

## **Astronomy Talk 16<sup>th</sup> June 2020**

### **The Oldest Planetarium in the World**

This was a “Zoom” talk given by Dr Lilian Hobbs, about a planetarium in the Dutch village of Franeker built 250 years ago in a private house.

Eise Eisinga was born in the nearby village of Dronrijp on 21 February 1744. His profession was wool comber, and he was clearly very clever, having written a 600-page maths book at the age of 16. He built his planetarium to disprove some apocalyptic preaching about the end of the world, and said it would take him 6 months. It actually took 7 years, but one suspects the finished work was probably far more extensive than the original idea.

The solar system was constructed on the ceiling of his downstairs room, and built with a scale of 1 mm to 1 million km; it was engineered very accurately. With the mechanical drives upstairs, it more or less completely filled his house!

Even the 10,000 nails were hand made, and he also left detailed instructions for its running and maintenance. It was controlled by a pendulum with a period of 80 beats a minute. That’s faster than he wanted, but his wife insisted on not losing her cupboard downstairs, so he had to make pendulum length 20 cm shorter and re-engineer it to make the timing correct.

It was all done with wooden discs and rollers, and when finished he gave lectures there. There were some political upheavals that caused him to flee to Germany for 5 years, and when he returned in 1786 the house had been rented out, but was still in good condition.

He was honoured by the king, who bought it in 1825 for the state, for 10,000 guilders. He was also permitted to live there for free for the rest of his life and received a 200 guilder per annum stipend to keep it in good order: he was clearly a good negotiator!

He died on 27 August 1828 in Franeker, and was buried in the village of Dronrijp where he had been born. There are several memorials to him in both places.