

Archetypes: The 12 Inscriptions

These inscriptions around the base of 'The Trumpet in the Universe' offer visitors to the exhibition a window to explore the theme behind the sculpture, which is *solī Deo gloria* (Glory to God alone). They introduce notable people from different disciplines who made scientific discoveries, developed technology or contributed to human flourishing. Most of them are associated in some way or other with Cambridge, and many were people of faith who would endorse the concept of *solī Deo gloria*.

1. **It is the glory of God to conceal a matter; to search out a matter is the glory of kings.**

This verse from the Book of Proverbs chapter 25 verse 2, was written around 3,000 years ago, and provides an ideal backdrop for the concept of *solī Deo gloria* in this sculpture. It hints at the wonder of discovering how the universe actually works and developing its potential through both arts and sciences.



2.

BIOLOGY: The structure of DNA was discovered by Francis Crick and James Watson in Cambridge. However, they could not have done that without the pioneering work of two women: Rosalind Franklin and Dorothy Hodgkin. Hodgkin developed X-ray crystallography (later used by Franklin to analyse DNA molecules) while doing her PhD in Cambridge. She discovered the structures of penicillin and Vitamin B₁₂, for which she won the Nobel Prize for Chemistry in 1964.

3. **Novum instrumentum omne diligenter ab Erasmo Roterodamo recognitum & emendatum.**

BIBLICAL STUDIES: This is the first line of Erasmus' edition of the New Testament, which put the Greek text and Latin translation side by side for the first time, along with extensive notes. He began this endeavour while professor of divinity at the University of Cambridge, then went on to Basel to finish the work, publishing it in 1516. Erasmus' New Testament was used by Luther, Tyndale and others to translate the Bible into vernacular languages.



4.

MUSIC: This melody is the first phrase of 'The heavens are telling the glory of God' from Haydn's Creation – one of his best known choral works. The words are taken from Psalm 19:1, which forms part of the inspiration for the 'Trumpet in the Universe' sculpture. Haydn visited Cambridge in 1791, seven years before he wrote the Creation oratorio.


5. **Earth to earth, ashes to ashes, dust to dust.**

THEOLOGY: Thomas Cranmer was a Fellow at Jesus College, Cambridge and went on to become Archbishop of Canterbury and a leading figure in the English Reformation. He wrote the first edition of the Book of Common Prayer in 1549 which became the main source of liturgy used in the Anglican Church up to the 20th century. It was a major influence on the English language, such as this famous phrase from the funeral service.

6. **If we assume we've arrived, we stop searching, we stop developing.**

ASTRONOMY: Jocelyn Bell Burnell played a key role in the discovery of pulsars while studying for her PhD in Cambridge in the 1960s, and her supervisor went on to receive a Nobel Prize for

their work. She has become one of the most distinguished women scientists in UK and has stated that her Quaker beliefs and scientific research work well together.

7. **$N_2 + 3H_2 \rightarrow 2NH_3$** 


CHEMISTRY: Fritz Haber developed a process for making ammonia in 1909, which enabled the large scale manufacture of fertiliser. This in turn permitted agricultural productivity to rise rapidly and support a growing world population. In 1933, Fritz Haber spent a few months in Cambridge in the last year of his life; he was a controversial figure though, for as well as making industrial fertiliser possible, he had also been a pioneer of chemical warfare during the First World War.

8. **Come forth into the light of things, Let Nature be your teacher.**

LITERATURE: William Wordsworth was one of the greatest English Romantic poets, who studied at Cambridge University from 1787-91. Wordsworth was committed to the Anglican Church and wrote that, 'Poetry is most just to its own divine origin when it administers the comforts and breathes the spirit of religion.' The inscription is from his poem 'The Tables Turned'.

9. **The task of the modern educator is not to cut down jungles but to irrigate deserts.**

EDUCATION: Author, academic and broadcaster C.S. Lewis spent the last nine years of his life as professor of Medieval and Renaissance Literature in Cambridge, before his death in 1963. He is widely known as a Christian apologist and for his works of fiction, especially the Chronicles of Narnia and the Space Trilogy. Some think his most important book is *The Abolition of Man*, from which this quote is taken.

10. **$F=ma$** 

MECHANICS: Isaac Newton was a mathematician, astronomer, theologian and physicist, one of the most influential scientists of all time. He was professor of mathematics at Cambridge University, and his three laws of motion laid the foundation for mechanics. In his 1687 book *Principia*, Newton combined these laws of motion with his law of universal gravitation (allegedly discovered while he observed apples falling from a tree), to explain Kepler's laws of planetary motion. The inscription is Newton's second law of motion.

11. **Liberty is a natural, and government an adventitious right, because all men were originally free.**

POLITICS: Thomas Clarkson won an essay prize while a student at St Johns College Cambridge in 1785, which changed his life as he began to campaign tirelessly for the abolition of the slave trade. He recruited William Wilberforce to his cause, which was taken up by the Clapham Group in London. His Christian faith was one of the main motivations for Clarkson's tireless work, and the inscription is from his prize-winning essay.

$$\nabla \times \mathbf{E} = -\frac{\partial \mathbf{B}}{\partial t} \quad \nabla \cdot \mathbf{D} = \rho$$

12. **$\nabla \times \mathbf{H} = \mathbf{J} + \frac{\partial \mathbf{D}}{\partial t}$ $\nabla \cdot \mathbf{B} = 0$**

PHYSICS: James Clerk Maxwell was a Scottish scientist and deeply committed Christian, who founded the Cavendish Laboratory in Cambridge in 1874. His most notable achievement was to formulate the classical theory of electromagnetic radiation. His four equations for electromagnetism in the inscription have been called the 'second great unification in physics' after the first one realised by Isaac Newton. When Einstein was once asked if he stood on the shoulders of Newton he replied, 'No, on the shoulders of Maxwell.'