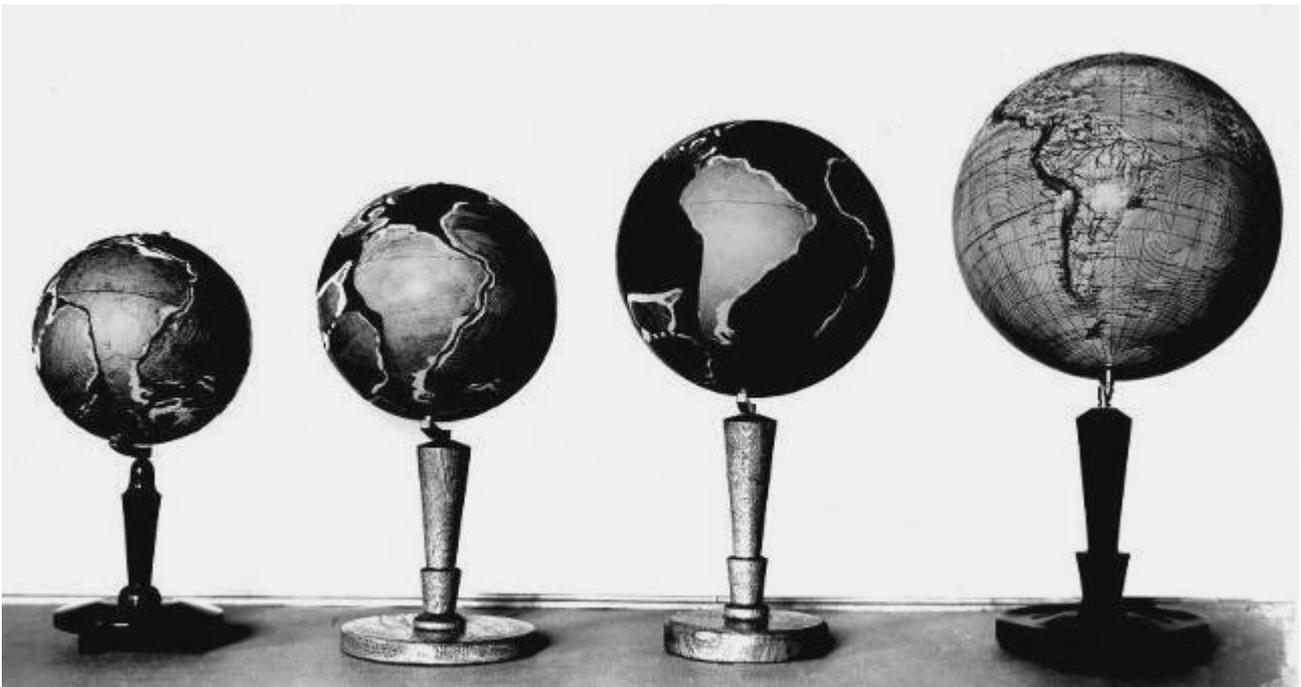


A MECHANISM FOR EARTH EXPANSION

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(Edited, Re-structured, Augmented and Revised by Andrew Johnson)

Expanding Earth Research - History

A subject not well known to many is that of the “Growing or Expanding Earth”. Even going back to the late 17th century two of the giants of astronomy, Edmond Halley and Sir Isaac Newton believed the Earth and other planets to be hollow. In his development of the model for the universal constant for gravity G, did Newton consider that as a constant, this force would act the same way for all solid and all hollow planets?



Today, the foremost exponents are Dr. James Maxlow PhD¹ and Neal Adams². They, in turn, have followed on from previous researchers dating back to the nineteenth century – for example I.O. Yarkovskii³ (1888), Otto Hildenberg⁴ (1933) and Klaus Vogel⁵ (1983) being, perhaps, the best known. Many others have contributed to the field during the 1960's such as Brosske, Barnett, Creer, Shields.

It was Otto Hildenberg who created the first “small Earth” models, though Alfred Wagener⁶ originally proposed the theory of “continental displacement” (which was largely scoffed at in its time and incorrectly called “continental drift”). However, this arguably led to the discovery in 1963, by Vines and Matthew⁷, of the mid-ocean ridge system's parallel growth patterns, later to become known as “spreading ridges”.

In recent years, with the advent of Computer Generated Imagery (CGI), both Adams and Maxlow have created compelling images and videos of Earth expansion^{8 9}. Neal Adams has also created CGI models showing evidence of expansion on our Moon, Mars and Jupiter's moon Europa¹⁰.

The researchers mentioned above have produced compelling evidence showing that the Earth has expanded in size over millions of years, but they have failed to determine an acceptable explanation or mechanism for Earth's expansion. Earth expansion explanations that have been put forward by Maxlow¹¹ and others are:

1. A pulsating Earth, where cyclic expansion of the Earth is said to have opened the oceans and contractions have caused mountains to form
2. Meteoric and asteroid accretion - expansion is caused by an accumulation of extraterrestrial debris over time.

3. Constant Earth mass, with phase changes of an originally super-dense core.
4. Change (reduction) in value of the universal gravitation constant G.
5. A “cosmological cause” resulting in an increase in the mass of the Earth.

Indeed, Maxlow states¹² that for more than 90% of Earth’s history our planet grew by less than the width of a human hair! Adams and Maxlow have suggested some form of “conversion” of cosmic energy into matter, suggesting this could be explained some kind of “back-engineering” of Einstein's theories of the relationship between energy and matter (i.e. $E = mc^2$). Also since Maxlow predicts/shows exponential expansion, where from is the mass coming? Why was no significant matter created in the first 4.3 billion years of Earth's existence?

It is at that point that most modern day researchers are left with a “hunger” for the real mechanism to be revealed. The rest of this paper/article attempts to reveal that mechanism.

Formation of the Earth

Let us first take a look at the accepted model of our Earth and solar system. Picture in your mind the origin of our planet and you will no doubt conjure up images of fiery collisions and the moon and Earth being torn apart! I believe the truth to be somewhat different. Also, we may ask, what do we really know about our Earth’s interior? We have been told that our planet has an iron core which is surrounded by a molten outer core and mantle. We are told that this has been deduced from a study of seismic readings taken when Earthquakes happen at various places around the globe¹³.

The first thing to take note of is that seismic waves are not transmitted through liquid - including the viscous, molten rock found just below our Earth’s crust! Another reason for the assumption of an iron core is the existence of our planet’s magnetic field¹⁴.

However, I would like to consider the Earth’s electrical connection to our Sun, as indicated by the “Electric Universe” theory¹⁵. If we consider the Earth’s rotation in the presence of an electric field (from the Sun) and we consider the ferrous metals in the mantle and the Earth’s crust, I believe we have all that is needed to induce the Earth's magnetic field without recourse to an iron core.

So if we remove our preconceptions about an Iron Core, what should we replace them with? Let’s start with some recent discoveries of the scientific community. As we cannot go back in time and watch the formation of our solar system, we have previously relied on assumptions. Now, however, we have the benefit of telescopes that can observe objects billions of light years away - this is effectively like looking back in time. Or, we can see younger star systems where stars and planets are still forming.

