

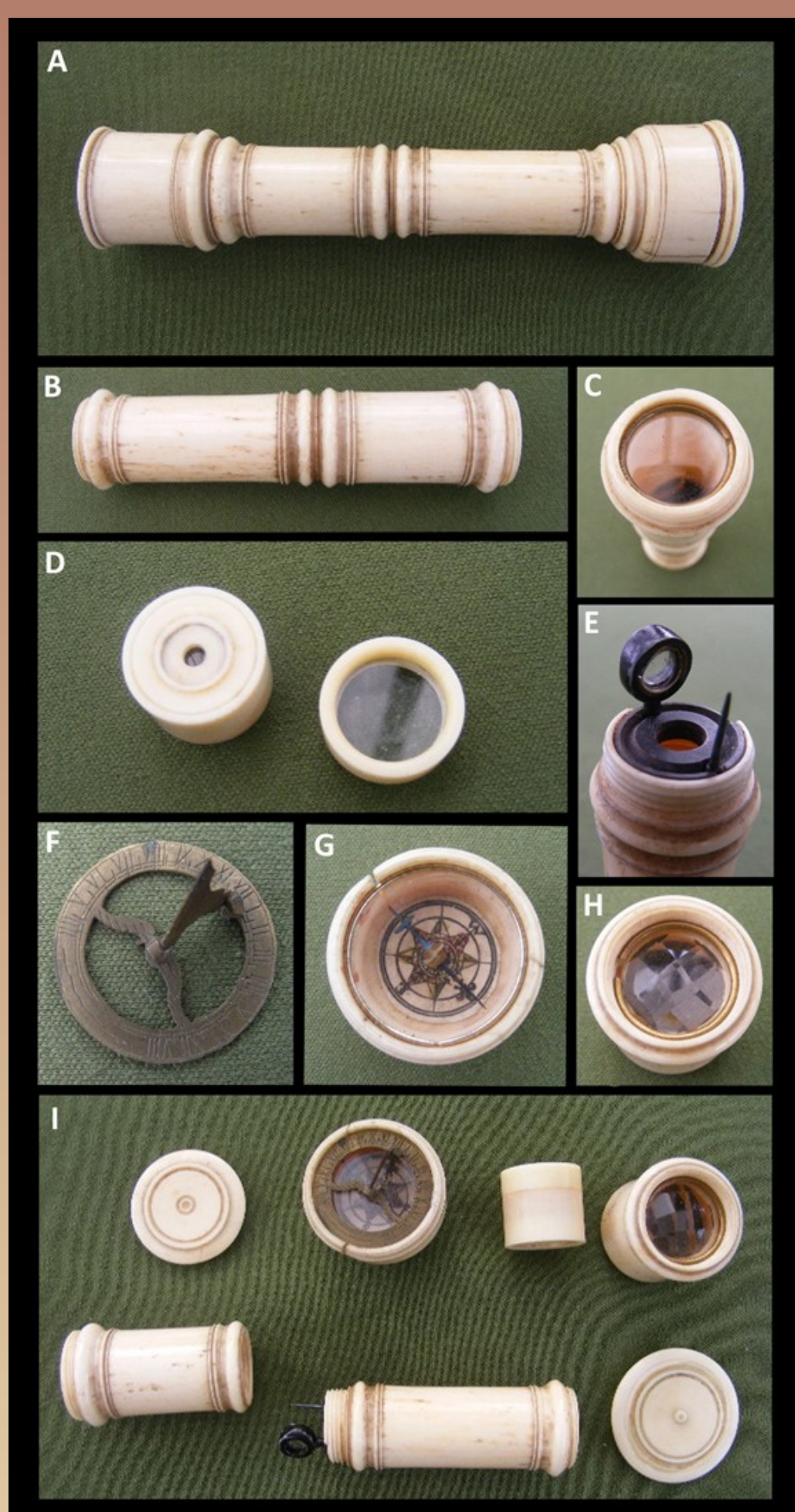
# Curator's Choice

## Take a Closer Look at this 18th-Century Needle-Case Telescope!

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Sometimes curators are delighted to discover that they are wrong, and this Curator's Choice is devoted to just such a case. This bone object has been interpreted as an 18th-century needle case since it was recovered in 1981. The hollow bone cylinder has two threaded ends, one of which has a lid that can still be screwed onto it. But what went on the other end and what would the object look like when whole? In 1981 you couldn't do an internet search to answer this question, but when a search for "18th-century turned bone" was done in 2013, it revealed that the bone cylinder wasn't a needle case at all – it was a telescope!

Five similar telescopes have been recovered in Amsterdam, where they were presumably manufactured and sold. Our supposed needle case looked just like the Amsterdam telescopes, right down to the dimensions and the lid. The telescopes are made from the metatarsal bone of the cow, which only allowed up to 10 cm of bone suitable for turning. Any telescope intended to be longer could be threaded at the middle to fit another piece. Each end would have a glass lens held in place with a metal ring and an end cap to protect the lens when not in use. One lens was concave and the other was convex. This arrangement achieved relatively weak magnification, but unlike more powerful telescopes of the period, the image you saw would not appear upside down (Rijkelijhuizen 2011).



A telescope compendium with many tools, c. 1690. A) The compendium fully assembled and closed, B) the telescope portion, side view, C) the telescope portion, top view, D) a "live" box, presumably for looking at moving specimens, E) flea glass microscope, F) brass sundial, G) compass, H) polyprism viewer (dragonfly glass), I) all of the pieces shown separated. Adapted from fleaglass.com.



This 1771 satirical print mocks the height of ladies' wigs by showing a man using a spyglass similar to our bone telescope to observe a hairdresser atop a ladder as he works on his lady's coiffure. ©Trustees of the British Museum

Such short telescopes would not be strong enough for use in astronomy or ship navigation, but their small size and versatility made them handy for personal use. In some cases the telescope function was only one of many tools ingeniously nested into a compact bone cylinder. In addition to the telescope, multi-purpose compendiums might include small lenses that acted as a microscope or "flea glass", compasses, sundials, and "live" boxes to hold a small specimen for viewing. Each portion of the instrument could be accessed or put away simply by screwing or unscrewing different sections of the compendium (fleaglass.com).

The telescope in our collection was excavated from the south yard of a late 18th-century house that still stands in St. Mary's County (Site 18ST75, Upper Notley Hall). Archaeologists located an earlier foundation that was probably constructed after 1720 and demolished by around 1775 when the current structure was built. The



Turned bone telescope from Upper Notley Hall (18ST75). The cylinder is threaded at both ends for attachment to other bone pieces like the lens cap shown attached (top) and removed (bottom).

telescope was in an undisturbed trash deposit that is believed to represent demolition debris from the earlier house (Pogue 1981). Unfortunately, little is known of the occupants of Notley Hall in the 18th century because an 1831 courthouse fire destroyed the early property records (Pogue 1981).

We can't connect the telescope to any particular people, so it's hard to say what the object means in the context of Maryland history. Certainly it is indicative of the rise of scientific thinking that led the 18th century to be nicknamed the "Age of Reason" and "The Enlightenment." Perhaps the inhabitants of Notley Hall were interested in science. Then again, maybe they just wanted to spy on each other. Either way, this telescope was probably not used to store pins or needles, so at least we've corrected that decades-old conclusion!

### References Cited

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Jefferson Patterson Park and Museum is part of the Maryland Historical Trust, and agency of the Maryland Department of Planning, Baltimore.

