Science, religion and the four blood moons of 2014 and 2015

The rise of the blood moon tetrad

Harvest Moon, Hunter's Moon, Blue Moon and now Blood Moon. In the wee hours of 15 April 2014 those in the western hemisphere who were blessed with clear skies and who took the initiative to gaze heavenward witnessed a total eclipse of the moon. The reddish hue the moon took on during the peak of the event added to the majesty of the astronomical drama. Yet for several years and especially several weeks before 15 April, this eclipse, and the three full lunar eclipses predicted to follow on 8 October 2014, 8 April 2015 and 28 September 2015, had become for certain Christians, a few Jews and some in the media much more than an astronomical drama. For advocates of the blood moons prophecy, it is nothing less than a series of signs in the heavens foretold long ago in ancient Hebrew and Greek texts found in the Bible. The blood moons prophecy has been publicised by *The Los Angeles Times, The New York Times, The Washington Post*, Britain's *Daily Express, The Jewish Press*, CNN, Fox News and many other mainstream media organisations. Print and Kindle books about the blood moons prophecy can be purchased on Amazon. Celebratory videos complete with stirring music abound on YouTube. For all this we are primarily indebted to the prophetic speculations of two American pastors, Mark Biltz and John Hagee.

But what at first glance may appear to be simply an instance of populist, prophetic Americana, reveals on closer inspection a complex of subtle religious-secular parallels and feedback dynamics. The story of the blood moons prophecy brings together many seemingly disparate phenomena: science and religion; biblical interpretation; astronomy; the nature and status of science; numerology; Hebrew philology; Jewish holidays; Jewish history; Christian Zionism; evangelical "end times" prophecy; European history; Christopher Columbus; U.S., Middle Eastern and global politics; communication technology; the Internet; and the ever-active media, both religious and secular. To locate and understand the blood moons prophecy all of these phenomena and their interrelationships must be explored.

But before beginning this account, a caveat: in my role as a lowly historian of science, it is not for me to say what will or will not happen in the future. Nor is it my principal intention to confirm or reject a particular prophetic theory. Instead, I will examine the blood moons as yet another fascinating and illustrative example of science and religion coming into contact. In the consideration of the blood moons phenomenon that follows, my analysis will be informed in part by the theoretical tools of my discipline (history of science) and the themes of my principal field of study (the relationship between science and religion). As when I teach science and religion in the academic setting, my goal is to develop a narrative that will be acceptable to both religious and non-religious people. There are, I believe, morals in this story for everyone.

Although it has some earlier roots, the blood moons prophecy that made headlines in 2013 and 2014 can be traced to early 2008. In March of that year, Biltz, who had earlier founded El Shaddai

Ministries in Washington State and is pastor of a congregation there of some 700, became intrigued by a stunning photograph of a red moon over the Temple Mount in Jerusalem that he encountered on the Internet. (This is presumably the lunar eclipse of 21 February 2008; a photograph of this eclipse showing a red moon immediately over the Dome of the Rock can still be found online). Already keenly interested in science, including astronomy, Biltz recalled that there is a NASA website that charts both solar and lunar eclipses over a period of some five thousand years. Visiting this site, he discovered that there would be a sequence of four full eclipses of the moon in 2014 and 2015. After this, Biltz recalls awaking around four o'clock in the morning for several days on end and, unable to shake his sleeplessness, devoted this time to prayer. It was on one of these mornings that he had a revelation: might the eclipses listed on the NASA website be aligned with "the biblical calendar", that is, the Jewish holidays? Firing up his computer, he was stunned to discover that all four of the 2014–2015 lunar eclipses fall on Jewish holidays in the following pattern: Passover-Sukkot-Passover-Sukkot. Passover (Pesach) is held in the spring and Sukkot (otherwise known as the Feast of Booths or Tabernacles) is one of the regular Jewish fall festivals. They always occur roughly six months apart.

Further investigation on the NASA site revealed other peculiar patterns. Notably, Biltz found that in the past other sets of lunar tetrads—which are series of four full lunar eclipses with no intervening partial or penumbral eclipses—were curiously aligned with the Jewish calendar. In addition to the current tetrad of 2014–2015, Biltz saw that each of the eclipses of the tetrads of 1949–1950 and 1967–1968 also fell on a Jewish holiday and manifested the same Passover-Sukkot-Passover-Sukkot pattern. Here is the pattern he discovered for the dates of these lunar eclipses:

Tetrad of 1949–1950	Tetrad of 1967–1968
13 April 1949 (Passover)	24 April 1967 (Passover)
7 October 1949 (Sukkot)	18 October 1967 (Sukkot)
2 April 1950 (Passover)	13 April 1968 (Passover)
26 September 1950 (Sukkot)	6 October 1968 (Sukkot)

But this is not all. Biltz became excited when he realised that in addition to this apparently striking pattern, the tetrads of 1949–1950 and 1967–1968 correspond approximately to momentous events in the history of the modern State of Israel: 1) the founding of the state in May 1948 followed by the War of Independence and 2) the Six Day War of June 1967, with its decisive victory and expansion of territory under Israeli control. Biltz recalls that when he made these connections, he "started doing a hallelujah dance" (*Blood Moons*, xvii). Of the five tetrads in the twentieth century, only these two sets correspond directly to Jewish holidays (the others being 1909–1910, 1927–1928 and 1985–1986). Of the eight tetrads in the twenty-first century (the first having already occurred in 2003–2004), only that of 2014–2015 corresponds to festivals on the Jewish calendar. These patterns appeared all the more impressive given that between 1582 and 1908 there were no lunar tetrads at all, making them putatively rare in the cosmic grand scheme of things.

To find the most recent Jewish lunar tetrad prior to 1949–1950, one has to go all the way back to 1493–1494. Here as well Biltz saw a correspondence with significant events in Jewish history: King Ferdinand and Queen Isabella had in 1492 issued a decree expelling Jews from Spain, forcing those who refused to convert to Catholicism (and some of them did) to leave on pain of death. The same

year, and receiving his commission from the same Spanish monarchs, Columbus (Biltz alludes to the rumours that the explorer was a crypto-Jew) and his crew sailed to the New World on the Niña, the Pinta and the Santa Maria. In his video *Blood Moons* Biltz states that this discovery was financed with money plundered from the expelled Jews. In an extension of the details associated with the blood moons of 1493–1494, Hagee, too, sees the discovery of the New World as prophetically significant, as it provided "a harbor of refuge" for the Jewish people (*Four Blood Moons*, 193). For Biltz and Hagee the inference to be drawn from the previous "Jewish" tetrads was that significant events in Israel or involving the Jews are likely to occur during or around the time of the only tetrad this century whose lunar eclipses fall on Jewish festivals.

But what is the significance of lunar eclipses to biblical prophecy and why the emphasis on the 'blood' moon? Saved at nineteen and already having a close familiarity with the Bible, Biltz believed a series of prophetic passages in the Old and New Testaments spoke of solar and lunar eclipses. Three of these describe the moon turning to blood. The first and perhaps most notable is Joel 2:31: "The sun shall be turned into darkness, and the moon into blood, before the great and the terrible day of the LORD come". Since the moon normally takes on a reddish hue during the peak of a total lunar eclipse, many believers and Bible scholars see this passage as referring to just such an astronomical event. Added to this is Biltz's belief, based on the account of Day Four of Creation (Genesis 1:14–16), that "God created the sun and moon as His own personal transmitters" (*Blood Moons*, 38). In other words, the Creator uses the sun and the moon as cosmic signalling devices to send messages to humanity. This conclusion Biltz takes from the statement in Genesis 1:14 that the sun and moon were created to "be for signs, and for seasons, and for days, and years".

Although the precise chronology of the developments are unclear, Biltz eventually elaborated his theory to include additional components. One of these is the total solar eclipse of 20 March 2015 (which happens in the middle of the lunar tetrad of 2014–2015) and the partial solar eclipse of 13 September 2015. The first of these occurs on 1 Nisan (the beginning of the Jewish religious calendar) and the second coincides with Rosh Hashanah (the Jewish civil New Year). As an added highlight, Biltz noticed that the last lunar eclipse of the 2014–2015 tetrad, the grand finale, would be a "supermoon" (that is, 28 September 2015—which just so happens to be the day my father is due to attain his biblical threescore and ten). This phenomenon occurs when the moon is at perigee (its closest approach to the earth in its lopsided, elliptical orbit), causing the moon to appear 14% larger than normal. On 28 September 2015 the moon will be 221,772 miles from the earth (measuring from the centre of each orb), the nearest it will be that year. Half a month earlier, on 14 September, when at apogee, it will be 252,581 miles from our planet, the greatest distance during 2015.

It was also not lost on Biltz that the autumn of 2014 would see the beginning of a Shmitta year (Biltz and Hagee use the spelling 'Shemittah'). This is the land Sabbath and year of release mandated in the Law of Moses for every seventh year (Exodus 23:10–11; Leviticus 25:1–7). In a Shmitta year fields, vineyards and olive groves were to lay fallow and debts were to be released (the biblical Hebrew word *shmitta* means 'release'). Many in modern Israel continue the practice and the current Shmitta year began with Rosh Hashanah 2014 and continues to Rosh Hashanah 2015 (as it happens, my own academic sabbatical and 'year of release' from teaching coincides with the Shmitta years).

In addition to the then upcoming Shmitta year, Biltz looked back to previous Shmitta years and saw further patterns. Reflecting on another spectacular astronomical event, the comet Shoemaker-Levy striking the planet Jupiter after breaking into twenty-one fragments in July 1994 (during a Shmitta year), Biltz theorised that there might be moments of judgement during the subsequent three Shmitta years (7 \times 3 = 21). Sure enough, on 17 September 2001 (the day before Rosh Hashanah and thus the last day of the Shmitta year of 2000-2001) the Dow Jones experienced its most dramatic drop up to that point in history (7%). Then, on 28 September 2008 (also one day before Rosh Hashanah and the final day of the Shmitta year of 2007-2008) the Dow plummeted 777 points (once again, a 7% drop). On this basis, and thinking inductively, Biltz suggested that the third Shmitta year after Shoemaker-Levy could see an even more devastating economic collapse: "Could the coming blood moons signal our third strike, and we will be out economically? We already see the signs of economic collapse coming, with America being so much in debt and our government in a comatose condition" (Blood Moons, 167). (Although Biltz is careful not to draw attention to the implied date in 2015, the [Jewish day] before Rosh Hashanah that year is 12–13 September). Biltz's reasoning is that just as the Jews were punished by the Babylonian Captivity for failing to keep its land Sabbaths, so America could be judged for its spiritual failings.

