

# Further information

## Websites

[lunarsociety.org.uk](http://lunarsociety.org.uk)  
[revolutionaryplayers.org.uk](http://revolutionaryplayers.org.uk)  
[historywm.com](http://historywm.com)  
[libraryofbirmingham.com](http://libraryofbirmingham.com)

## Further Reading

Uglow, Jenny  
*The Lunar Men*  
(Faber, 2002)

Jones, Peter M.  
*Industrial Enlightenment*  
(Manchester University Press, 2013)

Roy Porter  
*Enlightenment: Britain and the creation  
of the Modern World*  
(Penguin, 2000)

## Credits

Written by Chris Rice

## Photography

Chris Rice, Birmingham Museums, Library of Birmingham,  
Derby Museums, Black Country Living Museum,  
Ironbridge Gorge Museums, Erasmus Darwin House,  
Derwent Valley Mills, Wedgwood Museum,  
Peak District National Park, Dudley Canal Trust

Designed and produced by Dave Walsh Creative

stimulating ideas    broadening debate    catalysing action

# THE LUNAR SOCIETY

[lunarsociety.org.uk](http://lunarsociety.org.uk)

  @LunarSoc

Main cover image: 'A Philosopher giving a lecture on the  
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# LUNAR SOCIETY HERITAGE TRAIL

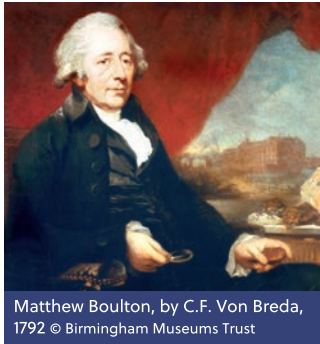
## and Guide to the 18th century Midlands



# THE LUNAR SOCIETY



# The Lunar Society



Matthew Boulton, by C.F. Von Breda, 1792 © Birmingham Museums Trust

Founded around 1765, the Lunar Society was an informal group of friends whose lively meetings, conversations, letters and experiments were to have a global impact on scientific understanding during the late 18th century.

The group was so-called because it met on evenings when the moon was full to give its members enough light to find their way safely home. To begin with, they called themselves the Lunar Circle, the more formal title 'Lunar Society' being adopted in 1775.

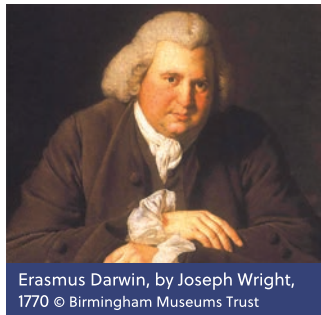
The Society comprised some of the outstanding minds of the day. It was jointly founded by metalware manufacturer Matthew Boulton and physician and poet Dr Erasmus Darwin.

Other members included steam engineer and inventor James Watt, physician and mathematics tutor Dr William Small, Unitarian minister and discoverer of oxygen Joseph Priestley, pottery manufacturer Josiah Wedgwood, clockmaker and geologist John Whitehurst, arms manufacturer Samuel Galton, chemist James Keir and physician and botanist Dr William Withering.

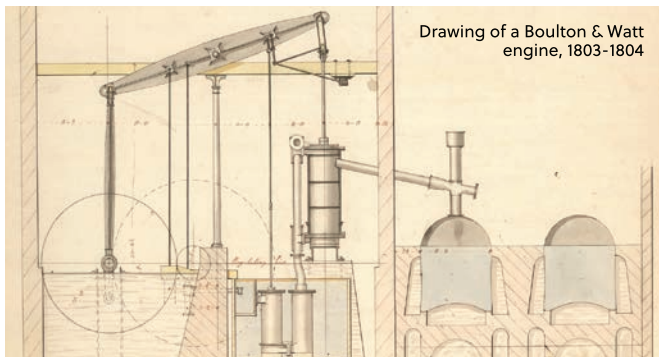
## The Midlands Lunar Trail

The purpose of this guide is to provide a brief introduction to the Lunar Society and the 18th century Midlands.

