

PANORAMA

A super-deep hole and the Bible¹

The Tiefbohrprogramm der Bundesrepublik Deutschland came to an end on 12 October, 1994. The project's goal was to drill 10 kilometers down into the earth's crust near Windischeschenbach, Bavaria, Germany. When the hole was abandoned, it was 9.1 kilometers deep. This is the second deepest hole, the deepest being a 12-kilometer hole in northern Russia. The results have some potentially significant implications of Biblical significance.

First, a failure. The hole failed to find a junction formed an alleged 320 million years ago when two tectonic plates are supposed to have collided to form the present Eurasian plate. A real puzzle, though, was how salt water could be so abundant at such great depth. At shallow depths, there is not much of a problem explaining the brine, but in this hole the brine continued to flow in beyond 8 kilometers in depth. Theory suggests that the tremendous pressure at great depths would fill in the cracks in the rock, but the results suggest the opposite. This is of potential Biblical significance, for it suggests that the waters of the Flood which receded into the earth have more room inside the crust than has heretofore been suspected. Generally it's been assumed that the water which went into the earth ended up locked inside rock crystals, but such now need not be the case.

One other significant result of the hole is that the depth at which rock becomes plastic was expected to be 10 kilometers deep at a temperature of 300 degrees Celsius. Instead, the plastic region was reached at 9.1 kilometers and at 280 degrees Celsius. This result is controversial, since soft minerals in the fractures could mimic the result, but it is potentially significant. The drilling was stopped because the sides of the hole at the lowest regions would squeeze together during the time that drill bits were changed, forcing the bottom regions of the hole to be redrilled.

One additional factor, not mentioned above or in the literature. An abundance of water trapped in rock fractures, and a higher plasticity than previously imagined, could contribute significantly to the rate at which

1. From a report by R. A. Kerr, 1994, *Science*, 266:545.

the continents may have split in the days of Peleg. In other words, speeds of the order of 1 cm/second might be attainable on a bed of steam-lifted rock. (That speed would shift the continents to their present positions in the order of 50 to 100 years.)

Vulcanism and Peleg

Tom Simkin² wrote an article in *Science* last year in which he reported on a large number of volcanic eruptions, all of which are carbon dated between 5,000 and 7,000 B.C. Using the Association's radiocarbon correction program,³ it turns out that the corrected dates all hover between 200 and 300 years after the Flood. Are there other evidences for an intense period of vulcanism at the time?

The most renowned anthropologists today are the Leakeys and Johanson. They have been excavating for "early man" in the great rift valley in Africa (the same valley as forms the western branch of the Red Sea). They have reportedly found fossils (Lucy being the most famous,) down to a level of more than 2 million years. The fossils are mostly in volcanic ash which is Potassium-Argon dated at the above age. Of course, evolutionists would not bother to do a carbon dating of the fossils since that would be a waste of money: there should be no radioactive carbon left at such an age. However, there was one case, in the early days, where such a date was done.⁴

Rocks in the stratum where Leakey's Nutcracker Man was found were K-Ar dated at 1.75 million years. Bones found underneath the stratum, which should be older than the fossil, were carbon dated at 10,000 years. The corrected date for that is 190 years after the Flood. Now Peleg was born about 96 years after the Flood and he lived until 335 years after the Flood. His life brackets the volcanic events recorded

2. Tom Simkin, 1994. "Distant Effects of Volcanism — How Big and How Often?" *Science* 264(5161):913-914.
3. G. Bouw, 1994. "Techies' Corner," *Biblical Astronomer* 4(67):22. See back cover for availability.
4. *Radiocarbon*, 11:65, 1969.

world-wide. This provides further evidence that the division of the earth recorded in Genesis 10:25 was a literal division of the continents with violent vulcanism. It also provides us with a reference point for K-Ar dating, namely, 1.75 million years corresponds to a true age of about 4200 years.

