

# Post Carbon Council class at USF

for February 7<sup>th</sup> 2012

## Introduction

Good Morning!

Ladies and gentlemen, it is my pleasure to welcome you to the first local course offered by the Tampa Bay Council with the cooperation of the Post Carbon Institute.

The Council has been in existence since July of 2006, and over the last six years of sustained inquiry we have acquired a great deal of information, and have made a number of presentations on the issues we will talk about this month.

The Post Carbon Institute itself predates us by about 5 years, but as a national effort, has become a center and repository for a great deal of what we will discuss.

Our time and its problems have coalesced into this local organization which includes many people with scientific backgrounds, and others who are philosophically committed by a profound concern with the fate of humanity. Most members are both, which is why our effort is an adjunct of the Humanist Society of the Suncoast.

Throughout this time, the flow of scientific data has continued to validate the original hypothesis of both geological petroleum and resource depletion and global climate change consequent to the continuing buildup of heat retaining gases in our atmosphere. But these complex interconnected issues are not isolated from the exponentially expanding growth of the human burden on all aspects of the terrestrial economy and ecology. Population, and the resources it consumes per capita, is directly tied to the evolving aspirations and declining life chances of our fellow humans around the globe.

More than any other single factor, it has been the ready availability of cheap energy that has driven the creation of the modern cornucopia of goods and people. The bounty of our lives, which most of us fail to appreciate, stands in stark contrast to the short, miserable, often painful lives that our ancestors endured. Look around at all we have, and realize that virtually none of it was available 200 years ago.

But with the advent of access to the cheap energy that could be derived from carbon in the form of coal, then oil and natural gas, and the industrial revolution that accelerated its exploitation, introducing an inventive frenzy creating much of the facilities of modern life. The misery of existence experienced by those who preceded us is only a dim memory, often obscured by hazy romantic histories. But as we are just now beginning to realize, this carbon energy source is beginning to show signs of exhaustion, as well as becoming a source of danger. There are reminders popping up everywhere in the commercial world that we must find something else. As we will see, the pressures of ever increasing humanity and its yearning for the kind of life that we have lived, is directly connected not only to oil and coal, but to such issues as: resource depletion in metals, chemicals and rare earths, potable water (or any water for that matter), forests, food, fertile top soils, and even breathable air.

We live in a time when a great surge of interrelated crises are arising from all this activity, and is reaching a critical stage requiring humanity to map out conscious and deliberate responses. The political sphere and its immediate constellation of economic and financial institutions, is resistant to policies that challenge what has been the dominant way of life for over a hundred years.

But no matter how venerable the social and economic arrangements, they will all bend before the necessities of a changing physical world. We will show that the natural world inevitably has the last word on the fate of humanity.

Our Earth; our little earth is a surface of roughly 198 million square miles of which 139 are water, and of the land; mountains, deserts, badlands, glaciers and other less desirable terrain accounts for all but roughly 25 million square miles of what remains. We live on a plane that rises from sea level on average about half of a mile and have ready access to water with a depth of no more than 300 feet, and navigate in the atmosphere up to 6 or 7 miles. Scientific probes have reached beyond these confines of course, but as a practical economic matter, these are the limits of our reach. This small terrestrial stage on which we live our lives bears witness to urban sprawl, eroding land, disappearing forests and depleted topsoil. Species are undergoing extinction at unprecedented rates. Desertification is advancing through many lands, moving more quickly as a drying atmosphere limits plant growth.

The ocean, the source of life for all of us, is at such a point that it is possible that it will no longer remain a prime source of our oxygen, let alone the vast repository of biological diversity that is the genesis of so much of our medicines, our industrial processes, and our food. Its temperatures and currents have provided stable weather for the world we are accustomed to. But this can change, as we will learn.

We must do what we can to make the world, our world, our Tampa bay, a different place. We can no longer continue the waste and inefficiency that brought us to this place in history. This is a time to re-examine our worldviews, to create different ideas, values, habits, new communities, and a new way of life. The good news is that it need not be a time for privation, austerity, and hair shirts. It will require creativity, innovation, and inventiveness to retain a desirable standard of life, and assure the continuation of our democratic traditions.

We are confronted with the necessity to find new materials, and new ways of using old materials to sustain the needs of our people. To retain some of the essentials and comforts we are accustomed to, we will need new forms and sources of energy. But we will need the strength of our cultural adaptability to get along without others. As we will show, it can be done.

We face challenges in the natural world that will tax our imagination and ability to the limit, and perhaps beyond. It will be all too apparent to our descendants that we of the late twentieth and early twenty first centuries have carelessly tested the capacities of our planet beyond what is possible for it to sustain in terms of what is necessary for human life.

And, human life is our central concern. The planet has had over four and a half billion years of development and evolution. We humans have been a significant presence in the ecosphere for less than ten thousand. Without us, the planet will go on, and life will find a way. But with us, our children and children's children, what will it matter? Our struggle is not to "save the planet", but to save ourselves. We humans are clever and adaptable. Our intelligence is the single reason why we have been so successful, and it is the key resource on which our future survival will depend. Despite the often criticized vacuousness of our political and popular culture, and the problems that beset higher education, we still retain a core resource in our scientific institutions that continues to provide us with an ever more incisive understanding of our world, and the mechanisms that we have used to create the prosperity of the past, and what we will need, to live in the future.

And for us, despite the understandable concern we have in protecting our own lives as well as those we love, there is the glory and the wonder of our culture; the understanding, the beauty, we have achieved in literature, philosophy, music, science that are carried through the generations, and are a validation of the human presence in the universe.

Despite our expanding knowledge and the enormous number of potential planetary habitations suitable for intelligent life, we remain the only known example of dynamic civilization known to exist anywhere. We, who are the self-understanding of the universe, represent what we must acknowledge as the greatest achievement of the evolution of matter. If we had discovered beings like ourselves dying on a dying world like Mars, would we not have made a considerable effort to save them? Can we make no less an effort to save ourselves?

It is our hope and intention that the information we will provide will prove valuable as a stimulant to your own research on the problems we will outline here and as a base of facts to bring to the attention of others. While this is essential for every citizen, it is people in positions of leadership in education, business, and government; those who serve you and are served by you, who need to take account of the changing conditions in which our civilization is growing, and be ever vigilant for developments that may threaten our survival and ever open to new approaches to accommodate our changing circumstances.

It is we, the people of our democracy, who bear the responsibility for electing leaders who direct policies that guide the machinery of daily life. We must see the urgency of the problems we face, we must overcome those who cling to the inertia of old habits and the indifference created by a narrow focus on short term goals. What looms before us is a challenge to the very existence of our species. We cannot be indifferent, or, as will be shown, we will be extinct.

But we are alive and it's not too late. The world of our memory may never be restored, but a new world of possibility awaits us, if we have the courage to create it. Let's start now.

Jim Peterson, Pres. TBPC