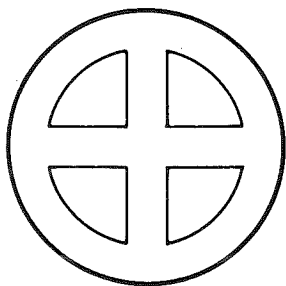


C-1905

“Creating Alternative Futures: The Role of the Individual”

Hazel Henderson

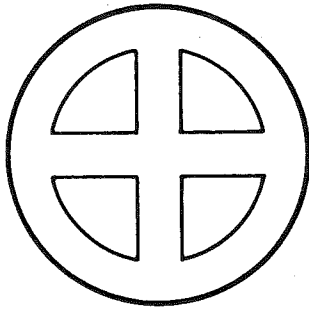


Lutheran Brotherhood
Colloquium on the Church
in Future Society

The Woodlands Inn, Houston Texas • January 29 - February 2, 1979

 LUTHERAN BROTHERHOOD

Concordia Seminary Library
Fort Wayne, IN



Lutheran Brotherhood Colloquium on the Church in Future Society

The Woodlands Inn, Houston Texas • January 29 - February 2, 1979

The Lutheran Brotherhood Colloquium on the Church in Future Society was a conference of 250 Lutheran leaders and ten nationally-known futurists. It was the first such event ever held by Lutheran Brotherhood, a fraternal benefit society serving Lutherans nationally, and was the result of consultations with several U.S. Lutheran church bodies. Among the concerns which were expressed by the church bodies in these consultations was the need for more disciplined emphasis on anticipated future changes as they influence congregational life.

The purpose of the Colloquium was to increase awareness of anticipated future change so that appropriate planning can be effected to strengthen the Lutheran church, especially at the congregational level.

All U.S. Lutheran church bodies were invited to take part in the planning, and nine participated by sending representatives, including six national presidents. Ten Lutheran church bodies were represented among the participants in the Colloquium.

The Colloquium was organized around five themes:

	Theme	Presentors
Monday	The Reality of Change	Alvin Toffler
Tuesday	Problems of the Future	John Platt Theodore Gordon Jürgen Moltmann
Wednesday	Human Values & Potential	Willis Harman Jean Houston
Thursday	Defining the Task	Warren Bennis Hazel Henderson Robert Jungk
Friday	The Role of Leadership	Harlan Cleveland



Hazel Henderson

Co-Director, Princeton Center for Alternative Futures, Inc.

Ms. Henderson is noted as an author, social critic, internationally published futurist as well as an activist and founder of many public interest organizations—she describes herself as auto-didact. In addition to exploring cultural and social change in industrial societies, Ms. Henderson has also focused her efforts on developing conceptual rationale and organizing citizen participation in science and technology issues, critiquing traditional economic systems and proposing new models for managing steady-state economics. She has advised many non-profit organizations, including the Conservation Foundation, the Ford Foundation Energy Policy Project and the National Science Foundation.

She is a guest speaker at many corporate management seminars on social policy and volunteer advisor to many citizens organizations on environmental and consumer protection, corporate accountability, alternative futures and appropriate technology. She has helped organize or found many new agencies designed to influence federal policy at the interface of economics, environment, and social policy. She holds an Honorary Doctorate of Science from Worcester Polytechnic Institute for her work in alternative economics and technology. Ms. Henderson also holds numerous professional appointments, some of which include: director, Council on Economic Priorities and Worldwatch Institute; member, U.S. Association for the Club of Rome; advisor to the Cousteau Society and the Environmental Action Foundation; and member of the Advisory Council of the U.S. Congress Office of Technology Assessment.

Ms. Henderson has appeared as a guest lecturer before numerous national organizations and universities in the U.S., Australia, Japan, Hong Kong, Singapore, Malaysia, Kenya, as well as in Europe and Canada. She has also been an invited guest on the NBC "Today Show" and ABC "Good Morning America Show". As an author, her work has appeared in *The Nation*, *Saturday Review*, *The Futurist*, *Business Economics*, *National Observer*, *Financial Analysis Journal*, *Business and Society Review*, *Public Administration Review*, *Harvard Business Review*, *Columbia Journal of World Business*, *Annals of the American Academy of Political and Social Science*, *Mercurio* (Rome), *Futurology* (Geneva), *Mainichi Shimbun* (Japan), *The Ecologist* (U.K.), *Alternatives* (Canada), *Australian Financial Review*, *American Management Review* and other journals. In addition to contributions to many anthologies, she has recently published a book entitled *Creating Alternative Futures: The End of Economics*.

Hazel Henderson: "Creating Alternative Futures: The Role of the Individual"

Co-Director, Princeton Center for Alternative Futures, Inc.
Princeton, New Jersey

Delivered on February 1, 1979 at the Lutheran Brotherhood
Colloquium on the Church in Future Society

Since it is my assignment to focus on the role and responsibility of the individual in creating social change, I will also share with you my value commitments and goals and some of the life circumstances that I have tried to create in order to implement them as best I am able. Like most futurists, I also perceive mature industrial societies undergoing a profound transition. In fact, I believe that it is a confluence of at least six historic transitions of differing periodicities. (See Figure 1)

The first transition is from the Petroleum Age to the now-emerging Solar Age. This is a very rapid cycle, most of which has been confined to this century. The second transition is from the Fossil Fuel Age (coal, gas and oil), which began in the early 1700s in England and will peak some time around the year 2100 and be exhausted around the year 2300, according to geologist M. King Hubbert's no-longer controversial estimates. [see chart on p. 51 of Creating Alternative Futures, Henderson, 1978]¹ This transition from human societies living on the earth's stored fossil fuel "capital" to its daily "income," i.e. solar-driven energy either collected directly for thermal use or converted by solar cells into our electricity, by photosynthesis of plants into stored carbohydrate and hydrocarbon energy in biomass; or that stored in falling water, ocean waves, thermal currents and tidal movements or in the world's climate machine as wind power, will mean an economic transition for all societies. This transition is already underway from economies that have maximized material production, mass consumption and planned obsolescence, based on nonrenewable resources and energy, to economies that minimize waste by recycling, reuse and maintenance based on renewable resources and energy, and which are managed for sustained-yield, long-term productivity. Farmers understand sustained-yield productivity; now we have to teach it to economists.²

The third transition is the transition of industrialism itself, as it matures and makes this painful resource-based shift, whether in Britain (where it all began), West Europe, North America, Japan (where the process was vastly accelerated), or in the Soviet Union, whose younger industrial economy also shows the same signs of "plateauing" as it runs into the same inexorable energy crunch, and the same sort of social bottlenecks in managing the complexity that is one of

