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## Resources for Responding to Doomsday 2012: An Annotated Guide

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### Abstract

Educators at all levels and in all settings are getting questions these days about the approaching “end of the world” catastrophes supposedly coming in December 2012. This resource guide provides a selection of useful resources for responding to student and public questions in this arena.

The latest internet myth to gain traction is the notion that the world will experience a dire catastrophe on the winter solstice (December 21) 2012, either from collision with a (mythical) planet called Nibiru or from some other astronomical cause. A large number of books and web sites have touted this notion for a while, as have documentaries on the History Channel and other cable channels that should know better. In 2009, the producers of a major movie thriller, called “2012,” spent quite a bit of money on a huge advertising campaign that seared images of catastrophe in the public mind, even setting up a fake web site purporting to show the science behind the idea.

As a result of all this media publicity, lots of people are worried and are asking astronomers about Doomsday 2012. David Morrison (at NASA Ames and the SETI Institute) has coined the term “cosmophobia” for the fear of astronomical disasters, and it appears that cosmophobia is significantly on the rise, despite the absence of any real evidence that 2012 will be a worse time for possibilities of cosmic disaster than any other year.

Here are a few selected web and written resources that give clear answers to questions about the 2012 myth from the scientific and archaeological perspective.

## 1. HARD-COPY MATERIALS

Aveni, A. 2009, *The End of Time: The Maya Mystery of 2012*, Boulder, Colorado, University of Colorado Press. The noted archaeo-astronomer and Colgate professor takes on the key idea that the Mayan calendar requires the end of the world and analyzes the attraction of predictions of world catastrophe.

Aveni, A. 2009, “Apocalypse soon,” *Archaeology*, 62(6), November/December 2009. Quick review of the suggestion that the Maya predict doomsday, available at <http://www.archaeology.org/0911/2012/>.

Krupp, E. C. 2009, “The great 2012 scare,” *Sky & Telescope*, 118(5), 22, November 2009. Good introduction to the history of such doomsday predictions, available at <http://www.nasa.gov/topics/earth/features/2012-guest.html>.

## 2. WEB-BASED MATERIALS

### 2.1. General Web Sites

David Morrison’s introduction to and debunking of 2012, <http://www.astrosociety.org/2012>.

Questions and answers about the doomsday 2012 myth (by David Morrison), <http://astrobiology.nasa.gov/ask-an-astrobiologist/intro/nibiru-and-doomsday-2012-questions-and-answers>.

Morrison, D., “The myth of [the planet] Nibiru and the end of the world in 2012,” [http://www.csicop.org/show/myth\\_of\\_nibiru\\_and\\_the\\_end\\_of\\_the\\_world\\_in\\_2012/](http://www.csicop.org/show/myth_of_nibiru_and_the_end_of_the_world_in_2012/).

2012 Hoax site (a well-executed, thorough examination of claims and counter-arguments by a group of professional and amateur astronomers), <http://www.2012hoax.org/>.

Wikipedia’s summary of the 2012 phenomenon, [http://en.wikipedia.org/wiki/2012\\_doomsday\\_prediction](http://en.wikipedia.org/wiki/2012_doomsday_prediction).

Ian O’Neill’s critiques on the *Universe Today* web site, <http://www.universetoday.com/2008/05/19/no-doomsday-in-2012/> (and the further columns listed therein.) He also has a set of columns at *Discovery News*, <http://news.discovery.com/space/dear-doomsayers-we-will-be-watching-you.html>.

“2012: Six End-of-the-World Myths Debunked” on the *National Geographic News* (quoting David Morrison and Anthony Aveni extensively), <http://news.nationalgeographic.com/news/2009/11/091106-2012-end-of-world-myths.html>.

John Hoopes’ history of the Doomsday 2012 phenomenon: <http://www.psychologytoday.com/files/attachments/79139/hoopes-2011-critical-history-2012-mythology.pdf>

## 2.2. More Specific Web Sites

Historian and linguist Mike Heiser analyzes the predictions about the planet Nibiru, <http://www.sitchiniswrong.com/index.html>.

Phil Plait (The “Bad Astronomer”) provides historical context for the prediction of rogue planets in the solar system, <http://www.badastronomy.com/bad/misc/planetx/>.

