

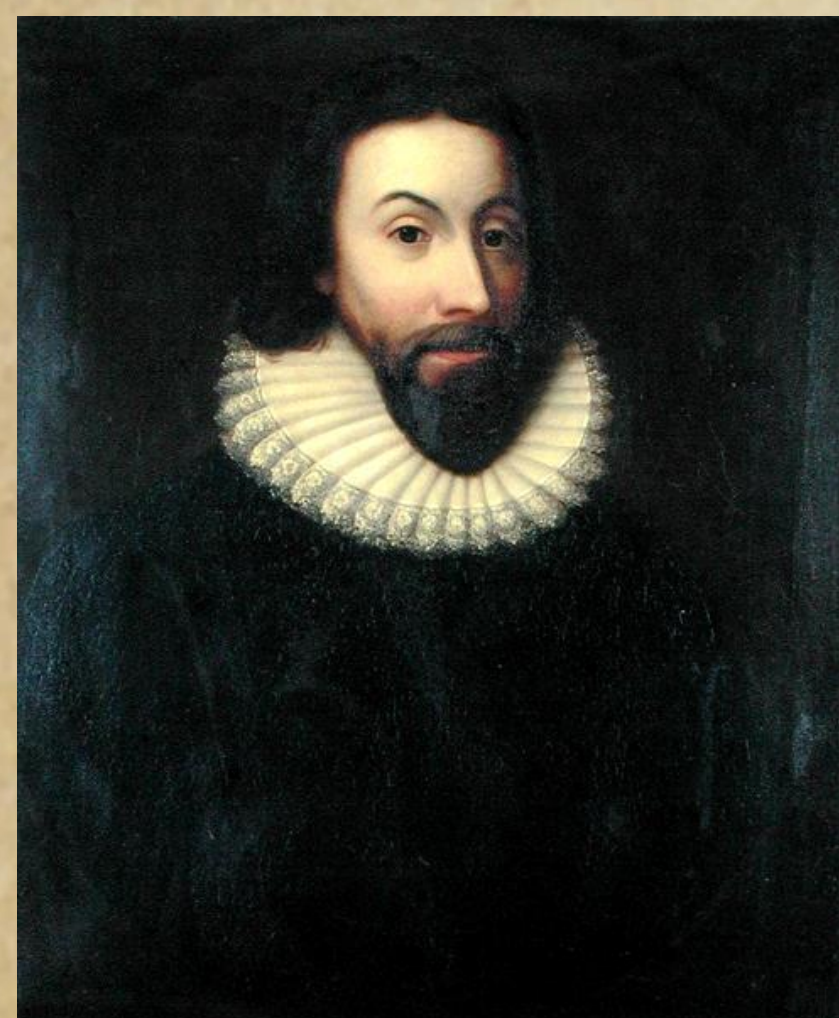
# Pioneering American Science: Professor John Winthrop

(1714-1779)

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## The Other "John Winthrops"



John Winthrop of  
Massachusetts  
(1587-1649)



John Winthrop, Jr. of  
Connecticut  
(1605-1676)

Winthrop's namesake ancestors include his great-great granduncle, Governor John Winthrop of Massachusetts, and his son Governor John Winthrop, Jr. of Connecticut. Both engaged with natural science, the latter being the first colonial member of the Royal Society and correspondent to European scientists, including Isaac Newton.



