

RECYCLING BIOTOPOLOGY 1972

NOTES FROM ECOLOGY TOOL & TOY

BY WARREN BRODEY

The following is excerpted from reams of hand-written, multi-colored pages of notes which Warren Brodey wrote while discussing his 'space' with us. Other references of interest are Brodey's article *Biotopology 1972*, and Avery Johnson's article *Infolding Paul Ryan* both of which appeared in *Radical Software* No. 4, Summer 1971.

I am working on building biotemes to play with, to learn consequences.

If I am lying down on a floor area which is an air structure made of interwoven kleinform that can expand or contract depending in part on their neighbors' behavior, the heat and light in the room, and on how I interface with its efforts to reduce its information to a manageable level, and the space itself is like being under the soft umbrella of an oak tree waving lively in the wind, or being inside a bubble of scum lively with creatures . . . what would it be like? Would we use verbal language as we know it, at all?

This is a different space. It is not a return to the nature of our ancestors . . . Or is it?

As Avery Johnson puts it, "The meaning to an organism of an object or an event is to be found in the response of the organism to it."

This different kind of space that I work in and play in and dig in even when I'm going nothing by mechimax values I call bioteme technology; the technology of biological optimizing systems. If you live in that space or want to, let us know . . .

In this new space we go beyond being passive and we don't try to build dams and causeways to stop the waves as our way of being active . . . We build active surfboards that play with us and the waves.

If you read Norbert Wiener's book *God and Golem Inc.*, or McCulloch's book *Embodiments of Mind*, you will be closer to knowing that embodiments of biological-like behaviour make useful toys with which to engage in more dense communication with other surrounds and creatures. But both McCulloch and Wiener lived in the tradition of Science.

We know we must leave the old Space, Science, Technocracy, the world of Universals and Universe Cities . . .

As we find intermediate tools and toys that enable us to play with natural phenomenon, the level of gentleness and courtesy we experience is environment to other human and more varied species.

Courteous technology is not technocracy/bureaucracy.

A toy is not painful and you can learn without words. Animating a drawing is not like building a toy of material, energy, information that pays attention to trying to maintain its own kind of behavior—and is able to die. Soft systems are toys that have the richness of information texture that you see in a TV picture of a kitten but not in the printout of its parametric fragmented technocratic description.

You will understand better when you provide a TV camera, as Joe Seale has been doing it, with the capacity to look for density of information. Avery Johnson had an ordinary movie camera actively looked for edges following them. Imagine the TV camera is like a creature, the creature of the feedback patterns and you and this creature work together to find patterns that you might not have seen by yourself. Imagine walking among trees you have been dancing with, rhythmically making visual patterns with. How differently they will feel. My experience is that you begin to notice slow rhythms that become an envelope of complex rhythms, gentle yet urgent that bring you to a longer now, a sense of non-frenetic time within which one's—my life energy is augmented, and life itself is enhanced.

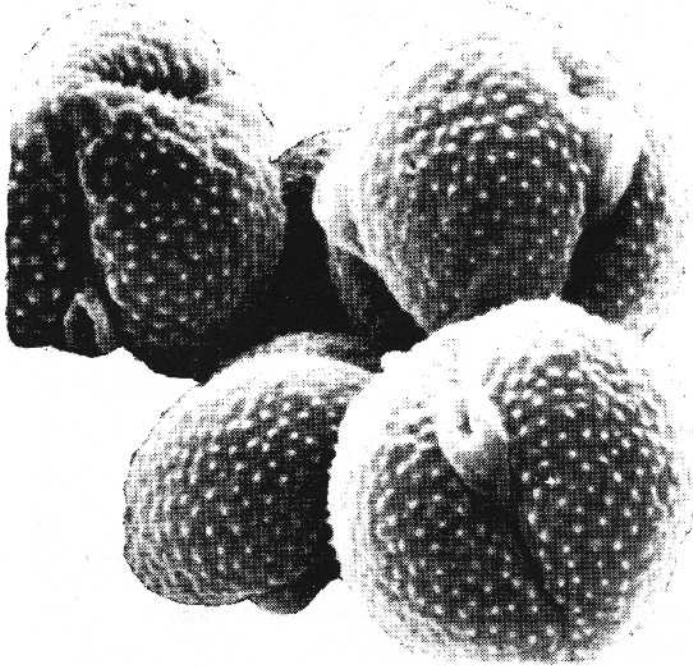
We are playing with ways of changing VTR systems so they allow the user to play time games, to use the VTR as a tool for studying ecology.