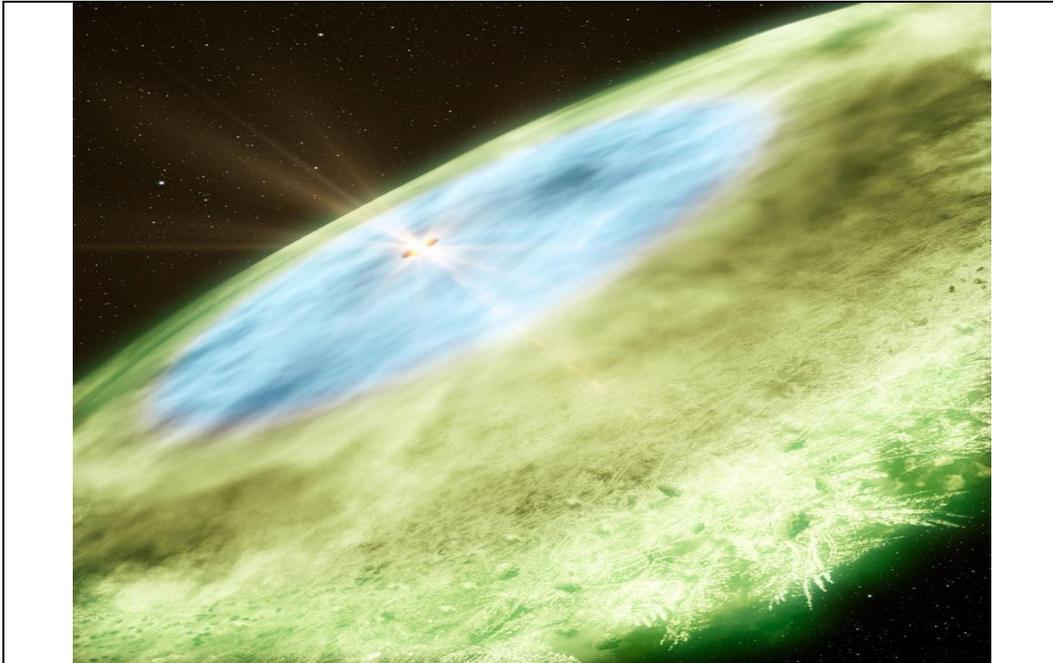
Published on 18th July 2013, “Snow in an infant solar system: A frosty landmark for planet and comet formation¹⁶,” discusses the work of astronomers at the European Southern Observatory (ESO):

Astronomers using the Atacama Large Millimeter/submillimeter Array have taken the first ever image of the snow line in an infant solar system.

They state that

Starting from the star and moving outwards, water (H₂O) is the first to freeze - forming the first snow line. Further out from the star, as the temperature drops, more exotic molecules can freeze and turn to “snow”, such as carbon dioxide (CO₂), methane (CH₄), and carbon monoxide (CO).

Due to the different freezing points of different chemical compounds, different snow lines can be found at various distances from the star. It is understood that heavier elements in our system have been formed in supernovae (exploding star) events and these are present in the cloud of material that our solar system formed out of. In the case of TW Hydrae, we can assume a similar “cocktail” of elements are present. In a spinning accretion zone, the majority of the lightest elements (as in a centrifuge) accrete to the inner zone and the heavier elements to the outer reaches.



An artist's concept of the snow line in TW Hydrae showing water ice covered dust grains in the inner disc (4.5–30 astronomical units, blue) and carbon monoxide ice covered grains in the outer disc (>30 astronomical units, green). The transition from blue to green marks the carbon monoxide snow line. The snow helps grains of dust to adhere to each other by providing a sticky coating, which is essential to the formation of planets and comets. Due to the different freezing points of different chemical compounds, different snow lines can be found at various distances from the star.

The Sun is principally comprised of hydrogen, which fuses to form helium – these 2 elements have the lowest atomic weights. So let us assume that Earth formed in our solar system's “water-snow zone”. Let us further assume that in the sticky “snow” (as described by the ESO astronomers) were the rest of the elements that became our planet.

Heating an Icy Core

So what do we have? A lump of predominantly ice, at a few degrees above absolute zero, together with an accumulation of other elements created by the left over stardust from a supernova.

What next? Well, having mopped up the majority of the available matter, the sphere of spinning matter which would become the Earth (pre-expansion) would be baked by the Sun. At this stage, with little atmosphere, Earth would be inhospitable to life. Below the newly forming crust, the interior would still be perhaps just a few degrees above absolute zero. I therefore propose that the Earth is then heated by a number of methods:

- 1) In the early stages, some heat from the Sun on the crust would travel by conduction and possibly convection through the crust and heat the interior.
- 2) Friction between the various materials which comprise the proto-Earth.
- 3) Subterranean heating from nuclear reactions – mainly radioactive decay (see below).¹⁷
- 4) Electric currents, induced by the Earth's movement in the Sun's electric field.¹⁸

Together, these heating processes would begin to slowly thaw the Earth's icy interior. Additionally, as an atmosphere formed around the Earth, it is possible that this also trapped additional heat from the Sun.

As the interior thaws, the developing Earth's magnetic field, might have a stirring effect on the “slush” which it turns into. That might cause further friction, resulting in additional heating of the core and the mantle.

An article called “Fixed-Earth and Expanding-Earth Theories -- Time for a Paradigm Shift?” by David Noel (Revised 2005) further discusses heating of the Earth and also other aspects of the expanding earth theory.¹⁹

Heating by Radioactive Decay

Over the last few years, several sources have suggested that radioactive elements may play a role in heating the Earth's interior. For example an article on UC Berkley News states²⁰,

Radioactive potassium, uranium and thorium are thought to be the three main sources of heat in the Earth's interior, aside from that generated by the formation of the planet. Together, the heat keeps the mantle actively churning and the core generating a protective magnetic field.

A July 2011 article in "Physics World" states²¹:

About 50% of the heat given off by the Earth is generated by the radioactive decay of elements such as uranium and thorium, and their decay products. That is the conclusion of an international team of physicists that has used the KamLAND detector in Japan to measure the flux of antineutrinos emanating from deep within the Earth.

For a smaller sized Earth, the heating effect from radioactive decay would be more significant. Also, there would be more radioactive material – as it would not have decayed as much.

Liquid and then Gases Migrate to the Core

Now the big wait, over the next four billion years, the crust would "cook" and warm up the icy core. First any frozen gasses, hydrogen, nitrogen, oxygen and other less abundant gaseous elements would be created. These lighter elements would migrate to the very centre of our planet. I say this following the revelation of a simple experiment on the International Space Station – where air bubbles are injected into a floating drop/small sphere of water – the bubbles migrate to the centre²².



An air bubble, trapped inside a water droplet, on the International Space Station

In the developing Earth, I therefore concluded that the gases and lighter materials will then travel to the core, where the area of least pressure and zero gravity exist! We now have the beginning of a Gas-filled Earth!

