

The Ecology of Knowledge
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Sunday, Recent History and Announcement

Yesterday, December 4th, 1988, we adjourned the Fall Workshop
for the Ecology of Knowledge Network.

The workshop was hosted by DOMAIN ECOdynamics Research Foundation.

The list of participants is appended.

The Fall Workshop is called the Viola Daniels Memorial Workshop,
named after the person who financially supported the first Fall workshop
for the Ecology of Knowledge Network.

The very first Fall meetings, in 1981, were titled:

"A Global Agenda for Change" and
"The Global Information Environment".

The title of this conference was **"Orthic Nature"**.

That means that three Fall workshop themes have been hosted
by DOMAIN ECOdynamics.

The first two meetings were held back to back, in November of '87.

"Orthic Nature" was called
the second Fall Ecology of Knowledge Network Workshop,
not meaning the second workshop, but the second Fall.

The third Fall workshop, the fourth theme,
will be held November 2nd, 3rd, and 4th, 1989, at Jakobstettel,
in St. Jacobs, Ontario, Canada.

Arrival Friday, November 2nd, from 2:00 p.m. to 5:00 p.m.

By announcing this meeting this far ahead of time,
it allows people to mark their calendar and commit the time.

Reflections and Resolutions

I am asking those who participated in this Fall meeting
to reflect upon it and to write about it.

One of the principles or policies upon which we agreed was
to **minimize formality**, but to **increase the extent**
and **the frequency of exchange**.

The Ecology of Knowledge
is / as
The Knowledge of Ecology

Another guideline was to **allow a multinucleated
or multicentered proliferation** of the Ecology of Knowledge Themes.

However, we agreed, we don't want to constantly duplicate
the process of orientation, again and again,
every time someone new gains an interest
in the Ecology of Knowledge Themes.

This means we need **some basic array of documents and communiqués**
to provide orientation.

That must be a group effort.

An **orienting bibliography** would also be a part.

Both audio recordings and professional video recordings were made
of the Fall '88 conference "**Orthic Nature**".

DOMAIN will seek grants to get those recordings edited and transcribed.

Invited Contributions

DOMAIN invites contributions from members
of the Ecology of Knowledge Network in order to pay for the work
involved in editing and transcription, if you would,
a subscription to the proceedings.

Video References

Three videos were used to support the Fall '88 conference:
The Global Brain, Do Scientists Cheat? and Banking on Disaster.
DOMAIN will access these three video documents
to make them available to members of the Network upon request.

New Edits of Conference Presentations

Kiyo's presentation

"Some Thoughts on the Idea of Being Orthic as a Human Being"
will be processed through yet another edition and will be held available
as part of the archives of the group.

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My presentation: "**To Ecoknow**"

will similarly be processed through another edit (other than the enclosed edit)
and be available.

Because Hans presented Maruyama's work on general systems,
we will also make his presentation and Maruyama's paper available
as part of the proceedings, as well as a transcription
of special presentations by Hila Charnoe, Shore Charnoe
and an undelivered offering, prepared by Erwin Ameyaw.

We just obtained an address for Maruyama and will write to him.

Connections

We would appreciate having the most up to date mailing information,
telephone numbers, FAX, telex, or computer network access -
to every member of the network.

This is to facilitate the greater extent and greater frequency of communication
we agreed upon at the end of the workshop session.

Infoglut

May I alert every member of the network to the **infoglut** problem?

Ray Jackson's paper on the theme: "Too much information and Too Little Time?"
presents many of the principles we need to heed.

I want to add some principles.

- 1) **Structuring** data, information and knowledge allows it to be read,
understood and remembered better.
- 2) **Legibility** is important, but equally so, is **format**.
Diagrams, illustrations, graphics, even animation,
are useful in distilling data, information, and knowledge.
- 3) Homer Hogan has written upon how to **understand** what you read.
Rudolph Flesch has written upon how to speak plainly
and how to write plainly - to be **understood**.
Better skills are required.

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If the Ecology of Knowledge Network expects to gain
and hold the attention of people who suffer from **infoglut**,
application of these principles must become a part of the increased extent
and frequency of communication.
Perhaps one nominated theme for the next Fall conference can be **structure**,
legibility, format, understanding, plain speaking and plain writing.

Indications of Interest

I do not want to use the attention of anyone
who does not want to read or think about the themes we process.
Neither do I want to use postage on people who no longer sustain an interest.
One indication of interest is a reply to the invitation.
A better indication of interest is attendance at the workshops.
An alternative indicator of sincerity is to contribute to the cost of gathering,
structuring and distributing Ecology of Knowledge information.
Another indication is pre-registration for the workshops.
We would like to make the workshops more and more accessible.
In order to do that, we need to reduce the costs.
On that account, DOMAIN will seek contributions,
grants and participants' support.

That suggests that we obtain the names of organizations,
agencies or people who may be interested in the themes
of the Ecology of Knowledge Network.
It also implies that we improve the presentation of those themes.
Likewise, it suggests that we may benefit by having the **resumes**
of the participants.
This becomes another indication of the degree of participation.

Please send the names and addresses of nominated invitees.
Please send the names and addresses of organizations, agencies or people
who may be interested in the themes.
Please send your written contribution to the proceedings.
Please send your resume, if you are willing to be named
in the solicitation of contributions or in the applications for grants.

