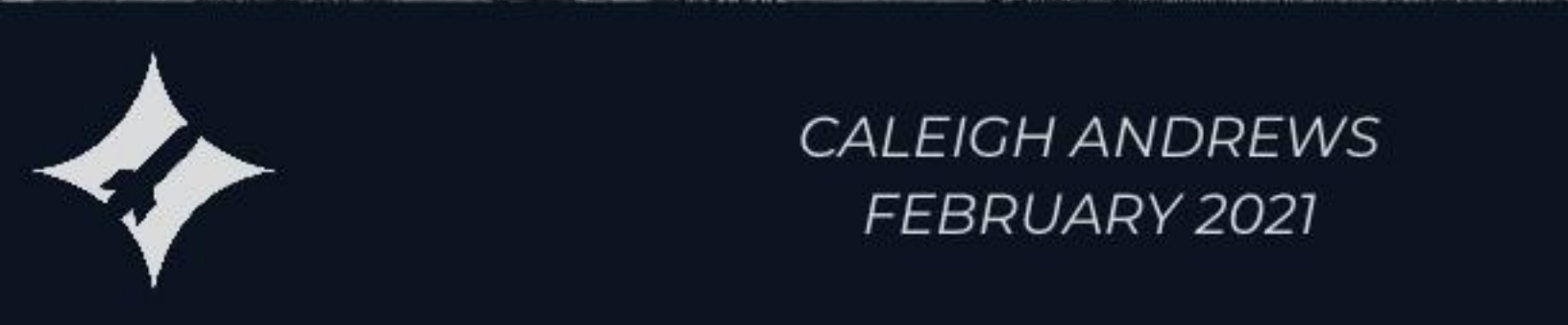


THE MAN IN THE MOON: A HUMAN EXPERIENCE



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Approximately 3.8 billion years ago, a gigantic asteroid smashed into the northwestern quadrant of Earth's only moon, forming a dark basin massive enough to be visible to the naked eye. Around 3.8 billion years later, this same spot, known to science as the Mare Imbrium, weathered another impact when a fictional spaceship plunged into the anthropomorphic Moon's right eye in George Méliès's celebrated 1902 film *Le Voyage dans la Lune*. In the years between, "the Man in the Moon" was woven into Western legend, furnishing the common man with a way to intimately interact with Earth's natural satellite by personifying it.¹

The Mare Imbrium recaptured the attention of the scientific community in 2016, when an article published in the acclaimed journal *Nature* suggested that the basin's origins were far more spectacular than had previously been believed. The article asserted that the Mare Imbrium was created when an asteroid with a diameter of 150 miles, almost 30 times the height of Mount Everest, smashed into the Moon. This new size estimate was ten times more massive than previous estimates, large enough to classify the asteroid as a protoplanet. The impact took place during a period between 3.8 and 4 billion years ago known as the Late Heavy Bombardment, during which time sizeable asteroids battered the Moon with relative frequency. Though this 2016 article shed light on the specific origins of the Mare Imbrium, the feature had been prominent in the public imagination for centuries prior. Many people who had never considered the source nor the name of the Mare Imbrium still knew this colossal lava plain well, as the right eye of the famous Man in the Moon.²

¹ Kevin Stacey, "Asteroid That Formed Moon's Imbrium Basin May Have Been Protoplanet-Sized," Brown University, July 20, 2016, <https://www.brown.edu/news/2016-07-20/imbrium>. *Le Voyage Dans La Lune*, France: Georges Méliès, 1902, https://www.youtube.com/watch?v=xLVChRVfZ74&ab_channel=OpenCulture. Deborah Byrd, "Protoplanet Blasted out Mare Imbrium," *EarthSky*, July 20, 2016, <https://earthsky.org/space/protoplanet-blasted-out-mare-imbrium>.