There is yet another value-added feature of the blood moons prophecy. For many centuries the ninth of Av has been known in Judaism as a day of ignominy. A quick look at the various Jewish websites that explain the significance of Tisha B'Av, as the day is called in Hebrew, reveal a litany of tragic events in Jewish history. The first of these is the day after the twelve spies (or at least ten of them) brought back a discouraging report about the Land of Canaan, when the people of Israel cried and complained to Moses about leading them out of slavery in Egypt. Because of this, God condemned Israel to wander in the wilderness for forty years before entering the Promised Land (Numbers 13-14). Although the Bible does not give the date of this day of complaint, the Mishnah records it as the ninth of Av. Other examples of Jewish tragedies coinciding with the ninth of Av. commonly include: the destruction of the First Temple by the Babylonians and the beginning of the Babylonian Captivity (587 BC); the destruction of the Second Temple at the hands of the Romans and the subsequent dispersion of the Jews (AD 70); the Roman defeat of the Jews during the Bar Kochba revolt and the subsequent massacre of Jews in Betar (132); the beginning of the First Crusade (1096); the expulsions of the Jews from England (1290), France (1306) and Spain (1492); the Nazis' formal order to begin the Final Solution (1941); and the beginning of the deportation ('Gross Aktion') of Jews from the Warsaw Ghetto (1942). For Biltz, the ninth of Av is further proof that we need to pay attention to what he calls "God's calendar".

Given Biltz's use of lunar and solar eclipses along with the dramatic destruction of a comet, it does seem surprising that he did not bring into his prophecy the juxtaposition of the planet Mars with the moon in the nighttime skies during the 15 April 2014 lunar eclipse, given both the association between Mars and war in Greek mythology and the redness of that planet. However, this may have seemed just too astrological and in any case there is no association between Mars and war in the biblical tradition. On this matter, Biltz may have been unaware, showing restraint or unable to find a link with the Bible. (Some stunning photographic and video records of this juxtaposition can be found online)

But even without the aid of the Mars alignment, Biltz assembled a wide range of astronomical,

calendrical and historical data to build his case for the providential significance of the blood moons. If one were to point to the two most significant moments in the history of the modern state of Israel, there can be little question that the founding of the state in 1948 and the Six Day War in 1967 would be those moments. Although, as noted above, there were other expulsions of Jews from European countries, the Alhambra Decree of 1492 is probably the most historically significant of them (interestingly, early in 2014 the Spanish government offered to right this historical wrong by offering citizenship to descendants of the expelled Jews). As for the value-added examples, the two dramatic drops in the Dow (especially the second of them) were pivotal to economic and world history. And the purported events coinciding with Tisha B'Av are certainly all notable moments in Jewish history. On the face of it, the blood moons prophecy is dramatic, precise and, what is more, buttressed by science.

The proliferation of the blood moons prophecy

Uncovering the patterns, discovering the historical associations and devising the theory did not complete Biltz's work. The final step was to promote and defend the prophecy and this Biltz began to do soon after his discovery. Although early on he felt compelled to link the blood moons with the beginning of the Tribulation, Biltz was careful to qualify his claims on his blog in June 2008 by writing:

When I talk about the second coming I am not referring to the rapture but to Messiah's feet landing on the Mt of Olives in Zech 14. I am not setting dates for the rapture. The only dates I am giving is <code>[sic]</code> the dates Nasa <code>[sic]</code> gives us for eclipses and the dates God gives us on His calendar and then I bring in the connection. You can do whatever you want according to your own theology with this information ... I did say, and again say, IF these eclipses in 2015 are what the Lord was referring to, then 2015 would look like a possible year for His feet to land on the Mt of Olives. And, IF this is true then the tribulation could, not would, start this fall at the Feast of Trumpets ...

Although Biltz quietly removed the statement about the Tribulation from his website when it became clear that this seven-year period would not begin in 2008 (although this quotation survives as digital flotsam elsewhere in cyberspace), Biltz's theory about the tetrad of 2014–2015 continued to spread through Internet chatter and other means.

The blood moon theory received a big boost when it was endorsed by John Hagee, the well-known, charismatic senior pastor and founder of the twenty-thousand strong Cornerstone Church in San Antonio, Texas and figurehead of John Hagee Ministries, whose radio and television programs reach a global audience. He is also the founder of Christians United for Israel. This and his continuing support for Israel has given him allies in high places, most notably Binyamin Netanyahu, who when speaking at a 2012 CUI event referred to Hagee as his "great friend". Featuring a striking cover with blood red letters and a raised red moon cleverly standing in for the first 'o' in moon, Hagee's book *Four Blood Moons: Something Is About To Change* was released in October 2013 and went on to become a *New York Times* and *USA Today* best-seller. A notice released on the publisher's website shortly before the 15 April 2014 eclipse announced that the book had already sold 450,000 copies.

Hagee gives credit where credit is due and both honours Biltz as the discoverer of the blood moons pattern and speaks glowingly of first learning about the blood moons from Biltz himself when he met his fellow pastor during a 2012 visit to the church in Puyallup, Washington run by El Shaddai Ministries for a "Night to Honor Israel" event. In his book, Hagee is keen to distinguish astronomy from astrology, affirming the former and firmly rejecting the latter. The signs in the heavens are for the Texas pastor "God's high-definition billboard" used to send signals to the people of the earth. Like Biltz, Hagee focuses not only on the lunar tetrad of 2014–2015, but also on the Shmitta year that began in the fall of 2014.

A well-produced video trailer for his book that shows Hagee lecturing on the blood moons is accessible online. Sounding very much like the fire-and-brimstone southern preacher that he is, Hagee, wearing a bright red tie and matching red handkerchief, stands in front of a large chart showing the four 2014–2015 red moons and the solar eclipse of 20 March 2015. In this stirring talk he declares: "I believe that the heavens are God's billboard—that he has been sending signals to Planet Earth and we just haven't been picking them up". Hagee's use of 'billboard' in his book and lecture suggests that he takes 'signs' in a very literal sense. These signs demonstrate that "God is literally screaming at the world: I am coming soon!" Hagee also supplies some specificity: "the coming four blood moons points <code>[sic]</code> to a world-shaking event that will happen between April 2014 and October 2015".

Biltz published his own book on 18 March 2014: *Blood Moons: Decoding the Imminent Heavenly Signs.* Joseph Farah, Arab American founder of the Evangelical Christian news site WorldNetDaily.com, which has since 2008 done much to proclaim the blood moon theory to the world, penned the forward and the book was released through the WND Books imprint. Farah and WND's endorsement of Biltz and his blood moon theory should not be underestimated. Farah is a very well-known and outspoken evangelical journalist and author. In the political arena, he is a passionate supporter of the Tea Party and inveterate opponent of the Obama administration. According to WorldNetDaily, WND Books "has produced a higher percentage of New York Times bestsellers than any other publisher in the world over the last decade" ("Top Names in News, Bible Analysis Go Public", 3 July 2014). WorldNetDaily itself is a very popular web-based news service with the right media tools at its disposal to promote favoured causes. And, currently, the blood moons prophecy is one of those favoured causes.

As for Biltz's book, four red moons aptly take the place of the four vowels in 'blood moons' on the cover, which displays a fiery sky behind the Dome of the Rock in Jerusalem. On the same day Biltz's book was published, WND Films released a DVD of the same title featuring Biltz discussing the blood moons prophecy highlighted with stock footage and interspersed with special effects, including some astronomical animations reminiscent of the science fiction classic 2001: A Space Odyssey. The back covers of both the book and the DVD are emblazoned with the following statement: "SOMETHING REMARKABLE IS ON THE HORIZON. GOD IS ABOUT TO MOVE MIGHTILY IN THE WORLD. ARE YOU PREPARED?" The day before its official release, the WND website said that the book had already sold 40,000 copies, was in its fourth printing and was ranked 171 on Amazon. When Biltz was a guest on The Jim Bakker Show, the once disgraced but now rehabilitated televangelist declared of Blood Moons: "This book is probably the most important book of this hour. This is one of the most important books ever written. And

I'm serious!". Although Bakker is given to hyperbole, others in the Christian media and the evangelical world apparently agree.

In addition to their books, both Biltz and especially Hagee appeared regularly on television into the spring of 2014 promoting the tetrad and some in both the Christian and secular media have seemed all too willing to give them a platform to do so. Videos of their interviews and lectures are available online and have helped generate further interest. This part of their prophetic campaign, at least, is a success.

The blood moons under fire

Another measure of success is seen in the Christians and Christian news organisations offering cautious and in some cases enthusiastic support (most notably, WorldNetDaily.com, which began reporting on the blood moons prophecy as early as April 2008). Yet in the Internet Age seemingly everyone is a critic and the blood moons prophecy has received plenty of criticism, not only from secular commentators, as might be expected, but also from Christians, including evangelical prophetic interpreters. Some of the wisest words of caution have come from fellow believers and prophetic exegetes—after all, they know (or should know) both the biblical material and the pitfalls of speculative interpretation best. These criticisms range from concern to outright denunciation and ridicule. The criticisms fall into several categories, including negative assessments of the handling of the astronomical data, questions about Biltz's orthodoxy as a Christian, challenges to Biltz and Hagee's interpretation of the Bible, insinuations that Biltz and Hagee are cynically profiteering, charges that Biltz and Hagee are engaging in sensationalism and concerns about the damaging effects on faith of what is often pejoratively labelled as prophetic 'date-setting'.

Many Evangelical blogs and prophecy sites have made a point of distancing themselves from the blood moon prophecy. And some of these critiques are written by Christians who otherwise appear to have much in common with the End Times and Rapture eschatology of Biltz and Hagee. Notably, some appeared in advance of the first blood moon.

For instance, while some might assume that those affiliated with a Young Earth Creationist organisation would be just the sort of people to support the blood moons theory, a long and astronomically informed refutation appeared on the Answers in Genesis website in 2013 (Danny R. Faulkner, "Will Lunar Eclipses Cause Four Blood Moons in 2014 and 2015?", 12 July 2013). Answers in Genesis is the U.S.-based Creationist organisation headed by Australian Ken Ham, who was recently in the news for debating Bill Nye the Science Guy on 4 February 2014 and is otherwise known for his plans to build a full-size replica of Noah's Ark at his Creation Museum in northern Kentucky.

David James' detailed critique "Blood Moon Tetrad (2014–2015): A Sign of the End?" appeared on The Alliance for Biblical Integrity website on 24 January 2014. Hank Hanegraaff, host of Christian Research Institute's Bible Answer Man live radio phone-in show, flatly rejected the blood moons theory on air, calling it "sensationalism and sophistry".

