

PATTERNS

From the Editor:

Once again we find ourselves in the month of the vernal equinox—a point in Earth's annual orbit around Sun, at which the polar inclination is at right angles to a line drawn between Earth and Sun. This season has always given me a strange sense of balance perhaps because it is the time when the length of the day and the night are equal all over the earth. For me, it has also become a time of heightened realization that all humans, by virtue of sharing the same finite planet in the great expanse of the cosmos, are truly interconnected—that, in one way or the other, we are all sharing the same fate.

This felt sense of interconnectedness has its liabilities for those of us who have grown up in Western Europe and North America. The bi-polar nature of our world civilization—the industrialized nations that have become the “In World” and the everywhere else, that is seen and felt as the “Out World”—is changing profoundly in our age of worldwide, instantaneous communication. The movement of the poor and illiterate out of their rural areas toward the big cities in their own countries is more than a flight from poverty which has spilt over into a worldwide migration of homeless humans. It has also been a flight from anonymity, as Eric Sevareid pointed out back in 1991.

“To be ignorant in today's world is to be anonymous, and there is in motion now a huge thrusting of human beings toward the light of identity as well as security. These are two of the three cravings everywhere—security and identity. The third, in my own observation, is stimulation. It should not be underrated. In our own country the very news, the journalism, by print or electronics, becomes more and more

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Just So Much And No More...

by Donella Meadows

*In 1972 Donella Meadows was on the MIT team that produced the global computer model “World3” for the Club of Rome and provided the basis for the book, *The Limits to Growth*. The book made headlines around the world, and began a debate about the limits of the Earth's capacity to support human economic expansion that continues to this day.*

Donella died of meningitis February 20, 2001 at the age of 59. (See PATTERNS May, 2001) For 16 years she wrote a weekly column called “The Global Citizen,” commenting on world events from a systems point of view. It appeared in more than twenty newspapers, won second place in the 1985 Champion-Tuck national competition for outstanding journalism in the fields of business and economics, received the Walter C. Paine Science Education Award in 1990, and was nominated for a Pulitzer Prize in 1991. This is her last column.

The first commandment of economics is: Grow. Grow forever. Companies must get bigger. National economies need to swell by a certain percent each year. People should want more, make more, earn more, spend more—ever more.

The first commandment of the Earth is: Enough. Just so much and no more. Just so much soil. Just so much water, Just so much sunshine. Everything born of the Earth grows to its appropriate size and then stops. The planet does not get bigger, it gets better. Its creatures learn, mature, diversify, evolve, create amazing beauty and novelty and complexity, but live within absolute limits.

Economics says: Compete. Only by pitting yourself against a worthy opponent will you perform efficiently. The reward for successful competition will be growth. You will eat up your opponents, one by one, and as you do, you will gain the resources to do it some more.

The Earth says: Compete, yes, but keep your competition in bounds. Don't annihilate. Take only what you need. leave your competitor enough to live. Wherever possible, don't compete, cooperate. Pollinate each other, create shelter for each other, build firm structures that lift smaller species up to the light. Pass around the nutrients, share the territory. Some kinds of excellence rise out of competition; other kinds rise out of cooperation. You're not in a war, you're in a community.

Economics says: Use it up fast. don't bother with repair; the sooner something wears out, the sooner you'll buy another. That makes the gross national product go round. Throw things out when you get tired of them. Throw them to a place where they become useless. Grab materials and energy to make more. Shave the forests every 30 years. Get the oil out of the ground and burn it now. Make jobs so people can earn money, so they can buy more stuff and throw it out.

The Earth says: What's the hurry? Take

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a part of the daily entertainment of a somewhat bored society."

This was written before 9/11, a time when "the cold war" no longer provided us with an "evil empire" against which we, as a nation, could flex our military muscles. Somehow, we, meaning a national entity referred to as Uncle Sam, seem to need a threat to our security in order to assure our identity and stimulation as *the* dominant world power. The need for security becomes the theme played out in the evening network news no matter what channel we are tuned to, providing the stimulation of spine-tingling fear needed by a population feeling more and more anonymous.

The last issue of PATTERNS featured **The World Café**, a movement of people throughout the "In World" coming together to share with each other their concerns about the state of affairs stemming from the Affairs of State. The sense of identity with the people of the "Out World" is heightened as we recognize that anonymity and ignorance are the same. As long as the information that we and our children in school receive is designed "infotainment" and feeds our need for stimulation, our other needs, identity and security, are at risk. I'm reminded of the Hollywood film, *Network*, where in the final scenes, Peter Finch, the distraught Network Newscaster who rebels against the mental manipulation of the citizens, gets them to shout back, "We're mad as hell and we're not going to take it any more."

So it is time to recognize that a knowledge of systems dynamics is important for us to understand why things seem to be running out of control—why we feel helpless and left behind as we see the loss of innocent lives in the twin towers being avenged by further loss of innocent lives in Afghanistan. If we are not to lose our own sense of the value of life in general, we cannot remain an ignorant nor anonymous population. We have a special responsibility in a nation which prides itself on being a Democracy.

The systems word, *feedback* is used frequently in ordinary conversation and

your time building soils, forests, coral reefs, mountains. Take centuries or millennia. When any part wears out, don't discard it, turn it into food for something else. If it takes hundreds of years to grow a forest, millions of years to compress oil, maybe that's the rate at which they ought to be used.

Economics discounts the future. Ten years from now, \$2 will be worth \$1. You could invest that dollar at 7 percent and double it in ten years. So a resource 10 years from now is worth only half what it's worth now. Take it now. Turn it into dollars.

