

# Introducing the new UK passport design





# The new design

For many centuries, the United Kingdom has led the way in the creative industries. Her Majesty's Passport Office is proud to launch the new 'Creative United Kingdom' passport with some of the best achievements of the last 500 years in Great Britain and Northern Ireland.

The new passport contains images depicting just some of the successes in innovation, architecture, art, and performance that the UK has brought to the world.

For innovation, these include Stephenson's Rocket and the London Underground. To represent architectural excellence, the work of Sir Giles Gilbert Scott and modern day architecture such as the Falkirk Wheel are shown. In art, the work of John Constable, as well as current greats Antony Gormley and Anish Kapoor, are included. William Shakespeare and the Globe Theatre are also featured to represent the very best of what the UK has brought to the performing arts.

The new 34 page book houses the most intricate designs that have ever been produced for a UK passport. In keeping with its theme, these designs, coupled with some of the latest security features, mean that the new passport is at the very forefront of creativity in secure document production.

The UK passport is one of the most important documents a British national can hold, giving them the freedom of international travel and a means to prove their identity. But as an internationally respected document it also becomes a target for fraudsters who try to create false passports, or tamper with existing ones for criminal gain.

HM Passport Office is committed to its key responsibility in protecting the public from such criminal activity, and it is this responsibility that drives the regular updating of the passport design.

The new passport uses the latest and most secure printing and design techniques. This includes advances in security printing, inks, watermarks and holograms, alongside a continuous personal details page, which is a method of construction that has never previously been seen.

These enhancements demonstrate HM Passport Office's dedication to protecting its customers from the threat of passport fraud, and for the UK passport to retain its deserved status as one of the most secure and highly trusted travel documents in the world.

# The security features

The UK passport is a universally trusted document. It allows British nationals to prove who they are in a wide range of situations, and the freedom to move around the world.

It is so trusted internationally that the UK passport allows its holder to travel without a visa to 173 countries across the world. There is no other passport that offers more visa-free travel.

This trust is built on not only the document's physical and electronic security features that help to retain its integrity and meet strict international standards, but also the rigorous process that a person must follow to obtain a passport.

However, this also makes the passport a valuable document. Fraudsters will attempt to abuse it to commit crimes like identity and financial fraud, which can have devastating consequences for the victims.

Protecting the public from these crimes is paramount. To stay several steps ahead of the forgers and fakers who may want to abuse the passport for criminal gain, the design is regularly updated. This ensures that it utilises evolving security technologies, and mitigates the risk of fraudulent activity.

The latest design has improved physical security features, which keeps the UK passport secure from forgers and counterfeiters, making it harder to copy or tamper with.

Many of these features are top secret to prevent criminals from knowing all of the security details used in the passport. However, across the following pages, we highlight just a few of the security measures that are included in the new design.

#### Personal details

A new method of passport construction has been introduced to help prevent the personal details page from being removed or tampered with.

The personal details page is a key target for passport fraudsters, who seek to manipulate the information and holder's image for criminal purposes.

One continuous sheet of paper is used for the laminated personal details page, through to the page that is adjoined to the back cover. This construction is designed to cause irreparable damage if tampered with, which would be obvious to any person who may need to check the document.

A chip containing an electronic image of the passport holder is embedded into the document. This can be used to compare and verify that the printed images of the holder shown within the book are the same as on the chip.

A secondary image of the passport holder features on page 3 of the passport. When magnified you will see that this image is constructed from the letters and numbers that make up the passport holder's surname and date of birth.



UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND



UK SPECIMEN

GBR

Passport No./Passeport No. 533380006



#### **Security printing**



The passport is printed using sophisticated printing presses which allow the document to include highly detailed graphics incorporating a range of security features.

These features include, but are certainly not limited to, the perfect alignment of invisible inks which can be seen using ultraviolet (UV) light with their visible counterparts, as well

as graphics that only become obvious when the passport is viewed at an acute angle.

