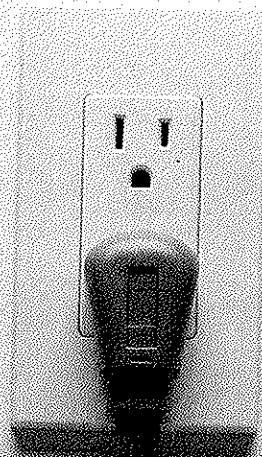


crisis

Politics, Culture, and the Church

Bishop John C.
Nienstedt on the
UN's Family
Planning Agenda

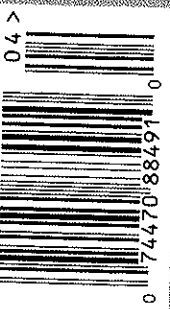
Pulling the Plug: How to Talk to the Left About Euthanasia



April 2006

\$3.95

www.crisismagazine.com



An Evening
with Darwin

modern
OF A
. All other
ue to
tory, which
mans
or.



Diagram in front of you depicts one hypothesis
than six million years of hominid evolution
lines connect ancestral species to their descendants
bars represent the current understanding of dates
species

The diagram is a complex phylogenetic tree of hominid evolution, showing the relationships between various species and their common ancestors. The tree is based on a hypothesis of evolution, and the lines connect ancestral species to their descendants. The bars represent the current understanding of dates for the species.

AN EVENING WITH DARWIN IN NEW YORK

By George Sim Johnston

In New York, it's been the season of blockbuster exhibits. Fra Angelico and Van Gogh had spectacular shows at the Met, while a few blocks north the Guggenheim offered the best retrospective of Russian painting ever mounted. But the Museum of Natural History has grabbed most of the headlines by putting on an elaborate show with a simple title: *Darwin*. It's doubtful that a science exhibit has ever received so much attention. *Newsweek* and CNN covered it as breaking news, while the *New York Times* published a rave review and an approving editorial. The show is also striking deep chords with the public. The night I went, one bohemian-looking father was solemnly guiding his young son through the displays about evolution as though this were catechism class—which, in a way, it is for a modern secularist.

The show presents the life and ideas of the great evolutionist, and its tone is frankly triumphalist. Darwin's theory, we are told, "underlies all modern biology. It enables us to decipher our genes and fight viruses, and to understand Earth's fossil record and rich biodiversity.... [T]he theory remains unchallenged as the central concept of biology." A subtext of the show is that scientific doubts about the theory were cleared up long ago and that opposition now comes only from Fundamentalists who insist on reading Genesis as a scientific textbook. A bogey haunting the exhibit is Intelligent Design, which is politely but firmly dismissed as a wedge for religious beliefs that have no place in science.

Catholics, of course, are not troubled by the idea of evolution. As G. K. Chesterton put it, "If evolution simply means that a positive thing called an ape turned very slowly into a positive thing called a man, it is stingless for the most orthodox; for a personal God might just as well do things slowly as quickly." Pope John Paul II, who addressed the issue on several occasions, said that the Church has no problem with evolution, or with the possibility that the first humans had biological antecedents, so long as God is not kept out of the big picture.

But the Church does have a problem when Darwinists become crusading materialists bent on turning God into an irrelevancy. It's a mission they find quite appealing. And once they start behaving like agents of enlightenment, rather than scientists, they tend to play shell games with the evidence. Their language becomes slippery and their methodology dubious. But they get the result they want: a vague, widespread impression among the "educated" public that Darwinism has solved all the mysteries of creation.

Skull wall in the *Darwin* exhibit at the American Museum of Natural History © Denis Finnin, AMNH

Darwin comes close to making that claim, and so it's worth taking a critical look at what it has to say. The show, it turns out, is almost a caricature of what Stephen Jay Gould once called Darwinian fundamentalism.

We may as well begin with the fossils. The show tells us that Darwin's theory helps us to "understand" the fossil record. This is odd, because the exhibit's curator, the paleontologist Niles Eldredge, has written extensively about how Darwin's idea of gradual evolution has never been supported by the fossils and certainly doesn't explain them. In *Reinventing Darwin*, Eldredge talks about a problem that won't go away:

No wonder paleontologists shied away from evolution for so long. It never seems to happen. Assiduous collecting up cliff faces yields zigzags, minor oscillations.... When we do see the introduction of evolutionary novelty, it usually shows up with a bang, and often with no firm evidence that the fossils did not evolve elsewhere! Evolution cannot forever be going on somewhere else. Yet that's how the fossil record has struck many a forlorn paleontologist looking to learn something about evolution.

