DOXOLOGY

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Meditation:

I stand before you today as one who is on a journey seeking to find meaning and context for what I see around me. In this I am part of a human endeavor that tries to forge a historical, scientific narrative relating where our world has come from and, most particularly, how the myriad life-forms that envelop Earth came to be.

> To those of you who <u>think</u> That Nature is fragile, I say be comforted. For it is sustained.

To those of you <u>fear</u> For its future, I say be afraid. For it changes.

In principio, the very Universe began in a cataclysm that is beyond our capacity to understand.

The common elements of which we are composed have been forged in now destroyed suns, and our less common elements have passed through two or three solar cycles. The birth on this planet of a self-propelled eddy in the thermodynamic continuum was the inevitable result of the self-organizing properties of matter, tempered by cataclysmic events.

To power the vital processes within its cells, Life used the electron-sinks in naturally occurring chemical compounds. Then, when Life reached the limits of this resource, some organisms began to strip electrons from that most abundant of Earth resources, water. With the result that they produced that most potent of cellular poisons, oxygen.

For those life-forms that found a way to neutralize the effect of oxygen, a vast new source of energy had been opened, the Earth began to rust, and the internal fires of their cells quickened to burn more intensely. Some commenced to move and to complexify their cellular machinery and to build multicellular aggregations. And some of these used their supercharged motility to prey on others, leading to armor of shells and boney plates, resulting in an arms race, with consequent extinctions and subsequent radiations of better adapted body plans.

Still, for over four billion years, the land had lain barren, until a line of aquatic algae found ways to meet the challenges of this alien environment and raise a tide of green unto the low places of the Earth. And from the struggle of their herbaceous progeny to maximize their share of the sun's light, came the tree, which provided the energy to support the incursion of our finned ancestors on to the land. But cooled the atmosphere by sequestering the carbon of which they built their wood, during the century of million years that it took for the tectonic cycle and fungal evolution to restore the balance in the cycling of this jet-black element.

And all the while, the ancestors of our mammalian lineage were locked in a losing struggle with members of the clade of dinosaurs and birds. Until, in a chance instant, now 65 million years past, a cosmic flash and burst of thunder destroyed the hegemony of the ruling reptiles and opened the gates of the daylight hours to the small, furred fugitives from the shadows.

Now we, by our lights the cleverest of their descendants, have entered into the Anthropocene, where, in a single year, we fuel our civilization with the carbon that took half a million years to fix in coal and oil and move ten times the amount of soil and rock as did the glaciers of the Ice Age. While the web of Earth's diversity is shaken to its uttermost reaches.

In this era of extinguishment and accelerating change, we are forced to confront the results of having freed ourselves – albeit it temporarily – from many of the biological limitations that had bound the life of the past. Deep history teaches us that life is both the product and the cause of sequential crises that have inevitably led to further change. Could it be that we are like tongues of fire embedded in an inexorable process of consuming the very substrate upon which we have evolved? Or will our enormous powers of self- and Universe-awareness give us the wisdom to pilot a different course?

Prayer:

In a spirit of hope, I close with a prayer, that effort of a human being to become centered on the moment, for which I have chosen to modify what may be the most mystical of all Christian prayers.

A New Doxology

Glory be to the Formation,	Gloria Efficioni,
And to its Unfolding,	Et Evolutioni,
And to its Fulfillment.	Et Executioni
As it was in the beginning,	Sicut erat in principio,
Is now, and ever shall be,	Et nunc, et semper,
World without end.	Per omnia saecula saeculorum.
Amen.	Amen.

Aphorism:

There is no plan and we are a part of it.