EARTHBOUNDEDNESS

by Hugh M. Lewis

Early European explorers did not have a good conception of the earth as a single spherical entity. The whole earth remained an abstraction found only on world maps and scale models of the globe. It was not until Humankind actually escaped the gravitational pull of the earth and had the actual vision of the earth as a solitary planet in a vast and empty space that its wholeness and roundness began to have special significance for us. Before then, our vision of the earth was largely circumscribed by our seemingly boundless local horizons and we lived under the spell of its illusion of vastness and virtual unlimitedness.

Enlightenment of the earth as a global whole did not suddenly burst into our imaginations like a sunrise. It emerged gradually, embryonically and quite unapperceptively, but now it has coalesced into its finished shape and we can see it and ourselves in relation to it more clearly and we can no longer readily ignore it. The earth is round and its horizons close upon themselves, is space is bounded in all directions, and its many resources finite in amount. The vision of its wholeness presents us with a new sense of environment, one that is global in perspective, which our old metaphors, our old sensibilities and conceptions, and our old sensitivities hardly equip us to fully see. And we share an important psycho-geographical relationship to this new sense of environment--our personal and collective identities, our sense of experiential continuity and existential security, is tied to our ability to envision and relate to it as a planetary abode, as our earth home. But this new sense of environment is irreducibly holistic, pristine, primordial ecology of the natural earth, and has replaced it by an artificial ecology of a scientifically organized humankind. What remains of the earth's environment is the composite result of world wide interactions between civilization and natural processes--a curious cyborgian mosaic of synthetic and natural elements. Nature has become bound by our civilization and our civilization has become bound by nature, and we cannot now return to a natural ecology without doing undue harm to both ourselves and our

natural environments. The new kind of earthbound equilibrium which we need to establish is a conservative one in which the benefits of civilized development have to be weighed against the unaffordable costs to our remaining nature, such that the safety margins of both may be protected and preserved.

We have always had other choices than those provided for us by the world system--our collective failure has in part due to our individual failure to recognize such alternative choices and to realize the changes such choices would entail in our lives. Failure to make such choices has led to choices being made for us by the great and impersonal forces of the world system.

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Earthboundedness is a whole earth state of mind which regards the entire earth as a single, solitary home for humankind; vast in area but not unlimited; bountiful in raw resources but definitely circumscribed in all ways. Earthboundedness also regards our only home planet as a single, natural, well integrated orgasmic entity, enduring in its complexities but not impervious to the depredations of civilized development.

But earthboundedness is more than this--it represents a whole world view of a new earth environment, a philosophy and a new way by the earth's boundaries, replete with all the many implications and significances which living upon an inescapable island in space holds for humankind, human culture, history, science, values and the ethos of everyday existence.

Earthboundedness is not a natural state, but a human state of being bound in all thoughts and actions by the dimensionalities and proportionalities of the entire Earth. Earthboundedness has begun seeping into our everyday lives, influencing everything we say and do in contextual and unconscious ways, informing our words and deeds with a new level of importance and sense of order. Bringing the state of being earthbound to a heightened level of

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consciousness, 'earthbound enlightenment' in both the individual and collective mind is a way of dealing now with the new predicament and paradoxes which confront humankind in the third millennium after Christ, and its elaboration provides the common conceptual ground for cultivating a universal sense of human identity.

As a word, 'earthboundedness' means several different things. Most literally, it means the state of being bound by the earth--environmentally circumscribed by the earth's gravitational field. We always soon know when our feet are not firmly planted on the ground. Metaphorically, earthboundedness provides the principle horizon of the human mind which like the anthropological conception of 'culture boundedness' in one's values, world view, attitudes, behavior, knowledge, perception and experience, such that one cannot escape one's own cultural orientation in order to assimilate or appreciate any other, makes its difficult to adopt any other kind of comprehension about the world. It is a 'geo-physically' orienting consciousness around a geo-physically limited and meta-physically limiting set of environmental constraints--pervading every instance of our collective experience, invading everyday of our personal existence, and predetermining our capacity to adaptively cope with and adapt to new environmental changes. A transition between world view, trading off one kind of 'total' world view for another, and in the process transcending the limitations of 'total world view' altogether. Finally the meta-physical sense of earthboundedness consists of the many states of mind and being which are informed by the awareness, however remote, of being earthbound in all ways. There has been an awakening of awareness of the collective condition of being earthbound, but there has not yet been self recognition of 'earthboundedness' as a collective frame of mind, nor any systematic exploration of its possible implications for humankind.

Earthboundedness as a way of relating to our world concerns principally the human ecology of being on earth, rather than the natural ecology of the earth's environment. It is concerned with human adaptation. Unlike 'earth-mindedness' it is not primarily aimed at the relationship to the environment of the earth, so much as the human mind and state of being which is environmentally

open and which allows for relationship with the natural environment. The primary problems challenging humankind today are environmental in symptoms, but the causes are rooted in human factors and human causes which eventuate in environmental destruction and in turn exacerbate the human factors and causes. Earthboundedness is also not about the anthropological condition of modern humankind, so much as it is about the philosophical, normative, historical and psychological aspects of the modern human condition in its maladaptation to the earth environment. Earthboundedness is a way of finding ourselves in our environment.

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'Earthbound' can be used adjectivally in a number of related ways. For instance:

'Earthbound Epoch'. Culture historically we are entering an 'earthbound' age in which earthboundedness, as the basis of human reality, identify and humanity, is becoming the predominant theme around which humankind is organizing itself.

'Earthbound Civilization'. The process of an emerging earth centered way of life which shares a common earth history and a common sense of human identity rooted to the earth.

'Earthbound Environments'. We live and act within local, regional and global scales of context which are 'complete' environments in their circumscription of our world and our lives, composed of numerous webs and interlocking networks in which everything is related to everything else, however indirectly and remotely. We are

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enmeshed inextricably in many webs of interdependency which overlap and extend in every direction around the entire earth. We are locked into long chains of interaction the other end of which we rarely see or know about.

'Earthbound Ecology'. There is only one complete ecology, the earthbound one, in which we find ourselves part of an important natural processes of self organization, cyclical patternings of change, chaos and anti-chaos, and in which there are no separate or independent or self determining entities apart from this natural ordering process.

'Earthbound Synergy'. The many parts have come to cohere jointly in many different patterns to make up the framework of the synergistic whole, and the wholeness becomes manifest in the patternings and processes of its many parts.

'Earthbound Indirection and Delay'. The former guaranteeing us that whatever the immediate direct consequences of our local behaviors, there will always be indirect 'damage' or 'avalanches' in regions of the earth which may be quite remote from our own. While the latter guarantees us that there will be some unpredictable delay in the total effects of long term consequences.

'Earthbound Existence'. Earthboundedness has come to pervade every aspect of our day to day lives, and all our actions have some cumulative consequences upon many other parts and eventually upon the whole. It is the global framework orienting all regional and local actions and considerations. The web are becoming more entangling, the chains of interdependency stronger and longer. We need to know how earthboundedness intrudes upon the many parts of our daily lives.

'Earthbound Imperative'. Earthboundedness imposes a kind of existential imperative in our lives--the need to know and to act. Global circulatory and environmental circumscription superimpose a grand Malthusian dilemma which entails that we learn how to see and adapt to new global environments in ways which lead to health instead of disease.

'Earthbound Karma and Dharma'. Whatever indirect damage we do, its consequences must eventually, however indirectly, rebound back to affect us in some way in our local situations--if not during our lifetime, then during our children's lives. Nature will always lay upon our doorstep the ills wrought by the errors of our ways until we mend our mistakes and repair the damages.

'Earthbound Ethos and Ethics'. Our earthbound imperative demands that we adopt new styles of living and ways of being, and that we learn and teach to our behavior which confer the rational and moral legitimacy to lead our lives in new directions.

There is only one ecology, our own earthbound ecology, and it is composed of the planetary fabric of life--we are but parts of the whole, and all other environments or ecologies are but eco-niches of the earthbound one. It remains in a perennial state of super criticality, at the edge of entropy and complete chaos. We can no longer dump wastes into streams or sewers, or raze forests or habitats without affect in some measure of all other parts of the whole. We must understand a new earthbound 'ecology of mind' which reflects our awareness and responses to our environments. We are at the dawning of 'earthbound enlightenment' in which our earthbound ecology of mind is coming into environmental self awareness, providing us with a new macroscopic perspective of a natural humankind on earth. We are confronted with a new point of view, an 'earthbound perspective' with its own unprecedented

complexity, completeness, comprehensivity, multidimensionality, encompassing and encapsulating all other viewpoints and defining for us our collective baseline and bottom line. Earthboundedness is demanding of us new kinds of adjustments and accommodation with which we've had little previous experience.

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It is within the framework of earthboundedness that we must come to terms with the most pressing problems of our era. These are primarily human problems, and only secondarily environmental ones, except the human problems are ones of environment as well. The human element is the cause, of the environmental challenges we are now facing, problems which rebound in turn and aggravate our human predicament. The predicaments imposing our earthbound imperative are interrelated like the global ecology in which they are situated--one set of problems cannot be understood without accounting for all the other problems in the field of relations. Similarly problems are processual and patterned, bound within complete contexts of interrelation lacking many delimiting boundaries.