At this point, I will mention an article in "Nature", dated 12 March 2014 entitled "Tiny diamond impurity reveals water riches of deep Earth."²³ The article states:

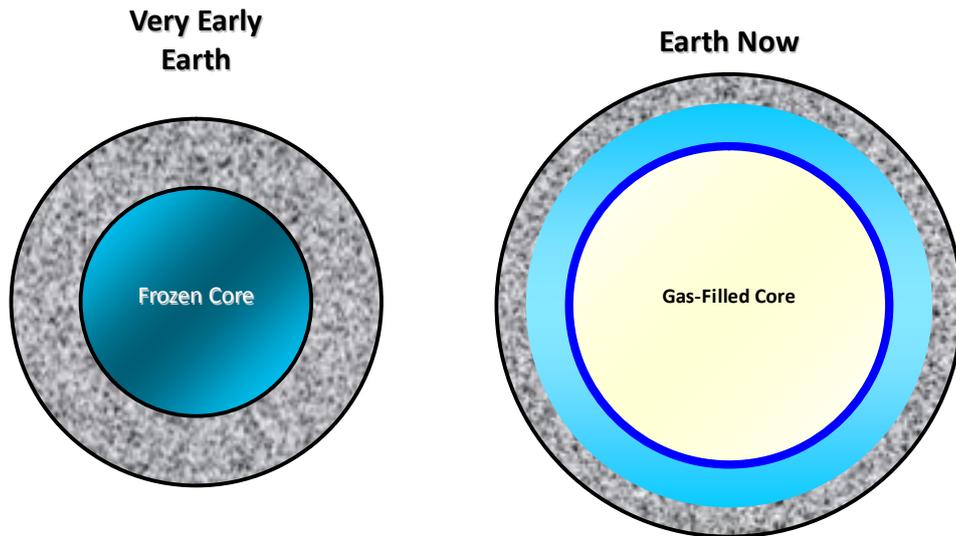
A microscopic crystal of a mineral never before seen in a terrestrial rock holds clues to the presence of vast quantities of water deep in Earth's mantle

Billions of years of warming of the slushy interior eventually turn it into a liquid, then a super heated liquid. Heat will also have accumulated in the now superheated upper mantle, which has, in turn, melted the ice core. We are now getting to the point where the liquid core will start to come to the boil - and something has to give...!

“Steam-Powered Earth Expansion”

Anyone familiar with steam power and pressure vessels will tell you that without regulation of steam pressure, even the thickest steel vessel will explode. Having considered the formation and development of the early Earth, to the point where the liquid core starts to boil, we can now consider our planet to be a “slowly exploding pressure vessel.” In this scenario, the crust is going to crack along the lines of least resistance i.e. “the continental margins”. The water (predominantly) was forced through these cracks and manifested as high pressure steam – along with other heated materials. I believe that over the following period of tens of millions of years, this venting created our ever deepening oceans.

Despite this venting of pressure it was not enough to restrict the expanding core, the result being the stretching of the newly forming ocean bed at the later to be known as “spreading ridges”. The expansion would then proceed as James Maxlow, Neal Adams and others have shown.



Proposed Ancient and Present Structure of the Earth

Now for the Maths!

I will now attempt to quantify likely volumes and sizes of the core. Let us first note our current Earth's radius, which is approximately 6370km. We also note the following facts and figures:

- The combined land area of all continents²⁴ combined is approx 149 million km².
- The area of the Earth's continental shelf²⁵ is about 29 million km².
- The combined total area is then about of 178 million km².

Since the rest of our planet's area consists of basalt formed at the mid ocean ridges, we know it did not exist in “pre-expansion” times²⁶.

Pre-Expansion Radius

Given a surface area of 178 million km², we can calculate Earth's pre-expansion radius to be about 3,764km.

$$a = 4\pi r^2$$

$$r = \sqrt{\frac{a}{4\pi}}$$

$$r = \sqrt{\frac{1.78 \times 10^8}{4\pi}}$$

$$r = \underline{3763.6\text{km}}$$

As noted above, the average radius of the Earth today is about 6,370 km. Earth's pre-expansion radius was, therefore, roughly 59% of today's radius. This figure agrees quite well with the value of 3500, calculated by Klaus Vogel²⁷, and is also similar to the figure of 3312km suggested by James Maxlow²⁸. (The difference is probably due to the use of a different value for total area of Continental Shelf.)

Pre-Expansion Volume and "Gas Volume"

Using the formula

$$v = \frac{4}{3}\pi r^3$$

We can calculate the Earth's pre-expansion volume of

$$v = \frac{4}{3}\pi \times 3763^3$$

This gives a figure of 223,307,760,801 km³ (approx 2.23 x 10¹¹ km³). We now calculate our Earth's current volume:

$$v = \frac{4}{3}\pi \times 6370^3$$

This gives a figure of 1,082,696,932,430 km³ (approx 1.08 x 10¹² km³). We now we subtract the pre-Earth volume from the current Earth volume:

$$1,082,696,932,430 - 223,307,760,801 = 859,389,171,629 \text{ km}^3 \\ = \underline{8.6 \times 10^{11} \text{ km}^3}$$

Rounding down, this gives a "gas volume" (v_g) of approx 860 billion km³ we can now calculate the approximate gas radius, r_g:

$$v_g = \frac{4}{3}\pi r^3 \\ r_g = \sqrt[3]{\frac{3v}{4}\pi} \\ r_g = \sqrt[3]{\frac{3 \times 8.6 \times 10^{11}}{4}\pi} \\ r_g = \underline{5900\text{km}}$$

The gas radius of approximately 5,900 km is the radius of the Earth's "gas-filled" core, at this point in time. From this, we determine that the thickness of the crust, mantle and water reservoir is

$$6370 - 5900 = \underline{470\text{km}}$$

Solid and Liquid inside the Earth

It has been presented that originally, the Earth was made up of a combination of ice and other solid materials. We don't know the original proportion of ice (water) to solid materials that was present after the Earth formed. The ice has now melted and the resulting water has started to boil, but not all of the water has boiled yet. At present therefore, we have a mixture of solid crust, liquid – and gas.

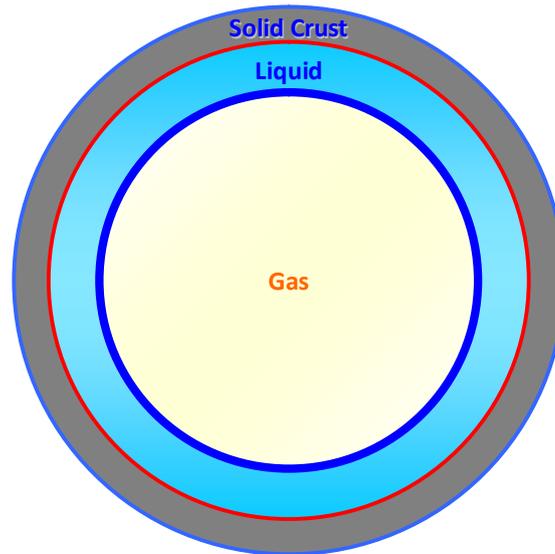
This liquid region will be made up of a proportion of water and a proportion of other molten materials. The ratio of water to other liquids and gasses is open to speculation. As mentioned above, recent discoveries reported in the Nature science journal suggest large amounts of water contained deep within the Earth²⁹. Also, as Maxlow states in an article in the March 2002 "New Concepts In Global Tectonics" Newsletter³⁰:

The production of new juvenile water, on an expanding Earth, during the Palaeozoic and Precambrian, is shown to occur within zones of intracratonic crustal extension, and, for the

*Mesozoic to Recent, production **occurs mainly along the mid-oceanic-rift zones**. Geographical studies show the production of new water to be an accelerating process, particularly during the Phanerozoic, during continental break-up, and generation of new mantle-derived oceanic lithosphere.*

We have already calculated the gas volume inside the Earth, so we will now attempt to calculate the volume of liquid in the following way:

- 1) We will calculate the volume of solid material from the assumed thickness of the Earth's continental crust and oceanic crust.
- 2) We will use the estimated figure for the total volume of the oceans.
- 3) Knowing the total volume of the Earth, we will then subtract the figures in (1) and (2) and also subtract the gas volume. This should allow us to calculate the volume of liquid below the mantle.



