

NOTES FOR REMARKS

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TO

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Your Excellency, Distinguished Guests

It is a great pleasure for any Canadian, at any time, to visit Jamaica. But it is a particular joy to be able to come here during your 21st year of independence and share with you your pride in your many accomplishments to date and your determination to create an ever-improving future.

From Canada, which will this year celebrate its first anniversary of total independence, I bring you warmest good wishes on your 21st.

I extend sincere congratulations as well on your status as site of the Seabed Authority. Observers and participants in the epic achievement of an international legal regime of the oceans are proud of that regime and of your prominent role in its execution. The Law of the Sea Treaty is one of the great accomplishments of the international community. Its critics reflect on themselves, not on the Treaty.

The honour which you do tonight to IDRC is, in truth, an honour to the scientists of Jamaica and of all developing countries. Without their dedication and their efforts, IDRC could not function. On behalf of those men and women in this country and elsewhere who remain committed to scientific

endeavour, and especially of those young scientists present here tonight, I accept with humility and pride your generous recognition.

The programme of support and stimulus of the Jamaican Society of Scientists and Technologists is of a kind that deserves emulation and replication in all developing countries. The activities benefitting young scientists are especially laudatory. To those real stars of the evening, the recipients of the Young Scientist Awards, I urge you not to forget the lines of George Bernard Shaw, "It's all that the young can do for the old, to shock them and keep them up to date." Those words will be useful to you at least to the age of thirty!

The history of humankind is a narrative of scientific and technological accomplishment. Had not the world's first farmers learned how to cultivate bread wheat and other cereals and legumes in the valleys of the Tigris and Euphrates rivers millennia ago, modern agriculture would have no basis and the human species would not have commenced its slow transformation from hunters and nomads into settlers and builders. Had not ancients such as Ptolemy begun systematically to chart the heavens and so establish the basis for distant sea-borne navigation, trade, commerce, and culture would have remained

regional and limited. Had not Sir Isaac Newton written his Principia, scientific method, for some time at least, would have remained a static, descriptive thing, and not the dynamic, rigorous exercise which has led us into a cornucopia of discovery and achievement.

Of the world's several major civilizations, no matter how defined or recorded, none flourished without a sound scientific and technological base. Indeed, so accomplished were many of those societies that their achievements remain marvels to this day and, in a number of instances, beyond the comprehension of even 20th-Century experts. The embalming techniques employed by the Pharaohs of Egypt 5000 years ago to preserve their dead, the water storage and irrigation systems of the ancient Sri Lankans 2000 years ago - and still in use, the cranial surgical operations of the Incas, are all evidence of extraordinary accomplishment.

Properly employed and wisely administered, science and technology have laid the foundations which permitted societies to pursue cultural richness and human dignity. Agricultural productivity encouraged sound nutrition; scientific endeavour led to medical applications; technological discoveries contributed to material comforts. Economic needs thus being met, creativity and communalism often flourished. But not always.

Neither in the past nor today does technological mastery lead necessarily to artistic accomplishment. Still less does it guarantee humanism.

How to engage all these goals simultaneously is the challenge of today. It is a novel challenge, for not until recently has both the knowledge and the means been available to move simultaneously on all. We are able to contemplate the immense satisfaction of an improved human condition should we succeed; we must as well anticipate the bitter shame and censure of humans worldwide should we fail. Perhaps never before in history has there been such an either-or breaking point. The perils facing us at this moment in history are not only ominous, they could be terminal. Never before has humankind toyed with circumstances leading to irreversible error. Not in the 6th Century, when disastrous earthquakes shook most of the world; not in the 14th Century, when the Black Death claimed victim as much as three-quarters of the entire population of Europe; not in the 19th Century when the volcano Tamboro in Java hurled between 30 and 50 cubic miles of molten and shattered rock into the air. Nor was error irreversible in the longest or most cruel of wars: not in the Thirty Years War of the 17th Century, nor in the Hundred Years War from 1337-1453.

By contrast, a nuclear war in our age would be measured in hours, not years, and few, if any, would survive to record it. Unlike any events in the past, be they of natural or human origin, the threat of use of nuclear weapons places all human beings, everywhere, at risk.

Today, major error will be global in application and terminal in result. To quote the Brandt Commission in its Memorandum, "Common Crisis", published just last month:

"Our situation is unique. Never before was the survival of mankind itself at stake; and never before was mankind capable of destroying itself, not only as the possible outcome of a world-wide arms race, but as a result of uncontrolled exploitation and destruction of global resources as well."

To pretend that this juncture is not upon us is barren, as a conscious decision to ignore it is foolish. We accept the challenge and we flourish, or we deny it and we perish.