It includes all of the historic sites directly associated with the Society, as well as places in the region which have significant links to the scientific and industrial developments of the period.



Erasmus Darwin, by Joseph Wright, 1770 © Birmingham Museums Trust



Drawing of a Boulton & Watt engine, 1803-1804

# The Lunar Society then and now

## The Age of Enlightenment

The Lunar Society was a product of what we now call the 'Age of Enlightenment' – the intellectual and philosophical revolution of the 18th century that ushered in the modern world.

The key to this revolution was the exchange of ideas. The Lunar Society was one of many 'philosophical' societies that sprang up during the period in response to the growing interest in technological and scientific progress.



The Lunar Room, Soho House

Whilst never members of the Lunar Society proper, the likes of Joseph Wright, Sir Richard Arkwright, Joseph Pickering, Abraham Darby III and John Wilkinson shared many of their ideas.

But Enlightenment progress was not purely a philosophical concept. Whilst men like Boulton, Wedgwood and Arkwright were genuinely interested in new scientific discoveries, they were also eager to apply the advances in science and technology to further their business interests.

The emergence of the Midlands at the heart of the English Enlightenment was in part down a group of brilliant minds arriving in the same



Sir Richard Arkwright's Cromford Mill

place around the same time. However, many of the discoveries and inventions that emerged from the group were directly influenced by the political and religious environment as well as the geography and geology of the region.

## The Modern Lunar Society

By 1813 most of the original members of the Lunar Society had died or moved away. On the 8th August that year the group was formally dissolved.

But the Lunar legacy never disappeared completely and around 1990 the Society was re-established by a group led by Dame Rachel Waterhouse. The new Society adopts the original Lunar aims and, welcoming members from all walks of life, seeks to connect scientific, economic, social and cultural thinking to catalyse action for the common good.



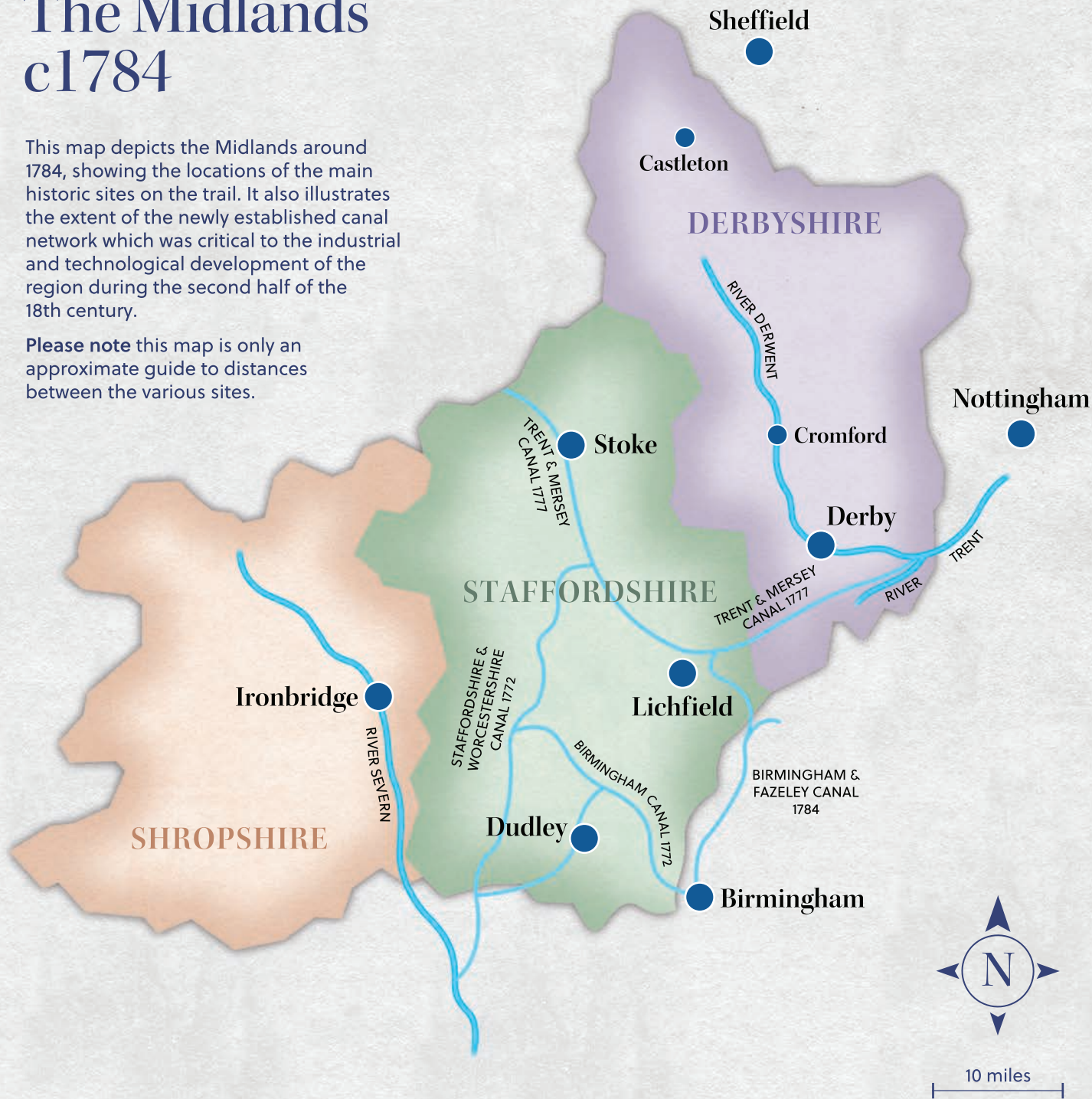
Today's Lunar Society also looks to the future