We will now attempt to calculate the average thickness of the crust over the whole surface of the Earth. Our Earth's crust is estimated to be 40km thick³¹. The oceanic crust to be about 6km thick³² and average ocean depth is 4km³³.

The surface area of the Earth is given by

$$a = 4\pi r^2$$

$$a = 4\pi \times 6370^2$$

$$a = \underline{5.1 \times 10^8 \text{ km}^2}$$

This figure can be written as 510 million km². As shown earlier, the total surface area of the continental shelf and all continents is 178 million km². Hence, the area of the oceanic crust is

$$510 - 178 = \underline{332 \text{ million km}^2}$$

We will now calculate an overall average thickness using the proportion of oceanic crust area to continental crust area.

$$\text{av. crust thickness} = 6 \times \frac{332}{510} + 40 \times \frac{178}{510} = \underline{17.9 \text{ km}}$$

If we round the average to 18km, the radius of the "gas + liquid" sphere (the liquid includes the mantle) is then given by

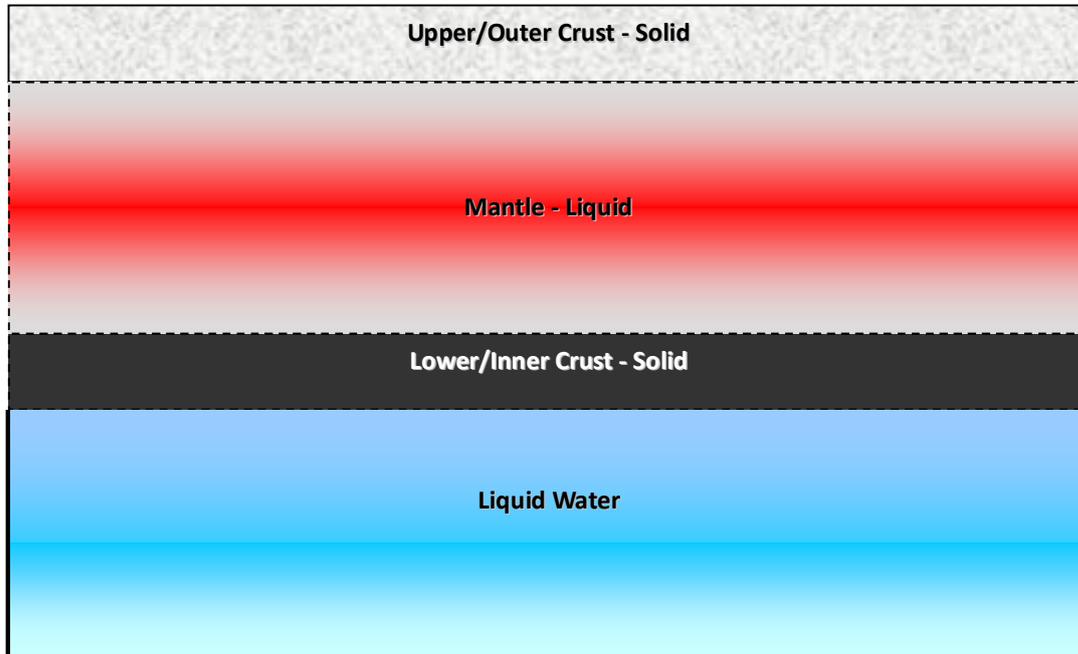
$$6370 - 18 = \underline{6352 \text{ km}}$$

We can also calculate the depth/thickness of the liquid layer by subtracting the gas radius (5900km) from the "gas + liquid" radius:

$$6352 - 5900 = \underline{452 \text{ km}}$$

Deduced General Structure of Interior - An Inner Crust?

Although we have no easy way of determining the proportions of water/other liquid in the liquid portion, we can consider there will be a second, solid layer between the mantle and the water. The hottest part of the mantle will be somewhere in between the bottom of the outer crust and the water layer boundary. As we go down through the mantle, towards the water layer, it should get cooler. At the boundary between mantle and liquid zone, in exchange for the heating effect on the liquid (water), a corresponding cooling of the mantle will create a solidified layer – an *Inner Crust*. We can therefore envisage a structure like this:

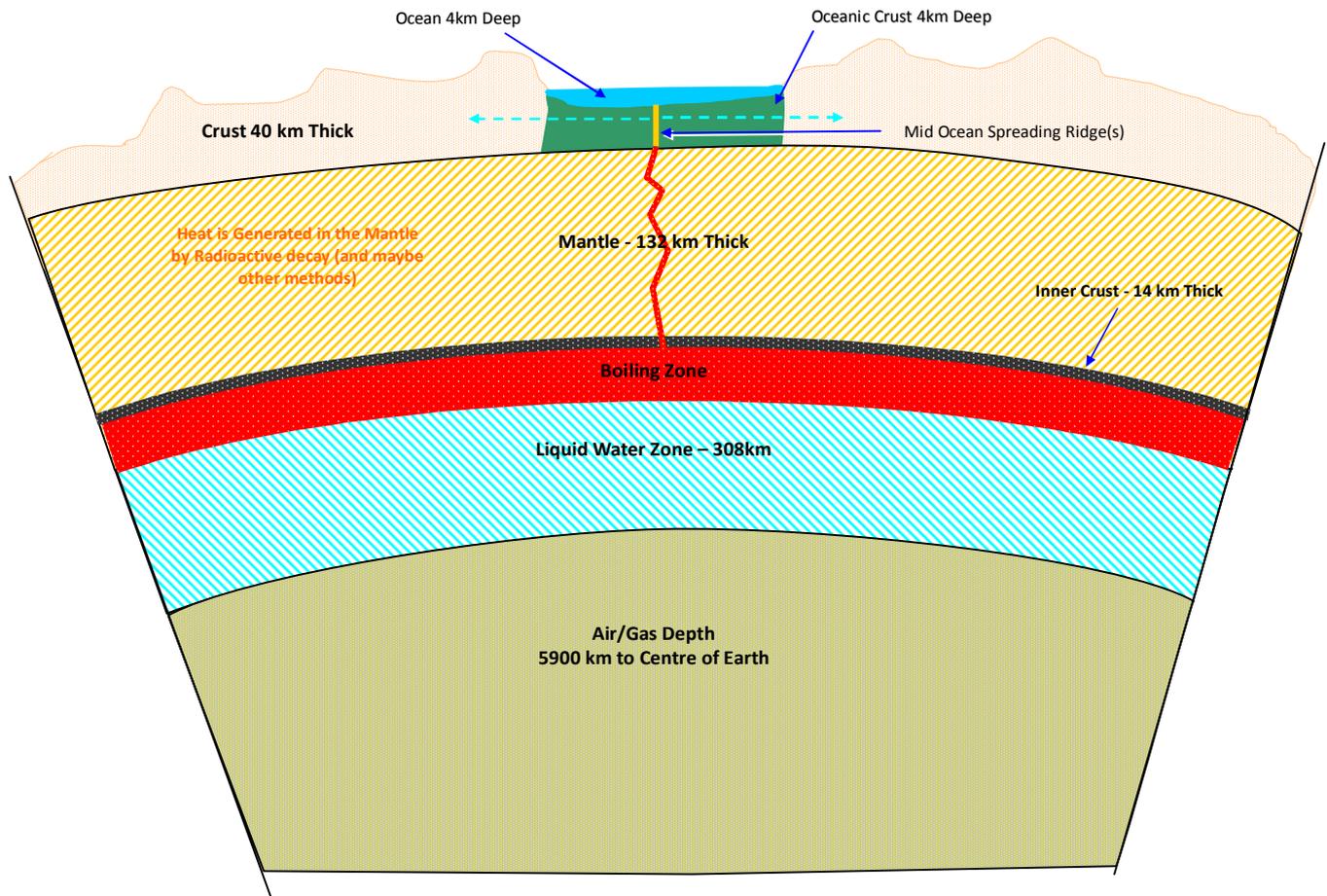


Here are 3 possible scenarios with different proportions of liquid and solid material between the crust and the gas core. We will then simply divide up the 452km liquid thickness by these proportions. We will assume the inner/lower crust is of similar the average thickness to the upper/outer crust – say, 14km.

$$\text{Combined Liquid Thickness (Mantle + Liquid Water)} = 452 - 14 = \underline{438\text{km}}$$

Layer ↓	Solid/Water Ratio →	30% / 70%	50% / 50%	70% / 30%
Mantle (km thickness)		132	220	308
Water (km thickness)		308	220	132

Suggested Cross section of Earth 70% Liquid Non-Water and 30% water



Notes

1. At the mid ocean spreading ridges, hydrothermal vents have recorded temperatures of up to about 340 degrees Celsius³⁴ and at 3000m depth pressures of 300 atmospheres! It is reasonable to assume slightly greater pressure on the mantle side.
2. Lava reaching the surface during eruptions has a temperature of 700-1250 Celsius³⁵ therefore we must assume a higher value for the Mantle itself.
3. Beneath the inner crust is the "boiling zone". High pressure steam is created which migrates to the inner gas-filled core, adding to the "Steam Powered Earth Expansion".

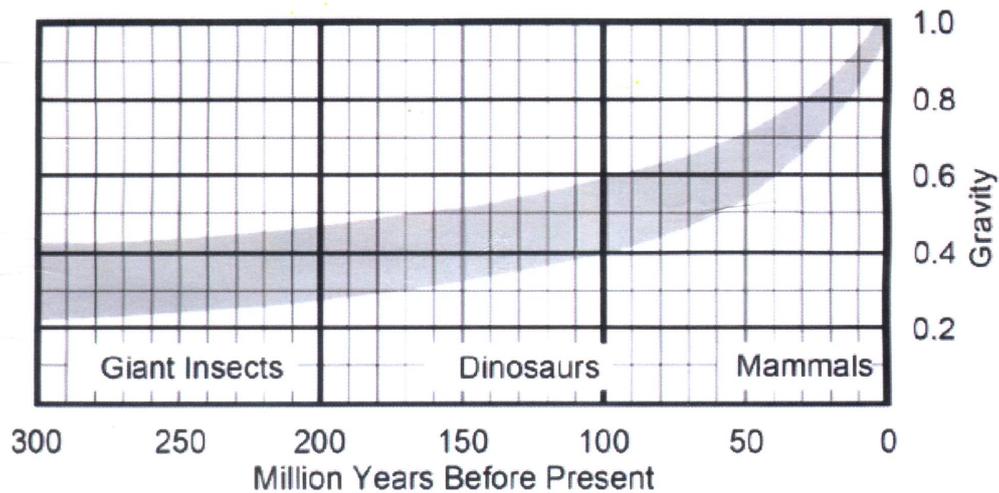
Gravity and Angular Momentum

Surface Gravity Considerations

The dinosaurs inhabited our planet during early expansion. Since I do not suggest any significant increase in mass for our planet, questions arise as to how plant, animal and insects grew to such large proportions!

Calculating the values for Earth pre-expansion and now it can be shown that gravity on the pre-expansion Earth was roughly a quarter of its value today! This allowed the growth of plants, animals and insects to the giants of the era of the dinosaurs³⁶. Stephen Hurrell's "Dinosaurs and the Expanding Earth"³⁷ includes this graph:

GRAVITY VARIATION ESTIMATED FROM SCALE OF PREHISTORIC LIFE

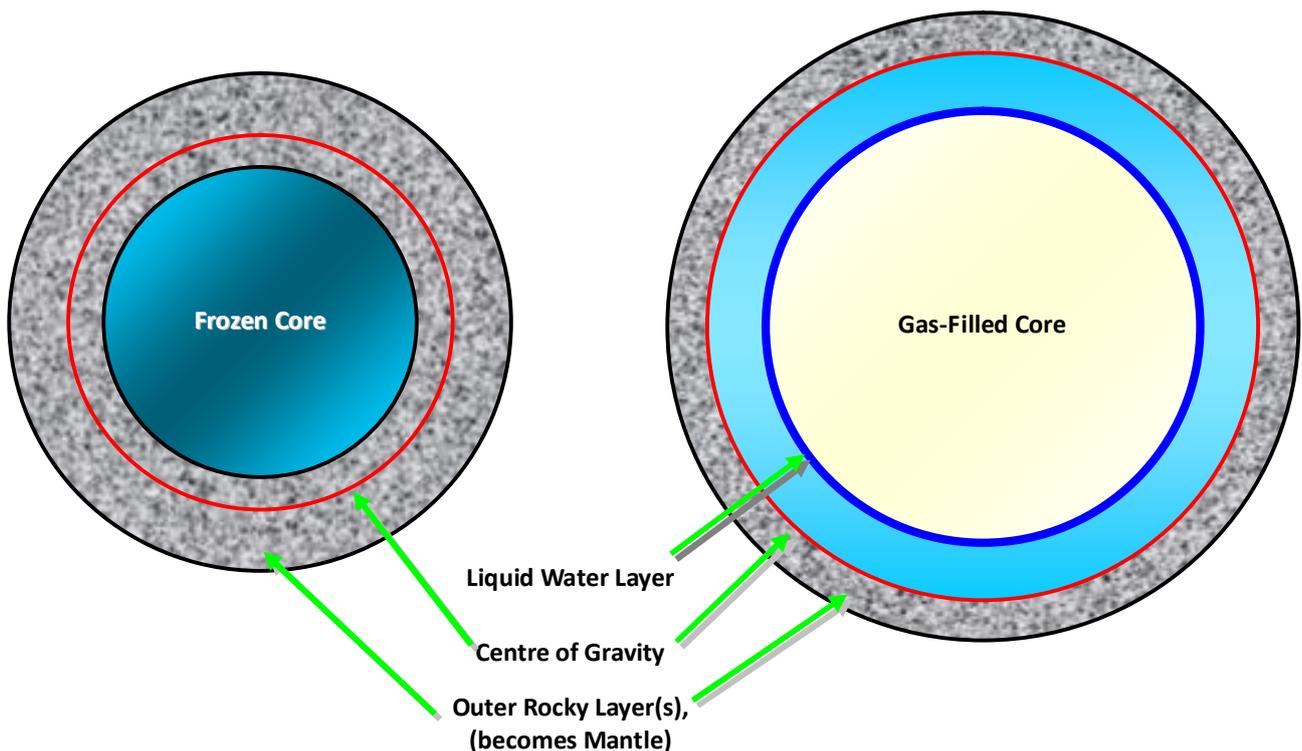


Please note the exponential curve of the ratio animal size/gravity.

