



CREATION ^{In} The CROSSFIRE

Published by the South Bay Creation Science Association

And there was evening and there was morning, the sixth day. Thus the heavens and the earth were completed, and all their hosts....And the water prevailed more and more upon the earth, so that all the high mountains everywhere under the heavens were covered. Gen 1:31-2:1; 7:19

The Next Meeting: June 27, 2009 at 7 PM.

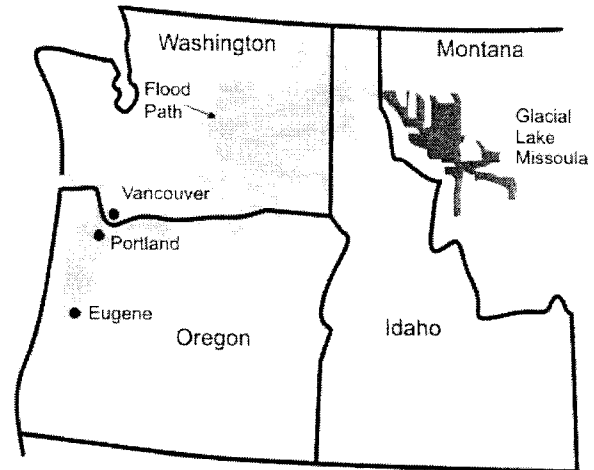
Bill Morgan is a naval mechanical engineer. He will present "Amazing Cells in Humans," giving information we need to know about stem cells. Mr. Morgan's website www.fishdontwalk.com has a list of all the cells in humans. He says this lesson is ideal for 5th graders and up. He has been giving lessons on Creation for 20 years. He has had 9 debates with evolutionists.

Catastrophes Rule Geology Pt 1

by Jon Covey, BA, CLS(ASCP)
edited by Anita Millen, MD, MPH, MA

Uniformitarianism: the present is the key to the past. Many people still believe that slow, gradual processes shaped our planet. It is true that such things as wind, rain, and rivers erode rocks and mountains, and create deposits such as alluvial fans. Modern geologists, however, are less likely to believe in uniformitarianism as the sole explanation for what we observe around us. Exclusive uniformitarian gradualism has been replaced by episodic catastrophism. While no one doubts that gradual erosion and deposition occur, most geological features, such as the large-scale erosion and widespread deposits covering a million or more square miles cannot be explained by slow processes over long ages.

Dr. Steve Austin's recent study in the Santa Cruz River Valley repudiated the report Charles Darwin made in April 1834. Darwin claimed the river created the valley by gradual erosion over eons. Darwin's understanding of the valley's geology was guided by Charles Lyell's *Principles of Geology*, which defined the principles of uniformitarianism. According to Austin, a glacial ice dam burst, catastrophically releasing the water that carved the Santa Cruz River Valley. Austin says that it was similar to the catastrophic release of Lake Missoula's water when its ice dam burst, carving the scablands of eastern Washington.



Lake Missoula Breaks the Uniformitarian Ice

For many years, believers in the uniformitarian interpretation of geology stubbornly resisted any explanation that even faintly resembled the catastrophic events of the Genesis Flood.

According to Ariel Roth in *Origins: Linking Science and Scripture*, p. 196, geologists were extremely reluctant to accept the ice dam explanation for the scablands that Harlan Bretz published in 1923. In 1927 the Geological Society of Washington D.C. invited him to present his view of the catastrophic release of Lake Missoula water when its ice dam ruptured. The society intended to ambush Bretz at the meeting with "a veritable phalanx of doubters [that] had been assembled to debate the flood hypothesis."

In *Origins* Roth wrote,

After Bretz's presentation, five members of the prestigious United States Geological Survey presented objections and offered alternative explanations such as glaciation and other slow changes. Two of the geologists had not even visited the area! In answering them, a weary Bretz commented that 'perhaps, however, my attitude of dogmatic finality is proving conta-

gious.’ One major problem for Bretz’s idea remained unanswered: Where did all the water come from so suddenly?

Today, geologists believe it came from Lake Missoula.

Forty-two years later the geological community accepted Bretz’s explanation after the International Association for Quaternary Research organized a field trip to the scablands. They concluded that, “We are now all catastrophists.”

Even with the obvious evidence, geologists took a very long time to admit the possibility that catastrophes happen. That’s how strong the sentiment was against the Biblical flood. How long will it take to turn the tide in favor of intelligent design?

Catastrophism has an interesting implication. If the world’s multi-continent sedimentary rocks, sometimes hundreds of meters thick, were the result of catastrophic events, the fossils contained in these strata represent animals alive together at the moment of the catastrophe rather than burial over thousands to millions of years.

Uniformitarian Sedimentation and Fossils

Online resources such as Wikipedia are fairly reliable, although for political or philosophical reasons there may be bias or outright misrepresentation. Nevertheless, with this in mind, such resources can be helpful.

According to Wikipedia:

The **law of superposition** (or the **principle of superposition**) is a key axiom based on observations of natural history that is a foundational principle of sedimentary stratigraphy and so of other geology dependent natural sciences:

Sedimentary layers are deposited in a time sequence, with the oldest on the bottom and the youngest on the top.

The principle was first proposed in the 11th century by the Persian geologist, Avicenna (Ibn Sina), and the law was later formulated more clearly in the 17th century by the Danish scientist Nicolas Steno.

