Douglas Worts

Fostering a Culture of Sustainability

Abstract The cultures of the world are changing dramatically under pressures from globalization, population growth, urbanization, and pluralization. Many wonder how societies can be sustained within a planetary biosphere that has limits in its ability to produce the necessities of life for human and non-human species. Despite cultural and religious perspectives that abound across the globe (too often producing violent conflicts), the core cultural framework that is shaping the current reality is increasingly secular and urban. This paper explores basic questions regarding how museums understand and assess the cultural needs of our time. It further asserts that there are opportunities for the museum community to play a vital role in facilitating public reflection, engagement, and communication about our cultural reality—but not without undergoing a serious re-examination of the values, practices, and required skills necessary to play such a role.

About the Author Douglas Worts is an interpretive planner and audience researcher, currently working at the Art Gallery of Ontario, in Toronto, Canada. He has published and spoken widely, in Canada and internationally, on topics of museum audiences, education, and the relationship of culture to sustainability. Doug is a Fellow of Leadership for Environment and Development (LEAD International)—a cross-disciplinary, global network, funded by the Rockefeller Foundation and created to explore and promote the goal of sustainability.

Museums & Social Issues, Volume 1, Number 2, Fall 2006, pp. 151–172.

Introduction

Increasingly, we live within a global community in which traditional notions of culture, economics, politics, social equity, and spirituality are being redefined. Life on planet Earth is changing fast. Technological developments in areas such as communication, energy, transportation, and manufacturing have been central in transforming how our species inhabits the world. Not only has the global population ballooned to over 6.5 billion people, but individuals who might historically have lived in a relatively small geographic area are now able to move freely anywhere they choose. Through global markets of food and other goods, we all affect and are affected by what happens in other parts of the world. One of the results is that the tentacles of diverse sets of human values, beliefs, and behaviours (what some consider the core of "culture") extend far beyond the traditional geographic boundaries. More and more, urban centres are defined as "multicultural" or "pluralistic." But what is the culture of pluralism? Historically, one looked into the past to find the profile of any given culture—searching its material and intangible heritage, its myths, songs, rituals, beliefs, language, and so on. But because it is essential to be conscious of how the deepest values and behaviours of a society link to the larger world, urbanization, globalization, and pluralization are demanding that we look again at this thing called "culture." Any such examination of culture must consider how the unprecedentedly large global population can exist within the ability of the biosphere to support human and other life . . . *sustainability*.

This issue of *Museums & Social Issues* discusses the potential for museums to optimize their roles as cultural facilitators in complex local and global environments. Some authors examine the traditional assumptions about what museums do and propose new or modified functions. Others introduce the topic of sustainability and ask questions about how cultural values and behaviours relate to our challenging present and future. Questions are asked about how museums can address the pressing cultural issues of today, including such phenomena as elevated levels of species extinction, regional military conflicts, the widening gap between rich and poor, systemic inequities along ethno-cultural lines, and so on. Along the way, there are questions about what we mean by culture, sustainability, museums, and more. The perspectives range from the philosophical to the practical, from the traditional to the radical.

This article is intended to introduce the general topic of "fostering a culture of sustainability." The point of departure for this article, and for the entire issue of *Museums & Social Issues,* is that *humanity must change the way it operates within the world if it is to address the challenges of sustainability.* Certainly there will have to be shifts in economic, technological, political, social, and environmental systems—but these won't be sufficient if there is not a change at the cultural level, where our deepest values, attitudes and behaviours are formed and held. Such a cultural shift demands approaching "culture" not as a sector of the economy dedicated to leisure-time and edutainment activities involving the arts and heritage, but rather as the locus of forces that shape individual and collective values and consciousness, as well as direct our personal and societal actions. To set the context for this discussion of culture and sustainability, it is necessary to sketch some of the global trends.

Changing Global and Local Contexts

According to the U.S. Census Bureau, it took from the beginnings of humankind until about 1800 AD (over 20,000 years) for the world population of humans to reach one billion (U.S. Census Bureau 2006).[1] The second billion was reached in approximately 130 years, around 1930. By 1960, which was only 30 years later, the size of the global human community hit three billion—with the fourth billion being reached a mere 15 years later, in 1975. Hitting the fifth billion took another 12 years, and the six billionth person was born in 1999. If growth is a measure of success—which it certainly is for most people as they consider their personal accumulation of wealth, power, and status —then the human population has been very successful. But, unlike our dreams of wealth through huge gains in our retirement mutual funds, exponential growth has at least one downside. When applied to biological environments, such growth in any element of a complex ecology threatens to throw off the balance of the whole system—even threatening the well-being of the entire ecosystem. An analogy can be found within the human body. Cancer is an example of how uncontrolled growth in a particular organ can threaten the person who is hosting the disease. The world has never experienced human populations on the scale it now faces. At the same time, the extinction rate of other species (Figure 1) is vastly higher than at any other