For more information about the modern Lunar Society visit [lunarsociety.org.uk](http://lunarsociety.org.uk) or email [info@lunarsociety.org.uk](mailto:info@lunarsociety.org.uk)

# The Midlands c1784

This map depicts the Midlands around 1784, showing the locations of the main historic sites on the trail. It also illustrates the extent of the newly established canal network which was critical to the industrial and technological development of the region during the second half of the 18th century.

Please note this map is only an approximate guide to distances between the various sites.



# Birmingham

Birmingham was at the heart of the Lunar Society's activities. Matthew Boulton, James Watt, Joseph Priestley, William Withering and William Small all lived in the town.

During the course of 18th century the population of the then town multiplied from 15,000 to around 74,000. The town's non-conformist tradition attracted people of all religious persuasions which in turn created a dynamic and entrepreneurial business community.

If any one place can be described as the spiritual home of the group, it would be Soho House, home of Matthew Boulton (1728-1809). Now a museum run by Birmingham Museums Trust, Soho contains fine collections of ormolu, silver, furniture and other important material associated with Boulton and the Lunar Society.

Matthew Boulton, James Watt and William Murdock are all buried at the nearby St Mary's Parish Church, Handsworth. Being the final resting place of three such influential figures has earned the church the nickname 'the Westminster Abbey of the Midlands'.

William Westley's East Prospect of Birmingham, 1732



Soho House



St Mary's Church, Handsworth

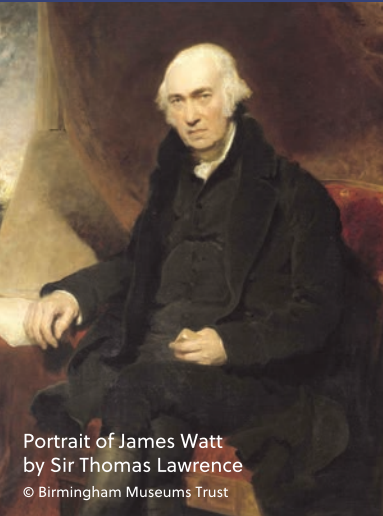


Right: Spoon handle showing the 1774 Birmingham hallmark with the makers' mark of Boulton & Fothergill

Below: The Library of Birmingham



# The Midlands Canal Network



Portrait of James Watt  
by Sir Thomas Lawrence  
© Birmingham Museums Trust



1779 Smethwick Engine  
in action at Thinktank

On the other side of the city centre is Thinktank, Birmingham Science Museum, which contains a variety of displays relating to the Lunar Society. The highlight is the huge Boulton & Watt Smethwick Engine of 1779 – the oldest working steam engine in the world.