This is the verdict of modern paleontology: The record does not show gradual, Darwinian evolution. Otto Schindewolf, perhaps the leading paleontologist of the 20th century, wrote that the fossils "directly contradict" Darwin. Steven Stanley, a paleontologist who teaches at Johns Hopkins, writes in *The New Evolutionary Timetable* that "the fossil record does not convincingly document a single transition from one species to another." Eldredge writes in another book with Ian Tattersall: "It has become abundantly clear that the fossil record will not confirm this part of the theory [the existence of close transitional forms] or Darwin's predictions. Nor is the problem a miserably poor record. The fossil record simply shows that this prediction was wrong."

The failure of the fossils to confirm Darwin's theory was one reason that paleontology went into a long eclipse after Darwin published his book. The scientific establishment simply did not want to hear about its findings. As John Maynard Smith puts it, "Any paleontologist rash enough to offer a contribution to evolutionary theory [was told] to go away and find another fossil and not bother the grownups"—the "grownups" being the geneticists who controlled what Smith calls the High Table of evolutionary discourse.

What do we actually know about the history of life on earth? Bacteria, which are highly complicated packages of

genetic information, appeared 3.8 billion years ago. The nucleated cell arrived perhaps 1.2 billion years ago; its sudden advent, in the words of one scientist, "marks the greatest known discontinuity in the sequence of living things." This pattern of abrupt and spectacular jumps continued with the Cambrian explosion 550 million years ago, when, within a geological blink, the seas were teeming with mollusks, jellyfish, trilobites, and other creatures for which there is not a single ancestral fossil. Darwin wrote of the Cambrian: "The case at present must remain inexplicable; and may be truly urged as a valid argument against [my theory]." Subsequent digging has not filled the gaps. Richard Dawkins writes that

to question his theory. But far from being daunted, modern Darwinists resort to one of two strategies: They either adduce as evidence for their theory data that really contradict it, or they devise patches, like the theory of "punctuated equilibria," whose purpose is to shelter the theory from empirical falsification.

Eldredge writes that Darwin's discussion of the gaps in the geological record "is one long *ad hoc*, special-pleading argument designed to rationalize, to flat-out explain away, the differences between what he saw as logical predictions derived from his theory and the facts of the fossil record." This would make an interesting text for the fossil displays in *Darwin*. It

To call the mutations of bacteria or finches "evolution" is to fudge the issue. Species, no matter how adaptable, are hard-edged and never cross major boundaries, as Darwin's theory demands. The semantic shuffle from "variation" to "evolution" nonetheless fools a lot of people.

it is as though the Cambrian fossils "were just planted there, without any evolutionary history."

