GROWING EARTH / EXPANDING UNIVERSE (GE/EU)

By Eugene A. Ellis   (June 2016-Revised JAN 2017)

**Question all certainties by questioning the assumptions**.

Einstein's theories rest upon a primary assumption that the speed of light is constant and unchanging [linear time with atomic clocks].

The Standard Model of Particle Physics describes a universe consisting of space, matter and time yet relies on Friar Thomas' (Aquinas - 1225 to 1274 AD) premise that the essence of matter is unchanging [atoms cannot change in size or numbers].

The above assumptions led to many discoveries but neither one can answer...why the universe is expanding?...or why the Earth is expanding? Ionization can provide an answer.

Suppose another theory assumes that atoms consist of energetic elemental masses that upon ageing grow larger by converting inherent energy to mass and along with gravity, causes a time anomaly [orbital clocks]. Below are an ionic flow chart, an ionic timetable, and an explanation of two-timing clocks for such systems:

IONIC FLOW CHART
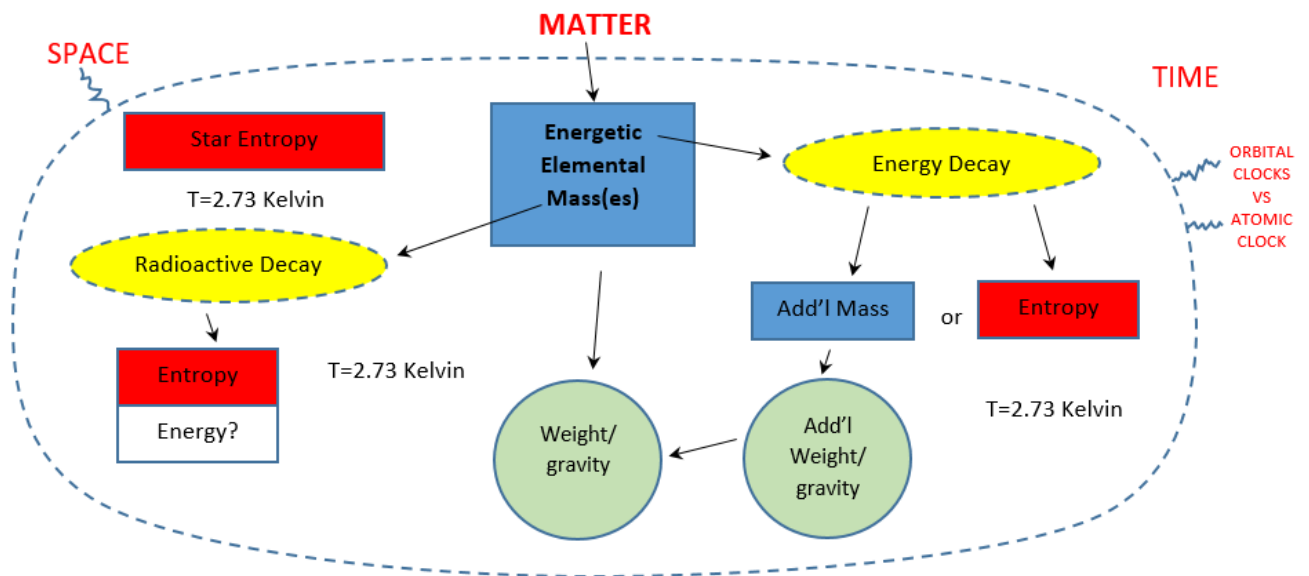
IONIC TIMETABLE OF FIRSTS

|		
First time elemental energy converts to mass	**Calcium**	**~8800 MYA**
First time elemental energy converts to entropy (heat)	**Calcium**	**~8300 MYA**
First free electron	**Cl + K = KCl**	**~6400 MYA**
First water molecule	**O + 2H = H₂O**	**~1400 MYA**
First hydrocarbon molecule	**C + 4H = CH₄**	**~ 800 MYA**
First hydrogen molecule	**H + H = H₂**	**~22 MYA**

(Correction-Oct. 2016)

TWO TIMING EARTH CLOCKS

The effect of mass growth upon the acceleration due to gravity and the force due to gravity are contained in two equations as follows:

(1) $F = G \, M_s \, M_e / R^2$ where:

     $= \cancel{G} \, \cancel{M_s} \, M_e / R^2$ F = force   R = Earth-sun orbital radius

