

Geology's Most Frightening Fact

(excerpts from Stephen J. Gould's book Dinosaur In A Haystack)

"... as Freud observed, our relationship with science must be paradoxical because we are forced to pay an almost intolerable price for each major gain in knowledge and power – the psychological cost of progressive dethronement from the center of things, and increasing marginality in an uncaring universe.

By the turn of the last century, we knew that the earth had endured for millions of years, and that human existence occupied but the last geological millimicrosecond of this history... We cannot bear the central implication of this brave new world. If humanity arose just yesterday as a small twig on one branch of a flourishing tree, then life may not, in any genuine sense, exist for us or because of us.

What options are left in the face of geology's most frightening fact? Only two, really. We may ... accept the implications and learn to seek the meaning of life, including the source of morality, in other, more appropriate domains – either stoically with a sense of loss, or with joy in the challenge if our temperament be optimistic.

Or we may continue to seek cosmic comfort in nature by reading life's history in a distorted light.

I leave the last work on this subject to **Mark Twain**, who grasped so graphically, when the Eiffel Tower was the world's tallest building, the implications of geology's most frightening fact:

Man has been here 32,000 years. That it took a hundred million years to prepare the world for him is proof that that is what it was done for. I suppose it is. I dunno. If the Eiffel Tower were now representing the world's age, the skin of paint on the pinnacle knob at its summit would represent man's share of that age; and anybody would perceive that the skin was what the tower was built for. I reckon they would, I dunno."

The Flat-Earth Myth and Science vs. Religion

(excerpts from Stephen J. Gould's book *Dinosaur in a Haystack*)

"Didn't we all hear the legend of Columbus at Salamanca, trying to convince the learned clerics that he would reach the Indies and not fall off the ultimate edge? ... Classical scholars, of course, had no doubt about the earth's sphericity. The flat-earth myth argues that this knowledge was lost when ecclesiastical darkness settled over Europe ... I write this essay to point out that ... the supposed Dark and Medieval consensus for a flat earth - is entirely mythological. There never was a period of 'flat-earth darkness' among scholars (regardless of how many uneducated people may have conceptualized our planet both then and now). Greek knowledge of sphericity never faded, and all major medieval scholars accepted the earth's roundness as an established fact of cosmology.

Where then ... did the myth of medieval belief in a flat earth arise? ...

John W. Draper's History of the Conflict between Religion and Science, first published in 1874 ... ranks among the great publishing successes of the nineteenth century ... Draper states his thesis in the preface to his volume:

The history of Science is not a mere record of isolated discoveries; it is a narrative of the conflict of two contending powers, the expansive force of the human intellect on one side, and the compressing arising from traditionary faith and human interests on the other ...

Draper extolled the flat-earth myth as a primary example of religion's constraint and science's progressive power. Historian J. B. Russell ... comments on the success of Draper's work:

The History of the Conflict is of immense importance, because it was the first instance that an influential figure had explicitly declared that science and religion were at war, and succeeded as few books ever do. It fixed in the educated mind the idea that 'science' stood for freedom and progress against the superstition and repression of 'religion.' Its viewpoint became conventional wisdom.

I would not be agitated by these errors if they led only to an inadequate view of the past ... But the myth of a war between science and religion remains all too current, and continues to impede a proper bonding and conciliation between these two utterly different and powerfully important institutions of human life. How can a war exist between two vital subjects with such different appropriate turfs - science as an enterprise dedicated to discovering and explaining the factual basis of the empirical world, and religion as an examination of ethics and values? ... Exposure of the flat-earth myth should teach us the fallacy of such a view and help us to recognize the complexity of interaction between these institutions. Irrationality and dogmatism are always the enemies of science, but they are no true friends of religion either."