The Earth says: Nonsense. Those invested dollars grow in value only if something worth buying grows, too. The Earth and its treasures will not double in 10 years. What will you spend your doubled dollars on if there is less soil, dirtier water, fewer creatures, less beauty? The Earth's rule is: Give to the future. Lay up a fraction of an inch of topsoil each year. Give your all to nurture the young. Never take more in your generation than you give back to the next.

The Economic rule is: do whatever makes sense in monetary terms.

The Earth says: Money measures nothing more than the relative power of some humans over other humans, and the power is puny compared with the power of the climate, the oceans, the uncounted multitudes of one-celled organisms that created the atmosphere, that recycle the waste, that have lasted for 3 billion years. The fact that the economy, which has lasted maybe 200 years, puts zero value on these things means only that the economy knows nothing about value—or about lasting.

Economics says: Worry, struggle, be dissatisfied. The permanent condition of humankind is scarcity. The only way out of scarcity is to accumulate and hoard, though that means, regrettably, that others will have less. Too bad, but there is not enough to go around.

The Earth says: Rejoice! You have been born into a world of self-maintaining abundance and incredible beauty. Feel it, taste it, be amazed by it. If you stop your struggle and lift your eyes long enough to see Earth's wonders, to play and dance with the glories around you, you will discover what you really need. It isn't that much. There is enough. As long as you control your numbers, there will be enough for everyone and for as long as you can imagine.

We don't get to choose which laws, those of the economy or those of the Earth, will ultimately prevail. We can choose which ones we will personally live under—and whether to make our economic laws consistent with planetary ones, or to find out what happens if we don't.

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"I see in the near future a crisis approaching that unnerves me and causes me to tremble for the safety of my country.... Corporations have been enthroned and an era of corruption in high places will follow, and the money power of the country will endeavor to prolong its reign by working upon the prejudices of the people until all wealth is aggregated in a few hands and the Republic is destroyed."

***Abraham Lincoln, U.S. President
Nov. 21, 1864***

The Agora Project

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Part 1: The Evolutionary Context

The evolutionary journey of our species has been marked by three seminal events. The first happened some seven million years ago, when our humanoid ancestors silently entered on the evolutionary scene. Their journey toward the second crucial event took over six million years when — as the greatest event of our evolutionary journey — Homo Sapiens Sapiens emerged and started the revolutionary process of cultural evolution. Today, we have arrived at the threshold of the second revolution: the “revolution of conscious evolution,” when it becomes our responsibility to enter into the evolutionary design space and guide the evolutionary journey of our species. While during six million years our journey was a slow process of primarily biological evolution, driven by natural selection; with the human revolution some 40 thousand years ago, with the emergence of self-reflective consciousness, the evolutionary process transformed from biological to cultural.

Out of Eden, the First Time Around

Who am I? Where am I? Who are you? Why are we here? These are some of the existential questions human beings have asked since they have moved out from the blissful state of undifferentiated subconsciousness of “oneness with nature” and “oneness with wholeness.” Using the biblical metaphor, having eaten from the tree of knowledge, these were the same questions Eva and Adam asked as they found themselves out of Eden, having lost “innocence,” they faced the harsh reality that they had to make decisions about their existence.

At the dawn of consciousness, Homo Sapiens Sapiens took the first step into the world of self-reflection about the “I and thou,” “we and others,” and “we and nature.” This separation from nature and from “oneness with wholeness” marked the critical point of transcending “biological evolution” and entering the path of “cultural evolution.” After dozing for millions of years in the dreamless state of pre-consciousness, we awakened into the sunlight of humanness and discovered that we became responsible for our existence. Stepping through the threshold of consciousness marks the true miracle of the evolutionary story.

During the next forty thousand years of the evolutionary journey we saw the evolution of Homo Sapiens Sapiens (HSS). The first Generation of humans, the Cro-Magnons, the Magician Artist, prospered for some 30 thousand years. Then, some 10 thousand years ago, the agricultural revolution of the Second Generation brought forth the age of the farmers of the agricultural villages; the priests, the priestesses, the rulers, the tradesmen, the artisans, the engineers of the ancient civilizations; followed by the philosophers of the Greek City States, where democracy was born. The Second Generation of HSS saw the emergence of the great spiritual traditions. Then, some four hundred years ago, with the scientific/industrial revolution, the Third Generation of HSS emerged. Now we stand at the threshold of the emergence of the Fourth Generation.

*[The compressed story of the evolutionary journey is given in the book **Guided Evolution of Society: A Systems View.** (Kluwer Academic/Plenum Publishing, 2000),*

Part 2: The Evolutionary Challenge

With the emergence of evolutionary science in the middle of the last century, we became increasingly conscious of evolution. The science of evolution became the container of much of what the science of life is about. The explosive knowledge base of evolutionary science is manifested in a host of disciplines and fields of study. We now know how evolution has worked in the evolutionary design space, how the various life forms of our species have been tested in that space. We now know how evolution has

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the concept of negative feedback loops as self correcting mechanisms is commonly known now. But the concept of *positive feedback* is less well known. I remember it caused me some mental stretching when I began my studies of systems dynamics. How could something called “positive” be the source of so much trouble? We will consider this on P. 8.