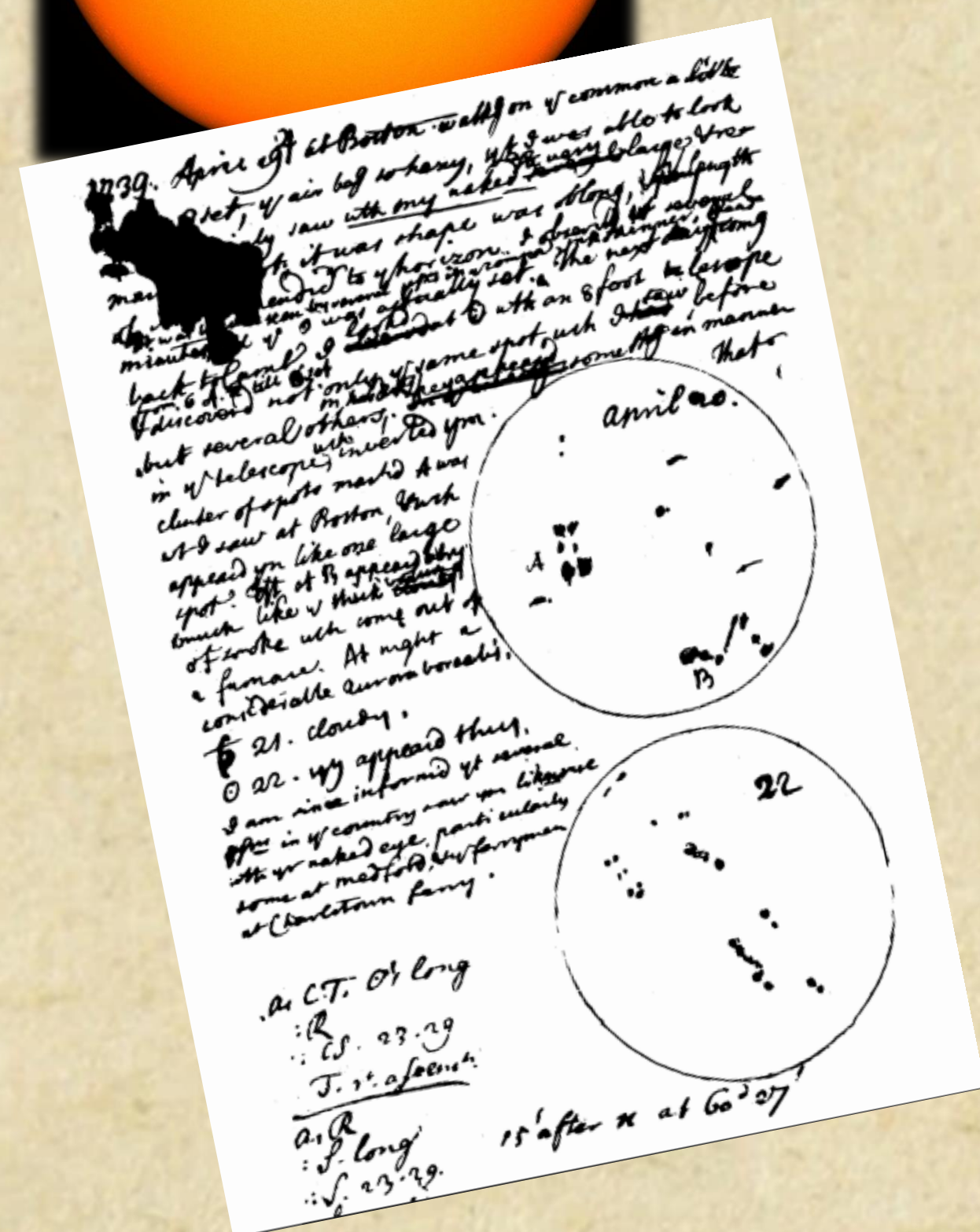
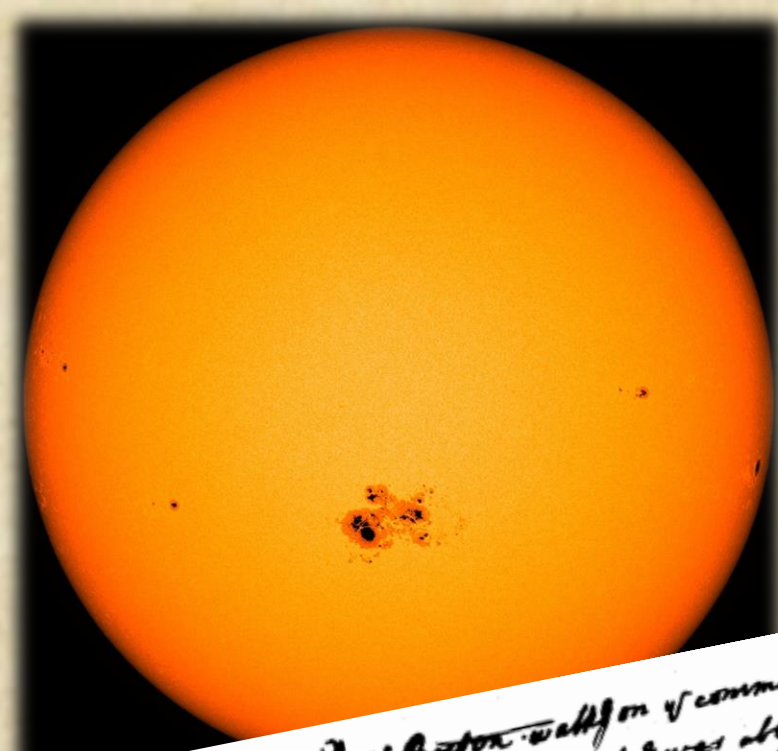
## The Young Professor