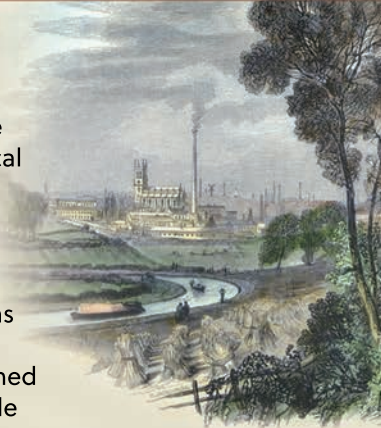
Birmingham Museum & Art Gallery in Chamberlain Square also has a wealth of collections relating to the Lunar Society and 18th century Birmingham, including silverware, ceramics and paintings.

The Library of Birmingham is home to the Boulton & Watt archive comprising several million letters, documents and other original paper records.

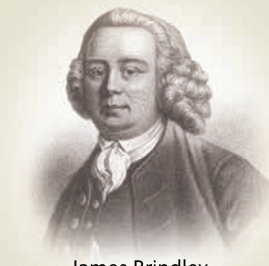
The city is also home to Assay Office Birmingham, which was established by Matthew Boulton in 1773. The Assay Office guarantees the fineness of precious metal items and so is as important to Birmingham's silver and jewellery manufacturers today as it was in the 18th century.

William Small is buried in St Philip's Cathedral whilst William Withering is buried in Edgbaston Old Church, next to his former home Edgbaston Hall.

The second half of the 18th century saw the first British canal boom. This new mode of communication was critical to the development of the industrial revolution as it enabled the much more cost-effective movement of fuel and raw materials. It was also a safer and smoother means of transporting finished goods – especially the fragile ceramics produced by Josiah Wedgwood and the luxury silverwares of Matthew Boulton.



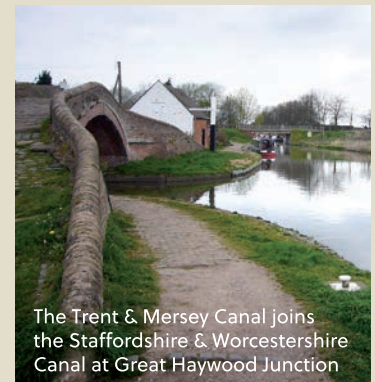
Engraving showing the  
Trent & Mersey Canal  
near Burslem



James Brindley

The man behind the first phase of 'canal mania' was Derbyshire-born James Brindley (1716-72). Brindley's vision was to create a network of canals to connect the River Mersey, Trent, Severn and Thames – the 'Grand Cross'.

Sadly he did not live to see the fulfilment of this ambition, although he did complete the Birmingham, Staffordshire & Worcestershire, and the southern part of the Trent & Mersey canal before his death in 1772.



The Trent & Mersey Canal joins  
the Staffordshire & Worcestershire  
Canal at Great Haywood Junction

# The Black Country

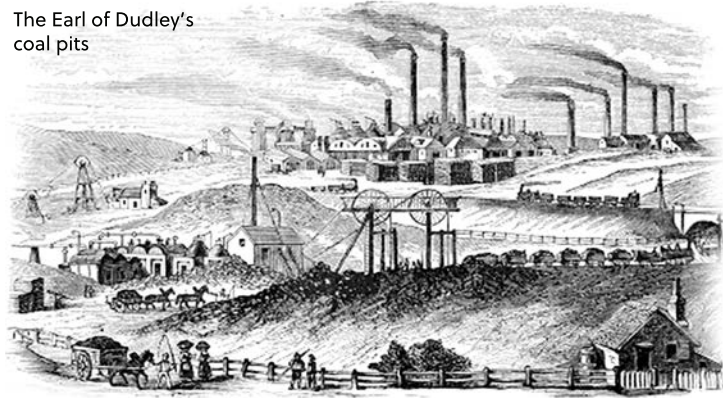
bclm.com  
dudleycanaltrust.org.uk

The Black Country is another area which has strong links to the Lunar Society. James Keir lived in West Bromwich and in 1780 he established a chemical and soap works in Tipton. Keir was also the part owner of a colliery in Tividale and it was coal from the Black Country that powered Boulton & Watt's steam engines. The Black Country canal network transported coal to the rest of the Midlands and provided an affordable means of transporting finished goods around the rest of the country.

