

# SPECIAL THEME

## UNIVERSITY ACTION FOR SUSTAINABLE DEVELOPMENT

*Editorial*

### The Broken Jaw of Our Lost Kingdoms

*Ivan Head*

---

#### INTRODUCTION

---

The physical distance from Bologna to Halifax is great, even when travelled at near-sonic airline speeds. But that physical distance shrinks to insignificance when measured against the intellectual distance represented by the accomplishments of university scholars in the past nine centuries – and especially in the last half century. Within the lifetime of everyone in this room, the physical world has been so transformed as to be beyond the comprehension of our grandparents. In that brief period there have been discovered or produced more contributions to human wellbeing than in all previous recorded history; every one of them with immense assistance from university researchers or university graduates: precision robots, sulpha drugs and penicillin, the electron microscope, antihistamines, ball-point pens, nylon and dacron, oral contraceptives, computers, Salk vaccine, VCRs, cellular telephones, fibre optics.

And in that same period there have been devised and compounded all the elements necessary to destroy instantly and globally the bulk of human accomplishment and to poison irreparably the life-support systems on which the human race depends, none of it possible without the contribution of university scientific facilities: thermonuclear explosives, earth-orbiting satellites, heavy rockets, precision guidance systems, advanced telemetry and communications, high resolution imagery.

#### MAN'S ACCOMPLISHMENTS

---

So overwhelming have been our accomplishments, and so terrifying our destructive abilities, that modern society has largely removed each category from its daily consciousness.

Thermonuclear weapons are now referred to simply as 'ultimate options' or 'strategic assets'. One is given the impression, as contemporary political leaders speak of them – or often ignore them – that these planet-threatening devices are nothing more than big explosive bombs. Those who insist they are not, that they are qualitatively as well as quantitatively distinct, are regarded as emotional and somehow irresponsible. Thus does humankind burrow along in its self-made tunnels, denying itself the human responsibility of questioning and objecting even as the proliferation of these satanic instruments multiplies. Not one statesman in office today has witnessed the explosion of a nuclear device; not one has the slightest factual sense of the horrific destructive power of even the most miniature weapon. Yet all the while several of them authorize the acquisition of nuclear artillery shells and missile warheads, the selection and discarding of targets, and do so while in some instances ignoring or even assisting the horizontal proliferation of nuclear weapons. Astonishingly, the nuclear weapons community has succeeded brilliantly in its endeavour to convince society that these weapons are part of our lives, and not to be feared or spurned. Dr Strangelove has been succeeded by Dr Acquiescence. In the result, the international community stumbles along. We awoke this morning to learn that yesterday in Minsk the USSR came to a *de facto* conclusion. Among the circumstances we now face is the presence of as many as 27,000 nuclear warheads without a tested and demonstrably effective command and control system.

The human contradiction is manifest in still another form. Human wellbeing has been so enhanced by medical and pharmaceutical advances, by labour-saving devices and by entertainment technologies, that in the course of a single lifetime daily life in the industrialized countries, and among the élite in the developing countries, has been fundamentally altered. Virtually eliminated are those dreadful childhood illnesses of smallpox, scarlet fever and polio; absent are most of the dangerous, repetitive and degrading farm and industrial work practices that were once

so prevalent; available now are remarkable new forms of audio and visual entertainment for fantasy escape and educational purposes. So widespread are the benefits of the new lifestyles in the industrialized countries, and so broadly disseminated elsewhere is awareness of these enviable standards of living, that societies and individuals alike have almost wholly lost their sense of awe at the extraordinary scientific accomplishments represented by these advances. What was technologically unattainable even a decade ago is now simply one more gadget on the shelf of an electronic store; a brilliant product of years of intense collaborative research by international teams of scientists becomes a pill that evokes no more excitement or curiosity than an aspirin tablet; some of the most astounding solid state electronic achievements become simply sources of high volume sound to bored adolescents. The tabloid press and radio disc jockeys have reduced society's level of wonder and appreciation and excitement to their own banal standards of shlock.