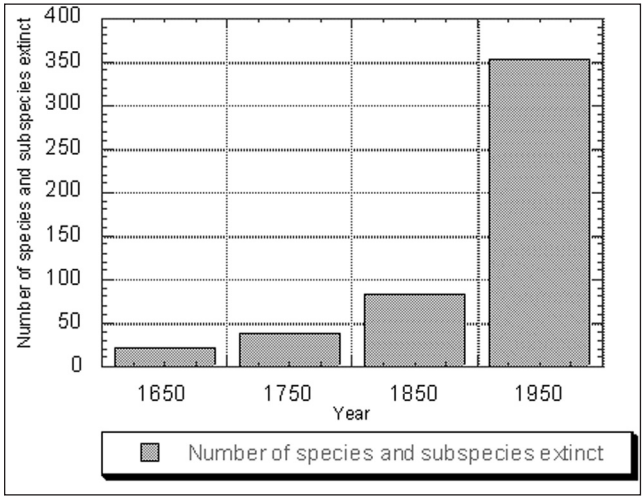

Figure 1. Extinction rates for animal species over four centuries. *Adapted from Daniel D. Chiras, Environmental Science, Benjamin/Cummings Publishing Co., 1985.*

time in history (Suzuki 2001). What are the implications of our current global population?

As humanity demands more of the resources of the biosphere for its own ends, there are implications for the entire global ecosystem. Not only are there more people to feed, clothe, and house, requiring resources from the biosphere, but the methods of harvesting, processing, consuming, and recycling natural and manufactured resources has become extremely energy intensive. Most of the world's energy that is harnessed and controlled by humans comes from the burning of fossil fuels—especially oil, natural gas, and coal, all of which are nonrenewable resources (Figure 2). Much has been made recently about "peak oil," which refers to the point at which half of the world's total oil supply has been extracted from the Earth's crust. It took humanity over a hundred years to build up its current appetite for oil. Now, many are wondering how long it will take to burn up the remaining global supplies—especially with the ballooning economies in Asia, which are already increasing the world demand for the product. All of this assumes that the main issue of creating energy from the burning of fossil fuels is one of supply. But many contend that our energy intensive lifestyle has a bigger problem to face—the release of extraordinary quantities of greenhouse gases and pollution into the atmosphere.

One of the great concerns of our day is climate change. There is a consensus among most leading scientists that climate change is being seriously accelerated through the massive production of CO_2 and other "greenhouse" gases, as a result of burning fossil fuels. These gases change

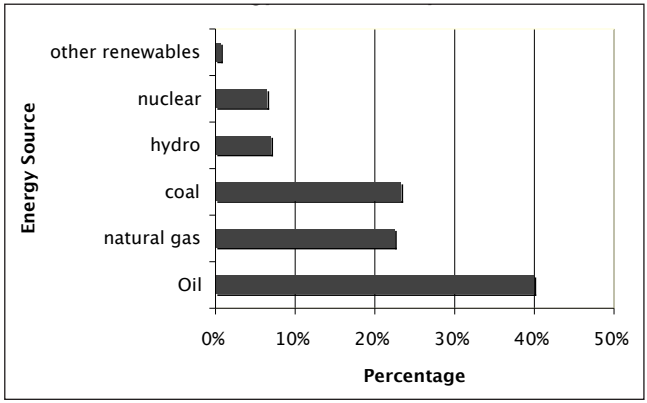

Figure 2. World energy production by source. *Energy Information Administration 1998.*

the chemical balance of the Earth's atmosphere in such a way that it traps heat and changes the climate. The Intergovernmental Panel on Climate Change (IPCC) stated, "There is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities" (2001). In 2005, The Arctic Climate Impact Assessment stated that "Arctic temperatures have risen at almost twice the rate of those in the rest of the world over the past few decades" ("An Open Letter" 2006). Polar icecaps are melting at unprecedented rates, which are threatening habitats for many Northern species and are releasing huge amounts of water into the oceans, which is expected to have significant impacts on ecosystems and climate patterns around the world.

Cities are expanding at unprecedented rates, in significant measure because of global migration patterns. According to the Yale Center for the Study of Globalization, fifty years ago only 30 percent of the world's population lived in urban centers—a figure that is expected to double by 2015 (Neubauer 2004). These large cities are bringing together people from hundreds of cultural backgrounds, under the new cultural framework of pluralist, civil society.

In the so-called "developing world," where China and India in particular are experiencing tremendous economic growth and social upheaval, explosive urbanization is drawing large numbers of rural people to cities, in search of greater wealth and opportunity (Solinger 2006). But the phenomenon is challenging the rural food production infrastructure of family farms, while the cities cannot absorb the new arrivals fast enough, creating ever-growing ghettos of urban poor.

In "industrialized countries," global migration has created cities

where many cultural traditions do live side-by-side reasonably effectively even though there continue to be systemic inequities. Unfortunately, some areas of the world are being torn apart by violence that springs from the inability of certain groups to negotiate their relationships peacefully.

