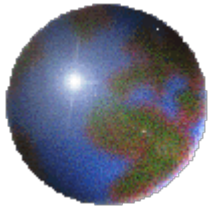


# *Values, Ethics, and Sustainability*

1

*Lecture #3*



**Colin L. Soskolne, PhD**  
**Professor of Epidemiology**  
**School of Public Health**  
**University of Alberta**  
**Edmonton, Alberta**

**URL: [www.colinsoskolne.com](http://www.colinsoskolne.com)**

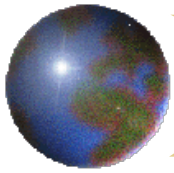
**Edmonton Lifelong Learners Association (ELLA)**

**--- Course Number EL 21 ---**

**University of Alberta, Education South 165, April 30-May 11, 2012**

**David Thompson will teach the last week (May 14-18, 2012)**





# EVIDENCE: Profound Declines in Ecological Integrity Demonstrated by ALL Markers of Biodiversity

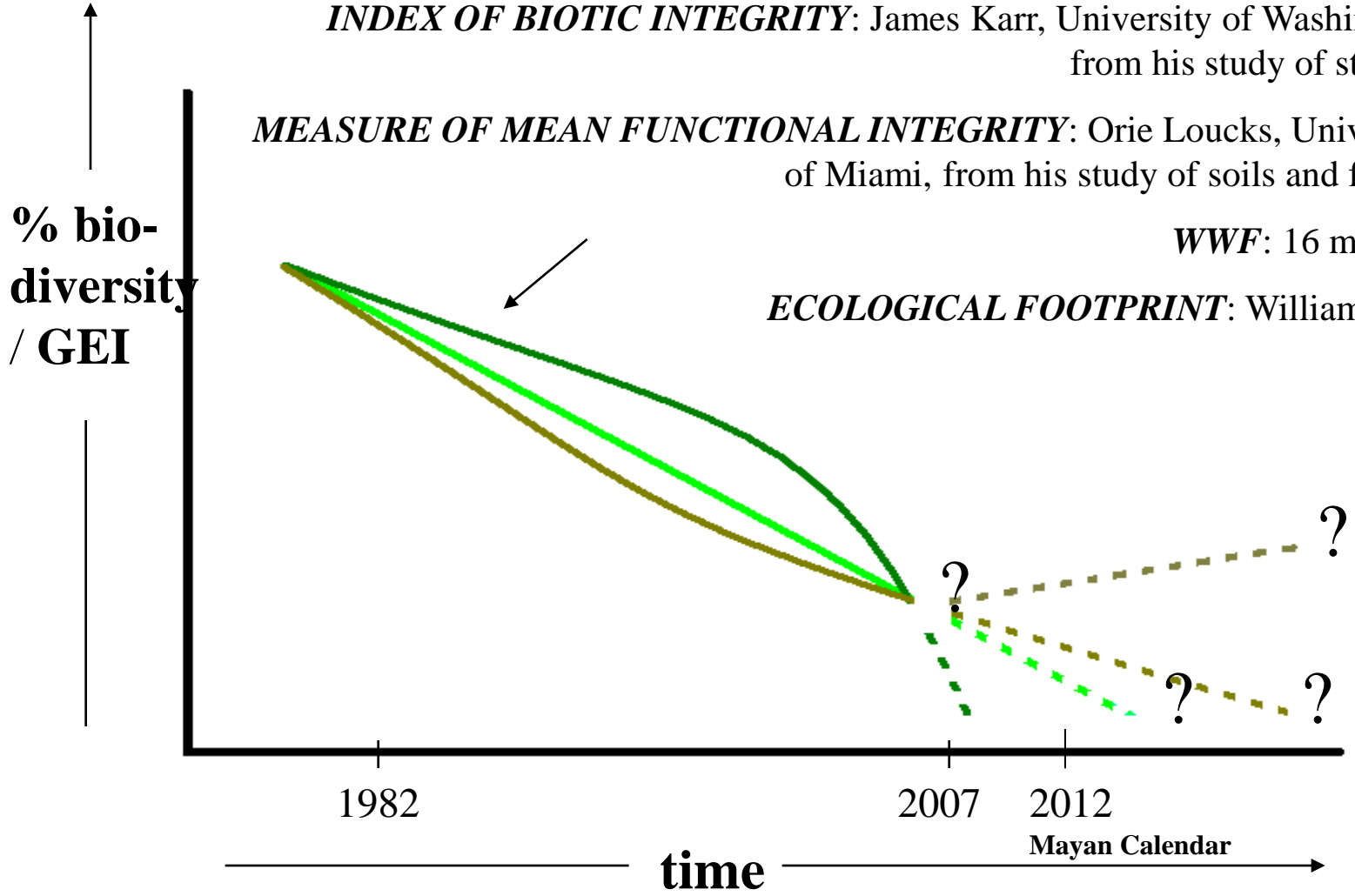
The past 25 years have seen an ~50% reduction in biodiversity as measured by INDEPENDENTLY-DERIVED indicators

