

# Ontario Naturalist

MARCH 1973





The grey catalogue  
of environmental abuse has been well  
documented over the past ten years. The popular  
response to this documentation has been the seeking out  
of even more sophisticated technological solutions as the  
way out of our dilemma. Other observers however,  
have responded by examining those attitudes, values  
and perceptions which may permit a harmony  
of man with nature and with himself.

The Dunning Trust Lectures of Queen's University are  
dedicated to examining "the dignity, freedom and  
responsibility of the individual in human society".  
The 1972-1973 series examined the question of Western  
man's attitude to the natural world. We are pleased  
to depart from the traditional format of the  
*Ontario Naturalist* to publish the four main lectures  
of that series.

The procession of giant  
birds reproduced on the cover is a  
detail from a painting by Hieronymus Bosch  
(1450-1516) called "The Garden of Earthly Delights".  
The detail demonstrates how a new perception can  
alter one's reaction to even the most familiar  
subject. It suggests that paradise may be regained  
if we will only remember how prominent nature  
must be in our activities and reveals that a harmony  
of man with nature and with himself is in fact possible.  
As such, it will act as the metaphysical symbol for  
our inquiry into environmental ethics, the search  
for an ecological conscience.

# Ontario Naturalist

---

PUBLISHED BY THE FEDERATION OF ONTARIO NATURALISTS, VOLUME 13, NUMBER 1, MARCH 1973

---

COVER — GARDEN OF EARTHLY DELIGHTS

Hieronymus Bosch



---

GROWTH, TEMPORAL AND SPIRITUAL

Raymond Moriyama 6



---

POPULATION: THE SOLUTION IS IN OUR MINDS

Garrett Hardin 10



---

DESIGN WITH NATURE

Ian McHarg 20



---

THE GARDEN AS A METAPHYSICAL SYMBOL

Ian McHarg 30

BOOKSHELF

40

---

EDITOR: Gerald B. McKeating  
ART DIRECTOR: R. Barry Ranford (Clemmer/Ranford)  
EDITORIAL BOARD: William Draper Wayne McLaren  
Harvey Medland Judith Parsons

The ONTARIO NATURALIST, official publication of the Federation of Ontario Naturalists, is published quarterly. Opinions expressed in the *Ontario Naturalist* are not necessarily the formally approved views of the FON unless expressly stated as such.

---

CONTRIBUTING EDITORS: Fred Bodsworth  
Dr. William W. H. Gunn Dr. J. M. Speirs  
ADVERTISING MANAGER: Bryan Tyson

Authorized as Second Class Mail Registration Number 2216. Editorial and publication address: 1262 Don Mills Road, Don Mills, Ontario. Telephone — (416) 444-8419. This magazine is printed on paper that contains recycled de-inked fibre.

---







# GROWTH, TEMPORAL AND SPIRITUAL

BY RAYMOND MORIYAMA

*I speak as a man, as a Canadian, and perhaps last of all as an architect and planner. To be an architect these days is to experience a dilemma. On the one hand, it is so easy to ride with the prevailing growth ethos and to be the "man of action" so much admired in our culture. The rewards for this approach are considerable: financial rewards, social recognition, medals and beautifully printed scrolls from sectors that benefit most from his work. These are great ego-builders for the architect. Eventually he begins to take himself seriously as a hero. On the other hand, even when all architects exercise social responsibility and strive for excellence within the context of their individual projects, they still have to face the fact that in a growing economy the sum-total of all their labours could be something gross and unthinkable.*

*Caught in this situation, what can I as an individual architect do? I can resolve to be selective, to do good work and to hope that good will come of it. But my conscience tells me that it is misleading and irresponsible to "profess" expert knowledge when I believe that some of the basic problems related to growth are insoluble in the present social context. At some point I have to cry out: "Look, it can't be done! You can't buy your way out of this. You just can't assume any longer that hiring the right consultant will solve your long-term problems. No matter how well-qualified and talented architects, planners and engineers may be, it will take more than a technical solution. Until some basic attitudes are changed we are just gnawing at the edge of the problem."*

