



## **LIFELONG LEARNING MISSISSAUGA**

**Fire and Ice, Flood and Drought; People and Planet Earth**

**Thursdays, October 17 to December 5, 2013, 10:00am to 12:00 Noon**

**Mississauga Valley Community Centre  
1275 Mississauga Valley Blvd, Mississauga, ON, L5A 3R8**

### **October 1 Natural Environmental Change – Shifting Continents and Changing Climates.**

Continents have been merging and splitting for probably 4 billion years. Subcrustal convection determines the location of landmasses, the distribution of mountain ranges, volcanic activity and earthquakes. Plate tectonics is the major control of the Earth's carbon cycle and hence global climate.

### **October 24 Natural Environmental Change – Solar Radiation.**

Solar radiation, our external heat engine, drives the biosphere and most surface processes. Its impact depends on supply (that changes on long and short time scales) and how the Earth system, particularly its atmosphere, processes it.

### **October 31 Environmental Change, Human Evolution and the Human Diaspora.**

Until about 1.5 million years ago, human evolution was confined to Africa. Why did we evolve exclusively there? Why and how did people leave Africa to extend around the globe?

### **November 7 Plant and Animal Domestication and the Rise of Civilization.**

Plant and animal domestication began in several widely-separated places at about the same time. What was domesticated? Why did it happen? What were the consequences?

### **November 14 Trade, Colonialism and Disease.**

Animal domestication and an increase in population density brought crowd diseases. Trade and colonization caused intermixing of regional disease pools often with disastrous consequences (the Black Death, the Columbian Exchange, etc.).

### **November 21 The Long History of the Use and Abuse of Natural Resources.**

Plant and animal domestication allowed urbanization, the stratification of society, the development of trade, the emergence of culture, etc., but it also brought environmental degradation. Here we look at the demise of the 'hydraulic societies' of the Middle East and the Indus Valley, and desertification in central China.

### **November 28 The Vulnerability of Islands.**

Most documented extinctions have occurred on remote islands. Why is island life so vulnerable? How are we largely responsible for what happens?

### **December 5 The Rise and Fall of Societies.**

Most past societies have failed. The trigger to failure was commonly environmental. We'll see how this applies to the Maya, the Greenland Norse and the people of Rapa Nui (Easter Island).

**Course Director: Dr. Anthony Davis, University of Toronto**

**Registration Fee: \$40.00 per person/per series**

**For more information or to register, go to [www.lifelong-learning-mississauga.com](http://www.lifelong-learning-mississauga.com)**

**Or phone 647-300-4878**