CONTEMPORARY CRISES AS THE CONFLUENCE OF 6 MAJOR TRANSITIONS OF DIFFERING PERIODICITIES

(Schematic after M.King Hubbert)

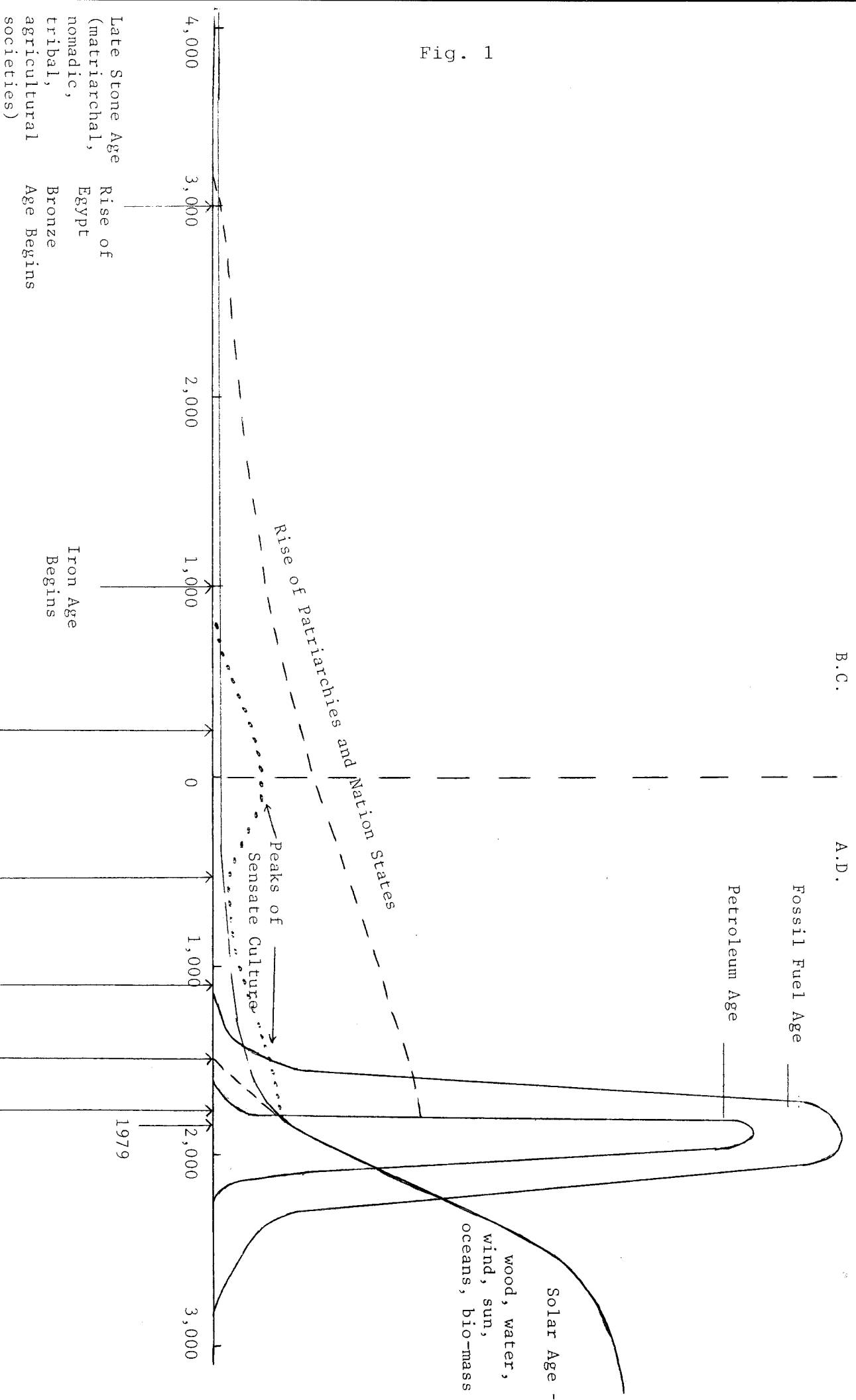


Fig. 1

the most characteristic features of industrialism. The situation in the Soviet Union today is very well summarized in the current issue of "Fortune" magazine [January 29, 1979, pp. 90-95]. And even though theoretically socialism is supposed to preclude environmental costs and pollution, in practice, of course, ecological ignorance on the part of commissars and central planning committees can be just as environmentally devastating as that perpetrated by ecologically-ignorant corporate executives and their economists.

I have termed this transition stage of mature industrialism as it exhausts its potential as a sociotechnical system, the "entropy state" (in contradistinction to Daniel Bell's linear extrapolation of a post-industrial state, which is seen as flowering out of the increasing labor productivity of the agricultural and the manufacturing sectors). I define the "entropy state" as the stage reached when these societies' complexity and interdependence, their scale and centralization, and the unanticipated "side effects" of their technology finally become unmodelable and therefore unmanageable (in spite of all the new bureaucracies they create to try to address the proliferating complexity). All of these efforts to coordinate anarchistic economic activities and conflicting technological applications; to clean up the mess left by mass production and consumption; to ameliorate the social problems and care for the dropouts, the addicts, the disabled workers, and the other social casualties; to mediate the conflicts, sustain ever-larger security forces against theft and crime, keep the air breatheable and the water drinkable; all lead to the burgeoning of social and transaction costs, which finally exceed the actual production and rather like a machine, the society begins to have a less and less favorable ratio of useful work to friction and heat loss, if you will.³ In fact, these social costs (for example, the \$2.6 billion in claims and the \$22 million in cleanup costs of the Love Canal chemical dump in Niagara, New York or the \$60 billion of public costs of smoking and alcohol addiction)⁴ are still added to the Gross National Product (GNP) rather than being subtracted. In fact, they are probably the only fraction of the GNP that is still growing! Thus, these mature industrial societies wind down of their own weight just as a physical system in a state of maximum "social entropy." And thus they face the basic biological problem of evolution: growth creates structure, then structure inhibits further growth, or as the dinosaur's extinction demonstrates: nothing fails like success.

