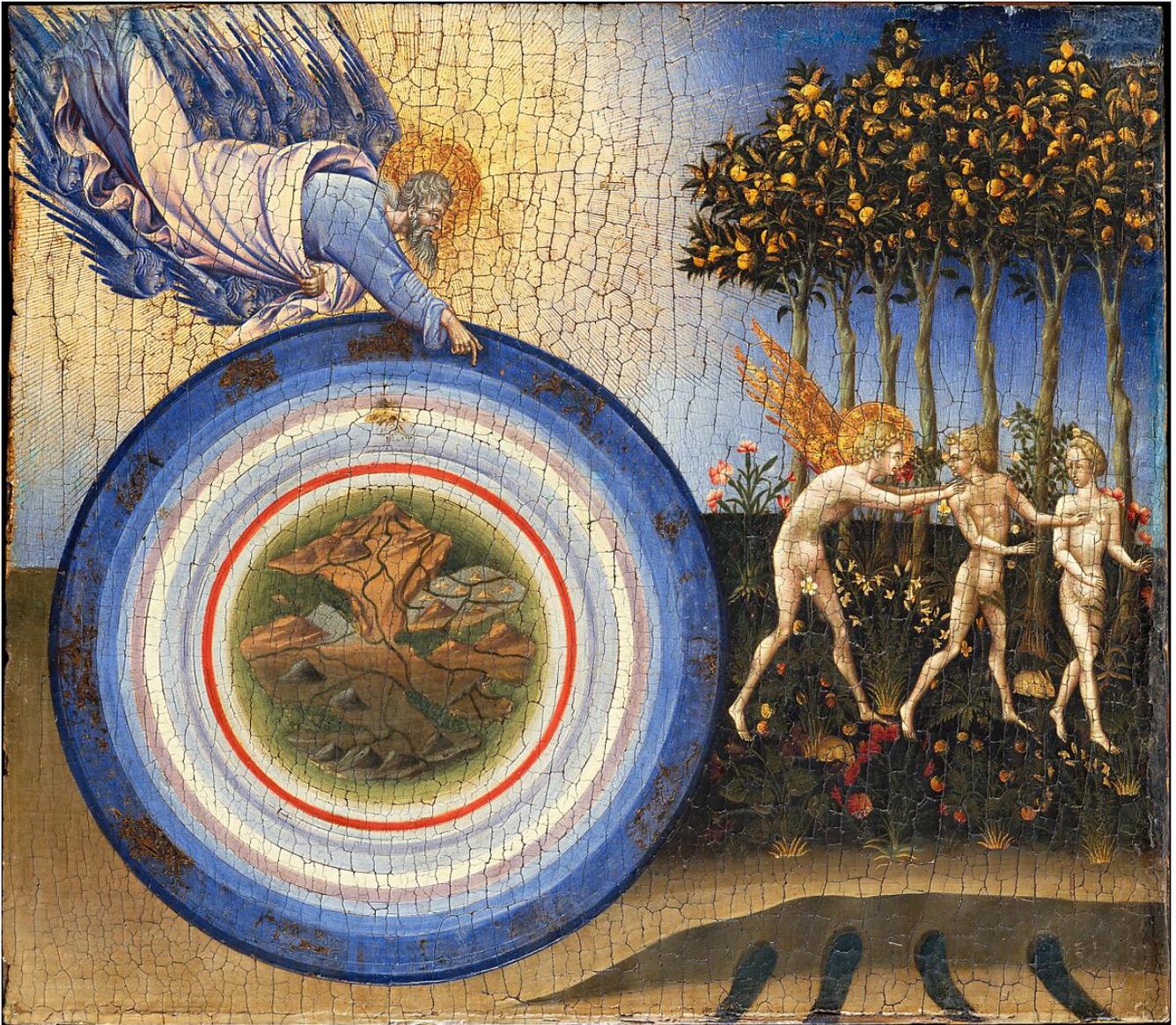


The Nexus of Biology, Astronomy and Geology

by [Armando Simón](#) (January 2024)



The Creation of the World and the Expulsion from Paradise—
Giovanni di Paolo di Grazia, 1445

I ask you to simply open your mind to this possibility. It involves a certain effort.—William Bateson

Nature vs nurture, Creationism vs evolution, volcanism vs extraterrestrial impact, science is at times hamstrung with false dichotomies, the mindset that a particular problem should be viewed one way or the other rather than both combined, or in a totally new manner. Minds are often rigidly set in a particular stance, being unable to go outside the box.

Evolution

The classical theory of evolution, originally put forth by Darwin and Wallace postulated that new species occur in a gradual manner. The theory is simplicity itself. On first learning of the theory, Huxley is supposed to have remarked, "My reflection when I first made myself master of the central idea was, 'How extremely stupid not to have thought of that.'"

