduate in mathematics and linguistics. He has been working as a software engineer for Northstar Computers, San Leandro, for two-and-a-half years. His first attempt at art was at the request of his employers, to see what the computer could do. Its capabilities and his flair for it were a surprise and delight to himself as well as others.

The designs have been published as a computer coloring book, and he is now blowing them up by Xerox and making them into paintings. He lives in Berkeley.

Network - page 6

Dave Dameron, who was born in North Carolina, now lives in Palo Alto. He has had engineering training, now studies lithography, and programs his home computer. His computer not only generates line patterns such as this one, but can also be hooked up to a motor-driven cutter. The cutter is programmed to go in and out, cutting on a 2-foot-high rotating block of wax, and as it moves down, it cuts wax sculptures. Some of the forms are generated from mathematical functions, and are variations on cork-screw shapes. He is looking for an inexpensive way to cast them.

RECEIVE FUTURE NEWSLETTERS - BECOME A MEMBER!

\$5 per year - make checks payable to Ylem. Send to Gertrude Reagan,  
967 Moreno, Palo Alto, CA 94303

NAME \_\_\_\_\_ SPECIALTY \_\_\_\_\_

ADDRESS \_\_\_\_\_ INTERESTS, NEEDS, OFFERINGS: \_\_\_\_\_

CITY \_\_\_\_\_

INFORMAL DISCUSSION NOTES - AUG. 15 YLEM ORGANIZATIONAL MEETING

FUNCTIONS OF YLEM

Idea exchange:

- informal meetings
  - general meetings
  - in-depth lectures
  - mailing list improvement
  - Network with other organiza.
- includes tours (labs, indus.)
- Continue bi-monthly mtgs., alternate locations
- Req. meeting places in SF, P. Alto. Improved publicity
- For interchange of ideas & artwork
- need time to mingle sit facing each other.

Access to resources:

- Eleanor Kent has color Xerox machine to share.
- Several leads on computer graphics firms which give artists access to their tools.
- Ylem library? - need books, home to house it (diff. area home ca. year).
- Industry tools

Going Public:

- Display of members' works
- performances
- tie-in with schools, museums

Lots of enthusiasm. Steve Zins heads committee to organize show

FLAVOR OF YLEM

- More info. about fellow-artists!
  - Keep emphasis on artists + art rather than tech. + sci. per se.
  - Educate the public on Ylem art's usefulness as cultural commentary. Ylem artists don't ignore the sci/tech. flavor of the entire culture, but reveal its philos. implications.
  - Keep small enough to be friendly, organized enough to be self-sustaining, financially modest but stable.
- In newsletter, at meetings. (Need: someone to interview artists for newsletter).
- \* memberships (newsletter expense)
- pass the hat (meeting expenses. - keep expenses low.)
- Low-key fund-raisers (e.g. "Perpetual Book Sale" starting the meeting).

Share & rotate responsibility for trees, programs, show org., publicity, etc.

REPLIES TO QUESTIONNAIRES...SO FAR

- Most prefer small but well-organized group.
- Rely on memberships, easy fundraisers. Fractal T-shirt to sell suggested.
- Interest group sugg.: photography (1), video (2), Computer graphics (4), logic & thought processes (1).
- General suggestions: • Interactive newsletter: a) artists list specific needs; b) include form to return when soliciting ideas.
- brunches, picnics together