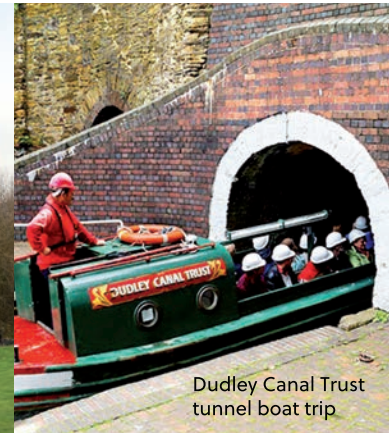
The Black Country Living Museum holds a range of material related to the age of the Lunar Society and the early part of the industrial revolution, not least an accurate working replica of a Newcomen steam engine. In addition, many of the industries that are depicted at the Museum have their origins in the technological developments pioneered by the Lunar Society and their circle.



The Earl of Dudley's coal pits



Newcomen  
steam engine



Dudley Canal Trust  
tunnel boat trip



Next door to the Museum the Dudley Canal Trust runs canal trips into the caverns beneath Dudley Castle. In 1799 Matthew Boulton entertained the Russian ambassador on a trip along the Black Country canals in a specially upholstered boat, accompanied by a second boat full of musicians to play for them along the way!

James Keir died in 1820 and is buried at All Saints' Church, Charlemont, West Bromwich.

Black Country Living Museum

# Ironbridge

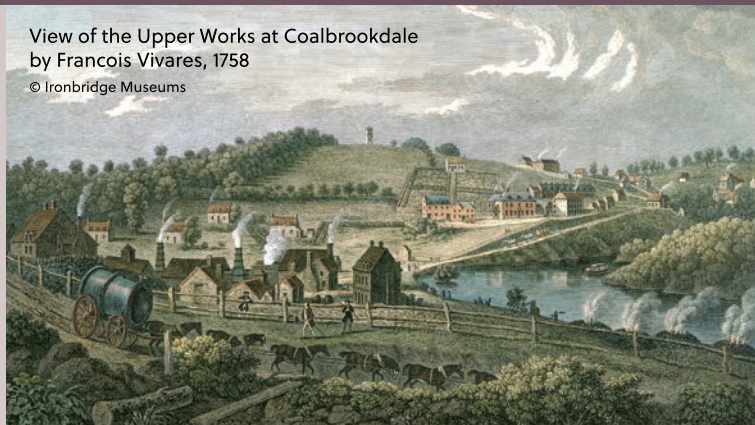
[english-heritage.org.uk](http://english-heritage.org.uk)  
[ironbridge.org.uk](http://ironbridge.org.uk)

One of the birthplaces of the Industrial Revolution and today a World Heritage Site, Ironbridge Gorge is a spectacular example of the technological progress that accompanied the Midlands' Enlightenment.

The iconic Iron Bridge was constructed in 1779 by Abraham Darby III. Darby and his fellow Shropshire ironmaster John 'Iron Mad' Wilkinson knew several of the Lunar Society's members extremely well.

View of the Upper Works at Coalbrookdale  
by Francois Vivares, 1758

© Ironbridge Museums



Wilkinson was responsible for manufacturing many of the components of Boulton & Watt's steam engines. In 1776 their second engine was installed at his New Willey Works near his home in Broseley, across the River Severn from Ironbridge.

Today the Iron Bridge is in the care of English Heritage. Ironbridge Gorge Museums also display a wide range of material relating to the Enlightenment and the Industrial Revolution across their ten museum sites.