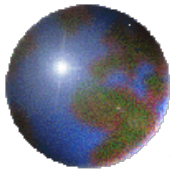
*INDEX OF BIOTIC INTEGRITY*: James Karr, University of Washington, from his study of streams

*MEASURE OF MEAN FUNCTIONAL INTEGRITY*: Oriie Loucks, University of Miami, from his study of soils and forests

WWF: 16 markers

*ECOLOGICAL FOOTPRINT*: William Rees





# Apocalypse? Not yet, according to Mayans

KATHRYN REESE-TAYLOR  
*Ottawa Citizen*

*Ancient calendar doesn't predict the end of the world in 2012*

Our world is fascinated by prophecies of doom. Every day the media carry reports of predictions that the next year, decade, century or millennium will bring untold disasters. From a reading of current news headlines, this is difficult to argue against.

And now, we are bombarded by predictions of a disaster associated with what many say is the end of the Mayan calendar. But did the Mayans actually predict that the world as we know it will be destroyed by some unknown cataclysm on Dec. 21, 2012?

When the Mayans abandoned their great cities in southern Mexico, Guatemala, Belize, Honduras and El Salvador, they left behind large stone monuments with hieroglyphic writing. These inscriptions were very difficult to decipher as the writing system had not been used since the Spanish conquest when all but four of the books written by the Mayans were burned. However, based on the four remaining books, early scholars were able to identify some of the gods and goddesses, the numerical system and, most importantly, parts of the calendar. Therefore, while they could not decipher the events recorded on the stone monuments, scholars could read the dates on which these events occurred.

One date that stood out was the day the world was created according to the Mayans: Aug. 11, 3114 B.C. The actions leading up to the creation of the world involved the exploits of many gods and goddesses and took place over a long period, 13 baktuns (a baktun is equal to approximately 400 years, so 13 baktuns is roughly 5,200 years). On this last day of creation, the Maize Lord, one of the principal Mayan gods, reached his hand up into the sky

and turned the heavens, which started time. After this act, "real time" started, and this is what is recorded as the first day in the Mayan calendar.

Because mythological time ended at the end of the 13th baktun, scholars and writers in the 1960s and '70s, who were keenly interested in the Mayans, assumed that the "real time" calendar would also end at the end of 13 baktuns, on Dec. 21, 2012. In 1966, Michael Coe, professor emeritus of anthropology at Yale University, first linked this presumed end of the Mayan calendar to a cataclysmic end of the world, as predicted by the Hopi and the Aztec.

This idea was later picked up and amplified in 1975 by Frank Waters in his book, *Mexico Mystique: The Coming Sixth World of Consciousness*. Waters, who also wrote the *Book of the Hopi*, argued that at the end of 13 baktuns, a catastrophe would completely destroy the old world and a new world would take its place. However, it is Jose Argüelles who is most closely associated with the 2012 phenomenon. Argüelles wrote a bestselling book in 1987 called *The Mayan Factor*. In this book, he focused on the end of the 13 baktuns as a moment of transformation from one world order to another (guided by extraterrestrials from whom the Mayans are descended, but that is another article).

It is this concept of a new world rising from the ashes of the old that seems to resonate with people today. Books, articles, movies, documentaries and websites have tied an array of events, both fictional and factual, to 2012, including solar flares, shifting magnetic poles, astronomical alignments, recent

political events, and, sadly, all-too-real natural disasters. Even the current economic crisis in Greece has been linked to 2012, although it is unclear what new world order will result from this calamity. Indeed, it seems clear from the reams that have been written about 2012 that we are unhappy with the world we have created and want a "do-over."