> **"The battle for sustainability will be won or lost in the cities of the world."—Maurice Strong, Secretary-General of the 1992 United Nations Conference on Environment and Development, 1996**

It is easy to see how advances in technology have changed the ways that people live life, such as how we communicate, travel, consume goods, or conduct business. These changes are anything but banal. Human beings seemingly have more control of their world than at any time in history. But as the world changes fundamentally, along with the very nature of "culture," there is good reason to reflect on what lies ahead. How will a new culture of civil society—one that is comprised of individuals and groups who want to participate in the globalized world, but who also have strong links to a wide spectrum of traditional values, different cosmologies, stories, and histories—be negotiated? Increasingly, it seems that a prerequisite for pluralism is that there is equity for all. Some countries have done better than others, but there is distressing evidence of the widening gap between rich and poor, as well as evidence of ongoing systemic inequity (Worldwatch Institute 2003)[2]. Perhaps most concerning though, is the global civil society's reliance on a flawed model of economics. Maximizing profit is the core value of this model. It is this value that attempts to extract the maximum price for a service or commodity, and which attempts to drive down the costs of production. The problem comes when the system enables people to externalize any element of the product/service development process for which the producer doesn't want to take responsibility. One example is the exploitation of labour in developing countries in order to increase profit margins within developed countries. Frequently, the circumstances in some developing countries are such that children and adults are essentially forced to work in unsafe conditions for very low wages, just to survive. With few prospects of education or real opportunity, people in poor nations artificially subsidize products intended for Western markets. Another example is the clearing of tropical rainforests for corporations to pursue industrial farming practices. Our economic system does not figure in the cost to the world of the loss of rainforests that play a critical role in absorbing CO_2 and producing oxygen for the planet

(The Chartered Institute of Water and Environmental Management 2006). The legal frameworks of global economics do not demand this kind of accountability from corporations. It seems evident that the foundation of a sustainable, globalized world is that all costs of production are factored into the price of all commodities. As is the case with the loss of tropical rainforests, assessing the real costs of producing and using fossil fuels would quickly force the marketplace to develop effective renewable energy systems. But because these costs are not imposed, existing corporate entities and individual consumers continue to contribute to the unsustainability of human values and behaviors.

As humanity strides into the increasingly globalized future, it will have to find ways to redefine its values and behaviours so as to maintain appropriate balances. Otherwise, biospheric and human systems may find themselves strained, or even collapsing, under the weight of demands that cannot be sustained.

What Is Sustainability?

In 1987, the Brundtland Commission, (a.k.a. the World Commission on Environment and Development—a project of the United Nations) produced a report called "Our Common Future" in which the term "sustainable development" was defined as development that "meets the needs of the present without compromising the ability of future generations to meet their own needs." Based on a simple model of three intersecting spheres of activity —environment, society and economy—sustainability was to be achieved when there was an appropriate balance between the spheres.

> **"The world's largest countries have 'failed utterly' to honour the pledges they made at the 1992 Rio Earth Summit."—James Gustave Speth, head of the UN Development Program at the conclusion of RIO+5**

The concept of sustainability is further elaborated elsewhere in this volume. It is sufficient here to say that two of the shortcomings of the Brundtland Commission's definition spring from its inability to take into account the cultural or spiritual dimensions of human life, as well as its lack of clarity about how an individual fits in the model as an active player.

> **"The world community has still not made the fundamental transition to a development pathway that will provide the human community with a**

sustainable and secure future. Environmental deterioration continues and the forces that drive it persist."—Maurice Strong, Secretary-General of the 1992 United Nations Conference on Environment and Development, in *Where on Earth Are We Going?,* **2000**

Sustainability is probably the most significant issue that currently confronts humanity. It is such an expansive topic, which can only be understood in terms of interdependent complex systems, but which rests upon a set of values that affect and are affected by our individual and collective behaviours. The people who coined the term knew that sustainability implied significant change in human attitudes and actions, *which is why the current highjacking of the word to refer to the maintenance of the status quo is so perverse.* It is common to hear organizations, including museums, talk about "sustaining themselves," which may in fact be the last thing that is needed to foster a more healthy and vital "culture of sustainability." But if maintaining and expanding the current system of cultural organizations is not necessarily going to improve the cultural well being of our communities, then what are the issues to be addressed?

The following list is provided to stimulate discussion regarding the conditions required for humanity to move towards sustainability:

- Living within the carrying capacity of the Earth (human population and related behaviour that can be supported by the biosphere without damage to natural systems)
- Creating and maintaining equitable systems of wealth, power, decision-making (democracy)
- Acting responsibly at individual and collective levels—including local, national, corporate, international, and global levels
- Not "externalizing" costs
- Developing human systems that are not toxic for human or non-human inhabitants of the world
- Cultivating individual and collective values that are more consciously held and which guide human decisions and behaviors toward a sustainable world
- Developing personal and societal feedback loops that inform us about our evolving relationships to the world outside ourselves (personally, locally, globally)

- Ensuring that educational systems are designed to foster a central awareness about the challenges and opportunities related to sustainability issues for individuals and collectives
- Restructuring cultural organizations and priorities, along with their billions of dollars in capital infrastructure, collections, and human resources, so that they can effectively monitor the cultural well-being of our society and facilitate reflection, dialogue, and action.