Above: Ironbridge and  
the River Severn

Left: Portrait of John Wilkinson  
by Lemuel Francis Abbott

© Ironbridge Museums



Built in 1738,  
Rosehill House  
(right) is now cared  
for by Ironbridge  
Gorge Museums



# Lichfield

erasmusdarwin.org  
lichfield-cathedral.org



Erasmus Darwin House



Erasmus Darwin  
by Joseph Wright, 1770

Right: Engraving of Lichfield  
Cathedral by Wenceslas  
Hollar (1607-1677)



Together with Matthew Boulton, Erasmus Darwin (1731-1802) was the co-founder of the Lunar Society. Darwin was a true Enlightenment polymath – doctor, poet, botanist, inventor and an early proponent of the idea of biological evolution.

Darwin lived in Lichfield between 1756 and 1781 in an attractive Georgian house close to the cathedral. He was personally responsible for modernising and remodelling the house, and it was almost certainly a venue for early meetings of the Lunar Society. Today the Grade I listed house is a museum and study centre operated by the Erasmus Darwin Foundation which welcomes visitors from around the world.

No visit to Lichfield would be complete without a visit to the magnificent cathedral. Like many Enlightenment thinkers, Darwin's attitude to the established church was sceptical. However, as a young doctor looking to establish his medical practice in the city he was drawn to the social circle of the Cathedral Canon, Rev Thomas Seward.

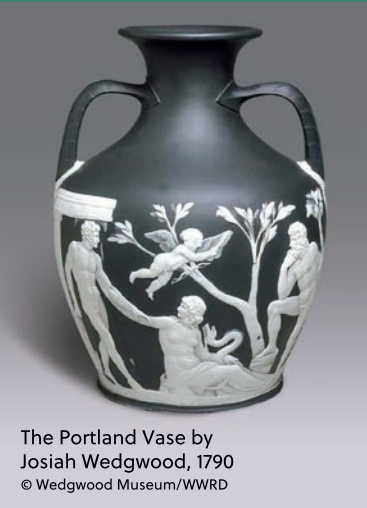
Darwin's relationship with the Anglican church was never easy, but it did lead to a lifelong friendship with Canon Seward's daughter, Anna (1742-1809), herself a talented poet.





# Stoke On Trent

[worldofwedgwood.com](http://worldofwedgwood.com)  
[stokemuseums.org.uk](http://stokemuseums.org.uk)  
[etruriahall.com](http://etruriahall.com)



The Portland Vase by  
Josiah Wedgwood, 1790  
© Wedgwood Museum/WWRD

Josiah Wedgwood was one of the original members of the Lunar Society. Like Matthew Boulton he was a dynamic self-made man who went on to found one of the most iconic pottery companies in the world. But as well as being a successful businessman he was a keen amateur scientist and practical chemist who was constantly experimenting to improve the quality of his products.

Part of the World of Wedgwood visitor centre at Barlaston, the Wedgwood Museum displays the finest collection of the company's products anywhere in the world. As well as telling the story of Josiah and the company he founded, it features outstanding works of art including George Stubb's famous portrait of the Wedgwood family. The collection was saved for the nation in 2014 and is now on long term loan from the Victoria & Albert Museum.

Some seven miles to the North of Barlaston is Etruria Hall, Wedgwood's former home. The house was designed by Derby architect Joseph Pickford (1734-1782) who had a number of Lunar connections.

As well as working for Wedgwood, Pickford was a friend of Lunar Society member John Whitehurst and also the artist Joseph Wright, whom he commissioned to paint his children. Today Etruria Hall is a hotel but can be viewed from the public highway.

Another essential stop in Stoke is the Potteries Museum & Art Gallery, home to the world's best collection of Staffordshire ceramics.

Also well worth a visit is The Gladstone Pottery Museum, which gives a vivid idea of what conditions were like for the people who worked in the pottery industry.



Etruria Hall today



The Wedgwood Family  
by George Stubbs, 1780  
© Wedgwood Museum/WWRD



Pickford House



John Whitehurst  
by Joseph Wright  
© Derby Museums



Derby Silk Mill

In 1781 Erasmus Darwin left Lichfield and established a new medical practice in Derby. One of the first things he did on arriving in the town was to found the Derby Philosophical Society which was directly inspired by the Lunar Society.

