EARTH EXPANSION

By James Maxlow

Most of us are familiar with the concept of Plate Tectonics, whereby the Earths outer crust is said to be made up of a series of plate-like crustal fragments that randomly move over the Earths surface under the influence of mantle convection currents. In the process of random migration the crustal plates are said to rift, slide past one another, and/or periodically collide to form mountains. The primary assumption and absolute basis of Plate Tectonics is that the radius of the Earth has remained constant, or near constant throughout its 4,500 million year life span.

This assumption, i.e. that the Earths radius has remained constant, stems from the 1950s, and is something that has probably been in the back of almost every persons mind since the beginning of mankind, albeit never entered their minds anyway because a) it couldn't be comprehended or measured, and b) surviving was a priority. Hence, when Plate Tectonics first came into being during the 1950s-60s, migration of the continents was a difficult enough concept to introduce without having to complicate things by challenging the seemingly logical assumption that the Earths radius must be constant.

The suggestion that the Earth has actually been increasing its radius throughout time stems from the pioneering work of Christopher Otto Hilgenberg (1933), the late Professor Sam Warren Carey (1958 to 1996), Jan Kozier (1980), and Klaus Vogel (1983 to 1990). These researchers showed that if all of the continents were physically fitted together they would neatly envelope the Earth with continental crust on a globe some 55 to 60% of its present size. This coincidence led Hilgenberg, Carey, Vogel and others to conclude that *terrestrial expansion brought about the splitting and gradual dispersal of continents as they moved radially outwards during geological time.*

So what is Earth Expansion?

When viewed with an open mind, readily available modern global geological and geophysical data tells us that the Earth has been increasing its radius since the beginning of geological time. For the first three quarters of this time, i.e. about the first 3,000 million years, this increase in radius has been far less than the thickness of a human hair per year. While relatively insignificant on a yearly basis, over the time period involved the accumulated radial increase has been very significant. The data also tells us that the increase in radius is exponential through time, i.e. the rate of change is also increasing with time, and the current rate of change in radius has now increased to about 22mm per year – again globally insignificant.

The relative change in Earth radius from the beginning of geological time (the Early Archaean Earth was about the same size as the present Moon) to 5 million years into the future can be seen in Figure 1 below.

For more in-depth details about Earth Expansion see my book at: http://www.terrellapress.com.au/ or see my e-book at: www@oneoffpublishing.com