Yet, what did the ancient Mayans say about such a significant event in their future? Surely something as noteworthy as the end of the world or the coming of a new age of consciousness would have been recorded on many monuments. But in all of the thousands of texts left by the Mayans, only one includes any information at all about this momentous future event.

The single example comes from the site of Tortuguero in the state of Chiapas, Mexico. There, on Monument 6, the Mayans recorded the end to the 13th baktun. Interestingly, it was not even the main point of this inscription, but an addendum, comprising only eight glyph blocks at the end of a text that originally consisted of more than 156 glyph blocks. The focus of the text was the dedication of the building associated with the monument by the king of Tortuguero, Bahlam Ahaw (Jaguar Lord). This type of prediction into the future is fairly common in Mayan texts and serves to contextualize the main event in the inscription.

So what exactly was written in the final eight glyphs on Tortuguero Monument 6?

The Mayans recorded that on Dec. 21, 2012, the 13th baktun will end. Bolon Yokte', a god of transition associated with the ending of time periods, will witness the ceremonies conducted on this day and will be "invested," presumably

by the descendants of the king, Bahlam Ahaw. Based upon the rituals of contemporary Mayans, scholars interpret this passage to mean that the future king of Tortuguero would have brought out an effigy of the god, Bolon Yokte', dressed it in ritual clothing and placed it on display to watch the ceremonies conducted in honour of the end of the 13th baktun.

Ironically, what is missing from this passage is any mention of the end of the world. There is no catastrophe predicted and no rise of a new world order foretold.

Further, the Mayans predict other events far into the future, well beyond 2012.

For instance, at the nearby site of Palenque, on the west panel in the Temple of the Inscriptions, the Mayans recorded the date of Oct. 23, 4772, in the future to contextualize the accession of the great king, K'inich Janaab' Pakal (Sun-Eyed Flower Shield) on July 26, 615. And at the magnificent city of Tikal, located in the heart of Guatemalan rainforest, the Mayan carved the date of Jan. 29, 5,039,131, on a stone monument commissioned in the sixth century by the king, Kalomte' Bahlam (Emperor Jaguar).

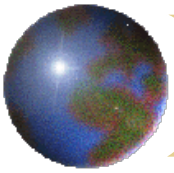
So, while the Mayans certainly envisioned the 13th baktun ending, just as we anticipate that the third millennium will end on Dec. 31, 2999, they in no way thought their world would end.

And this is what is so interesting about the 2012 prophecy. It is our culture that is captivated with apocalyptic predictions of all sorts, religious, political, economic and environmental, and we invented this doomsday scenario, not the ancient Mayans.

Kathryn Reese-Taylor is associate professor and graduate program director in the department of archeology at the University of Calgary.

Postmedia News



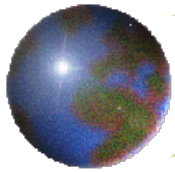


## *Judge Miles W. Lord, 1982*

### **On “*Corporate Ethics and Environmental Pollution*”:**

- ❏ **“*Corporations create 80% of our GNP. They, of all entities working, have the most potential for good or evil in our society.*”**





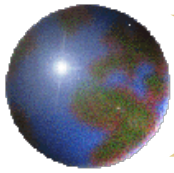
## Ecological Footprint (EF) (ha/person)

	1991	2003
USA	= 5.1	= 9.5
Canada	= 4.3	= 6.5
India	= 0.4	= 0.8
World	= 1.8	= 2.2

Footprints are rising with rising energy and material consumption, even in the richest and most efficient countries, and fastest in the fastest growing countries, like China and India. The 2006 Living Planet Report shows the rising global EF since 1960, recognizing that the earlier years have wider margins of error.

**Sources:** Wackernagel & Rees. *Our Ecological Footprint 1996*; and the 2006 Living Planet Report





# *From where does wisdom derive?*

**From**

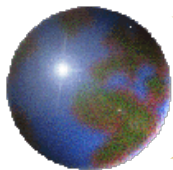
☒ **Data to**

☒ **Information to**

☒ **Knowledge to**

☒ **Wisdom**





A10 SUNDAY, JANUARY 8, 2012 / EDMONTON JOURNAL

## EDITORIALS

# Steven Hawking: voice for the ages

Stephen Hawking today adds septuagenarian to his long list of impressive identifiers. He is a noted physicist, professor of mathematics, author, cosmologist and in the guise of his animated self, occasional star of *The Simpsons*, which happens to be one of his favourite television shows. He is also generally recognized as a true genius.

