

Biblical Faith & Modern Science

Evolution and The Fossil Record

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Introduction: In 1859 Charles Darwin published his classic book, *Origin of the Species*, that promoted a view of naturalistic, chance-through-time evolution of life without reference to any need of divine intervention, and a major conflict between science and religion was seemingly born. As English scientist Richard Dawkins has noted, "Darwin made it possible to be an intellectually-fulfilled atheist." In 1925 this confrontation between Darwinistic evolution and biblical creation came to a head in Tennessee with the famous Scopes "Monkey Trial"--loosely (and inaccurately) portrayed in years since by the stage drama *Inherit the Wind*--a play that pitted the agnostic Clarence Darrow and the ACLU who represented biology teacher John Scopes (accused of teaching evolution) against the State of Tennessee, represented by William Jennings Bryan. While evolution lost in court, it won the day so far as the media was concerned, and since that time there has been a 180 degree shift in academia toward the exclusive teaching of evolution. Many scientists staunchly affirm that evolution is integral to all disciplines of science; at the same time, belief in evolution--and the atheism it has fostered--has been a justification for racism and oppression (e.g., Hitler's application of Darwinism and Nietzschean philosophy). Countless youth have turned away from their religious upbringing when exposed to its implication that there is no need for a Creator and are supposedly forced to choose between "blind faith" or "reason." Yet what the schools and media so often fail to tell us is that, as scientist Michael Denton has pointed out, evolution is "a theory in crisis" and the so-called "proofs" offered for it rest on a very faulty foundation.*

The Fossil Record

According to Charles Darwin, naturalistic (undirected, chance-through-time) evolution is descent from a common ancestor through a process of gradual change by means of small (virtually imperceptible), beneficial mutations in the genetic code and natural selection, whereby the more highly adapted or fit specie reproduces in larger numbers (survival of the fittest).

- Two Models and Two Predictions -

Fossilization is a rare event in nature (it is hardly ever seen today), typically occurring under quick burial in water-laid sediments. Even so, there is a rich fossil record in the rocks to draw from, existing in worldwide deposits so extensive in places that they are often termed "fossil graveyards." If naturalistic evolution is true, the rock strata (layers) should show--from older rock to more recent--a gradual transformation from the simplest forms of life capable of leaving a fossil to more complex forms of life, over millions and millions of years, passing through innumerable intermediate stages. In fact, if there is one thing that ought to be found in these large fossil beds it is transitional forms! On the other hand, if more direct creation is responsible for life, then we would expect to see a sudden outburst of highly complex plants and animals in the fossil record, with vast

Additional Notes

Did everything come about by chance or by design? Atheism, of course, denies any supernatural involvement, whereas those who hold to *intelligent design* take one of three views. Altogether, the options are:

1. **Naturalistic evolution** (Darwinism) - everything arose by purely natural processes occurring by chance operating through time, apart from divine aid.
2. **Theistic evolution** - God utilized and guided the process of evolution.
3. **Progressive creation** - God intervened at various points of the earth's history with creative acts (e.g., first members of each animal *kind*), apart from evolution. This view usually employs the "day-age" allegorical interpretation of Genesis chapter one.
4. **Direct ("fiat") creation** - God created the universe and all life in six 24-hour days (a literal interpretation of Genesis chapter one).

**The influence of evolutionary theory on fields far removed from biology is one of the most spectacular examples in history of how a highly speculative idea for which there is no really hard scientific evidence can come to fashion the thinking of a whole society and dominate the outlook of an age. . . One might have expected that a theory of such cardinal importance, a theory that literally changed the world, would have been something more than metaphysic, something more than myth."*
- Michael Denton, *Evolution: A Theory In Crisis* (Adler & Adler Publ., 1985), p. 358

Note that, despite the millions of buffalo that once roamed the great plains of our country, no fossil remains exist. This is because all parts of an animal--both flesh and bones--eventually decompose under normal conditions of decay and burial.