² "What Is the Highest Point on Earth as Measured from Earth's Center?" NOAA's National Ocean Service, National Oceanic and Atmospheric Administration, June 25, 2016, <https://oceanservice.noaa.gov/facts/highestpoint.html>. Stacey, "Asteroid."

The Man in the Moon refers to the illusionary image of a human face—composed of the Mare Imbrium, the Mare Serenitatus, the Sinus Aestuum, the Mare Nubium, and the Mare Cognitum—often referenced in Western folklore. Visible from much of the Earth, humans have known the Man in the Moon since ancient times. In *Mapping and Naming the Moon*, the British astronomer Ewan Whitaker identified the Man in the Moon as part of a “rudimentary, ancient lunar nomenclature” that preceded more definitive designations.³ By the time the Mare Imbrium was formally named by Giovanni Riccioli in 1651, the basin had long been recognized for its ocular appearance. In *Concerning the Face which Appears in the Orb of the Moon*, the Platonist philosopher Plutarch (*ca.* 45–120 CE) rejected claims that the Man in the Moon was a mere “affection of vision.”⁴ Historian David Cressy noted that early modern Englishmen “occasionally wondered whether lunar eyes were looking down on them,” and that “jokes about ‘the man in the moon’ became standard early modern fare.”⁵

Perhaps the most famous and fantastical depiction of the Man in the Moon comes from the French filmmaker George Méliès’s *Le Voyage dans la Lune*, often accredited as the first science fiction movie. In *Le Voyage*, a group of professors launch themselves to the Moon in a bullet-shaped spaceship, careening into the Man in the Moon’s right eye, the Mare Imbrium. The chalky-faced Man in the Moon leers disturbingly as the projectile approaches, then winces, blinking rapidly, once his eye is struck. Méliès then illustrates this impact a second time, from the surface of the Moon, perhaps to offer viewers a more realistic portrayal of a hypothetical

³ Ewen A. Whitaker, “Pre-Telescopic Lunar Observations.” *Mapping and Naming the Moon: a History of Lunar Cartography and Nomenclature* (Cambridge: Cambridge University Press, 2003), 3.

⁴ Plutarch. “Concerning the Face Which Appears in the Orb of the Moon.” *Moralia XII* (Cambridge, MA: Harvard University Press, 1927), 2.

⁵ David Cressy, “Early Modern Space Travel and the English Man in the Moon.” *American Historical Review* 111, no. 4 (October 2006): 961–82. <https://doi.org/10.1086/ahr.111.4.961>. Tom Skilling, “Ask Tom: What Creates the ‘Man in the Moon’?” *Chicago Tribune*, May 22, 2019, <http://www.chicagotribune.com/news/weather/ct-wea-0121-asktom-20170120-column.html>.

lunar landing. An image of the Earth from the Moon's perspective follows, affording the audience a glimpse of what the Man in the Moon may see if he were to look down at us.⁶

Le Voyage proved a monumental success for Méliès and was widely pirated for redistribution outside of France following its release in 1902. In Paris, the film captivated audiences for months on end at the Olympia music hall. Méliès himself was surprised by its remarkable popularity, musing that *Le Voyage* was “surely not one of my best, but people are still talking about it thirty years later!”⁷

Indeed, people are still talking about *Le Voyage* today, especially the iconic scene of the Man in the Moon, sneering, eye pierced by a rocket (the second landing scene is rarely referenced). The image was brought back into the spotlight in 2007 with Brian Selznick's novel *The Invention of Hugo Cabret*, and re-immortalized in film with Martin Scorsese's 2011 adaptation *Hugo*. Other iterations of the Man in the Moon persist in modern popular culture: Salvador Dalí was known to highlight the Moon's “face” when his paintings included the Earth's most familiar satellite. The amiable protagonist of J.R.R. Tolkien's 1937 novel *The Hobbit*, Bilbo Baggins, is said to have composed a folk song entitled “The Man in the Moon Stayed Up Too Late,” which is passed down through generations of Middle-earth hobbits after him.⁸

The psychological reason why humans tend to see a face in the Moon is not a mystery. The Man in the Moon is one well-documented example of pareidolia, the human misperception

⁶ Haleh Ardebili, “The Moon's Eye,” University of Houston, last modified January 9, 2014, <https://uh.edu/engines/epi2920.htm>. Mark Bould, “Shooting the Moon by Brian Willems,” *Science Fiction Film and Television* 10, no. 3, (2017): 418. <https://muse.jhu.edu/article/674427>.