Build a TV set that is like your eye . . . it looks for what it wants to see.

continued

The new soft technology, soft control, soft systems are embarrassing to those who live in the print world . . . soft architecture is revealed by the plant as lecturer in experiencing biostructure . . . the plants way of coping by materially, informationally, energetically behaving in time.

Soft structures are like sponges with kleinform cells, that impinge on each other by pressing, exchanging heat chemicals, each cell is a space not a boundary. We are cells in the maero beast we call the System, we crowd, we exchange heat chemicals with our surround which loops these and many others back through our System to become a part of the uncontained portion again and this vitality is a fine structured flow of consequences intertwined.



I found a new way to think of kleinform. Remember I said there was a world of spherical cells. This is what you see when you cross section dead biological material and deny its liveness as expressed in energetic and information flow that does not stay inside the snapshot boundary. Behaviours loop around the cell walls permeating the spaces that coalesce more densely . . . but do I mean information spaces, energy spaces, timely rhythmic similarly spaces. No! Put these all into one unfragmented living way, there are no words; build it. But loops over time spiral and we're still talking linear holes and spaces are not spirals; the loop crawls out of itself extending beyond its boundary bit by bit. Oh, this sounds like nonsense. As Joe Seale put it, imagine your hand on your hip and thus forming a loop of energy, information, material and then your elbow sprouts a purple flower that grows breathing its way into the center of the loop, joining its walls to the donut (what a terrible word . . . for something so beautiful as a flower growing out of your elbow and breathing in the space your arm encloses.) A kleinform is not a cross section of a stopped click snapshot.

It flows back through itself, defining itself as it flows. A relation with Joe cannot be a snap shot. He has no energy for unshared space with unshared resources.

Each person is a clump of ecological meaning that can be known best in his way of giving meaning to what we experience as sharing.

Do Soft Structures have any value as meta tools? Yep, gets you unprogrammed, teaches you about ecology. Courteous systems cannot be mechanical, timeless, objects.

If the material is hard with hinges and joints, there can never be enough variability freedom to engage in nonlinear multiplicative activities.

Can you build a structure that in the simplest way behaves like the plant you are watching. If you try you will ask yourself questions that no descriptive biologist ever thought to ask, in your new problem you are asking synthesizing questions not analytically fragmenting.

Consider . . .

A chair-like structure, that if you move so it rocks forward inflates a pad under the small of your back so that it is well supported, or oscillates several rhythmically swelling air bags so they relax your back.

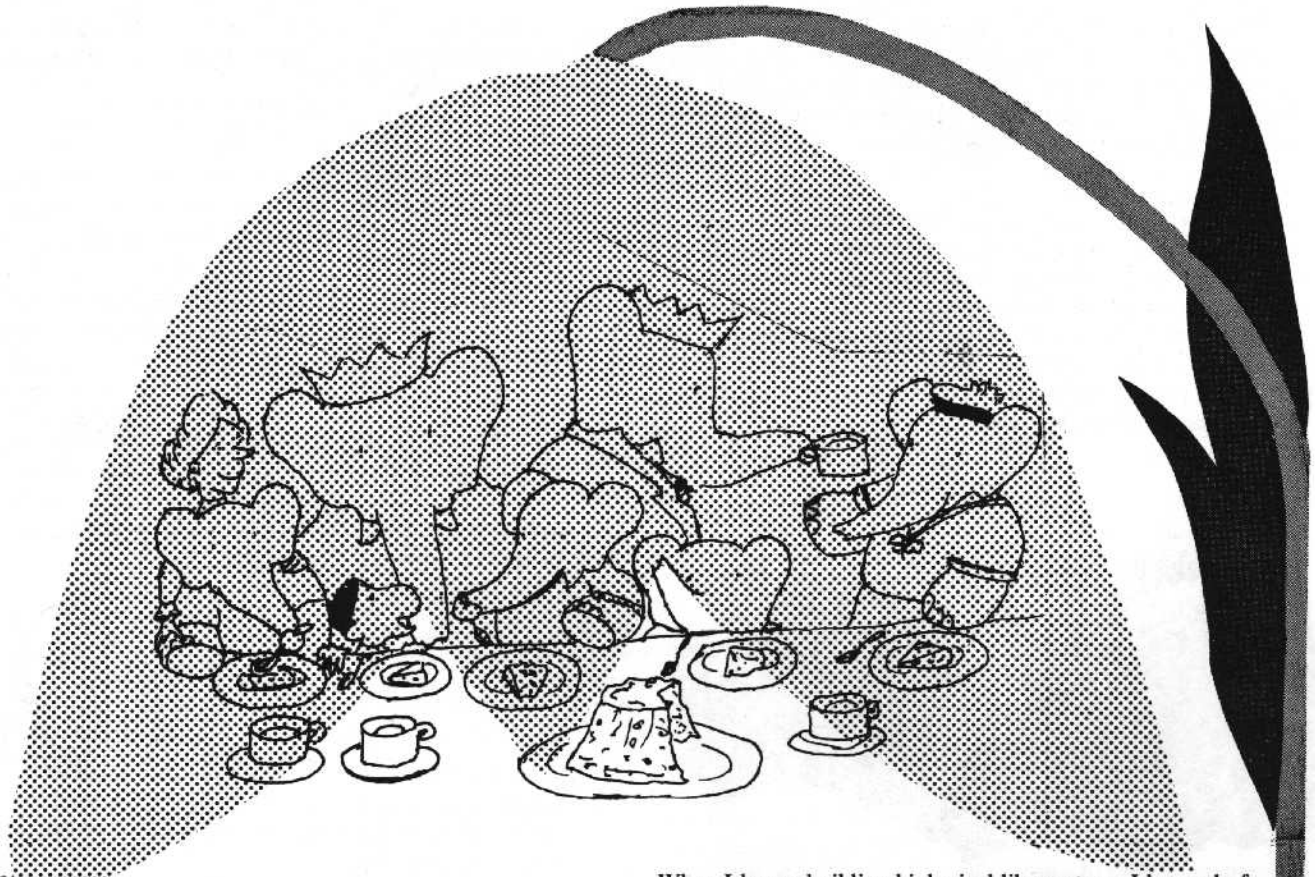
Or try telegrasp . . .