`   G = constant   r = Earth radius

(2) $g = G \, M_e / r^2$ M_s = mass of sun   g = surface gravity

     $= \cancel{G} \, M_e / r^2$ M_e = mass of Earth   *r* = both R and r

The mass of the sun is so large and the percent change is so small, it is treated as a constant. By cancelling the constants, M_s and G, Equation (1) equals Equation (2). An 8 fold increase in mass will double the radius in each equation and an 8 fold increase of the previous mass will double the previous radius. Both equations show exponential doubling of the mass in the upper portion and of the radius in the lower portion straddling an exponential series:
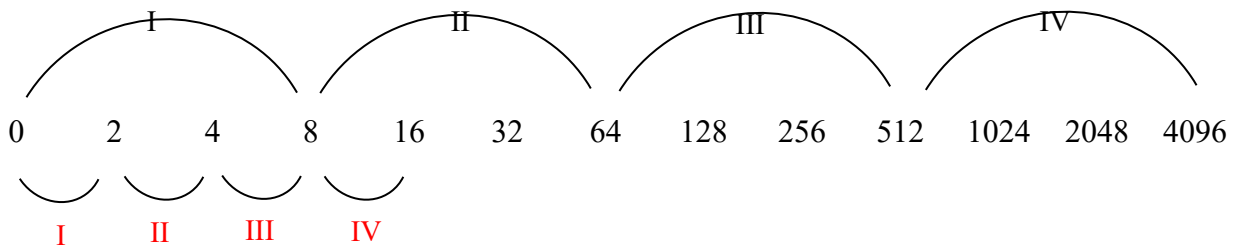
The first doubling (I) of the radius (both R and r) occurs when the mass doubles three times (2^3) for an 8-fold increase. The second radius doubling (II) occurs when the mass doubles six times

(2^6) for a 64-fold increase and the third radius doubling (III) occurs at nine times (2^9) for a 512 fold increase.

Consequently, when the radius of Earth (r) doubles, the distance between the Sun and the Earth (R) also doubles as indicated below:
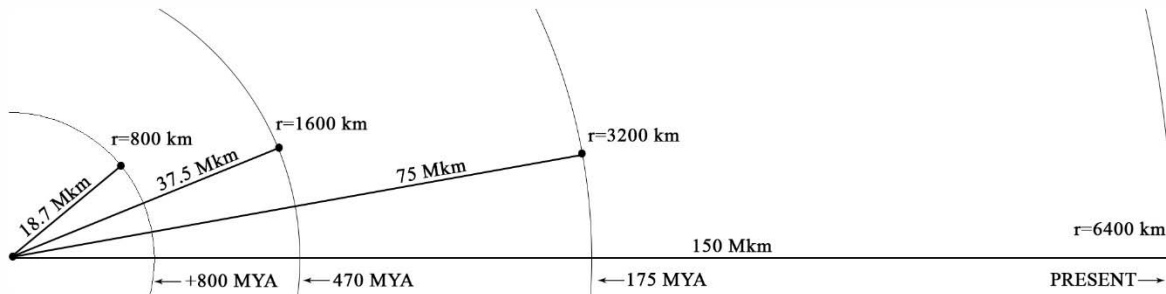

Figure 4R graphing Table 5R of the 8-element supplement indicates the percent of radial growth equals the percent of increased gravity (% r = % g). The spin of the planet was proportionally faster during past times and decreased as the surface gravity, the orbital radius, and the Earth's radius simultaneously increased. Constantly adding mass proportionally increases torque and proportionally decreases spin (rotational velocity) such that angular momentum remains constant as a conserved quantity. The changes when the Earth was 1/2, 1/4, and 1/8th of its present size are:

R kilometers	18,750,000	37,500,000	75,000,000	150,000,000
r kilometers	~ 800	~ 1600	~ 3200	~ 6400
g Nm²/kg² ; m/s²	1.225	2.45	4.9	9.8
Year in days (Spins)	2922	1461	730.5	365.25
LOD in hours	3	6	12	24
LOH in minutes	480	240	120	60
LOM in seconds	7.5	15	30	60

(Corrections- Oct. 2016)

R = Earth - Sun orbital radius (c-c distance).
r = Earth radius.
g = surface gravity.
Year = length of orbital year in days of linear time.
LOD = length of day (spin) in linear time.
LOH = length of an hour in linear minutes.
LOM = number of linear seconds to orbital seconds.

Note: One orbital year always equals 8766 hours or 31,557,600 seconds.