Until he moved to London in 1784, Derby was home to clockmaker and geologist John Whitehurst who was a member of the original Lunar Society. Another highly influential local resident (and friend and patient of Darwin) was the artist Joseph Wright, probably the most famous portrayer of the English Enlightenment with his dramatic paintings of industrial processes and scientific experiments.



*A Philosopher giving a lecture on the Orrery*  
by Joseph Wright  
© Derby Museums



Joseph Wright Gallery,  
Derby Museum & Art Gallery

The city boasts a number of sites linked to the Lunar Society. A must-see venue is the Museum & Art Gallery which holds the finest collection of Joseph Wright's work in the world.

Another of Derby Museums' properties, Pickford's House on Friar Gate, is a fine example of a middle-class Georgian town house.

Located on the banks of the River Derwent, Derby Silk Mill is widely considered to be the first fully mechanised factory in the world. Although currently closed for redevelopment, visitors can view the Mill from the riverside walkway.

Erasmus Darwin is buried at Breadsall Church, two miles outside of Derby.

# The Derwent Valley

[derwentvalleymills.org](http://derwentvalleymills.org)  
[cromformills.org.uk](http://cromformills.org.uk)  
[belpernorthmill.org](http://belpernorthmill.org)

The Derwent Valley Mills World Heritage Site consists of an internationally important series of historic mill complexes and their associated workers' housing.

Sir Richard Arkwright's magnificent Masson Mills at Matlock Bath stand at the northern entrance to the World Heritage Site. Established in 1783, and in continuous use until 1991, the mills today house a working textile museum.

At the heart of the valley is Arkwright's famous Cromford Mills. Begun in 1771 they were the world's first successful water-powered cotton spinning mills. Arkwright also created the village of Cromford to house the workforce for his new purpose-built factory.



Sir Richard Arkwright  
by Joseph Wright  
© Derby Museums

The village, which remains remarkably intact, stayed in his family's ownership until the 1920s.

Belper is home to William Strutt's North Mill of 1804 which was constructed using pioneering 'fire proof' technology. Today the mill houses a museum and visitor centre.

Further down the valley Derby Silk Mill marks the southern gateway to the World Heritage Site.

William Strutt's North Mill



Cromford Mill by Joseph Wright

Cromford Mills today



Masson Mills



# The Peak District

peakdistrict.gov.uk



Above: Pair of ormolu and bluejohn ewers by Matthew Boulton, c1770  
© Birmingham Museums Trust

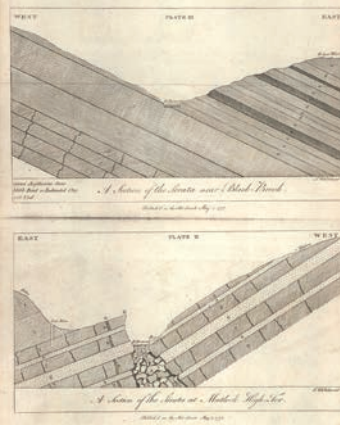
The Lunar men were fascinated by rocks, minerals and fossils, both in terms of their aesthetic and commercial value, but also as evidence of how the earth was formed.

The Peak District was a popular destination for members of the Lunar Society because of its geological importance and extensive mineral deposits. In 1767 Darwin and Whitehurst visited the area and are thought to have explored the Blue John caverns near Castleton.

Published in 1778, Whitehurst's *An Inquiry into the Original State and Formation of the Earth* drew heavily on material gathered during his many expeditions into the Peak District.

Matthew Boulton used Blue John mined in Castleton in many of his luxury ormolu decorative wares.

Today the Peak District National Park is perhaps best known as a place to walk and enjoy the natural beauty of the landscape. However, modern visitors can still share the awe of 18th century tourists by taking a trip down one of the four publicly accessible caverns around Castleton.



Left: Sections of geological strata in the Peak District from Whitehurst's *An Inquiry into the Original State and Formation of the Earth*



Treack Cliff Cavern, Castleton