However, his most remarkable accomplishment might well be the simpler act of living. He has beaten Lou Gehrig's Disease for almost five decades, far longer than the usual life expectancy for those who come down with the dreadful illness. Though confined to a wheelchair and able to speak only through a computerized voice box, Hawking continues to work each day at his home in the United Kingdom.

The *Washington Post* recently compiled a list of important lessons Hawking has taught us all with his words and deeds; they bear repeating:

Learn the lessons of history.

Genius need not be associated with precocity.

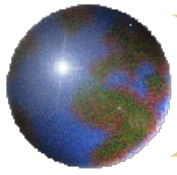
Knowledge is best put to use when shared.

Study what fuels your passion.

Never lose your voice.

And our favourite: We will never have all the answers.



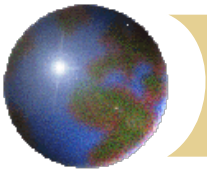


# *Hawking's six lessons*

- ✦ *Learn the lessons of history*
- ✦ *Genius need not be associated with precocity*
- ✦ *Knowledge is best put to use when shared*
- ✦ *Study what fuels your passion*
- ✦ *Never lose your voice*
- ✦ *We will never have all the answers*

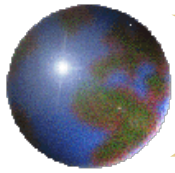






**✚ Why should epidemiologists and public health researchers and practitioners be concerned with matters of a global nature?**

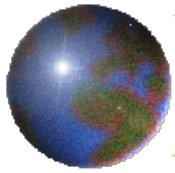




# *Traditional Public Health Domain*

- ✚ **Sanitation**
- ✚ **Water Quality**
- ✚ **Food Safety**
- ✚ **Air Quality**
- 
- ✚ **Vaccination programs**

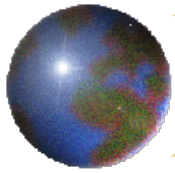




# *New Concerns of Public Health*

- ❖ **As we tamper with the very fabric of life through expansion of the human enterprise, Nature's Services are changed; these services we take for granted and assume free-of-charge in their support of life**
- ❖ **The effect is a net negative, with global impacts *such as* climate change, declines in air, water and soil quality, as well as food security issues**





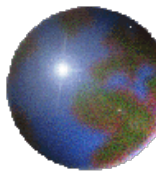
# *QUESTIONS THAT EMERGE*

**For how long can human health be sustained**

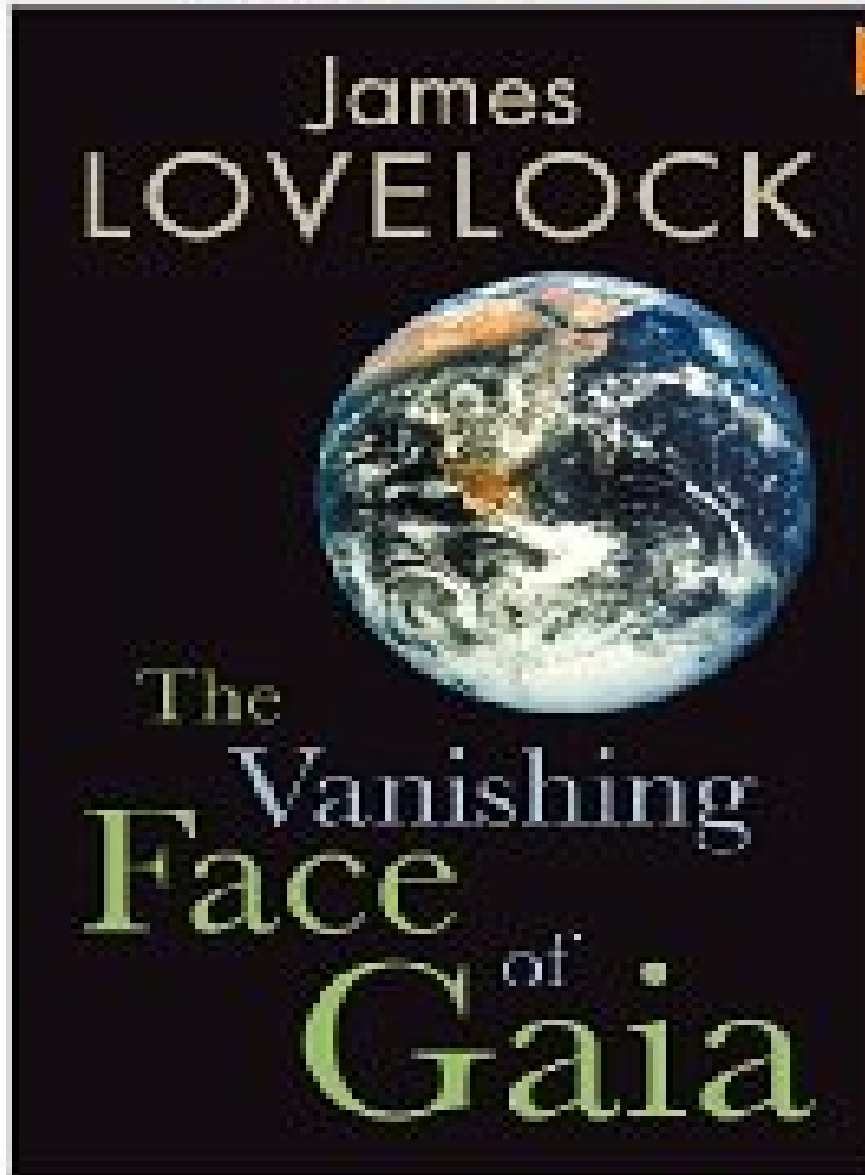
- ❑ **while continuing to draw down ecological capital?**
- ❑ **while declines in ecological integrity accelerate?**

