

On the origin of lunar maria

Many young-earth creationists¹⁻¹⁰ have previously discussed Ron Samec's¹¹ idea that an asteroid/planetoid bombardment event initiated the Flood creating impact craters and lunar maria (figure 1). These many works discussed the possible sources of the extraterrestrial materials, Earth and lunar impact cratering, and biblical history. Samec's failure to discuss these papers raises several questions.

He states that "we are observing the aftermath of a single event, a single swarm or a single large asteroid or planetoid that broke up (possibly due to tidal forces as it approached Earth) and pieces of it stuck [sic] the moon in one episode."¹² He cites Faulkner¹³ who invokes *comets* (not solid objects) as his primary source material for the "swarm of meteoroids." However, Samec does not address the differences between these ideas. Faulkner¹⁴ proposes *two* periods of bombardment, yet Samec does not discuss the difference between that view and his own. He does hint at the possibility of additional periods of asteroid bombardment by objects in elliptical orbits.¹⁵ This leads me to ask:

- a) How does the Faulkner¹³ model of two periods of *cometary* bombardment relate to Samec's proposal?
- b) If two periods of bombardment are proposed then when did they occur? Was it during the Creation Week, antediluvian, Flood event, Ice Age, or present age timeframes,¹⁶ or some combination? Spencer^{6,9} invoked a single swarm of solid materials passing through the solar system, but Samec's proposal did not discuss Spencer's work. How would Samec contrast his ideas with Spencer's proposal? DeYoung and I proposed that extraterrestrial materials were derived from the asteroid belt (which would include solid and comet-like debris) impacting the earth at the beginning of the Flood, and these impact events have decreased exponentially

into the present.^{10,17} How might the Samec proposal compare or contrast with this idea?

There are also questions regarding the relationship between a passing swarm of extraterrestrial materials and ongoing impacts across the earth. Spencer⁹ invokes a single swarm that likely initiated the Flood. Faulkner¹³ proposed two periods of bombardment—one possibly on Day 4 of Creation Week¹⁸ and a later swarm of comets that initiated the Flood. As previously noted, Samec's ideas are similar to Spencer's proposal. However, this raises a problem for all three proposals. Why do impacts continue up to the present day if the swarms (or the asteroid/planetoid body) has long since traveled beyond our ability to detect it in space?¹⁰ It would be helpful if Samec could explain how a onetime event associated with the initiation of the Flood can provide extraterrestrial materials that continue up to the present to impact the moon and Earth.

It would also be interesting to hear his opinion about how this onetime event could create impact craters (and maria) around the entire surface of the moon. The extensive number of craters covering the moon's surface indicates that impact events occurred either for an extended period of time or the swarm materials were able to wrap around the moon as it traveled past the surface facing the earth. The exceptionally large multi-ringed Orientale crater and mare on the opposing side of the moon appears to create a perplexing problem for the Samec (and Faulkner/Spencer) hypothesis.

Another key issue is the source of the extraterrestrial objects/materials. Both Faulkner and Spencer invoked a passing swarm of objects that impacted the earth. Faulkner did not identify a source for his cometary swarm. Spencer explained his as "a cloud of solid objects from outside the solar system passing through our system, other types of

comet or multiple comet events, and possibly the breakup of a object beyond Neptune."¹⁹ However, several other young-earth creationists have pointed to the asteroid belt as the likely source for extraterrestrial materials. Samec proposes "a single swarm or a single large asteroid or planetoid that broke up (possibly due to tidal forces as it approached Earth)."²⁰ Did this object/material originate from the asteroid belt, a disintegrating planetary body, the Kuiper Belt or possibly the Oort Cloud?

Samec also discussed the effect of a meteoric bombardment event on the eccentricity of the moon's orbit. How do his findings relate to those of DeYoung who proposed that the earth-moon-orbit relationship was created from the beginning?²¹

Because we are dealing largely in speculation and not in testable science, it is understandable that differences in interpretation will exist.^{10,19,22,23} I encourage Samec to continue his work on lunar impact basins and engage in open dialogue as we collectively develop the origin and history of the moon in the Creation/Flood framework.

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Photograph by the author

Figure 1. The perigee moon of 12 December 2008 displays the numerous lunar maria likely created due to Flood-initiated extraterrestrial bombardment.

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Constellations: legacy of the dispersion from Babel

Jonathan Henry's article on the Constellations casts doubt on any form of "gospel in the stars". But he does not touch on the one scriptural fact that must be included in any evaluation. The Magi knew, from studying the stars, that the King of the Jews had been born, and they were good guys!

Further, the Holy Spirit thought this bit of history important enough that it was included in the inspired record.

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Jonathan Henry replies:

I appreciate this question. The Bible says the wise men saw "his star". This is a unique designation and appears to refer to a unique stellar object. Combined with the fact that there is no natural object, such as a comet, a planetary approach or conjunction, a nova or supernova, etc., that could follow the wise men as this star did, and then stand over the place where Jesus was, signifies that his star was not a natural object. Therefore, it could not have been visible in any constellation throughout the centuries in which the "gospel in the stars" revelation supposedly existed. The idea

that the wise man saw his star in Virgo is not supported in Scripture. Using this point as a proof of the gospel in the stars is circular reasoning, because one has essentially assumed what one wants to prove.

The significance of the magi being knowledgeable in astronomy is *not* that they would be anticipating a prophecy fulfillment in the stars. Their significance is that (1) being especially knowledgeable about the heavens, they would recognize his star as a special or unique object more markedly than the average person, and (2) being connected with the governmental infrastructure of the East, they had the wherewithal to travel to see Jesus that common people would never have.

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About Humphrey's "new" metric

I do not intend to criticize the methods or results that appear in "New time dilation helps creation cosmology" by D. Russell Humphreys,¹ where equation eq. 2 is utilized for time dilation. In what follows, the "potential speed", v , is used to derive a general physical metric. The v is termed potential speed since when it appears in various metrics, it requires speed units of measurement. This derivation is based upon infinitesimal modeling² restricted to general relativity. For infinitesimal modeling, usually, simple non-relativistic physical properties are transferred and viewed using infinitesimal measures. That is, they are viewed in an infinitesimal region. The viability of this derivation method is enhanced since, for specific v , the following metrics have been derived: the Schwarzschild, the Schwarzschild with cosmological constant, the de Sitter, the Newtonian approximation and the Robinson-Walker.³ Humphreys' shell metric follows by substituting