Phil Plait discusses the scare that the star Betelgeuse will explode in 2012, <http://blogs.discovermagazine.com/badastronomy/2011/01/21/betelgeuse-and-2012/>.

Mark Van Stone’s “It’s Not the End of the World: What the Ancient Maya Tell Us About 2012” (a detailed analysis), <http://www.famsi.org/research/vanstone/2012/index.html>. (Also, see his illuminating FAQ, <http://www.famsi.org/research/vanstone/2012/faq.html>.)

David Morrison discusses why Comet Elenin is not a danger in 2011 or 2012, <http://www.astrosociety.org/elenin/index.html>.

Mike Brown (Caltech) reacts to the fake-science marketing campaign for the 2012 movie, <http://www.mikebrownplanets.com/2009/06/sony-pictures-and-end-of-world.html>.

2012 and the Calendar of the Maya (from the *Calendar in the Sky* web site), <http://www.calendarinthesky.org/Articles/2012Science/2012ScienceArticleView/tabid/144/ArticleId/2/The-Science-of-2012.aspx>.

The Great Galactic Alignment of 2012 (from the *Calendar in the Sky* web site), <http://www.calendarinthesky.org/Articles/2012Science/2012ScienceArticleView/tabid/144/ArticleId/9/The-Great-Galactic-Alignment-of-2012.aspx>.

NASA’s Lou Mayo on the Mayan Calendar and 2012, [http://sunearthday.nasa.gov/2011/articles/2012\\_hoax.php](http://sunearthday.nasa.gov/2011/articles/2012_hoax.php).

## 2.3. Web Sites for Teachers

The 79th issue of *The Universe in the Classroom* Newsletter from the Astronomical Society of the Pacific, by Alice Enevoldsen, is about responding to doomsday 2012 in the classroom, <http://www.astrosociety.org/education/publications/tnl/79/79.html>.

Calendar in the Sky (articles and resources, connecting the Maya and space science; from the Space Sciences Lab at the University of California, Berkeley), <http://www.calendarinthesky.org/>.

### 3. VIDEOS

David Morrison (NASA Ames) summary of 2012 issues video (7 min), <http://www.youtube.com/watch?v=EW0Wo0uZ6fg>.

Don Yeomans (JPL) 2012 overview video (4 min), <http://www.youtube.com/watch?v=RaKcPEBiZZw>.

Don Yeomans' Von Karman Lecture at JPL, "The Truth about 2012" (December 8, 2011), <http://www.ustream.tv/recorded/19019836> (video may not show in all browsers).

David Morrison on doomsday and cosmophobia at the silicon valley astronomy lectures (April 21, 2010; 1 h 28 min with questions), <http://itunes.apple.com/us/itunes-u/silicon-valley-astronomy-lecture/id431445898> (go to listing #19).

Anthony Aveni on "The End of Time" at Marlboro College (September 13, 2010; 1 h 2 min), <http://www.youtube.com/watch?v=exQGTvZ5aKw>.

Ed Krupp (Griffith Observatory) on "Time's Up [in 2012]" (a lecture at the Beckman Center November 4, 2009; 1 h 5 min), <http://media.voicesatbeckman.org/dv/110409/index.html>.

Jocelyn Bell Burnell on "Will the World End in 2012?" (3 videos, 2010 Royal Irish Academy), <http://www.youtube.com/watch?v=MUij0m6RbIQ&feature=relmfu> (part 1), <http://www.youtube.com/watch?v=kSDdP57Y7Q&feature=relmfu> (part 2), <http://www.youtube.com/watch?v=VZEZgTzQyW4&feature=relmfu> (part 3). She gave the talk again in February 2012 to the Royal Society in London, <http://royalsociety.org/events/2011/end-world/>.

### 4. PODCASTS

David Morrison on doomsday and cosmophobia at the silicon valley astronomy lectures (April 21, 2010) audio, <http://www.astrosociety.org/education/podcast/morrison2.mp3>.

Mark Zender on the Maya and 2012 at Harvard's Peabody Museum (1 h 9 min), <http://peabody.harvard.edu/files/audio/20091119zender.mp3>.

For more resources on dealing with astronomical pseudo-sciences in general (including astrology, UFO's, crop circles, a young universe, faces on the planets, etc.) see <http://www.astrosociety.org/education/resources/pseudobib.html>.

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