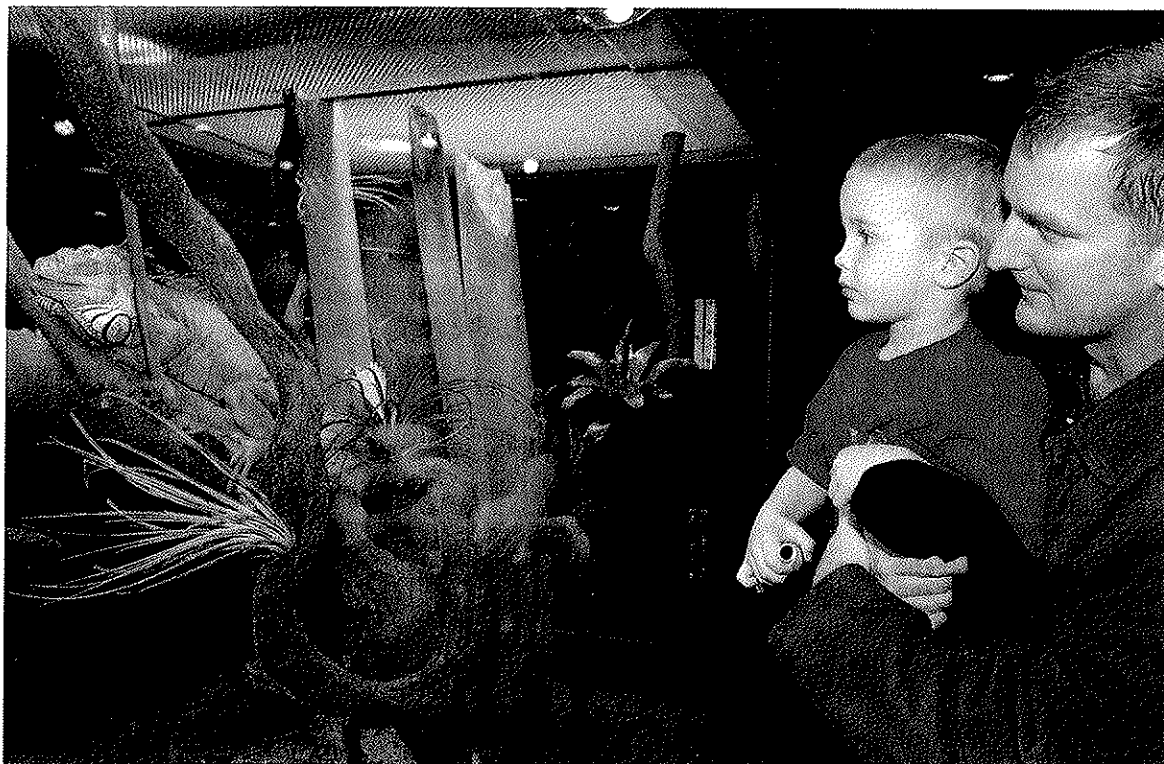
All the major body plans—arthropods, chordates, etc.—appeared in the Cambrian or shortly thereafter. There have been no new ones since, which is not what Darwin's model would predict. More importantly, since the Cambrian, we see species being replaced by later species, not evolving into them. New species appear fully formed and change little or not at all until becoming extinct. (Ninety-nine out of 100 species are extinct.) Bats, orangutans, bees, turtles all appear out of nowhere and remain pretty much what we see today. There are no transitional forms to speak of. According to Schindewolf, the gaps between species "are not to be blamed on the fossil record; they are not an illusion, but the expression of a natural, primary absence of transitional forms."

When he wrote the *Origin of Species*, Darwin was perfectly aware that the fossil record did not support his theory. He accordingly titled his chapter on the subject, "On the Imperfection of the Fossil Record," and assumed that future digging would supply the "innumerable" transitional forms that were missing. This has not happened, and according to the usual rules of science, that would be enough

would give a more accurate picture of Darwin, who often resorted to sleight-of-hand logic, and tip us off that paleontologists, whose digging is supposed to confirm his theory, are unable to impose a Darwinian template on their data.

Chesterton once quipped that Darwinists seem to know everything about missing links except for the fact that they're missing. But let us move on through the exhibit. It's crowded, and we have reservations at a nearby restaurant that serves an excellent sesame-crusted tuna, done just so. We don't, by the way, know anything about the origin of tuna—or of aquatic vertebrates in general. A former president of the Linnaean Society, an expert on lungfish, writes, "Whatever ideas authorities may have on the subject, the lungfish, like every other major group of fishes that I know, have their origins firmly based in nothing."

Much of the rest of the exhibit is devoted to illustrating "evolution in action." A video shows the variety of finches on the different Galapagos Islands. Another deals with the mutations of viruses and bacteria. It's all very interesting, but it tells us nothing about the origin of species. What it demonstrates is that life forms have a certain variability within limits. But this "micro-evolution," as it is sometimes



called, never produces genuine novelties. Finches remain finches, bacteria remain bacteria. The late Pierre P. Grasse, a zoologist who was president of the French Academy of Sciences, was not alone in flatly stating that these "within species" variations have nothing to do with evolution, that they're no more than fluctuations around a stable genotype, a case of minor ecological adjustment.