1. The first and most important problem is overpopulation. Natural population increase has always driven many processes of state formation, warfare, environmental circumscription, migration and other religious practices and social customs. Environmental circumscription is directly related to population pressure. Population increase is in equilibrium with environmental adaptation--there is a feedback process such that adaptive success begets population increase and population increase drives environmental adaptation. The problem is one of local and global overpopulation. There is enough food worldwide to adequately feed all five billion people upon our planet--it is the uneven distribution of the surplus which results in mass starvation and pandemic malnutrition in many regions. The kind of malnutrition

that is the consequence of overpopulation is 'protein calorie malnutrition'--the insufficiency of essential amino acids and minimal levels of energy which increases susceptibility to disease, lowers productivity and empowers many 'population control mechanisms'. It has been the rapid rate of increase spurred by development and uncurbed by sufficient birth control and family planning practices, which threaten to carry the global population to overload the carrying capacity of the earth within one or two more generations. Inspite many educated guesstimates, we have no firm idea of the 'carrying capacity' of the earth. Scientific advances in the hybrid grains, breeding and agriculture may increase this capacity in indefinite ways, and the human capacity to tolerate and live with less remains quantitatively incalculable. The human world will only continue rapidly shrinking in relation to the increasing demand for land, resources, food and spaces for living, to the point that much of the globe will soon become essentially a very dirty, overcrowded little slum which most people will still cal their homeland.

Most of the social disease related to slum dwelling will also be pandemic--problems of mass poverty, underemployment, lack of social mobility, increasing food prices. The quality of life will deflate in proportion to the increase in the quantity of life and the human population will quickly outstrip our system's capacity to adequately and evenly meet the demands and basic requirements of earthbound existence--scientific technology will not produce enough technical solutions to go around, except for the final solution.

The problem of overpopulation is one of ticking time bomb. By the time the global population reaches the critical carrying capacity of 7.5 billion, most of humanity will be children and youth who have yet to come of age in an adult world. It will be these children, the next generation of our earth, who will be hardest hit and most affected by the problems of population. It will be a critical age group in which the greatest human potential for development will become the most severely limited, frustrated and deformed. There will be tragic reverberations upon future progeny of the earth and in our collective capacity for adaptation in our earthbound environment. The time bomb will soon explode very rapidly when

the next generation come of age to make normal, adult sized demands upon the environment, just to find general social systems broken down and under equipped to deal with them adequately. There will be systemic overloading and breakdown in many unexpected and unplanned ways.

2. The political economy of our world system whose history of development and modernization has been one of potentially unlimited resource consumption and of human exploitation. We have created a global factory in which resources and labor are bought cheaply in undeveloped zones of exploitation and are sold dearly in overdeveloped regions of consumption. Both globally and domestically within nation states there is an increasing polarization between overdeveloped 'core' areas and undeveloped 'peripheries' or hinterlands. Between core and periphery there is uneven distribution and access to basic resources, vast differentials in the levels of consumption, availability of goods and services, income levels, education and opportunity. Peripheral areas tend to be the regions of greatest population increase as well as the areas where there is the greatest amount of environmental damage.

3. Patterns of social mobility, mobilization and migration within a structure of global stratification, 'mechanisms' of population control, on one hand tend to destabilize the order and organization of the world system, and on the other hand tend to increase the adaptiveness of the system to the local, regional and global exigencies and emergencies. The global factory is accompanied by global stratification between first, second, third, fourth and fifth worlds, between five percent of haves who consume 95% of the earth's available resources and 95% of the have-nots who control and consume the remaining 5%, in a world where one billion over consumers are counter balanced by one billion people living in hopeless, abject, 'absolute' poverty without opportunity of escape, and the remaining 3/5's caught in a no man's land of relative poverty in between.

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There are occurring global patterns of international and regional migration--labor flowing from zones of exploitation to zones of consumption, 'brain drains' of educated elites from peripheral regions to core areas, increasing numbers of displaced domestic refugees and international homeless people who have been cast out by the wheels of modernization and systematically excluded and prevented from re-entering the system.

To control and channelize the mobility of people and to render the masses of humankind docile and obedient to the dictates of the system, national and international bureaucracies have been established which systematically encapsulate people of different status. Vast screens of obfuscation and co-option quite systematically block or hinder either geographical or social structural mobility within the global system.

4. Global media and systems of symbolization and information reinforce and legitimate the progressive development of the world system. The culture of consumption has established a global hegemony which threatens to destroy the vitality and function of traditional local and regional cultures. Values of consumption are being exported to periphery regions without the availability of income which makes such consumption feasible.

Relative deprivation, group reference, cognitive dissonance, frustration aggression, the revolutions of equality and of rising expectations are frameworks of understanding the spontaneous rise of radicalized mass movements and the political factioning of groups operating as political economic special interest groups, as largely self organizing processes resulting from the human response to systemic exploitation and reflective of the super criticality of the world system.

With increasing radicalization of special interest groups, organized around principles of race, ethnicity, nationality, family, religion or communitas, there are increasing levels of inter-group friction and strife and increasing competition for resources which eventuates in militarization and increased levels of violence. Such groups

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threaten to destabilize the world system and in turn require heavy handed measures of totalitarian control.

5. The extremely evolved state of militarism in the world today, and the global militarization of many groups, increases the likelihood of warfare spreading from one area to others and of escalating in levels of violence. In a highly integrated system, minor perturbations are more likely to eventuate in system wide reverberations and damage. War is most likely to be started by groups that sense or fear some impending disaster such as famine, and seek to preclude such disaster by coercive appropriation of another group's resource base. Maintaining high levels of militarization and the machinery for the mobilization for war, exacerbates the likelihood and levels of violence. War is as likely to occur between trading partners or allies as not--the more frequent the economic interactions between groups the greater the likelihood of eventual conflict. Our recent world history has only demonstrated that world wars have occurred repeatedly, have escalated towards totality in levels of violence, are not controlled by the balance of power and can be precipitated by relative minor events or the rise to power of unpredictable irrational groups.

It is in context of these general human patterns and processes that the interrelated problems of global ecology must be framed. Rapid deforestation, the greenhouse affect, global warming, atmospheric pollution, destruction of the ozone layer, depletion of fossil fuels and many minerals, contamination and destruction of marine and aquatic environments, upsetting of normal cycles of the hydrosphere, lowering of groundwater tables, soil erosion and nutrient depletion, desertification and desiccation, loss of evolutionary genetic potential with the extermination of many species of flora and fauna, permanent loss of arable land to modern development, radiation contamination, all of these environmental problems must be seen as caused and aggravated by social circumscription due to world wide development and in turn causing and aggravating the problems of social circumscription.

It seems that the world system must reinforce its order and organized domination in ever more coercive and controlling ways in order to maintain its dynamic stasis in relation to increasing levels of environmental and social circumscription and in response to the rise of social movements which continuously threaten to destabilize and damage its functioning.

By superimposed, coercive and manipulative reinforcement of the global regime of capitalist order and organization, the whole system must ossify into a generally inflexible authoritarian power structure in which local conflicts are contained at local levels without spreading to other areas. But with such rigidity and ossification and increased levels of organization, management and integration, the system itself will become less and less locally, regionally and globally adaptive to environmental changes and which its own development imperative is inducing. The system must eventually reach a state of super critical mass in which chain reactions throughout will lead to its systemic 'deconstruction' and disintegration. It will break down in depression and cease to function at all.

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It must be understood that the system itself is not the solution to the problems and predicaments of human development in an earthbound environment. Such a system is great and impersonal and it is this very greatness and impersonalness which prevents it from meeting human needs on a local individual level, and which ultimately renders it environmentally and evolutionarily mal-adaptive.

Earthboundedness pre-structures and pervades our entire existence. Global contradictions are felt by every individual in many small ways--defining our ultimate horizon predicating all other considerations. This has fostered a new sense of pervasive anxiety about the world in the need to know and respond responsibly in new earthbound environments. We live in a world ridden by

multidirectional, multidimensional pushes and pulls, forces and lines of stress which disintegrates the individual sense of order and control and undermines human identity. This anxiety has gone from neurotically obsessive to psychotically compulsive, resulting in a kind of social schizophrenia, a paranoid 'archosis' in a collective need to know which in its frustration becomes environmentally destructive.

We are in an age afflicted by a basic crises of human identity--of a need to find ourselves within the vast and impersonal system and a need to reestablish a relationship with nature within ourselves.

This condition is characterized by the embodiment of the principle of Absence, or of 'nonbeingness'--a general sense of meaning loss, anomie, of purpose for being, of a feeling that something vague is missing or misunderstood. It is associated with feelings of loneliness, anonymity and deep seated alienation from our own natural sense of being. It fosters a sense of self as if this were but an empty, flat reflection in a mirror or projection upon a screen. We come to see ourselves in a 'derealized' sense as if performers on stage separated from ourselves.

There is no longer a classic battle between the superego and the id--self controls reinforced by the constraints of successful adaptation in our system have been completely internalized to an unconscious level. The system and its symbolic context has become our unconscious--the system is within us, individually and collectively.

We sense critical absence of being because in the complete internalization of our world order and with the identification with its role models, status and values, in our lives, we have become cut off from the basis of our own being, unreflexive and unselfconscious which predominates in the most rationalistic way. We become out of touch with our own genuine self, cut off from our own deep seated roots in nature. Though repressed, nature remains as a prisoner deep inside ourselves, forever reminding us of its missing presence, or critical absence.

The Self has become strongly, deeply divided between a public ego of presentation and a hidden self of private fantasy. The two worlds are disconnected and effectively sundered.

If there is a need to know, there is also a corresponding need to unknow, and these needs work at cross purposes and lead to schism in our personalities. Unknowing means avoiding symbolically those things which we do not know and so fear, tuning them out of our environmental awareness, acting as if they did not exist in our fields of view or relationships.

In order to cope in our daily lives we erect barriers which have the efficacy of common sense and naturalness of folk psychology and which block the flow of threatening or contradictory information in our lives. Our world has become one inundated by information-- information overload is a common occurrence, while the effective and timely processing of information has become critical to our adaptive success within the system. We avoid or prohibit the unknown because we fear it and we remain ignorant of what we fear. We create convenient conceptual frameworks by which to safely categorize, channelize and hence sanitize the 'noise' emanating from our new earthbound environments. We manufacture elaborate mythologies, ideologies, sophisticated systems of rationalization and legitimization which allow us to maintain a sense of complacency and control in our environments.