Mature industrial societies can all be seen today, drifting to a soft landing in accidental "steady states,"

with inflation masking their declining condition. The Morgan Guaranty Bank in one of its recent letters very accurately, if accidentally, portrayed the absurdity of the GNP measured-growth efforts by pointing out last year that the U.S. economy had passed the \$2 trillion GNP mark. However, they added that whereas it had taken the country 200 years to reach the first trillion, that the second trillion had been added in only seven years; but unfortunately two-thirds of that was inflation!⁵ Similarly, in my recent critique of Edward Denison's now-famous study for the U.S. Commerce Department (which showed that the social costs of pollution control, crime and workplace safety had cost the GNP some \$40 billion in the past ten years), I simply pointed out that we have overstated "growth" and "productivity" for decades and now all of these social bills have come due and have to be paid.⁶

In a recent paper by French information theorist Jean Voge, entitled "Information and Information Technologies in Growth and the Economic Crisis" (1977), I found to my delight that my concept of the entropy state is rigorously stated. Voge used thermodynamic equations to verify that the narrow logic of efficiencies in production scale are now meeting diminishing returns, since production gains are arithmetical but generate information requirements at a geometric rate, thus leading to the familiar explosion of bureaucracy. Voge demonstrates what I and E. F. Schumacher had asserted:⁷ that when industrial economies reach a certain limit of centralized, capital-intensive production they have to shift direction to more decentralized economic activities and political configurations, using more laterally-linked information networks and decision-making if they are to overcome the serious information bottlenecks in excessively hierarchical, bureaucratized institutions.

Now I've referred to this change of direction as a scenario of "spontaneous devolution," where citizens begin simply recalling the power they once delegated to politicians, administrators, and bureaucrats and the power they delegated to business leaders to make far-reaching technological decisions, as Charles Lindblom explored in his book Politics and Markets: The World's Political and Economic Systems (1977). The growth in all mature industrial countries of citizen movements for consumer and environmental protection, corporate and government accountability, human rights and social justice; the drive for worker self-management; the growth of the human potential movements, the self-help health care movement; "small-is-beautiful" technologies; alternative lifestyles; and the rise of ethnic pride and indigenous peoples, as well as

aspects of the tax revolt are all parts of this "spontaneous devolution" of old, unsustainable structures.⁸

The fourth transition is the conceptual transition. As the 300-year-old logic undergirding industrialism's rise also reaches exhaustion, the logic stemming from Galileo, Bacon, and Descartes and continuing with Newton, Leibniz and the Enlightenment philosophers: reductionism, materialism, technological determinism, and instrumental rationality, will all fail us. Even the fierce ideological battles of the 19th century between capitalism, socialism, and communism which continue today will realign, since it is no longer only a matter of who owns the means of production, but also the need to address the ecological, social and spiritual dilemmas posed by the means of production themselves! And of course Marxists are having a very hard time with this.

The fifth transition is a cultural transition. No one has grasped this cultural transition better than the great sociologist Pitirim A. Sorokin, who was chairman of the department at Harvard for many years, in his wonderful book Social and Cultural Dynamics (1937-41)⁹, who saw the late 20th century cultural crisis as the decline of Sensate Culture which has been on the rise since the 15th and 16th century. Sorokin theorized and gathered voluminous evidence to validate the concept that human cultures express themselves in three major styles: the Sensate where truth is that which is empirically validated by the senses; the Ideational where truth is revelatory and values are absolute and concerns are otherworldly; and the Idealistic, those periods where both material and otherworldly concerns and systems of truth and knowledge are balanced and integrated, producing the periods of highest human cultural achievement. Sorokin plotted these three cultural styles in art, music, literature, jurisprudence, technology, systems of knowledge, patterns of war and internal conflict in dozens of charts, covering millennia from before Christ to the 20th century. His description of the decline of Sensate Culture is uncannily predictive of what we see today. Let me quote from this work written in 1937: "Western culture is entering the transitional period from its Sensate supersystem into either a new Ideational or Idealistic phase; and since such epoch-making transitions have hitherto been periods of the tragic, the greatest task of our time evidently consists, if not in averting tragedy, which is hardly possible, at least, in making the transition as painless as possible." "What means and ways," asks Sorokin, "can help us in this task?" "The most important," he said, "...consists in the correction of the fatal mistake of the Sensate phase, and in preparation for the inevitable mental and moral and sociocultural revolution of Western society."

Sorokin then went on to talk about five essential steps that might be taken. First, the realization that we face no ordinary crisis, but one of the great transition phases, which he had charted in previous cycles of human history. This diagnosis can help us devise remedies of adequate scope, so that our "sociocultural physicians" will not treat dangerous cultural pneumonia with "surface-rubbing medicines," as if it were a cold. Second, he said, recognition that the Sensate form of culture is not the only great form of culture, nor free from many defects and inadequacies, and that Ideational and Idealistic cultures are also great, but different. Three, when one of these great forms of culture begins to show signs of exhaustion (as of course they all do after some period of dominance), then the shift should not be opposed but welcomed as the only escape from agony, collapse or mummification. Four, he said, the concerted preparation for the shift implies the deepest re-examination of the main premises and values of Sensate culture, rejection of its now-exhausted "pseudovalues," and a re-enthronement of some of the real values it discarded. Among these are the balanced, integrated conceptions of sensory and supersensory reality. "From the integralist standpoint," he said, "the present antagonism between science, religion, philosophy, ethics and art is unnecessary, not to mention disastrous" (Sorokin, *ibid.* p. 317). And fifth, he said that such a transformation of the mentality of western culture must naturally be followed by a corresponding transformation of social relationships and forms of social organization. "Neither capitalism nor socialism nor communism nor totalitarianism; neither mechanical individualism nor mechanistic collectivism; aristocracy nor democracy; is an absolute value. Even the values of the nation-state and private property have outlived their period of greatest service to mankind. Superficial measures of economic or political readjustment will not suffice; the remedy demands a change of the contemporary mentality, a fundamental shift in values and the profoundest modification of our behavior."

The sixth one of my six transitions, is also the decline of systems of patriarchy that have predominated in most of the world's nation-states for some 3,000 years as the early matriarchal societies were superceded. The nation-state, like all patriarchal systems, is hierarchically structured, based on rigid division of labor (as well as polarization of sex roles), manipulative technology, instrumentalist, reductionist philosophies, the control of information and on competition both internally as well as between nations. Unlike the earlier, smaller city-states and fiefdoms, these nation-states have proved to be extremely unstable, as Toynbee showed, perhaps somewhat like large, unstable macromolecules. Indeed, nation-states are quintessential

expressions of patriarchal dominance systems, from the family to the workplace, the community, academia, the church and all levels of government. They are characterized by extreme polarizations of conceptual, bureaucratic, academic, intellectual work in centralized, urbanized, metropolitized complexes, and rendered operational by the large statistical aggregates of the formal, monetized GNP economy versus the manual tasks, rural and agricultural life, and the unpaid work of the nonmonetized "informal economy" of household production, community life, gardening, canning, repairs, home fix-up, nurturing, parenting, volunteer community service and all the cooperative activities that permit the over-rewarded, competitive activities to be "successful."

