

A Layman’s Cosmology: Speculation on Earth’s Evolution and the Emergence of Humankind

Henry Christopher
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In “A Layman’s Cosmology: Speculation on the Origin of Existence and God,” I speculated “It would appear that Existence might be likened to a vast, endless sea of particles and atoms, with the potential, as Aristotle saw it, to be made into an infinite variety of substances. All that was wanting was a being with the mind to create.” I noted a Creator with a consciousness to love and bring about harmony in creation — modeled after His/Her own being — emerged from this sea of existence.

This article explores the possibilities of how God worked through the evolution of the earth to prepare for the arrival of humankind.

Scientists tell us the universe is 13.8 billion years old, while the earth is 4.5 billion years old. In our reckoning, that is a long period: plenty of time for the Creator to experiment, test, prepare, and develop step-by-step an ideal physical environment and introduce humankind to that world.

According to geological evidence, earth scientists have divided the history of the planet into major eras, periods and epochs in order to track the evolution of earth’s chemical, geological, biological, and climate events. It took four billion years for earth to form out of a volcanic, molten mass, and for life to be introduced.

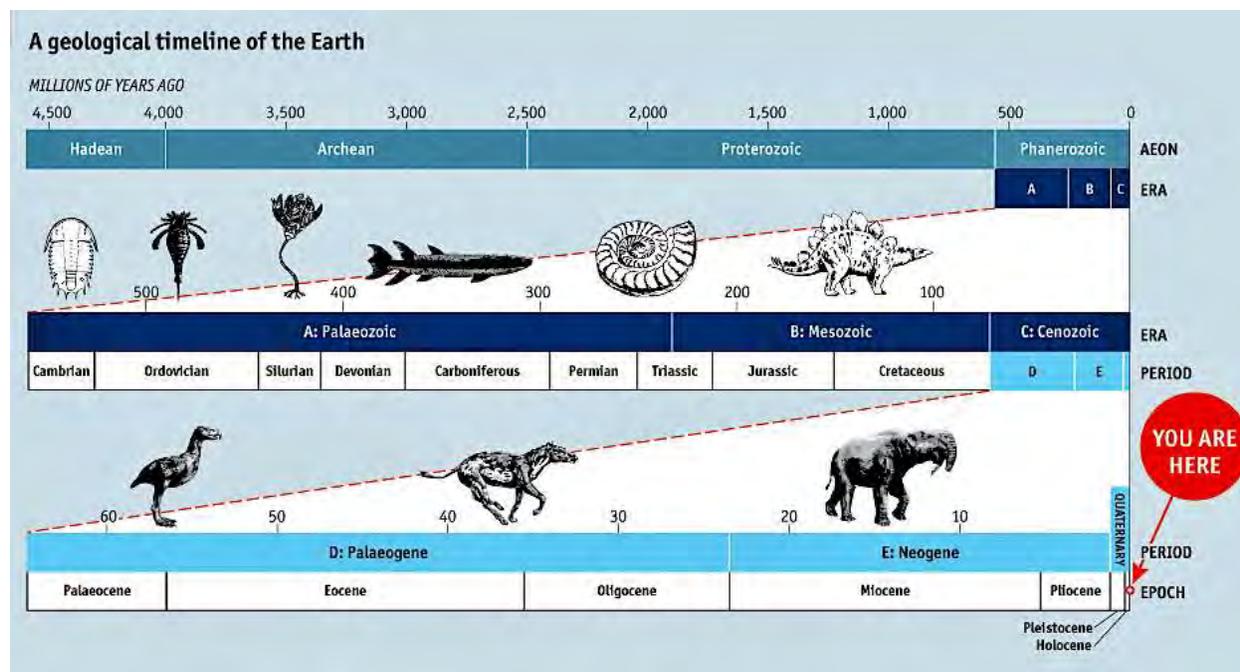


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First, in the Precambrian Era, major developments took place to make the earth capable of supporting life: earth’s molten mass had to cool off and form a solid crust; the chemical composition of the atmosphere had to develop, water introduced, and oceans formed. During the first billion years, a magnetic field formed around the earth, which kept the planet’s atmosphere from dissipating into the vast solar system. Without our atmosphere, life on earth would not exist, as is the case with the Moon and other planets in our solar system.