In **1732**, Winthrop graduated from Harvard College at the top of his class. In **1738**, at just twenty-four years old, Winthrop became elected the second Hollis professor of Mathematics and Natural Philosophy. Winthrop established Harvard's first experimental physics laboratory, introduced calculus to the mathematical curriculum, and taught for forty years until his death.

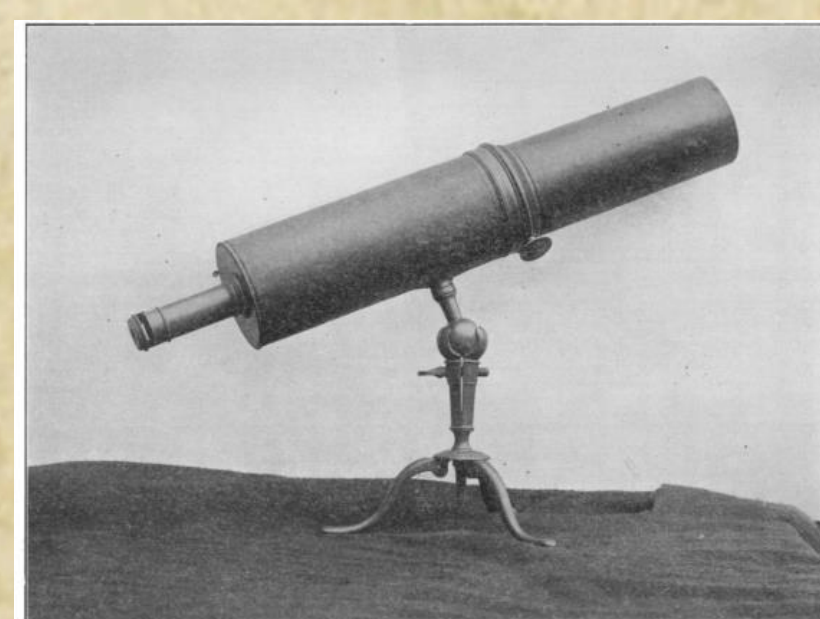


Reverend Thomas  
Prince (1687-1758)

## Sunspots, 1739



Page from Winthrop's astronomical observations of sunspots. These notes are among the earliest records of his scientific studies.



Winthrop's Telescope

Professor John Winthrop became noted for his scientific inquiries in meteorology, seismology, and astronomy. Although religious superstition continued to dominate the American colonies, Winthrop counteracts this potential hamper to scientific progress by incorporating a unique duality with religion into his observations and lectures. Winthrop did not see a conflict between his Puritan beliefs and science.