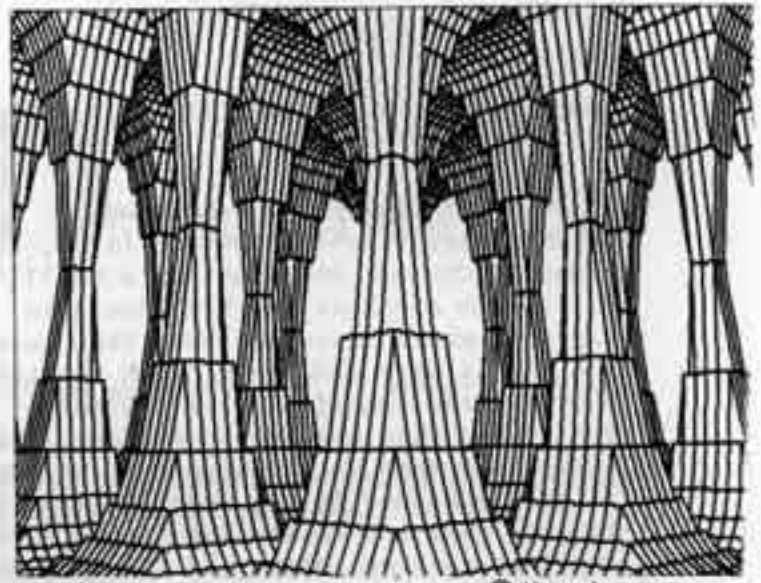


READABLE BOOKS - PHYSICS

Disturbu

Disturbing the Universe, Freeman Dyson

More than Knowledge, Dyson's Quest is affectionate wisdom. His personality sketches of Oppenheimer, Teller, Feynman, and others he has known are leavened with observations about similar men he has encountered in literature. This, and his perceptive autobiographical notes, make this a most unusual, human book to come from a scientist. Later chapters in the book look to the future: self-replicating machines, ending the arms race, cheaper space travel.



How We Know - Martin and Inga Goldstein, (Plenum Press, 14.95)

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The authors use case histories (ie, "Is Heat a Substance?") to show the scientific process at work. Surprise: it is not that different from art problem-solving. Also, they discuss what constitutes scientific proof. The goal of the book is to convey not only the practical values of science, but the esthetic and emotional rewards of doing scientific work.

The Dancing Wu Li Masters - Gary Zukav, (Morrow, 5.95)

Zukav is a writer who has a knack for explaining the weirdnesses of Quantum physics and relativity theory without mathematics. Walter (Uncertainty Principle) Heisenberg once said that our knowledge is but a frail bridge across a chasm. Zukav shows why.

The Tao of Physics - Fitjof Capra (Bantam paperback)

Most physicists realized that they were travelling away from the traditional ideas of time, space, and matter, and had discovered limitations to their ability to Know The World. Few realized that they were travelling toward an Eastern world-view where change, indeterminacy, and unity of ourselves with our matrix (the universe), are deeply felt. For some, this 1975 book was fresh air; for others who want to see Western science as a four-square, solid edifice, it was an icy blast. The chapters on Eastern thought sparkle with clarity. Those on Physics are written for the non-mathematical reader, but assume some background which the Wu Li Masters does not. Try Wu Li first.

Watch for The Turning Point, (Simon & Schuster, 14.95), Capra's book due out in January. The four-square edifice idea has permeated our culture and given rise to huge social structures (multi-national corporations). The new world-view will lead us to soft technology and decentralization.

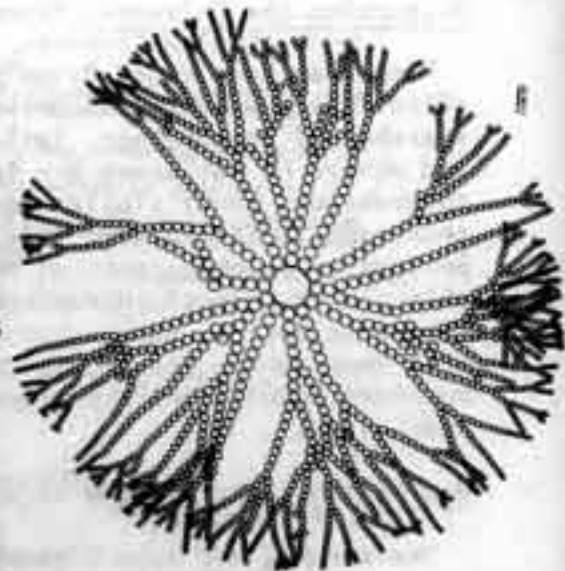
The current view is that no visual model of what physicists know<sup>about atoms</sup> is longer possible. Nevertheless, artist-sculptor Kenneth Snelson's Portrait of an Atom makes an unconventional attempt. The handsome booklet about his resulting sculpture, available from the artist at 140 Sullivan St., N.Y., N.Y. 10012 for \$2, has a lot of goo<sub>the history of</sub> background about the atom and its exploration.

These books, and the best Ylem art have one thing in common, something in common: they give us perspective.

INVERSELY, AS THE SQUARE OF THEIR DISTANCES  
APART

It is impossible to see anything  
In this dark; but I know this is me, Rexroth,  
Plunging through the night on a chilling planet.  
It is warm and busy in this vegetable  
Darkness where invisible deer feed quietly.  
The sky is warm and heavy, even the trees  
Over my head cannot be distinguished,  
But I know they are knobcone pines, that their cones  
Endure unopened on the branches, at last  
To grow imbedded in the wood, waiting for fire  
To open them and reseed the burned forest.  
And I am waiting, alone, in the mountains,  
In the forest, in the darkness, and the world  
Falls swiftly on its measured ellipse.

from Collected Shorter Poems of  
Kenneth Rexroth.



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