

The statues in the court

A number of eminent scientists, philosophers and engineers are commemorated with statues around the Museum: Galileo, Newton, Darwin and Linnaeus are among the figures that grace the court. Several busts celebrate Oxford men of science who have made a significant contribution to the Museum.



The Museum is a magnificent testament to the Victorian neo-Gothic movement. It was designed to be a 'cathedral to science' and reflects this throughout. The stonework in the interior is no exception: columns of polished stone are capped by intricately carved capitals depicting different botanical orders, and the court is surrounded by statues of the great men of science. Darwin, Newton and Galileo act as inspiration to researchers, students, and visitors to the Museum.



What is 'Learning more'?

'Learning more' comprises a series of articles about the Museum and its collections. It is designed for older students, teachers, researchers, and anyone who wants to find out more about particular aspects of the Museum's work and its history.

This article introduces the statues of the main court. It gives brief biographies of the subject and further details of the statues.

Look online for other 'Learning more' articles:
<http://www.oum.ox.ac.uk/learning>

A brief history of the statues

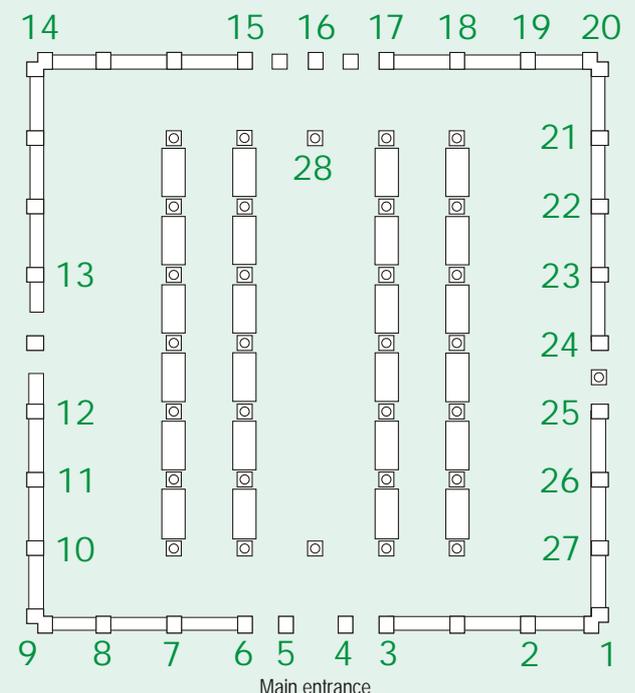
When the Museum opened it was planned that each pillar around the gallery would play host to a statue of one of the great scientists. The statues were paid for by private subscription however, and unfortunately only 19 full statues were completed. All but one are carved in Caen stone - a limestone from Normandy in France. Many of the sculptors were well-known Victorian artists. (See back page)



Most of the carvings include a symbol or object that relates to the work of the subject: the traditional story has it that Newton was sitting under an apple tree when an apple fell on his head, leading him to develop his theory of gravitation.

A key to the statues in the court

There are 28 statues and busts on display in the main court.



Meet the statues

Using the key on page one, travel clockwise around the court from the south-west corner to meet the statues.

1. Humphrey Davy (1778 - 1829)

English chemist who discovered several chemical elements, and invented the miner's safety lamp.



Davy rests his right hand on a carving of the lamp (right). There are two books at his feet, one of them, *Salmonia*, his own work on fly fishing.

Caen stone statue by Alexander Munro

2. Joseph Priestley (1733 - 1804)

English chemist and amateur natural philosopher whose scientific work covered physics, electricity, magnetism and optics, as well as chemistry. He is credited with the discovery of oxygen in 1774. He also invented fizzy water by dissolving carbon dioxide in water. He was a religious dissenter and a political non-conformist, with sympathies for the French Revolution. He later emigrated to America.



Caen stone statue by Edward Stephens

3. Roger Bacon (c.1214 - c.1294)

English philosopher and scientist, famous for his work on optics and for promoting experimentation.