In this issue we also describe **The Agora Project** developed by **Bela H. Banathy** and colleagues of the **Asilomar Conversation Community**. Like the World Café, this project involves the coming together of citizens as evolutionarily conscious individuals taking the responsibility for designing the society in which they choose to live. This is another in the growing movement of cultural creatives described in our January issue. I can't help thinking of the late Political Scientist **Hannah Arendt** who visited the USSR before the fall of the Berlin Wall. She reported that the “Intellectuals” were living as if they had democracy. When the wall was successfully toppled by the citizenry, surprising worldwide officialdom, I wondered if this “*living as if*” might have been the “trimtab” that so suddenly turned the giant Ship of State.

STCT member **Doreen Devorha** reminds us that when we were Girl Scouts we had to learn all the verses of the song, *America the Beautiful*, written by Katharine Lee Bates, a University student traveling in the United States in the 1800's. Doreen remembers this second verse as one that we seldom hear but really need to in these dark times.

*America! America!
God mend thine every flaw.
Confirm thy soul in self control
Thy liberty in law!*

*When the world seems large
and complex,
we need to remember that
great world ideals all begin
in some neighborhood.*

Konrad Adenaur

Surf Notes

In the January issue of PATTERNS we announced the international, inter-active conference, **Seeds of Wholeness: Science, Systems, Spirit** to be held June 6-9, 2002 in the Netherlands. The articles by the facilitators, Professor Ralph Abraham and Dr. Elisabet Sahtouris are now posted on the web site:

www.seeds-of-wholeness.org

Those by Prof. Beverly Rubik will be posted soon.

In addition an Email discussion has just begun on the ethical aspects of science in a globally interdependent world and how the spiritual and holistic approach relates to this. The initial submissions have already gone beyond the traditional concept of an outwardly imposed Ethic.

It is now possible to subscribe directly to the Email discussion on Ethics for Scientists in a Globally Interdependent World.

Contact: Co-Coordinator Lisinka Ulatowska at info@milieubewustzijn.nl for directions on sending contributions to <seeds@topica.com>

Network News

STCT Facilitator Terry Burik carried the ball for the STCT network at the 2002 ASCD annual conference in San Antonio, TX this month. The collaborative program, we suggested at the 2001 conference was a great success. Please check our website for more information and an index of past issues of PATTERNS.

www.haven.net/patterns/

*The function of art
is to do more than
tell it like it is -
it's to imagine
what is possible.*

— bell hooks

worked, what have been its operating principles. In one phrase, we have attained evolutionary consciousness.

Forty-thousand years ago the human revolution brought forth a state of reflective consciousness. The emerged Homo Sapiens Sapiens became aware of their existence: they knew that they know. Today the revolution of evolutionary consciousness brought forth another kind of reflective consciousness: we are now aware of our evolutionary history: we now know how we have become what we are and that the burden of this knowledge means that we must now take responsibility for our own continued evolution.

Part 3: The Agoras of the 21st Century

"Never doubt that a small group of thoughtful, committed citizens can change the world: Indeed, it's the only thing that ever does." —

Margaret Mead

Throughout history the truly fundamental changes in the life of humankind have not happened by the decree of rulers and potentates, or by laws constructed by governments. If anything, their efforts focused on maintaining their power by preventing change, or making small incremental adjustments if they absolutely had to. As Margaret Mead remarked, only small groups of thoughtful and committed people can change the world. Such has been the case in all the major faiths, spiritual movements, and the idea and value systems of humankind. So it will be now, as the Fourth Generation of HSS is emerging by the revolution of conscious evolution.

*[This part is adopted from the last chapter of
Guided Evolution of Society: A Systems View]*

The evolutionary quantum jump, the big change will happen in our myriad of communities, living and acting all over the evolutionary landscape. They will become the designers of conscious evolution. We have already left the darkness of the Third Generation and the new evolutionary landscape becomes visible in the emerging sunrise of the Fourth Generation. People are ready to reclaim their basic right to take part directly in decisions affecting their lives and taking responsibility for shaping their future. Starting with the family, groups of all kinds; neighborhoods, the systems in which people live and work, communities of committed citizens everywhere who share interest and purpose are ready to enter into the evolutionary design space. Some of them are now engaged in conscious evolution, and will in ever larger numbers engage in building the civic societies of the Fourth Generation. Embarking on their evolutionary journey, they map out their evolutionary path as they search for and formulate an ideal evolutionary image that will guide them into the future.

*I call these evolutionary designing communities
the "Agoras of the 21st Century."*

The citizens of Athene gave us great gifts. The idea of democracy, practiced in the "public sphere of the Agora" is the greatest of those gifts. It was the Agora where they brought democracy to life. This heritage inspires us as we embark on our evolutionary journey and aim to forge a way of life that will truly represent the democratic idea. We shall build evolutionary design communities and a society in which thousands and thousands of Agoras will bloom on the evolutionary landscape. These communities will keep our lives purposefully creative and focused and personally and collectively meaningful and rewarding. These New Agoras, the evolutionary design spheres of conscious evolution, will offer us the tangible and actionable functional contexts of self-guided evolution.

The Agoras; the Old and the New

The Agoras of classical Greece were the places of assembly in the city states. It was during the sixth to the fourth centuries B.C., during the highlight of the Greek classical period, that democracy was established and flourished in the city state of Athene. It was practiced in the "public sphere" of Agora, a place of about 26 acres, declared as an open public space. It was surrounded with plane-trees which provided shade and gave the Agora a feeling of a country look. The citizens of Athene held forty statutory Assemblies a year on the Agora. These meetings provided the citizenry the opportunity to

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deliberate and make decisions about issues that affected their lives and the life of their community. The Agora proceedings were governed by the democratic constitution, which was established in 507 B.C. by the Athenians. This constitutional arrangement brought the everyday citizen into a more active role in the service of the common good than any time before or since. Athenian democracy, thus, represents the widest possible diffusion of political power among its citizens, the widest ever practiced in human history.