Our system has engineered sophisticated technologies and techniques which allow us to regularly cope and function with large quantities of information. Techniques of mass production and marketing have been applied via the media to the cultivation and development of the 'human mass' and a new brand of mass mentality, the primary preoccupation and function of which is the consumption of the effluvia of production and the elimination of its own effluvia.

Part of the crises of human identity is that the human being is increasingly identified as a member of 'mass oriented society' characterized by numerical, statistical anonymity, social anomie, and the habits and values of mass production/consumption, whose social role identity is determined primarily by the relative position with the production/consumption hierarchy. The modern modal personality is characterized as a 'mass oriented personality' with needs, desires and behaviors corresponding to the ethos of the system. Human beings have been reified into things, objects of

production/consumption which can then be translated into quantifiables of time, money, man hours, man bits and man bites.

We have created for ourselves a cultural hegemony characterized by implicit denial of subjective experience. It is a culture of circular deceit and delusion, of living our 'vital lies' rooted in conformity to the ethos of the system. Complicity in our new world culture of denial has its own complications--the vicious cycle of coping with systems of coping which are fundamentally deceitful and delusional. Our system is controlled by a blind ideological program in which many people are in charge but no one is ultimately responsible. It is a secularized ideology of rationally whose information is propagandistic in its distortion of our earthbound realities.

There is a new kind of authoritarian among us, characterized by his/her competency in administering, managing, manipulating, persuading, distorting and hiding information within modern contexts. In its worst form our new archetypical model of humanity is a modern kind of authoritarian who is quite rational, sophisticated, intellectual, multi-model, characterized by a sense of completeness, lack of subjectivity, non-reflexive invisibility and transparency. The modern authoritarian is a non-leaker of information, whose principle function is the simplification and reduction of the 'noise' of contradiction in our new environments. They are the new professional elites who are specialized in processing, filtering and modifying information for mass public consumption.

The modern authoritarian has become the model human resources manager and mass manipulator and marionetter. She/he is a professional performer and performing professional, guided primarily by motives, through apparently liberal and symbolically altruistic and selfless before the system are actually profoundly selfish, egocentric and self serving.

The key feature defining modern authoritarianism is covert and unconscious socio-pathy. It is no longer a battle between id and superego, but the silent domination and control of the ego over a sense of natural self--the completely internalized social ego and the totally projected sense of self. There is a psycho social inversion as

opposed to social psychological conversion. If there is personification and personalization of social conflicts, then there is also a process of socialization and characterization of personal conflicts. The self is not an embodiment of contradiction and conflict--it has become too deeply and internally divided and detached from its own sense of being. It is merely the vessel of the ego.

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In its best form, the new archetypical model of human being is a globe trotting poly-ethnic personality whose primary function is the brokering of boundaries and the mediation of differences.

Global peace is a primary concern of our collective future, a peace which seeks solutions upon a local level of involvement and interaction by individuals. Integration of world cultures, rather than their homogenization or hegemonization or destructive assimilation or marginalization, entails cultivating a multicultural continuum of a genuine 'third culture'. This requires the development of a 'post conventional' personality whose primary identity, loyalty and involvement is at a global level of concern, within an individually focused system which sustains and maintains standards of universal human rights and promotes the development of human potential.

We also need a better comprehension of the problem of evil in the world--an anthropology of evil which provides a ground for understanding authoritarianism, power, violence and corruption and the causes and consequences of these in our world.

We need to achieve a 'changing of Mind' in human beings, collectively and individually. This is difficult to achieve in a system which has mastered techniques of conversion, brain washing and behavior modification in human beings. In any given random group of people, a certain fixed percentage will tend to be highly resistant to external stimuli. A similar but opposite

percentage will be highly susceptible and suggestible to such environmental influences. There will always be an intermediate majority of people more or less resistant or susceptible. In authoritarian regimes, the majority can be easily swayed, persuaded, intimidated, cajoled, induced, to swing over to conformity led by the minority who are the complete conformists. This simplifies the task of isolating, selecting out and eliminating the opposed minority who pose a threat to the established order. Once conversion of the human character is achieved, it remains relatively fixed and stable, given regular doses of reinforcement. All people can eventually, effectively be broken, given enough time, enough inducement. Learned dependency and acquired helplessness are the primary results. And there are a variety of inducements available designed to lower the human threshold of resistance. Under the disguises of anonymity, mass humanity can easily be whipped upon into states of madness and mass hysteria, and can be lead to do things they would not normally in their 'right minds' think of doing.

Who controls the self, self control or other control, is a critical problem of our age. Changing minds and hearts and changing human character is a principal challenge of our new earthbound age.

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EARTHBOUND-NESS

Bringing the state of being earthbound to conscious awareness, both individually and collectively, entails a completely new and different way of conceptualizing and seeing ourselves, our minds, our bodies, our families and our earthbound environments, whether locally, regionally, globally or cosmically, in symbolic inter-penetration with or new environments. We must find the source of this transformation in ourselves, and implant it in the cultural

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germination of our children, and we must sow its seeds and cultivate its grassroots until it takes hold and spreads to cover the whole earth with healthy new growth. We must redraw the boundaries of our imagination, vision, sensitivities and sensibilities and redefine the borders which separate people from one another. Our challenge will become our children's burden.

The way is clear, only the will power is lacking.

ENVIRONMENTAL PROBES

The human confrontation with new environments demands alternative ways of seeing and relating. Successful adaptation depends upon the ability to recognize these new environments for what they are, and then to recognize ourselves situated within them. Encountering new environments situates us upon the edge of our own existence, requiring vision instead of blindness.

We need to initiate a set of textual explorations, literary 'probes' into new regions of mindscape and new relations of ideas basic to our encounters with new earthbound environments. We need to review the terms and meanings long taken for granted as given in some of our most important intellectual paradigms dealing with human reality. Many important insights remain entrapped in esoterica, encapsulated within jargonistic idioms and rhetorical designs purporting to allow the knowledgeable reader to do virtually anything but to think and make judgments independently. We need to deal not just with definitions of terms, but with the many relations which cohere between words, concepts and ideas, and with 'meta-relations' which seem to cohere between relations.

Opening our minds is a way of opening our eyes, to better read the messages contained within our new environments.

NEW ENVIRONMENTS

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A new world civilization demands the reformulation of new commitments, new voices, a new collective consciousness and social conscience. It demands new resolutions, new habits, new symbols and finding new pathways to human development. It demands alternative possibilities within alternative environments.

But what choices do we really have if no viable alternatives are made available? The great and impersonal forces of evil are better organized, better equipped, better trained and better armed than ever before. They have great sciences, technologies, bureaucracies, academies, societies and resources at their disposal whose solitary purpose is the maintenance of the status quo of world wide class hegemony in the most effective, efficient and economical manner possible.

The problem had become one not so much of prevention--of not becoming something worse--but of cure, of learning to overcome authoritarian repressions and internalizations which have already prevented us from realizing our greater human potentiality. It is a matter of how to unlearn how to unbecome the kind of unbecoming people we learned to be.

In this we must learn to work against momentous forces of our own making, against the sense of history and destiny we have created for ourselves, against the forces of great traditions which stand in our way. We must fly in the face of many long established values, even against our own experience and deeply ingrained common sense.

CHILDS PLAY

Children are the living symbols of our future. They are the breathing embodiment of our hopes, expectations, concerns, frustrations, strengths and weakness. Children are the creatures of our myths, the caricatures of our civilization.

We are the amateur professionals and our children are the professional amateurs. They are the ones with the inherent capacity for challenging new environments.

Our future is a child's reality. Alice's innocent faith in the reality of her language guided her successfully through the strange landscape of Wonderland. Children are the 'natural' amateurs who 'see' the world in and of itself. They come to know it in plain and simple terms without the adult vanities of false preconceptions.

A child's natural approach to organizing the experiences of its environment is to 'tear down' in order to 'analyze' its elements, in the process 'unlearning' all that the adult perceives as appropriately ordered.

We must 'unlearn' how to see our new environments in order to better recognize the alternatives before us and to reconstruct a different sense of reality. By 'tearing down' our world we must unlearn how to perceive the rhythms of its elements without the preconditioning of our tainted traditions of experience.

Children are the complete anarchists. They leave nothing alone that is within their reach, upsetting everything adults try to keep in place. The saving grace in childhood is that children are not held responsible for their liberties.

For our children nothing is too sacred. We will have many important lessons to teach our children and they will have much to learn. But we will also have important lessons to learn from them and they shall teach us a great deal more.

NECESSARY POSSIBILITY

Possibility is more than a state of human consciousness or imagination. It is the prerequisite ground of our future becoming. Determining the impossible, the duty of our science, is a gradual movement from the imagination of possibilities through reasoning

of plausibilities to the determination of probabilities. It gives birth to the realization of the present, the concrete, immediate factualities of the here and now. Our future environment is a function of our imagination of possibility.

The future remains a mystery yet to be solved. It is an unfinished field of infinite possibilities.

We are rushing headlong into the darkness of our destiny, accelerating at every turn of events that brings to our vision new series of encounters, new fields of experience, new kinds of expectations and new environments. As we approach the edge of possibility, the state of our common existence teeters upon a dark chasm beyond which all we have known will become lost to all that we do not yet know. Standing upon this edge our traditions and history becomes inverted into 'trends' and tendencies which are supposed to guide us like a lantern into the darkness.

We have neither the pre-science to foretell future events nor the ability to prevent our future becoming. Only shadowy outlines emerge vaguely upon our horizon, and these bare forms give us a premonition of things to come.

Now we can speak only of our common needs, our common limits, the basic parameters of our common experience which will go forward into the darkness with us. We have come to a grand juncture, and we have a collective choice to make about our common destiny.