Add to this the fact that tribes on the West Coast of the United States and peoples in other areas of the world have tales of vulcanism, indeed of volcanoes believed extinct for hundreds of thousands of years in a few cases, and there is a lot of evidence that at least a major episode of vulcanism, if not a continental split, happened in recorded history and on a global scale. (If these date from the Flood, would there have been anyone to report them? The ark would have to have been omnipresent to do so and Noah would have to have had absolute positioning available to him since all landmarks, indeed, the mountains themselves, were under water. These had to have been post Flood events.)

Most distant galaxy

Needless to say, with better earth-based telescopes able to correct for atmospheric seeing and the corrected (albeit not 100%) Hubble space telescope, we are seeing more and more "most distant galaxy ever" reports. The latest one is reported by R. Cowen in the January 14, 1995 issue of *Science News*⁵ as due to the world's largest telescope, the W. M. Keck telescope in Hawaii. The galaxy was originally discovered by radio astronomers and has been designated as 8C 1435+63. It is estimated to be between 12 to 15 billion light-years away and it has two halves (binary) with the northern half "extremely reddened."

Now current evolutionary theory predicts that such "young" objects (a few hundred million years old) should look very blue because of the abundance of young stars which should be present, and it should not exhibit much structure since structure would take a few rotations (about a billion years) to develop. Still, this youngster has already developed notable structure and stars. The red color of the northern half indicates, according to Arjun Dey, that it has undergone significant aging. Of

5. R. Cowen, 1995. "Keck goes the distance for faraway galaxy," *Science News*, 147(2):20-21.

course, the red color could be due to dust, but the presence of dust means that one or more generations of stars have come and gone, an even worse problem for evolution than to have a single generation of stars "age" quickly. In other words, the galaxy looks too old and too evolved to be so young.

Martian speculation supports creation theory

A piece of Mars which fell to earth (or, at least, so the story goes) implies that Mars experienced no giant meteor or asteroid impacts later than 27 million years after the origin of the solar system.⁶ What does it mean? Well, it means that Mars was solidified and all of its major craters were formed in an extremely short time scale, regardless of whether one is a creationist or not. For the evolutionist, it barely gives time for the solar system to coalesce, let alone to be cleared of debris; indeed, if it is cleared of major debris in that short a time, then there should be much less particulate matter left in the solar system than is observed today. For the creationist, it means that most of the cratering on Mars had to happen in a very short time, at most a few days. This suggests that the craters are probably not of impact origin; that they are not the result of asteroids or meteors hitting the planet, but that they are more likely the by-product of the creation of Mars. This supports your editor's theory for crater formation.⁷

All this is true, of course, provided that the rock is a piece of a planet (it doesn't have to be Mars) or moon.

Micro-quasars are geocentric?

A quasar is a blue, point-like source of light which looks like a star except that it has a faint nebulosity surrounding it. The nebulous haze

6. Charles L. Harper, Jr., L. E. Nyquist, B. Bansal, H. Weismann, C-Y Shih, 1995. "Rapid Accretion and Early Differentiation of Mars Indicated by $^{142}\text{Nd}/^{144}\text{Nd}$ in SNC Meteorites," *Science* 267:213.
7. G. D. Bouw, 1994. "Astronomy of the Creation Week" in *The Geocentric Papers*, (Cleveland: Association for Biblical Astronomy), p. 18.

turns out to be a galaxy and the star-like blue point is the nucleus of the galaxy. The main difference between a normal galactic nucleus and a quasar is that the quasar's nucleus is immensely more bright than normal. One theory has it that all galactic nuclei may undergo quasar-like stages.

Despite that, it was announced at last summer's International Astrophysical Union meeting that small-scale quasars exist inside the Milky Way itself. Indeed, since the IAU announcement, a second example was found.⁸ What has identified these objects is their x-ray emissions.