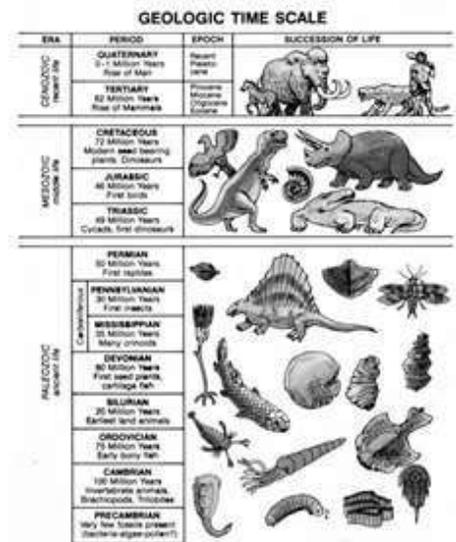
numbers of great diversity but with no intermediate forms, i.e., animals reproducing *after their kind* (Gen. 1:11-13, 20-25).

- The Nature of the Evidence -

Relatively few fossils were available for study in Charles Darwin's day, since paleontology (the study of prehistoric forms of life) was just emerging as a field of scientific investigation. Darwin believed that, in time, his theory would be vindicated in the rocks. In actuality, more digging and the countless fossils unearthed since his day have not provided the evidence Darwin anticipated, for the fossil record has revealed systematic gaps between plant and animal kinds, i.e., a noticeable *lack* of transitional forms. Indeed, the late Harvard paleontologist and popular authority on naturalistic evolution, Stephen Jay Gould, remarked that, "*The extreme rarity of transitional forms in the fossil record exists as the trade secret in paleontology.*"*

- **Record of plants** - Major plant kinds have appeared abruptly in the fossil record, without predictable transitional forms. Darwin referred to the origin of flowering plants as an "abominable mystery." It still is, and the same could be said of seed-bearing plants.
- **The "Cambrian explosion"** - To the surprise (and embarrassment) of evolutionists, complex multicellular animals appear suddenly in the lowest fossil-containing rock (Cambrian), e.g., trilobites with highly developed vision as structurally complex as lobsters, yet without the expected transitional forms in lower (Precambrian) rock.
- **Hopeful monsters and punctuated equilibria** - Some evolutionists in the past century attempted to resolve the dilemma of the lack of transitional forms by supposing there must have been great mutational "jumps" from one animal kind to another.
 - One scientist (R.B. Goldschmidt) proposed a "hopeful monster mechanism" which theorized that, for example, at one time in the distant past a mother reptile laid an egg and a *bird* was hatched from that egg! His proposal was laughed off as ridiculous by others who pointed out that there was no evidence whatsoever to support such a mechanism and that it violated known principles of genetics.
 - In 1972 Niles Eldridge and Stephen Gould offered a slightly modified version of the above but with a classier name--"punctuated equilibria"--theorizing that rapid evolution occurred when a few individuals of a specie became isolated, perhaps underwent

*"Evolutions Erratic Pace" *Natural History* (Vol. 86, May 1977). Gould went on to state, "*The evolutionary trees that adorn our textbooks have data only at the tips and nodes of their branches; the rest is inference, however reasonable, not the evidence of fossils.*"



Depiction of the supposed evolution of life along with the geologic column

In the early 20th century, evolutionary theorist Sewell Wright pointed out that after having recorded 100,000 newborn guinea pigs and hundreds of mutated "monsters," none had appeared even remotely "hopeful," all having died shortly after birth. Virtually all *significant* (e.g., structural) mutations that have been observed in nature or the laboratory have proved harmful.

environmental stress, and mutated into new forms that eventually proliferated into large populations.

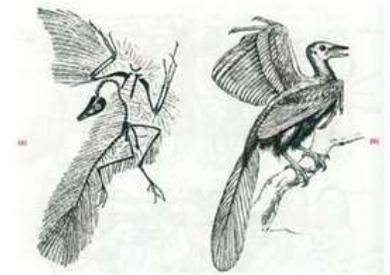
- Perhaps the most significant aspect of the above view is that it is not based on any direct scientific evidence but only on lack of evidence!

