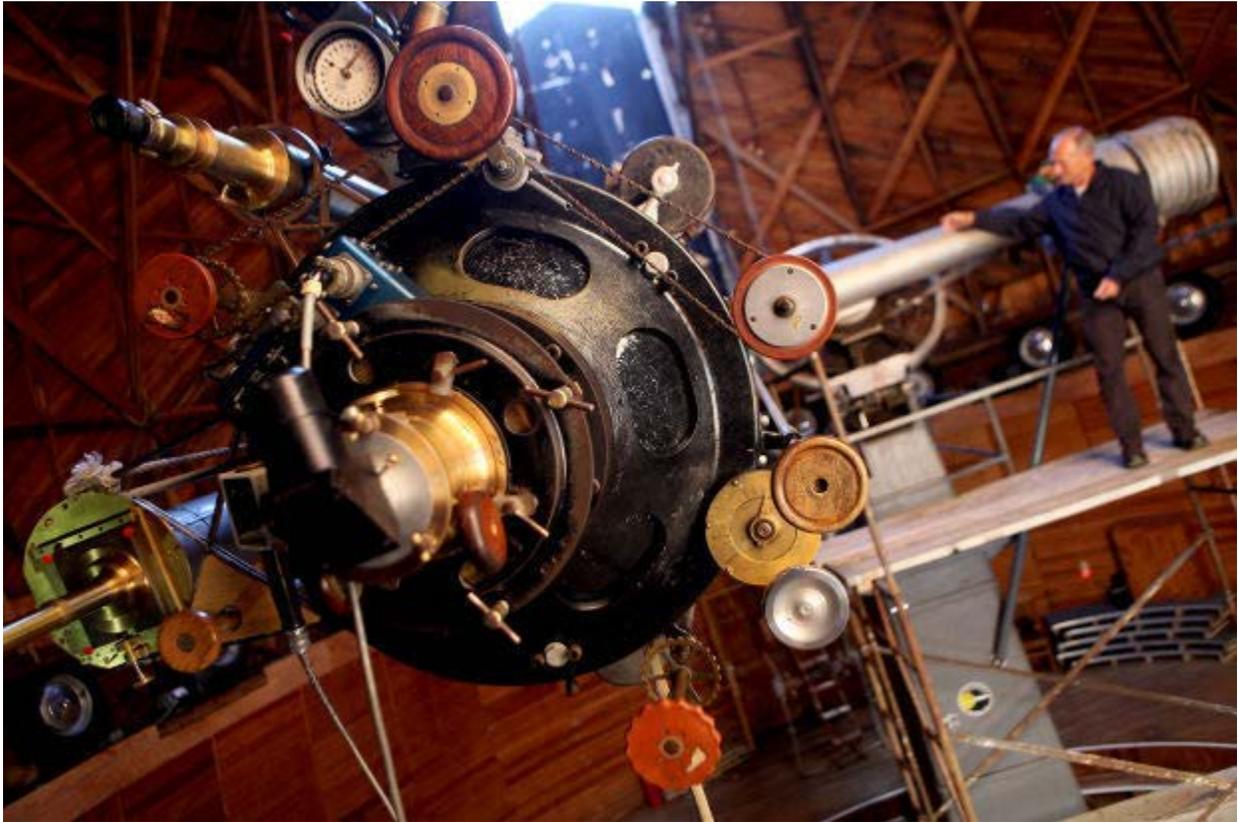


# Lowell Observatory in Flagstaff looks to expand its horizons

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A collection of brass, wood and aluminum dials hang off the observing end of the 24-inch Clark Telescope at Lowell Observatory. (Jake Bacon/Arizona Daily Sun)

Lowell Observatory is most famous for its discovery of Pluto in 1930, and it has been a cornerstone of Flagstaff's identity since its construction in 1894.

The dome of the Clark Refractor is made of local ponderosa pine, and it has overlooked the city for more than a century. When the observatory opened Anderson Mesa Station in 1959, astronomers advocated for the first dark sky ordinances that define Flagstaff's low-light community.

Percival Lowell founded the observatory to look for the outermost planets of our solar system, but he had more goals than just discovery.

“The primary goal of Lowell Observatory has always been to advance astronomy and share with the public,” said Kevin Schindler, a historian who works at the facility.

In the early days of the observatory, Percival Lowell held public open houses where he gave lectures about astronomy, hoping to educate anyone who might be interested in science. Over time, the facility’s library became its visitor center. By the observatory’s centennial in 1994, it was educating 25,000 visitors per year. On its 100th anniversary, Lowell Observatory opened its current visitor center, which has taught more than 100,000 visitors this year.

The observatory’s connection with science education began long before its construction. Percival Lowell received his first telescope when he was 15 years old, sparking his interest in astronomy. Almost 40 years later, he would order the construction of the Clark Refractor, which remains the observatory’s largest telescope. It has a 24-inch lens, its main body is more than 15 feet long, and it weighs several thousand pounds. The observatory holds sky-viewings for the public, during which visitors may look through the same lens that Lowell used to scan the night sky.

The Clark Refractor was built in 1895, long before electric motors and lights were available. The dome that houses the refractor, once moved by a pulley system, now rotates with electric power. The pine interior of the dome, which originally only had lanterns to light it, has lights along the floor. The dim red lights preserve night vision and the original feel of the dome’s interior is easy to imagine. The Clark Refractor itself has received no modern modifications. Unlike the dome, the telescope has a set of counterweights that make it adjustable by hand.

The observatory’s night viewings allow both the young and the old to use the Clark Refractor. The observatory’s historian has seen uncountable visitors have that experience. “You can see a grandparent and their grandchildren looking through the telescope together, each exploring the universe for the first time,” Schindler said. He explained that looking through a historical device is not just an activity, but “it’s a feeling.”

The feeling Schindler described is a priceless part of Lowell Observatory. Its founder started on the path of astronomy when he was a teenager, and now his telescope can inspire the astronomers of the future.

However, the Clark Refractor cannot create the high-resolution images of planets that are pervasive in modern day.

“The telescope is far more important for education than research,” Schindler said.

To continue Lowell Observatory’s legacy of astounding the public, the observatory is building a new expansion to the visitor’s center. Although the current facilities cannot handle many more annual visitors, the Giovale Open Deck Observatory, GODO, will be able to accommodate many more visitors per year.

The expansion is more than just a larger visitor area. The observatory's goal is to provide an experience -- "not just numbers and data, but something understandable," Schindler said. The GODO will feature six telescopes with view screens. Instead of waiting in line for the Clark Refractor's single eyepiece, dozens of guests will be able to observe celestial bodies simultaneously. Also, the expansion will have a retractable roof and heated seats, which will make the facilities more accessible to the public, even on cold nights.

The GODO is not the only new addition to Lowell Observatory. In 2014, it added an archive and curation building. The archives hold important parts of Lowell history, such as models of Mars from the 20th century and Percival Lowell's first telescope. The curation area fulfills the other half of the observatory's legacy — the advancement of science. Fourteen full-time astronomers are working on modern astronomy projects. There were only three astronomers working at the observatory when they discovered Pluto.

"We want to show we're doing more research than ever," Schindler said.

With the recent and upcoming expansions, Lowell Observatory is building on its reputation, and it is perpetuating the advancement and accessibility of astronomy.