

Theories of the Earth

As someone who is formally trained in geology, I confess I never considered what the ideas and theories were of the earth before the advent of the discipline. Outside of the general account of Usher calculating the age of the earth, formal training never mentions much before the sound theories exemplified within the rock record. The realization that there were contested ideas and theories presented as a print culture seems intuitive now, but is more or less taken for granted outside of the history of science.

Understanding the positions of the various theorists allows a more holistic view of the people who were involved in the dialogue of earth's history as well as which "disciplines" were attempting to postulate theories. Beati, Fludd, Descartes, Burnet, Whiston, Buffon, Cuvier are all names that generally flow through both history and geology courses. Their deep involvement and progression towards more empirical theories about earth's history reveal that there was certainly quite a bit more discussion on geologic processes and outcomes before the late 18th century than is portrayed historically.

The framework for early earth studies appears to have been the biblical accounts in Genesis, primary, if not solely the creation and the flood. The very notion that young earth creationist are using the same arguments and markers that the very first earth theorist were using as framework 300 to 350 years ago (and somewhat earlier) can give modern researchers more of an understanding of where these so-called "debates" get their fuel. People such as Burnet and Whiston invoked those same Genesis stories but only as "an explicitly theoretical role" and that

most of the biblical idioms were employed to ensure that their theories remained compatible with the holy writ opens a window into how the early theorist interpreted the bible.

Seeing that the arguments and interpretations of religious beliefs and theories to explain phenomena reach back so far into history allows readers to see that the ongoing “conflict” between religion and science has been nearly an ever present specter in science and science history. Whiston’s late 17th century interpretation of the six day creation formulating a world with an annual motion but no diurnal motion giving the earth six months of darkness and six of light, could easily be adopted by anyone wanted to believe in a creation story as well as explaining geologic history. All but the most adamant biblical literalist should be able to reconcile that model with belief given the Bible never gives the standard for a 24 hour day.

The images of things such as cosmic sections, crustal collapse, and global sections, illuminates the some of the thought processes that went on in giving the theoretical models representative treatments. Some of the early earth and cosmic models are familiar to anyone who works with global models in the present. Taken together these works reveal the enormous stage and convoluted background that James Hutton and Charles Lyell work within. This allows for a deeper, and historical, understanding why Hutton and Lyell’s ideas were so revolutionary, and how they led to the development of the study of the earth as a discipline.

Given that understanding the nature of the earth is paramount to understanding all that exists and happens on the earth it makes sense to understand the theories, arguments, postulations, and repostulations that occurred throughout the early thought processes of those individuals trying to make sense of things. I also believe I now have a better understanding if not just a deeper appreciation for why Geology is known as one of the “historical sciences.”