*I believe it is time that architects made that statement, and what better place to make it than in the context of a New Ethic for Survival. I make no claim to objectivity or to originality. My attitudes however, have been shaped by certain life experiences and to help you appreciate them*

*and my point of view, I shall relate some of those experiences.*

*I can honestly say that without any influence from my parents or relatives, I wanted to be an architect since I was four years old. I recall very clearly because of an unpleasant but memorable experience: I received a near fatal burn and was bed-ridden for eight months. My mind wandered over many things, often just to think the feeling of pain away. Looking back now, I realize that this was my first experience in triggering the mind to perceive the external world in a different way.*

*At the age of six, I spent a year in Japan with my grandfather. He was a mining executive, but also a gentle poet and philosopher. From a moon-gazing platform in his backyard he would write HAIKU. Pointing to a full moon he would ask, "is that beautiful?", and two nights later, "is it still perfectly round? No? Which is more beautiful; the perfectly round or this?" While I was deciding he would add, "This, of course! To a mortal man nothing perfect can ever be beautiful." On one occasion he told me to scoop a handful of water from his pond and said, "Remember, the moon shines just as much in your hand as on the lake." He was teaching me not only to trust my feelings, but also to admire the quality of passionate disinterestedness which says that everything is important; yet nothing is important.*

*Life is full of contradictions. During World War II I had to learn to cope with contradiction by living through it. On the one hand, in defense of democracy, human rights and freedom, Canada went to war. On the other hand, when my father refused to be separated from the family on the same grounds, he was sent to a prisoner of war camp. At the age of twelve I had to leave school. I had to run the store and somehow cope with manipulators*



# Sustained economic growth means sustained discontent

and opportunists. Eventually we lost the store and all our possessions and I lived in a horse stall with my mother and two younger sisters. Later we shared a tent in the Rockies where the temperature went down to forty below in winter.

It would have been easy to become bitter and withdrawn over all this. Too easy. But I learned the meaning of freedom only when I had lost it. I began to see the heavy responsibility that goes with freedom. I came to appreciate that the honesty and directness of the loggers and the raw experience in the mountains were good for me: mountain climbing, cutting trees to make skis and rafts, making traps for rabbits and gophers. To me nature was a mystery; it was anything my mind wanted it to be.

One incident I remember vividly. It happened one weekend when five of us were mountain climbing. While we were edging along a one-foot ledge about sixty feet above the next plateau, the boy in front of me froze. In trying to get him to move I lost my footing and fell. Luckily I fell through a forty foot evergreen and the branches broke my fall. I lay flat on my back, feeling for broken bones, and gazing up at the hole where the branches once were. I thought, "I needed that tree to survive, but it sure didn't need me!"

My interest in ecological problems was stimulated about five years ago when our firm did a feasibility study for a major zoological park for Metro Toronto. It was a revelation for me. We had great freedom and flexibility in approaching the planning problem. We questioned the purpose and role of zoos in our day, talked to many zoologists all over the world, and came up with a concept of an interpretive centre of ecological scope.

Public awareness of ecological problems was just beginning to grow in 1967. By 1969 it was front-page news. In that year I was appointed Chairman of a Task Force on Ecological and Environment Problems in the so-called Mid-Canada Corridor. There were six other Task Forces: Resources, Industrialization, Urbanization, Communications, Transportation, and Financing and Trade. Our group tried to expose the basic motive behind development in the North. We kept asking: Why? Why? Why? It became obvious that, the interests of southern Canadians and foreign investors; the unquestioned growth of the Canadian economy and population; and the prospect of foreign markets, were the dominant factors which had compelled us to seek out ever more inaccessible resources. The impact on the native population was of minor importance. Our Task Force argued vigorously for restraint in the short-term, lest we do irreversible damage.

Three years later, many more thoughtful Canadians are voicing the same argument and the vested interests are just as strident. A short time ago, one federal cabinet minister assured us that the Government was not committed to the MacKenzie Valley Pipeline Project, but that he was sure it would be built eventually. Perhaps when the country is divided on such a crucial issue, double-talk is all we can expect from our politicians.