Because of population pressure, an organism must compete with other conspecifics for limited resources and mates, so whatever a particular attribute gives it an advantage over its competitors (speed, coloration, aggression, strength, etc.) it will help that organism survive and thrive, and that attribute will be passed off to its offspring. Further novel, beneficial, attributes will repeat the process over and over until the accumulated salutary attributes will result in a new species, different from the original basis. The "retarded" competitors will presumably become eventually extinct through competition from their numerous, improved, "uber-conspecifics." This slow process Darwin called Natural Selection and it is something that has been put into effect by humans on livestock and crops for centuries: the seeds of a bitter-sweet orange that tasted a little bit sweeter and/or was larger than other oranges were propagated by farmers until we now have oranges which are very sweet and larger than the original ones. Similarly with livestock.

Darwin originally thought that Natural Selection was the key to speciation, but Wallace and Huxley dissented. He subsequently put forth sexual selection as another force at work. Darwin also acknowledged that his theory had potential flaws. One was that the fossil record was incomplete. New excavations would hopefully reveal transitions from one species to another (the discovery of the *archaeopteryx* fossil was timely).

Incidentally, Wallace and Darwin were scientists of the first caliber. They are known today for the theory of evolution, but [they](#) also carried out [much](#) scientific [work](#) on [their](#) own. Though it has never been stated before, it is they who are responsible for naturalists (who were simply cataloguing species) becoming biologists.

Although opposition to the theory is usually attributed to religious opposition, it has been forgotten that it was originally opposed by scientists as being pseudoscience (mentioned briefly by [Niko](#) Tinbergen), which explains why neither Wallace nor Darwin was knighted. This was due to some of the absurd claims made by proponents of the theory, e.g., that flamingos' coloration confused predators during sunset and dawn. Opposition was principally dispelled with the rediscovery of Mendel's [experiment](#).

Since then, most of the opposition to the classical theory has been from what are called Creationists, which in turn has spawned the equally dogmatic neo-Darwinists. The latter are in the habit of attacking anyone who criticizes the theory as being Creationists who must be shunned, and their arguments ignored or suppressed. Nonetheless, some criticisms of the theory have been put forth over the years on scientific grounds—as would be normal with any other scientific theory.

In [D'Arcy](#) Wentworth Thompson's *On Growth and Form*, written during WWI and revised during WWII, he put forth a different theory of evolution, to wit, that an organism does not change

into another species gradually *in parts*, but rather changes as *a whole organism* through mathematical transformations. I will go out on a limb and state that biologists have ignored his work in so far as evolution.

[Richard Goldschmidt](#) was a German geneticist who was put in an American internment camp during WWI. He subsequently returned to Germany, then returned to America as a professor. Goldschmidt's work focused primarily on the gypsy moth. In *The Material Basis of Evolution*, published in 1940, he confirmed the mechanism of Natural Selection—up to a point. Morphology of a species would change (e.g., in coloration) as a reaction to different ecologies, which he called microevolution. But they would not change into another species, which he called macroevolution (aka, speciation). Such sudden changes would result in a “hopeful monster.” One could not expect a welcoming reception of his theory in Britain during WWII; no doubt, it also sparked memory of the bitter feud of who first invented calculus, Newton or Leibniz. Whereas Thompson was ignored, Goldschmidt was ridiculed, and the scientific groundwork for his conclusion continues to be ignored in academia through the effective use of snorting and smirks.

Otto Schindewolf was a German paleontologist who was the first to postulate that mass extinctions occur through either extraterrestrial impacts or massive radiation from nearby supernovas (the galaxy rotates on its axis). Studying the records of ammonites and corals he concluded that speciation tends to be abrupt rather than gradual. He was pretty much ignored in America since something written in a language other than English does not exist. Nonetheless, a translation of Schindewolf's 1950 book, *Basic Questions in Paleontology*, was finally translated in 1993.

There are many other problems with the classical theory.

First, after over a century of paleontologists digging up fossils, not a single “missing link” has been uncovered.

Secondly, many specific characteristics of an organism which differentiate it from others have no evident functionality. For example, in my aquarium I had a chocolate chip starfish; its black spots have no evident use, yet they are what differentiates this species from other starfish. Another example involves sundews, of which there are 90 species. If one examines several species of this genus, there is practically little difference from each other, certainly none that enables *Drosera rotundifolia* to thrive better than *D. spatulata* or *D. venusta*, or *D. ultramafica*, or *D. occidentalis*; just look at them (this is why when it comes to evolution plants are rarely discussed).

