An Update on Ancient Wisdom
A sermon by David MacDonald
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We'll start with sources that roughly qualify as: "spiritual teachings of Earth-centered traditions which celebrate the sacred circle of life and instruct us to live in harmony with the rhythms of nature."

The Epic of Gilgamesh from Mesopotamia is the oldest work of literature that we know of. The earliest fragments date from the 18th century before Christ. As with most ancient literature the poem was clearly a written record of a long standing oral tradition. There is a wealth of archetypal stuff happening in the Epic of Gilgamesh; we've got the first heroic quest and while I've never read any of his stuff my guess is Joseph Campbell must have loved Gilgamesh; we've got the first story of a flood that destroys all life (get ready for the prequel to the Noah movie later this summer); and we've got the first clear statement of the ultimate question: "Why are we born to suffer and die?" I doubt the answer is "42" as Douglas Adams suggested.

The chapter in the Epic of Gilgamesh that I want to focus on today is that which deals with the destruction of the Forest Giant Humbaba which in turn seals the fate of Gilgamesh's best friend Enkidu.

The city state of Uruk, that Gilgamesh rules, is without rival in the world. All of Uruk's neighbours have been subdued at the hands of Gilgamesh and Enkidu and now pay tribute to, and trade in peace, with Uruk. The two heroes will now confront the greatest opponent of the city, indeed of civilization. Repeatedly in the poem the reader is told that Humbaba is the lord of the cedar forest – harking back to a time when Mesopotamia, modern Iran and Iraq, was covered with rich forest. It is Enkidu who swings the axe that brings Humbaba down. It is Enkidu who will now weaken, sicken and die, leaving Gilgamesh bereft.

What was going on here? What was the not very subliminal message of the story? When we first met Enkidu in the story he was the "man of nature". He underwent a wonderful process of becoming civilized – that is of entering the city of Uruk where, as Gilgamesh's only

peer he became Gilgamesh's only true friend. Now he's raised an axe against the forest and, upon cutting it down, he has sickened and died.

It would appear that two millennia before Christ, the forest and nature in general, were seen as the opponent of the city or civilization. At the same time it appears that the Mesopotamians recognized that the wholesale destruction of nature had sealed the fate of their city states. Cutting down the forests had led to desertification of the lands around the cities: the rivers had silted-up; the rains had not been absorbed into the land but had resulted in devastating floods; agriculture failed, and the weakened cities fell to wild tribes that invaded.

Trees must be cut to create the city. Nature must be destroyed to create civilization. But this destruction would, in turn result in the failure of the city – the collapse of civilization.

We'll get echoes of Enkidu battling Humbaba four millennia later in the European stories of the Green Man or the Green Knight. Those of you who heard Reverend Hewett's Earth Day sermon on the Green Man last year will easily understand the connection.

I want to jump only one millennium forward in time from the written Epic of Gilgamesh to what we describe as "Ancient Greece". I'd like now to consider Gaia.

The Achaeans of Homer, whom we now know as the Greeks, honoured a Mother Goddess they called Gaia. Gaia was the mother of the Universe but in particular she gave birth to and was herself the Earth. Gaia gave birth to the sky and to the oceans. Unlike the subsequent pantheon of Greek gods and goddesses Gaia lacked human qualities such as vanity, anger or vengefulness. Oaths sworn in the name of Gaia, in ancient Greece, were considered the most binding of all.

There was no question in the minds of the ancient Greeks as to the importance of Gaia to life. While the Greek city states would grow at the expense of the natural environment, some sort of balance, some measure of harmony, had to be achieved. Greek heroes might offend any of the lesser gods and goddesses and come out alive (especially when they enjoyed the patronage of another god or goddess) but there are no stories of a hero or even a city offending Gaia and surviving.

We move on through time to the present day, three millennia after Homer's poems were committed to print. Today it is more than a "principle" to respect the interdependent web of all existence of which we are a part; it should be understood as an imperative.

In the 1960s scientist James Lovelock conceived the Gaia hypothesis. In the 1970s, with the assistance of micro-biologist Lynn Margulis, Lovelock further developed the hypothesis and tested it. With errors corrected the result was the theory of geophysiology called "Gaia Theory".

And what, you may ask is the nexus betwixt a theory that must, from its name, be some new-age tree hugger's pipe dream, and both ancient Greece and the more ancient Mesopotamia?

Let's be fair and start with the theory's name. James Lovelock, who never styles himself Doctor or Professor though he is both, is a serious and accomplished scientist with inventions, hundreds of published and peer reviewed papers, articles and books to his credit. The naming of what has become his greatest and perhaps the greatest scientific theory of the late 20th and early 21st centuries was neither an accident nor an exercise in whimsy. Lovelock wanted something that would register with the woman and man in the street. He applied to his friend, the novelist William Golding, author of The Lord of the Flies and Golding recommended the name of the Greek Earth Goddess.