- Textbook Examples -

Popular, supposed "proofs" of evolution have been offered for decades in biology books, becoming what molecular biologist Jonathan Wells calls "icons of evolution" that persist despite exaggerated assertions and outright deceptions.*

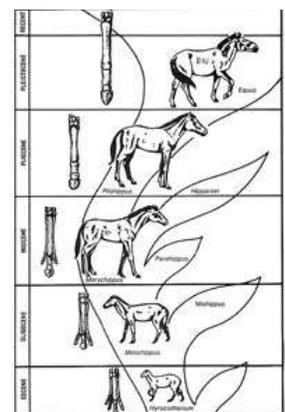
- **Archaeopteryx** - A fossil bird hailed as a transitional form between reptile and bird because of alleged reptile-like features consisting of claw-like appendages on the wings, teeth, and vertebrae that extend out along the tail.
 - However, other extinct birds had teeth
 - Several species of birds today have claws on their wings (more pronounced on the ostrich)
 - The March 1979 issue of *Science* magazine produced evidence that Archaeopteryx feathers were like those of modern birds (asymmetrical--designed for flight). It flew! But *nowhere* is there found a true transitional form with half-wing and half-leg.
 - Modern appearing birds have been found in rock strata dated *older* than archaeopteryx, so how could it have been the ancestor of modern birds?
- **Horse series** - Different fossils were originally portrayed showing evolution from a small four-toed creature to three-toed and finally single-hoof animal.
 - the fossil of the small, four-toed Eohippus ("dawn horse") is no longer regarded by many in the lineage of the horse at all; in fact, it most closely resembles a modern hyrax or rock badger.
 - There are no transitional forms between these fossil types (some have browsing teeth, some grazing teeth and numbers of ribs differ), and the John Day country of Oregon has produced both three-toed and one-toed horse fossils *from the same rock strata!*
- **Haeckel's embryos** - A German biologist, Ernst Haeckel (1834-1919) made drawings of vertebrate (with backbone) embryos that showed similarities in their development, indicating a common ancestry through evolutionary stages (e.g., "gill slits" in the human embryo as it progresses through the "fish stage").
 - biologists have known for *over a century* that Haeckel

*For a more thorough critique of these popular "proofs," see Jonathan Wells' book *Icons of Evolution* (Regnery Publ., 2000)



Archaeopteryx

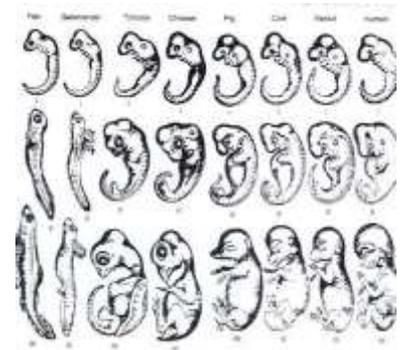
One must use great caution when confronted by "new discoveries" in the media that supposedly support evolution. In November 1999 *National Geographic* magazine, all too eager to hail new proofs of evolution, thoroughly embarrassed itself by featuring a new fossil discovery from China dubbed *Archaeoraptor*, beautifully illustrated on its cover as a transitional form between reptile and bird. Soon afterward a Chinese paleontologist proved that the specimen was a forgery--a small dinosaur tail had been glued onto the body of a primitive bird.



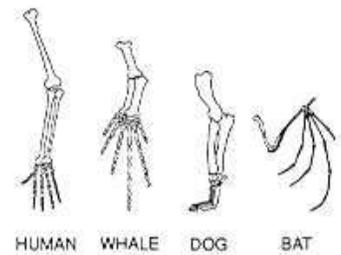
Supposed evolution of the horse (Eohippus - Mesohippus - Merychippus - Pliohippus - Modern horse)

greatly exaggerated the supposed similarities--he not only distorted the drawings but omitted earlier stages in the embryos that look quite different.

- lines in the human embryos that were once thought to be formative "gill slits" actually have nothing to do with developmental breathing apparatus but form the lower jawbone.
- **Comparative anatomy (homology)** - similarities in bone arrangements (e.g., forelimbs of vertebrates) suggests common (evolutionary) ancestry.
 - A problem with this view is that scientists now know that such homologous features are not due (as would be expected) to similar genes among species, so the means by which they are produced is unknown.
 - Aside from that, not only is homology given as evidence of common evolutionary descent, it is generally defined as similarity of structures due to common descent, which is nothing more than arguing in a circle ("homology reveals common ancestry which expresses itself as homology")
 - homology can also be interpreted as a common method of *design*, e.g., using similarities of structural supports and function as each animal is subject to the same gravity, atmospheric pressure, etc., much like the construction of variously designed bridges is still based on common engineering principles.
- **Peppered moths and Darwin's Finches** - a classic demonstration of natural selection at work is the color changes seen in the peppered moth. Photos in text books show both light and dark-colored peppered moths resting on light or dark-colored bark of trees, one or the other camouflaged respectively. As tree bark in English cities became darkened from soot caused by the industrial revolution, light colored moths were picked off by birds and, by natural selection, darker moths prevailed. Such genetic change was hailed by some as the most fabulous example of evolution ever witnessed.
 - Since 1980 it has been known that peppered moths do not naturally rest on the bark of trees. The photos still seen in biology text books were all doctored, with dead peppered moths having been glued onto trees to illustrate scientist's conclusions.
 - Beyond that, what does this prove? Such natural selection merely shows adaptation and variation *within a species!* Not only are the bugs still moths, they are