Our future will be shared in a shared world in which each person's fate will be bound up in the collective fate of all humankind, in ways never before experienced.

In the same way that the past demands a fair and hones hearing, an accounting of actions and inactions, so also does the future demand an audience, a witnessing and a troupe of actors ready to perform its tragic comic dramas.

We will either orchestrate our future or fail to, having made wise choices or having choices made for us. But our basic choices remain the same.

Our future will either be collectively shared, composed of common needs, limitations, aspirations and destinies, or else it will prove to be a future of collective failure.

MYTHICAL META-THEMES

The environmental meta-themes of our future are always mythical. The ability to envision possible futures requires a mythic imagination, in this way imagination of new environments sets the stage for the enactment of human dramas of struggle between man and woman, youth and age, life and death, birth and dying, right and wrong, the beautiful and ugly, the natural and supernatural. These are some of the fundamental antinomies which constitute the fabric of our minds and the ground of our meaning. Thus our reality becomes mythical and our myth becomes reality.

Our paramount meta-theme is that the human spirit will struggle forward against the reactionary forces of evil. The essence of this spirit is creative, life giving, born of survival against necessity. It is always at odds against the powers of organized evil in which the authoritarian character strives unrelenting to predominate.

The race to the Capitalistic finish line will have only a few winners but there will also be many angry losers--people's dispossessed of their basic rights and freedoms, disinherited of their children's franchise in life's opportunities and dignities. The trickle down illusion of technological progress will then not sustain the delusion of inevitable global prosperity and participatorial equality that has been so cleverly fostered and foisted upon uneducated masses by the image control engineers of the world system.

The permanently disenfranchised will refuse to remain silent for very long in the face of their children's increasing hunger. Hopeless in the deprivations of terminal poverty and choiceless in the irreversible depredations of unforgiving exploitation, they will raise a cry of battle and call out for equal justice. Their chorus will drown out the empty voices of authority.

The apocalyptic vision of our environment is upon us. Double crossed expectations and common feelings of unequal deprivation and injustice, lacking even the false virtue of necessity will give rise to global revitalization.

OUR COLLECTIVE FUTURE

In our never shrinking 'global village' we can no longer afford to foster delusions of national, ethnic or cultural superiority, the arrogance of narrow egoism or of blind ethnocentrism. No longer can we consistently ignore in or protected affluence the plight of so many other people. No longer can we cultivate effectively a selfish sense of distinctive separateness and privileged prerogative.

The enlightened spirit of a private, disinterested, literate soliloquy on the condition and fate of humankind will then become a hypocritical anachronism of a shared future.

Becoming a collective future, it will become a future collectivity--a new global social environment hitherto unexperienced by humankind, consisting of the active sharing of common needs and aspirations and concerns, and of exchanging different cultural values and elements.

But however common, however shared, our future will remain preeminently a human one, composed by human actors in their daily lives.

A social collectivity of any scale is never a reality apart from or independent of the people who together compose it. It is not an insect colony or a wild herd dominated by instinct and necessity. It is not an independent, empirically separable entity or organism. It does not breathe, live or think independently of the collective will of the human constituency.

It is simply a shared state of being and wherever we search for it we will only find a common collection of people talking and working together toward a common cause.

The word collectivity of the future will be collectively made up of individuals who are independently thinking and autonomously acting and freely speaking out.

We cannot afford to promote a myth of a narrow, selfish egoism or that social man is necessarily a social insect. Nor can we afford to promote the illusion of the organiismic whole or of the social ethic founded upon the anthropological misconception of man the pack animal, man the ape, and the law of survival of the fittest. Greed and selfishness are no longer affordable virtues, as neither are selfless devotion and altruistic sacrifice.

The lesson of our histories leave us little guidance and less hope in these collective affairs.

UNNECESSARY REALITIES

Our world cannot any longer afford the luxury of functioning for the good of the one and the few at the expense of the all and the many.

In the long run, the world system cannot work upon the principle of 'unlimited good' for a limited few for it will otherwise spell collective disaster for all.

The collective ideologies and mass myths which sustain the mechanisms of the world system are becoming obsolete as we fail to resolve their inherent contradictions of class and power, affluence and poverty, economic efficiency and exploitation, inequality and violence. The bubble of promised expectations will burst in the storms of global crises and catastrophe.

Science and technology cannot always be relied upon to create the solutions to or collective problems, but in the long way may create more problems than they will be able to solve.

Technological development is not necessarily, unreservedly beneficial and efficacious for the progressive future of human civilization.

Energy, harnessed in ever greater magnitudes does not necessarily lead to greater efficiency, economy of effort, efficacy of design, or more manageable waste. High energy entrapment systems become concomitantly more wasteful and consumptive whatever the developmental rationale or technical strategies.

Information locked away in great treasures with privileged, graded access by the high priests and super specialist of the world technocracy, is no longer necessarily good for its own sake, nor does it necessarily lead down the golden pathway to collective enlightenments.

….Bits and watts--which here stand for units of information and of energy respectively--when packaged into any mass produced commodity in amounts that pass a threshold, inevitably constitute impoverishing wealth. Such wealth is either too rare to be shared or it is destructive of the freedom and liberty of the weakest…(Ivan Ilich, 1978:xiii)

Buckminster Fuller's anti-entropy equation of energy plus information equals something from nothing is not necessarily a valid design for the future or unequivocally the wisest kind of formulaic rationalism to apply like a band aid to our common existential dilemmas. More for less formulism leads down the road to less for more social patterning of exploitation.

Storing information, money or energy in ever greater quantities is not necessarily the wisest strategy for meeting our collective future, as it tends to promote social patterns of elitism, hoarding,

monopolism, class inequality, corruption and a false and pretentious idealism of privileged superiority.

Nor is the ideology of communism the only necessary alternative to a capitalist dominated world system, as communist societies face the same basic dilemmas of developmental inequality. Marx has long been dead. In facet, communism and capitalism as ideological doctrines have been cut from the same basic philosophical cloth of the western tradition of rationalism based upon the principles of progress and utopia.

AND THE NEED FOR A COMMON WELL BEING

The future of humankind's existence upon earth will not depend upon advances in technology, in greater development, more industrialization, mechanization, automation or professionalization or upon amassing ever greater stockpiles of potential energy or greater mountains of information. Our future health will not depend upon the development of superior tank armor, more accurate missiles or even less costly military machines.

The future of humankind will depend greatly upon our collective ability to meet certain basic conditions of human existence:

1. The extent of the realization of human rights and fulfillment of individual human potential.

2. Our collective capacity to live tolerantly, peacefully and compassionately with ourselves and with one another.

3. The extent to which we can establish effective population management techniques (i.e. birth control, health delivery systems) on the basis of voluntary participation.

4. The extent to which we can systematically eradicate and control common diseases and disorders which afflict humankind and the extent to which we can improve life maintenance systems.

5. The extent to which we can establish educational systems which teach effectively the values of equality, social responsibility and which foster freedom of expression and cultivate human creativity.

6. The extent to which we are able to reestablish an ecological balance and conservative harmony with our global environment, instead of promoting a predominant economic order founded upon the domination and destruction of the natural environment.

7. The extent to which we are able to put available technologies, energy entrapment systems and treasuries of expertise, knowledge and understanding, to pragmatic work in the reevaluation, reorientation and redirection of the predominating world order to more efficaciously realize the preceding conditions.

The future well being of humankind will be measured in spiritual terms of our collective, common emancipation from the tyranny of violence and necessity and the realization of basic human rights, freedoms and responsibilities.

Our future health will be measurable in real terms of how well we eliminate hunger, alleviate human suffering and stress and effectively control birth and death.

The future of our collective well being as both a global civilization and as a common biological species will be measured in terms of how well we will overcome our most pressing problems of global militarism, economic imperialism, ecocide, pollution, over population and poverty.

Our collective destiny will be decided in terms of how well we will be able to reestablish a new and better harmony of common well being based on an alternative ecology of global culture and civilization not predicated upon the domination and control and

alteration of our natural environments but in the reestablishment of a more natural symbiosis.

Furthermore, it is demonstrable that the common well being of the whole of humankind will depend immensely upon the well being of the autonomous individual. The future will thus pose a grand paradox between the interdependence of the whole and the independence of the many parts--paradox about our common existence upon the edge of our critical juncture which will become our common problem to resolve.

GAME THEORY AND WORLDS OF GOOD

Some social theorists have sought to apply game theory to the understanding of our social realities. The prototypical peasant world view is one of a 'world of limited good'--it is a zero sum game in which one competitor gains are always another's loss in the competition for ever scarce and limited resources.

Some scientists have sought to discover evidence of optimizing strategies, cost minimizing strategies or profit maximizing strategies in different patternings of subsistence, foraging, food getting, marketing, fishing, etc. It is always to be wondered whether or not people actually plan their daily lives and moves in such a rational way.

Our world system of capitalism is founded upon an opposed strategy of profit maximization, based upon world view of 'unlimited good'. Capitalists are playing a 'non-zero sum game' in which the results of interaction between competitors do not always evenly cancel one another out, but produce surplus.

Such a framework has not come to terms yet with the earthbound Malthusian view of the world which sees it as a world of 'diminishing good' played out in a 'negative sum game' in which one person's gain is everyone's net expense and loss. In an earthbound world the strategy to be adopted is one of minimizing

losses through minimizing gains, rather than optimizing or maximizing gains through minimization of losses. Rather than a conservative, 'peasant' outlook, the predominate earthbound perspective is one based upon rationing of limited, irreplaceable commodities in order that they may be preserved for as long as possible. This leads us to a world of 'unrestricted good' based upon principles of preservation and prevention.

In an earthbound world of diminishing good, there will be no point in leveling on a global scale, as there will be nothing to level and no amount of resources sufficient to distribute evenly throughout the world.