Bacon is depicted holding an astrolabe and calipers. The astrolabe represents his scientific studies, and the calipers suggest an aspiration to harmony.

Caen stone statue by Henry Hope Pinker

4. Francis Bacon (1561 - 1626)

English philosopher whose ideas form the basis of modern scientific investigation. He championed empirical methods of scientific enquiry, and argued that the purpose of scientific advancement was to improve the human condition. These two beliefs continue to underpin scientific methods and philosophy today. Caen stone statue by Thomas Woolner



5. Aristotle (384 - 322 B.C.)

Greek philosopher whose ideas are fundamental to western study and thought. Unlike Plato, Aristotle believed that ultimate reality was to be found in the material world. He wrote treatises on logic, ethics, politics, aesthetics, mathematics and science. His system for the classification of animals laid the foundation for modern taxonomy. Caen stone statue by Henry Armstead



6. John Hunter (1728 - 1793)

Scottish doctor and anatomist. Hunter's most significant contribution to medicine was to provide an experimental basis to surgical practice. He favoured experimentation and observation. 'Don't think, try' was his famous injunction.



Hunter's left elbow rests on a plinth concealing a snake coiled round a staff. This is a traditional symbol of medicine, and is associated with the Greek god Aesclepius.

Caen stone statue by Henry Hope Pinker

7. Thomas Sydenham (1624 - 1689)

An English physician, who has been called the 'father of English medicine', he favoured the Hippocratic methods of observation and clinical experience. He studied and described the conditions that gave rise to epidemics, and was a witness to the great plague of 1666 and to major outbreaks of smallpox. He was a skilled and popular practitioner of medicine, as well as the author of many important medical texts. He fought for Cromwell in the Civil War.



Caen stone statue
by Henry Hope Pinker

8. William Harvey (1578 - 1657)

English doctor and anatomist, he is famous for his discovery of the circulation of the blood, described and published in 1628. Although his views were controversial, he was recognised as a leading physician, and was appointed doctor to Charles I.



Harvey is depicted with a heart resting in his right hand; his work remains the foundation for modern research into the circulatory system.

Caen stone statue
by Henry Weekes

Find out more

The 'Learning more' series includes other articles related to the Museum's architecture: 'The stonework of the Museum' describes the stonework and the elaborately carved columns, capitals and corbels in the gallery, and 'The architecture of the Museum' outlines the design and construction of the building. All articles are listed in the 'Learning more' section of the Museum's website:
www.oum.ox.ac.uk/learning

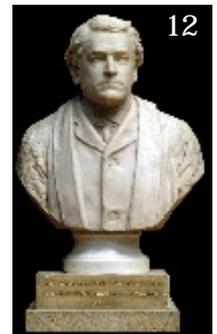
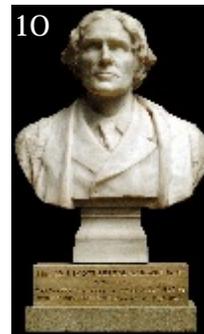
9. Hippocrates (c.460 - c.377 B.C.)

A Greek physician, known as the 'father of medicine', Hippocrates was the greatest physician of his time. His medical practice was based on observation and on the study of the human body. He differed from his contemporaries in his belief that illness had physical and rational causes. Prevailing views held evil spirits and the whims of the gods responsible for ill health. Hippocrates was also concerned with the ethics of medicine, and the moral duties of a physician. The 'Hippocratic oath' he composed outlining these responsibilities is perhaps his greatest legacy, and in a modern form, remains the basis of trust between a doctor and patient.



The two serpents entwined around a staff, the caduceus, is sometimes used as a symbol for medicine. However it is more often associated with Hermes, the Greek god of commerce.

Caen stone statue by
Alexander Munro



10. Sir John Scott Burdon-Sanderson

Waynflete Professor of Physiology, 1882-1895;
Regius Professor of Medicine, 1882-1904.