a system made of plastic foam, air which can expand/contract locally which tries to keep its movement organized in a manner relative to what's happening in its environment. Its movement may be mediated by telephone so its head is in Chicago, its tail in New York. If you massage its head, its head and tail will both react so as to try and maintain their connected organization in spite of your interference. The behavior in Chicago relates to which way you touch the lively system in New York and so the person grasping the head in N.Y. will receive information as to the style with which the tail was grasped in Chicago. Thus begins the technology of biological-like soft systems as a tool as well as a toy.

I speak of assembling a critical mass of toys made by people who are using them as a language to imitate and evolve their way of connecting softly with wind and shrubs and paramcium.

You won't understand as easily until you watch a time lapse image of a paramecium (a single celled critter) and try to build a much larger swimming thing that moves like a paramecium, whose image you can overlay on the image of the critter, now slowed or speeded as well as changed in size so you can imitate it even by overlaying an image of your own body as you try physically to dance in rhythm with its dance.

continued



My Worm:

I built a worm-like lively thing one day two years ago. I made it about a foot long and about 3" in diameter out of polyurethane. I had valves, actually fluidic-flip-flops on-off valves, and I attached them so each of the 5 segments swelled then contracted one after the other. I watched caterpillars and worms, and snakes to try to figure out how to do it. They were teaching me, and the more I tried to get my worm to put its stiff velvet pile feet down and push on the cloth so it would move, the more carefully I watched how creatures do it cause I had a problem—A way to figure out an alternative to wheels. Anyway I did get the peristalsic wormy motion and I did get it to move along. Then I figured a better way for my purposes, I would like someone else to build one—sometimes I imagine a lot of people getting into it.

Over that place you eat build a dome of velvet, get a beach umbrella . . . gently let it change the way it drapes with the frequency pattern or loudness of your voice; or build the chair that pays attention to your shifting about—a simple electric wiggle meter, a pressure switch, each time you wiggle you compute structurally like leaves reaching for sun, that can create more optimal forms of energy out of diffuse, less structured forms.

Build it to touch. The house you live in programs you . . . it is a command language . . . you are forced to make body decisions that do not optimize your energy . . . you are faced by soul murder where concrete and steel deny your body access to the energy flow of other plant and animal and living spaces.

When I began building biological like systems I learned of my need for the new space. But I like building a nest and toys so I thought it best to use my building and making and thinking and playing to learn again from other creatures.

Well, this is a taste of the space which has been our alternative to doing nothing while we climb out of the mechimax death trap.

Ecology Tool and Toy Network will happen if people can make a meadow of high variety participation, a forest of protective umbrellas under which seedlings can grow to know their effect.

I will enjoy communication by tape or any other exchange. But here I must leave off. If you have followed me into this space you may lead me through the enormous holes I see all around me filling them with energy/information—materials—time which as it resonates, converges, or dies, or provides the surprises which may evolve the means of survival.

We must leave the old space. There is no life there.

We are in very different territory.

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