

# Vision quest: Curator catalogs the world's oldest telescopes

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Marvin Bolt demonstrates a 19th Century telescope built in to a walking stick at his office at the Corning Museum of Glass in Corning, N.Y. in February 2015. Bolt is on a world-wide quest to track down and catalog the oldest telescopes known to man, including those dating to the 1600s. (AP Photo/Carolyn Thompson)

You could say Marvin Bolt takes the long view.

He's on a worldwide quest to track down and catalog the oldest telescopes known to man, dating to the early 1600s and the days of Galileo.

"You'd think after 400 years, people would know where they are," said Bolt, an expert on historical telescopes and the science and technology curator at the Corning Museum of Glass.

So far, he has traced relics to private collections and museums throughout Europe, where the hand-held instruments first opened astronomers' eyes to moons and planets and served as military surveillance tools. He continues to chase leads there, as well as in Asia and North America.

The hunt has taken him to 21 countries, including China, Portugal, Estonia and the Vatican and began about a decade ago when a friend in Switzerland, a private collector, let Bolt look through a 17th-century [telescope](#) on a clear night.

Although writings suggest the old telescopes didn't work all that well, "the image was spectacular," he said, "and not as people had described it."

"That was the turning point," said Bolt, whose interest grew from his work as a curator at the Adler Planetarium in Chicago, which he left for Corning in 2013. "We have to make a systematic study of actual objects: Where are they? How many are there and what can you actually see through them?"



Marvin Bolt examines a telescope, made in 1910, that is a replica of an 1800-era telescope, at his office at the Corning Museum of Glass in Corning, N.Y. in February 2015. Bolt is on a world-wide quest to track down and catalog the oldest telescopes known to man, including those dating to the 1600s. (AP Photo/Carolyn Thompson)

Backed by grants from the National Endowment for the Humanities and the National Science Foundation, Bolt has since catalogued more than 1,000 telescopes made before 1750, when the addition of a second piece of glass to the lens improved the quality and led to a production surge.

That's already more than he'd anticipated, given the frailty of the quarry. Telescopes, with delicate glass lenses, were made individually from rolled paper or parchment covered in leather or fish skin.

Fewer than 10 telescopes from the earliest days, from 1608 to 1650, were known to exist at the start of the project. That number is now up to about 30.

Among them are two that Bolt and a colleague found in decorative arts museums in Germany amid oddball collections of keyboards and other scientific instruments.

After finding the first telescope in Berlin, Bolt and Michael Korey, curator at the Mathematisch-Physikalischer Salon in Dresden, decided to look for similar displays. The next day, they learned of a cabinet at a similar museum nearby.

"Sure enough," Bolt said, "we found one which dates to about 1620. It's one of the oldest ones in the world."



In this June 24, 2008, photo provided by the Adler Planetarium in Chicago, a five inch long telescope from the collection of Marvin Bolt is shown. Bolt, the science and technology curator at New York's Corning Museum of Glass is on a worldwide quest to track down the oldest telescopes known to man, including those dating to the early 1600s and the days of Galileo. (AP Photo/Adler

Planetarium, Steve Pitkin)

Still another 17th-century telescope had collected dust on a shelf in an antiques store in Belgium, complete with its original lenses, before a colleague of Bolt's identified it. Another, from 1710, was discovered by a woman who as a 9-year-old girl sick in bed with chicken pox had poked her finger through the wallpaper and found it hidden in her bedroom wall in East Lansing, Michigan.

Sometimes, print on the rolled paper tubing provides clues to a telescope's origin. Bolt dated one find by tracing a printed verse to a 1705 version of the "Book of Common Prayer."

Bolt and Korey estimate 300 or 400 additional telescopes survive from before the 1750s. The more telescopes that are located and examined, the more experts say they can learn about the evolution of the device.



In this Nov. 15, 2006, photo provided by the Adler Planetarium in Chicago, a two and one half foot long telescope dating back to around 1630 is shown. The telescope is from the collection of Marvin Bolt, who is the science and technology curator at New York's Corning Museum of Glass. Bolt has been on a worldwide quest to track down the oldest telescopes known to man. (AP Photo/Adler Planetarium, Steve Pitkin)

While the telescopes generally remain where they are found, information about them, including photos showing the views through them, will be included in an online public database.

"Before the telescope, you can think of humanity as being in a room in the middle of the day, but with all the blinds drawn, so your view is limited to the walls in the room and your understanding of the world around you is minimal," said Bart Fried, founder and president of the Antique Telescope Society. "After the telescope, it's as if somebody

opened up all the blinds and you can look out and see this wide world that you had no idea even existed."

"Suddenly, the earth was not the center of the universe."



In this Dec. 2, 2008, photo provided by the Adler Planetarium in Chicago, a disassembled telescope dating back to 1738 is shown. Signed by its maker, Franciscus Baillou, the device is made of ivory and measures five feet long when assembled. The telescope is part of historic telescope collection belonging to Marvin Bolt, who is the science and technology curator at New York's Corning Museum of Glass. (AP Photo/Adler Planetarium, Steve Pitkin)



In this Nov. 2008, photo provided by the Adler Planetarium in Chicago, a nearly three-foot long ivory telescope dating back to about 1660 is shown. Most likely German in origin, the telescope is part of collection that belongs to Marvin Bolt, the science and technology curator at New York's Corning Museum of Glass. (AP Photo/Adler Planetarium, Steve Pitkin)





In this Oct. 8, 2008, photo provided by the Adler Planetarium in Chicago, a five foot long telescope made by Philippe-Claude LeBas, the optician to French King Louis IV is shown. Dating back to around 1670, the instrument is constructed of paper covered with Moroccan leather. The device is part of historic telescope collection belonging to Marvin Bolt, the science and technology curator at New York's Corning Museum of Glass. (AP Photo/Adler Planetarium, Steve Pitkin)

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