Today, patriarchal modes are also reaching logical limits. Hierarchies become bottlenecks. Excessively conceptual governance becomes divorced from reality, as we find in Washington or Brussels or Moscow where bureaucrats try to govern by manipulating statistical illusions, using highly-aggregated, averaged data that do not fit one single real-world case or situation; while corporate executives make momentous global, technological and economic decisions using highly-selective marketing studies, isolating "effective demand" from real-world need as well as social and ecological impacts. Similarly, patriarchal academic hierarchies in science and technology have systematically excluded women, denied them patents, admission to professional societies and access to journals. And this indeed may be one of the reasons that part of the crisis is now the machismo, big-bang technology syndrome. This has been well documented in Elise Boulding's wonderful book, The Underside of History (1977). And of course patriarchal domination was discussed by Frederick Engels in his paper "On the Origin of the Family, Private Property and the State," written in 1884; August Bebel, founder of the German Social Democratic Party in his Women and Socialism (1885); as well as a continuous stream of non-Marxian criticism, including Charlotte Perkins Gilman's Women and Economics (1898), and up to Betty Friedan's Feminine Mystique (1964), Kate Millet's Sexual Politics (1970), and Adrienne Rich's Of Woman Born (1976).

So I am operating on the premise that we are indeed at a very significant turning point in human affairs, and that there are both elements of the cyclical-type crises, such as the cultural ones Sorokin described, but also that these have converged with others that are real and based in the resource transition we must now make, and the catastrophic effects that our psychotic technology is now producing, from

mental illness to environmental cancer incidence and the stress aspects of pathological industrialism itself. Thus, only a drastic reconceptualization of our entire situation will adequately address our need, and it is to this emerging politics of reconceptualization that I have committed myself. At such a cultural crisis point, one is forced into the personal mode since external cultural reference points become lost. Personal responsibility is thus thrust upon us.

Many cannot bear the burden of living through a period of cultural collapse. As individuals in mass-consumption cultures, we are used to simple yardsticks of dollar-measured "progress" and personal "success," and the chief taboo of industrial culture has been the fundamental exploration of questions of human purpose, meaning and identity, and indeed our own finiteness and death. It is painful for all of us, since we can no longer externalize responsibility for the resource-allocation patterns and the justness of our society by deferring to what we now see as major rationalization systems of our Enlightenment and Industrial eras: Lockean individualism, private property (we should remember the Latin root privare reminds us that the original private property meant that which was denied to the group), technological determinism and our "free market" ideas about economics. In other words, we can no longer continue legislating markets and rationing by price, and then blaming God for the outcome, just as Warren Bennis described us blaming God for our technological inadequacies (in other words, the Invisible Hand which Adam Smith found so convenient).

As Walter Wink of Auburn Theological Seminary noted recently, "Greed has become institutionalized: the economic system is now greedy on our behalf." I think that Bayard Rustin put it better: "We have socialism for the rich and rugged individualism for the poor," and of course, the President's budget reaffirms that. In fact, we now have an economic system that operates on many of the Seven Deadly Sins: greed, pride, sloth (i.e. labor-saving technology), lust, selfishness, and whose major logic is based on competition. Our economic system does not even recognize that humans are also cooperative, nurturing, enjoy giving as well as getting, and are capable of transcending self in the millions of routine volunteer activities and the daily acts of altruism. And unfortunately, our mass media also operate under the narrow, economic maximizing rules, and they, too believe that reporting such "good news" is less lucrative than the old profit formula: "rape, riot, and ruin sells newspapers."

Naturally, my own personal interest in metaphysical reconstruction and helping to change the worldview and knowledge paradigms of industrial societies necessitates a very long view of such a project. I do not expect to see any results in short run, or even in my lifetime since these are glacial historical processes. If one is to adopt this sort of outlandish goal, then there are some other imperatives. One must change one's own values; a personal self-help project of deprogramming oneself of many of the goals and values our culture promotes: income maximization, institutional careerist goals, material consumption as an end in itself or for display, conventional ego rewards, and competitive individualism. Of course, some of these are deeply instinctive motivating forces, and need to be sublimated in much more useful and appropriate ways than those portrayed in the incessant media bombardment of advertising.

One must not only construct a personal lifestyle that allows one to pursue this type of concern, but one must also in an interdependent society find relevant means for political expression and action. What does one do after getting right with oneself, after one has achieved, in the Buddhists' lovely term, "right livelihood" but extend concern to one's community and country and begin to act politically as well? Too many people today (and many of my friends in the decentralist movement) feel that virtue now resides in those who head for the hills, build a passive solar house and relinquish all interest in the evils of Washington, D.C. We cannot so easily evade the responsibility for the power we allowed to drift up to the federal level. It's simply too dangerous to ignore. And for me, politics has meant citizen and public interest group organizing around issues of technology assessment and corporate accountability, and trying to act as a one-woman truth squad for the economics profession!

But one must also sustain oneself physically, and if true to one's life project, this may render one unemployed! And so for me and my partner this has meant being self-employed and keeping income requirements to a minimum. If one is employed as a full-time futurist by an institution, however worthy, one soon falls into the habit of viewing the future with the interests of that institution in mind. I believe that to be able to look at the future rather dispassionately and from many different angles, one must try to put the culture and its institutions at as much of a distance as possible in order to examine them and write about them without fear: so I am a sort of "cottage industry futurist." It also helps to publish one's own material, which we are learning to do! Thus, my personal,

idiosyncratic, value-laden brand of futurism led me to re-examine the reigning sophistry of our time -- economics -- and how it rationalized and institutionalized a value system which was appropriate for a small band of pioneers facing an empty continent, but which in today's crowded and polluted world is literally killing us.

Economics, because it has monopolized the debate over resource-allocation and claims to define, in various epochs, what is valuable, is the most crucially-placed of contemporary disciplines. Since economics is defined as the discipline dealing with production, distribution and consumption of wealth, it is also the quintessential expression of Sensate values. In fact, the emergence and separation of the discipline of economics from philosophy and politics coincides with Sorokin's mapping of the emergence in western Europe and the increasing domination of Sensate culture over the medieval, religious and other-worldly values that were rigidifying during the 14th and 15th centuries. Up until the 16th century there was no isolation of purely economic phenomena from the fabric of life. As Polanyi documented in his Primitive, Archaic and Modern Economics (Doubleday Anchor, 1968), throughout most of history basic resources (food, clothing, shelter, medicine, etc.) were produced for use-value and/or redistributed within tribes and groups according to the two basic value systems, reciprocity and redistribution.

In his book Dahomey and the Slave Trade (1966), Polanyi examined an economic value system of ceremonial redistribution by the king. In his Trade and Market in Early Empires (1957), Polanyi illustrated the normative basis of economics by outlining the framework for studying economies that were not industrialized or organized by market institutions. In The Great Transformation (1944), Polanyi studied the rise in 17th century England of the novel economic organizing principle of institutionalizing a national system of markets and the gradual spread of this unusual economic interlinked global "marketplace." Polanyi's systemic view enabled him to predict with great accuracy that this attempt to optimize production and exchange would simply incur concomitant social disruption and environmental damage.