#### Security inks

To prevent high quality forgeries of the passport, a variety of security inks are used to print the passport. Such inks include:

**Intaglio** - visible inks that have a distinctive ridged feel, such as the Royal Salutation, pictured to the right.

**Infrared** - inks that remain visible or disappear when exposed to an infrared light.

**Ultraviolet** - inks that appear when exposed to UV light.

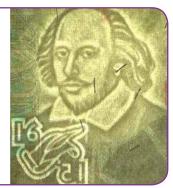
**Gemini™** - ink that fluoresces in two colours when viewed using a UV light, but appears as one single colour in daylight.





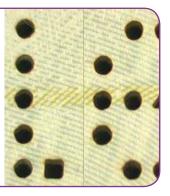
#### **Watermarks**

The passport contains high security watermarks. Embedded into each of the visa pages is a three dimensional watermark of William Shakespeare, and a bright, two dimensional watermark of a writer's scroll, a quill, and the corresponding page number. The personal details page contains a three dimensional watermark of the Gipsy Moth IV boat as well as the four floral motifs that represent the UK – the rose for England, daffodil for Wales, thistle for Scotland, and shamrock for Northern Ireland.



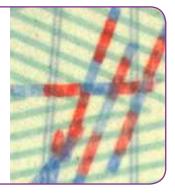
#### Perforated passport numbering

The passport number that is printed on page 1 of the passport, as well as the personal details page, also appears in perforation throughout the passport at the bottom of each page. The perforated number contains different shaped holes which become smaller as you progress through the passport.



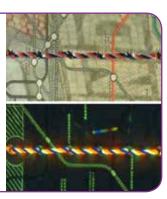
#### **Embedded security fibres**

These appear on every page of the passport. In daylight, these fibres consist of red and blue alternate bands. When exposed to a UV light source, each segment fluoresces in a different colour.



#### Sewing thread

The passport is bound using a security thread that consists of red, white and blue twisted strands. When exposed to UV light, each strand will fluoresce.



#### **Holograms**

The laminate that is applied to the personal details page contains an array of holographic devices, including three dimensional holograms which appear to move when the passport is tilted from left to right.



# Visa page designs

# **Creative United Kingdom**

For centuries, the United Kingdom has led the way in the creative sector. In recognition of the achievements in art, architecture, innovation and performance from the people of Great Britain and Northern Ireland, the theme of the new passport is 'Creative United Kingdom'.

Each double-page spread within the passport features a unique design celebrating just some of the pioneering work in the creative industries throughout the last 500 years:

John Harrison
John Constable
The Penny Black
Steam Transportation
Sir Giles Gilbert Scott
The London Underground
Elisabeth Scott
Antony Gormley
Anish Kapoor
Shakespeare's Globe
Festival Culture
Charles Babbage and Ada Lovelace
Brilliant Buildings

A portrait of William Shakespeare is used for the watermark on each of these pages in recognition of his status as the greatest playwright in history. Ordnance Survey maps also feature throughout the passport showing places related to the images on each page.

Please read on for the detailed profile for each of these pages.



The background shows the Royal Observatory Greenwich merged with a map of Foulby in the top left. The marine timekeeper H1 features bottom left, H4 in the middle, with the internal workings of a clock, and a portrait of John Harrison on the right.

#### John Harrison

Harrison, born in Yorkshire in 1693, was a self-taught clockmaker. His invention of a marine timekeeper was a long-sought after solution to provide the longitude of a ship at sea.

#### H1 and H4

Harrison's first marine timekeeper, H1, was a portable version of his earlier clocks and needed winding once a day. In 1736 Harrison travelled to Lisbon by ship to test the clock. His fourth marine timekeeper, H4, was like a large pocket

watch. Harrison's son sailed to the West Indies to test the clock in 1761.

#### **Royal Observatory**

The Royal Observatory Greenwich is part of the National Maritime Museum and hosts time related galleries, featuring Harrison's timekeepers.

# Did you know?

John Harrison was a carpenter as well as a clockmaker. The mechanism for his first clock in 1713 was made almost entirely from wood.



The background shows the painting *The Hay Wain*, with a map of Dedham Vale. On the left is a portrait of John Constable.

#### John Constable

Constable was one of the UK's greatest landscape painters. He was born in 1776 in the Stour Valley, Suffolk and went to study art at the Royal Academy, London in 1799.