Sadly, too many in the media were prepared to dismiss Lovelock's theory out of hand solely on the basis of the name. Scientists, having gotten beyond the name, bridled at the theory because it seemed to run contrary to Darwin's Theory of Evolution. Surely species adapted to static geophysiology.

The Gaia theory asserts that living organisms and their inorganic surroundings have evolved together as a single living system that greatly affects the chemistry and conditions of Earth's surface and atmosphere. Gaia self-regulates global temperature, atmospheric content, ocean temperature and salinity, and other factors in an "automatic" manner that favours life on the planet. Earth's living system appears to keep conditions on our planet just right for life to persist. Since the inception of the Gaia Theory many of the mechanisms by which the Earth self-regulates have been identified. As one example, it has been shown that cloud formation over the open ocean is almost entirely a function of the metabolism of oceanic algae that emit a large sulfur molecule, as a waste gas, that becomes the condensation nuclei for raindrops. Previously, it was thought that cloud formation over the ocean was a purely chemical/physical

phenomenon. The cloud formation not only helps regulate Earth's temperature, it is an important mechanism by which sulfur is returned to terrestrial ecosystems.

In response to scientists who felt the Gaia Theory opposed existing concepts of evolution, theory co-founder Lynn Margulis said, "Evolution is no linear family tree, but change in the single multidimensional being that has grown to cover the entire surface of Earth." There is a dark side to the discovery of the Gaia Theory. Where many human-induced- climate-change deniers scoffed at early findings of the Intergovernmental Panel (IPCC) on Climate Change, arguing that the IPCC's climate models were inadequate to the job of predicting climate or showing that climate change was human induced, James Lovelock was in partial agreement with them. Lovelock, who will be 95 this July, agreed that the IPCC's models were definitely inferior to the task. These models didn't begin to take in the whole scope of Gaia; they didn't begin to allow for the complexity or totality of the symbiotic nature of our Earth. Lovelock, who in 2009 predicted the floods that have been ravaging his home country of England, felt that the level of carbon pollution already reached made climate change not a possibility but a certainty. Taking carbon from deep within the earth where it was stored millions of years ago and releasing it into an atmosphere that has evolved over those millions of years to support life as we know it today could only result in climate change. Lovelock further argues that we won't get – aren't getting – anything like the slow steady curve of global warming initially predicted by the IPCC. Instead, what we are getting are dramatic peaks and valleys in temperatures where, while the trend is constantly upwards, current inhabitants of earth are having no chance to adapt. Species extinction has accelerated in a horrific fashion.

When my wife and I were in Costa Rica last year we met a man born in that country who was a Quaker, a naturalist and a guide in the Monte Verde Cloud Forest Reserve that his Quaker forebears had ceded to the Costa Rican government. This man had, while still just a student himself, led a group of naturalists through a part of the park that was home to the Golden Toad in the late 1980's. This made our guide one of the last people to see the Golden Toad. The Golden Toad is now widely recognized as the first species driven to extinction by human induced climate change but there are over 30 other amphibians in the Costa Rican cloud forest that are likely doomed if they aren't already gone.

Changes that the IPCC initially predicted were a lifetime away are here now or coming soon. Don't imagine, you seniors, that this is a problem your children or grandchildren will curse your memory for but that you won't live to see.

I for one, have not given up on the notion of "mitigation" in combatting climate change. We live in BC, on the ring of fire; maps showing hot springs make the province look like it has been heavily peppered. Yet, while my Premier wants to develop and export yet more fossil fuel there isn't a single geothermal electricity generating plant in BC. I hike in the valleys of the Province where diurnal winds blow 24/7 but there's not a single wind farm within 500 kilometres of here. Even burning our Mountain Pine Beetle killed wood would only be releasing carbon that was already above ground back into the atmosphere. If countered with an intense program of reforestation it would actually result in a net reduction of atmospheric carbon (we'd want to bury the carbon rich ash residue).

There have been those who accuse today's scientists of fomenting a new religion with themselves as the priests. *Have you spoken with a serious scientist lately?* That said, I for one am ready to "worship", for lack of a better term, at the altar of Gaia. I don't want to stand in false victory over the body of defeated Humbaba - in that victory lies our ultimate defeat.

I want to leave you with a hopeful quote from John Todd's <u>An Ecological Economic Order</u>. "Ecology as the basis for design is the framework of this new economic order. This approach needs to be combined with a view in which the earth is seen as a living entity – a Gaian worldview – and our obligations as humans are not just to ourselves but to all life. Earth stewardship then becomes the larger framework within which ecological design and technologies exist. One day it may be possible for political and social systems to mirror the broad workings of nature, and current divisions of left versus right, centralist versus decentralist, expansionist versus steady state, bioregional versus nation-state will be transformed into a systemic Gaian world organization and order."

May it be so, amen.