11. Walter Frank Raphael Weldon

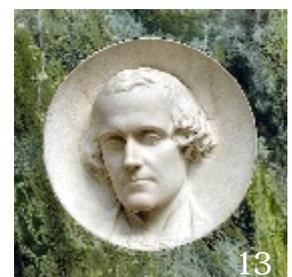
Linacre Professor of Comparative Anatomy, 1899-1906.

12. George Rolleston

Linacre Professor of Physiology,
1860-1881.

13. Benjamin Woodward

Prime architect in the firm responsible both for the design and building of the Museum; died after a bout of ill health in June 1861, a year after the Museum was opened.



14. Carl von Linnaeus (1707 - 1778)

Swedish botanist, known as the 'father of taxonomy', Linnaeus published the first edition of his classification of living things, *Systema Naturae*, in 1735. His system of hierarchical classification still survives, as does his most important legacy, the system of binomial nomenclature that he devised and implemented. This 'two name' system - a combination of the genus and species names - is recognised as the official starting point of modern taxonomy. Before Linnaeus there were no accepted standards for naming living organisms.

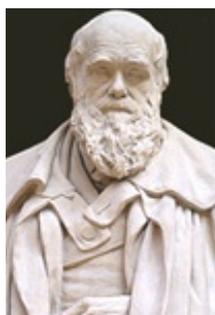


In his left hand Linnaeus holds a sprig of *Linnaea borealis*, and at his feet is the Lapland plant *Menyanthes trifoliata*.

Caen stone statue by John Tupper

15. Charles Darwin (1809 - 1882)

English naturalist considered to be the 'father of modern biology'. He developed the theory of evolution in his book, *On the Origin of Species by Means of Natural Selection*, published in 1859. Darwin's ideas were controversial, as they challenged the prevailing belief in God as creator and 'man' as unique and separate from the rest of the animal kingdom. The publication of his theory sparked the 'great debate' held in the Museum in 1860. Today, however, Darwin's theories are integral to our understanding of the natural world.



Caen stone statue by Henry Hope Pinker

16. Isaac Newton (1642 - 1727)

English physicist and mathematician. The basic principles of investigation that Newton defined, together with his scientific work, laid the foundations for modern science. His two most famous works are the *Principia* (1687), and *Opticks* (1704). He made a huge impact on astronomy by defining the laws of motion and universal gravitation. He used them to describe the movement of the moon around the earth, and the planets around the sun. Newton investigated the properties of white light, and he constructed the first reflecting telescope. He is probably the most influential scientist who ever lived.



Newton holds a book in his left hand; an apple rests at his feet representing his discovery of the laws of gravity.

Caen stone statue by Alexander Munro

17. Galileo Galilei (1564 - 1642)

Italian astronomer and physicist. Galileo studied motion using pendulums and by measuring the speeds of falling objects. He built the first refracting telescope to be used for astronomical observations. He saw the craters on the moon, he discovered Jupiter's moons, and he observed that the Milky Way was made up of stars. He was condemned by the Inquisition for his belief in the Copernican system of planetary movement which states that the planets, including the earth, move around the sun, rather than believing the earth to be the fixed centre of the the universe.



Galileo holds two lenses, one in each hand.
Caen stone statue by Alexander Munro

18. Euclid (about 300 B.C.)

Probably the most famous of the Greek mathematicians, he wrote *The Elements*, a treatise on geometry and other branches of mathematics.



Euclid holds a compass and a scroll bearing geometric inscriptions.
Caen stone statue by Joseph Durham

21. Hans Oersted (1777 - 1851)

Danish physicist, who in 1820 discovered that electricity and magnetism were related phenomena. This discovery laid the foundation for the theory of electromagnetism, and for the research that later created technologies such as radio, television and fibre optics.



Plaster statue by K. Jobhen

19. William Buckland (1784 - 1856)

A scientist and clergyman, William Buckland founded the scientific teaching of geology in Oxford, and brought together what would become the core of the Museum's geological collections.