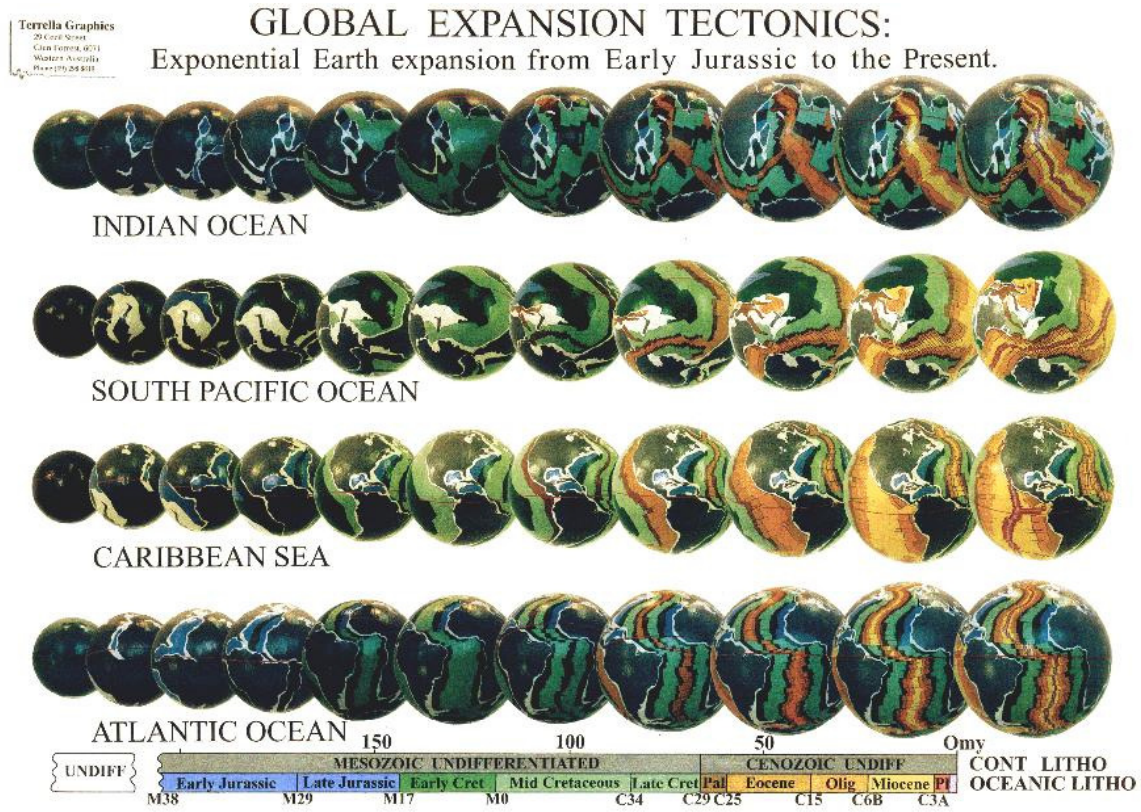

Figure 1 Spherical Archaean to future Expanding Earth models. Models show relative increase in Earth radii during Earth history, and include both continental and oceanic geology. Models range in age from the late Archaean to Recent, plus one model projected 5 million years into the future. (Geology after the CGMW and UNESCO bedrock geology map, 1990).

How does Earth Expansion reconcile with Plate Tectonics?

In a nutshell it doesn't. Having said that, the primary global data used to quantify both concepts is identical, so the difference then boils down to removing, or at least reviewing our pre-conceived assumptions about the Earth. By removing the pre-conceived assumption that Earth radius has always been constant, then all of the global data is in fact in conflict with Plate Tectonics (see my book for details). As Professor Carey put it, we must therefore remove *our blinkers of dogma*.

The biggest difference between the two theories is that, on an expanding Earth, prior to about 200 million years ago the modern deep oceans did not exist. At that time all continental crust was united to form a single supercontinent called Pangaea, enclosing the entire ancient Earth at about 50% of the present Earth radius. Instead of oceans, a network of relatively shallow seas covered low lying parts of the Pangaean supercontinent. This contrasts strongly with Plate Tectonics, whereby the seemingly random fragments of continental crust arbitrarily floating around the ocean floors can

actually be fitted together precisely on an Expanding Earth to form a single supercontinent, somewhat like a spherical jigsaw. The question that must then be answered is, *is this empirical phenomenon fact or mere coincidence*?

On an Expanding Earth, breakup of the continents and opening of the modern oceans was then simple and progressive process with no requirement for random wham-bang tectonics.

Most frequently asked questions

Acceptance of Earth expansion as a viable global process is currently envisaged by well meaning researchers to be thwarted by major obstacles, which supposedly *outnumber the evidence in favour.* These opinions are based on very outdated and negative opinionated research carried out during the 1950s to 1970s, well before the advent of modern global tectonics, computer technology, global data gathering capabilities and multimedia communication. Unfortunately, these same outdated opinions are being carried through to recent literature, without proper scientific investigation, regardless of advances made in Earth Expansion research.

The most frequently asked questions about Earth expansion include:

Where does the additional mass come from?

This is a very important but very difficult question to answer. Because the Earth has always been considered the same size since creation; from either a cosmological or religious point of view, it has never been necessary to ask this question. Because the question has not been asked, or taken seriously, where the additional mass comes from remains speculative. This question must however be asked in the same context as the additional question, where does the mass of the Universe come from? The answers to both questions are synonymous. Until such time as serious research is undertaken in this field the ultimate answer to this question remains both speculative and unanswered.

What about Pangaea?

On an expanding Earth, prior to the Triassic period, about 245 million years ago, the modern deep oceans did not exist. All continental crust was united to form a single supercontinent called Pangaea, enclosing the entire ancient Earth at about 3,200 kilometres radius. Geographical studies show that oceans prior to the Triassic period were then represented by a network of continental seas, with sediments deposited within continental basins masking all evidence of sea floor spreading. Exposed lands and varying coastal outlines prior to this time were similarly represented by the ancient Gondwana, Laurentia, Baltica and Laurussia supercontinents, and prior to that again by the ancient Rodinia supercontinent and smaller sub-continents.

What about the ocean water and atmosphere?

Researchers have argued that, before the Triassic period an ancient Earth with a continuous continental crust would be covered by an ocean with an average depth of 6.3 kilometres. If this were the case then terrestrial life forms would not have evolved, and continents would have only been exposed to erosion fairly recently in Earth history. On an Expanding Earth the sea floor crust, ocean water and atmosphere all originate from deep within the Earths mantle and have been added to the surface crust at an accelerating rate throughout geological time. This increase in new ocean water and atmosphere is considered to have resulted by a process of mantle out-gassing, as a natural response to a decrease in mantle temperature and pressure conditions with time.