Today's economics, narrowly focused as the pseudo-science of production and consumption and distribution of wealth, is facing daily crises and even public ridicule as it attempts to devise tools to manage the multidimensional nonlinearity of complex industrial societies. Here's a quote from Treasury Secretary Michael Blumenthal, September 11, 1978, in "Fortune": "I really think the economics

profession is close to bankruptcy in understanding the present situation, before or after the fact." In the same desperation a new high-level group of 30 economic leaders from U.S., Europe and Third World countries was formed by H. Johannes Witteveen in Paris on January 10 of this year. One of the group, Geoffrey Bell of the United Kingdom, stated, "The world economic system is going wrong in so many different ways at once that no single government, banker or economist can find the answer alone. We need an interdisciplinary approach." (What is so extraordinary is that this is simply a statement of nonlinearity, and the group is not interdisciplinary at all, but extremely homogeneous: i.e. all dominant-culture, male -- one token woman, and from the world of economics, business or finance.)

As late-stage, Sensate, industrial cultures attempt to restructure their knowledge they will now need to turn to the repressed, alternative ways of thinking being locked in the perceptions of their subordinated groups. It will almost be impossible to find innovative ways of handling today's crises from within the dominant culture. Today's crises, whether designated as "economic," social, or "ecological," are all crises of perception. Only a return to holism and broader mapping can rediscover the place of economic activity as it is embedded in society and culture, as well as incorporating the new ecological view and the boundaries and parameters that economics has been able to ignore for most of the rise of industrialism, as it used up the earth's "capital." Economists are now being forced to abandon their absolutist claims and their policy preeminence as the search for more inclusive values begins anew.

This yearning for new absolute values is evident today in the breakdown of traditional western religions and morals and the rise of new cults and community and personal loyalties. Walter Weisskopf writing in Alienation and Economics (Dutton, NY, 1971, p.33) said, "As soon as the value system begins to disintegrate for whatever reasons, the social hierarchy and class stratification begins to be questioned. The groups remote from the old value system begin to clamor for higher status. This is what the proletariat did, and what the disadvantaged groups are doing today." This search goes deep into our western European past, and widens into Oriental wisdom and insights, as in The Tao of Physics¹⁰ and in my and E. F. Schumacher's concepts of an excessively yang-oriented value system emphasizing instrumental rationality, empirical knowledge, competition, expansion, aggression. So the search for new values includes reviving the yin qualities and the nurturing, cooperative, cohesive patterns. The ideas of reviving the yin and yang symbolism are also useful at this time.

Periodicities and cyclic time are re-emerging as healing elements, whether in Freudian terms as a "return of the repressed," or in Sorokin's terms of predicting the return of Ideational or Idealistic cultural forms. "The shift will be led first by the best minds of Western society. Its best minds will become again new Saint Pauls and Saint Augustines, and great religious and ethical leaders. When this new stage of catharsis is reached, new creative forces will emerge in the ordeal of Western society, and usher in a constructive period of integralist culture." (Sorokin, op. cit., p.702). Sorokin shows that a similar historical pattern existed when other great cultural crises were overcome: at the end of the Old Kingdom in Egypt; in the Graeco-Roman periods; in the Babylonian crisis of 1200 B.C.

Theologian Paul Tillich noted that in the classical philosophical tradition, "ontological reason" was the broad ability to grasp and transform reality in the cognitive, aesthetic, practical, and technical function of the human mind. This broad definition of reason, which fused the cognitive, technical and intuitive, and was fired by emotion and intellectual love, drives the mind toward the true and the good. (Tillich, Systematic Theology, Vol. I, p. 72). Naturally, such values as the "true" and the "good" cannot be precisely defined or formulated. But their survival value in human evolution is precisely their interdeterminacy, as heuristic devices to allow humans to continually correct their models to fit new environmental conditions and the continual changes which are the only certainty we know.

However, the response to such heuristic moral absolutes and to worldly uncertainty in western culture since the time of Descartes has been to split the moral value debate off into the realm of spiritual and purely subjective concern and reduce uncertainty in the worldly realm by means of empirical science, which could be utilized for prediction and control over the forces of nature. These cultural responses have now led to the moral dilemma that C. S. Lewis was telling us about way back in the 1940's: humans themselves have become the objects of their own manipulation (e.g. genetic engineering) and are now approaching as a species, an evolutionary cul-de-sac, as they progressively despoil and destroy their own ecological niche. Walter Weisskopf, in discussing this sort of historical splitting of rationality, points out that if one defines science together with knowledge in the broadest sense, such knowledge should be applicable to values, as was demonstrated in the Greek polis and the High Middle Ages. "Cognitive rational systems can be alloyed with values, and reason can be used in pursuit of the good. But during the last two

hundred years in the West, the normative was eliminated from cognitive knowledge and the latter demoted to a value-free, or rather value-empty science. However, the normative is an essential aspect of human existence and if repressed, it will return and manifest itself in one form or another.... The idea that values are merely the result of non-rational factors is an intellectual aberration of modern civilization and a phenomenon of decay." (Alienation and Economics 1971)

Value shifts and the emergence of a politics of reconceptualization have begun in most mature industrial societies, as Ronald Inglehart has shown in his book The Silent Revolution (1978), where he sees in the new citizen movements a new group of post-materialist, post-consumers of growing political competence and social awareness, and on which I have also commented in my Citizen Movements for Greater Global Equity (International Social Science Journal 1976). These movements are all very similar. They involve traditional socialist concerns for human welfare and delimiting private economic power, concern for ecology, for the human control and redirection of destructive technology, for personal self-determination and growth, an end to racial, social, sexual and economic injustice, together with maximum citizen participation in government and worker participation in industry. Many of these new political parties, including the Values Party in New Zealand, Les Vertes in France, der Gruenen in Germany, and the worldwide antinuclear coalitions, also realize that the new politics must recognize global interdependence and the need for sharing the world's resources more fairly, as well as more frugal consumption in industrial societies by the rich. These new values are obviously driven by the emerging resources and population-pollution crunch and its inevitable inflation as well as satiation of many with mass consumption as an end in itself.

