

The Search for Tycho Brahe's Nose

by Mark Benecke, Forensic Biologist
Cologne, Germany

Astronomer Tycho Brahe (born 1546, died 1601; Latinized name: Tycho Brahe) was not just an early geek. When he was exhumed in 1901 to celebrate the three hundredth anniversary of his death (and also to restore his grave), many people many people were eager to get a look at the famous metal insert that had been substituted the Brahe's birth nose.

The Coming of the Nose

In 1572, as a student at the University of Copenhagen, Brahe observed a very bright star. He proved that it was a supernova located outside our solar system. Brahe's later observations of the orbits of Cassiopeia and of a comet made clear that those objects, too, were located more distantly than our moon. All this meant that – contrary to what many people believed – the heavens were changeable, not immutable as Aristotle had long ago postulated. Still, Brahe avoided painting a heliocentric view of the universe; he described the earth, rather than the sun, as being at the center of all things heavenly.

To take up his studies, Danish student Tycho had moved from Copenhagen University to the German cities of Leipzig, Wittenberg and Rostock. There, he developed an interest in alchemy and astronomy. He soon became a successful astronomer. In 1572, he observed the new star Cassiopeia and in 1574, he became a lecturer for astronomy in Copenhagen. Shortly after that, he took up an invitation by Prussian Kaiser Friedrich II to set up the finest astronomical observatory of its time, the "Uraniborg," on the island of Hven in the Sont near Copenhagen. From 1599 on, Brahe worked in Prague. In 1600, the German astronomer Johannes Kepler joined him. Kepler calculated planetary orbits – basing his calculations on Brahe's meticulous observations, which Brahe had performed without a telescope.

The Going of the Nose

Tycho Brahe's nose got lost, quite early, in a student fight. On December 10, 1566, Tycho and the Danish blue blood Manderup Parsbjerg were guests at an engagement party at Prof. Bachmeister in Rostock. The party included a ball, but the festive environment did not keep the two men from starting an argument that went on even over the Christmas period. On December 29, they finished the matter with a rapier duel. During the duel, which started at 7 p.m. in total darkness, a large portion of the nose of Brahe was cut off by his opponent. It was the most famous cut in science, if not the unkindest.

The Second Coming of the Nose

In those times in Germany (and also in Austria), it was socially okay – and even more than okay – to proudly show the signs of a duel (facial scars and other such marks of distinction). These signified that a man would stand up for his personal honor. However, to cover the – in this case extreme and unusual – disfigurement, Tycho ordered a substitute nose, made the replacement, if he or she were fortunate enough to be able to obtain one, was typically made of wax. (This was not as noses and attempt to obtain replacements.)

One of Brahe's pupils, Willem Janssoon Blaev (the name was also spelled Wilhelm Janszoon Blaeu), who lived with Brahe for two years on the island of Hven, remembered that Brahe would always carry an ointment which he used on his nose. Aye, there's the rub – a nasty prize to pay for a hot-blooded fight!



Figure 1 Brahe with his damaged nose as it may really have appeared.



Figure 2: Brahe with his damaged nose, a little beautified – but this time with the real form of his eyes. "This portrait is from a handcoloured print in the copies of *Astronomiae Instauratae Mechanica* that Tycho gave to noblemen of Europe. See that Tycho's right eye is bigger than his right eye after many observations. Wandesburg 1598." For further details, see <http://www.nada.kth.se/~fred/tycho/index.html>

student, in all seriousness asked the famous professor of medicine Rudolf Virchow for a duel in 1865! The two were political rivals, and Bismarck felt that Virchow had disrespected him by accusing Bismarck of not having read a report relating to the abolition of the German navy. The men did not duel, and so were able to go through life with noses intact.

Acknowledgements

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Another Nose

Brahe later received at least one replacement nose for his first replacement nose. We know this because when his body was exhumed, a light greenish coloration on his front cranium was interpreted to be remains of a metal mixture that included copper. The original replacement nose – the nose that everybody had been looking forward to seeing – was, however, gone. The thin metal had corroded, and the coffin made of zinc may have speeded the corrosion process.

Another Accident

Another accident ended even worse for Brahe. One day, he sent his pet moose over to the castle of Landskrona, a city close to Hven, to entertain a nobleman there. The moose was less interested in dinner conversation than in the castle interiors, and gave itself a tour of the building. Since the animal was completely drunk by that time – people had given the moose too much beer to drink – it fell down the stairs, and broke one leg. Shortly after, it died from the wound. (This incident was reported by Gassendi in 1654; readers who take the trouble to look up its history will be entertained or aghast, depending on their feelings about animal rights, about the morality of anyone or anything drinking alcoholic beverages, and about the ergonomic deficiencies of the period's architectural designs.)

A Side Note on Duels

By the way, duels by rapier or pistol did not, er, die out in Germany until the nineteenth century, despite being severely forbidden by law. Even the German Head of the State Bismarck, who took part in many duels as a



Tab. XII. a) Zachovaná obličejová část Tychona Brahe.
(Pohled z předu.)

Figure 3: Brahe's cranium 300 years after his death.