Rick Warren, the famous pastor of Saddleback Church and author of the best-selling book *The Purpose Driven Life*, posted a photograph of the red moon taken from his backyard at 1am PST on

15 April, noting that it reminded him of Acts 2:20, which he said would one day be fulfilled. The following day he felt the need to clarify that he was *not* an advocate of the blood moons prophecy, stressing that the Bible itself made it clear that even Jesus did not know the date of the Second Coming and that "it is a waste of time trying to figure out the date ... pure arrogance" (*Charisma News*, 21 April 2014). Presumably Warren did not want himself or his church saddled with the stigma of the blood moons.

Azusa Pacific University associate dean and professor of New Testament Kenneth L. Waters produced a gentle rebuttal that appeared on the CNN Belief Blog on 14 April 2014, writing in his conclusion that "[i]nstead of looking to the heavens for signs of the future, Christians should focus on the hope and promise of the Gospel message and seek to reflect Christ in word and deed". The Baptist Press website released an authoritative statement on 15 April 2014 entitled: "Blood Moon' lunar eclipses not a sign, Baptist professors say". Dermott J. Mullan, professor of astrophysics at the University of Delaware, published a critical article on the website of the conservative journal *First Things* ("Goodnight, Blood Moon: Fact Checking John Hagee's Blood Moon Prophecy", 13 May 2014).

The prominent evangelical New Testament scholar Ben Witherington III published an article on the Patheos website that dismissed the blood moons prophecy. He wrote: "What is entirely lacking in this discussion is critical judgment, not to mention actual Biblical knowledge. There is nothing in the Bible that would encourage us to think that we can predict some such events on the basis of Biblical prophecy" ("Critical Judgment and the Allure of the Internet", 23 May 2014). Although many evangelical Christians would argue that Witherington's essay goes too far (especially since he also dismisses the common—although not universal—belief among evangelicals that the existence of the modern State of Israel is a fulfilment of biblical prophecy), he does make it clear that he has no truck with the blood moons.

Some of the critics took advantage of a rather obvious pun. Thus, Pastor Wade Burleson's 24 March 2014 write-up on his Istoria Ministries Blog is entitled: "Four Blood Moons: It's Called Lunacy for a Reason". Christian apologist James P. Holding's short Kindle book (released on 23 March 2014) bears the title *Blood Moon Lunacy*, as does David Peter's critique on the (Calvinist) Concordia Theology website (10 April 2014).

Among the denunciations are some that at quite strong and have in turn been criticised for failing to maintain the spirit of Christian charity. Thus Holding in his Kindle book speaks of "the cyanide-laced Kool-Aid of misguided buffoons like Hagee". The allusion here is of course to cult leader Jim Jones and the tragedy at the People's Temple in Georgetown, Guyana in 1978. On this kid of reading, Biltz and Hagee are purveyors of prophetic poison that will lead sincere but gullible believers astray.

Perhaps the most robust and sustained critique of the blood moons prophecy is Mark Hitchcock's book *Blood Moons Rising: Bible Prophecy, Israel, and the Four Blood Moons*, which appeared in March 2014 and carries on its cover an endorsement from Tim LaHaye, co-author of the Left Behind series (and whose title surely pays homage to Creedance Clearwater Revival's 1969 hit "Bad Moon Rising"). Although it does not tell us if his readers agree with him or not, by 18 June 2014,

Hitchcock's book was selling much better than the Biltz and Hagee books on Amazon, with an sales ranking of 188. Hitchcock, who received his PhD from and is currently affiliated with the evangelical school Dallas Theological Seminary, professes belief in the Rapture, the Tribulation, the Antichrist and the Second Coming of Jesus. Prophecy is one of his special interests and his previous books include *The End: A Comprehensive Guide to Bible Prophecy and the End of Days* and *Iran and Israel: Wars and Rumors of Wars.* All of this places him within the mainstream of conservative evangelical eschatology. Yet even he is troubled by the unconvincing speculation and implied date-setting of the advocates of the blood moon theory, along with the worry that the inevitable failure of dates set by date-setters "gives the Bible a black eye".

This concern about how prophetic pied pipers can give the Bible and Christianity (or at least evangelical Christianity) a bad reputation is well-founded. As a quick search online will confirm, some of those sceptical of the Bible and Christianity have attacked and mocked the blood moons prophecy mercilessly. The blood moons prophecy has been a windfall to sceptics (who should perhaps show a little more gratitude for being handed yet another apocalyptic prediction to ridicule and scoff at). However, Christians can take solace in the fact that this scoffing too was foretold in the Bible: "Knowing this first, that there shall come in the last days scoffers, walking after their own lusts, and saying, 'Where is the promise of his coming?'" (2 Peter 3:3–4). And gleeful scoffing is precisely what the more vociferous of the critics are doing. But Bible-believing Christians surely do not want to contribute unnecessarily to the scoffing with exegetical excess and silliness and thus inadvertently be party to fulfilling that prophecy.

But would it really be fair to say that Biltz, Hagee and their supporters have produced the exegetical equivalent of an own goal? I will offer suggestions below for how the blood moons prophecy could be tested biblically, historically and astronomically. The following sections will also include elaborations on some of the more incisive criticisms of the blood moons prophecy supplied by both believers and non-believers. But first we will examine the genealogy of the blood moons prophecy.

The pre-history of the 'blood moons' prophecy

Although I mentioned above that the blood moons prophecy can be traced back to early 2008, this applies to Mark Biltz's specific theory. For, while Biltz is credited with first proposing the blood moon theory and while he represents his discovery almost as a divine revelation, many elements that make up the theory are not new. Several Jewish and Christian sites refer to the Talmudic record of the rabbis' belief that eclipses of the moon were bad omens for Jews and eclipses of the sun bad omens for Christians (the text itself says 'idolaters'), giving as the reason the Jewish calendar's dependence on the moon and the Christian calendar's dependance on the sun (Tractate Sukkah 29a).

Discussion on the website FulfilledProphecy.Com between 10 February and 2 March 2007 focussing on the lunar eclipse of 3 March 2007 mentions the tradition that lunar eclipses are bad omens for Israel, that the eclipse would take place on Purim and use "blood moon" as a synonym for lunar eclipse.

In an article released at the end of August 2007 on his World Watch Daily evangelical news

website, William Koenig cited what is presumably a secular news headline about the lunar eclipse of 28 August 2007 ("A Blood-Red Moon Rises over North America") and noted that two previous "blood-red" moons were associated with Israel offering to cede authority of the Temple Mount to the Palestinians (both the lunar eclipse of 28 August 2007 and an earlier one on16 July 2000). Koenig also mentioned the "blood-red" moons of 3 March 2007 (noting that it fell on Purim) and 21 February 2008. Moreover, he quoted Joel 2:31 and Acts 2:20 and noted the aforementioned Talmudic testimony that a lunar eclipse was a bad omen for Israel.

The Biblical Astronomy website, which displays quotations from Genesis 1:14 and Psalm 19:1-3 on its homepage, provides several significant precursors. Its newsletter for March/April 2008 contains speculations about the total lunar eclipses of 3/4 March 2007 and 20 [21] February 2008. The newsletter refers to both these eclipses as occurring on Purim, although only the first of the two did (according to the most commonly used Jewish calendar). The same newsletter shows the picture of the 21 February 2008 red moon over the Dome of the Rock referred to above. Intriguingly, the newsletter refers to the 2007 and 2008 eclipses as "Blood Red Eclipses". Biltz traces his blood moons odyssey back to March 2008 when he "saw on the Internet an incredible total lunar eclipse over the Temple Mount in Jerusalem", which inspired him to read all the biblical passages that speak "about the moon turning to blood and the sun to sackcloth" (Blood Moons, xvi). The Biblical Astronomy website does not indicate when the March/April 2008 newsletter appeared online, so it is possible Biltz saw the image elsewhere on the Internet.

In the May 2008 newsletter, its editor, Robert Scott Wadsworth, noted that "in late April I started to receive a number of e-mail inquiries concerning a video produced by J.R. Church featuring a presentation by Mark Biltz on certain upcoming lunar eclipses occurring on the feast days of Passover and Sukkoth in the years 2014 and 2015." After complementing Biltz on a "real good presentation" (h later also notes that he first learned of the NASA eclipse charts from Biltz's talk), Wadsworth questioned Biltz's claim that the tetrad of 2014-2015 would be the last of the twentyfirst century to fall on Passover and Sukkot. Wadsworth argues that this is only true of the Talmudic calender, but that if one used what he called "the Biblical calendar" and if the barley was late in ripening in 2033, the tetrad of 2033-2034 would follow the Passover-Sukkot-Passover-Sukkot pattern. Wadsworth also notes that only one of the eclipses of the 2014-2015 would be visible from Jerusalem and even then not its total duration. Perhaps most interestingly, Wadsworth refers to his newsletter of December 1996. In a section entitled "Lunar Eclipses on Holy Days" he states that (according to his interpretation of the calendar) "we are \[\text{now} \] in the midst of a string of Lunar eclipses falling on or within on day of the Jewish holy days of Succoth, Passover, and, or, Purim". He also notes that "[t]he moon is always full during an eclipse and during Passover or Succoth", but that while the current sequence of four in 1996-1997 could be seen from Israel, in only one other sequence in the twentieth century could all four eclipses be seen from Israel, namely, the string of 1949-1950. During the 1949-1950 string and another, 1967–1968, "Israel was at war with her enemies", although "[m]ost of the eclipses in 1967/68 were not seen from Israel". Later in the same newsletter Wadsworth notes that the Passover 1996 eclipse "appeared blood red over Jerusalem".

Other elements of the blood moon theory were proposed by the anonymous Jewish writer on The Ararat Scrolls blog in 2007. Blogging shortly after the eclipse on Purim in March of that year, the

writer noted that lunar eclipses had also fallen and would fall on Jewish holidays other than Purim. The writer lists the Passover/Sukkot eclipses of 1967, 1968 and 2014, but not those of 2015. The blogger does not claim to understand the significance of these juxtapositions, but they were offered a full year before Biltz claims to have discovered the pattern with the Jewish tetrads. Biltz doesn't make reference to this blogger's arguments and it is certainly possible that Biltz's discovery of the pattern was independent. However, it does seem more likely that Biltz was aware of the buzz around the 2007 Purim eclipse and, as already noted, he specifically mentions seeing a photograph online of a red moon over the Temple Mount in March 2008, which is probably the eclipse of 21 February 2008. Whatever the case, the vocabulary of "blood" moons used in the context of biblical prophecy, the association between lunar eclipses and Jewish holidays as well as the link between lunar eclipses and events in Israel all antedate Biltz's first broaching of the blood moon theory in the spring of 2008.