Discussion:

Periodically, "leap second" adjustments are made to align Earth's orbital clock with the linear atomic clock. A decrease in rotational velocity (spin) would require an increase in mass in accord with conserving angular momentum. *Every "leap second" adjustment offers scientific evidence that Earth's mass is increasing.* Quantifying the additional mass using leap second data from Wikipedia follows:

Between 1980 and the end of 2016, there were 18 *LS* in a 36 year period averaging 1 *LS* / 2 yrs. Thus, 1 *LS* / 2 yrs = 0.5 / 31,557,600 seconds per year = 1.584404391 E-8.

Therefore, the amount of mass required to slow the rotation of Earth's present mass by one half leap second with no change in angular momentum is:

5.98 E+24 x 1.584404391 E-8 = 9.474738258 E+16 kg/yr.

Table 4R of [The Ionic Expanding Earth](#)-8 Element Supplement calculates an average increase over the past 18.9 MY of 7.3084656 E+16 kg/yr. This is a reasonable match considering the growth is exponential and the averaging thereof is linear. It also indicates one year ago, around 100 quadrillion kilograms of Earth's mass existed as intrinsic elemental energy.

Constantly increasing Earth's mass generates an orbital clock that is always slower than a linear atomic clock. A second on an atomic clock has the same time length it had a billion or 10 billion years ago. The time on Earth's orbital clock is governed by rates of mass accretion. The spin, the radius, and the distance from the sun all change in unison as the energy of the planet's elemental masses age and converts to additional elemental mass. Past orbital time is proportional to the present linear time.

Likewise, every planet in the universe has a different non-linear clock reflecting the changes as energy converts to additional mass on those planets. The totality of expanding orbits expands the universe. Orbits expanding exponentially accelerate the expansion.

Albert Einstein spent the last 30 years of his life essentially trying to connect or explain a universe running on non-linear (orbital) clocks by using a linear (atomic) clock. The "leap second" makes such a connection. The above data, with a constant mass Sun, indicates that leap second by leap second, the Earth leaped 75 million kilometers (46.6 million miles) in 175 million years. Theoretically, the Earth was half its radial size 31,557,600 "leap seconds" ago. Mass increases on an Ionic Growing Earth are solely determined by 8-elements. Increasing the mass proportionally increases the volume (radius and surface area) as well as the surface gravity. Changes in the Sun's mass would only change the distances (R) and not Earth's radius, gravity, or rotational velocity.

In addition, the dinosaur paradox unravels on a growing Earth. The lesser gravity on a smaller Earth permitting larger life sizes that could not survive today is no longer disputable. However, gravity on a smaller Earth does not fully explain the size of gigantic dinosaurs. The largest recorded land life today is a 12 ton elephant killed in 1956. The largest life size permitted with a 50% reduction in gravity would be a dinosaur weighing 24 tons. How is that possible when the biggest dinosaur is reported to weigh 70 tons and aged at 100 MY?

Gigantic sizes appear to be possible because we are finding and measuring dinosaur fossils and not considering the minerals that replace the organic dinosaur bone substances. For example, dinosaur bones were found in a French gypsum (calcium sulfate) quarry. Belgian coal miners discovered dinosaur fossil remains that turned into pyrite (iron sulfide or "fool's gold") when exposed to moisture. Discoveries in Colorado and Wyoming produced silicified bone (silicon). Magnesium rich bones were found in Calgary.

The predominate element(s) of these fossils is from the 8-elements comprising 98.8% of Earth's mass which are increasing in size and weight. In essence, the fossils are growing along with the Earth and together with the reduced gravity on a smaller planet, negate the dinosaur paradox. The paradox has merit for those who assume the mass of the planet is constant.

Conclusions:

The same elements coalescing to start a planet grow and heat the planet as the elements age. Ionization involves a process permitting certain elemental atoms to join other elemental atoms at certain energy levels. Without assumptions of unchanging matter and time, ionization becomes the fundamental mechanism whereby energy converts to additional elemental mass or to entropy (heat). Establishing the rate of energy decay, among other things, identifies the geological time when water arrived to cool and solidify the crust of a molten planet. The dinosaur paradox and the leap second are two unrelated issues that validate the planet's increasing size.

Subscribing to a theory of "everything changes" does not negate or denigrate theories based on "unchanging matter" or theories based on "unchanging time" or quantum mechanics, which is consistent with the Standard Model and special relativity. The merits of each can co-exist like mathematical trains running on different gauge tracks.

Other Ionic Growing Earth papers are here: http://ionic-expanding-earth.weebly.com