Feedback Loops—How Do We Know if Our World Is Sustainable?

We need feedback in all aspects of our lives: to sense danger, to be drawn into intimacy, to know when we should eat or sleep, etc. Sometimes feedback comes in the form of a smile, other times it comes in our ability to detect symptoms of disease. Our successes and failures in life are often dependent on how well we read feedback. This section explores some of the feedback mechanisms currently used to reflect on our well-being.

GDP

The most pervasive feedback loop that attempts to shed light on societal health is a financial one—the Gross Domestic Product (or GDP) or its close relative the Gross National Product (GNP). GDP measures the amount of money that changes hands within an economic system. It is commonly thought that when money is spent, it contributes to economic activity and everyone benefits. This is often the case. However, GDP has many blind sides that render it wholly inadequate as a sustainability indicator, unless other feedback mechanisms are put in place as well. Most important is that fact that GDP does not account for the negative effects of economic activity that detract from quality of life. For example, money that is spent on medical response to a car accident contributes to positive GDP growth but takes no account of the human suffering and material loss from such events. Wars and disasters are amongst the greatest stimuli of an economy because huge sums of money are spent on them and GDP rises. Our societal attitude towards the economy and consumption reflects a cultural state of relative unconsciousness regarding our individual and collective relationships with the world.

Ecological Footprint

The best form of feedback reflects on local realities, as well as linking the local to the global. One very interesting sustainability feedback mechanism is the Ecological Footprint. It was developed by William Rees and Mathis Wackernagel at the University of British Columbia in the mid-1990s and published in a book called *Our Ecological Footprint* (Wackernagel & Rees 1996). The Ecological Footprint, or "EF," is a measure of the "load" imposed by a given population on nature. It represents the land area necessary to sustain current levels of resource consumption and waste discharge by that population. By calculating the amount of productive land required to produce what we consume (e.g., from forests, croplands, and productive seashore), as well as measuring the land masses required to reabsorb our waste, one can calculate the ecological footprints of individuals, households, companies, cities, provinces, countries and the world. An effective image that conveys the concept of EF is the terrarium. If one was to build a sealed glass dome over a given human or group of humans, how big would it have to be in order that life could continue indefinitely, as we live it today? What size of dome would you need to sustain your lifestyle?[3]

EF is a powerful feedback tool because it can be used to provide information at all levels, allowing individuals to see their own footprints in relationship to the average for a city, or a country, and then compare these to what the biosphere can actually handle. In a comparison of footprints, according to national averages published by Global Footprint Network, the United Arab Emirates has the largest footprint (over 25 acres per person), followed by the United States (at 24 acres per capita), and Canada ranks third, measuring 18.5 acres per capita. Compare this to Afghanistan, which has the smallest footprint, of 0.2 acres per person. Current estimates are that over 70% of the North American footprint comes from our use of energy, largely because of the production of greenhouse gases from burning fossil fuels that require colossal forests and other "carbon sinks" to neutralize CO_2 emissions and produce oxygen. The world footprint is 5.4 acres per person, but the actual capacity of the biosphere, given the population of over 6 billion people, is only 4.4 acres per person. Humanity is already in a position of "overshoot," using more of nature than can be regenerated, and we may be seeing the results of burning up our natural capital in such phenomena as climate change and extreme weather, like the hurricane season of 2005, the fires in British Columbia in 2004, and the droughts in the Canadian prairies during 2003. The biosphere has distinct limits that

demand our attention, or we will threaten the very system we depend on for life itself. With the limits of our biosphere being reached and exceeded, the notion of people using their fair share of planetary resources is becoming increasingly important.

Ecological Footprint Country Rankings

United Arab Emirates	25.9 acres/person
USA	24.0 acres/person
Canada	18.5 acres/person
United Kingdom	13.8 acres/person
Germany	10.9 acres/person
Costa Rica	4.8 acres/person
China	4.0 acres/person
India	1.7 acres/person
Afganistan	0.2 acres/person
World Footprint	**5.4 acres/person**
Sustainable Footprint	**4.4 acres/person**

(adapted from "National Footprints", Global Footprint Network, 2005)[4]

Like it or not, the economic, social, and environmental effects of globalization have created a new layer of cultural reality for people around the globe. How will we deal with the implication that, if all people lived and consumed like we do in North America, an additional three to four planets would be required to accommodate everybody? With the people of Asia transforming their economies and social structures, it won't be long before a traditionally small-footprint (per capita) part of the world will be consuming and polluting like the West does. How will humanity acknowledge and respond to the emerging situation in which the number of our species has grown so much that we threaten to collapse the very environment that has given us our success? Part of the answer is developing new mechanisms of effective feedback like the ecological footprint. The Genuine Progress Indicator is another example of a progressive indicator.

