

Ink Free # 10 August, 2024

"You think in geologic time," a biologist buddy screamed over his draft root beer. "Yes, and is there any other time?" I bubbled back, "Well, on earth, I mean.". The background discussion on warming, cooling, extinctions, and evolution centered on the urgency of 'now' versus longer-term perspectives. My view, and I respect Dr. Bruce's thoughts too, is it is not geologic time that drove humankind into our global actions and attitudes; it is that we believe humans control the Earth, nature, and our future Today!".

We measure time in earth-based notions. A day is sunrise to sunrise, and a season is the position of the Sun on the Earth's surface, over the equator, as far north or south as it can go. A year is the period it takes to lap around the Sun. Today, it takes approximately 365.2 days to make that annual voyage. Millions of years ago, we lapped the Sun in fewer days. We measure time as it is now. While we know how fast light moves in time or distance measures, we speak of how fast it is in years. One Light year is the distance light will travel in one today's Earth year; not a Mars or Pluto year, but an Earth year. We got to start somewhere, and here and now is as good as any.

The crux of our different perspectives revolved around the changes in our land since the hand of man ballooned to be the top predator, altering Earth rather than adapting to it as all other life has for billions of years. Humans appear to focus on what we personally experience and less so than what we do not witness, even if we can measure it. Of course, Bruce and I found no core agreement, nor must we to have a mature discussion. The perspectives of each change, evolution, extinction, or destruction might well be embraced in the context of time. But not in attitude. For many, time is now, including what we might remember. It is colder than yesterday. Or the world is the hottest it has ever recorded. Our human attitude is that if we do not like something, we should change it, like spray weeds, remove snakes, kill mosquitoes, or ensure our comfort.

We can not stop time, even from yesterday to tomorrow time. Humans might think we can, but time continues regardless. There is no such thing as restoring a place, being, or thing to what it was. The Earth is not the same as it was 4.5 billion years ago, nor is it the same as it was 10,000 years ago or last week. How many reports end with, "If we do not stop 'this,' it will be gone forever"? Or, "the hottest on record" Does this include the Permian? Not likely. For sure change is a constant. I bet that time and change delivered us to now and the changes in the universe too. Time happens.

We, good people, measure change in years or decades. "There used to be bison there, but now, look at the cows, grass, and altered fauna/flora here." Undoubtedly, there is a difference in life and form from 150 years ago, much different than 10,000 years ago, and unrecognizably different from 100 million years back or even 4.5 billion. If we stop all extinctions, some caused by invasive species, the land will not revert to what it once was. That's a universal idea, but not supported by the fossil record. Our geologic past, brimming with extinctions and new species, suggests that with the

death of one life form, opportunities open for something new. It is not the best example, but an example nonetheless of geologic time versus human memory time.

While time as we see it centers on the number of days we circle the Sun and the increments of time that pass from sunrise to sunrise, talented scientists over many centuries quantified what a day is and how it changes ever so slightly on Earth's axis. Then, hours, seconds, and distances measured in miles (another earthspecific unit) that Light can travel in a year. Earth's year is unique only to Earth, and so are we. We look in the sky and see Light that has traveled at the speed of Light for years: a light year or 584,000,000 miles (another earth-based measure). Light appears to bend around space objects, bent around but not going any further. That bends my old mind. How can I go around anything without going further? Light gets here, well, all the Light not blocked out by some object in its way, and not that Light captured by a black hole that is strong enough to suck Light in-hmm, blown mind again. Suppose I measure time by how far Light can travel in a year. In that case, Light is bent or even slowed down a bit by intense gravity (hard to believe that Light goes at top speed even or at zero speed when sucked out of traveling by gravity more powerful than Light (now that is a curious concept or what?).

We believe that time began with the Big Bang, a moment in history when something exploded, creating all the stars, galaxies, and more. I am way out of my comfort zone to ponder the universe's origins and what our tiny little Earth means; I can not help but wonder if there was something there to go big bang. It can be nothing. Time might well be a measure of the life cycle measured by how much time from one Big Bang to the next, from explosion to implosion. ? What is out there to go bang?

Time, to me, is forward; we can look back but only go for-

ward. I can be on time, behind the times, out of time, don't have time for this, late, and even ahead of my time. I can look back in time in the rocks. Astronomers look back by looking at the Light we can see with the aid of the most powerful Light and spectrum-gathering devices. We observe what happened. Yet it is so far away that if we could travel there, wherever there is, what we saw in the telescope would not be there; it happened, regardless of how fast Light can streak, all we see is what was, not what is. For all we know, something else is happening out there now that we do not yet see. It takes time, ya know.

Can we travel in time? My doubts cloud my judgment. Perhaps we are time travelers into the future from the past, trying to learn what not to do. Would our advancing brains ever allow Earth to be Earth that accepts us as a passenger? Good fodder for movies and bazar books. All I understand is that geologic time, even with an incomplete fossil record, documents far more than we can experience in our short lives. Are we in control of the Earth, or are we charting our own demise? I still bet on the Earth as I fail to grasp the size, events, and number of bangs seen only in telescopes. My we are so small, short-sighted, and likely downright insignificant. And we are good at it too!!!

Only time will tell!

Ink Free

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Pondering along in old age without fear, excepting what I can do Enjoying every minute of it!