The evolution of plants, fish and animals started in the sea, where they remained for at least 600 million years. In the absence of a protective ozone layer, the land was bathed in lethal levels of UV radiation. Once photosynthesis raised atmospheric oxygen levels high enough, the ozone layer formed, making it possible for living things to venture onto the land.

The Paleozoic Era or “Age of Fishes” came next, lasting 325 million years, with the introduction of amphibians and insects.



This was followed by 180 million years of the Mesozoic Era, the “Age of Reptiles.” During this era, dinosaurs appeared, as well as small mammals and birds.

After the extinction of the dinosaurs, the last era began 66 million years ago — the Cenozoic Era or “Age of Mammals,” where the continents took their present shape and major developments in all areas of plant and animal life took place. Then, 20 million years ago, scientists say the evolution of humans began.

What comes into question is: Did the development of the earth just happen by chance, or was it orchestrated by God? Was our planet His laboratory where He experimented, tested, selected and rejected, over billions of years, all the variables to create a proper environment for humankind? Variables included ideal climate; a variety of geographical conditions and continents; sustainable ecological environments for a multitude of plant, animal, insect, fish, and all other life on earth, and so much more.

Another question would be: Will a proper environment continue to exist that favors human life, or will another multi-million-year ice age come that wipes out most of the human population and its accomplishments and leaves us lost and at the mercy of a cold and hostile world? Can we trust in the Creator to keep us safe and prospering on our planet, or are we at the mercy of cruel and heartless chance?

It could be argued, from the layman’s perspective, that the Creator carefully and methodically developed life on earth over the last 4.5 billion years, and most recently, around 30,000-100,000 years ago, to prepare an ideal world for us to live in.

Timeline of Human Evolution

- 5.8 MYA*** - Orrorin tugenensis, oldest human ancestor thought to have walked on two legs
- 2.5 MYA** - Homo Habilis appears. Its face protrudes less than earlier hominids, but still retains many ape features. Has a larger brain volume. Hominids starts tradition of toolmaking, which last a million years.
- 1.8 – 1.5 MYA** - Homo Erectus is found in Asia. First true hunter-gatherer ancestor, and also first to have migrated out of Africa in large numbers.
- 400,000 YA** - Early humans begin to hunt with spears
- 230,000 YA** - Neanderthals appear and are found across Europe, from Britain in the west to Iran in the east.
- 195,000 YA** - Our own species Homo Sapiens appears on the scene – and shortly after begins to migrate across Asia and Europe.
- 50,000 YA** - “Great leap forward”: People begin burying their dead ritually; create clothes from animal hides; and develop complex hunting techniques, such as pit-traps.
- 33,000 YA** - Oldest cave art. Later, Neanderthals die out around this time.

*MYA denotes millions of years ago, while YA is years ago.

By John Pickrell

The Five Major “Ice Ages”

An ice age is a period of long-term reduction in the temperature of earth’s surface and atmosphere, resulting in the presence or expansion of continental and alpine glaciers, and polar ice sheets in both Northern and Southern hemispheres. Within each ice age, long-term periods of cold climate are termed “glacials,” followed by warm periods called “interglacials.” By this definition, we are in an interglacial period — the Holocene — of the present ice age.

The five “ice ages” which scientists have discovered might have been part of the process of the Creator, which was essential to the development of life on earth. In this way, God possibly used ice ages to regulate development by wiping the slate clean after experimenting and testing so that She could start new tests and experiments and eventually place humankind on Her ideal world.

For instance, perhaps She created dinosaurs and other ultra-large birds, insects and sea creatures 250

million years ago for the purpose of testing out on a large scale organs, body functions, adaptability, etc. When She was satisfied, She then used a glacial period to clean up Her work, clean the slate, and prepare to refine those results in new, more elegant, streamlined, and beautiful creatures and plants, which would be a part of Her ideal world.

Either by chance, or perhaps by the methodical work of the Creator, the ice ages played a critical role in forming the geography, climate, and life on earth as it exists today.