Genuine Progress Indicator

Is it possible to calculate the GDP for a province or country and then systematically adjust it to reflect the real costs that have traditionally not been tallied? Mark Anielski, an Alberta accountant and sustainability consultant, has attempted to do just that (Anielski 2002). This type of calculation is referred to as the Genuine Progress Indicator (GPI).

The following set of GPI indicators provides a sense of the complex calculations that were used in the Alberta assessment.

Selected GPI Criteria, Alberta, Canada

Economic	*Personal-Societal*	*Environmental*
Economic growth	Poverty	Energy use intensity
Economic diversity	Unemployment	Agricultural sustainability
Trade	Underemployment	Forest fragmentation
Disposable income	Parenting and eldercare	Water quality
Transportation costs	Commuting time	Air quality
Household debt	Suicide	Greenhouse gas emissions
Public infrastructure	Drug use (youth)	Hazardous waste
	Crime	Ecological footprint

Although Alberta's GDP growth has been strong over the decades, the GPI for Alberta, reveals serious long-term damage to the environment, as well as the creation of an increasing number of social and economic problems. Figure 3, which compares Alberta's GDP and GPI, illustrates the discrepancy between financial growth and the slow erosion of general well-being. It is a trend that would likely be revealed if similar comparative assessments were conducted in other provinces across Canada or the USA.

Indicators that can guide change toward a more sustainable future are still being developed and are far from being incorporated into planning and governance operations of cities and countries. Feedback mechanisms that can guide the evolution of cultural health are even less developed and integrated.

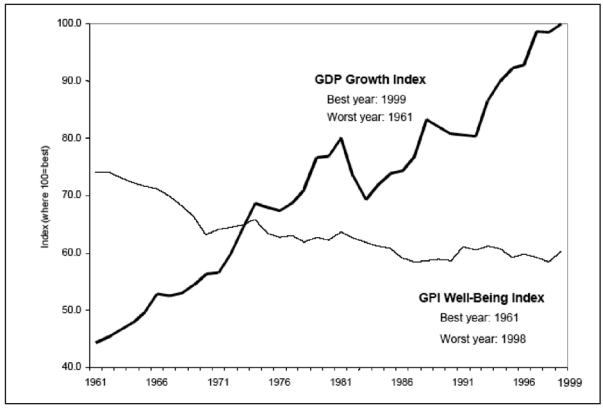

Figure 3. The Alberta GPT Well-Being Index versus Alberta GDP Index, 1961 to 1999. *Mark Anielski, "Is the Alberta Advantage Sustainable?", paper delivered to the Canadian Economics Association, 2002.*

What is culture?

In the American Association of Museums publication *Mastering Civic Engagement,* psychologist Edgar Shein defined culture as "a basic pattern of assumptions invented, discovered or developed by a given group as it learns to cope with its problems of external adaptation and internal integration" (American Association of Museums 2002). In sharp contrast to popular notions of culture that are linked to material and performative vestiges of past ways of life (e.g., fashion, art, artifacts, food, music, and theater), Shein's definition grounds the idea of culture in the evolving framework of human assumptions that underpin our individual and collective relationships to the changing world. An important component of this approach to culture is the process of internalizing the changing relationship of human beings to the external world.

In a recent publication, I proposed a definition for culture as: the sum total of all values, collective memory, history, beliefs, mythology, rituals, symbolic objects, and built heritage that reflects the manner in which a people relate to both those aspects of life which:

a) they can know and control;

b) they cannot fully understand or control, but to which they need to have a conscious relationship (Worts 2003).

This definition makes explicit reference to several things that Shein leaves implicit—a role for tangible and intangible heritage, acknowledgment of the need to grapple with some forces that can be controlled and some that cannot, as well as consideration of both conscious and unconscious relationships. The relationship that both individuals and collectives have to the forces they cannot fully understand or control is one of the most important considerations in any discussion of the culture of sustainability.

There are two common lenses through which culture is frequently viewed. The first is that of a certain class of leisure-time experiences, which often is linked to cultural institutions such as museums, art galleries, theatres, and opera houses. To participate in this form of culture, one normally attends a public program in a designated location, for which there is usually a fee. Participation in these events is often passive and appreciative, as in attending exhibits in museums and art galleries or watching theatrical or musical performances. Although it is possible to have an

engaging and reflective experience that can be very meaningful to a visitor or patron, these experiences do not normally extend much beyond paying and seeing the show. When insights are generated by visitors they are rarely fed back into the cultural organization, and they rarely become additional inputs into the larger realm of public meaning-making.