So as we know, social values are supported by a coherent world-view and belief system. As Weisskopf emphasizes (op. cit., p. 33), any set of social values is maintained by psychosocial repression of those modes of experience, expression and behaviors not conforming to the dominant value system. For example, hedonism and sexual freedom were repressed in puritanical societies; market- and profit-oriented behavior is repressed in the U.S.S.R. and other eastern bloc countries. Thus, social systems are buttressed by a conforming reason which legitimates and justifies their particular profile of value expressions and repressions, in a complementary relationship. These reciprocal expressions and repressions are also mirrored in the

individual, which is why individual change and cultural change are simply two sides of the same coin. Theodore Roszak illustrates this integral relationship between social and individual change and action in his brilliant new book Person/Planet. As individuals change, social systems are undermined since critical reason emerges and turns against the expressed value system and sets the stage for the return of the repressed values.

This distinction between conforming reason and critical reason is a key to today's processes of social transition and to many of the earlier transitions in Europe as the 16th and 17th century mercantilism, feudalism and the divine right of monarchs gave way to the liberalism and social revolution of the Enlightenment, which ushered in the period of classical and "laissez-faire" economics, individualism, representative government and property rights. This Enlightenment period, as well, was midwived by a crescendo of critical reasoning against feudalism and aristocracy. "Natural law," always evoked as a higher court in periods of social criticism, was evoked again as a more comprehensive frame of reference from which to argue and engulf the old values and as a way of displaying their limited relativity to the newly-proclaimed absolute.

As the new values of liberalism, free markets, individualism, and representative governmental and bourgeois institutions became entrenched, a new body of conforming reason developed to buttress them. Again, "natural law" was evoked, this time to serve the conforming reason. Adam Smith claimed that it is the propensity in human nature to barter which makes laissez-faire economics essential. Today as liberal, "laissez-faire," free-market values and institutions are losing their organizing power, a new wave of critical reasoning has emerged, also evoking new concepts of "natural law" as a higher court for indictment of these old values: ecology; planetary awareness; a new political world order based on biogeological regions, ocean ecosystems, climate and meteorological processes, concepts of population carrying-capacity, conservation of nonrenewable resources (as the earth's capital) and sustained-yield utilization rates for renewable resources (earth's income); as well as the new views of the nature and potential of the emergent, fully-actualized human person (Jean Houston, T. Roszak, G. Leonard, et al.). All of these new invocations of natural law and the powerful imagery they conjure up are now arrayed in accusation of the limited theories of classical economics (which was fairly consistent with the population-resource ratios of its time), as was the empirical reductionism of Descartes, the atomistic individualism of John Locke, the

classical mechanics of Isaac Newton and Gottfried Leibniz' differential calculus, the equilibrating "laissez-faire" theories of Francois Quesnay and Adam Smith.

I believe that while the dangers today are enormous, the long-term opportunities for the human species to evolve on this planet in accordance with its operating principles, which are cooperation, honesty, peacefulness, sharing, and love, are still awaiting us. However, the next 10 years may be a very crucial period, as we have now moved rapidly from the Soaring Sixties to the Stagflation Seventies and approach the Economizing Eighties. Since the shift is not yet widely understood as a basic shift of our resource base and our entire productive systems to renewable-resource, sustained-yield systems, there is much confusion. Leaders all over the world still talk of "consuming our way back to prosperity" and dosing the economy with tax cuts to stimulate demand, while exhorting us to believe that there is an energy crisis. The new edict of "fighting inflation" is an economic mystification, since what we call "inflation" is just all the social, psychological and ecological variables economists leave out of their models coming back to haunt us! I have speculated for many years as to whether there is any such thing as profit which is not won at the expense of an equal but unrecorded debit entry in some social or environmental ledger, or passed on to future generations (for example the huge uncounted costs of decommissioning nuclear reactors, which our children will pay in some twenty years).¹¹

Obviously the huge shift in production systems we must make will cause painful grinding of gears and readjustments. However, renewable-resource economies can provide useful, satisfying work for all citizens as we move to more personal-scale economics and combine our precious capital and resources with more people in flatter-structured enterprises, smaller businesses, cooperatives, land trusts and localized economies of scale that higher transportation costs will now mandate. But such new societies of the Solar Age cannot provide windfall profits, large pay differentials, huge, permanent war machines and costly space adventures; nor can they supply us with all the frivolous, unnecessary and downright harmful goods we have come to expect as our birthright. We will have to make political choices between hundreds of brands of headache and sleeping pills, cigarettes, protein hair shampoos for pets, expensively-advertised and packaged junk foods, sweetened cereals and candy; and the need for public spending on decent schools, health care and maintenance of essential services in our cities. When we begin to account accurately for all

of the social costs of these frivolous "goods," (or "bads," as E. J. Mishan calls them) we will soon realize that not only can we not afford them, but we don't want them anyway. As long as advertisers are allowed only to bring us the "good news" about these products and do not have to tell truthfully of the "bad news," of the social and environmental effects that harm us, then individuals will not be able to make informed choices, either politically or in the marketplace. If corporations are allowed to continue manipulating media information by portraying our choices narrowly, as between going along with their priorities or being thrown out of work and freezing in the dark, or forcing workers to choose between their jobs and their health, then our national debate will remain cloudly and intergroup conflicts will fomented.

The new challenges to our material expectations will leave many still less fortunate Americans frustrated and disoriented, and increasingly despairing of our political system. As we see in the new budget, the cities are the target for the budget-cutting, as well as the unconscionable proposals to break faith over Social Security entitlements earned long ago. Cutting federal spending is an empty shibboleth unless we cut the parts that are special-interest boondoggling and some of the vast tax subsidies to corporations, military contractors, energy industries such as coal, oil, gas and nuclear, which American taxpayers have subsidized in the past 10 years to the tune of \$134 billion;¹² as well as investment tax credits, which are just as often used to further automate and destroy jobs as they are to create them, as recent Joint Economic Committee hearings demonstrated.¹³ We can expect increased intergroup conflict, individual violence and political outbursts, such as Proposition 13 in California, as well as the explosive Tax Limitation Committee and its call for a constitutional amendment. We will have to accommodate to the new lower material expectations and face the fact that incomes for most workers in this country have remained flat for over seven years. If the GNP pie cannot grow, we will have to face the fact that it is now full of inflationary air and adulterated with additives unfit for human consumption anyway. We will redefine it more realistically if economists will let us and then share the newly-baked, wholesome pie more fairly.

However, there is the last-ditch economists' effort to define problems in their terms, as "declining productivity," "loss of innovation," "inflation" and thus the need to cannibalize the body politic by "deregulating" and "reducing government interference" in the "free marketplace," etc.

The rationale is used to lower smog standards, reduce worker job safety, cut children's school lunch programs and funds for summer jobs for idle young people, because the costs in social disorder, public health and safety are borne by the public, not by producers, who wish to continue their time-honored practice of "externalizing" them from company budgets and will do certainly as long as we let them. For example, an average 1.4% rise in unemployment costs about \$7 billion in social costs, in terms of increased stress, mortality, morbidity, suicide, family breakup, and all of the social pathologies that are created. Meanwhile corporate executives continue to make their speeches about private enterprise, while lobbying for huge government subsidies and contracts, and the military budget still soars.