## **ENVIRONMENTAL DISINTEREST**

---

Little wonder then, when extremes of this range are commonplace, that modern society has demonstrated so little interest in the environmental consequences of all these extraordinary human activities. One gains the impression that natural resource consumption and the discharge of manufacturing wastes are issues of insignificance – as if the planet's supply of the former, and its capacity to absorb the latter, are both infinite. Decimated forests and devastated landscapes are treated with indifference so long as they are distant, as is most often the case; smokestacks and sewers are welcome evidence of economic activity, so long as they are downwind and downstream. Destruction and poisoning become socially acceptable because of the apparent economic cost of doing otherwise. Twentieth century society has added environmental ignorance to its record of nuclear forgetfulness and scientific indifference. We have become a generation marked by its own conceit: irresponsible for our life support systems, uncaring about dedicated human endeavour, indifferent to the plight of distant communities and future generations.

In the result, as the Brundtland Commission has warned those willing to listen, uncomprehending human forces have set in motion 'environmental trends that threaten to radically alter the planet, that threaten the lives of many species upon it, including the human species.' What an ironic tombstone does this statement contemplate: 'The human race, the most intelligent of all God's creatures, has destroyed itself. Celebrating the passing are the lower, but wiser, orders on which humans preyed and whose survival is now virtually assured.'

## **UNIVERSITY LEADERSHIP**

---

We are here as representatives of universities worldwide, questioning our institutional responsibility for present circumstances, seeking our role for future endeavours. In some unplanned and scarcely recognized fashion, universities seem themselves to have slipped into a schizophrenia different from, but as striking as, that of society at large: acknowledging the brilliance of scientific and technological contributions, yet disregarding our teaching failures. Our challenge now is surely to bridge that gap, to ensure that the increasing dedication of university scientists toward environmental issues is matched by teaching programmes adequate to overcome the all-too-common environmental illiteracy of the current generation of students. That latter task is as challenging as it is important. It must begin, in my judgement, with a redefinition of the concept of community, for from that will come a better sense of the meaning of survival and of the social and economic costs associated with it.

## **REALIZED ETHICAL CONCEPTIONS**

---

Robert Redfield wrote that 'Each precivilized society was held together by largely undeclared but continually realized ethical conceptions.' The size of those societies changed little through the millennia and so the scope of those ethical conceptions had little reason to broaden. That circumstance no longer obtains. In a period of not much more than a decade we have come to the realization that all humankind inhabits a single environment, participates in one global economy, and must learn to function as an all-embracing holistic community. That much we have learned. What we lack, however, are Redfield's 'realized ethical conceptions'. Their absence, unless rectified, may spell our doom.

Where do we begin? Perhaps with a reminder from Hobbes' Leviathan that self-centred behaviour leads to untenable results: '...as long as this natural right of every man to every thing endureth, there can be no security to any man.' In Hobbes' day, the insecurity of which he spoke was local. In the 1990s, it is global. The massive disparities in wealth and welfare which are at the root of discontent, the inordinate imbalances in resource consumption, the suffocating consequences of absolute poverty, the unredeeming arrogance of the self-righteously wealthy – these are the paving stones to environmental degradation. Yet the mortar between those stones is often a compound of confusion, of genuine ignorance, of a fear of crippling cost and price increases, of indecision. These combine to inflict irremedial harm on a decreasingly resilient natural environment. And so personal security diminishes in Hobbes' terms. On a global scale, pervasive insecurity becomes more: it becomes a threat to human survival. And that is novel – so novel that the Stockholm Initiative on Global Security and Governance described it thus in recent months:

Over the ages of human existence, the issue of survival arose only in the very beginning: could the human species evolve through adopting to an often hostile environment? Humankind overcame that primary challenge, and never since then has the threat to human existence been seriously revised – until now. In the second half of the twentieth century, at what many would regard as the flowering of human potential, that issue of survival has grown steadily more serious and urgent. In a strange reversal of our predicament, the threat to humanity comes not from a hostile planet but from the power which man's genius has given him over the planet itself. It comes from the dominion we have assumed over our environment, from our capacity to damage it and to destroy ourselves in the process.

Is self-destruction to be the final tribute to human genius, to human discipline, to human innovation? Is further evidence required of the human ability to destroy? Holes in the ozone layer and junk in space; radioactive, cancer-inducing garbage dumps around military establishments and nuclear weapons factories; clear-cut forest tracts that spawn soil erosion and biological devastation; chemical effluents spewed into waterways and oceans; urban sprawl that converts prime agricultural land into shopping centre parking lots in the north or overcrowded slums in the south. Can we not see the evidence of our rapacious appetite for ever greater comfort at the expense of someone or something else? Perhaps not. T.S. Eliot described brilliantly the current circumstance:

The eyes are not here  
There are no eyes here  
In this valley of dying stars  
In this hollow valley  
This broken jaw of our lost kingdoms.