With a world of increasingly widespread deprivation as the rationed reserves run out, there will be local patterns of hoarding, panic, strategies of diversification, depression, followed by raiding, feuding, social movements of all kinds imaginable, in confrontation with increasing authoritarian power structures.

LIFEBOAT REALITIES

As we run out of room, out of food, out of resources, out of water, in our earthbound world, we will be confronted with certain basic existential dilemmas--on lifeboat earth that has overreached its carrying capacity, who shall be cast overboard and who has the responsibilities for making such decisions, or is it really a 'problem' in that there is 'always room for one more' as the rest of us whose security and safety is assured are constrained to 'tighten our belts' a little more.

So far we have history of casting out the poor, the dispossessed and the weak.

Lifeboat dilemmas are a consequence of life control mechanisms running into death control mechanisms--those agencies which protect, preserve and prolong human health by preventing death and disease. Immunizations compete with birth control drugs,

hospitals compete with military machines, schools compete with penitentiaries, old folks home compete with heart lung machines.

We do not yet know what the final 'solution' to the 'problem of population' will be, if there is one. It may be that there is in fact no real problem at all, or is not as immediately pressing as we now believe. Science may save the day, or find the final solution, or else the population problem will resolve itself for better or worse. As a collective, we have a choice of pathways, between Hitler's and Gandhi's solution to the problem of 'people'.

SELF ORGANIZED CRITICALITY

Natural systems maintain a level of equilibrium according to principles of conservation. This level of equilibrium within a system determines the criticality of its self sustained growth, beyond which systems tend toward 'supercritical states' resulting in predictable chain reactions which lead to major events which eventuate in restoration of conservation in the system at the previous 'supercritical' level. The chain reaction maintains the criticality of the system.

Such systems are characterized by internal contradictions--they are unstable in many different directions but the critical state is absolutely robust. Local features are continuously changing due to events, but the statistical properties of the whole and of the size of the events, remains stable.

Criticality is a global property of the whole system--local dynamics may vary unpredictably, but they are a function of the total history of the whole system and critical events would persist with a merciless frequency that is an erratic 'flickering' which is nonrandom and implies a connection of the dynamics of events

with past events of the system. Such flicker noise is a superimposition of signals of all sizes and durations produced in a dynamic system in a critical state composed of chain reactions of all sizes and durations.

Such self organizing systems are chaotic but nonrandom systems. Small initial amounts of uncertainty grow exponentially over time and prevent long term predictions which would require correspondingly exponential increases in information. Weak chaos generates uncertainty not exponentially but by a power law--it grows with time but much more slowly and predictably, on the border of chaos. Fully, strong chaotic systems have a time scale beyond which it is impossible to make predictions--weakly chaotic systems lack such a time scale and so allow for predictions. All self organized critical systems are weakly chaotic.

Such complex systems are governed by relational values or 'boolean functions' in which each component is a function of two or more other components of the same system and everything is related to everything else. There is a cycling of different possible patterns over a duration which fall into certain states. Minor mutations can precipitate 'damage' throughout such systems. Some such systems exhibit a remarkable capacity for falling into very stable patterns in which a majority of its relational patterns become fixed into stable clusters. This stability prevents widespread systemic damage by restricting the region affected to small areas of the whole. This is referred to as the evolution of 'anti-chaos'.

Natural evolution exhibits features of such critical systems which evolve and 'adapt' themselves in a self organizing manner at the 'edge' of chaos. Such systems are likened to fluid states, in which the number of 'fixed' stable components of the whole are relatively few and far between, as opposed metaphorically to 'fixed' and unchanging states of solids and the completely chaotic states of gases. Such an explanation of critical self organization may explain the saltational 'punctuated equilibrium' observed in the fossil record, related to rapid speciation events following long durations of stability.

The conservation of the number of elements is an important feature of many systems which naturally evolve to a critical state.

'Throughout history, wars and peaceful interactions might have left the world in a critical state in which conflicts and social unrest spread like avalanches.' (American Scientific, Per Bak and Kam Chen, Jan. 1991)

It is not unreasonable to suggest that symbol systems and the social systems they represent and the dynamic political economic behavior of such systems within a global framework, are systems of self organized criticality which naturally develop toward supercritical states by the natural increase in population which the functioning of such systems promote. Social movements are like 'flicker noises' in such systems, which chain reactions may precipitate major events like 'avalanches or earthquakes'.

GLOBAL ORDER

It is estimated that the whole world will become structurally integrated into a single hierarchically ordered political economic system. Some see it happening now, others forecast it within a century, others believe it will take a couple of hundred years and yet others believe it will happen by the year 4850A.D. if such political economic integration is inevitable, then the questions of when, how and why are critically important. But it is also to be wondered whether such world order will be desirable--can it be achieved by peaceful cooperation or only through imperial conquest and domination? And will such a single world order necessarily be an Orwellian or Huxlian dystopia of the absolute and arbitrary rule of Great and Impersonal Organization of Evil, or may the characteristic millenarian vision of utopia be realizable by the progress of scientific technology which will result in a better world for everyone. Estimates based upon computer projections of current trends suggest that the present political economic disparities between global core and periphery are relatively stable and 'fixed' given the persistence and pressure of the political economic status quo of our Pax Amerikana.

It is possible that such global order, if it is achieved by the conquest of war or the threat of violence, will depend upon the military organization of societies which must socialize its citizenry for the mobilization for war. Such socialization for the mobilization for war, or for 'economic competition' which seems to be the 'pursuit of war by other means' has negative consequences for the realization of human potential and humanity upon earth. If this hypothesis is correct, then the system which promotes uncontrolled capitalist expansionism and exploitation must have negative consequences for a world order based upon an organizational ethos promoted by the threat of violence.

Political and military fascism has always been the dark underbelly of capitalist imperialism.

It seems necessary that any world order, if it is not to be founded upon the evil tyranny of the threat of violence must be founded on the rule of peace and the devaluation of violence. If such an alternative 'rule of peace' is possible, one which would minimize the threat of violence then a groundwork must be lain down which would demonstrate how global political economy can be effectively achieved in a non-capitalistic manner.

OVERSPECIALIZATION AND ADAPTABILITY

Our present world system is no longer adaptable to the unexpected and unplanned. It does not respond in adaptive ways to the relinquishment of the motivation for social power. It cannot deal in any other terms than those upon which it was originally founded in a previous period. The earthbound environment is confronting the world system with a set of basic survival imperatives which the system is unable and unequipped to effectively deal with. The challenge is unmet and all attempts at adaptation are systematically frustrated. This inflexibility to natural change, the promotion of outmoded ideologies and commitments to lost causes and false organizational ideals, is occurring at all levels of the world system, as it becomes bogged down in an entangle political economic web

of its own design. Our system has become in its structural hyper coherence, 'overspecialized' in its functional compartmentalization. Such overspecialization is a measure of its maladaptability in local contexts, and is a precursor to sudden, catastrophic events and eventual extinction of the system.

In its progressive quest for power, for control over change, for stability, it has become crystallized and solidified by too many constraints--it no longer balances flexibility at the edge of chaos, and must soon fall into its abyss.

A NEW AGE AND AN OLD ONE

We are at the dawn of a new age, and at the dusk of an old one. We stand in a twilight of transition as one sun sets and another rises. The new age will bring with it new sets of problems to be solved, as well as solutions to some old problems which have remained unresolved. The new age is an earthbound age, one characterized by new adaptations in new environments. The new age is the post scientific age--one that will no longer depend exclusively upon the workings of scientific technology to solve every problem challenging human survival. The new age will not be any better or worse than the old one, it will only be very different in very fundamental ways. Science will still progress and be important, but it too will have changed in revolutionary ways.

THE PROBLEM OF POPULATION

The Malthusian dilemma of the exponential growth of population beyond the carrying capacity of the natural system upon which it is based is coming to pass within our children's generation. Population is the 'key' problem of the earthbound perspective, but it is connected ecologically to another problem of the

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environmental degradation of the very natural substrate which supports the population. We are witnessing a point of critical convergence between population increase and ecological destruction, a threshold to explosive cataclysm which our science and technology cannot long forestall or prevent.

It is estimated that our earth will soon overreach its optimum carrying capacity, beyond which further increase will only eventuate in further ecological degradation. The consequences of this will be measured not just in relative qualitative terms, of the loss of the quality of life for the majority of the world's people, but in 'absolute' quantitative measures of infant mortality, gross income, net nutritional intake, disease prevalence, life span, etc.

It is theoretically speculated whether population increase 'drives' systems of social complication or is the result of the adaptive success of social systems. It is, as a 'natural system' one which passes from sub-critical through critical to supercriticality in that in its overloaded state it generates a process of fracturing breakdown. Population growth eventuates in the formation of social chaos, which results in the entropic breakdown of the social system which generates it and is generated by it.

Population increase will eventuate in other unforeseen consequences as it stresses and breaks down the system upon which it is based. The ecological dilemma of global overpopulation and environmental degradation becomes a 'biological time bomb' in which there is a built in time delay between the ignition of the fuse and the final release of its potential energy. Also in a hyper coherent, supercritical system , minor fluctuations in parts leads to major reverberations in the whole resulting in systemic destabilization. Things may happen spontaneously in one part and indirect resonance to causes in other parts.

Population increase begets mechanisms of population control which attempt to brake and slow down the snowballing growth. Such 'mechanisms' may be family planning, birth control, abortion, infanticide, marginalization or exclusion, migration or warfare. Some methods are more 'cost efficient' and effective than others-- the elimination of the fetus represents less loss of investment of energy than the elimination of adults. So far, family planning is the

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most efficient 'mechanism' available, but the promotion of its effectiveness has faced serious and social obstacles.

The 'problem of population' leads to certain ethical dilemmas of 'lifeboat realities'--on lifeboat earth that has overreached its carrying capacity, who shall be thrown overboard and who has the responsibility for making the decision, or is it really a 'problem' in that there is may 'always be room for one more' as the rest of us whose security and safety is assured are constrained to 'tighten our belts' a little more.

