

August 10<sup>th</sup>

**Memory verse:**

Nevertheless the foundation of God standeth sure,  
having this seal,

**The Lord knoweth them that are his.**

2 Timothy 2:19

**Some science history<sup>1</sup>**

Have you ever visited the Greenwich Observatory? It is an exciting place to go – although rather expensive nowadays! A bright sunny day is best for a visit as some of the things you can see (such as the camera obscura) work better in bright light.

The foundation stone of the royal observatory was laid in 1675 by John Flamsteed (1646-1719) who was the Astronomer Royal – in fact the first ever Astronomer Royal – on **August 10<sup>th</sup>**.

Flamsteed saw his work as integral to his Christian faith and considered himself as striving to be a Christian Astronomer. Although it is difficult now to find out much about his personal faith, I discovered that 1684 his small library included the puritan William Perkins's *The Whole Treatise of Cases of Conscience* and significantly John Lightfoot's *The Harmony of the Four Evangelists among themselves, and with the Old Testament* in among the scientific and astronomical works. Flamsteed had had puritan teachers as a child in his native Denby and that might explain the presence of the book by Perkins but the other book is particularly of note for an astronomer. John Lightfoot (1602-1675), who had been a member of the Westminster Assembly of Divines (1643-1653) was still living when the Royal Observatory foundation stone was laid by Flamsteed. His book begins with a calculation of the date of creation, commenting that the only way to arrive at the truth in this matter, “is to take the plain and clear account and reckoning of the Scripture, which hath taken a peculiar care to give an exact and most certain chronicle to this time.” He had noticed that the genealogies recorded in Genesis 5 and 11 are uniquely detailed among the biblical genealogies, recording multiple ages for each patriarch. Lightfoot considered the world to be around 6000 years old. Flamsteed, the first Astronomer Royal, agreed with him and saw his work as an astronomer in the light of God's Word.

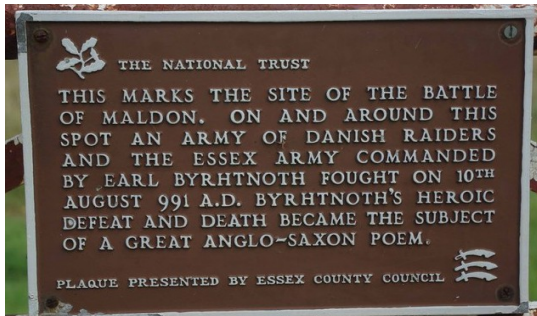


**Something to do**

You may not be Astronomer Royal, but everyone can enjoy the spectacular night sky. August is not a particularly good month for sky gazing because it does not get dark until late. However, if you do have a chance to look at the night sky tonight, a good constellation to look out for is Perseus, which you can see in the north-eastern sky below the W shaped constellation of Cassiopeia.

<sup>1</sup> Information from <http://toddcwood.blogspot.com/2009/01/from-library-john-lightfoots-harmony-of.html>, <https://specialcollections-blog.lib.cam.ac.uk/?p=9384> and other sources.

## A poem to read from long ago and some arithmetic<sup>2</sup>



In 978 Ethelred the Unready<sup>3</sup> came to the throne. While England had strong kings such as Athelstan (who preceded Ethelred) those Vikings who inhabited the Danelaw had settled down to live alongside the Anglo-Saxons and there had been no raids by Vikings from across the sea. Now that a weak king was on the throne who was not a fighting man, the Vikings across the sea began their raids again. They raided not just Wessex but the Danelaw as well. Ethelred offered the Vikings

money to go away. At the Battle of Maldon, which took place on 10<sup>th</sup> August 991 the English were defeated by a band of Viking raiders. After this defeat the Archbishop of Canterbury and others of the king's advisors advised him to pay off the Vikings rather than carry on trying to fight them. The Vikings were paid 10,000 Roman pounds, which equals 3,300 kg, of silver. Of course, the Vikings took the money and came back in greater numbers, demanding even more money. Soon Ethelred had to impose a special tax, the “Danegeld”, to raise the money to pay the Vikings.

As I write this,<sup>4</sup> the price of silver is 65p per gram. Can you calculate what the Vikings were paid in modern money? My answer is at the end of today's lesson.

And the poem? This is a stirring anonymous epic written, scholars think, shortly after the battle. It survives today but with about three pages missing at the beginning and one at the end. I have selected some lines here that will give you the flavour. Byrhtnoth was Ealdorman of Essex and he met his death in the battle. The translation from Anglo Saxon below, which preserves the alliterative flavour of the original was made by the American James Mercer Garnett (1770-1843).<sup>5</sup> He calls the Vikings “Wikings”. You will find the lines read aloud very well but you will probably prefer to say “Vikings”.