I suggest that those words be mounted on the wall of every government legislature and every corporate boardroom. They should be recited in unison by cabinet ministers and company directors before every meeting.

## **THE DISCIPLINES AND ENVIRONMENTAL ACTION**

---

Perhaps I am too harsh. Perhaps my criticism is misdirected. Corporations and governments, after all, are action-oriented organizations. They have little time to reflect, inadequate resources to postulate alternatives, no mandate to generate fresh knowledge. They are quite unlike the universities in which all these functions are expected. Yet is the track record of universities – when measured against their mission – in startling contrast to that of governments and corporations? Were we to think so, we would not be here this week. In every field and discipline – engineering, biological and natural sciences, economics, demography, health, management, social sciences, geography, ethics and philosophy – there is still a disturbing absence of environmentally related activities, a truly threatening shortage of researchers and teachers (mostly the latter) qualified to pursue those activities, and an appalling institutional indifference to public advocacy. This is compounded, tragically, by the still all-too-common reluctance of university scholars to function in inter- or multi-disciplinary fashion. In all too many instances, universities (and particularly university administrations) are found in the public bleachers, spectators to the revelations of the Brandt or the Brundtland Commissions. This is tragic, for in no other kind of institution does there rest such a rich mixture of ingredients useful for the restoration of wholesomeness to the environment and of decency to human activities.

Universities are cosmopolitan, trusted, unintimidated; they are innovative and competent; they are archival; they are generators and transferrers of knowledge. No other type of institution is so well designed to be responsibly influential. That being so, default should be as unthinkable as it would be unforgivable. Indeed, the title of my paper is misleading. Rather than 'Why is UNCED relevant to the university community?' as printed in the programme – that, after all, is axiomatic – it should be 'Why must the university community be relevant to UNCED?'

Were universities effectively to pool their knowledge, we would find, as I have for some time postulated, that the human world functions in many respects quite unlike what is generally assumed: that the industrialized countries are able to maintain their standards of living only by drawing down the human, financial and natural resource capital of the developing countries; that net financial transfers are not from north to south but the reverse (and have been consistently so since 1981); that in conceptual terms we are well able to calculate the environmental opportunity costs of current behaviour; that the ineffectiveness of legal and policy régimes for sustainable development lies not so much with the immensity of the challenge as with the paucity of political leadership; that the apparent unwillingness of communities to act decisively and ethically in response to environmental problems is a result of unawareness more than of mean spirit; that weapons accumulations and transfers are not and never have been for a stabilizing effect but the reverse; that John Locke's interpretation of the 'common' is not a pillar of truth but a heinous invitation to environmental profligacy.

Much of my catalogue is an indictment against misinformation, against the political encouragement of crass populism, against intellectual sloppiness. At the turn of the twenty-first century these are not simple venal sins, and those that practise them should not be tolerated. In an era when the population of the world increases by 9,000 per hour, when the world's net atmospheric accumulation of carbon deposits from fossil fuel combustion increases at 11,000 metric tonnes per minute, the vigorous voices of trusted institutions are desperately required. Happily, those voices are beginning to be heard. Their effectiveness is found in their knowledge base, not in their shrillness. The public has a finely pitched ear and tunes out both the self-serving and the self-indulgent. Universities, at their finest, are neither. They enjoy the credibility to articulate agendas and to propose priorities, to establish methodologies.

## ENVIRONMENTAL COSTING

---

One of the most needed of methodologies, if we are to overcome much of the tension associated with environmental degradation and sustainable development, is a costing system for environmental injury. Yet in principle such a system is not without precedent. Every town council and school board now employs a similar practice. Should there be proposed the construction of a new bridge or the rehabilitation of an aging medical facility or the relocation of a school, the experts are able to estimate not only the construction and associated costs, but also the costs to the community of *not* building the bridge or upgrading the hospital or moving the school: in their absence the cost in traffic tie-ups and accidents; the cost in municipal efficiency; the cost in civic attractiveness to residents, prospective industrial investors and urban developers; the cost in community health. What we must now learn is how to extend those opportunity cost estimates in both temporal and spatial dimensions: to determine the cost to a community or a society of *not* reducing the discharge of toxic effluents, the cost to a wholesome environment and a healthy population of *not* implementing alternative transportation policies, the cost to a predictable and stable international community of *not* reducing outrageous disparities in living standards and resource consumption, the cost to future generations of *not* acting responsibly now. We must emphasize that the familiar objections to factory improvements and infrastructure upgrading on the basis of current corporate costs and competitive pricing are little more than one-dimensional arguments – important, but one-dimensional nevertheless. Employing that kind of shallow economic logic, this great city of Halifax would still not have any harbour bridges; employing it as narrowly as it does in other respects guarantees the perpetual dumping of raw Halifax sewage into the coastal waters of Nova Scotia.