And that's all the exhibit can show: "variation" in action. It's also all that Darwin is able to show in the *Origin*. He argues, for example, that all the varieties of pigeons—carrier, short-faced tumbler, pouter, turbit—probably descended from the rock pigeon. But after establishing what breeders had already known for centuries—that species can subdivide into varieties—he gives no concrete examples of what he really needs to demonstrate: that evolution is this process of variation writ large. After reading the *Origin* with more care than most of his contemporaries, the geologist Charles Lyell wrote to Darwin that it was an interesting theory, but that in future editions he might want to "here and there insert an actual case."

Darwin's theory rests entirely on extrapolation, on "micro" changes adding up to "macro" changes through natural selection. Scientists like Gould, Eldredge, Grasse, and Stanley argue that such extrapolation is unwarranted

by the evidence, that "macro" evolution must be decoupled from "micro" evolution. In other words, the phenomena showcased in *Darwin* and most textbooks—the frolics of fruit flies, the variations of birds on islands—are of no relevance to the question, "Where do the higher animal groups come from?" The late Richard Goldschmidt, a leading geneticist who taught at Berkeley, spent years observing the mutations of fruit flies, the pet insect of evolutionists, and concluded that biologists had to give up Darwin's idea that an accumulation of small changes creates new species.

But once you reject such extrapolations, you reject the core of Darwin's theory, and the origin of species remains a scientific mystery. To call the mutations of bacteria or finches "evolution" is to fudge the issue. Species, no matter how adaptable, are hard-edged and never cross major boundaries, as Darwin's theory demands. The semantic shuffle from "variation" to "evolution" nonetheless fools a lot of people. After visiting the exhibit, the *Times* editorial writer marvels at the "malleability" of species. But neither the fossils, nor breeding experiments, nor the study of subspecies (or variations) in geographical isolates have produced a single case of one species turning into another.

But wait a minute: Hasn't the theory been confirmed by modern genetics? Darwin himself knew nothing about genetics, and Mendel's book sat famously uncut on his library

Father and son examine a South American iguana in the *Darwin* exhibit © Roderick Mickens, AMNH

shelf. But the modern understanding of the workings of DNA is supposed to support his theory. Such, anyway, is the message of the exhibit. But is this really the case?

Everything we know about DNA points to the fact that it programs a species to remain what it is. Most genetic changes are small and undramatic. Large mutations never produce viable novelties. Darwinists can make up stories (they call them "inferences") about how random beneficial mutations, which alone are highly improbable, can accumulate in an organized manner to bring about genuine evolutionary advances—for example, the echo-location apparatus of bats. But Grasse (who was no creationist) dismisses such narratives as "daydreams." He compares genetic mutations to "a typing error in copying a text," adding that they "in time, occur incoherently. They are not complementary

ing. But the sweeping claims made by Darwinists amount to a "science" swarming with facts that don't address the real issue. Many cling to the theory because, they say, there is no better explanation. But especially outside the Anglo-American orbit, there are plenty of scientists who call themselves evolutionists but are frankly agnostic about how it all happens. And they don't buy Darwin. They are unconvinced that evolution is gradual, that it's no more than an accumulation of genetic copying errors, and that natural selection can achieve all the startling results that Darwinists ascribe to it.

It was Darwin's mechanism of natural selection that put evolution on the map, and the Natural History exhibit is full of testimonies about its amazing creative powers, how it blindly produced all the rich biodiversity we see today. But

As biologist Hans Driesch pointed out long ago, to say that natural selection "creates" anything is a bit like answering the question, "Why are there leaves on the tree?" with, "Because the gardener didn't prune them away."

to one another, nor are they cumulative in successive generations toward a given direction."

In fact, we don't know what genes do when (and if) one species turns into another. Nobody has ever observed "speciation" on the genetic level. Richard Lewontin of Harvard, dean of American geneticists, writes that "we know nothing about the genetic changes that occur in species formation." And again: "It is an irony of evolutionary genetics that, although it is a fusion of Mendelism and Darwinism, it has made no direct contribution to what Darwin obviously saw as the fundamental problem: the origin of species."

Another Harvard evolutionist, the late Ernst Mayr, writes that he does not know precisely how the "genetic revolutions" on which evolution depends are accomplished. He simply infers that they must happen. In other words, geneticists, like paleontologists, do not see the crucial episodes of an evolutionary process which they assume to be true. For geneticists, as for paleontologists, evolution is always happening elsewhere.