Attitudinal changes of that magnitude are not easily arrived at, and particularly not by older generations. The dynamic for this new human adventure, for this great new departure from current directions, must come from youth. Paradoxically, it will be the lack of experience of the younger generation that will permit it to lead. Because many of the problems we face today are unprecedented, perhaps our greatest peril is to assume that we can approach them on the basis of past experience. Your responsibilities as the new generation of decision-makers demand that you study the future, not the past. It may have been wise advice for Sir Francis Bacon to urge that his contemporaries "leave the future to the divine Providence," but no longer. Bacon lived, after all, 3½ centuries before Los Alamos, acid rain, and South-North debt figures approaching a thousand billion.

Better by far, I urge, to heed the advice of that most wise of Parliamentarians, Edmond Burke. He argued: "You can never plan the future by the past."

I am not suggesting that all values are to be ignored, that all accomplishments are to be denied. That would be as impossible as it would be foolish. Required, however, is something almost as radical, and certainly as challenging. It is

to introduce and to acknowledge a series of dualities which together will strengthen the matrix of human integrity. The first of these is the link between our biosphere and our future. Selfish exploitation of non renewable resources, ,thoughtless discharge of toxic effluents and pollutants, careless disregard of the needs of all living species - these are the guarantors of environmental destruction. Conservation is not an accomplishment to be applauded; it is a duty to be observed. More than a century ago the great English social commentator and theorist John Ruskin recognized this. Said he:

"God has lent us the earth for our life; it is a great entail. It belongs as much to those who are to come after us; and we have no right, by anything that we do or neglect to do, to involve them in unnecessary penalties, or deprive them of benefits which are theirs by right."

Another duality is found in the link between arms expenditures and economic development. The Palme Commission established beyond question that the weapons burden now is straining even the wealthiest of economies. Increasingly, the stability of states and societies, irrespective of ideology or

system of government, is threatened by the mindless pursuit of a weapons superiority that is as unattainable in practice as it is crippling in expense. And all the while the spectre of a nuclear holocaust becomes ever more possible. There is no simple debit-credit transfer mechanism to shift funds from one column to another. Nevertheless, the economically non productive role played by heavily armed standing armies in so many developing countries, and by defence industries in so many industrialized countries, must be recognized and changed.

The linkage between the destinies of countries North and South is a third duality that is slowly gaining recognition but at a pace that is as yet too slow to avoid disaster. "Interdependence" has become part of the international vocabulary. It has not yet made the transition from noun to verb, however. Too many persons in the North still regard this equation as one of simplistic dimensions. They ignore the evidence that we have entered an age in which we all gain, or we all lose. In the result to date, the world economic situation is caught in a downward spiral, deteriorating apace in all geographic sectors, and threatening conflict and catastrophe in many. Equally hazardous, many countries either ignore or fail in their endeavours to marry growth with equity. Economic disparity within a country is as evil and unacceptable as that between countries.

Easily said, all of that. Not much originality, either. What next, though? Is there a formula that can convey a recognition of these dualities into a preferred future? Is there some way in which we can convince ourselves, and just possibly others, that no activity or undertaking is of value unless it contributes to human dignity? Can we remind ourselves continuously that the family of man knows no geographic or ideologic boundaries? Can we commit to memory the burning commentary of Mahatma Gandhi, observing in South Africa the impact of apartheid, "It has always been a mystery to me how men can feel themselves honoured by the humiliation of their fellow beings."

I'm far from certain of the answers to any of those questions. I am very certain, however, that we have no option but to try. We are all occupants of a single planet, and there is none other available to which we can flee.

The mechanism for insight, for understanding, for change will be - as it always has been in all societies - of a cultural nature. Art speaks for all of us. It certainly speaks for Jamaica in the music of Bob Marley, in the choreography of Rex Nettleford, in the poetry of Dennis Scott. If development

does not reflect the cultural base of a society, it will not last; if international relations are not tempered by cultural expression, there is the danger of recurring xenophobia.

In an age when governments seem unable to communicate, it is a joy to witness the frontier-leaping ability of cultural phenomena. Modern technology has conveyed the songs of Abba from Stockholm to Jakarta, blue jeans from Dallas to Nairobi, and VCRs from Tokyo to Caracas. If human concerns are to gain predominance over ideology, this marriage of culture and technology must be encouraged and stimulated. Here especially is the role of youth critical, for it is a mistake to assume, as so many seem to do, that cultural expression is somehow internationally homogenous. All too often the North has been projecting images and signals so seductive in nature that the recipients fail to recognize any negative elements related to their origins. That is dangerous.

As well, it is increasingly easy instinctively to blur or diminish the richness of diversity and cultural pluralism and to idolize a single source model. That is a crying shame.