The "Agora Concept" for the 21st Century.

The Athenian Agora existed as a most inspiring manifestation of society's life during the Second Generation HSS. It was a shining moment in the history of the human experience. Hannah Arendt holds that true democracy was lived only once, namely, as it was manifested in the life experiences of the Athenians. She suggests that it became possible only because the Athenians developed the concept and established the sphere of Agora, where they were able to make collective decisions about issues affecting their lives and their community. The Agora experience was a unique experience in the history of humankind. It became lost in the darkening and declining centuries of the life-cycle of the Second Generation.

Now we can bring the Agora concept and experience back to life again. We have arrived at an evolutionary stage when we have acquired evolutionary consciousness, and — as a consequence — we have become responsible for guiding our own evolution. To exercise this responsibility, we are in search of public spheres, new Agoras, where we can not only (re)establish true democracy, but bring it alive as a shared and lived democratic culture. We are challenged to reconstitute a method and procedure by which our institutions could act and establish arrangements by which we can govern ourselves: establish a cultural democracy. And, most significantly, the New Agoras can hold up for us democracy as both a guiding idea and a process by which to work in the evolutionary design space.

Part 4: The Agora Challenge

The challenge of building Agoras for the 21st Century is presented to us individually and collectively. It becomes our responsibility to learn to initiate as well as how to take part in evolutionary design communities. The opportunity provided in this program offers learning and application experiences that enable participants to advance toward becoming builders of New Agoras.

For more information contact Bela H. Banathy, BHbanathy@aol.com

In Those Years

*In those years, people will say, we lost track
of the meaning of we, of you
we found ourselves
reduced to I
and the whole thing became
silly, ironic, terrible:
we were trying to live a personal life
and, yes, that was the only life
we could bear witness to*

*But the great dark birds of history screamed
and plunged
into our personal weather
They were headed somewhere else but their beaks
and pinions drove
along the shore, through the rags of fog
where we stood, saying I*

— Adrienne Rich

Surf Notes (continued)

Ceek out this website.....

Creating Preferred Futures

www.planet-tech.com/ for samples of what is being done around the world by ordinary citizens.

From: **Paths of Learning Resource Center News: February 2002**

Paths@lb.bcentral.com

comes a review of an important new book:

Nurturing Our Wholeness: Perspectives on Spirituality in Education
by John (Jack) Miller, and Yoshiharu Nakagawa. Publisher: Foundation for Educational Renewal. 2002

Among the contributors to this volume are David Purpel (The Moral and Spiritual Crisis in Education) writing in his distinctly passionate style on the prophetic tradition, Rachael Kessler (The Soul of Education) on Eros and the Shadow, Ron Miller (What Are Schools For?) on Quaker education, and Jeffrey Kane (editor of Encounter) on the Waldorf school approach. The collection also considers the ideas of Thomas Merton, Martin Buber, Aldous Huxley, Krishnamurti, Rabindranath Tagore, Aurobindo, J. G. Bennett, and the American Transcendentalists, as well as Buddhist, Taoist, and Tantric traditions. While these views represent a great span of time, belief, and geography, there are common core themes underlying their messages, themes relevant to the theory and practice of education in our culture today. *Nurturing Our Wholeness* aims to recover profound sources of insight and wisdom that have been lost in modernist schooling.

(326 pages)

To order call 1-800-639-4122, order online by going to:

<http://www.great-ideas.org/jmiller.htm>

*If questions of a different kind
can be asked,
then Nature will respond
in a new language.*

Beverly Rubik

Announcements

ReVisioning: Building Community for a Sustainable Future

April 26-28, 2002,
Macalester College
St. Paul, Minnesota

*Featured Speakers: David Korten,
Michael Albert, Marjorie Kelly, Ronnie
Dugger, Polly Mann, Mel Duncan*
Panels, workshops, and more . . .
www.justview.org/revisioning.html
ReVisioning@yahoo.com
612-827-1894

This unique training combines the Systems expertise of Horizon, the experiential learning processes of Engage! Interact, and the internationally—recognised experience in organisational development and systems thinking of Dr. Margaret Wheatley.

Systems Thinking challenges the way we organise ourselves. Rather than devoting time and energy to detailed advanced planning, and then breaking our backs to meet that plan, a Systems approach allows us to open up to the reality of uncertainty and unpredictability - releasing the creative potential of all who are involved

American Society for Cybernetics 2002 Conference

*Ecological Understanding II:
Design and Conversation*
June 13 -16

Baskin Visual Arts Studios
University of California, Santa Cruz
Conference co-chairs: Frank Galuszka
Paul Pangaro

Conference organizer: Joey Shepp
For further information see:
<http://www.asc-cybernetics.org/>

*The ecology is both an example of design
and a victim of our not designing. We will
ask: What cybernetic models bring under-
standing of ecology?*

*Given a cybernetic frame, what are the rela-
tionships between conversation and design?
How can we hear new feedback without be-
ing held hostage to old?*

*Our conference proposes to debate this as-
sertion: Design is successful in proportion
to its conformance with the systemics of
ecology. Or maybe this:*

*Design is successful in proportion to its con-
formance with the cybernetics of ecology.*

A Call to Action

by Dennis Kucinich

Editor's Note: The January issue of PATTERNS emphasized the importance of conversing together as citizens in a free and democratic nation. If, instead, we isolate ourselves in our living rooms watching the news delivered nightly, we are in danger of becoming a nation of sheep. These are dangerous times in the evolution of our nation brought about by the fear engendered daily by well-trained spin doctors.