⁷ Séverine Wemaere and Gilles Duval, *A Trip to the Moon Back in Color* (Nantes: Groupama Gan Foundation for Cinema and Technicolor Foundation for Cinema Heritage, 2011), 162. Richard Abel, *The Ciné Goes to Town: French Cinema, 1896-1914* (Berkeley, CA: University of California Press, 1998), 70. Ardebili, “The Moon's Eye.”

⁸ Todd McMarthy, “Hugo: Film Review.” *The Hollywood Reporter*, November 17, 2011, <https://www.hollywoodreporter.com/review/hugo-film-review-263209>. Salvador Dalí, *The Moon*, *WikiArt: Visual Art Encyclopedia*, WikiArt, April 9, 2019. <https://www.wikiart.org/en/salvador-dali/the-moon>. Michael D. C. Drout, “Poems by Tolkien: The Adventures of Tom Bombadil,” In *J.R.R. Tolkien Encyclopedia: Scholarship and Critical Assessment* (New York, New York: Routledge, 2013), 516.

of faces, objects, or patterns in otherwise ambiguous forms. Pareidolia is the mechanism behind the famous Rorschach inkblot tests, billed as a “psychological X-ray” in which subjects’ interpretations of obscure shapes are psychoanalyzed in an attempt to “unlock the hidden secrets of the human unconscious.”⁹ Though the Rorschach test is no longer considered a valid tool for identifying mental illness, the effects of pareidolia on the human mind have been explored extensively. Our brains use pareidolia as a way to fill in information gaps when presented with unfamiliar stimuli: when we pick out a scene among the shifting clouds, the object recognition regions of our brains are activated, despite the ambiguous reality.¹⁰

David Cressy described the Moon as “comfortingly familiar, yet achingly distant.”¹¹ Mankind has shortened this distance via anthropomorphism, transforming the celestial body into a being to which everyone can relate. By inferring what another is experiencing, people are able to empathize with others by referencing their own experiences and emotions. The ever-present Moon has proved the perfect canvas onto which we can paint these experiences and emotions. Throughout history, the Man in the Moon has been portrayed engaging in a variety of familiar human behaviors. Méliès depicts him as irritable, irked by the spacecraft in his eye the same way we might be by an errant eyelash. In the European tradition, the Man in the Moon is a lonely drunkard, his deleterious habits recorded by the ballad *The Man in the Moon Drinks Claret*: “Our man in the moon drinks claret, with powder-beef, turnep, and carret. If he doth so, why should

⁹ R.P. Taylor et. al, Seeing Shapes in Seemingly Random Spatial Patterns: Fractal Analysis of Rorschach Inkblots.” *Plos One* 12, no. 2 (2017). <https://doi.org/10.1371/journal.pone.0171289>.

¹⁰ Uchiyama Makoto et. al, “Pareidolias: Complex Visual Illusions in Dementia with Lewy Bodies.” *Brain* (May 23, 2012): 2458–69. <https://doi.org/10.1093/brain/aws126>. Nadia Drake, “Why Do People See Faces in the Moon?” *National Geographic*, September 29, 2017. <https://www.nationalgeographic.com/news/2014/4/140412-moon-faces-brain-culture-space-neurology/>.

