Science has many colorful figures, but nobody quite like Tycho Brahe. Beyond his astronomy genius, he lost his nose in a math-fueled duel, possibly inspired Shakespeare to write Hamlet, and maybe made his even greater successor Johannes Kepler a murderer.¹

It’s hard to avoid getting a bit sensational when talking about Brahe. Everything about his life seemed off-kilter and larger-than-life, even from his earliest origins.² When he was two, his uncle, the wealthy Danish noble Jørgen Brahe stole young Tycho from his parents...who proved to be strangely OK with this³ Most everything else that followed in Brahe’s life was just as unlikely, eccentric, and more than a little awesome.⁴

¹All of this is true except the accusation that Kepler murdered Brahe. This is ridiculous and pure speculation based on a sensationalist semi-fictional account of Brahe and Kepler’s relationship that was published in the last decade. Kepler was actually a very milquetoast dude whom Galileo made a habit of treating like a female dog.
²Not really.
³It was actually quite normal in those days for the children of noblemen to be raised by other family members if it was felt to be in the noblechild’s best interests.
⁴Emphasis on the awesome part.
1. A Larger Than Life Astronomer

A solar eclipse in 1560 inspired Brahe to become an astronomer, and he quickly realized the burgeoning science could only progress if it had observations that were systematic, accurate, and, above all, nightly. To that end, he refined old instruments and built new ones, and spent the rest of his life assembling one of the largest bodies of astronomical data in human history... and more on that in a moment.

But Brahe was far from a dry scholar. In 1566 at the age of 20, he lost part of his nose in a duel with another Danish nobleman named Manderup Parsbjerg. The duel is said to have started over a disagreement about a mathematical formula. Because 16th century Denmark didn’t have resources like the internet to figure out who was right, the only solution was to try to kill each other. For the rest of his life, Brahe wore a prosthetic nose. His fake nose was likely made of copper, although he probably also had gold and silver noses around for special occasions.

Brahe inherited a great deal of wealth from his foster father Jørgen, who died in 1565 when saving the King of Denmark from drowning... a rather different royal death than the one Tycho might later have experienced. Brahe is thought to have possessed as much as 1% the entire wealth of Denmark, and five times that much was spent by the Danish government on Brahe's astronomical research. He lived in a castle where he kept a rather unusual group of regular entertainers. He employed a little person called Jepp, who Brahe believed possessed psychic powers. Jepp was his court jester, and spent most dinners under the table. It’s probably best not to speculate on just why Brahe

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5 They were actually distant cousins.
6 The details behind this are quite fascinating. Brahe was well connected, politically—best friends with King Frederick II until the king’s death and related or best friends with everyone who ran the country until Prince Christian ascended the throne 10 years later. In fact, between the time of the death of Fredrick and the ascension of Christian, Brahe was either related to or best friends with the council charged with running the country. His connections as well as the fame that his research facility, Uraniborg, brought to Denmark ensured that whatever Tycho wanted, Tycho got.
7 Called “Uraniborg.”
8 As well as world-famous scientists, artists, artisans, engineers, and scholars. For that time in history, it was like taking the research graduate programs from all the Ivy universities and cramming them onto an island a third the size of Manhattan.
preferred that arrangement. Then there was Brahe’s elk, a tame beast that Brahe kept as a prized pet. The elk met a rather bizarre end, reportedly drinking a lot of beer while visiting a nobleman on Brahe’s behalf, after which it fell down the stairs and died. Yes, that entire sentence was about an elk.

2. Murder Most Astronomical

Still, his life seems almost dry and tedious compared to his mysterious death. He died of a sudden bladder disease in 1601 while at a banquet in Prague. He was unable to urinate except in the smallest of quantities, and after eleven days of excruciating agony he finally died. At least, that’s the official story. It’s possible he actually succumbed to mercury poisoning, as later researchers have detected toxic quantities of the substance on his mustache hairs.

In order to shed some more light on this, his remains were recently exhumed for further medical study. Assuming the researchers find more evidence of mercury on his bone and hair samples, there are two possibilities. If there’s evidence of longer-term exposure, then he likely ingested the mercury accidentally during the course of his experiments. If, on the other hand, the mercury can only be found right at the roots of his hair, then that would indicate he was given one big fatal dose of mercury. And that means... murder!

So if Brahe was murdered, who was behind the poisoning? There are two awesomely lurid popular theories. The first is that King Christian IV of Denmark ordered his assassination. Brahe had been the personal astrologer of Christian’s father, King Frederik II, but he might have meant even more to Christian’s mother. Danish scholars believe Brahe had had an affair with the queen, and

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9This is dumb. The table is where Uraniborg business was conducted. The greatest minds of the time were shaping the direction scientific inquiry would take all the way up to today—this is not an exaggeration. So of course they’re going to keep the midget jester under the table.