There is a religious saying that "the truth will set you free..." As we religiously pay our income tax on April 15, we might reflect on these truths:

- *The United States ranks first in the world for military spending and exportation of weapons.*
- *The amount of money the United States spends on its own military adds up to 40 percent of the world total.*
- *The U.S. spends more money on its military than the combined total of the nine countries ranking next in military expenditure.*

Is this what we really need to do to keep us safe in our communities?

There are very few officials in Government who have expressed concern as cogently as the U.S. Representative from Ohio. We feel it is important to share excerpts from his speech, "A Call to Action" delivered by Representative Dennis Kucinich (D), author of HR 2459, a bill to establish a Department of Peace which would provide the necessary negative feedback for the Department of State, the Pentagon, the Department of Defense, the CIA, FBI, and the new agency of Home Security. (see p. 8, Reflections on Positive Feedback.)

If you believe that humanity has a higher destiny, if you believe we can evolve and become better than we are, if you believe we can overcome the scourge of war and someday fulfill the dream of harmony and peace on earth, let us begin the conversation today. Let us exchange our ideas. Let us plan together, act together and create peace together. This is a call for common sense, for peaceful, non-violent citizen action to protect our precious world from widening war and from stumbling into a nuclear catastrophe.

The climate for conflict has intensified, with the struggle between Pakistan and India, the China-Taiwan tug of war, and the increased bloodshed between Israel and the Palestinians. United States' troop deployments in the Philippines, Yemen, Georgia, Colombia and Indonesia create new possibilities for expanded war. An invasion of Iraq is planned. The recent disclosure that Russia, China, Iraq, Iran, Syria, North Korea and Libya are considered by the United States as possible targets for nuclear attack catalyzes potential conflicts everywhere.

These crucial political decisions promoting increased military actions, plus a new nuclear first-use policy, are occurring without the consent of the American people, without public debate, without public hearings, without public votes. The President is taking Congress's approval of responding to the September 11 terrorists as a license to flirt with nuclear war.

"Politics ought to stay out of fighting a war," the President has been quoted as saying on March 13, 2002. Yet Article I, Section 8 of the United States Constitution explicitly requires that Congress take responsibility when it comes to declaring war.

This President is very popular, according to the polls. But polls are not a substitute for democratic process. Attributing a negative connotation here to politics or dismissing constitutionally mandated congressional oversight belies reality: Spending \$400 billion a year for defense is a political decision. Committing troops abroad is a political decision. War is a political decision. When men and women die on the battlefield, that is the result of a political decision. The use of nuclear weapons, which can end the lives of millions is a profound political decision. In a monarchy there need be no political decisions. In a democracy, all decisions are political, in that they derive from the consent of the governed.

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In a democracy, budgetary, military and national objectives must be subordinate to the political process. Before we celebrate an imperial presidency, let it be said that the lack of free and open political process, the lack of free and open political debate, and the lack of free and open political dissent can be fatal in a democracy.

We have reached a moment in our country's history where it is urgent that people speak out. Neither individuals nor nations exist in a vacuum, which is why we have a serious responsibility for each other in this world. It is also urgent that we find those places of war in our own lives, and begin healing the world through healing ourselves. Each of us is a citizen of a common planet, bound to a common destiny. So connected are we, that each of us has the power to be the eyes of the world, the voice of the world, the conscience of the world, or the end of the world. And as each one of us chooses, so becomes the world.

Each of us is architect of this world. Our thoughts, the concepts. Our words, the designs. Our deeds, the bricks and mortar of our daily lives... which is why we should always take care to regard the power of our thoughts and words, and the commands they send into action through time and space.

Each of us is architect of this world.

Some of our leaders have been thinking and talking about nuclear war. In the past week there has been much news about a planning document which describes how and when America might wage nuclear war. The Nuclear Posture Review recently released to the media by the government states:

1. Assumes that the United States has the right to launch a pre-emptive nuclear strike.
2. Equates nuclear weapons with conventional weapons.
3. Attempts to minimize the consequences of the use of nuclear weapons.
4. Promotes nuclear response to a chemical or biological attack.

Some dismiss this review as routine government planning. But it becomes ominous when taken in the context of a war on terrorism which keeps expanding its boundaries, rhetorically and literally. The President equates the "war on terrorism" with World War II. He expresses a desire to have the nuclear option "on the table." He unilaterally withdraws from the ABM treaty. He seeks \$8.9 billion to fund deployment of a missile shield. He institutes, without congressional knowledge, a shadow government in a bunker outside our nation's Capitol. He tries to pass off as arms reduction, the storage of, instead of the elimination of, nuclear weapons.

We can make war archaic. Skeptics may dismiss the possibility that a nation which spends \$400 billion a year for military purposes can somehow convert swords into plowshares. Yet the very founding and the history of this country demonstrate the creative possibilities of America. We are a nation which is known for realizing impossible dreams.

Ours is a nation which in its second century abolished slavery, which many at the time considered impossible.

Ours is a nation where women won the right to vote, which many at the time considered impossible.

Ours is a nation which institutionalized the civil rights movement, which many at the time considered impossible.

If we have the courage to claim peace, with the passion, the emotion and the integrity with which we have claimed independence, freedom and equality, we can become that nation which makes non-violence an organizing principle in our society, and in doing so change the world.