¹¹ Cressy, “Early Modern,” 961.

not you, drink until the sky looks blew?"¹² By projecting universal human emotions, such as loneliness or annoyance, and quotidian experiences, such as drinking wine or having something bothersome in one's eye, onto the Moon, mankind has transformed it into an acquaintance—maybe even a friend.¹³

Observing the Man in the Moon is the furthest that most of the Earth's inhabitants have ever ventured into astronomy, a field which has customarily been limited to privileged scholarly classes. The ancient Mesopotamian astronomers were priest-scribes, those deemed holy enough to interpret the heavenly bodies. The Ancient Greeks, who produced many of the astronomical treatises of antiquity, considered astronomy a highly sophisticated branch of mathematics for practiced scholars. In Medieval Western Europe, only the highly educated who could read Greek or Latin were able to engage with these advanced treatises, precluding most citizens from participating. Today, humans physically interact with the Moon, but only the best and brightest (or, if lunar tourism becomes a reality, the richest) among us will ever have a chance to partake.¹⁴

Excluded from these practices, the rest of mankind has seized upon the pareidolic outcome of a series of random impacts to forge personal relationships with Earth's celestial neighbor. There is a reason that the Man in the Moon has been recognized since ancient times, his illusionary gaze hypnotizing humanity for generations. For the vast majority who will never

¹² "The Man in the Moon Drinks Claret, as It Was Lately Sung at the Curtain Holy Wel to the Same Tune." Early English Books, University of Michigan, accessed October 7, 2020. <https://quod.lib.umich.edu/e/eebo/B04453.0001.001/1:1?rgn=div1%3Bview>.

¹³ Marissa A. Harrison and A. E. Hall, "Anthropomorphism, Empathy, and Perceived Communicative Ability Vary with Phylogenetic Relatedness to Humans." *Journal of Social, Evolutionary, and Cultural Psychology* 4, no. 34 (December 2009). Ardebili, "The Moon's Eye."

¹⁴ A. Aaboe, "Scientific Astronomy in Antiquity," *Philosophical Transactions of the Royal Society of London, Series A, Mathematical and Physical Sciences* 276, no. 1257 (1974): 21-25. <http://www.jstor.org/stable/74272>. John J. Contreni, "Review," *Journal of Medieval Religious Cultures* 36, no. 1 (2010): 117, doi:10.5325/jmedirelicult.36.1.0117.

jet into outer space or even peer through a telescope, the Man in the Moon offers the opportunity to interact meaningfully with the Moon with nothing but one's own eyes and experiences.

Bibliography

Aaboe, A. "Scientific Astronomy in Antiquity." *Philosophical Transactions of the Royal Society of London. Series A, Mathematical and Physical Sciences* 276, no. 1257 (1974): 21-42.

Accessed October 9, 2020. <http://www.jstor.org/stable/74272>.

Abel, Richard. *The Ciné Goes to Town: French Cinema, 1896-1914*. Berkeley, CA: University of California Press, 1998.

Ardebili, Haleh. "The Moon's Eye." *Engines of Our Ingenuity*. University of Houston, January 9, 2014. <https://uh.edu/engines/epi2920.htm>.

Bould, Mark. "Shooting the Moon by Brian Willems." *Science Fiction Film and Television* 10, no. 3, (2017): 418–21. <https://muse.jhu.edu/article/674427>.

Byrd, Deborah. "Protoplanet Blasted out Mare Imbrium." *EarthSky*. EarthSky, July 20, 2016. <https://earthsky.org/space/protoplanet-blasted-out-mare-imbrium>.

Contreni, John J. "Review." *Journal of Medieval Religious Cultures* 36, no. 1 (2010): 117-20. Accessed October 9, 2020. doi:10.5325/jmedirelicult.36.1.0117.

Cressy, David. "Early Modern Space Travel and the English Man in the Moon." *American Historical Review* 111, no. 4 (October 2006): 961–82. <https://doi.org/10.1086/ahr.111.4.961>.

Dali, Salvador. *The Moon*. *WikiArt: Visual Art Encyclopedia*. WikiArt, April 9, 2019. <https://www.wikiart.org/en/salvador-dali/the-moon>.

