

Astrobiology News February 2014: Clergy Contributions to Science

Due to the *Clergy Contributions to Science* event at the Adler Planetarium in Chicago on February 18th, I simply haven't had time to write an Astrobiology News article this month, so I thought I'd pass along a few brief highlights of our incredible meeting instead. Roughly 30 clergy (including a few family members) came to celebrate Adler's version of *Evolution Weekend* with us. Although most came from the greater Chicago area, one pastor came down from Oshkosh, WI to celebrate with us, and a mother-daughter team came in from Ohio! In spite of the series of snowstorms the day before, I'm happy to report that Br. Guy Consolmagno of the Vatican Observatory was able to make his flight and join us as well! (My own commute from the suburbs of Chicago the morning of our event was 2.5 hours long, so the participants were real troopers!)

The day began with a whirlwind tour through the history of the Cosmos in *The Universe: A Walk Through Space and Time* exhibit. We paid special homage to Fr. Georges Lemaitre, the Belgian priest who found evidence that Einstein's equations suggested an expanding Universe, and proposed what became known as the Big Bang theory. From there, we made our way into the catacombs of the History of Astronomy's Webster Institute, where the Institute staff introduced us to many unique artifacts, and Br. Guy provided further context for works such as Galileo's *Siderius Nuncius* (published in 1610) and Riccioli's *Almagestum Novum* (published in 1651). Fr. Francesco Grimaldi, SJ and Fr. Giovanni Battista Riccioli, SJ were Jesuit scientists who composed an accurate lunar map that is the basis for all modern Moon maps.

At 11:05 am, Adler visitors got a special treat when Br. Guy gave a presentation about the Chelyubinsk meteor that impacted Earth one year ago, highlighting the importance of monitoring even the smaller asteroids. We learned that in the 1st five days of 2014, two out of six near-Earth asteroids (ranging in size from 5 to 75 meters) passed within the orbit of the Moon.

After lunch, we explored the Space Visualization Lab, where we viewed the largest current map of the Universe, produced by the Sloan Digital Sky Survey¹. We talked about the importance of spectroscopy in finding the distances to the galaxies in the survey, determining the composition of heavenly bodies, and how Fr. Angelo Secchi, SJ had devised the first system of classifying stars by their spectral types. We discussed how citizen scientists are helping us explore the Universe through projects like Zooniverse², and how Australian Methodist minister Rev. Robert Evans holds the world record of 42 supernovae discoveries. Supernovae are exploding stars that are used as "standard candles" for determining distances to faraway galaxies, because they change brightness in a manner that depends upon their actual brightness. Evans identifies them by memorizing the fields of roughly 1,000 galaxies so he can check for their appearance.

¹ www.sdss.org

² www.zooniverse.org

Highlights of the afternoon included Br. Guy presenting a brief history of the Vatican Observatory, its current members, and the religious basis for science; Rev. Bruce Booher inviting us to connect with the Cosmos through tactile exploration of meteorites and crystals in his personal collection; Rev. Chuck Ruehle bringing inquiry-based science education to Tanzania through astronomy; Prof. Lea Schweitz introducing us to the new religion and science modules at the LSTC and the reasons for adding to already full seminary curricula³, including the results of a recent study that found “antagonism to science” to be the top reason young Christians leave the church⁴; and Rev. Dr. Phil Blackwell leading us through science and religion discussion groups, which provide a safe space for the scientifically-minded to make sense of the language of faith and ask many complex questions.

Finally, a graduate student at the Medill School of Journalism at Northwestern University wrote a very nice article about the event, which includes brief interviews with some of our participants: <http://news.medill.northwestern.edu/chicago/news.aspx?id=227877> and don't forget to check out Michael's article in the Huffington Post, if you haven't already done so: http://www.huffingtonpost.com/michael-zimmerman/the-adler-planetarium-dem_b_4757551.html

I'm delighted to report that I've already received feedback about valuable connections participants made with colleagues! We all know how important networking is, and I intend to continue to work with Michael to expand our network of connections and brainstorm ways we can fund a continuing, sustainable effort to transform the “debate” into a conversation.

Until next month,

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³ Download a podcast interview about this fascinating program from Adler's homepage or go directly to: <https://itunes.apple.com/podcast/adler-night-and-day/id212971304?mt=2> (episode 155)

⁴ “Six Reasons Young Christians Leave Church,” Report of the “Faith that Lasts” Research Project, 2007-2011, Barna Group, accessed February 28, 2013, <http://www.barna.org/teens-next-gen-articles/528-six-reasons-young-christians-leave-church>.