Nonetheless, it is disturbing to see us stumbling forward into the future and reciting economic theories that are becoming more suspect year by year. Naturally, we are reluctant to abandon the conventional wisdom when there is nothing else to turn to. But it is this question of spiritual poverty which is the central problem of this generation. I am sure some will say, "How can you take this high-minded attitude when so many are poor and unemployed"? It is a valid question. One of the problems with major social issues is that we have to live and work in the world as we know it, even while we persuade each other to change it. We are all implicated in one way or another. But I fail to see how tinkering with the system will solve the problem. What we need is a fundamental shift in the perception of the problem. Otherwise we just might end up crucifying a whole generation out of devotion to bankrupt ideas.

## Economics and Instrumental Knowledge

All life has an economic aspect. All men have material needs and it is neither wrong nor unworthy to pay attention to them. We must all be economists up to a point. There is no way of escaping this fact. Those who appear to escape it are merely putting the burden of their existence on to the shoulders of others. Because this economic aspect of life is a universal problem, it should not be surprising that a systematic body of thought called Economics has grown up. What is, or should be, surprising is that only one such body of thought should have become dominant throughout the world. I am speaking, of course, of Western materialist economics with its well-known notions of what is "productive" and "unproductive", what is a "cost" and what is a "benefit", and "progress" meaning "progress without limits".

The most serious criticism of this economic philosophy is that it is one-dimensional, while life is multi-dimensional and multi-faceted. By concentrating on material wants, it neglects and represses the spiritual dimension: the realm of meaning; the normative dimension: the realm of values; the transcendental dimension: the domain of the unknown, of mystery and faith; the affective dimension: the realm of feelings, emotions, fantasy, imagination; and the communal dimension: the realm of kinship and love. As economist Walter Weiskopf has pointed out, "western society requires the individual to choose without values, to work without meaning, to integrate without community, to think without feeling, and to live without hope or faith."

British economist E. J. Mishan believes that the "precondition of sustained economic growth is sustained discontent". When stability is defined as a constant rate of growth, then only the deliberate creation of wants and the perpetuation of the myth of scarcity permit the culture to continue. But, if what we call "demand" can be created at will, and if we do not recognize a limit, then a very troublesome question is forced upon us. That is, is it possible for humans to achieve happiness and peace of mind when a powerful sector of the community, namely



the advertising industry and to some extent its handmaiden, the communications media, are dedicated to the systematic creation of dissatisfaction?

I think not. Self-imposed and life-affirming limits would suggest that so called "progress" is healthy only up to a point; that beyond a certain point, the pursuit of productivity and efficiency (which are practically synonymous in our culture) is unworthy; that the complication of life is unbearable; that the substitution of "scientific method" for common sense is unacceptable, and that the trend towards specialization is incompatible with human integrity.

Growth economics finds a supporting ally in highly specialized science and technology. In fact, much of our violence against nature and our fellow man arises out of our concentration on "instrumental knowledge": knowledge which allows us to manipulate and control; knowledge which is synonymous with power. Growth economics is based on the perception of fragments and therefore can be satisfied by a narrowly specialized science. Insight or intuitive knowledge, on the other hand, must be concerned with man, his motives and his destiny and can come only from an understanding of coherent wholes, not from fragments.

I have never believed in the principle of scientific objectivity, or more accurately in the claim that objective science constitutes the only true view of the world. As a way of life, the pursuit of objectivity is not very convincing because activity involves moral commitment; there is no political or social vacuum within which one can withdraw and be objective. There are no "facts" which are separate or apart from the human observer. There are "idea-facts", perhaps, but the idea part is largely conditioned by who is speaking and why. Much of what we call thinking, perhaps the most important part, takes place subliminally in a preconscious stream of experiences, fantasies, metaphors and images.

A new way of looking at the world is gaining ground in our culture. It is frankly subjective, non-rational, and characteristically Oriental in its approach. It should complement the scientific view, not replace it. Neither is entirely right or entirely wrong. They are opposite sides of the same coin. A full account of reality is achieved by enlarging the frame of reference to include both models as alternative truths. By a process of continual self-correction, both the sensuous-intuitive and the quantitative-scientific descriptions can lead to reliable models of nature.