## The "Earthquake Debate," 1755

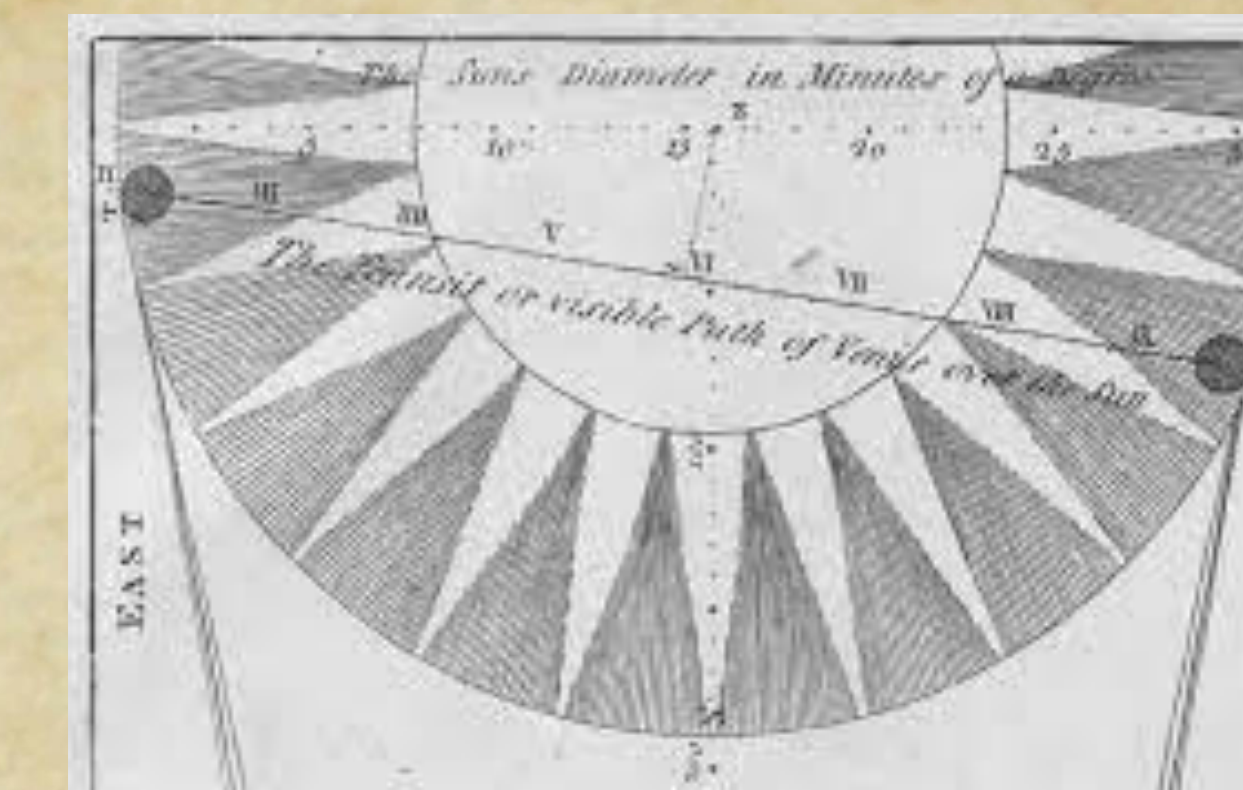
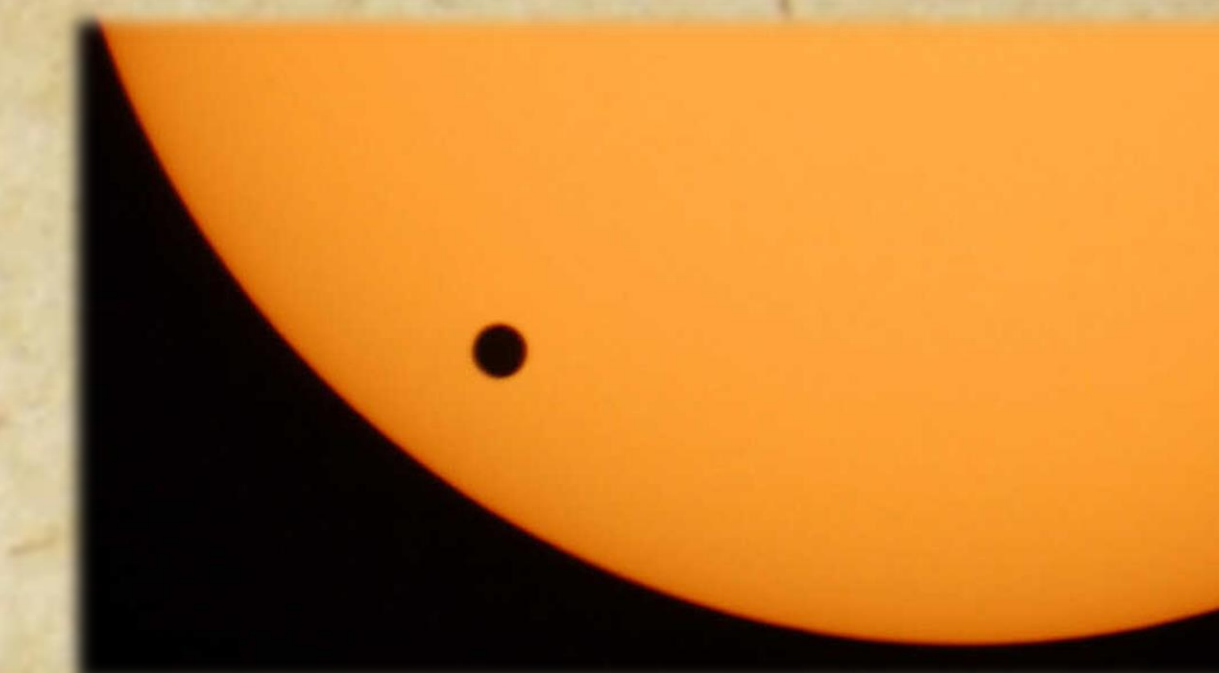
In **1755**, destructive earthquakes struck both Lisbon and Boston. In response, Winthrop's A lecture on earthquakes exemplified his unique duality with science and religion. He concluded that earthquakes were natural phenomena, in contrast to the general belief that they were divine punishments. Winthrop engaged in a bitter feud with Rev. Thomas Prince, who considered Winthrop's views on earthquakes to be "atheistic." Winthrop fired back that Prince was "ignorant" for not seeing the connections between religion and science, writing "have not such [scientific] inquiries when properly conducted, a direct tendency to promote, and not to obstruct, Religion?"

