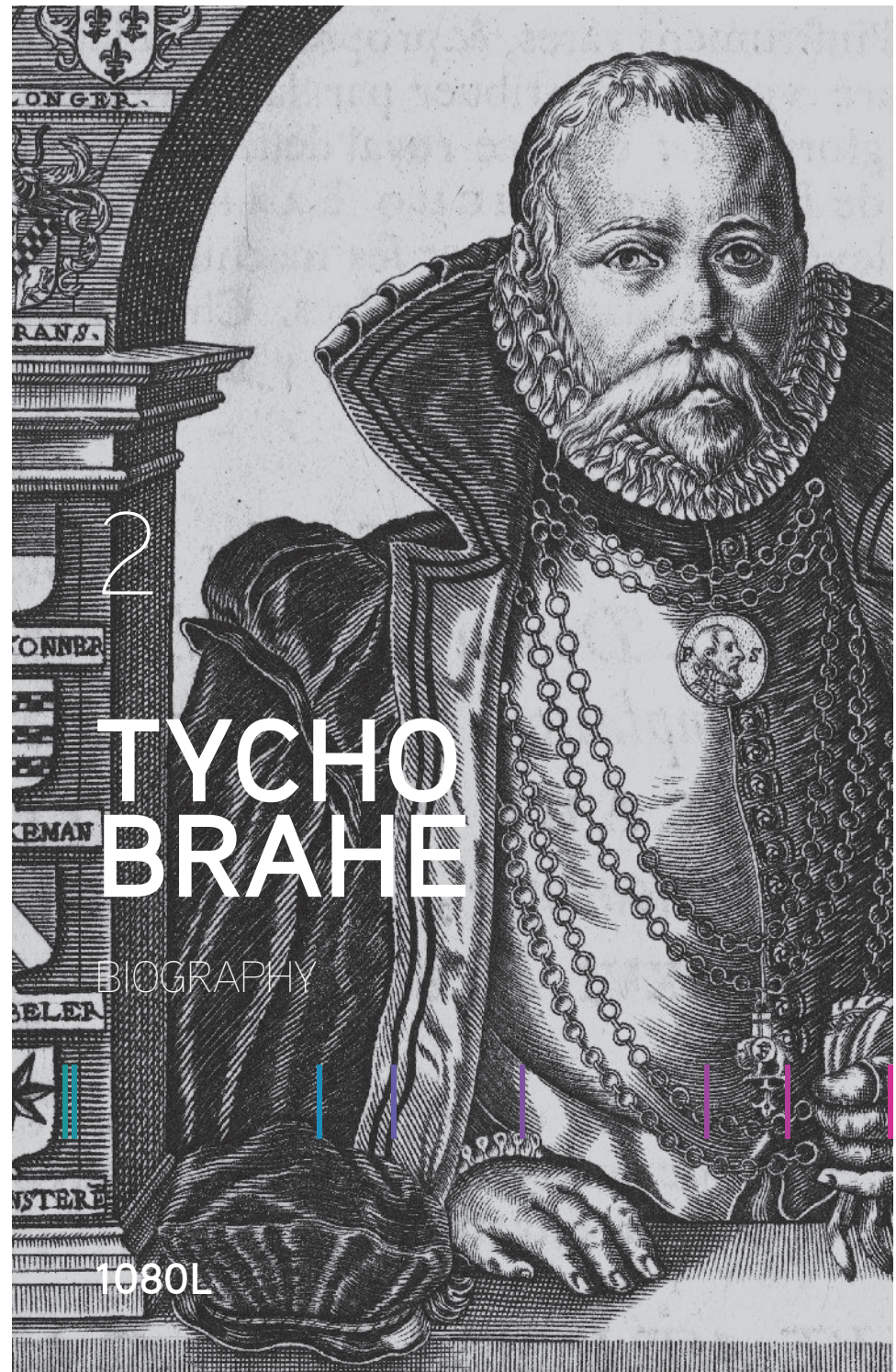




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TYCHO BRAHE

BIOGRAPHY

BIG HISTORY PROJECT

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TYCHO BRAHE

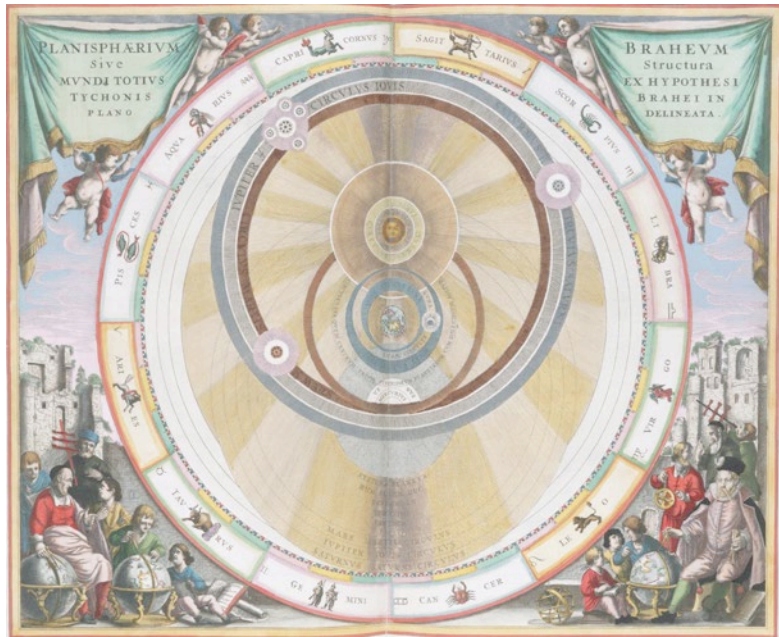
THE LAST GREAT
NAKED-EYE ASTRONOMER

Born
December 14, 1546
Knutstorp Castle,
Scania, Denmark

Died
October 24, 1601
Prague, Bohemia
(now the Czech Republic)

By Cynthia Stokes Brown, adapted by Newsela

Tycho Brahe was the last great naked-eye astronomer. He dedicated his life to recording the location and movement of everything in the night sky with great accuracy. He produced an accurate star chart and proved that the heavens can change.



A plate from the *Harmonia Macrocosmica* atlas by Andreas Cellarius

When Brahe was born in 1546, it was thought that the Sun, Moon, and five planets rotated around the Earth attached to crystal spheres.

In this model, the stars did not change. All of the star charts of that time were based on this geocentric (Earth-centered) system.

Brahe arrived at the University of Leipzig at age 16. There, he discovered an error in existing star charts. At this time, people navigated the sea using the stars, so any error in star charts caused serious problems.

Brahe then devoted his life to tracking the position and movement of all stars and planets with great accuracy.

The heavens had changed

Brahe studied and recorded the night sky using instruments and techniques he had developed himself. After 10 years, he was stunned to look up one night and see a bright star where none had been before.

Using his own techniques, Brahe was able to prove that the new star was beyond the Moon. It was in the celestial realm — what everyone thought was the unchanging backdrop of stars.

The heavens had changed, and Brahe had observed and recorded it for science.

This discovery brought Brahe fame among astronomers around the world. It greatly impressed the Danish king, who helped Brahe build one of the most advanced observatories in the world, called Uraniborg (Fortress of the Sky), on an island in Copenhagen Sound.

Soon after starting work there, he observed a comet moving beyond the “sphere” of the Moon. By proving that the comet was not in our atmosphere, he disproved the theory that the planets were placed around the Earth on crystal spheres.

This laid the foundation for our modern understanding of a changing cosmos. Brahe’s influence extended to Johannes Kepler, one of his most famous students. Kepler used Brahe’s detailed observations to develop his own Laws of Planetary Motion.

Image credits

Undated engraving of Tycho Brahe

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A plate from the *Harmonia Macrocosmica* atlas by Andreas Cellarius

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