For example, scientists say the first major Huronian Ice Age, 2.4 to 2.1 billion years ago, was caused by the elimination of atmospheric methane — a greenhouse gas — during the Great Oxygenation Event, also called the Oxygen Crisis. At this time, oxygen levels were dramatically increasing due to the first microbes that began producing oxygen by photosynthesis. This created a new opportunity for biological diversification — but it also threw the chemical balance of the atmosphere dangerously off.

However, through the action of glacial and interglacial periods in this early ice age, the levels of oxygen and CO₂ in the atmosphere were regulated so that the animal and plant life we see today could thrive and not be wiped out. Was that just luck or was it by the Creator's design?

The five major ages in the Earth's history are the Huronian, Cryogenian, Andean-Saharan, Karoo Ice Age, and current Quaternary Ice Age. Outside these ages, the earth seems to have been ice-free even at the poles.

The first four ice ages occurred from 2.4 billion years ago until around 260 million years ago. Then the earth was relatively warm until just 2.6 million years ago when the fifth ice age began.

It started with large ice sheets in Greenland, the Arctic and Antarctic, and with the spread of ice sheets in the Northern Hemisphere. Since then, the world has seen five major glacial and interglacial cycles. The last glacial period started 110,000 years ago and ended around 10,000 years ago. The ice coverage on the earth was not as far reaching as in past ice ages, and the plant and animal life was not completely killed off as in the past, such as when the earth was turned into a "snowball" for around 180 million years in the second major ice age.

What is interesting is that the first four ice ages had alternating cycles of glacial and interglacial periods lasting millions of years. However, in this last ice age, the cycles have been drastically reduced from millions of years to thousands of years, perhaps because the Creator had been at work on the finishing touches of creating and stabilizing the continents, the atmosphere components, fish, and the fauna and flora, with the anticipation of finally bringing humankind on earth.

His last and most important job was to develop an anatomically correct body for humans, in preparation to insert eternal spirits in His children, so that they could fulfill His goal of making humankind His eternal partner and co-creator in both the physical universe and the spiritual world.

With the scientific knowledge and experience the Creator gained from His work with dinosaurs during the Jurassic Period, He was ready to apply that expertise on the more refined and "modern" animals that emerged over the past 60 million years and apply it to the development of prototypes for humans, to prepare a suitable body for the spirits of man and woman. The following chart and timeline of human evolution highlights what we might consider God's preparation to adapt a suitable physical human body to the natural world He had prepared.