## Halley's Comet, 1759



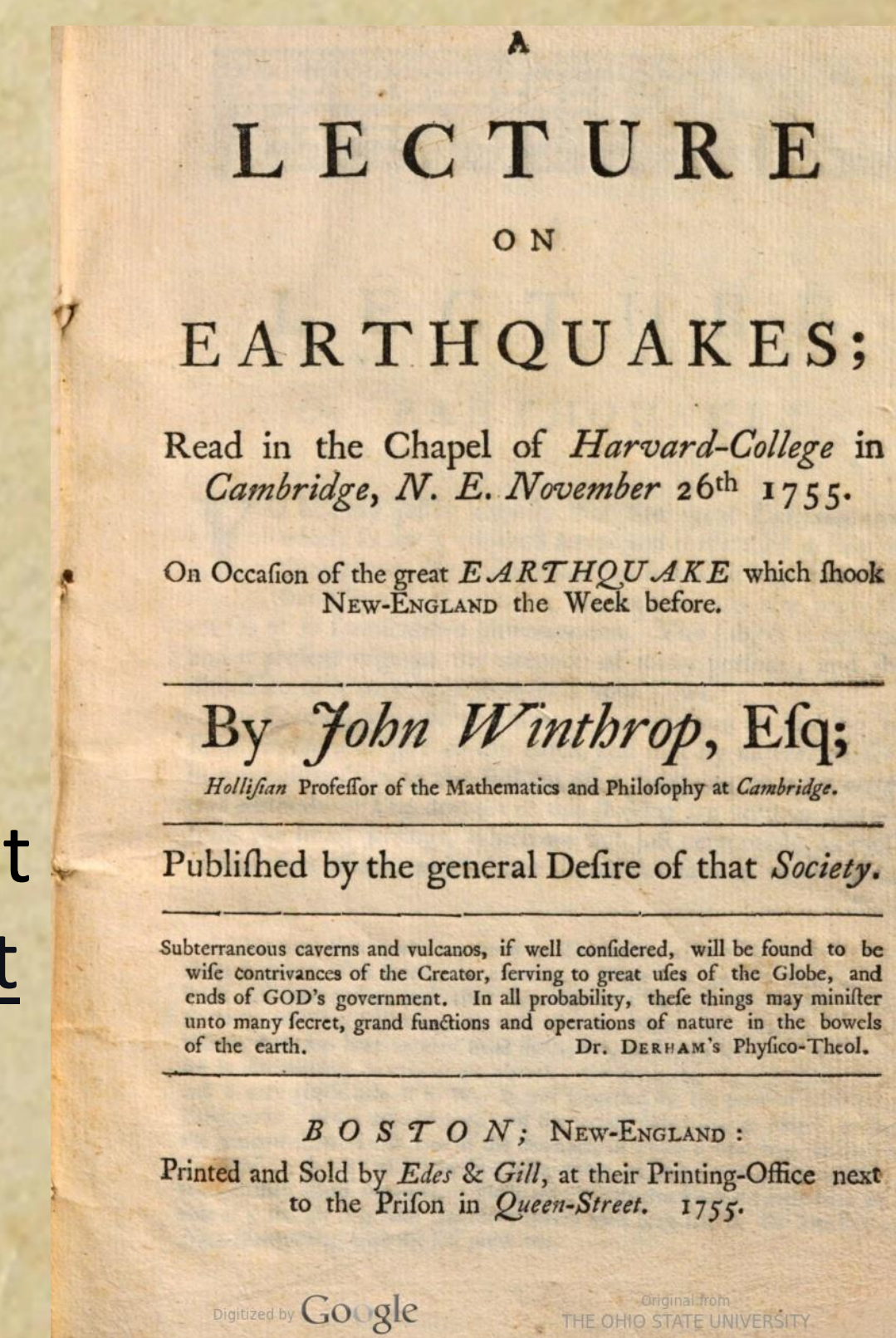
Like earthquakes, comets sparked fear and superstition. Although not the first colonial American to write about comets, like his lecture on earthquakes, Winthrop attempted to dissuade public fear of comets by explaining their behavior scientifically. Winthrop explained that the comet of **1759** obeyed Newtonian principles according to Edmund Halley, who predicted the comet's return based on an orbit around the sun like the planets. Winthrop explained that comets direct human attention to "the supreme GOVERNOR of the universe" and the calculable orbits of comets, like the planets, provide evidence of intelligent design.

## Transit of Venus, 1761



Winthrop's expeditions to document and study the transits of Venus in **1761** and **1769** reiterated his duality of scientific pursuit and religious disclosure. Venus' transit allowed the determination of parallax [distance and dimensions] of the sun, the solar system, its planets, their masses, and their orbits. Winthrop mentioned that the transit would "probably give us a deeper insight into many of the wonderful works of GOD."

"The next Transit after that of **1874** will not be till the year **2004**, on the 8th of June, the latter part of which will be visible here after sun-rise. How Astronomy transports us into distant Futurity!" – **John Winthrop, 1761**



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