

# Member Lecture – 10 September 2020

Shakespeare's Astronomy  
David Hughes

Questions and answers not taken during lecture and answered post-lecture.

## **Q1 Great lecture!, what was Tycho's star?**

Tycho's star, also known as SN 1572 or B Cassiopeiae, was a Supernova explosion which occurred in the year 1572. We think that a small white dwarf star pulled too much material from a neighbouring star or was absorbed entirely by an neighbouring star and became unstable. It exploded so violently that, for a time, it generated more light than the entire Milky Way combined.

Tycho's star is also a brand of Single Malt Whiskey. It is quite nice, too.

## **Q2 Would the Milky Way have been visible in the Dark Skies of the day?**

I didn't have a good answer for this question so I pitched it in the direction of historian Dr. Jo Bath. She was kind enough to provide the following:

'Hmm....good question. I assume you are thinking of in urban areas like Shakespeare's London.

You've got an increase in early industry which needs furnaces, and a huge boom in brewing which needs a good heating supply. Chimneys are a new invention, of course, so in areas without them the smoke is going to hang around at ground level, while the richer districts are quickly building up and putting in chimneys.

There's a gradual crossover from mostly wood to mostly coal that happens over centuries. In 1661 Evelyn is actually commissioned to write on the potential pollution hazard from coal fires! :-

'Fumifugium: or the Inconvenience of the Aer and Smoak of London Dissipated.'

So, a slightly later date but might be interesting to track down. He refers to things like clothing being blackened when left out to dry, and people's spit being black. But of course there's a bit more industry around by then.'

So, out in the countryside, the Milky Way would have been highly visible, just as it is now once you get away from light pollution. It's a different case in the cities, especially when the wood fires are burning. You'd be able to see it, and the stars, but likely it would be blotted out by dirty smoke at least some of the time.