If we have learned no other lesson in this past decade, it is unquestionably that social and environmental costs are every bit as valid as economic costs. Denominating those costs in comparative terms is the kind of task that universities are surely capable of undertaking, as is the task of compiling social and economic indicators that are as definitive as economic indicators.

## ROLE OF UNIVERSITIES

---

A further task for the universities is one of communication, of explaining to the several publics in persuasive language what the term ‘sustainable development’ means. The definitive explanation will always be, of course, that employed by the Brundtland Commission: ‘...development that meets the needs of the present without compromising the ability of future generations to meet their own needs.’ Surely a defensible definition, but how ethically flat and spiritually vapid. One is left with the assumption that life at the lowest common denominator is necessary now in order to ensure human life of any sort in the future. Brundtland did not mean that, of course, but the impression, once projected, does little to encourage enthusiasm among those of our contemporaries who now enjoy a good life, or among those who do not but aspire to doing so. At its bleakest, sustainable development would guarantee only that the earth’s life support systems will not be disturbed to the point where they can no longer support human activity. Necessary? Without question. But surely there should be more. Is this to be our testament to our children? No more than that their life support systems will remain functional? What of human dignity? What of human choice? What of spiritual and cultural expression? Is our definition of inter-generational equity so coloured by greed that we are unwilling to alter other than marginally *our* life-styles, leaving to our children and grandchildren a basic form of existence that denies much of the richness of human achievement? That lowest common denominator definition of sustainable development is the kind supported by those who regard the world about them as nothing more than a combination of zoo, restaurant and theme park. Unfortunately, there are too many who give every impression of falling into that category.

## UNIVERSITY: REPOSITORY AND TRANSMITTER

---

If the university represents any single function, it is surely that of a repository and transmitter of those great human accomplishments and traditions that have long been identified as the symbols of human values and purposes. This humanitarian element of the university must remain as important, if not more so, than any of its other functions in the quest for an understanding and pursuit of sustainable development. Universities should not be diffident in their expression of the supremacy of human dignity, of the unfettered right of subsequent generations to have the same freedom as their predecessors to pursue truth, to seek philosophic and spiritual goals. Men and women should not be constrained by inequitable limitations on their physical abilities to do so. That message, too, must be circulated, and repeated with the same quiet conviction as the others I have referred to. Of all messages, it is perhaps the most likely to be understood. No parent, no matter how self-indulgent, is willing to be marked by history as the first to pass on to his or her children a world less wholesome, a world less gracious, a world with fewer opportunities for self-fulfilment, than the one he or she inherited.

That message, I am convinced, *will* be heard so long as the universities retain their own self-confidence in delivering it. It will be heard because it is a human message voiced in universal language. Harlan Cleveland has explained the modern mechanics of effective delivery. His illustration is of a young army captain passing his

company in review before the critical eye of a senior general. The captain gave his order in a conversational tone: 'Company, march.' The general leaned over and said sternly, 'Captain, you have to shout the order so they will all start at once.' The captain looked back tolerantly at this relic of a bureaucratic age. 'It's all right, General,' he replied, 'the word will get around.'

## **THE TASK AHEAD**

---

And so it *will* get around if only the word is defensible. Part of our task is to ensure that it is: to formulate and pronounce our dedication not just to the salvaging of this planet battered by the inexcusable excesses of our generation; not just to the survival of the species; but to the guarantee of an opportunity for the physical wellbeing *and* the cultural and spiritual enrichment of all humans in all societies, in all future generations.

Centuries ago, our forebears at Bologna and in those isolated monasteries, mosques, synagogues and temples all over the world, during a period of great peril assumed the responsibility for the safe keeping and enlarging of human knowledge, and of its transmission to subsequent generations. They acted as guarantors of the human spirit. We are all beneficiaries of their efforts and sacrifices. Surely the universities of today's world in a period of unprecedented risk and danger must regard it as their obligation to do nothing less.