

Seeing in the Dark : The Mystery of Origins

Post Tenebras Lux

TERMS:

1. *a priori* – from what is before; presuppositions
2. *big bang* – universe began in a primordial soup and grew to bigger than a galaxy and is still expanding
3. *creation* – God spoke life into existence (design); *ex nihilo*, out of nothing
4. *Evolution* – gradualism, variation in all species
5. “*hopeful monster*” *theory* – mega-mutations suddenly showed up one day as a “surprise,” the organs (male and female) fully developed and ready to go
6. *igneous rock* – formed through cooling and solidifications of magma
7. *living fossils* – animal or plant that is said to have remained almost unchanged from earlier geologic times and whose close relatives are usually extinct
8. *microevolution* – evolution of variation within species
9. *macroevolution* – evolution of new species: organs, body
10. *ontogeny* – embryonic growth
11. *sedimentary rock* – formed by the deposition and subsequent cementation of sand, mud, and pebbles that are laid down in layers
12. *spontaneous generation* – life from non-life (abiogenesis)
13. *survival of the fittest* – reproductive success; ones that survive, survive
14. *uniformitarianism* – the present is key to the past; processes today assumed to have existed in the past
15. *vestigial structures* – ones that are the remnants of a once useful structure in an ancestral species but that no longer have a purpose
16. *punctuated equilibrium* – occur primarily through short bursts of intense speciation, followed by lengthy periods of stasis or equilibrium
17. *cosmological principle* – everything shot out in straight lines and was uniformly distributed
18. *geologic column* – sequence of rock formations that is said to represent geologic time
19. *radiometric dating* – method of dating specimens by determining properties of isotopes in a sample
20. *carbon-14 dating* – determines age of an object by measuring amount of residual radio carbon
21. *catastrophism* – view that major catastrophic event (global flood) destroyed life and reconfigured the earth
22. *Cambrian explosion* – sudden appearance of phyla at the Cambrian level and not prior to this
23. *fossilization* – replacing of organic with mineral substances in the remains of an organism
24. *petrification* – organic matter exposed over time into a stony substance
25. *young earth* – earth between 6,000 and 10,000 years old
26. *superposition* – sedimentary layers
27. *turbidity currents* – underwater current, rapid downhill flow of water caused by high amounts of sediment
28. *sociobiology* – study of biological aspects of social behavior in animals and humans
29. *gradualism* – slow, gradual changes in an organism
30. *laws of thermodynamics* – energy conservation and energy decay
31. *fossil fuels* – fuels (e.g. coal and oil) made of decayed, fossilized matter
32. *transitional forms* – expected “missing links” between evolved life forms

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VOICES:

- Aquinas, Thomas – Italian Dominican friar, philosopher
- Asimov, Isaac – writer, Professor of Biochemistry at Boston University
- Clark, Austin – evolutionary theory called “zoogenesis”
- Crick, Francis – British molecular biologist, biophysicist, neuroscientist; co-discovered structure of DNA; promoted panspermia
- Darwin, Charles – English naturalist, geologist, biologist; author of *On the Origin of Species by Means of Natural Selection, or the Preservation of Favored Races*
- Dawkins, Richard – English ethologist, evolutionary biologist, author
- Denton, Michael – British-Australian author and biochemist
- Gee, Henry – British paleontologist; evolutionary biologist; senior editor of *Nature*
- Gish, Duane – biochemist; member of creationist movement
- Gould, Stephen Jay – paleontologist, evolutionary biologist, historian of science
- Guth, Alan – theoretical physicist and cosmologist;
- Guye, Charles E. – Swiss physicist
- Hawking, Stephen – English theoretical physicist, cosmologist
- Hoyle, Sir Frederick – British astronomer
- Hugo, Victor – considered one of best French poets and novelists
- Huxley, Julian – British evolutionary biologist; proponent of natural selection
- Johnson, Phillip – U.C. Berkley law professor; co-founder intelligent design movement
- Kohler, Fred – American inventor, author, lecturer; first to write about “societal organism”
- Leakey, Richard – one of the world’s foremost paleoanthropologists; son of Louis and Mary Leakey
- Levinton, Jeffrey – Distinguished Professor of Ecology and Evolution at Stony Brook
- Lovtrup, Soren – Danish embryologist and historian of science at Umea University, Sweden
- Maddox, John – British biologist and science writer; an editor of *Nature*
- Matthews, L. Harrison – British zoologist; research and writings on marine mammals
- Mayr, Ernst – one of the leading evolutionary biologists
- Morris, Henry M. – young earth creationist; engineer; founder Creation Research Society
- Muggersidge, Malcolm – journalist and philosopher
- Oppenheimer, Robert – theoretical physicist and Professor of Physics at University of California, Berkeley
- Pascal, Blaise – French mathematician; inventor; Catholic theologian; child prodigy
- Postman, Neil – author; educator; cultural critic
- Raup, David M. – paleontologist and Professor of Geophysical Sciences at University of Chicago
- Sartre, Jean-Paul – French philosopher; political activist; key figure in philosophy of existentialism

- Simpson, George Gaylord – Professor of Zoology at Columbia University; curator of Department of Geology and Paleontology at American Museum of Natural History
- Szent-Gyorgi, Albert – Nobel Laureate in medicine
- Urey, Harold – Nobel Prize winner in chemistry
- von Braun, Wernher – father of space science
- Wald, George – Professor Emeritus of Biology at Harvard, Nobel Prize in Physiology
- Watson, D.M.S. – professor of zoology and comparative anatomy at University College, London
- Weisskopf, Victor F. – nuclear physicist; worked on Manhattan Project
- Wertheim, Margaret – science writer; author of books on the cultural history of physics

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Creation:

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Other:

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- Solzhenitsyn, Aleksandr (1978) *Gulag Archipelago*.
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