



## OUR NEAREST NEIGHBOR, X

By Walt Robinson

**D**uring the early days of telescopic observations of the moon, astronomers populated the Moon with cities, bridges, pyramids and — at times — civilizations of alien creatures! People have believed since ancient times, that the Moon was inhabited. This was true of Leonardo da Vinci (1452–1519), who was convinced that the bright areas of the moon were oceans and the dark areas were landmasses. Another noted astronomer, William Herschel (1738–1822) was also certain that not only the moon, but also all the planets and the Sun itself contained life. It was natural in those times for lunar astronomers to look for signs of life.

Although the main thrust toward discovering life on the moon was extremely active in England, the German astronomers were also pursuing observations that would show life did exist. Joann Schröter (1745–1816), a respected mapper of the Moon, believed he saw changes on the lunar surface. He believed the moon contained an atmosphere, and the changes were due to clouds and mists present on the moon.

In 1824, Franz von Paula Gruithuisen (1774–1852)

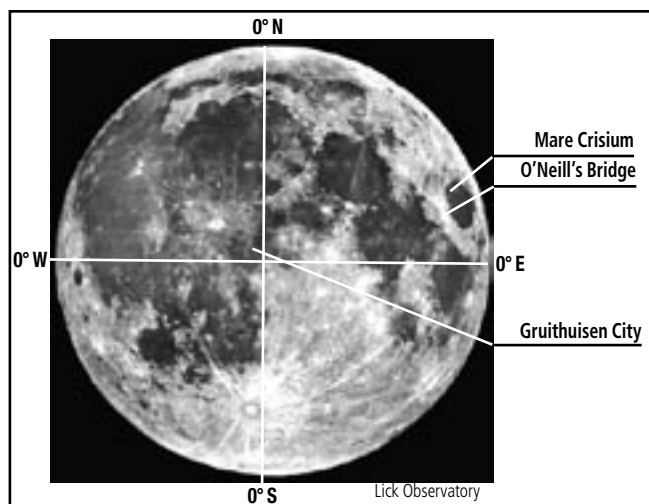


Franz von Paula Gruithuisen

discovered what he believed to be a lunar city. Located just north of what is now the crater Schröter, he saw a herringbone pattern which he thought resembled buildings and streets. His observation notes reveal, “of many distinct terraces of lunar inhabitants, especially one of their colossal buildings.” He published his results, but was not well received by his peers, especially when larger telescopes became available to refute his claim. Later it was discovered to be nothing more than

chance alignments of lunar features. Astronomer T.W. Webb later wrote that the area of question was, “a curious specimen of parallelism, but so coarse as to carry upon the face of it, its natural origin, and it can hardly be called a difficult object.” French astronomer Casimir Marie Gaudibert (1823–1901) wrote, “observing this object with a power of 550, I saw its surface covered with minute hillocks, with a larger mound at the latitude of the second ‘rib’. The terminator was passing through Stadium when I made the observation.”

As recent as 1953, John J. O’Neill discovered what he



thought was a bridge located on the western edge of Mare Crisium. The bridge extends from Promontorium Lavinium to Promontorium Olivium. John O'Neill at the time was the science editor at the *New York Herald Tribune*. With his 4-inch refractor he reported, "a gigantic natural bridge having the amazing span of about 12 miles from pediment to pediment." What did O'Neill really see? Probably no more than a play of light and shadow giving the appearance of a bridge. It must be remembered that at the time of the observation, amateurs thought anything was possible. This was at the height of renewed interest in lunar topography and mapping and at the same time, the height of the UFO craze. Merging the two together led to the popularization of life on the moon. This was such a big discovery, that H.P. Wilkins included the quote of O'Neill's observation in his book *Our Moon*. In fact Wilkins not only accepted the existence of the bridge, but also hinted at it being artificial. In several interviews Wilkins claimed, "...there's no mistake at all. It's been confirmed by other observers. It looks artificial...it looks almost like an engineering job...it casts a shadow under a low sun angle and you can see the sunlight streaming in beneath it." The prestigious British Astronomical Association thought this was so ludicrous, that Wilkins was forced to resign as Director of the Lunar Section. It has to be noted that in the second edition of Wilkins and Moore's book *The Moon*, the reference to the bridge states "this tiny natural arch was discovered by J.J. O'Neill in 1953 and confirmed by Wilkins. It has given rise to much controversy." Still other astronomers were convinced the bridge existed.

Both the Gruithuisen City and O'Neill's Bridge can be viewed with modest size instruments. Remember that both of the structures were seen with relatively small telescopes at low to moderate magnification. What is important is the lighting condition. Low sun angle is important.

The Gruithuisen City is located north of crater Schröter. If



Drawings of Gruithuisen City by Franz Gruithuisen, 1824.

you want to observe this "city" yourself, look for a feature that looks like a fishbone, located about halfway between the craters Mösting and Erathosthenes. It is best portrayed on Rukl #32.

You will see from the chart, it does not appear like a city at all, but the herringbone pattern can be detected at 8W, and 6N. I did a preliminary observation run, determining a low sun angle over crater Schröter for the next year or so. The dates when the city could best be seen would occur somewhere around Nov. 8, 2005. For the year 2006, dates would be Jan. 7, Mar. 7, April 5, May 5, July 5, Sept. 1, Oct. 29 and Dec. 27.

To view the area of O'Neill's Bridge, refer to Rukl #26. It is located towards the bottom of the chart at 48.5W and 15.5N. In some documents I found John O'Neill observed this bridge on July 29, 1953, at 6:30 UT. Using this date as a starting point, and to simulate lighting conditions, I used software to find future dates when this bridge would be visible. Since O'Neill's Bridge is not an officially recognized lunar feature, I used crater Proclus P as a reference. For 2005 those dates are somewhere around Sept. 20, Nov. 18. For 2006, the dates are somewhere around Feb. 15, April 15, May 14, June 13, Aug. 11, Oct. 9 and Dec. 7.

The dates referenced above are for local time. Depending on the time of the observation, location and libration, you may or may not see the objects under optimum conditions but as these astronomers of the past did, use your imagination! You may or may not see the city and bridge. If you don't see it under one lunation's lighting, try again.

And who knows, maybe you will discover something of interest as well!

Next month I will give short reviews, and how to successfully find and observe the features listed in three different lunar observation programs. Until then, observe the Moon. It's our nearest neighbor!



Walt Robinson has been a member of the Astronomical Society of Kansas City since 1987. His present duties include Webmaster for the society's Web site. He has presented many programs at the public nights at Powell Observatory and in Bonner Springs, Kan. where he lives.

Walt also runs the "Robinson Lunar Observatory" to spur interest in the moon among amateur astronomers. His recent "lunar light ray" program brought many amateurs together from across the United States and abroad to study and observe these events. An article written in the *Astronomical League's Reflector* explained the program, and as a result recruited many more interested amateurs into studying the moon.