In communities increasingly characterized by people from diverse ethnocultural backgrounds living under the umbrella of civil society, culture is frequently seen through the second lens of ethnicity, which involves the worldviews, food, clothing, music, art, religion and traditions of people whose ancestry is rooted in specific parts of the world. For many people, there is great interest and delight in exploring aspects of other cultures. Eating in restaurants that serve cuisine developed in distant lands can help create public awareness of other lifestyles on the planet. Ethnocultural festivals are familiar events to many in Canada and the United States and offer an opportunity to experience a taste of different cultural traditions in food, language, music, clothing, dance, and art—all in one event. To the extent that these activities reflect on aspects of the life of a community (past and present), they do add to the richness and diversity of the larger society. But this approach also has limitations.

Pluralist communities are not mosaics of distinct ethno-cultural systems. Rather, the cultural framework of each group begins to transform as it is influenced by the other imported and resident cultures. Identity, which is a very layered phenomenon, acquires yet another layer within a pluralist society. Specifically, a new cultural framework emerges that applies to the full population, providing values and behaviours that are rooted in pluralist, civil society. There seem to be few mechanisms for understanding, engaging, and fostering a healthy culture of pluralism—at least not among the institutions established to address the cultural needs of our society. Whatever these mechanisms are, if they don't foster conscious engagement in creating balance within the global community they are not serving the cultural needs of the population.

One of the great puzzles of our time is how to understand why culture has been narrowly defined within institutionalized, discipline-based, object-oriented areas of expertise, instead of part of the ebb and flow of life. Why has it been banished as a sector of the economy, to either address demands for leisure-time entertainment or offer an activity for tourists—leaving our actual, present-day way of life to be largely unexamined? How do we, as a society, assess the degree to which we are adapting to our

changing environment and integrating those adaptations into our internal value system? This is the challenge that confronts the "cultural community" as policy-makers, artists, cultural professionals, and institutions grapple with creating a framework for meaningful cultural change.

Few would argue that culture is anything less than complex and layered. There are both individual and collective dimensions. The past, present, and future make up its temporal continuum. Values and behaviours, both conscious and unconscious, define cultural expression. Creativity, communication, motivation, relationships, and symbolic experiences are amongst the core dynamics of culture. But pluralization, globalization, and urbanization, within the biospheric context of the Earth's limited carrying capacity are forcing humanity to rethink our cultural foundations. What roles can museums play in fostering a culture of sustainability?

Creating a Framework of Cultural Feedback Loops

Attendance, revenue, objects accessioned, exhibits mounted, and publications published are some of the measures that museums use to assess their operations. But it can be argued that none of these are cultural indicators. They do not reflect on the cultural needs, opportunities, or well-being of the community. Nor do they offer insights into the cultural impacts of museum operations on individuals. What these measures do offer is some insight into the activity of museums as institutions—as nonprofit, corporate entities.

Exactly what this has to do with the cultural health of individuals or communities is a good question. Over the past couple of decades, there has been a growth in the use of audience research in museums, which has helped to generate valuable conversations within the museum field about the nature and potential of visitor experiences. Nonetheless, audience research that is fully integrated into program producing cycles of museums remains rare. Despite attempts to root museum operations in community, for example through the American Association of Museum's *Excellence and Equity: Education and the Public Dimension of Museums* (American Association of Museums 1991) and *Mastering Civic Engagement: A Challenge to Museums* (American Association of Museums 2002), there has yet to be a sea-change in how museums develop programs and attempt to address vital cultural issues.

In 2000, a small group of museum professionals and academics in Canada formed the Working Group on Museums and Sustainable Communities to research and educate the museum community about cultural dimensions of sustainability. Over the past six years, this group has developed a Critical Assessment Framework that may help cultural organizations to broaden and deepen their understanding of cultural health within community, thereby being able to better facilitate it (Worts 2006). This framework encourages museum professionals to ask probing questions about the value of potential public programs through the lenses of 1) the individual; 2) the community, and 3) the institution.

Individual Level

When considering or assessing a public program initiative, ask how well the program will or does

- Contribute and/or generate insights
- Capture imagination
- Stimulate curiosity
- Encourage personal reflection
- Enhance ability to think critically and creatively
- Provide opportunity to examine and clarify values

Community Level

Ask how well the program will or does

- Address vital and relevant needs/issues within the community
- Engage a diverse public
- Provide a voice for diverse groups
- Encourage social interactions and debate
- Act as a catalyst for action
- Initiate or enhance long term collaborative relationships
- Result in products/processes that have tangible impact in the community
- Generate information applicable to museum and community decision making

Museum Level

Ask how well the program will or does

- Challenge personal and institutional assumptions amongst staff and collaborators
- Be guided by clearly articulated goals, objectives, and outcomes
- Use the most effective vehicle for achieving goals
- Identify and value staff skills and resources
- Create a community of learning within staff
- Engage key players/champions/detractors early on in the process (external and internal)
- Include multiple perspectives
- Integrate different dimensions of sustainability.