That is the purpose of HR 2459. It is a bill to create a Department of Peace. It considers the conditions which cause people to become the terrorists of the future—issues of poverty, scarcity and exploitation. It is practical to make outer space safe from weapons, so that humanity can continue to pursue a destiny among the stars. HR 3616 seeks to ban weapons in space, to keep the stars a place of dreams of new possibilities, of transcendence. We can achieve this practical vision of peace if we are ready to work for it.

People worldwide need to meet with like-minded people, about peace and nuclear disarmament, now. People worldwide need to gather in peace, now. People worldwide need to march and to pray for peace, now. People worldwide need to be connecting with each other on the web, for peace now. We are in a new era of electronic democracy, where the world wide web, numerous web sites and bulletin boards enable new organizations, exercising freedom of speech, freedom of assembly, freedom of association, to spring into being instantly. The spirit of freedom.com is such a web site. It is dedicated to becoming an electronic forum for peace, for sustainability, for renewal and for revitalization. It is a forum which strives for the restoration of a sense of community through the empowerment of self, through commitment of self to the lives of others, to the life of the community, to the life of the nation, to the life of the world.

Now is the time to think, to take action and use our talents and abilities to create peace: in our families, in our block clubs, in our neighborhoods, in our places of worship, in our schools and universities, in our labor halls, in our parent-teacher organizations.

This is the work of the human family, of people all over the world demanding that governments and non-governmental actors alike put down their nuclear weapons. As we understand that all people of the world are interconnected, we can achieve both nuclear disarmament and peace. We can accomplish this through upholding an holistic vision where the claims of all living beings to the right of survival are recognized. We can achieve both nuclear disarmament and peace through being a living testament to a Human Rights Covenant where each person on this planet is entitled to a life where he or she may consciously evolve in mind, body and spirit.

**Too much proximity to folly
tends to make it
seem normal...**

Edward Abbey

Book Review

Tools for Thought

by C.H. Waddington

Jonathan Cape Ltd., London, 1977

This is a posthumously published work intended as a popular guide to the new ways of perceiving and thinking about the world. Waddington stresses the need today to be able to think about complex systems and has brought together the many suggestions for ways to do this in "straightforward English words," not the mathematical symbols often used. The great number of visual illustrations of the ideas, executed by the artist Yolanda Sonnabend, makes this a unique addition to the systems literature. The complexity of problems requires the ability to develop intuitive pictures rather than precise delineation. The emphasis then is on images of ideas, both verbal and pictorial, and as such may be of help to those who, in the current mode of speech, are predominantly right-brain oriented.

Confronting a complex of complexes which is the "world problematique" requires complex tools and the ideas presented here cover a wide range of ideas. Structure and Process in complex systems is explored as well as Feedback, Stabilization, Information Theory and Theory of Games. These are not simple concepts and in many areas the reader must spend time chewing on difficult problems. *Becoming* a "systems thinker" is far different than *learning about* systems thinking.

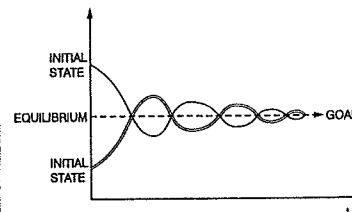
Of interest is the introduction of the term *chreod* in reference to homeoretic systems. The process of *homeorhesis* as distinct from the process of *homeostasis*, ensures the continuation of a given type of change. "Homeorhesis" means preserving the flow. Continual change of a system along a certain pathway is best viewed as a stream bed running along a valley. The term "chreod" (derived from the Greek which means 'necessary path') is useful in describing the many types of change going on in society which once they have become well started in a certain direction, it is very difficult to divert them. Thus different processes are described as having more or less "chreodic character."

Reflection on Positive Feedback

by Barbara Vogl

We are all using the term, feedback, in relationships with others. It is the term given to inter-relational information we exchange with each other and our environment. The cold outside prompts us to wear warm clothing when we leave our heated house. This information about the temperature outside is the feedback which allows us to keep our bodies at a comfortable temperature consciously. This same feedback process goes on automatically at the level of our physiology allowing us to maintain a range of body temperature necessary for life. Mechanical thermostats are examples of this negative feedback process also which, like sailors in a sailboat carry out responses to the environment, the wind and sea, in order to keep the boat on an even keel.

As the illustration from the International Encyclopedia of Systems and Cybernetics (Charles Francois, Editor. ISBN 3-598-11357-9) shows us, negative feedback converges toward a goal. It is a good thing.



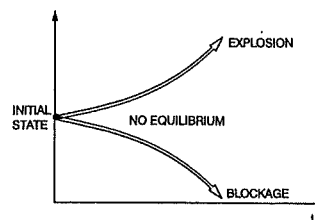
Negative Feedback. Convergence toward a goal.

But what is the process of positive feedback? Joel de Rosnay describes the different kinds of feedbacks in this way:

"In any feedback (as its name shows), informations about the results of some transformation or action are sent back at the entry of the system as data. If these new data tend to make easier or accelerate the transformation in the same direction as the former results, we have a positive feedback; its effects are cumulative." (For example, think of the famous dialogue between Laurel and Hardy about "who's on first base?")

In positive feedback there is an exponential growth such as we have seen in the arms race between the U.S. and the USSR during the cold war, a system that contributes to what we are now seeing in the relationship of escalating violence between the Israeli Government and the Palestinians.

Positive feedback can also result in decrease as for example in the relationship between the modern growth economy and the natural limits of our planet. As the illustration shows positive feedback leads to growing divergence.