Centre of Gravity in The Outer Shell

Very Early Earth ("Pre-Earth")

Earth Now



I contend that Earth's mass now is not significantly more than that pre-expansion. If we consider that our pre-Earth's outer region was predominantly rock/heavy elements (pictured left), then its centre of attraction in relation to a body (dinosaur) on the surface, I have estimated, would be found at a depth of 600-1000km.

I will now attempt to show the reason for the increased force of surface gravity as the expansion proceeded. In simple terms, it is because the mass distribution beneath the surface of the Earth changes – which causes the centre of gravity in the heavier outer shell to move away from the centre of the Earth and get closer to the surface – as the non-gas layers get thinner. This is therefore contrary to the situation of a solid sphere where the centre of gravity is at the centre of the sphere!

Though this is rather simplified, we will consider the formula

$$F = G \frac{M_1 M_2}{d^2}$$

where F is the force of attraction (due to gravity) between mass 1 (our dinosaur) and mass 2 (the Earth), we consider the pre-Earth where the centre of gravity is located 1000km down below the surface. The overall force (F) in the equation gets divided by a factor of 1000 x 1000 = 1 million.

However, for the Earth as it is now, the centre of gravity is located about 500km below the surface. The overall force in the equation gets divided by a factor of 500 x 500 = 250,000. In simple terms, then, this would mean that force acting on a mass at the surface would be ¼ of the force now.

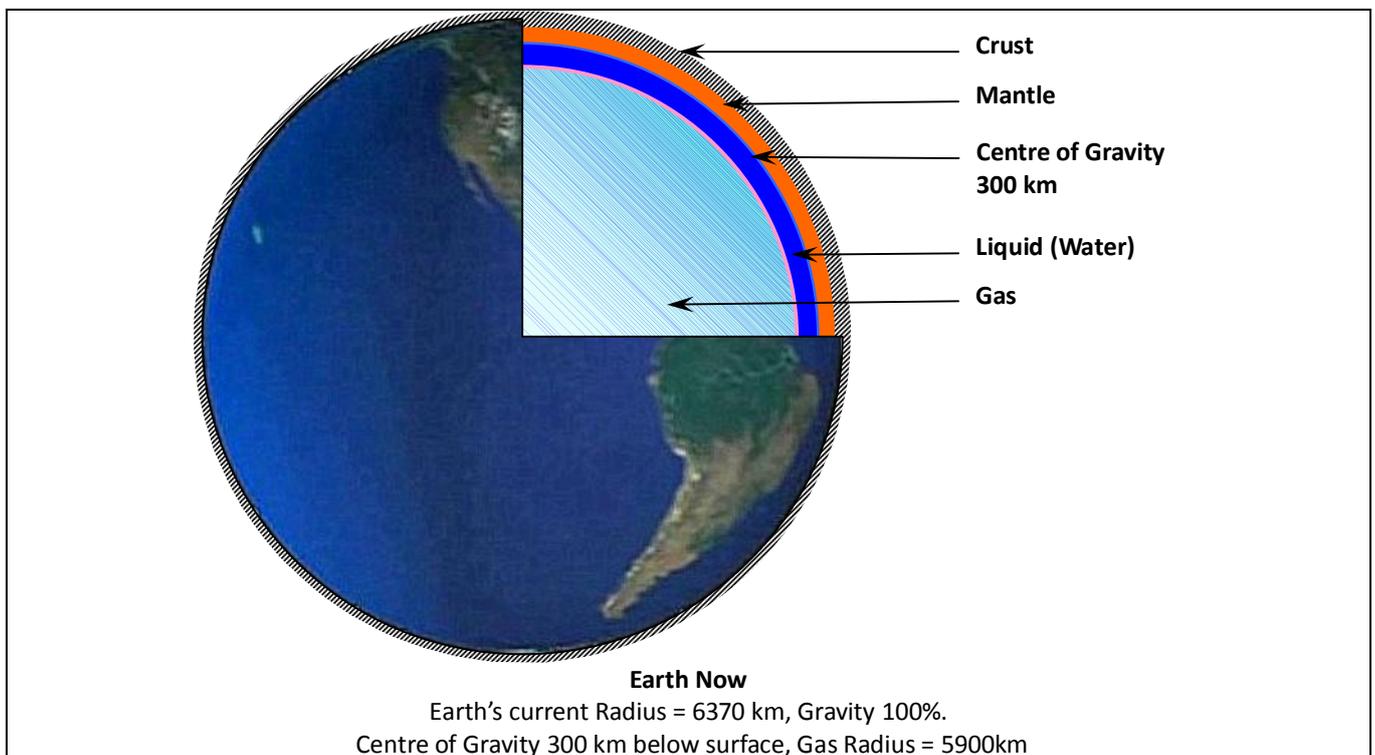
Movement of Centre of Gravity as Earth Expanded

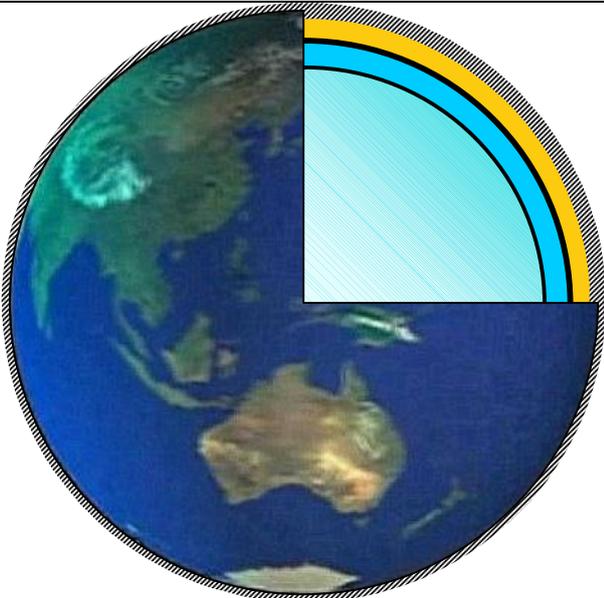
Choosing regular intervals between the present time and 300 Million Years Ago (MYA), figures for the exterior radius of the Earth were estimated as shown in the table below. From the original volume of the Earth, we then calculate the gas volume and radius, as shown in the previous "Pre-Expansion Volume and Gas Volume" section. By using the same method of subtracting the volumes of 2 concentric spheres, the figures below were used to calculate the radius of the gas sphere.

To the table, we add the estimations for surface gravity derived from the changing depth of Earth's centre of gravity.

