

PANORAMA

Santorini and Joseph's famine

Colin Humphreys and Robert White claim to have linked the eruption of the volcano Santorini with the events preceding the Exodus.¹ They reason that the 17th Century B.C. eruption caused the famine which Joseph foretold through Pharaoh's dream. The following is quoted from the abstract: "Evidence of climatic disturbances in the northern hemisphere from tree-ring widths and of a huge acidity spike in ice cores from Greenland are consistent with widespread climatic modification at this time. We suggest that the famines occurred during the period of the Hyksos pharaohs of the Fifteenth Dynasty in Egypt, probably during the reign of King Khyan, thus providing a date for this pharaoh, and also for the Old Testament patriarch Joseph. If our arguments are accepted, the eruption of Santorini, for which we take the best date to be 1628 B.C., provides an absolute chronological marker for both ancient Egyptian and ancient Hebrew chronology." An interesting idea except that the Bible's chronology places the famine 2296 years after the creation which is about 1706 B.C. This is 78 years before Humphreys and White's best estimate for the volcanic blast which supposedly led to the tales of Atlantis.

For those interested, below is the chronology of the Bible until the entry into Canaan.

CHRONOLOGY OF THE BIBLE

<u>Anno Mundi</u>	<u>Event</u>	<u>Time to Next Event</u>	<u>Reference</u>
0	Adam created	130	Gen 5:3
130	Seth born	105	5:6
235	Enos born	90	5:9
325	Cainan born	70	5:12
395	Mahalaleel born	65	5:15

1. Humphreys, Colin J. and Robert S. White, 1995. "The eruption of Santorini and the date and historicity of Joseph," *Science and Christian Belief* 7(2), 151-162.

<u>Anno</u> <u>Mundi</u>	<u>Event</u>	<u>Time to</u> <u>Next Event</u>	<u>Reference</u>
460	Jared born	162	Gen 5:18
622	Enoch born	65	5:21
687	Methuselah born	187	5:25
874	Lamech born	182	5:28
987	Enoch taken		
1056	Noah born	600	Gen 7:11
1556	Japheth born		6:32 & 10:21)
1559	Shem born		11:10
1656	Flood begins	1	8:13
1657	Flood ends	2	Gen 11:10
1658	Arphaxad born	35	11:12
1693	Salah born	30	11:14
1723	Eber born	34	11:16
1757	Peleg born	30	11:18
1787	Reu born	32	Gen 11:20
1819	Serug born	30	11:22
1849	Nahor born	29	11:24
1878	Terah born	205	11:32
2083	Terah died		
	Abram leaves Haran		Act 7:4
	Abrahamic covenant	430	Gal 3:17, Exo 12:40,41
2513	Exodus	40	Jos 5:6 etc.
2553	Crossed Jordan R. Joshua's long day		

<u>Anno</u> <u>Mundi</u>	<u>Event</u>	<u>Time to</u> <u>Next Event</u>	<u>Reference</u>
2083	Abram 75 years old	-75	Gen 12:4
2008	Abram born	100	Gen 21:5
2094	Ishmael born		16:16
2108	Isaac born	60	25:26
2168	Jacob born	147	Gen 47:28
2315	Jacob dies		
	In Egypt 17 years	-17	47:28
2298	Jacob Entered Egypt	-2	45:11
2296	Famine started	-7	41:53
2289	Years of plenty		
	Joseph 30 years old	-30	41:46
2259	Joseph born		

2513	Exodus	-80	Exo 7:7
2433	Moses born	-3	(Num 34:29)
2430	Aaron born		

2553	Enter promised land	5	Jos 14:10
2558	Land divided		
2583	Joshua dies.		

Origin of the solar system remake²

The Galileo probe which dropped into Jupiter's atmosphere last December has done what such direct experiments usually do: it has thrown the

2. R. Cowen, 1996. "Revised Galileo results pose Jovian puzzle," *Science News*, 149(13):199.

theories of the evolutionary origin of the solar system back to square one. This time, Jupiter appears to be too dry to fit the theory. Donald M. Hunten of the University of Arizona has confirmed preliminary results that the water vapor in Jupiter's upper atmosphere is one fifth that expected. Other detectors (Hunten worked with the mass spectrometer) confirm the result through the absence of water clouds, the relative infrequency of lightning, and the presence of infrared light which could not pass through water vapor.