Lifeboat dilemmas are a consequence of life control mechanisms running into death control mechanisms--those agencies which protect, preserve and prolong human health by preventing death and disease. Immunizations compete with birth control drugs, hospitals compete with military machines, schools compete with penitentiaries, old folks home compete with heart lung machines.

The 'problem of population' is also a 'problem of hunger' and a 'problem of disease' and a 'problem of poverty' and a 'problem of prosperity' and a 'problem of education; and a 'problem of inequality' and a 'problem of authority' and a 'problem of responsibility'. The last problem is perhaps the most important, because it may very well be the case that in the global system, no one is really in control and no one is really responsible. The 'problem of population' is beyond control, and decisions made or not made in relation to its final solution. This is more than just the social diffusion of responsibility, and even if everyone miraculously wake up one day in the near future and decided to assume earthbound responsibility in their own life in the world, the momentum of the population snowball and the consequences of environmental degradation will still carry all of us to the critical point of global climax.

We do not yet know what the final 'solution' to the 'problem of population' will be, if there is one. It may that there is in fact no real problem at all, or that the problem is not as critical or pressing as we now believe. It may be that science does find the final solution, or it may be that one way or another the population problem will simply resolve itself for better or worse. As a

collective, we have a choice of pathways, between Hitler's and Gandhi's solution to the problem of 'people'.

The biological time bomb may have a longer delay than we know, or our bomb experts may defuse it in time. From our privileged position of first world affluence, we tend to 'blame the victim' and put the burden of guilt upon poor people who have many children and large families, even though it is not scientifically understood whether population drives the system or the system drives the population. Poverty seems to beget overpopulation, but overpopulation also begets poverty. It is a vicious cycle that must be broken before it breaks us.

OUR EARTHBOUND ECOLOGY

From an ecological standpoint, the 'problem of population' is tied critically to the 'problem of environment'. If there were unlimited space, unlimited resources, unlimited water, unlimited forests, unlimited air and unlimited food, then there would be no environmental or population problem. In vain we look to the distant stars as a way out of our predicament. But the facts remain that the earth is being denuded of its last stands of forests, stripped of its mineral resources and its atmosphere, biosphere and landscape are being permanently altered by 'man made' processes. We are 'developing the earth' to a premature death--the growth of world civilization is resulting in permanent and irreversible alterations of the global environment, from destruction of the atmosphere, global warming, destabilization and contamination of the hydrosphere to mass extinctions of many species and the permanent loss of biological variability on the earth.

The entire problem of global ecology remains debatable, as it is not yet known exactly how large our energy reserves or mineral resources are, or how our atmosphere or hydrosphere will become adjusted in the long run to our presence and growth and development. Many still believe that science will still be able to solve all our problems if given enough time or if it can act in a

timely enough manner. But the point remains that the earth is a limited sphere and its resources, once bountiful will eventually dwindle. The atmosphere cannot forever sustain itself in relation to the continuing increases in technological development.

Global ecology is not a disconnected set of variables--it is itself a global system in which one set of 'problems' is interdependent with all other sets of problems in some important way. We do not know well how deforestation affects the atmosphere, or how atmospheric contamination will affect life on earth. Burning of fossil fuels affects the atmosphere and the biosphere. We have both a set of interrelated ecological problems, and a single problem of global environment.

The environment is rapidly being eroded and the ecology as a system degraded. This degradation and erosion follows a long series of incidences of human destruction of natural environments in the process of creating 'cultural' environments. The global environment is rapidly becoming transformed from a 'natural system' into a 'cultural setting' and this transformation has both bad and good consequences. But it seems as if it is an irreversible, inevitable and runaway process that has been beyond anyone's capacity to control.

Environmental consciousness has become popular--there has been an 'awakening' to the 'problem' and a sudden proliferation of literature, media and public/private interest and investment in the 'problem'. While this is an optimistic sign of the times, its hard not to notice that this is a 'cultural' rather than a 'natural phenomena'. Such consciousness remains a privileged prerogative of first world societies that stand the most to lose and the least to gain from the kinds of changes which might lead to real solutions to the problems at hand. As a symbolic mode of representation, it is to be wondered whether this rather fashionable interest is not a part of the very consumption industry which seems to drive the whole problem in the first place. It is easy to point fingers at the policies and patterns of third world societies, but might they not be a symbolic scapegoat for our own repressed sense of guilt for being the cause of the problem'

The cultural elaboration of ecological themata, as part of an 'ecology industry' represents not part of a solution to the problem of ecology but a prevention of the possibility of such a solution. Consciousness awakening and a high profile interest in ecological problems are not bad things, but neither does their industry provide the solution the problems it feeds upon, and even may hinder such solution by fostering collective illusions that money being spent on elaborated illustrated coffee table books devoted to global ecology will help in the effort to find solutions.

This points up some basic dilemmas about the problem of ecology which we must learn to recognize and resolve, as they prevent our acquiring practices, habits, attitudes and objectives which might genuinely contribute to the solution of the environmental problem. In promoting symbol system which promote and preserve the status quo of social relations in the world, or by promoting the 'tokenization' of symbol systems which would otherwise threaten the status quo of political economy, we fail to face squarely and honestly the earthbound realities of which we are a part.

The global ecology movement has remained a 'molish' grassroots ground swell. The greening of global consciousness remains for the most part 'underground' as it must come into headlong conflict with the great and impersonal forces and interests of a global political economy founded upon technological development. It is apparent that the powers that be cannot be entrusted with the responsibility of caring for the earth in a way that will promote long term survival.

The dilemma of the problem of global ecology is that those who have the most power to decisively effect the kinds of changes which would have decisive consequences for life on earth are precisely the special interests groups who have the most invested in the status quo and the most to lose by such change. Most of the rest of us merely follow suit for the interest of our short term social survival. But we are leaving our posterity a poor inheritance.

THE BIOLOGICAL TIME-BOMB

The biological time bomb is an ecologically volatile system of resonance between social circumscription of overpopulation and related problems and environmental circumscription due to degradation, destruction and irreversible alteration of natural ecosystems. This 'supercritical system' is approach to a point of 'critical mass' of an inherent potential systemic instability which may suddenly but not unexpectedly 'go off' in a cataclysmic 'explosion'. We are running out of room and out of time, and out of the very things which sustain our being on the planet earth. Yet it is to be wondered whether it is in fact a 'time bomb' ticking to a 'global climax' or it is just a wound up alarm clock which will eventual just 'run down'. To a large extent, the understanding of our earthbound ecology is a big black box and we are not exactly sure what is inside of it. We are not sure whether the ticking coming from within is a bomb or just a clock.

But population, the environment and the interrelationship between them on a local, regional and global scale, poses a very real ecological problem. It is a problem which also has broader evolutionary consequences, not just for our own species, but for all of life on planet it, and for the whole planet as a living entity.

The biological time bomb is in fact not a natural, biological 'climax' of life on planet earth, an inevitable outcome of evolutionary development. It is in fact a man made problem, and can therefore be called the 'cultural time bomb'. Human cultural development, an historical and non-evolutionary process, has been the main driving mechanism. But it is the biological consequences and the effects measured biologically, which make the bomb primarily a biological problem of global human global culture.

The primary experience of the time bomb are those of 'future shock'--of the exponential increase in interrelated phenomena which are the result in the supercriticality of the global system approach its threshold. 'Future shock' is in fact a form of 'culture shock' in that it is experienced as a cognitive and perceptual disorientation and feeling of loss of identity, in the encounter and adaptation to a rapidly changing global environment--one which is rapidly transforming from a natural to a cultural orientation. The

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consequence of this is the loss of our cultural capacity to cope with and collectively adapt to a changing global environment. We are quickly losing our adaptive abilities, and this reverberates in our personal individual lives. We are suffering paralysis from fear in our ability to deal with change at the very moment in our history that we must confront the most change. Fear of the bomb has frozen and unnerved us.

HISTORY OF THE WORLD SYSTEM

The history of 'modernization' of the world system is not to be confined to the industrial era of the rise of capitalism. The history of the world system is a history of the gradual rise of human civilization as a global phenomena with political, economic and socio-religious implications. It is in other words, the history of the political economic and socio-religious integration of the human population on earth. Capitalism and communism had precursors far back in ancient pre-history and classical history. The only thing 'modern' about them was not their political economic or socio-religious aspects, but rather the development of scientific technology and its social consequences. We cannot clearly separate out the political influence of conquering imperialistic armies from the economic influences of foreign markets and commerce from the socio-religious 'civilizing influence' of world religions. The history of the world system is one of gradually increasing integration of the global population into a single system based upon political, economic and socio-religious principles of organization.

The contemporary period of this history with which we are most concerned is one which is characterized by global 'capitalism' that contains political economic domination/dependency between 'core' metropolis regions, on global, regional and local scale and outlying 'peripheral' areas. Power and wealth are focused at the 'center' of this capitalist system and relations between core-periphery are predominant in that they determine the life ways and life chances of all individuals within the system. It is a system which is

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characterized between gross inequalities between the core and the periphery, in which the function of the center is primarily consumption as a symbolically legitimating the materialistic values of the capitalist mode of production, while primary production is the primary function of the periphery, as the material base which supports the core.

The process of development/underdevelopment characterizing this capitalist world system is basically one of 'class polarization'--of separating people out into two polarly opposite classes, at local, provincial, national, regional and global levels, characterized by their unequal access to commodities of the global market. These two classes may be lumped into the consumers and the producers, the function of the former being primarily symbolic, the function of the latter being mostly physical labor. These may also be separated on the basis of parasite and host classes or exploitative and exploitable classes. It is largely a class phenomena because its social relations are focused in the exchange relations of the market place.