Lastly, we come to living fossils, animals and plants that exist today, unchanged, for tens if not hundreds of millions of years, yet according to the classical theory, these organisms should have died out long ago, surpassed by superior versions, since evolution is an ongoing process. In fact, they should be unrecognizable, but here they are: shrimp, bison, starfish, sea urchins, horseshoe crabs, sand dollars, bats, crawfish, purple frogs, lampreys, *Chimaera* fish, algae known as *Bangia*, *Voltinia* butterfly, the slug-like *Neopilina*, *Wollemi* pine tree, lungfish, frilled sharks, the tuatara lizard, the large Weta insect and the microscopic *Protulophila*, just to name a few. If they have not evolved after tens of millions of years, or hundreds of millions of years, when exactly, can we expect them to evolve?

And then, there are the stromatolites; for 90% of the Earth's life, they ruled the Earth. Ever since the Precambrian. Even before trilobites. And they are still unchanged.

Mind you, evolution is a fact. The evidence illuminating evolution is overwhelming. It is the *mechanism and the timeline* that comes into question.

Extraterrestrial Impacts

For the longest time, scientists firmly believed that impact by comets and meteors had occurred billions of years prior and since then not a single one had occurred. When confronted with contradictory evidence, they resorted to denial. I distinctly remember the Tunguska impact being put in the same category as Bigfoot and the Bermuda Triangle. Arizona's meteor crater was attributed to volcanism. However, a number of French scientists as early as the end of the 1700s were more realistic. Georges [Cuvier](#): "Everyone now knows that the globe we live on displays almost everywhere the indisputable traces of vast revolutions; the varied products of living nature that embellish its surface are just covering debris that bears witness to the destruction of an earlier nature."

In 1994, the Shoemaker-Levy comet broke up and smashed into Jupiter. With this event, on top of the previous discovery by the Alvarez team of a worldwide iridium layer in the strata (which ended the dinosaurs), the world's zeitgeist suddenly changed. Once the blinders were taken off, impact craters that had been present throughout Earth were acknowledged, having impacted millions of years after the origins of the planet.

Recently a Japanese amateur astronomer photographed an impact on the moon. A future impact with a bolide may not be a question of "if," but "[when](#)." Smith's Law for comets: "Anything that did happen, can happen."

Further investigations revealed that some craters coincided with mass extinctions, which were followed by mass speciation. One particular epoch is referred to as The Great Ordovician Biodiversification Event.

We must now consider geology and how they all tie together.

Volcanism

At certain periods of time, massive volcanism has occurred. Not firecrackers like Krakatoa or Vesuvius, but gargantuan rips in the earth's crust where torrents of lava have poured forth for long periods of time, releasing voluminous toxic gases. [These](#) areas are called basaltic traps. Like the extraterrestrial impact craters, they are found around the world and can be imagined as having been gaping wounds pouring forth blood (lava). They are enormous. And numerous: Caribbean Large Igneous Province, Emeishan Traps, Skagerrak-Centered Large Igneous Province, Ethiopia-Yemen Continental Flood Basalts, North Atlantic Igneous Province, Ontong Java Plateau, Rajmahal Traps, Paraná-Etendeka Traps, etc. The more dramatic ones are the Deccan Traps (associated with the dinosaurs' demise) and the uber-gargantuan Siberian Trap (associated with the Permian extinction where all life came within a hairs' breath of extinction).

How and why they occur is not known.

Supposedly, flood basaltic eruptions just happen.

Consequently, some geologists attribute mass extinctions to basaltic traps instead of extraterrestrial impacts since they occurred near the timeline of the demise. It is a reasonable conclusion.

Putting it all together

The earth is a gigantic ball of churning, molten lava, superimposed by an eggshell-thin cooled crust on which life lives. It helps to envision this if one thinks of a gigantic ball whose diameter is the size of a ten-story building covered by an eggshell. The biosphere actually rests on that eggshell. Russian scientists at the Kola peninsula attempted to drill through the earth's crust: the earth's crust is a mere 25 miles deep (40 km). That is less than half the distance from Austin to San Antonio, less than a half hour's

drive by car.

Further, take also into consideration that in many parts of the planet, the Earth's crust is somewhat hollow; by this I mean that there are gigantic, cavernous, aquifers. They are geological bubbles. The Ogallala Aquifer, for example, covers eight states in North America, while in South America the Guaraní Aquifer includes Uruguay, Paraguay, Brazil and Argentina.

Thusly, a large enough meteor travelling at the speed of a bullet and at the right angle can shatter and shatter the earth's ultrathin crust at the point of impact and create basaltic traps. Others cannot, depending on the size of the asteroid, the speed, and the angle of trajectory: for example, the Chesapeake Bay impact crater was only able to penetrate to 5 mi/8km of the surface.

As a result, it is absurd to think of mass extinctions as being either/or. Mass extinctions occurred because of extraterrestrial impact trauma followed by catastrophic volcanism lasting long periods of time. Each time it happened it was hell on earth.