The Jewish calendar, history and the timing of the blood moons

The biblical cornerstone of Mark Biltz's blood moon theory is Genesis 1:14. This is the first verse of the account of Day Four of Creation:

And God said, Let there be lights in the firmament of the heaven to divide the day from the night; and let them be for signs, and for seasons, and for days, and years.

We have had occasion to refer to Genesis 1:14 above. The key for Biltz comes in the Hebrew word translated 'seasons' in the KJV (*Blood Moons*, 47–48). It is *mo'ed*, the same word translated 'feasts' in Leviticus 23:4, which speak of "the feasts of the LORD". The following verse mentions the Passover. Now, many biblical scholars see an allusion to the biblical feasts in Genesis 1:14, so this much is mainstream. What is not mainstream is Biltz's ancillary claim that "[w]hen God is about to be up to something big, He will send us signals via the sun and the moon on His feast days" (*Blood Moons*, 49). This would include 'blood moons' falling on feast days.

The Passover always begins on the evening of 14 Nissan, which is always tied to a full moon. Sukkot always begins six months later on 15 Tishri and is also tied to a full moon (the Feast of Tabernacles lasts for seven days inclusive, up to 21 Tishri). Biltz acknowledges this but sees it as part of God's design for this kind of sign. Whether that is true or not, fully one-sixth of all total lunar eclipses ('blood moons') will fall on Jewish holidays. The Law of Moses also instituted the festival of the new moon (Numbers 28:11-15). The new moon not only served as the beginning of the month in the Israelite calendar, but was a monthly religious festival similar to the Sabbath devoted to sacrifices and worship (1 Samuel 20:5–6; 1 Chronicles 23:31).

It will be helpful now to look at Biltz's three historic Jewish tetrads. For this, I have used the same source used by Biltz: NASA's *Five Millennium Canon of Lunar Eclipses:* –1999 to +3000 (2000 BCE to 3000 CE), prepared by Fred Espenak and Jean Meeus. This is an extremely valuable resource, and, like its companion the *Five Millennium Canon of Solar Eclipses*, lists the dates for all the eclipses (total or otherwise) covered in the period along with world maps showing where they would be visible.

We begin with the lunar tetrad of 1493-1494. The first lunar eclipse occurred on 2 April 1493 and

was fully visible on the Iberian Peninsula, as was the third on 22 March 1494. The second eclipse of 25 September 1493 was not visible at all from Spain and the final eclipse of 15 September 1494 was only partially visible. All four of the eclipses were only partially visible from the Levant. What of the New World? The first eclipse was only fully visible in eastern Newfoundland, the extreme eastern periphery of the Caribbean, but most of South America. The same is true of the third eclipse. The fourth and final eclipse, however, was fully visible in all of North and South America except the eastern portion of South America and the western part of what we now call Alaska. Perhaps one could argue that it is noteworthy that the first eclipse was fully visible in Spain and the last in the New World, but who in Spain and who in the New World would have seen any significance in these astronomical events? Moreover, in those days someone living in Spain would have had no idea of any eclipses happing in the New World and vice versa. Thus, no-one would have known about a sequence of four lunar eclipses. On top of this there is the added challenge of the first of the eclipses occurring over a year after the Alhambra Decree of 31 March 1492 and over eight months subsequent to the 31 July 1492 deadline for the conversion or expulsion of Spanish Jews. The first voyage of Columbus began on 3 August 1492 and his crew sighted land on 12 October 1492. This brings us only a little closer to the tetrad of 1493–1494.

There can be no question that the expulsion from Spain is one of the most significant events in the history of not only the Sephardic Jews (who take their name from the Hebrew word for Spain) but Jewry in general (for whom it remains the most notorious of several explusions). The first volume of historian Simon Schama's 2014 study of the Jewish people concludes with the expulsion from Spain (*The Story of the Jews: Finding the Words, 1000 BC–1492 AD*). If the pattern suggested by the blood moon proponents of tragedy followed by triumph holds true in this case, the triumph (massive immigration of Jews to the safe haven of the United States) was postponed until the nineteenth and twentieth centuries.

Next, we turn to the lunar tetrad of 1949-1950. The first in the series occurred on 13 April 1949 and was only partially visible in Israel. The same is true of the second eclipse of 7 October 1949 and the fourth of 26 September 1950. However the Passover eclipse of 2 April 1950 was fully visible in the entire Middle East. The first, third and fourth eclipses were fully visible in eastern North America and all of South America, but presumably this would not be seen as significant. How closely does the 1949–1950 tetrad correspond with the history of the Jews and the state of Israel? The most notable date here is 14 May 1948, when David Ben Gurion issued his Declaration of Independence of the State of Israel. Both the U.S. and the U.S.S.R. recognised the new state at once. But in fact this event must be seen as the most notable event in a series of events throughout what is known as the Israeli War of Independence. These events are commonly divided into two parts. The first part stretched from the 29 November 1947 United Nations Partition Resolution (which called for the creation of a Jewish state and an Arab state in Palestine) through ongoing clashes between Jews and Arabs following this Resolution, to the declaration of 14 May 1948. The second part began immediately after the declaration with the invasion of the Jewish sectors by armies from Lebanon, Syria, Iraq, Jordan and Egypt. The fighting continued up to 10 March 1949, with various truces between Israel and its Arab neighbours signed between February and June of that year. The war concluded with Israel in possession of roughly twice as much territory allotted in the U.N. partition plan.

If one argues that there is continuity between World War II and the Holocaust and the formation of the State of Israel including the War of Independence, it just might be possible to claim that the tragic and historically significant Holocaust is part of the same historical moment covered by the tetrad of 1949–1950. This argument might help explain why a blood moon tetrad did not signal an event so pivotal to Jewish history as the Holocaust, but it would come at a cost: the time from the beginning of the Nazi measures against German Jews in the early 1930s to September 1950 (the last of the blood moons) is a period approaching two decades in duration. Nevertheless, as with the tetrad of 1493–1494, this tetrad could be seen as a sign following and thus confirming the events. Although the single most important date is probably 14 May 1948 and the first lunar eclipse in the 1949–1950 tetrad did not occur until 13 April 1949, if one includes the truces (which extend into June 1949), the United Nations Lausanne Conference that dealt with the aftermath of the conflict (27 April–12 September 1949) and the admission of Israel into the U.N. (11 May 1949), it would be possible to claim that there is overlap between the events and the first lunar eclipse. Once again, one could also claim that (at least from the Israeli perspective), the pattern was tragedy followed by triumph.

The third Jewish tetrad is that of 1967–1968. The proposed corresponding significant event in Jewish or Israeli history is the Six Day War of 5–10 June 1967. This war with its Arab neighbours was quick and decisive with Israel capturing large swaths of Arab territory in the Golan Heights, the West Bank and the Sinai Peninsula along with the entire city of Jerusalem. Here for the first time we see a clear overlap between the tetrads and history for the first Passover eclipse occurred on 24 April 1967. Yet while the timing may appear significant, the geographical dynamics are much less noteworthy. Only the third eclipse of 13 April 1968 could be seen from Israel (and even then only partially), while the eclipses of 24 April 1967, 18 October 1967 and 6 October 1968 were not visible in Israel at all. While it may be possible to suggest that in an age of globalised telecommunications, the geographical dynamics of the eclipses are less important than the dates, a major difficulty for the blood moons theory is that there is no evidence that anyone noticed the significance of the tetrads at the time. *Crucially, this is true of all three of the previous Jewish tetrads*. Perhaps the tetrads are a sign that would only be recognised shortly before the fourth in the series, but for most believers and certainly for unbelieving sceptics the match between the dates and the geography of the eclipses will not be close enough.

We now come to the fourth Jewish tetrad. The first three eclipses (15 April 2014, 8 October 2014 and 4 April 2015) are not viewable at all from Israel. The last, which will be a super moon as Biltz has pointed out, will rise in Israel during the eclipse. While this could well be a dramatic sight (if the skies are clear) and although it could be seen as a climax, the fact that the first three eclipses will not be viewable in Israel considerably weakens the pattern. Clearly, four eclipses occurring on Jewish holidays, appearing in Israel and associated with events pertinent to the Jews or the state would be the most spectacular scenario. One in three of these elements is assured. The second is astronomically impossible. As for the third element, only time will tell.

Signs in the heavens: the biblical data

While the astronomical data and the Jewish festivals are both crucial to the blood moons prophecy, the most important *biblical* foundation is a series of passages that speak about signs in the heavens. Probably the single most important passage used to ground the blood moon theory in the Bible

is one we have already encountered from the prophecy of Joel:

'And I will show wonders in the heavens and in the earth, blood, and fire, and pillars of smoke.'

The sun shall be turned into darkness, and the moon into blood, before the great and the terrible day of the LORD come (Joel 2:30–31 KJV;

Jewish Tanakh: 3:3–4)

It is interesting that in this passage from Joel, the word 'blood' appears first on its own and then as a description of the moon.

Two other passages in the Bible speak of the sun being darkened and the moon turning to blood. The second is Acts 2:17–21, where the Apostle Peter in the speech he delivered after the outpouring of the Holy Spirit on the Day of Pentecost quotes from Joel 2:28–32, including the words about the moon turning into blood. The third and final example comes in the Book of Revelation as part of the description of the Sixth Seal:

And I beheld when he had opened the sixth seal, and lo, there was a great earthquake, and the sun became black as sackcloth of hair, and the moon became as blood (Revelation 6:12).

In both the Hebrew of the Old Testament and the Greek of the New Testament these examples use the word 'blood'. In all three cases, 'blood', at least as applied to the moon itself, is not meant to be taken literally. In Joel 2:31 and Acts 2:20 'blood' is metonymic, while in Revelation 6:12 it is used in a simile. Nevertheless, the use of 'blood' rather than simply 'red' in the description of the moon is rich with metaphoric potential, as is the description of the sun becoming dark or black as sackcloth. The first suggests bloodshed and the second death and mourning. Given their desire to use the dramatic expression "blood moons", it seems odd that neither Biltz nor Hagee emphasise the potential metaphoric significance of "blood". Perhaps they see the meaning of the language as self-evident.

Now biblical scholars debate which historical or apocalyptic events these passages refer to, but Biltz and Hagee see them as signs for a significant event or events in Israel and possibly as a herald of the return of Christ. In this, at least, they are far from alone among charismatic and evangelical Christians. But does the biblical record support the blood moons theory? Two important considerations are the wider scriptural context of the relevant passages and, more narrowly, the immediate context of the individual passages. Then there is the question of whether or not the imagery is meant to be taken as literal or figurative.