The Emergence of Humankind: Children of God

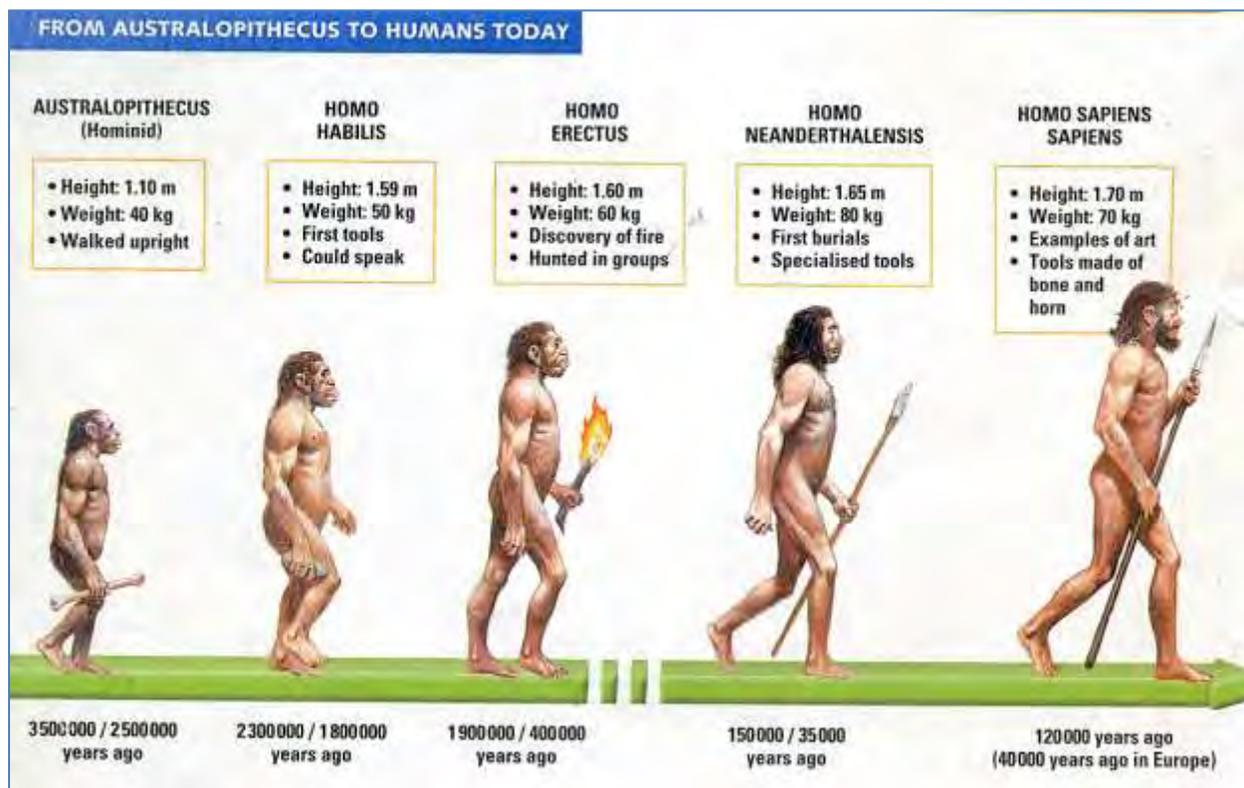
When scientists consider the evolution of man, we often hear how our early ancestors had to battle with and conquer the "hostile" natural world just in order to survive.

Perhaps there is another way of looking at our past evolutionary history. It is possible God was constantly refining the human body of our ancestors of the proto-human type and testing them, to see how they adapted to the natural world, and was making needed adjustments as new and more "modern" humans emerged from Africa and intermingled with earlier hominids. As earlier proto-humans were making critical changes in their biology as they adapted to the environment, God was creating in the latest ancestors that interbred with them, a more sophisticated, beautiful and ideal body.

Neanderthals dwelled in Europe from 230,000 years ago, while homo sapiens arrived around 200,000 years ago, living in tribal communities; mastered tool-making; used fire for cooking and warmth; and began to create a culture that included art, burial rites, and more.

Scientists believe around 150,000 years ago, the earth was coming out of a glacial period into an interglacial period that lasted around 50,000 years, until the temperatures began to decline into a new glacial period. It could have been during this interglacial period, scientists are now saying,

that *anatomically modern humans* — possibly Cro-Magnon — were interbreeding with Neanderthals.



According to a human evolution account, “a sequencing of the Neanderthal genome in 2010 indicated that Neanderthals did indeed interbreed with anatomically modern humans *circa* 45,000 to 80,000 years ago (at the approximate time that modern humans migrated out from Africa, but before they dispersed into Europe, Asia and elsewhere).” As a result of interbreeding, some scientists think modern humans inherited immunity from certain germs and bacteria from Neanderthals, which ensured their survival on earth.

If God, indeed, had been preparing the earth for billions of years for the emergence of humankind, this might have been an ideal time. It is possible God chose two families within a Cro-Magnon tribe, and when a male and female child were each born, He placed the eternal spirit into the infants, elevating the animal race of homo sapiens to children of God — the biblical Adam and Eve.

The rest is history. However, an irony of earth’s and humanity’s history may be that the earth was not too hostile and wild an environment for humankind, but humankind, in disobeying God, became too hostile towards not only the earth — which God so lovingly intended to be our Garden of Eden of harmony, peace and beauty — but tragically, too hostile toward one other.

The ultimate question may not be whether the earth will change to be unable to support life. Rather, will humankind find a pathway back to God to embody His/Her love and bring peace on earth or could we become so violent, we end up destroying ourselves and our planet?

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