The fossil record is now quite clear. Some scientists using massive amounts of data, have conclusively proven that initially after a mass extinction there is a burst of speciation, followed by a decline and stasis. Speciation, therefore, is not a gradual process resulting from Natural Selection. It is sudden. There are no missing links, no intermediate species. New species abruptly occur soon after extinction. This is not because the ecology has cleared and old species become radically modified through evolution. After all, when a red tide wipes out a specific marine ecology no new species suddenly appear, rather others migrate to the new locale; similarly, when a high-rise condominium becomes vacant, humans don't evolve wings in order to be the first to reach the penthouses.

Evolution, therefore, is exogenous, not endogenous. That is, evolution is *imposed* on organisms through catastrophic alterations in the environment which affect the genome. It is what I call the McClintock Effect, named after the Nobel Prize winner geneticist Barbara McClintock, whose research in maize showed that the genome is altered through environmental trauma (in her Nobel lecture, she herself hinted at the relevance to evolution).

To reiterate: every major extinction event has been accompanied by an astronomical impact, followed by flood basaltic eruption, resulting in extinction of species and a subsequent, sudden, diversification of new species. This diversification in phenotypes is due to the stress-induced alteration of the transposon-derived repetitive sequences, very much like the letters of the alphabet can be rearranged to form new words, as well as symbiogenesis, heterochrony, heterotopy, and epigenesis.

This hypothesis is a better fit than the Natural Selection hypothesis.

The riddle of *Homo sapiens*

There is something fundamentally wrong with our view of early man. The emergence of *Homo sapiens*—depending on which authority one consults—has been placed at anywhere between half a million years ago to fifty thousand years ago. Yet, throughout that time, it was not until the end of the last Ice Age, with its accompanying extinctions, that humans began to form settlements of any sort from which sprung civilizations. There is wilderness all around and, relatively suddenly, we have the Neolithic Revolution of 11,700 years ago when agriculture first developed. Advanced civilizations began to occur around 8,000 B.C. (7500-year old impact craters have been found in Estonia).

There were settlements around seashores and riverbanks. Living near rivers was an obvious, logical choice. One never died of thirst even in times of drought and starvation was almost impossible: food was always available even if one did not know how to make a boat. More importantly, with time, one could see that seeds falling in the moist ground took root, hence the invention of agriculture. It was certainly a superior way of life than a nomadic one. And, once a settlement is established, civilization is not too far behind. And yet, for tens of thousands of years prior, humans do not seem to have formed settlements. True, we have unearthed areas where stone tool making took place, but they are not what we consider true settlements. And also true that it is possible that primitive settlements may have occurred prior to 10,000 B.C. (but if so, they have not been found).

What about a possible alternative: what if the wiring in our brains was changed in some manner around the time of the end of the Ice Age—such as complex formation of language—that ultimately led humans to form settlements? Certain changes in morphology through evolution can be seen and touched in the fossil record, but changes in the soft tissues like skin color is another matter. Internal changes through evolution may occur in animals and humans and we would not be able to recognize it from the fossil record. Ten thousand years ago there was climactic stress and there was widespread extinction of the mammalian fauna (we are now at the very tail end of the Age of Mammals; mammals truly flourished tens of thousands of years ago and the size of mammals then was impressive, whereas now the number of large terrestrial mammals can be counted in the fingers of one's hands).

Approximately 10,000 years ago there was a sudden turnover of species, when gigantic floods took place, when other hominids (such as the Neanderthals) vanished, the Ice Age ended, when man probably changed physically into races and, most, importantly, got down to the business of building

civilizations after tens of thousands of years living like animals.

It is possible that a small comet(s) crashed into the northern hemisphere at that time, whose impact caused a terrific heat blast(s) that melted the continent of ice, resulting in a worldwide flood. It might explain the ancient superstition, handed down through millennia, of comets being harbingers of catastrophe. Pure speculation, of course. Except that evidence has been found of multiple extraterrestrial impacts during the Younger Dryas by a fractured comet.

Furthermore, extinctions during The Age of Mammals have been absurdly attributed to overhunting by humans, particularly in the New World. While it could apply to a few individual species, it is unrealistic to attribute it to humans. Mammoths, mastodons, glyptodonts, giant sloths and giant camels had to contend with saber tooth tigers and giant hyenas—and there is nothing more vicious than a hyena, regardless of size. Besides what killed the giant predators? Therefore, the arrival of humans and the extinction of large mammals must be seen as a correlation, or a parallel event and not as a cause-and-effect relationship. Besides, if the theory of man as a superpredator is true, why do we still have bison and bears? Why are elephants and gorillas and rhinos still around—now that Africans have rifles? The theory that it was humans that wiped out the giant mammals is as absurd as the old theory in paleontology that it was the egg eating rodents that killed off the dinosaurs—even the oceanic ones.

Something to think about.

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