Positive Feedback. Growing divergence.

A positive feedback left free can only lead to destruction of the system. If a system is to maintain itself through time, it must be controlled by negative feedbacks. We can see that the process of negative feedback serves to regulate any overexuberance of divergence. Both are necessary processes to the maintenance of dynamic stability or homeostasis. Thus, as the poets have always told us, Life is a Dance.

So this fluctuation between the negative and positive feedback processes can be seen in the relationship between the Israeli and the Palestinians in which the killing is met with more killing (positive feedback), not some action that would temper the killing (negative feedback) to resolve the conflict. An attempt at negative feedback is made by the Israeli and Palestinian peace activists joining with those others such as Rep. Kucinich's bill in the United States Congress to establish a Department of Peace as a long term regulator. (see p. 6)

There is a second order or double feedback in order to move out of this present destructive loop. This is what is in process now as the United States and other European and Arab nations negotiate together, thus enlarging the parameter of the problem situation (systemic action between Israel and Palestine now includes other national powers).

Thus when the system's parameter undergoes a variation, the first reaction of the system is processing the information it receives about the change according to their existing regulators (act of killing terrorists and terrorist response). In this way it becomes obvious that in order to better their responses to the change, those responses based on the regulators, as they are, have become unsatisfactory. This process is basic for learning and is the purpose of the double feedback.

So we find there are many kinds of feedback. Self-normative feedback is a learning process by which the trainee corrects and restricts his/her repertory of actions by perception of his/her own performance. We have referred to Second Order Cybernetics in the thinking of Heinz von Foerster (PATTERNS May 2000) which places emphasis on the observing systems rather than the observed systems in circular feedback loops so necessary for ethical new learning.

As the world becomes more complex and interconnected it is important to have a systems view to guide us in our understanding and action. We have moved to seeing Feedback as more than just an elemental behavioral mechanism providing us with an error correcting device. That belongs to our past mechanical age and is useful in a world of missiles and smart bombs designed to hit targets. We need to see the much wider effects of killing each other with the latest mechanical toys produced by the Modern Corporate Growth Economy. Today we need to become familiar with the unforeseen feedbacks that appear after some time in our complex natural systems which have been manipulated by humans.

Charles Francois writes; *"Most human interventions in natural systems take place without a satisfactory understanding of the intricacies of the same. There is an implicit belief that some supposedly isolated interaction can be modified without serious side effects. Such a belief is a consequence of the hitherto dominant paradigm of lineal sequential determinism.....One of the most dangerous aspects of this problem is that unforeseen consequences emerge only after a time lag, sometimes a very long one. Moreover, they may diffuse in unsuspected ways to many parts of the system. As a consequence, they can be quite difficult to control when they surface, specially when their true nature is still not yet clearly understood."*

Information that attempts to predict disturbances before they actually affect the system is called Feedforward. Information about past events can in many cases be ordered and used to forecast possible future events. Such a knowledge can then be used to try to correct the course of these forecasted events. The concept is fuzzily transferred from engineering. Feedforward implies creating a buffer device used to damp possible wild fluctuations. We are certainly in great need of "buffer devices" in our increasingly violent world today and I would like to refer our readers to the review of the book, *Tools for Thought* on p. 8. It is a very useful and readable book designed to help us become systems thinkers who can act as "buffer devices" in the socio-political- economic world.



**The difficulty lies, not in the new ideas,
but in escaping the old ones, which ramify,
for those brought up as most of us have been,
into every corner of our minds.**

John Maynard Keynes

I think of the arms race begun during the "cold war" with the USSR and continuing now throughout the world as an example of runaway positive feedback. But how Waddington's description of "chreod" differs from positive feedback concepts lies in the view of an *epigenetic landscape* in which there are branching points of the valley which can be seen ahead of the system. Management of a problem situation might be to push the system at the proper time to divert an unwanted trend. This is a matter of visualization and is a good example of my beginning statement about the book. We reiterate the statement above, *"The complexity of problems requires the ability to develop intuitive pictures rather than precise delineation."* (I am tempted to point out that this ability has traditionally been credited to the feminine side of our natures and note the dominance of very masculine men among our world-wide decision-makers)

This is a small book of 239 pages. The *References and Suggested Reading* at the end of the book gives the sense of entering into a friendly conversation with a wise and experienced old man. In each chapter, which collectively covers a wide range of subject matter from Philosophy, Ethics, Methodology, and the Behavioral Sciences, he offers us chreods leading us on. In spite of the complexity and difficulties of perceiving and thinking about the problems, I felt very comfortable with this book and I would have liked to have known this man.

Barbara Vogl

***A patriot must always
be ready
to defend his country
against his government.***

Edward Abbey

Challenging Assumptions in Education: From Institutionalized Education to a Learning Society
by Wendy Priesnitz
Alternate Press, Ontario, Canada, 2000
altpress@live.ca

This personal account by a teacher struggling with “the contradiction between rejecting public schools and yet believing in the need for public education” strikes at the heart of the conflict so many educators feel today.

Author of the best-selling book *School Free*, Priesnitz writes with integrity and courage noting that, “*Challenging assumptions is not easy. Like most other people, my upbringing and my schooling taught me to accept what I was told by my parents, my teachers and everyone else in my life. ... I was a good little girl and got good grades in school. ... I was supposed to know my place. ... so as a relatively naive 19 year-old, I went to teachers’ college. I was a good girl there too and got good grades once again. I did especially well at lesson planning and bulletin board decorating. And I actually got quite excited about filling little heads with important facts.*”

Sound familiar? Like so many teachers in her first job teaching she found her time spent trying to keep the students in the classroom where they didn’t want to be. It was then she did what she says she should have done in teachers’ college — she began thinking “about how people learn as well as what we need to learn and why.”