What about subduction?

For a constant radius Earth, sea floor crust generated along each of the mid-ocean plate boundaries must be disposed of somewhere, hence the requirement for subduction around the margins of the Pacific Ocean to compensate for opening of each of the oceans. On an expanding Earth, subduction to the extent that Plate Tectonics requires does not exist. The value of 22 mm/year, calculated for increase in Earth radius per year, and 140 mm/year for increase in circumference is more than adequate to account for all sea floor growth and opening of each of the modern oceans over the past 200 million years, without the need to consider removal of excess sea floor crust by subduction.

What about mountain building?

It is generally assumed that mountain building results from collision of ancient continents. Researchers considered that because Earth expansion is a radial process, and the process did not appear to explain the compression required for mountain building then mountain building cannot occur on an Expanding Earth. This is nonsense. During Earth expansion the continental crust must distort, bend, twist and turn to continuously adjust for the change in surface curvature. During this ongoing crustal adjustment there is folding of the soft sediments within sedimentary basins, accompanied by faulting, volcanic intrusion and metamorphism (heating and compression of the rocks). Once the continents began to break-up and disperse 200 million years ago, the edges of the continents then started to flex and rise, as the interior collapsed during changing surface curvature.

What about measuring Earth radius?

Measurements of remnant magnetism in rocks containing iron minerals are routinely made to determine the ancient latitude of a site sample, as well as a direction to the ancient magnetic pole. From these measurements an “apparent polar wander” for each continent is determined. On an Expanding Earth the same magnetic data, when plotted on expanding Earth models, cluster as diametrically opposed north and south poles. This clustering is a physical impossibility on a constant radius Earth. These pole locations show that the ancient North Pole was located in Mongolia to northern China during the Precambrian and Paleozoic Eras, prior to moving north to its present location as the continents migrated south. Similarly, the ancient South Pole was located in west central

Africa throughout this time, prior to moving south to its present location as the continents migrated north.

What about space geodetic measurements?

Space geodetics is modern technology that uses satellites and radio telescopes to routinely measure the dimensions of the Earth and plate motions of the continents to sub-centimetre accuracy. During the early 1990s, when enough ground stations were established to form a global network, it was found that the global excess in radius was 18 mm/year – i.e. they found that the Earth was expanding by 18 mm/year. This value was considered to be "extremely high" when compared to expected deglaciation rates during melting of the polar ice-caps, estimated at less than 10 mm/year. The researchers in fact *"expected that most … stations will have up-down motions of only a few mm/yr"* and went on to recommend that the vertical motion be *"restricted to zero, because this is closer to the true situation than an average motion of 18 mm/yr"*. This recommendation is now reflected in current mathematical solutions to the global radius, where global solutions are effectively constrained to zero.

These recommendations are justified from a constant Earth radius Plate Tectonic perspective. The 18 mm/year excess was considered to be an error in atmospheric correction, so was simply zeroed out. What must be appreciated is that without an acknowledgment of a potential increase in Earth radius NASA had no option but to correct this value to zero, and hence adopt a static Earth radius premise. From an Expanding Earth point of view however, the 18 mm/year excess equates with the 22 mm/year required for Earth expansion, determined from measurements of areas of sea floor spreading.

Earth Expansion as a viable alternative explanation

Put simply, the process of Earth expansion from the beginning of geological time to the present can now be accurately constrained. This has never been achieved before and in itself quantifies Earth expansion. By using modern global geological and geophysical data our Earth is shown to have undergone a steady expansion throughout the Precambrian Eras, prior to a rapidly accelerating expansion during the more recent eras, and continental break-up and opening of the modern oceans during the past 200 million years to the present.

This same global data demonstrates that, on an Expanding Earth the ancient poles cluster as diametrically opposed north and south poles. From these pole locations the ancient polar ice-caps, limestone reefs, coal deposits, vegetation patterns, and marine and terrestrial life forms coincide precisely with the ancient equator or pole positions throughout Earth history. This coincidence is impossible on an Earth of constant radius.

With this modern geological and geophysical data we can now accurately quantify an Earth expansion process, making the evidence in favour of expansion very favourable. In

order to accept **Earth Expansion** as a viable global tectonic concept, we must however be prepared to remove the *"blinkers of dogma"* so prevalent in our learned institutions, in order to encourage active research into alternatives too accepted global theories.