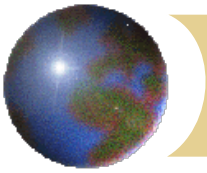
**Only One World >> Planet Earth**





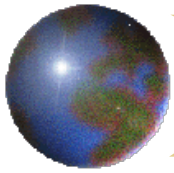
Click to **LOOK INSIDE!**





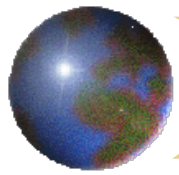
**✚ What are the most promising solutions to these problems?**





**✚ Reconnecting humans to their complete dependence on the ecosystems in which they live ...**





# *Grave Challenges*

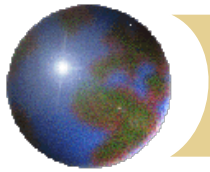
## *Individually & Collectively*

### **OPPORTUNITY and HOPE:**

- 1. The Earth Charter**
- 2. Constitution and Bill of Rights**
- 3. Teaching about Sustainability**
- 4. Local Land Ethic (*Indiana Dunes*)**
- 5. Websites that are global**
- 6. Conventions and Treaties**







# *The Earth Charter*

A **soft law** instrument ... to save us from ourselves

## Preamble

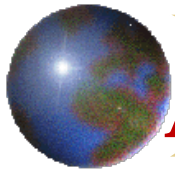
- ⊕ *Respect and care for the community of life*
- ⊕ *Ecological integrity*
- ⊕ *Social and economic justice*
- ⊕ *Democracy, non-violence, and peace*

## The Way Forward

<http://www.earthcharter.org/>

**Accessible in some 50 different languages**





# ABC's Matt Peacock on India's

## Toxic Asbestos Trade with Canada

ABCs Matt Peacock on Indias toxic asbestos trade.mp4

**Click once to view the promo clip dated **Nov 8, 2011**;**  
**complete video available at:**

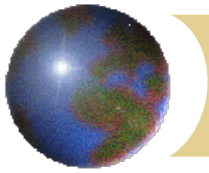
<http://www.abc.net.au/foreign/content/2011/s3359246.htm>

Indian children play on the sloping face of a man-made mountain of mining detritus. Factory workers toil in a blizzard of white fibre with little or no protection. These are just some of the disturbing daily scenes in India where asbestos is a booming building product.

Reporter **Matt Peacock** – who has spent decades covering the deadly hazards of asbestos – might have thought he'd seen it all.

But when he joined Foreign Correspondent to investigate, he was confronted by a growing, toxic trade between the developed and developing world and an appalling lack of awareness about the dangers of asbestos. It had him shaking his head and wondering about the enormity of a lung disease epidemic building in India.





*Questions?*