The book looks at five assumptions, one being that schools have a noble purpose. Instead, she gives ample evidence that our schooling has led us to misunderstand the difference between the power to do something and the force that makes us do something.

“It is easier to tell us what is good for us and sell us something than to have us meddling in education, politics or economics. ... The object of political debate in a schooled society is not to discuss via a two way dialogue, but to persuade, in the same way that children sometimes wheedle and pout and throw tantrums in order to get their way.”

Barbara Vogl

Communities of Learning:

We Are Our Stories, Forever in the Telling

by Lisa Lindberg

Most people, even in their wildest imaginations, can hardly conceive of the abundant smorgasbord of opportunities looming just over the horizon. We need to set people free to create it.

-- Nobel Laureate in Economics Milton Friedman

This proposal does not follow the usual lines of discourse on education; I neither discuss nor champion any particular teaching method, style, or technique. Nor do I advocate a new educational component or program, hoping this could have a system-wide, transforming effect.

Instead, this proposal is about living — about cultural evolution and social thought: how people think and feel about being alive on this planet, the images and stories people use to convey these impressions to each other, and how a society’s education system both arises from and reinforces these impressions.

Our world’s old story about life went something like this : “Human beings are incapable of managing their own activities and therefore require direction from ‘above.’ This was thought to be an incontestable, theological truth, delivered complete with Earthly agents claiming to extend this authority — religious, civil, economic. This old story legitimized organizing human activities using the lower-order intelligence model of the authoritarian, top-down, command-and-control, hierarchical institution.

Today, our modern society has outgrown that old story. Deeper insights into what it means to be fully human, coupled with sweeping changes in the nature of daily life, are ushering in a new era with new images to live by. These images are calling into being an entirely new story of life using an organizational model of higher-order intelligence.

We can use complexity science’s model of an adaptive system for the guiding, higher-order intelligence this new story needs to fully emerge. A complex-adaptive system uses the operating principle of self-organized, free initiative and free choice. The resulting new story contains within itself the cues for creating the human ecology settings and stages for its acting out. This new arrangement both welcomes and cultures the vitality and adaptivity of an education relevant for today’s world.

We human beings are storytellers. Across all eras of time and in every geographic locale, human cultures develop images and stories which form their mythologic truths about life. These become the foundation for a culture’s worldview — the filtering structures of our inner world through which we take in, process, and make meaningful sense of the world around us.

Every culture attempts to legitimize its worldview and to perpetuate itself by creating a framework to communicate its values to its members, especially to its impressionable, moldable, youngest members. A culture uses the images and stories from its worldview as the building blocks for its educational framework. A culture puts its members through its educational system during their formative years to prepare them for their roles as adult members in that culture.

By the mid-20th Century, the Industrial Age worldview had sown the seeds of its own decline, i.e. the technological means for dramatically increasing the speed and fluidity of communication and transportation. The increase of fluidity in these areas severely challenged the legitimacy of the single-centered, authoritarian, hierarchic, power-pyramid model of social organization. The old worldview had reached its limits, became stretched out of shape, and its legitimacy began to wane.

We began witnessing a transformation in social organization from a model reflecting lower-order intelligence toward one reflecting higher-order intelligence. The still-emerging model is multi-centered, fluid, complex-adaptive, and self-organized. This model is founded on the basic dynamic of building relationships of equality, respect, and mutual volition. This dynamic of relationships functions both between individuals and between groups, serving to guide the new possibilities arising from freely-formed connections.

(continued on next page)

The Communities of Learning model takes these transformed, general images about life and uses them to systemically reorganize both the physical and social architecture of education. The Communities of Learning approach proposes instead using the higher-order-intelligence model of the complex-adaptive system : voluntary, decentralized, self-organized communities. It proposes we create vibrant, relevant, community marketplaces of learning for citizens of all ages.

To make this transformation, the Communities of Learning approach offers both a conceptual framework and concrete steps to reorganize the channels of education. Use the following principles to guide the transformation of both the physical and social architecture of education:

1. *Base all educational decisions on the premise that learning is fundamentally about process, connection, and flow. It is the process of people forming approaches to and relationships with life -- to what it means to be alive on this planet. Use this basic premise to encourage the process building connections and relationships with :*

- Other people
- Fields of knowledge
- The physical world -- both built and natural
- Their inner process of learning
- Their own fulfilling paths in life
- Their own inner Selves

2. *Re-conceptualize the roles of the players in the learning process : Teachers , students, families : Transform into starring roles, into free agents having total, unfettered freedom in all aspects of the learning process*

Administrative staff: Transform into supporting roles, offering guiding advice and general assistance for the activities.

3. *Separate the learning activities of both teachers and students from the politics of certification __from the requiring, conferring (or withholding) of certification, degrees, and diplomas.*

4. *Re-conceptualize the physical infrastructure of education to support a rich marketplace of learning. Move away from closed-system, centralized institutions with their huge buildings and entrenched, paternalistic bureaucracies. Instead, develop multi-centered networks of learning (drawing on existing programs such as local public libraries)*

For more information:

lisa@netdeva.com

www.onelist.com/community/LearningCommunities

www.CreatingLearningCommunities.org

You are invited to join us as a member of the ASCD sponsored Systems Thinking and Chaos Theory Network

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