The Critical Assessment Framework does not provide museum professionals with cultural indicators that can measure the cultural effectiveness of programs. However, it does provide a structure for discussion, both within staff and even some public contexts, that can produce cultural indicators of success. Doing this will be a relatively new process for most museums.

Reassessing the Role(s) of Museums

Museums are commonly considered to be cultural organizations. But what does this really mean? Do they contribute to the cultural well-being of community? What measures are used to identify the cultural needs and opportunities within a given setting? Why are most of the measures of success of museum programming related to attendance, revenue, and other noncultural performance indicators?

If one examines the etymology of the word "museum," what emerges is the notion of a "place of the muses." Specifically this refers to the creative muses, who were daughters of Zeus and Mnemosyne. Through these goddesses, ancient Greeks were able to access divine inspiration and creativity, which is another way of saying developing a creative relationship with the unknown mysteries of the universe.

Somewhere along the way, museums became repositories of tangible heritage. Perhaps the materials were felt to contain the *prima materia* of the culture. But as Stephen Weil has noted, museums and museum professionals are very good at what they do, but they long ago forgot why they do it (Weil 2000). This could explain the absence of cultural indicators in our society and within museums themselves. It also could explain why many museums have committed themselves to the process of collection-building within narrow collecting missions, the success of which is very self-referential. Similarly, the commitment of museums to the *exhibit* as a principal means of relating to the larger public is a very questionable basket in which to put all, or most, of one's eggs. Exhibits are relatively poor at fostering relationships, stimulating focused reflection, or encouraging participation. When the local community stays away in droves, museums are increasingly shaking the tourism and blockbuster bushes to see what economic benefit may fall out. Many are also building bigger buildings, to meet some rather questionable cultural goals. It would be heartening to see more museums developing sets of cultural indicators that shed light on the impact of their programs on the life of the community. Conducting cultural scans and needs assessments within our cities in order to inform new programmatic directions might be another step forward for museums. However, to embark on such a path will take courage. Along the way, it may become evident that the traditional skill-sets and discipline-based expertise that currently lie at the core of most museums may prove to be inadequate. New competencies may have to be developed if museums are going to be able to measure their successes in terms of the well-being of the larger cultural systems that underpin the life of the community.

An inspired example of a new model of museums can be found in Ha Long Bay, Vietnam. The Ha Long Bay Ecomuseum radically departs from traditional museum frameworks and it has the potential to inspire change across the entire cultural sector (Galla 2002). Ha Long Bay, which is located in a spectacular setting on the South China Sea, was designated years ago as a UNESCO World Heritage Site. Over time, however, its population grew and its resources steadily declined. Because of its UNESCO designation, tourism had grown, but this carried deleterious effects. Characterized by short visits to see the natural beauties and quaint fishing lifestyles of local inhabitants, tourism contributed little to a local economy already sagging as a result of a disintegrating infrastructure and widespread poverty. In order to address this situation, and in conjunction with the local govern-

Cua Van villagers watching the opening ceremony of Cua Van Floating Cultural Centre, Ha Long Ecomuseum, from their boats. *Courtesy of Amareswar Galla.*

ment, the Ha Long Bay Ecomuseum was begun in 2002, setting as its goal nothing short of the cultural, social, economic and environmental well-being of the region. Through extensive stakeholder-engagement processes, the museum identified ways of involving broad sections of the community in learning about, valuing, and preserving their cultural heritage. The unique aspect of this initiative was to link heritage to the region's economic future, and in so doing, to secure a place for this community within an increasingly globalized world. Training and job-creation were designed to develop more efficient, industrially scaled approaches to fishing and mining, approaches that can be sustained through connections to global markets as well as heritage practices and local knowledge. The traditional skills and knowledge of the region are preserved not as a museum reconstruction, but as a functioning local commercial operation that continues, nonetheless, to attract cultural tourists. A new cultural centre, which is part of the new Ha Long Bay Ecomuseum, floating on water, opened in May of 2006. (See cover photo.)

One of the great opportunities at the doorstep of museums is to pro-

actively identify frameworks for understanding and relating to the cultural health of community. For example, in recent years, the American Association of Museums, through its "Museums and Communities" initiative and publication *Mastering Civic Engagement: A Challenge to Museums,* has offered insights and support to staff, volunteers, and community members who want to reflect on a museum's core values. Aditionally, there are a number of foundations that are attempting to support museums in becoming more culturally relevant to their publics, such as Americans for the Arts. This journal offers a number of articles in which leaders in their fields are attempting to stretch museums toward a broad and integrated goal of sustainability. **Glenn Sutter** has written a piece that advances the need for complex systems thinking to guide the development of cultural strategies in museums. **Terry Link** offers up many insights into how sustainability has evolved as a concept and suggests a range of possible ways for museums to embrace the concept in a meaningful way. **Patrick Kociolek** illuminates the ambitious plans of the California Academy of Sciences to build a new, energy efficient museum that lightens the load on nature while achieving the traditional goals associated with museum exhibits and programs, which is a tricky balance to strike. **Hugues de Varine** and **Raj Isar,** two figures who have played key roles in redefining how culture is understood, provide insights and reflections on how the cultures of a changing world are contributing to sustainability, or not. Economist and futurist **Hazel Henderson** has contributed reflections on the state of the world, through the lens of sustainability with considerations for museums. Artist and cultural analyst **Jon Hawkes** discusses how culture, democracy, engagement, and sustainability are interdependent. In addition, **Julie A. Avery** and **Stephen Lee Stier** offer a review of *The Green House* exhibit at the National Building Museum, while **George E. Hein** and **Ellen Hirzy** provide book reviews of two recent publications that speak to the theme of culture and sustainability. **Wendy Ng** has prepared an annotated list of worthwhile resources for those interested in pursuing this topic.