Rapid Deposition by Turbidity Currents

It did not become clear until the 20th century that most of the world’s sedimentary rocks represent rapid deposition. Some of those deposits were by means of turbidity currents as described below. Many sediments, even hundreds of meters thick, once thought to be the product of millions of years of sedimentation are known to be turbidites, produced in a few hours by turbidity currents traveling over 100 kilometers per hour. Turbidites make up 30-50% of the earth’s sedimentary rocks, depending upon who makes the estimate.

From Wikipedia:

A **turbidity current** or **density current** is a current of rapidly moving, sediment-laden water moving down a slope through air, water, or another fluid. The current moves because it has a higher density and turbidity than the fluid through which it flows.

The term "turbidity current" is most commonly used to describe underwater currents in lakes and oceans, which are usually triggered by earthquakes or slumping. In such cases, high-speed sediment-laden water flows down the slope under the clearer water, causing a great deal of erosion and subsequent sedimentation in features classified as turbidites.

Turbidity currents are characteristic of areas where there is seismic instability and an underwater slope, especially submarine trench slopes of convergent plate margins and continental slopes and submarine canyons of passive margins.

As the slope of the flow increases, the speed of the current increases. As the speed of the flow increases, turbulence increases, and the current draws up more sediment. The increase in sediment increases the density of the current, and thus its speed, even further. Turbidity currents can reach speeds up to half the speed of sound.

Turbidity currents are examples of gravity currents.

The 1929 Grand Banks’ earthquake initiated a turbidity current. Some of the sediment from the Grand Banks turbidity current traveled more than 700 kilometers in about 7 hours. The sediment covered more

than 100,000 square kilometers, thinning away from the source.

We have an excellent essay on turbidites in our on-line “Past Articles” section by Kurt Howard.

Widespread Chalk Deposits

In *Origins*, Ariel Roth says that geologists often assume that the accumulations of thick layers of tiny microscopic organisms such as the White Cliffs of Dover required lengthy periods of time.

Derek V. Ager convinced many geologists to reconsider catastrophes in interpreting geological settings. He described the extent of notable multi-continent sediments in *The Nature of the Stratigraphical Record*, p.1. He traced the Upper Cretaceous Chalk in Turkey on the Black Sea coast to the White Cliffs of Dover, England and the rolling plateau of Picardy, France. He said this same chalk can be seen in southern Sweden and the cliffs of eastern Denmark, as well as Ireland, Germany, Poland, Bulgaria, Georgia, Egypt, and Israel. He further traced it to Texas, Arkansas, Mississippi, and Alabama. His friend, Dr. Andy Gale, wrote and told him the Upper Cretaceous in Western Australia is remarkably like that in Britain. Clearly, in Ager’s mind, this chalk was a widespread, multi-continent deposit.

Ager made this delightful remark in his closing remarks about widespread chalk, p. 3:

Some general explanation is surely needed for such a wide distribution of such a unique facies as the chalk during a short period of geological time. What is more, there has been no other deposit quite like it either before or since, except perhaps some Miocene chinks which themselves are remarkably widespread: in the western approaches to the English Channel, in Malta, Cyprus and the Middle East and all the way to New Zealand.

I suspect he facetiously wrote “there has been no other deposit quite like it.” All the way from England to New Zealand—my, my—just a walk around the transcontinental block! He was convinced that these chalk deposits were the results of catastrophic processes that deposited “the chalk during a short period of geological time.” That could be interpreted as thousands or millions of years, but I suspect he meant very short times spans on the order of days or weeks. On p. 70 of his book he wrote:

In particular we must conclude that sedimentation in the past has often been very rapid indeed and very spasmodic. This may be called the ‘Phenomenon of the Catastrophic Nature of much of the Stratigraphical Record.’

Many people have the mistaken impression that the fossil record proceeds in a gradual step-wise manner from bottom to top (the law of superposition). In *Science* 1980, John Cisne reported small changes within a species of Ordovician trilobite fossils “within a 2-million-year, 1000-square-kilometer stratigraphic interval,” claiming this represented stepwise evolution.

However, when you have up to “10 orders, over 150 families, about 5,000 genera, and over 20,000 described species” of trilobites (see www.trilobites.info/trilobite.htm), it seems trifling to report minor variations within a single species with such a rich fossil record as transitional. Qualified creationists might interpret Cisne’s data as sudden burial of contemporaneous variant trilobites of the same species by a turbidity current deposit or other submarine catastrophe.

Huge Meteorites a Regular Feature of History

Other catastrophes that have produced assorted widespread deposits were enormous meteorite impacts. On p. 36 of his book, Ager remarked that meteorites caused planet-wide damage and wiped out most life. He suggested that “such collisions must be considered a regular feature of earth history.” Giant meteorites could produce waves about 6,000 meters high. A wave that high would be capable of creating enormous widespread deposits. Ager said that the turbidity that followed would kill off all bottom-dwelling filter feeders.

Luis Alvarez and others suggested that the unusual abundance of iridium at the top of the Cretaceous layers, at the K-T boundary, might have been the result of an asteroid collision at Chicxulub in the Yucatan Peninsula of Mexico. This event probably caused the extinction of the dinosaurs along with many other animals besides the filter feeders. According to Ager, “Iridium is an element characteristic of meteorites and is not normally found on the surface of the earth.” (p. 36 of Ager’s book) Geologists find iridium at the top of the Cretaceous. Ager believed that over 100 meteors and asteroids on the order of magnitude of Chicxulub collided with the earth throughout earth history.