April Skies over the Pinnacles

April 2022

April's four principal phases of the moon

April 1	New Moon	\bigcirc
April 9	First Quarter	
April 16	Full Moon	
April 23	Last Quarter	

"The" Telescope of America

If you have an old Merriam-Webster dictionary, look up the word "telescope". Chances are you'll see an illustration that looks like the picture on the right. For nearly a century this image was what most people thought of when they imagined any telescope. As a result, little versions of this kind of telescope appeared under Christmas trees for thousands of aspiring young astronomers.



Did you know that you can still see the moon and planets through this telescope, just as it was when it was first turned to the sky 177 years ago? This telescope was made by the Bavarian instrument maker Merz und Mahler and delivered to Cincinnati, Ohio, in 1845.



The man who managed to get this telescope built and sent to a small American city was Ormsby MacKnight Mitchel, born in 1809 in Morganfield, Kentucky. Mitchel's family were subsistence farmers and his father died at an early age. As a very young man, he made it to Lebanon, Ohio and was employed as a postal clerk. Years later, Mitchel won a place as a cadet at West Point Military Academy and graduated in the same class as (later) Confederate General, Robert E. Lee. Ormsby Mitchel was asked to stay on at West Point to serve as a mathematics and artillery instructor but he soon left to become a self-employed surveyor, mostly for the growing railroad industry. He had a great interest in astronomy and decided to found a great observatory to be located in the (then) far western United States. In 1834 Mitchell was appointed Professor of Mathematics at the new Cincinnati College, now the University of Cincinnati.

During that same year he sailed to Europe to purchase a large telescope with the \$7000 he raised by selling subscriptions to the Cincinnati Astronomical Society, which he founded. He tried unsuccessfully to find his telescope in England and France but found a maker in Bavaria, now southern Germany, who had the second largest lens in the world. He struck a deal with the Merz und Mahler to build a new telescope using this lens. But the price was \$10,000 (\$370,000 in today's dollars), so he went home, raised the additional money and the new telescope arrived at the Cincinnati docks by steamship in February of 1845. The Cincinnati Observatory was later dedicated by President John Quincy Adams.

Mitchell later founded another observatory in upstate New York after the skies above Cincinnati became choked with coal smoke. During the Civil War, Mitchel was made a General by Abraham Lincoln and successfully retook much of western Kentucky from southern forces. After creating a new city in North Carolina for freed African-Americans, Ormsby Macknight Mitchell died of yellow fever in 1842.

In 1873, Mitchel's observatory was moved to clearer skies away from the city and soon an even larger telescope was purchased to join the original instrument. From the start, Mitchell insisted that, in addition to research and time-keeping, there would be opportunities for the public to view the heavens through the great telescope. Mitchel would be pleased to know that the tradition of public outreach at the Cincinnati Observatory is very much alive with many planned day and night activities.



11-1/4 inch Merz und Mahler Telescope "Merriam Webster's telescope"



16-inch Alvan Clark Telescope



Here, visitors are treated to safely viewing the Sun with a special filter on the Merz und Mahler telescope. NEVER view the Sun directly or through a telescope without specialized equipment.



The staff at the Cincinnati Observatory use small telescopes during a public presentation.

Would you like to visit the Cincinnati Observatory yourself? On April 23 the Pinnacles Astronomy Club is sponsoring an exclusive daytime tour. If you'd like more information, please contact me at jeffp.hutton@gmail.com and I'll tell you how to join us. The limit is for 15 visitors. As of March 28 there are 9 people signed up.

Attractions in April

April 2

April Fools! If you're up early, check out two "stars" down near the southeastern horizon that are close, *really close* together. One will be dim and red and the other white and much brighter. The 'April fools' part is that these aren't stars at all. The brighter "star" is really the planet, Saturn and the red one is the planet Mars. They will appear only $\frac{1}{2}$ degree apart. That's about the size in the sky of the full Moon. Venus is to the left.



April 4

Binocular Alert! Just as it is getting dark, look low in the west to see the beautiful crescent Moon. Look carefully and you can see the night side of the moon, faintly lit by sunlight reflected off the Earth. Now look to the right, about two moon diameters to see the sparkling Pleiades. Can you see the seven brightest stars just with your eyes? If the skies are very clear you can see them pretty well. This is why some people refer to the Pleiades as the "Seven Sisters".



April 18

Here's a sight that might be worth getting up for! When the predawn sky is still dark and up to about 30 minutes before sunrise I'll bet you'll see a sight that you've never seen before. Starting close to the eastern horizon you can spy the planet Jupiter. Then to the upper right will be blazing Venus. Keep going in the same direction will be red Mars and then a little further, Saturn. Leave your telescope or binoculars inside. Just go look!



April 22-23 Get up really early (3AM or so) and try to catch a few "shooting stars" from the annual Lyrid Meteor Shower. The meteors from this minor shower can be bright. They'll need to be because the bright gibbous Moon will be hogging the sky.

April 23 Cincinnati Observatory tour

April 29 If you got to see the pairing of the Moon and the Pleiades on April 4 you know where to find them. On this date, they'll be a little lower in the sky but now look to the lower-left and spy a bright star. Only that's no star. It's the planet Mercury that always hard to spot because it

never stays far from the Sun. If you see it you'll be a member of a small group who has spotted this elusive prey with their own eyes! Binoculars will help.



•