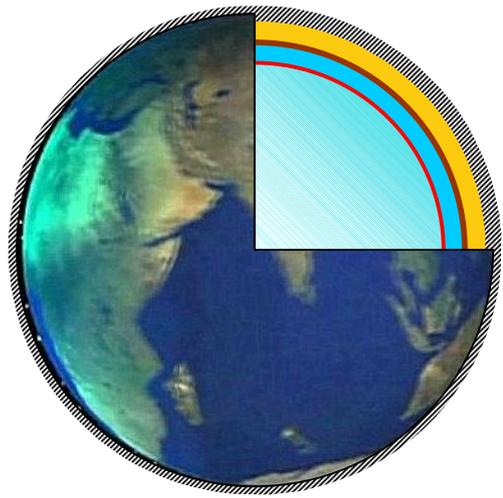
MYA	C of G Depth (km)	% of now	Earth Radius (km)	Gas Radius (km)
300	600	25	3763	20-80
250	580	30	3921	1500
200	560	32	4082	2459
150	520	37	4303	3100
100	470	45	4700	3900
50	400	62	5366	4662
10	330	92	6000	5461
0	300	100	6370	5899

I then created some diagrams (not drawn to scale) to attempt to show a cross section of the Earth's structure as it expanded, to give some kind of illustration to the figures above.

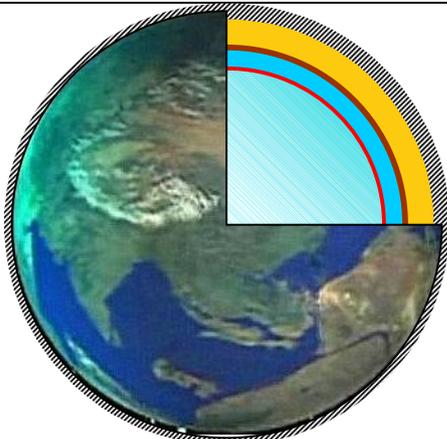




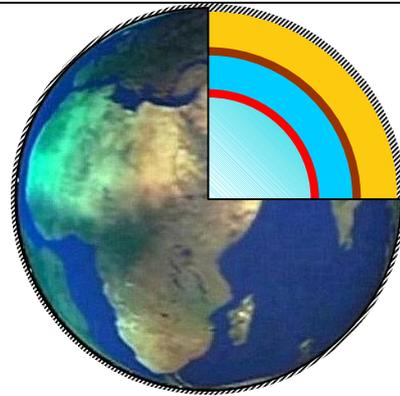
Earth 50 MYA
 Radius = 5366km, Gravity 62.5%
 Centre of Gravity 400 km below surface
 Gas Radius = 4660km



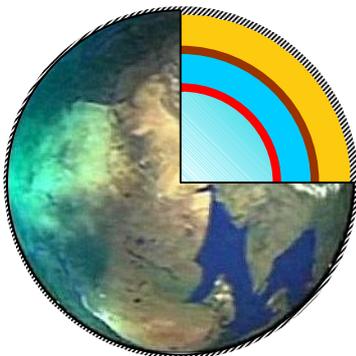
Earth 100 MYA
 Radius = 4965km, Gravity 45%
 Centre of Gravity 470 km below surface
 Gas Radius = 3697km



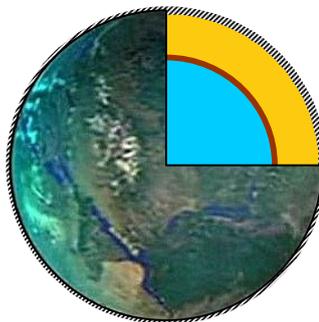
Earth 150 MYA
 Radius = 4303km, Gravity 37%
 Centre of Gravity 520km below surface
 Gas Radius = 2977km



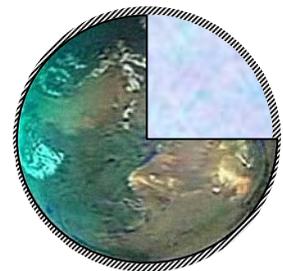
Earth 200 MYA
 Radius = 4082km, Gravity 32%
 Centre of Gravity 560km below surface
 Gas Radius = 2451km



Earth 250 MYA
 Radius = 3921km, Gravity 30%
 Centre of Gravity 580km below surface
 Gas Radius = 1913km



Earth 300 MYA
 Radius = 3763km, Gravity 25%
 Centre of Gravity 600km below surface
 Gas Radius = 20-100km



Earth 450-2000 MYA
 Radius = 3763km, central core
 viscous conglomeration of all
 elements found on Earth. In the
 process of differentiation by
 density.

On the Orbit of the Earth and the Moon...

Both Maxlow and Adams have suggested that our Earth's mass has increased from the creation of new material within our planet. If that were true the mass of the Earth would have increased by a factor of 4.8, that has serious consequences for our relationship with the moon. By increasing Earth's mass by a factor of 4.8 would in turn increase the gravitational pull between ourselves and the moon. This would result in a decaying orbit and Earth's destruction.

Some researchers, such as Keith Hunter have noted the slowing of Earth's rotation lengthening of the Earth's orbital period since antiquity³⁸. Hunter and others suggest the Earth had a 360-day year compared to our current 365.25 day orbital period. Keith Hunter also mentions references to a diminished or reduced size of the moon. I suggest that an increased length of year might be due to the Moon's loss of mass. As observed by Neal Adams, the moon shows signs of expansion on its surface³⁹. If water was vented during this expansion (steam powered expansion) and since gravity on the moon is insufficient to retain that water, water/mass has been lost by the moon - resulting in less attraction between Earth and Moon. Reduced attraction has led us to "drift apart" hence the moon appears smaller!

The reduced mass of the moon means the combined mass of the Earth and moon has also reduced. The reduced mass of the Earth-moon system would weaken the attraction to the Sun and so perhaps lengthen the orbital period to 365 days.

Conservation of Angular Momentum

Going back in time Earth's diameter would be progressively smaller, as a consequence Earth would have spun faster (the ice skater effect), creating a shorter day length and consequently many more days in a pre-Earth year.

Volume of Water in the Inner Earth – and the Oceans

If we take the 70% water value, the thickness of the water later would be 308km. The volume of water underneath the inner crust is then given by subtracting the volume of the gas sphere from the "gas + water" sphere:

The radius to the outer edge of the water sphere is given by:

$$5900 + 308 = \underline{6208\text{km}}$$

$$v_{\text{water}} = \frac{4}{3}\pi(6208^3 - 5900^3)$$

$$v_{\text{water}} = 141,781,565,722$$

$$v_{\text{water}} = \underline{1.4 \times 10^{11} \text{ km}^3}$$

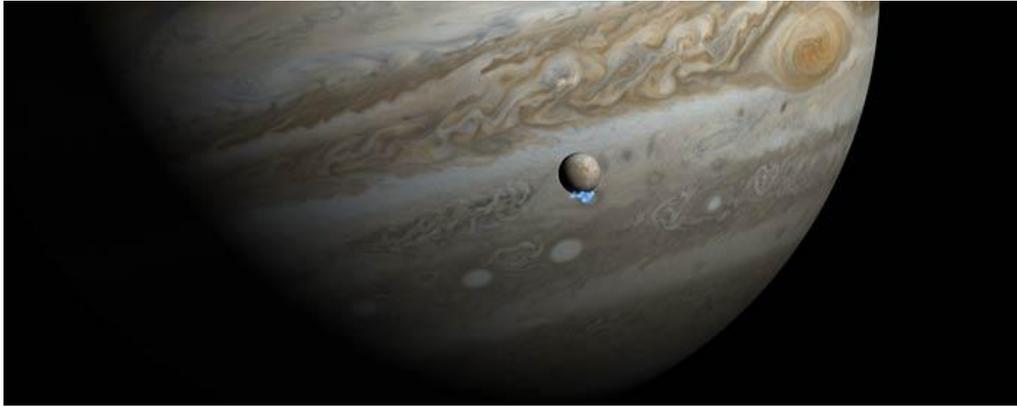
It has been estimated that our oceans currently hold a volume of 1,335,000,000 km³⁴⁰. This represents just less than 1% of what may still be beneath the mantle.