In terms of the wider scriptural context, it is important to note that in addition to the three passages cited above that explicitly describe the moon turning into blood, there is a larger group of biblical examples that present similar celestial imagery without the special emphasis on a blood-coloured moon. These passages speak of the sun being darkened and the moon simply not giving her light (with no mention of colour), both in the Old Testament (Isaiah 13:9–10; Ezekiel 32:7–8;

Joel 2:10, 3:14–15; cf. Isaiah 24:23, 34:4) and in the Olivet Prophecy (Matthew 24:29; Mark 13:24; the parallel in Luke 21:25 uses more general language: "And there shall be signs in the sun, and in the moon, and in the stars"; see also Revelation 8:12). Thus, when all of the passages are taken together, it is not immediately clear if the blood-moon subset is significant in itself (that is, pointing to blood as a defining feature) or merely considered as synonymous with a darkened moon.

Despite this important qualification, there is no doubt that one conclusion a reader could come to after examining these passages—both those that speak of the moon turning to blood and the larger number that describe it failing to shine—is that they refer to solar and lunar eclipses. After all, during a solar eclipse the sun is darkened, and during a full lunar eclipse the moon is not only darkened, but often takes on the colour of copper or rust (due to the sun's rays refracting through the earth's atmosphere). Yet as obvious as this conclusion may be to a modern reader informed by astronomy who is viewing these passages in isolation, it is not the only possible interpretation of this striking imagery. Perhaps our modern, scientific vantage point creates a bias that is unhelpful to understanding an ancient text in its original context.

Thus if we look at the key text of Joel 2:30—31, its placement in a longer section of text (that is, the entire first two chapters of Joel), which describes an invading army of locusts stripping bare the arable land of the ancient Kingdom of Judah, is not incidental to its meaning. Although it is clear that the invasion comes as a divinely permitted act of judgement against a morally failing Judahite society, biblical scholars are divided over whether the description of a plague of insects is meant to be taken literally or as an evocative portrayal of the invading armies of either Assyria or Babylon (depending on whether the prophecy points to the time before or after the rise of the neo-Babylonian Empire in the late sixth century BC). The language is vivid and frightening:

A fire devoureth before them, and behind them a flame burneth: the land is as the garden of Eden before them, and behind them a desolate wilderness, yea, and nothing shall escape them (Joel 2:3).

Whether a plague of locusts stripping bare the kingdom of Judah's life-sustaining crops or an invading army of human soldiers destroying life, fields and villages, the result is misery and desolation. If the former, the darkened sun and blood-red moon may be meteorological phenomena created during the locust plague itself or that arise in its wake as the brutal desert east wind known by its Arabic name *Sirocco* stirs up the sand and now-denuded and desiccated earth. If the latter, the blood, fire and columns of smoke of Joel 3:30 could depict the slaughter of people, the razing of villages and the heavenward ascent of the smoke of their burning.

Elsewhere in the Bible, several accounts of cities suffering violent destruction describe as one aftereffect columns of smoke rising to heaven (Genesis 19:28; Joshua 8:20–21; Judges 20:38,40; Isaiah 34:10; Revelation 18:9,18, 19:3). Smoke rising to heaven is thus a third possibility for an aerial effect altering the appearance of sun and moon from the perspective of the earth. The imagery is devastating and, yes, apocalyptic, but these would be celestial events in atmospherical

rather than astrophysical senses—descriptive as well as predictive. Still, the association between the literal and the figural is unmistakable: if the moon is blood red due to the fiery destruction of war then there is at least a poetic relationship between the bloody colour and bloody events—perhaps suggesting a link between human affairs (the microcosm) and the heavens (the macrocosm), although not in an astrological manner.

To add to all of this, there is a long-standing exegetical tradition that biblical passages about signs in the heavens have poetic or symbolic import. One example of this thinking is seen in Isaac Newton, who believed the sun and moon in biblical prophecy represented ruling powers, and saw the darkening of the sun and moon as symbols of the desolation of kingdoms (*Observations Upon the Prophecies*, 1733, 17–18). This idea can be compared to our modern way of speaking about those in power as being in 'high places' or in the 'political firmament' or issuing dictates 'from on high' (all idioms, by the way, that ultimately derive from biblical usage).

Thus, although Biltz and Hagee, along with others who have accepted their theory and even many who do not, see the biblical imagery of the darkened sun and the moon taking on a bloody hue as straightforwardly describing literal, astronomical eclipses, biblical scholars over the years have suggested a much wider range of options. Writing for JewishPress.com, Yori Yanover perhaps said it best: "The prophecy in Joel, like most prophecies, is surreal, beautiful, and open to many interpretations" ("Messianic 'Blood Moon' Rising on Passover Seder Night", 6 October 2013, JewishPress.com).

There are other questions as well. Arguably the most natural reading of the relevant passages would suggest that the darkening of the sun and moon are *concurrent* events. Added to this is the fact that each relevant biblical prophecy appears to mention only one occurrence of a 'blood moon'. After all, the text does not say "the moon turned to blood, the moon turned to blood. And why four? In biblical Hebrew, three iterations is emphatic. Seven often stands for a complete set. But what might be the significance of *four*? Why the focus on the moon? Although both Biltz and Hagee do draw attention to solar eclipses, the main emphasis is nevertheless on *lunar* eclipses. Eclipses of the sun play second fiddle and signs in the stars feature not at all. Yet in almost all the passages where the sun and the moon are conjoined as signs in the heavens, the sun is mentioned first. And the moon is never mentioned as a sign on its own; it is always paired with the sun.

While it is certainly understandable why there might be a great deal of fascination in *celestial* signs, the above-quoted passage in Joel 2:30–31 explicitly speaks of "wonders in the heavens *and* in the earth", with "blood, and fire, and pillars of smoke" presumably referring to the terrestrial signs and the sun and moon of the passage to the celestial signs (for reasons suggested already, the columns of smoke may be a transitional sign, phenomenally linking earth and heaven). The Apostle Peter in his quotation from Joel makes the dual application to heaven and earth even more explicit when he says: "And I will shew wonders in heaven above, and signs in the earth beneath" (Act 2:19). The third blood moons passage, Revelation 6:12, begins with an earthquake before mentioning the sun and moon. Of the other passages cited above, three follow the pattern earth-then-heaven (Isaiah 13:9–10, Joel 2:10, 3:14–15) and one heaven-then-earth (Luke 21:25). With this in mind, it is worth noting that some of the exegetes who oppose the blood moon theory contend that the relevant

biblical imagery points to something more phenomenally all-encompassing and eschatologically decisive than mere lunar eclipses pointing to singular events in Israel.

One should also ask whether the biblical prophets had in mind natural events (that is, what we would call eclipses, obviously less perfectly understood in the ancient world) or something purely miraculous? If a natural eclipse, it could be argued, as many do, that the miracle comes in what would not merely be propitious but providential timing. A purely miraculous event, on the other hand, would allow for the simultaneous occurrence of the solar and lunar phenomena—which would not (or rather could not) be actual astronomical eclipses.

With this in mind, it is worth considering the accounts of the crucifixion in the Synoptic Gospels (Matthew 27:45–54; Mark 15:33–39; Luke 23:44–47). All three accounts describe darkness coming over all the land from the sixth hour to the ninth hour (12:00–3:00pm). At the ninth hour, Jesus gave up his spirit and died. Luke adds the detail that during this darkness "the sun was darkened" (23:45). On the face of it, this sounds like a solar eclipse. Yet as the (evangelical) ESV Study Bible commentary for Matthew 27:45 stress, this could not have been a solar eclipse, since the crucifixion occurred on the Passover, which coincides with a full moon. Eclipses of the sun only happen during a new moon (fifteen days earlier or later than a full moon). Thus someone taking the scriptural text as authentic and the crucifixion as historical would have to conclude that the darkness between the sixth and ninth hours was preternatural rather than natural. This may have some bearing on how interpreters approach the prophetic passages about the darkening of the sun and the moon. If they are simultaneous, they could not be natural eclipses.

What of the predictive element of biblical prophecy? A God unbound by time can see or is even present with the future, so from a theistic point of view predictive prophecy is conceptually coherent. And the predictive element in biblical prophecy is certainly there and certainly important. One idea is that the fulfilment of biblical prophecy helps confirm the divine origin of the Bible and provides reassurance to God's people that he is and is faithful to his promises.

Two examples well known in the evangelical tradition are Nebuchanezzar's image in Daniel 2 and the restoration of the Jews to Israel. The latter is bound up in the blood moons prophecy, but has deep roots going back at least to the early seventeenth century when some Protestant prophetic exegetes began to argue that Old Testament prophecies about the Jews returning to Israel would be fulfilled literally in the future (so there is no retrospective interpretation here; this interpretative tradition was well established before significant Jewish immigration to the Holy Land began in the late nineteenth century). Seventeenth-century believers in the return of the return of the Jews to Israel include the philosopher John Locke and the physicist Isaac Newton, sometimes (wrongly) seen as the twin pillars of the Enlightenment. The establishment of the state of Israel in 1948 was widely regarded among more conservative Christians as a validation of biblical prophecy and a vindication of a centuries-old expectation.

As for Daniel 2, for many centuries a common interpretation (and still the dominant evangelical view) is that the image of gold, silver, bronze, iron and clay foretells the succession of Babylonian, Medo-Persian, Greek and Roman Empires that would conquer or control the land of Israel. The early seventeenth-century Cambridge polymath Joseph Mede, credited with helping to establish

premillenarian prophetic exegesis in the Anglo-American Protestant tradition, called the image of Daniel 2: "The A. B. C. of Prophecie" (Mede, Works, 3rd ed. (1672), p. 743). As it is dramatic and relatively easy to explain, this prophecy is commonly used by apologists as confirmation of the spirit of prophecy.

Whilst it is not difficult to see the appeal of predictive prophecy, biblical prophecy ultimately has two elements: predictive and directive. That is, prophetic portions of the Old and New Testaments often include moral messages amongst future events foretold. The Hebrew Prophets in particular were concerned with social justice and decried the lack of it at certain stages in the history of Israel and Judah—including the exploitation of the poor. Thus, the prophet Isaiah accuses the leaders of Judah and Jerusalem of crushing the people and grinding the face of the poor (Isaiah 3:15). The prophet Amos speaks similarly against those who thoughtlessly trample on the poor (Amos 5:11, 8:4). Arguably in phenomena like the blood moons prophecy there is an overemphasis on the predictive at the expense of the moral. It is true that the moral element is not completely absent from the blood moons prophecy. It is just that its advocates and the media have focussed almost exclusively on the predictive, pushing the moral element to the margins and helping to create and reinforce in the public sphere a one-dimensional view of prophecy as simple forecasting. Yet biblical prophecy is much richer and more nuanced than this.