The Ecology of Knowledge
is / as
The Knowledge of Ecology

Please send a contribution for a subscription - to cover the cost of postage,
envelopes, paper, gathering, structuring and distributing information in general.
Please send supporting archives, photos, mementos, etc.
Make all payments to DOMAIN ECodynamics Research Foundation,
as a host and as an archivist.

Ecology: The Discovered Extension of Physiology
to the Environment

When we say that **ecology is physiology extended to the environment**,
there is a sense of the extension being newly established.
That isn't so. So, instead, to indicate the case, we want to say,
ecology is the discovered extension of physiology to the environment.

There is a great tendency to describe physiology
as a flow of substances and as the communication
which is implemented by the dynamics of the flow of substances
and the pattern contained within and transmitted by the flow of substances.

Physiology is often thought of as a chemical affair.
Perhaps, at most, physiology is thought to be an electrical affair.
But physiology is also a flux of energy.
This flux of energy is also pattern containing and pattern conveying.
It is essential to understand **all chemical and electrical events**
are form artifacts of magnetic processes.
For every charge in motion there is a magnetic field.

We have long known that for every motion of a charge,
there is a correlated magnetic field.
I quote from Harold Saxton Burr and his reference to Northrop,
regarding the continuous (the field)
and the discontinuous (the particle-like) differentiations,
found in the book The Fields of Life (1972).

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"Atomic physics has had to be supplemented with field physics.
The point to be noted is that the particle both conditions
and is conditioned by its field.
Stated in more general terms, this means that continuity,
as well as discontinuity, is ultimate, that Nature is both one and many.

"In short, any local system in part, constitutes - and, in part,
is constituted in its behaviour by - Nature as a whole
and the physical field in which it is embedded.

"This discovery of the continuous field - or the one,
as causal factor conditioning the behaviour of the constituent particles
or the many - is a return to the Greek standpoint.

But the particles also determine the character of the field.

This is the modern viewpoint.

The reciprocal causal relationship between field and particle amounts
to the union of both viewpoints.

This is the fact that anyone with an eye to first principles
can see standing out amid all the complexities
of the confusions of current discoveries in physics."*

*Cf. F. S. C. Northrop, 'Science and First Principles'

The Real

We have regarded the chemical and, at most, the electrical as real.

We observe and measure chemical processes and electrical events
to evidence **the real**, the physical.

The magnetic correlations are there, but they are neglected or ignored.

We observe the brain - to learn about the mind.

Some even claim that the mind is what the brain does.

How can we know this? Do we mean **only**?

Do we mean the mind is what the brain does **only**?

Have we highly defined the relevant and the irrelevant?

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is / as
The Knowledge of Ecology

Extending the Boundaries of the Relevant

Remember the statements of Bronowski -
that the breakthroughs we have made in recent decades
have come from extending the boundaries
of the relevant further and further.

I do not mind making the claim that upon finding a footprint
in a soft and yielding substrate that the footprint indicates
that someone stepped there.

If I measure the force the substrate can support and if I know the temperature,
the precipitation, the winds, etc., that have prevailed
in the environs of the footprint, I may even be able
to state when the step which produced the footprint was taken.

I may be able to match the foot to the footprint.

I may be able to know the weight or the height of the person,
if I have the length of the stride (two or more footprints).

I may even be able to know the speed with which s/he walked.

This knowing requires learning the correlation
between the form artifact and the process which yielded it.

Then the form artifact becomes an indication or an indicator.

Even so with the chemical forms and the chemical
and electrical events of physiology and ecology
(the discovered extension of physiology to the environment).

The morphology and the anatomy of the brain
is a form artifact of the physiological processes
of brain growth and development.

But much related communication occurs outside the neural tissues.

Charges in motion are constantly re-posturing and re-positioning.

We are faced with the limits of certainty regarding the position
or the momentum of those charges,
which Heisenberg has helped us specify so precisely.

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The more we know about momentum, the less we know about position.
The more we know about position, the less we know about momentum.
This is because of the energy exchange involved in the process of observation,
the intrusiveness of observation, especially what we call objective observation.

In a sense, it is impossible to understand or to explain the ecology of knowledge
without understanding the nature of ecology.

In a sense, DOMAIN is principally concerned
with the knowledge of ecology.

DOMAIN offers the statement: ecology is the discovered extension
of physiology to the environment.

That would mean that the ecology of knowledge
is **the environmental physiology of knowledge**
(the relationship of intelligence or consciousness).

Physiology is the functioning of an organism.

An organism has an integrity, a wholeness, a unity.

An organism is systemic. An organism is also alive.

Life is responsive.

Life is characterized by reproduction, by growth and by development.

The functions of physiology are the functions of reproduction,
growth, development and responsiveness.

So, ecology is **the environmental functions of reproduction, growth,
development and responsiveness** of an entity with integrity,
wholeness, and unity.

There is an agent or there are agents of these functions.

The integrity, the wholeness or the unity of an entity
is dependent upon a flux of energy, a flow of substances
and the meaning-containing and meaning-conveying pattern
and information of that energy flux and substance flow.

Human behaviour has interrupted the flux of energy,
the flow of substance and the meaning-containing
and meaning conveying patterns carried by the flux of energy
and the flow of substances.

The Ecology of Knowledge
is / as
The Knowledge of Ecology

Categorical boundaries, disciplines, conditioned access,
the territorialization of knowledge, all of these kinds of obstructions
prevent the healthy ecology of knowledge.

Warmest regards,

Zee Charnoe