His main inspiration was the Suffolk countryside near his home, particularly Dedham Vale – now known as Constable Country. In 1802, he completed his first major painting, *Dedham Vale*.

From 1819 he started to submit a series of six foot oil painted canvasses to the Royal Academy exhibitions, but wasn't elected as a full member of the Academy until 1829.

#### The Hay Wain

Constable's *The Hay Wain* is a painting of the area near the River Stour. Its main feature is a hay wain, a type of wheeled horse-drawn cart. It is now housed in the National Gallery, London.

# Did you know?

The record amount paid for a John Constable painting was £22.4 million for *The Lock* in 2012.



The Penny Black stamp, a Victorian Post Box, and Perkins D cylinder are shown, as well as the old Birmingham General Post Office, a stamped postcard, and a map of London.

#### **The Penny Black**

Previously, the postal system was complex and expensive. Sir Rowland Hill campaigned for postal reform and Uniform Penny Postage, which became law under the Postage Duties Bill in 1839. The world's first adhesive postage stamp, the Penny Black, featured the head of Queen Victoria. It went on sale in the UK in 1840 and opened up the world of communication.

#### **Perkins D cylinder**

Jacob Perkins invented the D cylinder press, patented in 1819. The press was later used by Perkins, Bacon & Petch to print the Penny Black.

#### Victorian post box

Post boxes were first introduced to the UK as a trial on the Channel Islands in 1853. Many varied designs of boxes followed over the years. In 1879 a standard box was produced, resembling the famous cylindrical box we recognise today.

# Did you know?

The Penny Black was reprinted in red from 1841.



Stephenson's Rocket travelling across the Sankey Viaduct, a map of Rainhill, and the ss Great Britain are shown.

#### Stephenson's Rocket

Stephenson's Rocket was the world's first successful modern steam locomotive, designed by George and Robert Stephenson, which won the 1829 Rainhill Trials. The Trials were held by the Liverpool and Manchester Railway Company, to find the best locomotive for a railway line being built between these two cities. Its design marked a key advance, with railways expanding quickly to enable huge numbers of people to travel. It is now in the Science Museum, London.

#### ss Great Britain

When launched in 1843, the ss Great Britain was the world's largest iron ship. Her design transformed maritime technology by combining size, power and innovation. She was designed by Isambard Kingdom Brunel for the Great Western Steamship Company's transatlantic service between Bristol and New York. After a varied working life, and a million miles at sea, she was recovered in 1970 from the Falkland Islands and brought home to Bristol. Today Brunel's ss Great Britain is an award winning major museum and visitor attraction.

# Did you know?

The ss Great Britain could carry 1,200 tons of coal - the same weight as nearly 35 million passports.



Liverpool Cathedral, Battersea Power Station, and a K2 red telephone box are featured. It also includes a map of Liverpool and a portrait of Sir Giles.

#### Sir Giles Gilbert Scott

Sir Giles was born in London in 1880 into a family of architects. He followed in their footsteps and became famous for designing many iconic buildings in the UK, blending Gothic tradition with modernism.

#### **Liverpool Cathedral**

At 21 he won a competition to design a new cathedral for Liverpool. Liverpool Cathedral, which is the largest in the UK, was consecrated in 1924. Construction continued throughout Sir Giles' life and was finally completed in 1978, nearly 20 years after his death.

#### **Battersea Power Station**

In 1933 Sir Giles was commissioned to design the exterior of the large power station in London to make it more appealing. It is now a famous London landmark and, although it is no longer operational, it remains a powerful symbol of Art Deco industrial architecture.

#### K2 red telephone box

He also won a competition in 1924 to design a telephone kiosk. This became known as the K2. By 1934, 1,700 K2s had been produced. There are now 244 K2 telephone boxes with listed status in England.

# Did you know?

Sir Giles spent more than 50 years as the architect for Liverpool Cathedral and is buried, with his wife Louise, outside its west entrance.



The left shows the interior of Waterloo Underground Station, and on the right is a mosaic of the London Underground symbol at Maida Vale. In the foreground is the London Underground network map, first designed by Harry Beck. The left page has a set of signals, and the right page shows a modern Tube train.