$$\text{proportion of ocean} = \frac{1.3 \times 10^9}{1.4 \times 10^{11}} = 0.009$$

Gases Venting from the Surface of Other Bodies

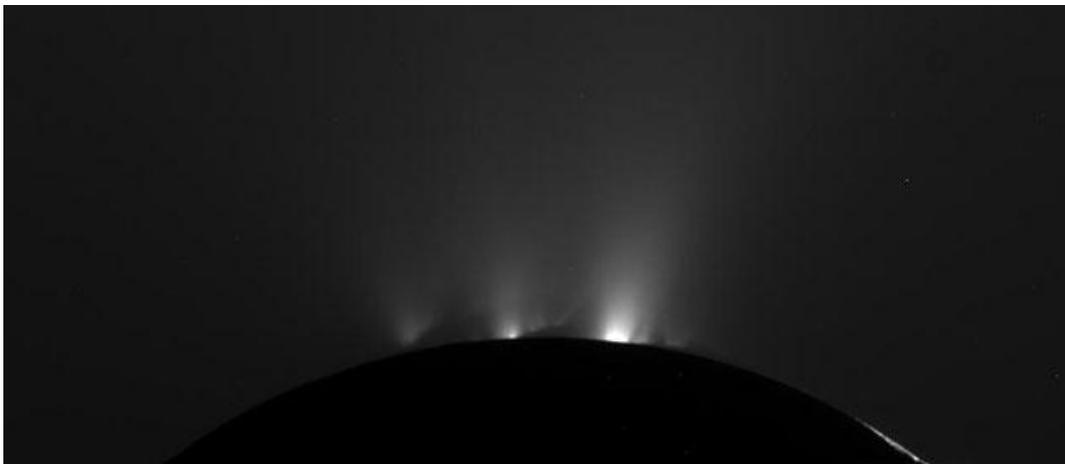
Having shown the likelihood of gases venting from the interior of planets, we can now look elsewhere in the solar system.

Images of Jupiter's moon Europa taken by the Hubble Telescope and published on 12/12/2013 have been found to show water being vented into space through fissures in its frozen crust⁴¹.



The suggestion I make is that we have evidence in our solar system of liquid water and or gas existing below the outer crust and also at considerable pressure.

Published in Oct 2011, images sent back by the Cassini probe show venting on the moon Enceladus⁴². (It seems similar jets were also photographed in 2010⁴³.)



Enceladus is mirror-like image of Earth - with seas of liquid methane and mountains, dunes and shorelines made up not of rock but frozen water, ice! Titan and Enceladus could have formed in a methane⁴⁴ accretion zone – further out from our Sun, just as in the case of the disk around TW Hydrae.

Neptune's moon Triton is also suspected to have water⁴⁵.

Future Earth Expansion

So what of the future? Maxlow predicts continued exponential growth - leading to Earth becoming a gas giant! I have to agree. Let's consider how much water might be involved.

We have calculated that there is still potentially 99% of our estimated original amount of water still under the mantle. If the heating continues, which it will – as there are still radioactive elements in the crust, and if the Earth is indeed heated by telluric currents, there is no reason why the water should not continue to boil. As a very simple calculation, at current atmospheric pressure, water when heated to steam expands by a factor of about 1600 times.⁴⁶

Will sea levels rise? Will the pressure be vented bringing an end to expansion? Will we be living on water-world and evolve back into sea dwellers? Perhaps dolphins are even smarter than we think!

Implications and Other Considerations

One of the perplexing things regarding Earth's history is that much of it is deemed folklore or legend. I am referring principally to biblical and other ancient references to a flood and the total immersion below water of our entire planet.

As Neal Adams and James Maxlow have explained, the mountain forming on our planet is caused by the collapsing of the

continents as they are distorted by the effects of an expanding Earth. Pre-expansion the continents would have been virtually flat with shallow seas. At the pre-expansion Earth size the continents could have easily been covered by 7km of water by the current volume of seawater on our planet.

Others have talked about life in an inner Earth. It seems unlikely to me, but I do not believe we are the only “intelligent” species in existence. Perhaps another species could have seeded the inner Earth as I believe our surface to have been. As mentioned pressure in the inner Earth will be great, however it may be comparable at the bottom of our oceans and life exists there.

Is there an “inner Sun”? Well, there is no shortage of hydrogen on our planet and if you consider the centrifuge effect during the accretion period, it is possible that some free (un-reacted) hydrogen would have migrated to the centre of the Earth.

Conclusions

1. The expansion of our Earth and other planets and moons is caused by the heating of their initially frozen interiors and consequent gaseous expansion.
2. The 4.2 billion years of zero expansion is due to the core remaining frozen.
3. The ability of giant flora and fauna to exist was the low value of gravity at the surface of the Earth pre expansion
4. The Earth's interior was, and is, being warmed from its original frozen state by a combination of means, at least 50% of which is derived from the nuclear decay of uranium and thorium
5. The mass of the Earth has not significantly increased in 4.5 billion years.
6. Earth's gravity at its surface is increasing exponentially.
7. The Earth's surface area is expanding exponentially.
8. Despite expansion, Earth's relation to our Sun and Moon have not been affected.
9. No effects have been observed that might be produced by any increase in mass.
10. We can in theory suggest that a great out-welling of water could explain the historical “great flood” as described in many cultures. (Which explains the creation of the deep oceans.)
11. There cannot be any polar openings as this would not allow any pressure build up within the Earth.
12. Extinctions are likely to have been due to increasing gravitational effects on plant and animal life.
13. Much of, if not all the heat required to fuel Earth's Expansion is provided by the nuclear decay of uranium and thorium. (I believe the findings of the attached report “nuclear decay” would provide all the heat required if applied to a smaller Earth)
14. The Cassini probe has identified water under the surface of Saturn's moons Titan and Enceladus. Jupiter's moon Europa has a subterranean ocean, as might Ganymede and Calisto. Neptune's moon Triton is also suspected to have water.

Obviously much more work needs to be done to resolve some of the outstanding questions. I believe the acceptance of an expanding gas-filled Earth will have a similar passage as the flat to spherical Earth had, obstructed by the scientific rather than religious dogma.

¹ Expansion Tectonics - <http://www.jamesmaxlow.com/main/>

² <http://www.nealadams.com/index.php/science/neal-adams-science-videos>

³ http://www.expanding-Earth.org/page_7.htm

⁴ <http://understandEarth.com/Earth%20Expansion%201.htm>

⁵ <http://historyofgeology.fieldofscience.com/2011/01/expandinggrowing-Earth.html>

⁶ <http://www.ucmp.berkeley.edu/history/wegener.html>

⁷ <http://www.geolsoc.org.uk/Plate-Tectonics/Chap1-Pioneers-of-Plate-Tectonics/Vine-and-Matthews>

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23 <http://www.nature.com/news/tiny-diamond-impurity-reveals-water-riches-of-deep-Earth-1.14862> Pearson, D. G. et al.
Nature 507, 221–224 (2014).
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