There is a third, in-between class, referred to in the global sense as the 'semi-periphery' and in a domestic sense as the 'middle class'. The political economic function of this class is to intermediate the social relations between the core and the periphery, or the upper and under classes. Bureaucratically mandated and empowered from above, from the standpoint of the core they resemble the periphery, while from the point of view of the periphery they are part of the core. Their function is to serve as a buffer to interclass conflict and to provide a central ideological prop for the articulation of the whole system. Extreme polarization tends to pull this middle class apart, to disintegrate it between the two extremes, whereas increasing systemic integration tends to pull the two extremes towards the shared middle ground.

It is this class which is most characterized by inter-positional ambivalence and therefore cognitive dissonance of status ambiguity. It is for this reason that the world view of this class is said to suffer the most class/status consciousness and to have the greatest sense of 'false consciousness' or a collective illusion of its identity. This in-between class is also characterized by its

structural heterogeneity--it comprises the greatest diversity of social interests and orientations, being at once the most conservative and reactionary supporters of the status quo and simultaneously the most fertile element for revolution and challenge. It is a class by virtue of its 'anti-structural' relation to either extreme. It is usually difficult to clearly identify the boundaries of the middle class, as they tend to grade off into the upper and lower classes. The 'middle class' therefore is largely a 'fiction' which maintains the boundary between the two extremes, by fixing a relative distance or difference which the middle class must bridge. It is not surprising then that the primary preoccupation of the middle class is that of social mobility and the symbolic representation of such mobility.

Besides an international division of labor and international patterns of labor movement, the capitalistic world system can be characterized by the 'global factory' as an index of the degree of political economic integration of the world. Production and consumption become complex international systems in which materials produced in one part are manufactured in another part, to be assembled in yet another, to be packaged in another and finally to be marketed and consumed in a final, separate part.

The key characteristic of the capitalist world system is the degree of disparity and inequality between the core and the periphery. This becomes the primary symbolic determinant of ones structural position within a global context, translated into ones level of consumption or distance from primary production.

THE GLOBAL CONTEXT

The world system is defined by its global context, and its history from its earliest beginnings has always been a world history. There are several levels of analysis of this context, the local, provincial, national, regional and global levels. These levels, subsumed by higher levels, or expressed by interconnections between lower levels (global is 'interregional or international', provincial is state

or county or sub-national). These levels are characterized by economic markets of exchange, bureaucratic levels of administration and socio-religious symbols of identity.

There is reverberation and resonance between the levels such that what predominates at the global level is predetermining at all the other levels. There is a sense of 'domestic analogy' of the global paradigm such that 'core periphery' relations expressed regionally and internationally are reflected in core periphery relations sub-nationally, locally and provincially. Core periphery relations within developed and developing nations are reflective of the same core periphery internationally and globally.

This is also reflected in rural urban, core periphery patterns of diffusions and migration. Migrations from outlying provinces to built up city areas for work opportunities is a reflection of the larger international process of migration from peripheral nations or regions to core nations or regions.

In the political economy of the world system, it is no longer appropriate to separate definitively economic migration from political refugees--but the world system is characterized by 'political economic migration' in which most migrants have mixed 'push pull' motives which are both political and economic.

To the extent that 'refugees' are characterized by the state of 'homelessness' as political migrants, they are the international equivalent of the domestic problem of 'homelessness'--domestic refugees from bureaucratic exclusion and persecution, to a large extent, the 'refugee' problem of homelessness, internationally and domestically, globally and locally, is the problem of 'political economic migration' within a world system.

International stratification between first, second, third, fourth and fifth worlds become domestically recapitulated in provincial, national or local class stratification between upper, middle and lower, marginalized and excluded classes.

THE PROBLEM OF COMMUNISM

It is a shortcoming of the political economic ideology of capitalism that anything which is anti-capitalist must be construed as 'communist' and that anything which is anticommunist must necessarily be capitalistic. This 'either or' dichotomization between capitalist/communist world orders reveals a critical dialectic between the two political economic ideologies which makes them cut from the same cloth. That point is that an alternative political economic philosophy can be simultaneously anti-capitalistic and anticommunist transcending the limitations of both and their dialectical entanglement.

Communism as a social revolutionary movement is a secularized form of political economic chiliastic, millenarian movement predicting a perfect time and a perfect utopia based upon equality and no conflict. All such movements have an ontology of development in moving from an idealistic prophetic stage into a realistic bureaucratic and authoritarian stage. Any such attempt at the realization of an ideal utopia is bound for failure because it entails forcing human diversity and social variability into a single mold under a single social paradigm for appropriate behavior. It results in the tyranny of the rule of the proletariat by the communist party--an exclusive, elite membership of a minority of individuals who have power to control all other people.

Such tendencies can be observed in the early formation of communist movements, in the demands and expectations and the power ambitions individuals have, usually frustrated by their own failure in the larger society, over other members or initiates within the movement. These true believers have a 'heart of darkness' which reveals, behind their total commitment to a superhuman social ideal, a totalitarian interest in power and the corruption which power can bring.

This is not to deride the value of Marxist political theory in its historical application to the rise of capitalism and the understanding of exploitation, but only to proffer the reality that such theory is not less ideological when it is promoted as a program for social revolution than the capitalist ideology which it contradicts.

Being both anti-capitalistic and anticommunist, then are there any other alternatives which lack the problems of both and which in its own realization would not suffer corruption in the world. Any such answer depends upon the reasonableness of its aims and the appropriateness of its means applied to achieving its ends.

GLOBAL STRATIFICATION

World society has become stratified into the first developed world, the second socialist world, the third underdeveloped world, the fourth marginalized world and the fifth homeless world of political economic refugees. This class stratification occurs at all levels of analysis and is restricted domestically as well as internationally.

Global stratification can be characterized as 'diagonal' class caste stratification, combining skewed vertical and horizontal forms. The characteristic of this form of stratification is the formation of segmentary 'ethno-nations'--politically economic ethnicized groupings of people focused around occupational specializations or administrative niches which crosscut the loyalties and solidarity of nation state identity. Global society is a 'plural' multiethnic society whose ethnic divisions are reinforced from above, defined by unequal access to resources and social structural discrimination based upon ethnic identity. Political economic co-option from above is a kind of colonial strategy of 'divide and conquer' and of alienating minority groups of their own leadership who are placed into middle class management positions. This is a form of bureaucratic encapsulation from above, of bounding groups and reinforcing inter-group boundaries under an ideological umbrella of pan ethnic national solidarity. The military, the media, educational institutions and public offices all reinforce the ideological norm of inter-ethnic solidarity and equality, whereas in the marketplace and in the political structure the actual situation is predominant one of inter-ethnic competition and the promotion of infra-ethnic exclusiveness and solidarity. Ethnic organizations become as if 'castes' which have their own internal stratification

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and which feature ethnic mobility as a group. The result is a complex social structure of multiple overlapping hierarchies.

Within this system of global stratification, national identity and loyalty are undercut by ethnic allegiances formed around the organization of power and money and an individual's overall status position within the world system is predetermining of that person's interrelationships. These ties may cut cleanly across ties of national citizenship or even of ethnic identity. In other words, members of the same class cross culturally share more in common political economically and socio religiously than the same people may share nationally or culturally with people within their own society but of a different class caste status position.

The is overall system is characterized most by its fluidity and flexibility and its overlapping inter-positionality rather than its rigidity and between group boundaries. Movement of people and resources, a jxtapositioning and interposing of multiple status and a 'network multiplexity' are common features of this system. Mobility is neither purely social or vertical nor horizontal and geographical, nor is it unidirectional, but it has become lateral or diagonal mobility in which geographical mobility for jobs will entail as well social mobility. It is multidirectional in that individuals usually to and fro and the ties between homeland and host country, though long distance, are not really cut off. Refugees politically severed from their country of origin may nevertheless maintain quite extensive economic ties with people back home. Economic migrants living with secure jobs and investments and family in a host nation, may nevertheless maintain a sense of political loyalty and economic investment in the land they left behind.

Modern society is becoming a complex mosaic of multiple ethnic communities which may have local points but not be 'ghettoized' into enclaves. Living in core regions is characterized by its ethnic diversity of different groups which either live separately but share a common marketplace and a common administrative authority or live proximately with one another but lead quite separate lives.

Another characteristic feature of this global stratification is the gross disparity between haves and have nots and the political

economic inequality between members of different class castes. Globally there are one billion people or approximately one fifth of the earth's population who are characterized by over consumption way above the basic requirements of their biological sustenance. There are also one billion people who live in 'absolute poverty'--a death trap in which an individuals basic biological requirements are not met and from which there are very few opportunities of escape. Between these two groups of the worlds most and least privileged, there range a three fifths of the worlds population who lead lives of less rather than more wealth. In our own consumer oriented nature, 20 percent of the population control 80 percent of the resources, while the remaining 20 percent of the wealth is to be divided unevenly between the remaining 80 percent of the population. Our nation constitutes only 5% of the global population but it has been estimated that it consumes 95% of the global resources. Though exaggerated these figures illustrate the degree of disparity characteristic of the world system. Nations become ranked on a scale of consumption/production, as ethnic groups compete for positions of advantage within an international arena, and individual's juxtapose themselves for greatest strategic advantage, whether nationally, ethnically, individually or both or neither.

THE GLOBAL VILLAGE

The world system and its society has two contradictory forces which collectivize and relativize global identity. On one hand there is a concept of the 'global village' in which the modern 'media environment' of 'secondary orality' leads to a global communal outlook which tends to unite individuals internationally and cross culturally by a common modern world view. Part of this notion is the cultural hegemony and media imperialism of the world system of the acculturative and symbolic influence from the West to the Rest--a kind of global pan-westernization. Part of this process is the 'intellectual imperialism' of the colonization of non-western world views and the domination of western forms of rationalism and western modes of representation.

