

Apologia Scientiae et Fides in Deo

Ever since mankind can remember, there has been wonder about how the universe works ... and even about how it came to be in the first place. Attributing the mechanisms of observed natural events to a creator God (who became the unseen hand in all mysterious occurrences) has been how *Homo sapiens* has dealt with the vast realm of the unknown.

The role of God in the real world (in terms of actions attributed directly to the deity, unexplainable otherwise) eroded slowly as man began to closely observe his world. The development of language, especially *written* language, allowed accumulation of information that could be shared and built upon. When logic was established as a way to organize thinking, early science revealed associations linking probable causes and effects, and belief in pervasive direct actions of God receded a bit, though much of the workings of the world remained a mystery.

More recently, however, since the scientific revolution erupted in the mid 1500's, vast territories occupied by the God-of-the-gaps have been taken over by straightforward explanations. Of course, by then a number of established religions had created enormous edifices built of solid dogma. Huge, self-perpetuating bureaucracies administered theology and - having touched a resonating chord in the belief structure of the human psyche, with promises of glory - propagation of the faith was assured.

The heavens were first to yield to direct observation and mathematical calculation ... our Sun was found to be a star among stars, the Earth not the physical center of the created universe after all. Geology developed as a science 200 years ago. Abundant observations of twisted rock layers and fossil evidence have made obvious the truly ancient age of our planet. Less than 50 years ago, confirmation of the tectonic activity of Earth's crust revealed the cause of earthquakes, volcanoes, mountains, the opening of oceans, and the movement of continents.

With a truer measurement of the length of time's arrow - recorded in solid rock - biologists of the past two centuries have been free to explore possible explanations for the clear relatedness of all life forms, which, for all their differences, have much more in common - from body plan right down to shared proteins, biochemical and metabolic pathways, and DNA. The facts point directly to a common ancestry for all life on our planet, variations in species occurring over time as the tree of life has grown and branched and been pruned by extinctions. Of course, scientific developments in astronomy, geology, and biology - which confirm an age of the stars 1,400,000 *times* that declared by dogma and an origin of life 400,000 *times* as old - have been most unsettling to the established order of religion.

Choice in the matter remains at this point today: one may use direct observation, review the abundant evidence, and use thoughtful logic to discern the true nature of things ... or else disregard all that and believe otherwise. We are left with the issue of correctly understanding God, who is now displaced from being the hidden agent directly responsible for thunder and lightning, rain and snow, famine and disease, the birth and death of stars, earthquakes and volcanoes and the gradual rise of mountain ranges ... and even for the chronological origins and extinctions of billions of individual species, as life developed and covered the planet over billions of years.

We must face our belief in God with a vision not clouded by misconceptions about the physical universe.