Museums are organizations with deep roots—not unlike many institutions, such as universities, banks, and insurance or manufacturing companies. They often resist change, but the world has and will continue to change. Cultural organizations have the potential to be part of shaping a culture of sustainability that honors the cultural traditions of our pluralist world. It will take a great deal of courage to undertake such change, but there are leaders within our ranks. We need to embark on the journey.

Notes

1. According to the World Resources Institute, human activities are driving species to extinction 100 to 1,000 times faster than what would occur naturally.
2. The global economy has grown sevenfold since 1950. Meanwhile, the disparity in per capita gross domestic product between the 20 richest and 20 poorest nations more than doubled between 1960 and 1995. Of all high-income nations, the United States has the most unequal distribution of income, with over 30 percent of income in the hands of the richest 10 percent and only 1.8 percent going to the poorest 10 percent.
3. See www.myfootprint.org to calculate your own ecological footprint.
4. See www.footprintnetwork.org.

References

American Association of Museums. (1991). *Excellence and equity: Education and the public dimension of museums.* Washington, DC: American Association of Museums.

American Association of Museums. (2002). *Mastering civic engagement: A challenge to museums.* Washington, DC: American Association of Museums.

An open letter to the Prime Minister of Canada on climate change science. (2006, April 18). Vancouver, British Columbia, Canada: David Suzuki Foundation. Retrieved June 7, 2006 from www.davidsuzuki.org/files/climate/Scientist_letter_to_Harper.pdf.

Anielski, M. (2002, June 1). *Is the Alberta advantage sustainable?: The Alberta genuine progress indicators.* Paper presented at the Thirty Sixth Annual Meeting of the Canadian Economics Association, University of Calgary, Calgary, Alberta, Canada.

The Chartered Institute of Water and Environmental Management. (2006). *Factsheets: Deforestation.* London: The Chartered Institute of Water and Environmental Management. Retrieved July 1, 2006 from www.ciwem.org/policy/factsheets/fs2.asp.

Energy Information Administration. (1998). *International energy annual 1998.* http://www.eia.doe.gov/emeu/plugs/pliea98.html.

Galla, Amareswar (2002). Culture and Heritage in Development: Ha Long Ecomuseum, a Case Study from Vietnam, *Humanities Research*, *IX* (1)

International Panel on Climate Change. (2001). *Summary for policymakers of the third assessment report.* Geneva, Switzerland: IPCC. Retrieved December 4, 2005 from www.ipcc.ch/pub/spm22-01.pdf.

Kertzner, D. (2002). The lens of organizational culture. In *Mastering civic engagement: A challenge to museums* (pp. 39–48). Washington, DC: American Association of Museums.

Neubauer, D. (2004, September 24). Mixed blessings of the megacities [Electronic version]. *YaleGlobal.* Retrieved November 14, 2005 from http://yaleglobal.yale.edu/display.article?id=4573.

Solinger, D. J. (2006). The creation of a new underclass in China and its implications. *Environment and Urbanization, 18,* 177–193.

Suzuki, D. (2001, June 15). Science matters: Repeating history at our peril. Retrieved January 21, 2006 from http://www.davidsuzuki.org/About_us/Dr_David_Suzuki/Article_Archives/weekly06150101.asp.

United States Census Bureau. (2006). World population information. Washington, DC: United States Government. Retrieved June 17, 2006 from http://www.census.gov/ipc/www/world.html.

Wackernagel, M. and Rees, W. (1996). *Our Ecological Footprint: Reducing Human Impact on the Earth.* New Society Publishers.

Weil, S. (2000). Transformed from a Cemetery of Bric-a-Brac. In *Institute of Museum and Library Services* (Ed.), Perspectives on outcome-based evaluation for Libraries and Museums (pp. 4–15), Washington, DC: Institute of Museum and Library Services.

Worldwatch Institute. (2003). Rich-poor gap growing. *Vital Signs 2003,* 88–89.

Worts, D. (2004). Museums in search of a sustainable future. In *Alberta Museums Review 30*, 40–57. Edmonton: Alberta Museums Association.

Worts, D. (2006). Measuring museum meanings. *Journal of Museum Education 31* 1, 41–49.