This predominant trend is contrapuntal to an opposing trend towards 'ethnization' and diversification of multiple symbol systems which are a synthesis of acculturative syncretism. This antithetical trend is tending to 'relativize' the global village into its ethnic neighborhoods. Characteristic of this trend are the formation of social movements based upon ethnic or religious or special interest parties which are seen as competing with other such groups or with corporations or governments, for political economic advantage. Part of this process is that as peoples are drawn into the webs of interdependency of the world system, and a push pull toward the center, they confront the dilemma of relative deprivation and a revolution of rising expectations which , in inter-group competition, becomes expressed as a revolutionary movement of political economic equality. Relative deprivation and rising expectations in comparison with peer polity groups leads to cognitive dissonance and to 'frustration/aggression'. Symbolism of ethnic group solidarity are created ideologically and in group/out group consciousness is fostered for promoting projection of aggression upon out group members. These groups form their own separate hierarchy. Often such groups are co-opted within a larger bureaucratic framework, or become manipulated by larger interest groups.

Competition may turn into inter-group conflict, especially as one group seeks to dominate and control another. Conflict resulting from such social movements can be very destabilizing for the larger social system, and can arise unpredictably. Ascendancy of one group over another may lead to implantation of mechanisms of population control, either of enforced marginalization or segregation, or of ethnocide or genocide, as with the Jews and other Europeans by the Germans in order to create Lebensraum and to eliminate political economic competition. But there have been numerous more recent examples of the very same phenomena.

POLITICAL ECONOMY

In the world system of the modern age especially, it is not possible to clearly distinguish politics from economics, nor to say whether the hen or the egg comes first. Economic monopolization entails political domination and vice versa, and capitalism and colonialism have always gone hand in hand in political economic imperialism. There is also always an associated socio-religious component, of integrated symbolic systems of collective representation which ideologically reinforce and promote political economic interests and motivations.

It is not possible to distinguish the pure economic migrant in search of job opportunities in the big city or abroad from the political refugee escaping discrimination and persecution, but it makes more sense to think of political economic refugees who are a mixed bag of economic motives and political aspiration/fears. Where there is structural poverty, there is some form of political domination and persecution.

Nor, in social movements is it possible to distinguish revolutions of rising expectations based upon economic interests from revolutions of equality based upon political inequalities, from religious syncretistic movements predicated upon the coming of the perfect age. There is only political economic equality, sought in the marketplace as well s in political representation.

There are no longer purely economic or purely political interests-- political decisions may be guided by economic motives and economic choices may be dictated by political interests. Class caste ethno-nations are political economic groupings organized on political economic principles. There are no longer purely political parties or purely economic corporations. Nor can we speak of purely economic 'achievement' motivations which do not also have socio psychological overtones of 'power' motivation.

Boundaries, identities and differences are political economic boundaries, identities and differences.

WORLD WARS

The history of modern civilization has been in part a history of modern world wars. These wars have occurred periodically and have been characterized by their increasing international involvement and destructiveness. There has been global militarization of peacetime vertical escalation of destructive force potentials and horizontal proliferation of modern weapons of increasing lethality. The international arms industry and its markets have become one key sector of the global economy. For the past forty years the entire world has existed beneath the shadow of M.A.D., the umbrella of the threat of nuclear holocaust, alone the single most dangerous threat to the ecology and life on earth.

The cross cultural study of warfare reveals that most peoples go to war out of fear--a social hysteria--of 'expectable but unpredictable' disasters which will threaten food resources--warfare is an attempt to conquest and appropriate the resources of the defeated peoples in order to stave off or cushion against possible future famine. Warfare feeds on fear. Furthermore, international alliances increase the likelihood of war--the balance of power is easy to upset. Warfare is related to trade, conflict of interest and disputes between trading partners escalate to war more frequently than between nations which do not trade much with one another. Also, military equality, especially when there is rapid military buildup, increases the likelihood of two or more nations going to war.

Warfare, like migration, discrimination, segregation and other practices of birth control, has been looked at as a population control mechanism, not very 'cost effective' but quite 'efficient' in times of scarcity. This is linked to protein calorie malnutrition which is characteristic of conditions of underdevelopment and local regional overpopulation.

There is a sense of looking at global wars and its occurrence as 'supercritical events' similar to earthquakes, avalanches and perhaps famines. Social movements are also 'supercritical events'. Like earthquakes it is known that they will eventually happen, but not exactly when. They occur with a random frequency which is expectable but unpredictable. They are a function of the

supercriticality of world political economic systems, of hypercoherent integration which may breakdown or destabilize under its own weight, triggered by minor, unpredictable events and reverberating into major cataclysms.

Every world war, major and minor has been the result of some ethno-national social movement which triggered a rapid mobilization of military machines culminating in conflagration with always unforeseen consequences.

THE FREEDOM OF CAPITALISM

The dilemma of capitalist economic doctrine is that it is founded upon a world model of unlimited good, or unlimited economic growth in a world of ever increasing profits and ever growing markets. It is a system which is sustained by growth and development as much as it sustains the same growth and development. Its success has been largely due to its marriage with science the technological spin-offs of which have lead to the illusion of the realization of a world of unlimited good.

A part of this dilemma is that, though it is a world of unlimited good, it is also a world of 'survival of the fittest' in a competitive marketplace, where one person's gains is another's loss. This imposes a contradiction in the capitalist world view which generated cognitive dissonance and a set of double standards leading to a compartmentalization or dichotomization of the capitalist world between public and domestic spheres of interaction. The illusion of that increased consumption becomes rationalized and that there is a 'trickle down' effect in the increasing standards of living of producers and consumers alike as a net consequence of economic growth. This fits the utilitarian ethic of the 'most good for the most people' understood in terms of 'units of pleasure' which can be easily 'commoditized' as 'values of consumption'. Competition in the marketplace promotes integration but also entails systematic 'exclusion' from the entire process--it sets up a system of consumption priorities which

privilege few 'haves' from many 'have nots' which results in a 'consumption' hierarchy reinforced politically in that those who produce the most with their labor consume the least, and those who consume the most produce the least by their labor.

Besides generating inequalities and exclusion from the system, capitalism in an ecological orientation is 'anti-ecological' in that its promotion of unlimited production/ consumption entails eventually degradation of a globally limited and finite earth and its spin-off of wastes, pollution, planned obsolescence lead to contamination and accelerated depletion of resources. Part of this process is the adoption and promotion of a 'convenience' lifestyle, measured in terms of material appliances, based on the principle of the cultural control and domination of natural forces and their harnessing for a facilitation of the human production/consumption lifestyle.

The anti-ecological and developmental consequences of the promotion of capitalism or the production of environmental degradation and social circumscription and inequality, have the result of producing the biological time bomb--the historical convergence of the overpopulation of the impoverished and the destruction of the natural environment in the construction of the man made.

A WORLD OF DIMINISHING GOOD

The classic hypothesis contraposing the world view of 'limited good' which views the life of the peasant mentality as a 'zero sum game' and the bureaucratized world of the middle and upper classes as sharing in a world of 'unlimited good' in a 'non-zero sum game' is rooted in a very ethnocentric framework of modernization

which attempts to explicate how and why tradition bound peasants should be so resistant to developmental 'processes' which promises a world of improvement. Such a framework has not come to terms with an Malthusian earthbound view of the world which sees it as a world of 'diminishing good' played out in a 'negative sum game' in which one person's gain is everyone's expense and loss. Decidedly, an earthbound world view is a 'post modern' perspective of the world which, antithetical to the optimizism of the development oriented scientific modern is a portentously pessimistic outlook upon the human future. The local peasant perspective from this alternative point of view does not seem any longer as pessimistic as it is merely conservative in scope--it promoted a certain social egalitarianism which hindered the rise of parasitic bureaucracies and tended to provide a certain village centered sense of security. It was a world view oriented to the worst case scenario of hard times of drought, famine, pestilence, warfare and disease.

The peasant has never been an entirely independent spirit, though he/she may have had strongly independent value orientations, they were inevitably feeding or paying taxes to some one else.

Hard times are returning again and for the most part the important people have forgotten how best to cope with them. The critical difference between the village bound local world view and the earthbound global world view is the scale and scope of the significance of the terms, the peasant is no longer safe in his village, nor is the bureaucrat necessarily any better off.

A world of diminishing good has certain theoretical and philosophical implications of attitude and adaptation. A negative sum game means that the no matter how well it is played, surplus gains will entail net overall loss. A zero sum game pits two opponents against one another in a very primitive way--neither mutual competition nor dominance of either one over the other eventuates in gain--only mutual cooperation begets success. In an earthbound world, the strategy to be adopted in one of minimizing losses through minimizing gains, rather than optimizing or maximizing gains through minimization of losses. Rather than a conservative outlook, the predominate perspective will be one based upon the principle of 'rationing' of limited, irreplaceable

commodities in order that they may be preserved for as long as possible. This leads to a world of 'restricted good' based upon principles of preservation and prevention. Rationing strategies will be diverse given various local circumstances and will lead to patterns of local hoarding, panic and to strategies of diversification as the number of alternative resources, no matter how basic or inefficient, become substituted in a world of scarcity. It will become a world of increasingly widespread deprivation, socio economic regression and extreme political economic polarization which will tear asunder the world middle class and increasingly marginalize the bureaucracy upon which it has been founded and flourished. Hoarding will be followed by increasing incidences of 'raiding' which will in turn generate a vicious cycle of revenge and punishment and 'feuding'. Social movements of all imaginable kinds will proliferate in confrontation with increasing authoritarian power structures which will attempt to preserve the status quo of extreme polarization, a minimal regressed form of social structure. In an earthbound world of diminishing good, there will be no point in leveling on a global scale, as there will be nothing to level and no amount of resources sufficient to distribute evenly throughout the world.

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