10This is an incredibly incorrect statement.

11Mercury, or “quicksilver,” was often prescribed as a cure for many maladies in those days. Everybody had mercury in their mustache hairs. In fact, it’s widely believed that Isaac Newton was a paranoid delusional in his later years because of mercury poisoning.

12No, no it doesn’t.
contemporary rumors of this inspired another tale of infidelity and intrigue at a Danish court—William Shakespeare’s Hamlet.

Whatever the exact reason, Brahe lost his popularity when Christian took the throne, and had to flee the country before he drew the ire of the new, 19-year-old king. It might still have been too late. Danish historian Peter Andersen recently found the diary of Tycho’s cousin Count Eric Brahe, a diplomat working for the King of Denmark. Although the Count does not confess to the murder, he does record several meetings with Christian’s brother Hans, who is thought to have ordered the murder of Tycho Brahe on the king’s behalf. Eric Brahe was visiting Prague when Tycho is believed to have been poisoned.

3. In The Name of Scientific Progress

But perhaps Brahe’s death had more scientific motivations. Because the noble Tycho had married a commoner, his children were not seen as legitimate heirs to his possessions, and this created a great deal of confusion as to who was in line to inherit his possessions. That include his extensive astronomical data, including a catalog of over a thousand new stars. In life, Brahe had jealously guarded his data, not even letting his prized pupil Johannes Kepler gain access.

That all changed upon his death, as Kepler took advantage of the confusion to take possession of the data, something he himself later admitted was not entirely ethical:

“I confess that when Tycho died, I quickly took advantage of the absence, or lack of circumspection, of the heirs, by taking the observations under my care, or perhaps usurping them.”

13I actually don’t know anything about this, so I’m withholding comment.

14Brahe made many preparations during his lifetime to work this out, however. A decade before Christian IV took power, he’d actually worked this out, so there actually wasn’t any confusion about this. If there was any confusion, it was actually in the law and culture itself as noble–to–commoner marriages were becoming more common place at the time.

15This is an inaccurate and misleading statement. Tycho Brahe was responsible for helping establish the concept of intellectual property. There were many attempts to steal his inventions, theories, and data so that the thief could pass them off as his own. Brahe was simply the first person to take this seriously enough to enact procedures to prevent theft. Also, Kepler wasn’t so much “prized” as “one of many effing brilliant minds working at Uraniborg.”
With that data in hand, Kepler was able to move astronomy further forward than anyone before him, becoming what Carl Sagan would later call “the first astrophysicist and the last scientific astrologer.” The 2004 book Heavenly Intrigue suggested that Kepler had in fact murdered Brahe to gain access to the data. There’s not a lot of evidence for this, but Kepler did take great advantage of Brahe’s unexpected death. Hardly enough to suspect him, most certainly, but perhaps enough to call him a person of interest, if 400 years too late to ask anyone about it.

4. The Real Legacy of Tycho Brahe

Either way, Brahe’s death opened up in one burst all the data he had hoarded, and Kepler was able to move astrophysics far further with that information than he likely could have working with a still living Tycho Brahe. For all his astronomical genius, Brahe might have done more for his chosen field in death than he did in life.

It’s remarkable, really. If Brahe really was murdered because of an illicit affair with the Queen of Denmark, then his larger-than-life tendencies and runaway libido might well have been responsible for both the science of astrophysics and the greatest work of English literature. Not bad for a guy with a fake nose and a drunken elk.

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16 The aforementioned semi-fictional account of Brahe and Kepler’s relationship.
17 This is a dumb sentence.
18 This accusation of hoarding is highly misleading and disingenuous. Tycho had his own scientific printing press at Uraniborg—a really big deal at that time. Constant paper shortages (paper was made out of linen rags back then) prevented him from printing his results. He wasn’t hoarding; he was suffering from supply-demand problems. Tycho was obsessed with his scientific legacy, and he knew the data was his key to immortality, so he desperately wanted to publish his results, but he wanted to do it right in a way that made it clear that he was the one who recorded the data. There was also a touch of vanity in the works as Brahe wanted to publish volumes that were visually and tactiley impressive.
19 One rumored affair does not make a “runaway libido.” He was actually quite in love with his commoner wife, by the way, so the rumor of an illicit affair remains unproved.
20 And the economic resources of an entire country.