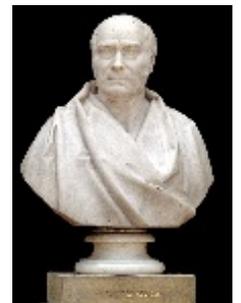
22. John Phillips (1800 - 1874)

Prominent geologist and Oxford academic; he was the first keeper of the University Museum, 1857-1874.



23. William Smith (1769 - 1839)

An engineer who is now considered the 'father of English geology', Smith created the first geological map of Britain.



20. Gottfried Leibnitz (1646 - 1716)

German mathematician. One of Leibnitz's great achievements was the development of the binary system of arithmetic. Another significant contribution was his work on dynamics. He also developed differential and integral calculus, although there was serious controversy between him and his contemporary Sir Isaac Newton as to who had worked out the details and explained the proofs first. Leibnitz applied the methods of mathematical proof to other disciplines such as logic and philosophy, and among his lifelong aims were ambitious plans to collate all human knowledge, and to reunite the Church.



Caen stone statue by Alexander Munro

24. James Watt (1736 - 1819)

A Scottish engineer, Watt is famous for his success in modifying steam engines to make them more efficient. His new models of the steam engine had a huge impact on the Industrial Revolution as they came to be used in factories, mills and mines. In recognition of the importance of his work, the electrical unit of power, the watt, was named after him.



Caen stone statue by Alexander Munro

25. George Stephenson (1781 - 1848)

An English engineer, Stephenson is generally regarded as the founder of the British railways. He is associated with *Rocket*, the steam-powered locomotive which has provided the model for almost every steam-powered locomotive built since. He also used his engineering skills to devise the most effective rail tracks for the locomotives. His work made a significant impact on the pattern of industrial life in Britain.



Caen stone statue by Joseph Durham

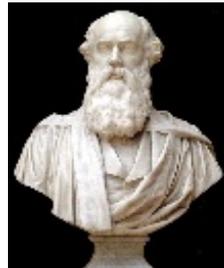
26. Sir Joseph Prestwich (1812 - 1896)

Prominent geologist and archaeologist; Professor of Geology at Oxford, 1857-1874.



27. Henry Smith (1826 - 1883)

Professor of Geometry at Oxford, 1861-1883, and keeper of the University Museum, 1874-1883.



28. Albert, Prince Consort (1819 - 1861)

Husband to Queen Victoria, Prince Albert took a keen interest in the arts and sciences. He was the driving force behind the Great Exhibition of 1851, profits from which enabled the Royal Albert Hall and the museums in South Kensington to be built.

Caen stone statue by Thomas Woolner

*The Sculptors*

Many of the sculptors were well-known artists in their own right, whose work may be seen in cathedrals, churches, town halls and stately homes all over the country.

Alexander Munro carved the statues of Hippocrates, Galileo, Isaac Newton, Humphrey Davy, Gottfried Leibnitz and James Watt. The son of a stonemason, his talent was spotted by his father's employer, the Duchess of Sutherland. He exhibited at the Royal Academy and the Great Exhibition of 1851. He became associated with the Pre-Raphaelites.

Thomas Woolner, a sculptor and poet, was a founder member of the Pre-Raphaelite Brotherhood. His most famous works are of British imperial heroes, such as Captain Cook. For the Museum he carved the statues of Francis Bacon and Prince Albert. Another Pre-Raphaelite was John Tupper, who was responsible for the statue of Linnaeus.

Joseph Durham, who carved the statues of Euclid and George Stephenson, was a popular sculptor who exhibited frequently at the Royal Academy. His most famous work is probably his statue of Prince Albert outside the Albert Hall. The frieze of figures around the podium of the Albert Memorial was carved by Henry Armstead, who also carved the statue of Aristotle in the Museum.

Henry Pinker, Henry Weekes and Edward Stephens were also well-established Victorian sculptors. Henry Weekes began teaching at the Royal Academy in 1869. His lectures were later published in a book, 'Lectures on Art'.

This article was written by Sarah Phibbs, and designed by Bethia Thomas.
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