Eclipse This!

The second of four total eclipses occurring in 2014-2015 happens on October 8th. The Earth's penumbra begins touching the moon's face at 1:17 AM PST. The moon will begin to turn red at 2:18 AM PST with the maximum eclipse taking place at 3:55 AM PST. The astronomy term for this cycle is a Tetrad which is defined as four total lunar eclipses with no partials in between. The more poetic name for these cycles is a blood moon cycle, so named because of the coppery, red color the moon takes on as it is in the Earth's shadow. The photo above was taken of the first of the set occurring on April 15, 2014 on a beautifully clear night in Colorado. Mars and tiny, blue Spica are photobombing here as well!

Humans have been fascinated by eclipses for thousands of years and some pretty interesting beliefs and traditions have been sparked by them. The astronomers of Mesopotamia were the forefathers of modern, Western astronomy. Their earliest records of observed eclipses come from the 8th century BCE and by the 3rd century BCE there is evidence that they were already using fairly sophisticated methods to accurately predict celestial occurrences, such as eclipses. Though fairly scientifically advanced for the time, Mesopotamians feared eclipses and believed that eclipses were an attack on their king from the gods. They would actually install a fake king when they knew an eclipse was coming. Some poor citizen would have to pretend to be the king so if anything bad did happen during the eclipse, it would happen to him and not the real king. He didn't have any real power or access to the harem or anything, he was just sitting there waiting to see if he was going to get cursed. That has to rank down there with royal food taster as crappiest jobs in all the realm.

Astronomy has a long history in China as well. Extremely accurate star maps and lunar cycle observations have been found dating back to the Shang Dynasty in 1600 BC. The Chinese were no big fans of the eclipse either. They believed that a dragon was eating the sun during an eclipse. Personally I think that would be awesome to see but the Chinese were known to make as much noise and commotion as possible to scare the dragon away. Thousands of generations of my Chinese ancestors are about to be really mad at me but I always thought traditional Chinese music sounded like someone threw the silverware drawer down the stairs and then herded a bunch or cats in heat into a recording studio. This explains it! Here, watch this video of a traditional Chinese Opera and tell me that I'm wrong!

In India they close the temples during an eclipse to this day. Hindus associate eclipses with negativity. In the Vedas there is a story of a demon trying to steal the sun and moon. Temples are made specifically to draw in astral energies so they don't want to be drawing any of that negativity to the deities that reside within the temple. Hindu's try to stay inside as the eclipse is occurring and pregnant women may stay inside for days to avoid any negativity affecting her unborn child.

There is cave and rock art around the world thought to depict eclipses including at some ancient Native American sites. Native tribes will likely not be out watching eclipses on Wednesday. Indians regard the sun and moon as deities and ancients saw it as an attack on the gods. It is said that the Ojibwa would shoot flaming arrows up at the sky trying to reignite the sun or moon during an eclipse which they thought were being extinguished. It's a beautiful visual to think about but I'm guessing Smokey the Bear is against this one.

Jews are especially interested in these blood moon cycles. They don't necessarily think that they are all negative but they believe that these cycles portend some sort of widespread change. During the blood moon cycle in 1492 – 1493 Jews were expelled from Spain. It's a widely held theory that Columbus may have been Jewish and had a better reason then finding a new spice route to get out of Dodge (or is it Eludir in Spain?), when he did. In the blood moon cycle of 1949 – 1950, Israel became a state. In 1967 – 1968 Jews recaptured Israel. This year, shortly after the first eclipse, nine months of peace talks dissolved into Israel and Palestine exchanging ever escalating rocket and mortar fire over Gaza and 50 days of War. This series of lunar eclipses are especially interesting as they are all occurring on Jewish Holidays. The Eclipse on the night of April 14th/morning of the 15th occurred on Passover. The one coming on the night of the 7th/ morning of the 8th of October will be on The Feast of Tabernacles or Sukkot. Next year on these same holidays on April 4th and September 28th there will also be total lunar eclipses. It makes sense that if an eclipse occurs on one Jewish holiday it would follow on subsequent ones because they are on a lunar calendar but it's also interesting to note that the solar eclipses on March 20th, 2015 and September 12, 2015 will be on Adar 29/Nisan1 and The Feast of Trumpets respectively.

In between 2001-2100 we will be having a series of 8 Tetrads. During the 17th, 18th, and 19th centuries there were none at all! The Eclipse on the 8th is going to be a rare Selenelion Eclipse. A Selenelion eclipse is actually atmospheric smoke and mirrors. During and Eclipse the sun and moon are in a perfect 180% opposition. Atmospheric refraction allows us to see the sun for several extra minutes before it has officially risen and the moon for a little longer after it has set. Atmospheric refraction is what produces mirages such as making distant objects appear to ripple or be a body of water or P-Diddy driving a Fiat to a party tent. Unfortunately for us in the western part of the US, this phenomenon will only be visible east of the Mississippi. The

Selenelion effect I mean, not Diddy. If you want to do some eclipse viewing planning you can check out NASA's Lunar Eclipse and Solar Eclipse charts which will tell you when eclipses are happening through 2020 and from which continents they will be visible. Happy viewing! We'd love to see your pics! Send them to our Facebook page at https://www.facebook.com/Kryschendo!

Until next time,

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