This is not to say that evolution did not happen. Since species share genetic coding and homologous structures, their common descent is a plausible idea worth investigat-

there are plenty of scientists—Grasse, Gould, Stuart Kauffman, and Soren Lovtrup, to name just a few—who don't think natural selection accomplishes very much. As Hilaire Belloc quipped, science did not need Darwin to tell it that if there's a flood the pigs will drown and the fish will survive. The question is whether this is the mechanism that creates new species.

Natural selection simply eliminates what doesn't work. That's all it can do. But the destruction of the unfit does not explain the origin of the fit. As biologist Hans Driesch pointed out long ago, to say that natural selection "creates" anything is a bit like answering the question, "Why are there leaves on the tree?" with, "Because the gardener didn't prune them away." Or, as Arnold Lunn put it, it's like calling the Nazi air strikes creative because they left standing Westminster Abbey. Lunn's analogy is apt, because most species disappear in mass or local extinctions; their exit has little to do with a Darwinian struggle for survival.

Natural selection tells us why polar bears survive in the arctic snows, but nobody has ever seen it assemble a bear step-by-step. Lovtrup writes in *Darwinism: Refutation*


of a Myth that natural selection has never been shown to produce more than trivialities on the evolutionary scale. Jacques Maritain, who accepted evolution and thought it could work in a Thomistic framework, called natural selection a "pitiful extrinsic mechanism" that is of no account in producing species. Sometimes it takes a philosopher to notice the obvious.

There has always been an informed minority of skeptics about Darwin, which makes nonsense of the show's claim that his theory is "unchallenged." Those who doubt this might consult a technical volume, *Beyond Neo-Darwinism* (Academic Press, 1984), in which two American biologists, Gareth Nelson and Ron Platnick, write, "We believe that Darwinism...is, in short, a theory that has been put to the test and found false." Molecular biologist Michael Denton weighed in with *Evolution: A Theory in Crisis* (Adler & Adler, 1986), in which he showed that recent developments in molecular biology are at complete variance with Darwinism. Michael Behe's *Darwin's Black Box* (Free Press, 1996) has caused a stir by pointing out that Darwinian evolution is biochemically impossible. And more recently, the physics and computer prodigy Stephen Wolfram published a 1,280-page tome, *A New Kind of Science* (Wolfram Media, 2002), which questions the explanatory power of natural selection.

Several years ago I had drinks with an evolutionary biologist who happened to work at the Museum of Natural History. I waited until he'd had a couple of beers, and then said: "You claim that classical Darwinism is dead, and you're obviously not a creationist. So, what do you believe?" His reply: "Look, we know that species reproduce and that there are different species now than there were a hundred million years ago. Everything else is propaganda."

We still lack a scientific explanation of how a batch of inorganic material morphed itself over billions of years into kangaroos and bombardier beetles. Man is a separate mystery altogether. The explanatory glibness of a show like *Darwin* is unfortunate, since it retards, rather than fosters, intelligent discussion about a fascinating subject. What the show really demonstrates is that Darwinism has turned into a public orthodoxy that must be defended at all costs. This is not science, but the culture war conducted by other means. ☐

George Sim Johnston is a member of the **crisis** executive board and author of *Did Darwin Get It Right?* (Our Sunday Visitor, 1998).



DOCTOR- ASSISTED SUICIDE? BIBLE STUDY IN PUBLIC SCHOOLS? SAME-SEX MARRIAGE?

Behind so many of today's headlines, there are questions that perplex many Americans. What is right? What is wrong from a moral, religious or ethical perspective? Now there is **Religion and Ethics NewsWeekly** — a weekly newsmagazine online and on PBS devoted to up-to-date religion news and insightful explorations of some of today's toughest questions, hosted by broadcast journalist Bob Abernethy.

For tune-in dates and times, visit www.religionethics.com.

Religion & ETHICS
NEWS WEEKLY



TOUGH QUESTIONS. TACKLED.



A Thirteen/WNET New York production for PBS.
Funded by Lilly Endowment Inc. Additional funds from the
Corporation for Public Broadcasting and Mutual of America
Life Insurance Company.