The reader has probably read about quasars emitting clouds of matter which appear to move in excess of the speed of light. Such happens when the quasar emits material along a jet generally pointed towards the earth. When the material travels close to the speed of light, it can appear to be moving faster than the speed of light. Now two x-ray objects in the Milky Way, two micro-quasars, have exhibited such blobs of light moving at superluminal (1.25 c) speeds. Both are binary stars in which one star has collapsed into a small black hole or compact neutron star via a supernova explosion.

Now some will say that the problem can be solved by assuming the universe to be smaller than current estimates, and that is true up to a point; but the size difference is only about 40% to a minimum size of about 12 billion light years, a far cry from the 50 light day universe of these critics. What's more important is that quasars with their jets pointed to the earth are much more common than is expected by mere chance. Again, this places the earth in a central, special position. It remains to be seen if there is a similar geocentric orientation for micro-quasars.⁹

8. R. Jayawardhana, 1994. "Micro-Quasars found in our Galaxy," *Science*, **265**:1362.

9. By the way, if the small universe model holds, there is no known explanation for quasars and micro-quasars exhibiting binary star characteristics. Stars would be roughly the size of the earth or larger and they would have to be contained in magnetic bottles instead of gravitational binding. Otherwise, their spectra would look radically different than they do.

The bowling ball cosmic ray

The May 14, 1994 issue of *Sky and Telescope*¹⁰ reported that on October 15, 1991 the Fly's Eye telescopes recorded the most energetic cosmic ray yet detected. The Fly's Eye is an array of telescopes used to detect light emitted by cosmic rays when they hit the earth's atmosphere. The array is located about 100 kilometers southwest of Salt Lake City, Utah.

A cosmic ray is a nuclear particle such as electron, proton, or even an atomic nucleus which originates from somewhere in space and which has been accelerated to close to the speed of light. Usually the source is taken to be a black hole or a supernova explosion. This particular cosmic ray had an energy of 3×10^{20} electron-volts. How much energy is that? Well, it's about as much as dropping a 16 pound bowling ball from waist high. That's a huge amount of energy for a subatomic particle. No speculations are given for the origin of such an energetic particle.

Stars older than galaxies?

For several months now the Hubble Space Telescope has been used to determine the expansion rate of the universe by observing stars in distant galaxies. The "unexpected" result is that the stars seem to be older than the galaxies they inhabit. I've been slow to take up that gauntlet because the Hubble Constant (the rate at which the universe is expanding) is subject to local effects so that its value may not truly be cosmic at all but merely the value in our small (several hundred million light years) area of the universe. Things have not changed much since the preliminary press releases. Readers, please be aware of this limitation in arguing with evolutionists. Eventually you may encounter a knowledgeable one and be left with "egg on your face."

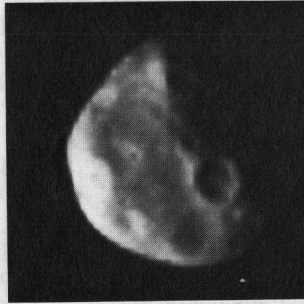
Asteroids support a recent creation

In the 7 July, 1994 issue of *Nature*, Milani and Farinella of the University of Pisa report that a family of asteroids about their main mem-

10. Anonymous, 1994. "The Deepening Mystery of Cosmic-Ray Origins," *Sky and Telescope*, 87:12.

ber, 490 Veritas, can be no more than 50 million years old. Any older and the group would have been disrupted by Jupiter.

The August 6, 1994 issue of *Science News* (p.93) reports that the small companion of the double asteroid, 243 Ida, shows more than 12 craters that exceed 80 meters in diameter. The craters suggest that the body itself cannot be more than a few hundred million years old as "an older object would not have survived the additional impacts." Furthermore, according to infrared spectra of the light reflecting from the surfaces of the two objects, Ida and its moon, are not related. They are not two pieces of the same parent body nor is the moon a piece broken off Ida. The photo below is the Galileo spacecraft's best view of the moon of Ida.



JPL/NASA