Of course, it may be that the probe did not go through a "normal" region of Jupiter's atmosphere, just as the earth seems to be centered in an abnormal portion of the universe, but such is speculation and not theory. Even earth-based observations support the conclusion of too low a water abundance. Another idea is that the water is really there but that it sank to Jupiter's core.

At stake is the notion that Jupiter formed from an assemblage of water-bearing comets. Hunten suggests that Jupiter formed, instead, of carbonaceous chondrites, a dry "primitive" meteor. Although that does fit with the "surprisingly high ration of carbon to oxygen," the question of the source of the gasses which make up the bulk of Jupiter's size is left begging. Still, Huntington speculates that Pluto and Triton (Neptune's largest moon) are bodies of the type from which Jupiter formed. If so, comets should not all be "dirty snowballs," as they are now thought to be.

Hubble photographs Betelgeuse

Over the last few years the *Biblical Astronomer* has carried a debate between your editor and Harald Heinze about the capability of interferometers to measure the apparent (angular) diameter of stars, most particularly, Betelgeuse, the bright red star in Orion's right shoulder. At this year's American Astronomical Society meeting in San Antonio, Andrea K. Dupree and Ronald Gilliland presented the first direct photo of the surface and atmosphere of a star other than the sun. That photo is an ultra-violet image of Betelgeuse, a star which is thought to be about 1,000 times the size of the sun. The image shows the extended atmosphere and the disk of Betelgeuse, and it also shows a hot spot in the star's south-west quarter. At the presumed distance, the spot is about 10 times the size of the earth and is 2,000°C warmer than the surrounding area which is about 7,000°K. Several smaller hot spots were also found. Such hot spots have been detected on the surfaces or other stars, particularly, on eclipsing binaries. The star's photographic size conforms to the interferometric size.

Meteor fatalities in history

Kevin K. Yau, Paul R. Weissman, and Donald K. Yeomans (JPL) reported in the November 1994 issue of *Meteoritics* that since 700 B.C., Chinese scribes have recorded over 300 meteorite impacts. Over a period of 13 centuries, there were seven recorded falls which caused fatalities. On September 5, 1907, a large stony meteorite crushed an entire family in their house. In 1490 a meteor shower in Ch'ing-yang of Shansi Province reportedly killed more than 10,000 people. "Stones fell like rain," the scribe wrote. This particular event appears in several records, including the official history of the Ming Dynasty, although that particular account does not mention any fatalities.

Yau *et al.* also note that comparatively few falls were reported during the 18th century, a time when interest in meteors waned in China. However, there is an sharp increase in the frequency of reports between 1840 and 1880, a span consistent with observed falls in Europe.

I might add three major falls this century. The most famous is the Tunguska fall in Siberia early this century. There was a fall in Brazil in 1933 which detonated over the jungle and leveled a large area there. And a year or two ago there was a fall over a deserted area of the Pacific off the coast of Peru. It caused a loud, nuclear-blast-sized report. Evidently the meteorite exploded and not enough of it survived to hit the sea and create a significant splash. As far as we know, in none of the three was there a loss of human life.

Quote

There never was a period of "flat earth darkness" among scholars (regardless of how many uneducated people may have thus conceptualized our [earth] both then and now). Greek knowledge of sphericity was never lost, and all major medieval scholars accepted the earth's roundness as an established fact of cosmology.

— Stephen Jay Gould
in "The Persistently Flat Earth,"
Natural History, March 1994, p. 14.