#### *Spiritual Growth.*

My main reason for bringing up the subject of science in the context of growth is to make what I think is a positive and constructive point: that we are about to take the next great step in cultural evolution, some would say human evolution, and it will open up infinite possibilities for human spiritual growth. I hope it will fill the vacuum of meaning and motivation, the mainspring of human progress, in the way that great

ideas have possessed and exalted men in the past.

We seem to have reached a point in the West where a great many thoughtful people are sensing that there is a way out of our oppressive situation. They feel the frustration of not being able to get beyond themselves; while at the same time, being able to point to something beyond themselves. Perhaps they feel, as I do, that we cannot cross the threshold with all the things we have acquired from our culture. I believe that the suggestive influence of oriental philosophy is at work here, or that maybe we are moving in parallel. If so, then I think we are becoming aware of the parallel.

Eastern philosophy is becoming very attractive to western man at this point in time because it satisfies our natural religious strivings and also expresses the highest values of secular society: happiness, fulfillment, security, harmony. As one German Lutheran theologian noted recently: "It would be inhuman not to find that offer alluring. It is no fringe phenomenon; the response in the West is of enormous cultural significance." Closer to home, I believe that a profound and far-reaching contribution to spiritual renewal was made by psychologist Abraham Maslow, whose psychology of growth is based on the observation of healthy rather than abnormal human behaviour. He identified a hierarchy of human needs ranging from basic physiological needs, safety needs, belongingness and love needs, to what he calls needs for "self-actualization". The lower needs and values dominate the higher needs and values most of the time for most of the population; that is, they exert a strong regressive pull. In healthy, mature people the higher values are chosen and preferred consistently.

But the essential point, one that says a lot about our present predicament, is that this scale of needs is hierarchically integrated; i.e., the higher needs emerge only after the lower needs are satisfied. In other words, man's higher nature, abilities, aspirations and ideals — the spiritual realm — do not require renunciation of lower needs, but rather require their gratification. However, these higher needs will never emerge so long as the myths of scarcity economics are perpetuated, because the gratification of basic needs would mean the end of "growth" economics.

Maslow believed that even healthy humans exhibit conflicting traits. They were simultaneously "creaturely and godlike, strong and weak, limited and unlimited, adult and child, fearful and courageous, progressing and regressing, yearning for perfection and yet afraid of it". But these apparent opposites are also hierarchically integrated, especially in healthy people. For example adulthood should not be a renunciation of childhood, but rather be an inclusion of its good values and a building upon them. To split the two would dichotomise when what is required is transcendence in the integrating sense: the higher being built upon and including the lower. Thus Maslow defined health as "transcendence of environment", the ability to stand aside from one's environment in a disinterested, desireless and unmotivated way.



# We must unify public and private interests

The lexicon of motivational research is full of environment-centered words: adjustment, adaptation, competence, mastery, coping. But the important parts of the psyche have little or nothing to do with the environment. Maslow distinguished between "coping behaviour" and "expressive behaviour". Expressive behaviour is unmotivated; or rather, is less motivated than coping behaviour, less related to the environment and less concerned with what is useful or threatening. Therefore, the more we try to master the environment, the less possibility there is for true perception. Only if we let it be, can we perceive it fully.

I use the word "perception" in the spiritual sense: the ascription of meaning to persons, things and events. In this sense, human growth and development is the cultivation and enrichment of perceptions. Perception and behaviour are closely linked, so that if we want to change behaviour then we must change perception as well. It seems to me that the crucial element in the perception of self, of community and environment is how we define personal and group interests. The Freudian view, which Maslow rejected, was that private and public interests were fundamentally opposed. But in her well-known studies of primitive cultures in North America, anthropologist Ruth Benedict discovered that where non-aggression was conspicuous, the culture had allowed individuals to serve their own interests and that of the group in one and the same act. Aggression was rare not because people put social obligations above personal desires, but because social arrangements made the two interests identical. She described such a culture as one having high social synergy, or in Maslow's terms one in which virtue pays.

