

# TYCHO BRAHE



## MUSEUM ON VEN

## Tycho Brahe 1546-1601

Tycho Brahe was born on 14 December 1546 at Knutstorp castle in Skåne, which at that time was a Danish province. His parents, Otte Brahe and Beate Bille, belonged to the most powerful stratum of the Danish aristocracy. Several of Tycho's relatives served the King of Denmark as councillors of the realm or feudal lords.

For several reasons, Tycho Brahe did not grow up with his biological parents. Instead he was raised by his uncle Jörgen Brahe and his wife Inger Oxe at Tosterup castle. At the age of 13 he was sent away to the University in Copenhagen. There he was to study philosophy and rhetoric. It was never intended that Tycho should study astronomy, but a solar eclipse in 1560 aroused his interest and he began to read books on the subject. Jörgen and Inger recommended him instead to study law, humanities, and science. These studies brought Tycho to Leipzig, Wittenberg, Rostock, and Basel. In Leipzig he studied astronomy without the approval of his parents, but they forgave him when he proved successful at it. Tycho discovered that old observations about which he read in books and tables were not as accurate as they claimed to be. He therefore began to construct better instruments and more rigorous methods to develop and carry out precision measurements of heavenly bodies.

In 1570 Tycho Brahe returned from his travels and settled in Skåne. He spent long periods at Herrevadskloster. This was the home of his uncle Steen Bille. Together they built a laboratory and devoted themselves enthusiastically to the study of alchemy. On the evening of 11 November 1572, Tycho was on his way home from the laboratory when he looked up at the sky. To his surprise he saw a new star in the constellation Cassiopeia. The star shone brighter than any other star in the whole sky. Tycho immediately began to perform measurements of its position. In Tycho Brahe's days it was believed that the heavens were divine and perfect, and that no changes could take place. Tycho Brahe attracted a great deal of attention when he claimed that a new star had appeared. Many people believed in Tycho's measurements, while others thought that he was wrong. Tycho observed the luminosity and position of the star for a year, until it faded and disappeared. The measurements that he noted and published in his book *De nova stella* made him famous all over Europe.

Thanks to his work with the new star, Tycho was offered scientific commissions all over Europe. He was preparing to support himself by his research abroad when the Danish king Frederik II persuaded him to stay in Denmark.



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*Nominated for the European Museum of the Year Award 2007*

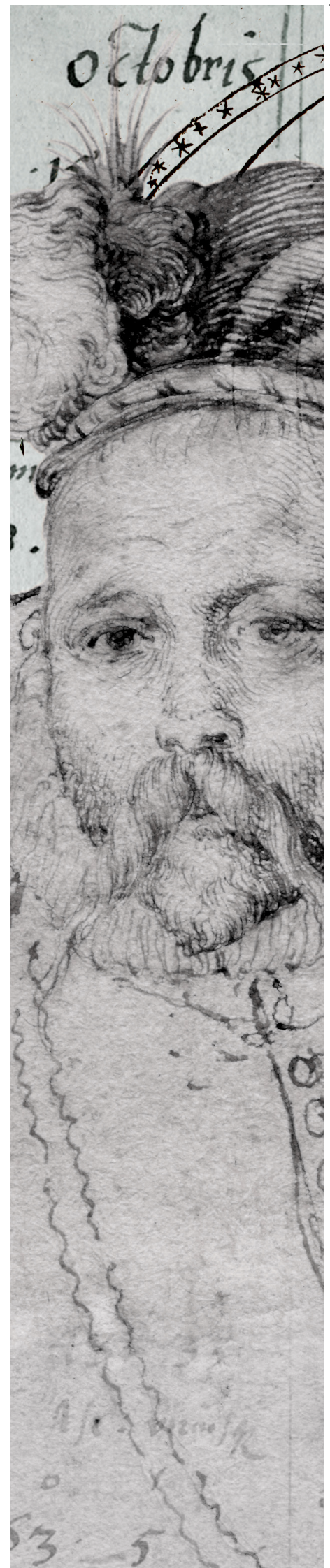
He would then have the whole island of Ven in the Öresund. On the island Tycho would be able to build his own observatory and lead a large scientific project. In addition, he was promised the income from a number of properties in various parts of the country.

During his travels in Europe Tycho had seen many beautiful castles that gave him the inspiration for the one he built on Ven. Uraniborg became one of the most famous buildings of the time. Every part of the building was designed to suit Tycho's scientific projects. For twenty years the castle was a meeting place for scientists and royals from all over Europe. This sixteenth-century research institute was the first of its kind. After Tycho's death in 1601, the castle was demolished, and nothing remains today.

On Ven, Tycho Brahe and his assistants did dedicated research on subjects such as astronomy, meteorology and cartography. Tycho Brahe also set up a paper mill and printing press. He was very interested in some of the most popular sciences of the time, alchemy and astrology. He was a pioneer in many ways. His empirical method meant relying solely on scientific experiments, uninfluenced by faith or philosophy. He was the first scientist in modern times to work in this way.

In 1597 Tycho Brahe was forced to leave his island. The new king of Denmark, Christian IV, son of Frederik II, had assumed power in the country, and he did not think that Tycho's work was worth what it cost. Tycho and his family therefore left Denmark. He went to Prague, where he was appointed court astronomer by the emperor Rudolf II. Tycho took his printing press and his measurement instruments with him to Prague and continued his observations there. In 1601 he met Johannes Kepler and took him on as his assistant. They had worked together for less than a year when Tycho died on 24 October. Kepler then inherited Tycho's work and compiled his many observations. With the aid of these he was able to draw conclusions that brought the knowledge of our planetary system to an even higher level.

Tycho Brahe is buried in the Týn church in Prague. At his funeral he was hailed as one of the leading scientists of his time.



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