These are not the only questions raised by an examination of biblical prophecy, as we will now see.

False prophets, false Messiahs and "trying the spirits"

Amongst the Christian criticism of the blood moon theory are the accusations that Biltz and Hagee are 'false prophets' and 'date-setters'. In the cultural world of evangelical Christianity, these are both extremely serious accusations. And both are rooted in the biblical tradition.

In Jesus' Sermon on the Mount, he issues this warning: "Beware of false prophets, which come to you in sheep's clothing, but inwardly they are ravening wolves" (Matthew 7:15). This is pretty strong language and the evocative wolf-in-sheep's-clothing analogy has become a fixture in the English language. (Something similar is also found in Aesop's Fables, but without the association with false prophets). But this language is also founded on much earlier biblical texts. In speaking of the Prophet to come after Moses (interpreted in the New Testament as ultimately pointing to the Messiah), Deuteronomy 18 also provides a test to determine a divinely sanctioned prophet from a false prophet:

'And if thou say in thine heart, "How shall we know the word which the LORD hath not spoken?" when a prophet speaketh in the name of the LORD, if the thing follow not, nor come to pass, that is the thing which the LORD hath not spoken, but the prophet hath spoken it presumptuously: thou shalt not be afraid of him" (Deuteronomy 18:21–22).

A so-called prophet with a failed track record is no prophet at all.

The Old Testament elsewhere speaks about "false divination" (Ezekiel 21:23), prophets who prophesy lies in God's name from "the deceit of their heart (Jeremiah 14:14) and those who

"prophesy false dreams" and thus "cause [God's] people to err by their lies" (Jeremiah 23:32). Such false prophets do not come from God.

In the New Testament, the charlatan seers of the Old Testament are called *pseudoprophētai*, that is, "false prophets" (Luke 6:26). These are the smooth talkers of ancient Israel and Judah who told the political leaders what they wanted to hear—the equivalent of the 'yes-man' political advisor of the modern world. In Matthew's record of the Olivet Prophecy Jesus warns against both "false prophets" and "false Christs" who will come and "deceive many", including "the very elect" themselves (Matthew 24:4–5,11,23–27). Similar words are found in Mark's record of the same prophecy (Mark 13:5–6,21–27) and in Luke's account of the prophecy (Luke 21:8) as well as earlier in the same book (Luke 17:22–24). In 2 Peter 2:1 we read of "false prophets" and "false teachers" coming among believers. In 1 John 4:1 it is said that "many false prophets are gone out into the world". Finally, the Book of Revelation speaks about an apocalyptic False Prophet who will at last be thrown into the Lake of Fire (Revelation 16:13, 19:20, 20:10). The Bible does not take too well to false prophets.

While on the island of Cyprus, Paul and Barnabas encountered a Jewish "false prophet" and magician with the ironic name "Bar-Jesus" (Aramaic for 'son of Yeshua') (Acts 13:6). So, although the Apostle Paul does not use the term "false prophet", he had first-hand experience with at least one. Yet, to false prophets, false Christs and false teachers, Paul adds "false apostles" (2 Corinthians 11:14) and "false brethren" (2 Corinthians 11:26; Galatians 2:4). In his letter to the Galatians, Paul laments that the believers there have accepted a 'counterfeit' Gospel (Galatians 1:6–9).

Other examples of the need for spiritual discernment between the true and the false, the valid and the invalid can be found in the New Testament. Paul in writing to the Thessolanians about prophesying, admonishes them to "prove all things" (KJV; ESV: "test everything"). Of the Jewish believers at Berea, it is said that they "were more noble than those in Thessalonica, in that they received the word with all readiness of mind, and searched the scriptures daily, whether those things were so" (Acts 17:11). John appeals to the recipients of his first epistle: "Beloved, believe not every spirit, but try the spirits whether they are of God: because many false prophets are gone out into the world" (1 John 4:1). This is the early Christian version of the sentiment encapsulated in the modern saying: "don't believe everything you hear".

From all of this come two conclusions: first, that the Bible itself contains a powerful critique of false prophecy and provides tools with which to discern true from false prophecy, and second, that any modern day interpreter of unfulfilled prophecy is play a high stakes game.

Not knowing the day and the hour—or the season

Mark Biltz is perfectly aware that some of his fellow believers have accused him of date-setting and have called him a false prophet. In a chapter of his book entitled "For the Naysayers", pastor Biltz answers some of these criticisms. Biltz knows the New Testament passages that say no-one knows the day or hour of Christ's return (the *parousia*). He denies he is doing this: "I have no idea when the rapture will happen. The only dates I am setting are when the eclipses will occur on the biblical calendar" (*Blood Moons*, 160). Biltz also rejects the label "false prophet" and even "prophet":

But I am not prophesying the coming eclipses. NASA has scientifically determined when they will occur. Neither am I prophesying that they will fall on biblical holidays. It is not I who determines when they fall. I am not a prophet, nor do I claim to be one. I am just letting the world know a pattern exists between when eclipses have fallen on past feast days and major events that have occurred at the same time (Blood Moons, 157–58).

These disclaimers may go some way to insulating Biltz from further criticism if nothing spectacular happens during the 2014–2015 tetrad cycle, but many observers are going to find a contradiction between these disclaimers and the positive claim on the back of his book that states: "GOD IS ABOUT TO MOVE MIGHTILY IN THE WORLD". Although the statement is non-committal as to detail, it more than suggests that something big is going to happen in or around the years 2014 and 2015 and, what is more, that this will be guided by Providence.

The idea of "date-setting" to which both Biltz and his critics refer comes out of several passages in the New Testament that state that no human knows the day of the second coming of Jesus. Taken together, these passages stress 1) lack of human knowledge of the day and 2) that the day will come at an unexpected time.

In his prophecy on the Mount of Olives, Jesus explicitly declares with respect to the timing of his return: "But of that day and hour knoweth no man, no, not the angels of heaven, but my Father only" (Matthew 24:36). Even Jesus himself, at least before his ascension to heaven, did not know the day. The passage continues by emphasising through examples that the timing of the return of Jesus was and will be unknown. Because of this, the faithful must be vigilant, always watching (37–42). Jesus uses the analogy of the master of the house, who had he known when the thief would break in, would have watched to prevent the intrusion (43; cf. 25:13). The passage concludes: "Therefore be ye also ready: for in such an hour as ye think not the Son of man cometh" (24:44). Similar thoughts are presented in Mark 13:32–37 and Luke 12:35–40 (verse 40: "for the Son of man cometh at an hour when ye think not").

The analogy of the thief in the night (used as the title of a chapter in J.R.R. Tolkien's classic novel *The Hobbit*) is also found in 1 Thessalonians 5:2,4; 2 Peter 3:10; Revelation 3:3 and 16:15. Now while some may want to argue that implicit in the analogy is the idea that the wise are watching and thus know when the thief is coming, the text does not say that. Rather, it is precisely because the faithful do not know the time that they must be watch and remain constantly vigilant. For the Christian, the return of Jesus is expected and certain, but the exact time is only known to God himself.

Some may also want to argue that while believers do not know the "day and hour", they might be able to determine a more general time such as a week, month or year. Yet, as Robert C. Newman (retired professor of New Testament at Biblical Seminary) notes in his short Kindle Book *The Blood Moon Prophecies*, Acts 1:6–8 and 1 Thessalonians 5:1–3 would appear to be fatal to this argument. The passage in the Book of Acts has the disciples asking Jesus just before his ascension to heaven whether he would at "this time restore again the kingdom to Israel?" Jesus replied: "It is not for you to know the times or the seasons, which the Father hath put in his own power" (Acts 1:7). The

Greek words translated "times" and "seasons" are *chronos* and *kairos*, which are more general than "day" and "hour". The same two words are used in 1 Thessalonians 5:1–3.

Whilst a person could attempt to parse the meaning of "day" and "hour" to refer to something narrowly literal, it seems pretty clear that the intended force of these passages is to affirm human nescience about the date of the *parousia*. Not that this should be in any way surprising. In biblical and classical theism God is omniscient and this applies to the future as well as the present. Inherent knowledge of the future is a divine prerogative that does not extend to mortals. This is an unwavering theme in the New Testament. Thus the introspective believer might conclude that far from unwarranted date-setting invalidating the prophetic spirit, these warnings confirm it. Date-setting always will come to nought. The track record of this biblical claim is, thus far, perfect.

Date-setting and the problem of prophet failure fatigue

One of the biggest concerns of Christians who are sceptical of the blood moons prophecy is that it will bring the Bible and Christianity into disrepute—or at the very least certain approaches to biblical interpretation and certain kinds of Christianity. This is not only because of the association with a particular prophetic interpretation being mocked and ridiculed by unbelievers, but also the concern over the inevitable failure of the prophetic forecasts. Thus the damage to Christianity is twofold, involving both external relations and internal health.

Date-setting in Jewish and Christian prophetic interpretation is nothing new. It occurred in the early Church. It occurred in the Medieval Church and in Jewish Messianic movements in the Middle Ages and early modern period. The Jewish Talmud warns against setting dates for the coming of the Messiah and issues a curse on those who attempt to predict the end times. The Medieval Jewish philosopher and physician Moses Maimonides also cautioned against date-setting (although he seems to have succumbed to the temptation at least once himself).

Several Protestant exegetes in the seventeenth and early eighteenth centuries put forward dates for the time of the end—more often than not placing the date within their lifetimes. Isaac Newton was all too aware of this phenomenon and wrote against it in his private theological papers. In some of the calculations he carried out late in his life of the 1260-day period in the Book of Daniel (Newton, like other Protestant interpreters of his time took these prophetic days as literal years), which he saw as the period of the Church's deepest corruption, he considered the year 800 as a likely starting point. According to this timeline, the events of the time of the end (including the Battle of Armageddon and the return of Christ) would occur around or after the year 2060:

It may end later, but I see no reason for its ending sooner. This I mention not to assert when the time of the end shall be, but to put a stop to the rash conjectures of fancifull men who are frequently predicting the time of the end, & by doing so bring the sacred prophesies into discredit as often as their predictions fail. Christ comes as a thief in the night, & it is not for us to know the times & seasons w^{ch} God hath put into his own breast (National Library of Israel, Yahuda MS 7.3g, f. 13v).