Ironically, Adam Smith, the father of classical economics, also believed in the harmony of individual and social interests. He defined both goals in the same way: as increase in production. Thus, Smith's historically relevant observation has been raised in our day to the level of an absolute principle. He also concluded that "bettering one's condition" and an "acquisitive attitude" were inherent in human nature. In an age of scarcity, he could not foresee (as John Stuart Mill did) that people might see less work and more leisure as bettering their condition. But the fundamental flaw in Smith's scheme of things is that it sets one person against another and allows the advantage of one to become a victory over another. A winner produces a loser. Ruth Benedict would have called such a society as one having low synergy. This aggressive, competitive attitude is drilled into us at an early age so that we are hardly aware that we live it day after day. It is reinforced by the grading system in schools, competitive sports, beauty contests and the like. Motives are always suspect; mutual trust and human dignity lost. In this context, to define a healthy society as one in which people are encouraged to develop their potential for love, co-operation, achievement and growth, sounds like a hopelessly visionary ideal.

But perhaps it is not so hopeless. In a recent book titled "On Caring", Milton Mayeroff defines true caring, whether for another person, an idea, a community or an

environment, as "the convergence of want and ought". In other words, what one wants to do and what one ought to do coincide. Caring never diminishes the one who cares; love, after all, is enhanced when it is given away. (Or, to use a Zen metaphor, "to hold the breath is to lose it.") Mayeroff is more interested in the process than in the products of growth. Finite goals are a distraction and life is made flat and empty by reaching them. The goal of the environmentalist is co-existence, which is really not a goal at all in the conventional sense. Process as goal is a characteristic Zen concept.

The great potential of the environmental awareness and sense of ecological responsibility which have developed in the past few years is that they could serve as a common cause or ultimate concern and thereby act as a focus for the unification of public and private interests, of "want" and "ought".

Let me sum up what I have been saying here. I believe, and I am certainly not alone in believing this, that many of our problems can be traced to our preoccupation with specialized or instrumental knowledge. I think that we should be everlastingly skeptical of unapproachable experts who know what is best for us. What we urgently need is a science that can comprehend complex systems with a minimum of abstraction. However, comprehension of an organic whole is an act of trained intuition and therefore, unless the scientific mind-set can accept the more subjective knowledge, the gap between science and the rest of the culture will continue to widen.

This is not to say that subjective knowledge cannot be abused. There will always be room for charlatans. But those who want to work for good will search for insight. Yet to reject the scientific world-view outright would be a fearful event for most of us. There is then, a need for balance and for complementary views of reality. I believe that the influence of oriental philosophy will grow in the West because it happens upon us at a time when many Westerners are experiencing an ambiguous love/hate relationship with the modern world. The pragmatic undertone of eastern philosophy may help to resolve this ambiguity.

I am suggesting then, a direction for future growth based on three basic principles:

- the principle of complementarity or the reconciliation of opposites,
- the principle of hierarchically integrated needs, implying the rejection of both the myth of scarcity and the preoccupation with lower needs,
- the principle of caring, implying the convergence of public and private interests, and a life-style of non-aggression, mutual trust and co-operation.

You might well ask: "Fine, but how do we get there from here? What does a body do now?" Speaking as an architect/planner, my commitment is to support and express through the medium of my work the positive trends as I see them. To me, this means that I should exercise restraint, resist the temptation of expansion for its own sake, and prefer projects that show some



potential for the personal growth of the users. This means saying "No" when we feel that a project is detrimental to the public interest, to plant and animal communities or to the clients themselves. And we try to sit down and explain why we are saying no.

Two examples will illustrate how we try to use design projects as vehicles for the personal growth of the users. The Japanese Canadian Cultural Centre was built in Toronto about ten years ago. It was an expression of a minority community which, having regained freedom and received the right to vote, felt an emotional desire to contribute to the cultural mainstream of Canada. We resolved not to express past grievances, but to support the positive cultural thrust of the younger generation. We believed that "to keep, one must give".