Thus, on a societal level, we must work to prevent and reduce real hardship and speak out against the sick economists' game of trying to wring inflation out of the system by throwing the economy into recession every three years or so. Even some honest economists, such as Brookings' Arthur Okun, now admit that today "you get so little deflation out of a recession that it's like burning down your house to bake a loaf of bread." We are edging perilously close to proving Karl Marx's prediction that late-stage capitalism would need an "industrial reserve army" of hardcore unemployed, as our own poor, minorities, and female populations must serve as this last-hired and first-fired group in order to stabilize inflation. We also know that just as the "old-time religion," favored by conservatives and monetarists, fails to address the basic new sources of inflation (better understood in thermodynamic terms as they relate to the declining productivity of capital invested in resource extraction) and in general systems and information theory terms (as regards the burgeoning transaction costs of excessive centralization and complexity); neither will the Keynesian aggregate-demand management tools serve us (as I have elaborated elsewhere).¹⁴

Thus, we have to try to focus the debate more realistically, as the Keynesian Band-Aids are removed and the real social conflicts underneath them re-emerge. We must see that the necessary debate and understanding of "inflation" is not manipulated by tax revolt agitators, led by such economists as Milton Friedman and Arthur Laffer. There is a great danger that this could become a witchhunt on humble public service workers and the mere scapegoating of welfare recipients, environmentalists, "lazy workers," finicky consumers or whatever other group can be tagged as "unproductive" in the now-obsolete economic terms. The debate over priorities must now begin in earnest. It is no good to

declare that a government program one opposes is "inflationary." They are all "inflationary." Likewise, they all more or less create jobs. We must now debate openly our values and our public policy goals, rather than continue the game of throwing specious data and studies at each other, with the porkbarrel prize going to the interest group with the greatest computer firepower and the largest army of intellectual mercenaries. I hope that as the elections get into gear we will all boo off the platform any politician who refuses to be honest about what part of the budget s/he intends to cut, whether nuclear aircraft carriers, children's school lunch programs or food stamps. For the first time in our generation, Americans are now going to have to make social choices, to allocate credit, perhaps to ration energy and scarce materials, and face up to the questionable ethics of rationing-by-price. This 1980 presidential election debate could be salutary and clarifying -- but that will depend on all of us taking responsibility. Only a multiple leadership model can operate a complex, nonlinear society like our own. We can no longer afford the myth of dumping all our problems on Washington. They are suffering from acute information overload, loss of confidence and paralysis, but are still not honest or humble enough to admit it.

David and Elizabeth Dodson-Gray¹⁵ see the coming period of social adjustment and accommodation to the new realities as analogous to the processes described by Elizabeth Kübler-Ross in individuals dealing with death: first denial, then anger, followed by bargaining, depression and finally acceptance. But, we must remember that in all biological systems, decline and death is the precondition for rebirth, and we must propagate now the many scenarios of cultural rebirth and point to what are already-visible growing edges of the emerging counter-economy and the renewable-resource technologies as glimpses of the more humane, communal, cooperative civilizations of the coming Solar Age. Harris and other polls are now showing that Americans are beginning to opt for different sets of choices and trying to maximize their psychic income rather than their money incomes. The now-famous Voluntary Simplicity report of the Stanford Research Institute estimates that four to five million Americans have already dropped out of the "rat race," leading lives of voluntary frugality and searching for inner growth and psychic riches. An example that is very interesting to me is how we can see that such value shifts at the individual level are translating themselves into public policy, for example in the massive outpouring of interest in solar energy in the international celebration by millions of ordinary citizens of Sun Day last May 3. From such public

Reproduced from:

Amory Lovins' Comments on the Domestic Policy Review of Energy Policy
Sept 9-10, 1978

EVOLUTION OF APPROXIMATE FORECASTS
OF U.S. PRIMARY ENERGY DEMAND IN
THE YEAR 2000 ($Q/Y = 10^{15}$ BTU/Y EJ/Y)
(1972-8 RATE: CA. 75 Q/Y)

S O U R C E O F F O R E C A S T

<u>YEAR OF FORECAST</u>	<u>BEYOND THE PALE</u>	<u>HERESY</u>	<u>CONVENTIONAL WISDOM</u>	<u>SUPERSTITION</u>
1972	125 Lovins	140 Sierra Club	160 AEC	190 BuMines, FPC
1974	100 EPP (ZEG)	124 ERR(TF)	140 ERDA	160 EEI, EPRI
1976	75 Lovins von Hippel & Williams	89-95 Lovins For. Aff.	124 ERDA	140 EEI
1978	33 Steinhart (for 2050)	63-77 CONAES Cons & Dem Panel (for 2010) (I) (II)	96-101 IEA (Weinberg)	124 Lapp
			95 DPR \$32/bbl (1977 \$ in 2000)	123 DPR av of \$18,25/bbl (1977 \$ in 2000)

pressure we see the evolution of official government energy-demand forecasts, charted in Figure 2 by Amory Lovins, which showed that since 1972 the forecasts of energy demand by U.S. officials have fallen, under public pressure, from 160 quadrillion BTUs to 140 in 1974, from 124 quadrillion BTUs in 1976 to approximately 95 quadrillion BTUs in the recent Domestic Policy Review of the Department of Energy's forecasts in 1978. Thus, we slowly move from the technological-fix, instrumental "supply side" economist's approach to our problems to a more subtle, self-aware view of the "demand side," our own behavior, attitudes and values.

Similarly we see many other examples of top-down hierarchies losing their grip on formulating the issues, and their patriarchal remedies: for example more centralization, more control, manipulation, technical fixes, are becoming less effective and less credible. We now see the absurdity, as E. F. Schumacher used to point out, of societies that require a breakthrough a day to keep the crisis at bay! Charismatic, patriarchal leadership styles are also becoming hollow, from the imperial presidency to the pathetic spectacle of leaders such as Israel's Prime Minister Begin and Egyptian President Sadat constantly talking of love, babies and grandchildren, without being aware of the deeper truth they are affirming, that competitive, patriarchal nation-states and all organized systems of distrust and inequality have exhausted their logic. We see the more sinister side of this lack of awareness of the limits of patriarchies in the charismatic cult leaders, whether the Reverend Sun Yung Moon, Reverend Jim Jones, the derailing Charles Dederich's leadership of Synanon, or other "perfect masters." Indeed patriarchal leadership seems to have little left to offer except competition, violence, confrontation and institutionalized paranoia, with ever-greater efforts to manipulate nature for short-term goals.