Some jottings on a letter slip (dating from no earlier than 1705) also present the AD 800 + 1260 years = AD 2060 calculation (Yahuda MS 7.30, f. 8r). It was this manuscript fragment that made

headlines around the world in 2003, when many were stunned to discover that Newton, long associated with mathematics and physics, was also a believer in biblical prophecy. (Although this had not been my intention, it fell to me to be the messenger of this news to the wider public when I appeared in the BBC document *Newton: the Dark Heretic* in the Jerusalem archive holding the 2060 letter slip fragment).

Now, while it may at first appear that Newton is falling in line with other date-setters, there are some crucial differences. First, his calculations are *private* musings, written on scraps of paper that were never meant to be made public (and certainly not in the way they were in 2003). Second, unlike many exegetes of his own day, Newton does not place the time of the end in his lifetime. Third, Newton explicitly criticises those of his contemporaries who set dates, revealing his concern that "the rash conjectures of fanciful men" would tarnish the reputation of biblical prophecy. Fourth, Newton alludes to the same set of scriptural texts enumerated above that disallow and disavow date-setting. Only God knows the time.

In a selection of his prophetic manuscripts published posthumously, Newton presents similar concerns:

The folly of Interpreters has been, to foretel times and things by this Prophecy [the Book of Revelation], as if God designed to make them Prophets. By this rashness they have not only exposed themselves, but brought the Prophecy also into contempt. The design of God was much otherwise. He gave this and the Prophecies of the Old Testament, not to gratify men's curiosities by enabling them to foreknow things, but that after they were fulfilled they might be interpreted by the event, and his own Providence, not the Interpreters, be then manifested thereby to the world. For the event of things predicted many ages before, will then be a convincing argument that the world is governed by providence (Newton, *Observations upon the prophecies* (1733), pp. 251-2).

This time, Newton's warning was released to the public in the form of a posthumous book. For Newton one of the chief purposes of biblical prophecy was to provide evidence for divine providence. This higher purpose is rendered much more difficult when interpreters make rash, personal predictions based on it. Interpreters are not prophets.

Despite words of caution going back to the ancient world, the lesson apparently has to be relearned in each new generation. One of the greatest prophetic debacles ever centred around the 1840s Millerite movement in the U.S. The Upstate New York farmer and Baptist lay-preacher William Miller concluded through personal study in the 1820s that the 2300 days (*i.e.*, years) of Daniel 8:14 began in 457 BC with the decree of the Persian Artaxerxes I to rebuild the destroyed city of Jerusalem. The 2300 years would end around 1843 with the Second Advent. At first Miller kept his calculations private, but he eventually went public with them in the 1830s and by the early 1840s the prediction had become a nation-wide and even, to a certain extent, international phenomenon. Although Miller himself resisted coaxing from his followers to give a precise date for Christ's return, he did narrow it down to between 21 March 1843 and 21 March 1844. When 21 March 1844 passed without event, further dates were offered: 18 April 1844 and then 22

October 1844 (the latter two using the Jewish Karaite calendar as opposed to the Jewish Rabbinic calendar).

The ultimate failure of these dates led to what historians of American religion call The Great Disappointment. There were several outcomes of the failure: some gave up on Adventism, but others did not. In fact, from the ashes of The Great Disappointment arose the various denominations of the Adventist movement, many of which continue to be vibrant to this day. One notable response involved the reinterpretation of the 22 October 1844 date as Jesus enacting a cleansing in heaven rather than on earth. So, the date was correct, but the initial expectation of what would take place on that date was not. This approach was important to the development of the Seventh-Day Adventist Church (the denomination numbers eighteen million globally today). Thus, a prophetic failure is not necessarily fatal to the movement advocating it (especially if believers separate the fundamentals of their faith from the pronouncements of fallible spokesmen).

One also thinks of the much more recent well-publicised (and frequently mocked) 2011 prediction of Harold Camping, evangelist and long-time president of Oakland, California's Family Radio. With one significant failed prophecy already on his exegetical CV (he had predicted that Judgement Day would likely come on or close to 6 September 1994), Camping launched a campaign to warn the world that Judgment Day and the return of Christ would occur on 21 May 2011. This would be followed by five months of hell on earth, with millions dying every day and culminating in the Rapture and the destruction of the cosmos on 21 October 2011 (the destruction of the earth, much less the destruction of the entire universe, is nowhere taught in the Bible). One of the things that made this campaign so striking was the dogmatism and the tenacity with which Camping and his followers stuck to the dates and the content of the prediction in the lead-up to 21 May 2011. Dramatic billboard signs went up (stating "The Bible Guarantees It") and Camping's adherents toured the U.S. in R.V.s with their message of assured doom for unbelievers (and thus for some the Camping adventure was also camping adventure, if nothing else). All of this seemed to work very well prior to 21 May 2011. Camping received tremendous publicity and his followers remained positive and strong—some even selling off homes and cashing in their life savings to help fund the marketing of Camping's Judgment Day. But the game was up on 21 May when nothing happened. Camping shortly afterwards pulled the classic move of the failed prophet: he claimed that the date was correct, but that the judgment that occurred on 21 May 2011 was "spiritual". He continued to hold firm to his prediction about the rapture coming on 21 October 2011, although being careful to remain out of the public eye. In the interim, Camping, by then almost ninety years old, suffered a stroke and on 7 March 2012 in a letter released by Family Radio he admitted both that his critics who had warned that the Bible rejected date-setting had been right all along, that his attempts to do so were "sinful" and that he was out of the business of "Doomsday Predictions" for good. At least the nonagenarian preacher had the humility to admit that he was wrong. But the damage had by then been done. Camping's followers were disillusioned and the revenues of Family Radio experienced a precipitous decline. It must be said that most Christians also looked at the Camping campaign with dismay and incredulity. Nevertheless, Camping's colourful efforts provided sceptics and atheists with a heaven-sent opportunity to mock end-times predictions. But more than this, some used the opportunity to contend that the problem was not merely over-enthusiastic preachers, but that the Bible was not the Word of God.

The Camping debacle should provide a lesson for would-be prophetic date-setters. It might be possible to sustain such a prediction for a while before the final fulfilment date and the sensation surrounding a spectacular prediction may event yield evangelistic dividends. But this is a strategy that can only succeed in the short term—much like cyclist Lance Armstrong's steroid use brought him short-term success, fame and fortune, but long-term ignominy. There is not only the bad press that follows a failed prediction (and the more it was publicised, the greater the risk of negative publicity), but also great potential to lose followers through disillusionment.

Now, without explicitly claiming that this is his purpose, Mark Biltz has laid some of the groundwork to prepare blood moons advocates for a prophetic failure, or at least what some might consider to be a failure. Although he explicitly tries to distance himself from the label 'date-setter', Biltz still insists that the blood moons are signs—but not of specific *dates*. He makes it clear that the associated significant events will not necessarily occur on the date of one of the lunar eclipses. Noting that the blood moons of 1949–1950 occurred after the prophetic event and that the blood moons of 1967–1968 did not correspond precisely to one of the eclipse dates, Biltz says that "[i]f nothing noteworthy happens in 2014 or 2015, it just means these are signs of things to come" (*Blood Moons*, 159). But how long after 2014–2015 could a prophetically significant event happen and still be considered linked to the bloods moons of those years? If the current tetrad is anything like the three previous Jewish blood moon tetrads, the window is probably not more than four years, including a year before and a year after the tetrad.

All of this begs the question: what if the blood moons prophecy fails?

The blood moons: a prophecy that cannot fail?

But perhaps the prophecy cannot fail. Hear me out. First of all, in the fast-paced arena of world events, four years is an eternity. This is even true for Israel, which is rarely out of the headlines. My own entrance into the world of the blood moons began in earnest when a request for an interview on the topic came from CBC Radio's Halifax Mainstreet programme through my university's Advancement Office. I was approached because I study the relationship between science and religion. But I am no astronomer, so I agreed to the interview only after receiving assurances that an astronomer would also appear on the same show, which in our case aired live (on 15 April 2015, after the early morning eclipse of the same day). Amongst other things, I said "with respect to what is going on right now in world events, it's a pretty sure bet that something's going to happen". My host interjected: "Because something always does". I mentioned specifically Russia in the Ukraine (noting that Russia is traditionally seen as the invader of Israel prophetically signified in Ezekiel 38 and 39) and the then-current impasse in the Israeli-Palestinian peace process, reiterating the point that "it's likely that something will happen".

Second, perhaps Biltz and Hagee have set the goal posts so far apart that they are guaranteed of a score. The only question is whether it will come as the result of a spectacular shot. The subtitle of Hagee's best-seller *Four Blood Moons* is *Something Is About to Change*. The back cover of Biltz's *Blood Moons* has the blurb: "Something remarkable is on the horizon. God is about to move mightily in the world. Are you prepared?" To be fair, the main focus of both Biltz and Hagee is Israel and the Jews. But both men also mention Wall Street crashes and judgement on America. Given the vagueness of the predictions and the wide target of the four year period associated with

the current tetrad, even the more limited focus on Israel made it likely that, well, something would "change".

What exactly did the year 2014 bring? As it turned out, rather a lot. In a video released on 22 December on the CNN website, senior correspondent Christiane Amanpour summed it up: "It is impossible to judge, but 2014 certainly does feel like an unprecedented year of global strife and conflict, from Ukraine to Africa all the way to Iraq." She went on to single out the civil war in Syria as the most significant of many significant events, but of course this conflict also extends back several years. On the very day of the first eclipse, 15 April, headlines were made when over 200 Nigerian school girls were abducted by the radical Islamist group Boko Haram. Even before the first blood moon, beginning with a stealth invasion in late February and followed by a controversial referendum, Russian annexed Crimea. Given the already mentioned traditional interpretation of Ezekiel 38 and 39, the prospect of a newly expansionist Russia began to create excitement among some conservative interpreters of prophecy. The Ebola epidemic in Africa, which was accompanied by sinister headlines, was another major development of 2014. In terms of the Middle East, the seemingly unexpected rise of the brutal and radical Islam State in Iraq and Syria (ISIS) and their rapid expansion in Iraqi and Syria territory, will leave a permanent mark on world history whatever the eventual outcome. A radical Islamic caliphate that has as one of its goals the destruction of Israel could certainly be seen as significant in terms of the blood moons prophecy by those who support the theory. That it is close to the borders of Israel is also significant. The attempt by the Saudis to make North American oil production economically unviable by flooding the market with oil and thus reducing the price of gas in some U.S. states to below \$2 a gallon (earlier in the year it was over \$4 a gallon) is a development that connects the U.S. with the Mid-East.