Haeckel's Embryos



Homologous structures (forelegs)



Peppered moths showing color variation

still *peppered* moths! To extrapolate such variation *within* a specie--commonly seen in the animal kingdom (e.g., varieties among dogs, cattle, etc.)--in order to demonstrate changes from one animal kind to another is pure, undocumented speculation!

- Likewise, Darwin formulated his theory while observing changes in the shape of the beaks of finches on the Galapagos Islands, due to environmental differences. But the changes were limited within *birds*, and *finches* of the same specie.

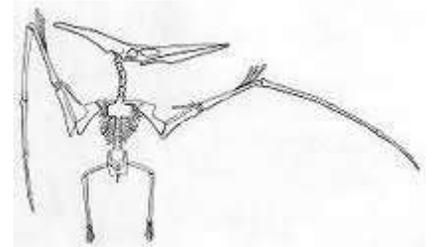
Complex Structures: Design or Accident?

- Limits of Mutation -

Undirected chance-through-time is a deficient mechanism (and false "god") for producing major changes and specific structures.

- **Wings** - It is believed that wings evolved from forelegs. If so, such evolutionary changes would have occurred over millions of years, with innumerable transitional forms.
 - Whether one believes in wing flaps evolving from four-legged crawlers who leapt from trees or flapping forelegs that somehow assisted dinosaurs who ran on two legs, a transitional form between a leg and a functional wing would *not* be a beneficial change.
 - This is glaringly illustrated by the wings of prehistoric flying reptiles, e.g., pteradactyls, whose wings (sometimes 40 feet across!) were formed by what is in fact a greatly elongated little finger and membrane (see diagram). Imagine the difficulty such a transitional animal would have in getting around with a little finger/claw that had evolved to a length of only five feet--too small for flight and too clumsy for running! Natural selection would have *eliminated* it!
- **Mammary gland** - Mammals supposedly evolved from reptiles, most of which lay eggs and all of which produce young who must fend for themselves so far as food is concerned. What possible advantage could an evolving mammary gland be, since many evolutionary generations of young would still be off searching for food elsewhere?
- **Whale** - a great embarrassment to evolutionists is the whale. Why? The whale is a mammal, not a fish; so, according to evolution, it must have evolved from land mammals (such as hippos) which had evolved from other four-legged mammals, which evolved from reptiles,

Similarly, Darwinists point to mutations in some bacteria that effect resistance to drugs as "compelling evidence" for evolution. But the mutations still produce just bacteria, and only bacteria of the same specie.



A skeleton of a giant Pteranodon, showing a wingspan that was supported by what amounts to an elongated little finger digit.

which evolved from amphibians, which evolved from fish, all over a period of about 300 *million* years, with each stage of development ultimately producing an animal more highly adapted to mobility on land. Is it reasonable to suppose such a process would have somehow "turned around and gone backwards," evolutionarily speaking, so as to loose limbs, evolve flippers and a tail, and grow to an enormous size?!

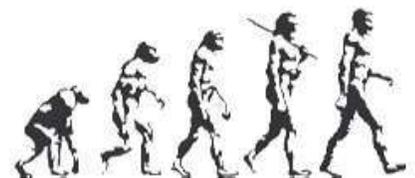
- Limits of Natural Selection -

Good science is about what can be observed, and what can be observed--both from the fossil record and among living plants and animals today--are distinctive *kinds* of living forms as predicted in the opening chapter of Genesis where God created them to reproduce *according to their kinds* (vv. 11-13, 21, 24-25). A *kind* is a broader category than a *specie*; for instance, the dog "kind" might include wolves, coyotes, jackals, etc. that are able to interbreed and produce fertile offspring, indicating a possible common ancestry. From the genetic richness of various *kinds* of living things God created a variety of species, and various forms have descended according to natural selection and selective breeding (note the amazing varieties of dogs, cattle, roses, etc.--even people!). Such "micro-evolution," as it has been called, is readily apparent, as opposed to *macroevolution*--change from one *kind* of creature to another--which is not.