Drake, Nadia. "Why Do People See Faces in the Moon?" *National Geographic*. National Geographic, September 29, 2017. <https://www.nationalgeographic.com/news/2014/>

4/140412-moon-faces-brain-culture-space-neurology/.

Drout, Michael D. C. "Poems by Tolkien: The Adventures of Tom Bombadil." Essay. In *J.R.R. Tolkien Encyclopedia: Scholarship and Critical Assessment*, 516. New York, New York: Routledge, 2013.

Harrison, Marissa A, and A. E. Hall. "Anthropomorphism, Empathy, and Perceived Communicative Ability Vary with Phylogenetic Relatedness to Humans." *Journal of Social, Evolutionary, and Cultural Psychology* 4, no. 34 (December 2009).
<https://doi.org/10.1037/h0099303>.

Makoto, Uchiyama, Yoshiyuki Nishio, Kayoko Yokoi, Kazumi Hirayama, Toru Imamura, Tatsuo Shimomura, and Etsuro Mori. "Pareidolias: Complex Visual Illusions in Dementia with Lewy Bodies." *Brain*, May 23, 2012, 2458–69. <https://doi.org/10.1093/brain/aws126>.

"The Man in the Moon Drinks Claret, as It Was Lately Sung at the Curtain Holy Wel to the Same Tune." Early English Books. University of Michigan. Accessed October 7, 2020.
<https://quod.lib.umich.edu/e/eebo/B04453.0001.001/1:1?rgn=div1%3Bview>.

McCarthy, Todd. "Hugo: Film Review." *The Hollywood Reporter*, November 17, 2011.
<https://www.hollywoodreporter.com/review/hugo-film-review-263209>.

Plutarch. "Concerning the Face Which Appears in the Orb of the Moon." Essay. In *Moralia* XII, XII:1–3. Cambridge, MA: Harvard University Press, 1927.

Skilling, Tom. "Ask Tom: What Creates the 'Man in the Moon'?" *chicagotribune.com*. Chicago Tribune, May 22, 2019. <http://www.chicagotribune.com/news/weather/ct-wea-0121-asktom-20170120-column.html>.

Stacey, Kevin. "Asteroid That Formed Moon's Imbrium Basin May Have Been Protoplanet-

Sized.” News from Brown. Brown University, July 20, 2016. <https://www.brown.edu/news/2016-07-20/imbrium>.

Taylor, R. P., T. P. Martin, R. D. Montgomery, J. H. Smith, A. P. Micolich, C. Boydston, B. C. Scannell, M. S. Fairbanks, and B. Spehar. “Seeing Shapes in Seemingly Random Spatial Patterns: Fractal Analysis of Rorschach Inkblots.” *Plos One* 12, no. 2 (2017). <https://doi.org/10.1371/journal.pone.0171289>.

A Trip to the Moon. Le Voyage Dans La Lune. France: Georges Méliès, 1902.

https://www.youtube.com/watch?v=xLVChRVfZ74&ab_channel=OpenCulture.

Wemaere, Séverine, and Gilles Duval. *A Trip to the Moon Back in Color*. Nantes: Groupama Gan Foundation for Cinema and Technicolor Foundation for Cinema Heritage, 2011.

“What Is the Highest Point on Earth as Measured from Earth's Center?” NOAA's National Ocean Service. National Oceanic and Atmospheric Administration, June 25, 2016. <https://oceanservice.noaa.gov/facts/highestpoint.html>.

Whitaker, Ewen A. “Pre-Telescopic Lunar Observations.” Essay. In *Mapping and Naming the Moon: a History of Lunar Cartography and Nomenclature*, 3–8. Cambridge: Cambridge University Press, 2003. <https://books.google.com/books?id=aV1i27jDYL8C&printsec=frontcover#v=onepage&q&f=false>.