The big news in Israel was of course that there was a war. Ostensibly provoked by the kidnapping and murder of three Israeli boys, Operation Protective Edge was a fifty-day conflict that began on 8 July and saw the IDF battle with Hamas in the Gaza Strip. One of the objectives was the erosion of Hamas's military capacity and the destruction of their network of tunnels into Israel. These were discovered to be more extensive that originally believed, with many news sources reporting that Hamas had planned to launch a limited attach on Israeli civilians from these tunnels using Palestinians on motorcycles dressed in IDF uniforms. Operation Protective Edge averted this and other possible incursions into Israel from Gaza. But unrest continues in Israel, which has also seen an uptick in terror attacks.

What have the two main blood moon theorists, Biltz and Hagee, been saying about developments in 2014? In his Hagee Hotline television update for 4 March, Hagee reported on the Russian invasion of the Crimean Peninsula over the previous weekend. Although he did not mention the blood moons, he suggested that this invasion might be a prelude to World War Three, just as Germany's invasion of Poland helped set in motion World War Two. He argued that Russia has a strong and bold leader in Putin, who is taking advantage of a weak leader in Washington (Obama). For Pastor John Hagee, "Mr. Putin is the leading edge of what is quickly becoming a new world disorder". With his Bible open before him, Hagee alluded to prophetic Russia's role in Ezekiel 38 and 39, and suggested that Russia needed to take Israel if it wanted to control Mid-East oil supplies.

In the week following the first blood moon, Hagee's son Matthew Hagee appeared on the Hagee Hotline to address the unfolding of the blood moons prophecy. After summarising the 1493–1494 tetrad (although he stated that 1492 was the beginning of the blood moons), he argued that history was repeating itself, for shortly after the blood moon of 15 April 2014 a pro-Russian faction in the Ukraine "required that all of the Jews in their area register. That they register their families. That they register their properties. And that they be prepared to pay fifty dollars' tax for their deportation. What happened in 1492, happened again last week in the Ukraine—on the first of four blood moons."

John Hagee presented a television address after the second blood moon of 8 October in which he asked his audience to "think about how much has happened so quickly, as the world as we know it is racing toward Armageddon". It wasn't difficult for the pastor to list apocalyptic events. He began with Isis. He once again referred to Russia's annexation of the Crimea, along with Russia encircling the Ukraine, adding that "Russia smells America's weakness". He then made the bold claim: "More has happened since the first blood moon than happened in fifty years of my father's ministry". He mentioned Iran assisting Hamas, who Hagee said started the war in Israel by kidnapping the three Israeli school boys. In addition, there was the discovery of the tunnels from Gaza into Israel and the tunnel plot, which would have involved mass killing and kidnapping of Israelis—the originally planned date of the attack being Rosh Hoshanah. He told his viewers that Hagee went on to talk about what he sees as a growth in lawlessness in the United States, including (in an allusion to the immigration crisis in the U.S.) criminals pouring across the border in Texas. He also spoke about the protests in Ferguson, Missouri being infiltrated by criminals. He said that racial war would bring marshal law and then dictatorship in America. To this he added that he saw the soon fulfilment of Ezekiel 38 and 39. There can be no question that 2014 has given Hagee a lot of material to work with.

Joseph Farah's media organisation WND, allied with Mark Biltz, continued to promote the blood moons after 15 April 2014. A few days after the first eclipse, a report was released on the WND website entitled "Middle East Stunner Follows 'Blood Moon". The report used dramatic language to describe how Mark Biltz shortly before 15 April had claimed that the Israeli-Palestinian peace talks would break down, which they did shortly after the eclipse (although Biltz did not say when this would happen).

Mark Biltz himself published a letter—an update of sort—on the WND website in September (it is entitled "Will Tribulation Begin a Year From Now?", but this might not be Biltz's title). Curiously, he did not mention the war in Israel directly, but he have other things to talk about. He began his letter with the following summary:

Where has the world headed since the first blood moon on Passover of 2014? Our world has now gone past the tipping point, and events are now accelerating out of anyone's control. Just as ISIS has gone from the JV team to the A team, along with events spreading from Russia to Ukraine and planes being shot out of the sky, we see everything developing exponentially.

He then went on to talk about the Ebola virus, the growth of terrorist attacks in Jerusalem, a major increase in earthquakes in 2014 (this is not borne out by the evidence) and "major droughts", such as in California (the drought here has not ended, although there has been some significant rain).

To this he added a suggestion that the seven-year Tribulation "could begin next fall" with the end of the current tetrad cycle, although he was careful to qualify this suggestion by stating that he was not saying that Christ would return or that the Rapture would happen next fall.

In short, enough has happened in 2014 for blood moons advocates to claim success even if 2015 is, in terms of world and Israeli events, a relatively calm millpond of a year. If I can make a prediction of my own (albeit a safe one), it isn't likely to be. As already implied, in a certain sense the blood moons prophecy cannot fail is because a) the scientific part is assured and b) nothing never happens in the Middle East (if the reader follows this turn of phrase). The Middle East and especially Israel are never far from the headlines. But currently there is more news than normal in the Middle East due to the unfolding or unravelling of the Arab Spring that began in early 2011.

But there is another way to test the success of the blood moons prophecy. Isn't the true measure of success whether or not an event of the scale of 1948 or 1967 occurs in Israel? The two previous blood moon tetrads are associated (according to Biltz and Hagee) with the Israeli War of Independence and the Six Day War. By any objective measure, these are the two most significant events in the history of modern Israel. An event of this magnitude is a much higher threshold.

If we divide the possible outcomes into three categories on a continuum we could come up with the following range of possibilities:

- 1) nothing happens
- 2) something between nothing and something of the significance of 1948 and 1967 happens
- 3) something of the significance of 1948 and 1967 happens

Even before the current tetrad cycle began, the first possibility could have been ruled out because, as we've already noted, nothing never happens in Israel—especially if the temporal parameters are four long years. An event in the middle category would be a third Intifada (the first two being in 1987–1993 and 2000–2005), the Lebanon War of 2006, Operation Cast Lead (2008-2009) OR Operation Pillar of Defence (2012). Remember, according to the blood moons theorists, these events have to begin as a catastrophe or a challenge for Israel and end with at least a partially favourable resolution. What we have seen thus far is an event, Operation Protective Edge, that is certainly significant, but that falls into category two rather than three. Seen in this light, the blood moons prophecy has yet to succeed. But even if we do see a category three event in Israel before the end of the current blood moons cycle, there would be no way to prove that this is a fulfilment of the relevant biblical prophecies, since these are not necessarily amenable to the interpretation put on them by Biltz and Hagee.

Science, religion and the blood moons

Mark Biltz and John Hagee have been careful to link the blood moons prophecy closely with the NASA lunar eclipse predictions. I have argued that in doing this, one part of the prophecy is guaranteed to be fulfilled. But is this not a dangerous business. What of the possibility that a less than stellar fulfilment could lead some to lose their faith, or at least seriously question it—if they are not able to distinguish between their faith and a particular interpretation of prophecy? We have also discussed the way in which the blood moons prophecy has become fodder for satirists and sceptics. The proponents of the theory bear a heavy responsibility. That said, most Christians do not accept the blood moons prophecy, so a sense of proportion should be maintained. And, even

those who do are being appropriately cautious about the implications for the date of the return of Christ.

Here is another possibility: in the event of a less than stellar fulfilment, a sceptic or even a sceptical believer might conclude from all this that the predictions of science are always fulfilled (which of course they aren't), while biblical predictions are not. Is this the outcome the promoters of the blood moon prophecy desire? Lest we forget, failed predictions occur in the world of science and technology too. There was a massive, resounding failure on Y2K—a technological apocalypse of epic proportions, as those who lived through the late 1990s will remember well. But it was a failure of prediction, not a failure of computer systems. And people got over it quickly and adapted. Dan Gardiner in his 2010 book *Future Babble: Why Expert Predictions Fail – and Why We Believe Them Anyway* details many examples of confidently made forecasts that have been dismal failures. In addition to the Y2K fiasco, he recounts Paul Ehrlich's warnings in the 1970s about the "Population Bomb" and speaks of experts whose predictions were no better than that of monkeys. Interestingly, he also notes that experts whose predictions fail often refuse to admit that their predictions have failed.

Jewish and Christian apocalypticism at first glance would appear to many (especially secular critics of these religions) as the antithesis of science, which is sober and self-correcting. But is the difference really so stark? I have above outlined examples of fellow believers in biblical prophecy challenging the validity of the blood moons theory, suggesting that religion, too, can be self-correcting.

It is easy for a secularist to point to religious apocalypticism as evidence of a great distance between science and religion (with the advantage going to science), but deeper thinking suggests that there may be more similarities than some might imagine. For, is it not true that secularism has provided more than its fair share of apocalyptic scenarios, either real or potential? When one begins to consider nuclear weapons, climate change and the problems of environmental degradation, it is not too much of a stretch to say we live in what appears to be apocalyptic times (in a sense that is true for believers and non-believers alike). The Doomsday Clock was created and is maintained by secular scientists, not religious fanatics. Lord Martin Rees, Britain's Astronomer Royal, argued in his 2003 book *Our Final Hour* that we only have a 50/50 chance of surviving the current century. On *The Daily Show* in September 2013, Jon Stewart managed to get "New Atheist" Richard Dawkins to admit we're more likely to be done in by science than by religion (although before this full admission Dawkins did try to slip in the suggestion that it would be a religious fanatic using the tools of science and technology).

It is easy for rationalists to look at religious people who make apocalyptic predictions with scorn. But these prophetic interpreters feed off sensationalised news stories in the secular media in a complicated feedback dynamic: the media believes people want sensation and perhaps even sometimes target the religious audience. Science fiction and disaster movies also contribute a good deal of apocalyptic thought. Apocalypticism is found both within and without religious circles.

I do not want the reader to mistake my meaning here: I am not making light of apocalyptic thinking. Instead, I am saying that this kind of thinking is not confined to those of religious

sentiment, but is much more widespread.

So, might religion in cases like the blood moons benefit from being more scientific? But could not one argue the reverse? Might not the blood moons prophecy be unbiblical precisely because it is too scientific? One of its chief building blocks are, after all, scientific predictions. At the risk of sounding paradoxical, one might also say that the blood moons prophecy is at once too astrological and too scientific.

One final thought: given that we probably know rather less than we think we know, we should probably be a little bit less arrogant and dogmatic in both our religion and our science.

Stephen David Snobelen Los Angeles, 31 December 2014

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