Fossil Men

The supposed human evolutionary line of *Australopithecus* - *Homo habilis* - *Homo erectus* - *Homo sapiens* is popularly depicted in scientific books and articles. But, as with the fossil record of animals, huge gaps and a lack of transitional forms characterize the supposed "evolutionary ascent of man." Most reconstructions come from a few bone fragments, and scientists (guided by evolutionary prejudice) have been quick to make bold claims about their highly imaginative depictions of "ape-men," Some notable examples:

- **Java Man** - a discovery in Java by Eugene Dubois consisted of a skullcap, left thighbone, and three teeth. The bones were not found together or at the same time (they may not have been parts of the same creature), and Dubois concealed for 30 years the fact that modern human bones were found at the same level of strata.
- **Peking Man** - fragments of skulls, jaws, and teeth found in China in the 1920's. Almost all of the original bones were lost during World War II, but French anthropologist



Common depiction of the evolution of man

Marcellin Boule had examined the original bones and declared they were monkey-like (becoming more man-like in succeeding reports).

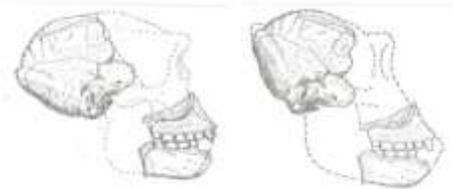
- **Neanderthal Man** - originally depicted as a stooping, brutish man-ape; later studies on the specimen revealed it had had arthritis (hence the stooping posture). More specimens discovered since have shown brain capacities and other features essentially the same as modern man's. They used fire, made stone tools, lived in social groups, and buried their dead.
- **Cro-Magnon Man** - essentially modern man; had on the average a larger brain capacity and was physically taller!

More recent discoveries in the latter part of the 20th century by Louis and Richard Leakey and others in Africa caught the world's attention.

- **Ramapithecus** - reconstructed from a handful of teeth and jaw fragments, yet presumed to walk on two legs! Dr. Robert Eckhardt, a paleontologist at Penn State, found a greater variation between teeth of living chimpanzees than Ramapithecus and a fossil ape.
- **Australopithecines** - considered by many to be intermediate between man and the apes, primarily because of dental characteristics and alleged evidence of bipedal (two-legged) gait. However, there is no definitive agreement among modern anthropologists as to whether this creature was a predecessor of man or just an ape. Its cranial capacity (500 cc) was unquestionably ape-like and, although they are placed in man's lineage due because of dentition, they share many dental and facial characteristics with a modern variety of baboon.
- **Homo Habilis** - dubbed "handy man" because Leakey believed it was a user of tools. It possessed a slightly larger cranial capacity than the above (650 cc; modern man averages 1450 cc) and has been judged by some as being simply a variety of australopithecus.
- **Homo Erectus** - Java Man and Peking Man are now lumped into this category, although they were undoubtedly apes. Other fossils assigned to Homo Erectus may be true men, since some have said that these fossils would have been assigned to Neanderthal man but for the fact that their alleged ages are too old.

Conclusion: It can be reasonably stated that "fossil men" are either true men or true (extinct) apes--not intermediate "links."

In their eagerness to support their view, evolutionists often jump to conclusions. *Nebraska Man*, used to support human evolution at the famous Scopes trial in 1925, was nothing more than a fossil tooth, later determined to be that of an extinct pig. *Pitldown Man*, a fossil skull discovered in a gravel pit in England in the early 20th century, seemed to provide the perfect transitional form between ape and human. Nearly 50 years later it was revealed to be a hoax--someone had placed the skull of a modern human along with the jawbone of an ape and treated them to look ancient. It should also be noted that the *fleshy* parts of a person's face--e.g., nose, ears, as well as hair--and certain arrangements of the bones cannot be determined by the fragments alone and are often a product of an artist's imagination. Depictions of the same fossil can therefore be modern-looking or somewhat ape-like depending on one's biases.



At left, a reconstruction by Weidenreich (China, 1939) of *Pithecanthropus*--a variety of *Homo erectus*--showing part of the skull along with a lower jaw that was found at another site. At right are the same pieces superimposed over the outline of a gorilla.