So the value shifts will need to reach from very fundamental levels, not just redesigning our technologies, reconceptualizing our politics and repatterning our knowledge, but to reinfuse our culture and rebalance our male-dominated industrial culture with those values to which the highest lip service is always paid, but which are the most burdensome and challenging to operationize and which have always been thrust upon women, blacks, subordinated groups in all cultures: cooperation, humility, nurturing, maintenance, openness, spontaneity, peacefulness and love, and which have been most often designated as "female." Not that it is possible to return to the ancient matriarchal systems of our past. Nor is it desirable. But a new synthesis that allows individuals to express a healthier balance of these

so-called male and female tendencies is now necessary. The Chinese yin/yang symbolism is a less painful polarization of the debate and may help us avoid yet another battle of the sexes. Our culture simply suffers from an overdose of yang.

Lastly, it is fitting for me to ask you as religious leaders, how your and other denominations will integrate the rising of the yin principles in both doctrines, ministering and administering the church? Dr. Elaine Pagels in her recent paper, "What Became of God the Mother? -- Conflicting Images of God in Early Christianity," explored the rationalizations in early Christian sects for the subjugation of women within the orthodox Christian church. Typical of the fruitfulness of today's fundamental questioning of all our institutions and existing rationales, Pagels has unearthed many references to early Christian sects that believed (more correctly, I should think) that God is a dyadic entity and that many of the early Jewish and Christian gnostic texts which abounded in feminine symbolism as applied to God, were attacked and condemned to oblivion as heresies as early as A.D. 100-150. In addition, many of these early Christian texts referring to a female divinity and the Mother Goddess and an Androgynous Creator were rejected as heterodox and only a selected list of 26 were approved as "orthodox" and became incorporated as texts in the New Testament (Signs, University of Chicago Press, Winter 1976, Vol. 2, No. 2, p. 293). So we need to re-examine these deepest roots of our belief if we are to deal adequately with the confluence of crises we face. For today our shattered cultures need creative nurturing. In short, they need "mothering."

I believe that our decency and good will as citizens in the face of all of this obfuscation and confusion will be taxed as never before. We must all involve ourselves in the task of behavioral adaptation to more shared, communal lifestyles and the ethic of enough, since these will be the new survival-oriented values of adapting to inevitable new realities: holism, ecological awareness, empathy, cooperation to leaven the excessive competition, justice and fair shares for the less fortunate, and what Erich Fromm calls the shift From Having to Being. Keeping up with the Joneses will need to be replaced by the Shakertown Pledge and by setting examples to reinforce its points:

Shakertown Pledge

"Recognizing that the earth and the fullness thereof is a gift from our gracious God and that we are called to cherish, nurture and provide loving stewardship for the earth's resources,

And recognizing that life itself is a gift and a call to responsibility, joy and celebration,
I make the following declarations:

- 1) I declare myself to be a world citizen;
- 2) I commit myself to lead an ecologically sound life;
- 3) I commit myself to lead a life of creative simplicity and to share my personal wealth with the world's poor;
- 4) I commit myself to join with others in reshaping institutions in order to bring about a more just global society in which each person has full access to the needed resources for their physical, emotional, intellectual and spiritual growth;
- 5) I commit myself to occupational accountability, and in so doing I will seek to avoid the creation of products which cause harm to others;
- 6) I affirm the gift of my body, and commit myself to its proper nourishment and well-being;
- 7) I commit myself to examine continually my relations with others, and to attempt to relate honestly, morally and lovingly to those around me;
- 8) I commit myself to personal renewal through prayer, meditation and study;
- 9) I commit myself to responsible participation in a community of faith."

As an agnostic, this declaration seems eminently sensible to me and the articulation of the new survival-oriented value-system that must now emerge. So I believe that today we see that ancient faiths are confirmed by empirical events. All our greatest spiritual leaders throughout history have been the real futurists -- but we did not always understand their time frame. It is no longer impossible to imagine that such a wholesale value-shift in human behavior will occur, since we are now receiving direct feedback and reinforcement from the creation: the planet itself. Ancient religious concepts become understandable as scientific formulae: the Indian concept in Hinduism of Karma is merely a general systems theory statement of the behavior of a non-linear system where the vectors of human behavior may be unknown, but what is known is the certainty that all such motions initiated will boomerang and create complex effects in delayed and displaced patterns. Similarly, the Christian and Judaic concept of Judgment Day, in general systems theory terms, is simply a complex, non-linear system whose information feedback loops are speeding up to real time, where cause and effect are simultaneous and there is no temporal and spatial dimension in which to hide the consequences of one's actions. Even "miracles" are simply general statements of non-linearity and new mutual-causal paradigms now emerging in information theory and post-Newtonian quantum physics.

Indeed, we are still communicating in many disciplinary and sectarian tongues. The Tower of Babel still haunts us. But the core knowledge and understanding is the same. In a large enough context as a species of hominids occupying the same wondrous blue planet, all our self-interests are revealed as identical. Morality has at last become pragmatic.

FOOTNOTES

¹Hazel Henderson, Creating Alternative Futures (New York: G. P. Putnam, 1978), p. 51.

²Ibid., pp. 113-135.

³Hazel Henderson, "The Entropy State," Planning Review, April 1974.

⁴New York Times, October 3, 1978.

⁵Morgan Guaranty Survey, January, 1978, p. 4.

⁶Hazel Henderson, Jay Forrester & Kenneth Boulding, "Experts Look at Some of the Assumptions Used in Traditional Measures of Productivity," Spectrum, October, 1978.

⁷E. F. Schumacher, Small is Beautiful (New York: Harper & Row, 1973).

⁸Hazel Henderson, "The Changing Corporate-Social Contract in the 1980s," Human Resources Management, Spring, 1979.

⁹Pitirim A. Sorokin, Social and Cultural Dynamics (Boston MA: Porter Sargent, 1957), Abridged One-Volume Edition.

¹⁰Fritjof Capra, The Tao of Physics (Berkeley CA: Shambhala, 1975).

¹¹Hazel Henderson, "Risk, Uncertainty and Economic Futures," Best's Review, Casualty Insurance Edition, May, 1978.

¹²Battelle Memorial Institute, An Analysis of Federal Incentives Used to Stimulate Energy Production (Seattle WA: Battelle Northwest, 1978).

¹³"Creating Jobs Through Energy Policy," Subcommittee on Energy, Joint Economic Committee, Hearings, March 15, 1978.

¹⁴Hazel Henderson, Creating Alternative Futures, Chapter 2.

¹⁵David and Elizabeth Dodson-Gray, Statement Before the Congressional Clearinghouse on the Future, March, 1978.