Planning for the Ontario Science Centre began in 1964. From the beginning we made it clear that the architecture, though important, was secondary to the bigger ideas: the building was not to be an end in itself, even though it was to be memorial, but to be a tool or a foil for worthwhile activities. I was intrigued by the "trigger" mechanism in the mind that can set off a new perception of objects and of the external world. We talked about the joy of discovery: discovery of ideas, discovery of objects, discovery of self, discovery of nostalgia, discovery of nature. In the relation between people and displays, joy and frustration were to be the keys. We explored ways of appealing to the senses — touch, sight, hearing, smell and taste — and of triggering emotional, intellectual and psychic responses. We tried to put people at ease by first introducing them to the mundane and familiar: coat checking, gift shops, cafeteria. Then a long transitional bridge to the exhibits was designed to create an experience of nothingness, to free up the mind. We were also determined to preserve the very interesting site as far as possible in its natural state. The message to be conveyed by building and site was that with all the emphasis on technology, nature is still the base.

My beliefs go further. I believe that diversity and differentiation at the city scale are conducive to human growth. When cities are perceived as self-serving entities that must go on expanding forever, it is difficult to even discuss the question of their purpose or meaning. It is not surprising that many city dwellers are finding meaning at the local level, in their own neighbourhoods. In my own city of Toronto, which still can boast of numerous livable communities right in the city core, citizen groups have shown tremendous sense of purpose and tenacity, often in the face of hopeless odds.

I also believe that any institution or policy that sets one sector of the community against another should be deplored. Unfortunately, single use planning falls into this category. This planning concept may be an accurate reflection of what I consider to be undesirable trends: the dichotomy between manual and intellectual skills, thinking and feeling, art and science, home and work. However, in its largest dimension, it allows one sector of the city to prey on another; for example, those who live in the

suburbs but make their living in the core. The controversial Spadina Expressway is merely a symptom of this trend.

Many of these questions are political in nature but to make them ideological would simply create a distraction. Unfortunately, we tend to think of change as an either/or choice between opposites. I think it is much more useful to think in terms of shifting along a continuum; for example, moving from expansion to balance, quantity to quality, product to process, exploitation to responsibility, manipulation to co-operation, uniformity to diversity, order to harmony, science to art, system to person.

In the short run our goal should be not to abandon the idea of economic growth entirely, but to redefine and redirect it into areas of human growth potential and low environmental impact. For example the creative arts, which Maslow has described as expressive or unmotivated behaviour, have virtually unlimited potential and great survival value.

Furthermore, the field of communications and information should be treated as an important national resource. The role of our great cities seems to be shifting from the manufacture and exchange of goods to the generation and exchange of information and ideas. Information has the great merit that, unlike most commodities, it is enriched by consumption.

Moreover, the field of personal services always seems to lag behind in a growing economy, mainly because training costs are high, services are difficult to mechanize, and the return on investment is low. A recent positive development in this area is the Federal Government's Local Initiatives Programme. I admire the government for adopting it knowing that it would be difficult to control and that there would be lots of criticism. I suspect that many people accepted the idea as slightly unreal, since it was not really part of the economic system. But the significant point, to me, was that young people were defining needs in the community, defining for themselves what they wanted to do about it, and getting paid for it. I cannot think of a better way to rediscover meaning in work.

My main motive for coming here today is to expose some ideas that are not necessarily new or original, but which are regarded as being rather "far out", and to try to make them sound reasonable and relevant. I can only encourage those who agree with me to speak out as well. As an architect, I see myself as a bridge across the continuum I mentioned a moment ago. The risk, of course, is that as a bridge you could get "stomped on" from both ends. However, if you really believe in something, then you have to live it. That much I would even concede to the economists! But the first principle for understanding the meaning of life and for laying the ground for ethics is to take a stand on behalf of life and act on it. And that means far more than reforming our institutions. We have first to reform ourselves. I will leave with you a thought from Maslow: "It is possible to love the truth yet to come, to trust it, to be happy and to marvel as its nature reveals itself." ■