There Byrhtnoth gan<sup>6</sup> then his warriors embolden,  
Rode and gave rede,<sup>7</sup> instructed his men  
Hów they should stand, and the stead<sup>8</sup> sustain,  
And bade that rimmed shields they rightly should hold  
Fast with their fists, and frightened be never.  
When hé had the folk fairly emboldened,  
With his men he alighted where was liefest<sup>9</sup> to him,  
Whére his hearth-followers most faithful he knew.  
Then stood on the stathe,<sup>10</sup> stoutly did call  
The wikings' herald, with words he spake,  
Who boastfully bore fróm the brine<sup>11</sup>-farers  
An errand to th' earl, where he stood on the shore:

2 Image: By Glyn Baker, CC BY-SA 2.0, <https://commons.wikimedia.org/w/index.php?curid=14208274>. Information adapted from *The Story of God's Dealings with our Nation* Volume 1 available here:

<https://www.creationresearchstore.com/s/search?q=The%20Story%20of%20Gods%20Dealings%20with%20our%20Nation>.

3 Unready in this name does not mean quite what we mean by the word today. It means “ill-advised.”

4 10<sup>th</sup> May 2023. You can check the current silver price on line if you wish and alter the calculation accordingly.

5 You can read a modern translation here: <https://lightspill.com/poetry/oe/maldon.html>

6 began

7 instruction

8 place

9 Where he liked best

10 Bank

11 Sea

“To thee me did send the seamen snell,<sup>12</sup>  
 Bade to thee say, thou must send to them quickly  
 Bracelets for safety; and 'tis better for you  
 That ye this spear-rush with tribute buy off  
 Than we in so fierce a fight engage.  
 We need not each spill,<sup>13</sup> if ye speed to this:  
 We will for the pay a peace confirm.  
 If thou that redest who art highest in rank,  
 If thou thy lieges art willing to loose,  
 To pay to the seamen at their own pleasure  
 Money for peace, and take peace from us,  
 We will with the treasure betake us to ship,  
 Fare<sup>14</sup> on the flood, and peace with you confirm.”  
 Byrhtnoth replied, his buckler uplifted,  
 Waved his slim spear, with words he spake,  
 Angry and firm gave answer to him:  
 “Hear'st thou, seafarer, what saith this folk?  
 They will for tribute spear-shafts you pay,  
 Poisonous points and trusty swords,  
 Those weapons that you in battle avail not.  
 Herald of seamen, hark<sup>15</sup> back again,  
 Say to thy people much sadder words,  
 Here stands not unknown an earl with his band,  
 Whó will defend this father-land,  
 Æthelred's home, mine own liege lord's,  
 His folk and field: ye're fated to fall,  
 Ye heathen, in battle. Too base it me seems  
 That ye with our scats<sup>16</sup> to ship may go  
 Unfought against, so far ye now hither  
 Into our country have come within;  
 Ye shall not so gently treasure obtain;  
 Shall spear and sword sooner beseem us,  
 Grim battle-play, ere tribute we give.”  
 Then bade he shield bear, warriors advance,  
 So that on the burn-stathe<sup>17</sup> they all were standing.  
 Might not thére for the water one war-band to th' other,  
 When flowing flood came after the ebb,  
 Sea-streams interlocked; too long seemed it them  
 Till they together their spears should bear.  
 Then Panta's<sup>18</sup> stream with pomp they beset,  
 East-Saxons' chief and the host from the ships:  
 No one of them might do harm to the other,  
 But he who by dart's flight his death should receive.  
 The flood ebbed forth; the fleetmen<sup>19</sup> stood ready,  
 Many of wikings, eager for war.

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12 bold

13 i.e. spill blood

14 Go (away)

15 announce

16 money

17 stream bank

18 the River Panta near Malden in Essex

19 sailors

In today's Optional Resources files you will find H E Marshall's account of the times of Ethelred the Unready from *Our Island Story*. The story ends at rather a “cliff-hanging” point so if you want to find out what happens next you will have to buy or borrow a copy of the book!<sup>20</sup>

And the arithmetic? I made it £2,145,000. (Two million one hundred and forty-five thousand pounds.)

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<sup>20</sup> Or you can find it here [https://www.heritage-history.com/ssl/cds/british\\_empire/pdf/Our%20Island%20Story%20-%20Marshall.pdf](https://www.heritage-history.com/ssl/cds/british_empire/pdf/Our%20Island%20Story%20-%20Marshall.pdf).