If we lose pride in our own national cultures, we will at once have lost confidence in ourselves and have weakened our chance to develop self-sustaining elements in our societal

structure. Building a nation or developing a society is not an easy task. If all that were required were to import some vibrant external model, there are one or more societies in today's world that would happily oblige as self-proclaimed ideal images. If we refuse to recognize that our own cultures must be reflected in our economic and political activities, we are building in a guarantee of their ineffectiveness. If we possess no vibrant culture or, even worse, possessing it, have no confidence in it, then all our achievements in other sectors will be of fleeting duration.

Confidence and vigour are essential elements of any enduring society. Without either, there is little chance for accomplishment. In his monumental work, "Civilization", Kenneth Clark speaks of "confidence in the society in which one lives, belief in its philosophy, belief in its laws, and confidence in one's own mental powers...." Again, "vigour, energy, vitality: all the great civilisations have had a weight of energy behind them." Clark says "People sometimes think that civilisation consists in fine sensibilities and good conversation and all that. These can be among the agreeable results of civilisation, but they are not what make a civilisation...."

Confidence, of course, contains a future ingredient. It means that we undertake today activities which cannot mature for some time to come. It means we understand development to be investment - the postponement of advantage today in favour of enhanced benefit tomorrow. Should that confidence be replaced with doubt or fear - fear of economic uncertainty, fear of war, fear of famine, fear of the unknown - then development ceases. Crops are not planted, buildings are not constructed; songs are not composed. And, increasingly, research is not conducted. For, of all human endeavours, research is surely one of the essentially future-oriented pursuits. Research seeks answers to problems: answers which will permit wise development or investment decisions to be taken. And it is here that confidence and vigour, culture and technology, all come together. Research that does not take place within a society produces results that are as alien as snowflakes falling upon Montego Bay. Research which is not vigorous in its methodology makes no more sense than cheating at solitaire.

The greatest resource of any country South or North, Jamaica or Canada, is its people. They are the potential for the enhancement of the quality of life within a society. And that special group being honoured tonight - the scientists and technologists - are a most important element, for they, no less

than others, are the creators of a preferred future. They possess the intellectual rigour to face problems, determine priorities, propose solutions, manage change. And in this island, scientists, often young, are engaged in these very activities. Some, happily, are supported by IDRC, which was created by the Parliament of Canada for the very purpose of encouraging scientists within developing countries to pursue their own problems in their own countries according to their own priorities, and in the process to gain in local experience and enduring competence. The Centre is dedicated to responding to requests from developing countries and makes every effort to avoid imposing upon them any particular course of action. It is monitored in this respect by a Board of Governors representative of eleven different countries, six of them developing. This Board sets the policies, steers the course, and approves or disapproves of managerial decisions. Governors are an outstanding lot, appointed on the basis of their individual merits and achievements. One of the most senior and most distinguished of the current Board is that extraordinary Jamaican, Rex Nettleford. I pay tribute to him tonight as a scholar, a colleague, a wise and compassionate human being. He and his fellow Governors are IDRC.

During its short history, IDRC has supported more than 1200 research projects in some 100 countries, some thirty of them in Jamaica in fields as diverse as oyster culture, the use of educational technology, disease transmission, plantain and banana improvement, and a national library system. The Centre is proud of each one of them and each one of the Jamaicans engaged in them.

Mr. Chairman, I began with a catalogue of my concerns about the perils facing mankind, of the danger of irreversible error, and of the need for all of us to engage in the quest for a more secure future. I did so because the world we live in today is a much more complex place than yesterday's world. It is a world of dysfunction, disequilibrium, and discontinuity. Above all, it is a world of interdependence in which no nation is able to withdraw or to act with impunity. The age of easy answers and grand designs is well behind us. The need carefully to balance avalanches of data, to assess the impact of a spectrum of alternatives, to consider the interests of a multitude of parties: this is the tedious but essential path through the minefields ahead. That path can be negotiated, without question. But to do so we must endeavour to discard, as scientists routinely do, hypocrisy and self-illusion. Equally, we must look forward and

abandon once and for all concepts of total victory and surrender, be they economic, political, or military. We exist today in a world where zero-sum games belong only in the computer arcades. In the real world, in every international field of activity, we all win, or we all will perish.

Peter Drucker, the eminent management scholar, wrote not long ago:

"No one needs to be told that our age is an age of infinite peril. No one needs to be told that the central question we face with respect to man's future is not what it shall be, but whether it shall be."

In that same passage, Drucker continues to say that postponement of interest or response is not possible, that these are "tasks of today, and not tasks for the year 2000. But they are the tasks to which we have to address ourselves to deserve tomorrow."

I believe that we do deserve tomorrow, a tomorrow that is much better than today and incomparably better than yesterday. I believe fully as well that you in this audience will be among those who lead us toward it. It has been an honour for me to spend this evening in your company.