#### **London Underground**

In 1863 the world's first underground railway, the Metropolitan Railway, opened in London between Paddington and Farringdon. The Underground network, the Tube, now has 270 stations and 11 lines, and has played a huge role in developing London.

Most of the central London network was completed in the first 50 years, initially built in shallow 'cut and cover' tunnels. It had developed to deep level 'Tubes' by the turn of the last century. Electric trains were introduced from 1890. This was one of a number of

significant innovations that allowed for deeper tunnels to be constructed. In the following 50 years lines were then extended further into London's suburbs.

Waterloo underground station is located within Waterloo train station and is the third busiest station in the network.

# Did you know?

The Tube network is approximately 250 miles long. It would take over three million passports laid end-to-end to cover the same distance.



There is the Royal Shakespeare Theatre, a portrait of Elisabeth Scott, the Bournemouth Pier Theatre, and a map of Bournemouth.

#### **Elisabeth Scott**

Scott, born in 1898 in Bournemouth, was a UK architect. In 1929 she won an international competition to design a new Shakespeare Memorial Theatre.

#### **Royal Shakespeare Theatre**

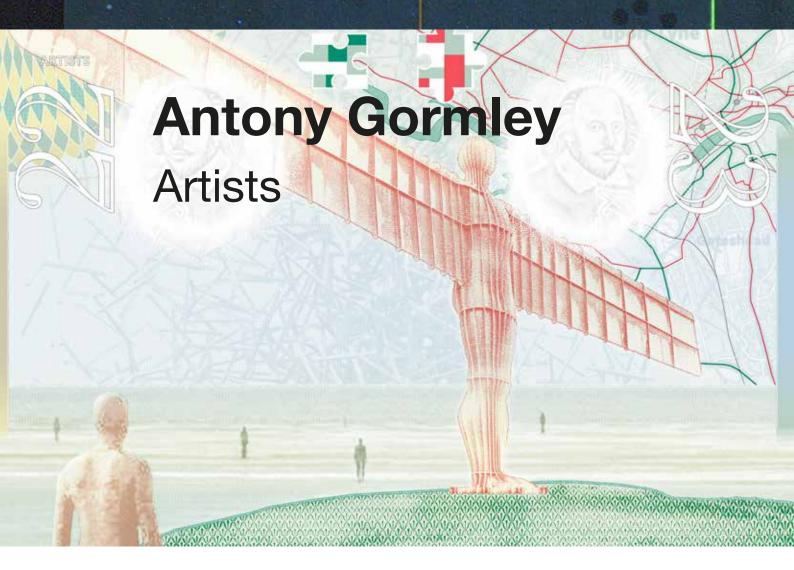
The original theatre was destroyed by fire in 1926. The replacement Shakespeare Memorial Theatre, designed by Scott, opened in Stratford-upon-Avon in 1932. It is now owned by the Royal Shakespeare Company and was renamed the Royal Shakespeare Theatre in 1961, when the company was formed. The Grade II listed building has since been further transformed and re-opened in 2010, but retains many of the Art Deco features of the 1932 theatre. It has over 1,000 seats with a 'thrust stage', showing the work of Shakespeare, his contemporaries, and exciting new writers.

#### **Bournemouth Pier Theatre**

Scott was employed as an architect by Bournemouth Council at the time of designing the Pier Theatre, which opened in 1960. It was designed to look like an ocean liner and hosted the shows of several famous names in the entertainment industry, but closed in 2013 and is now an adventure attraction.

### Did you know?

Elisabeth Scott was the great-niece of fellow architect Sir George Gilbert Scott, and second cousin of Sir Giles Gilbert Scott.



Antony Gormley's work *Quantum Cloud* is merged with a map of Gateshead in the background, along with images in the foreground of *Angel of the North* and *Another Place*.

#### **Antony Gormley**

Gormley, born in London in 1950, is known worldwide for his sculptures and works in public spaces. His work centres around the human body, investigating the relationship of the body to space.

#### **Angel of the North**

Built on a hilltop on the site of a former colliery in Gateshead in 1998, the iconic steel structure is one of the UK's most-viewed pieces of public art, seen by more than one person every second.

#### **Another Place**

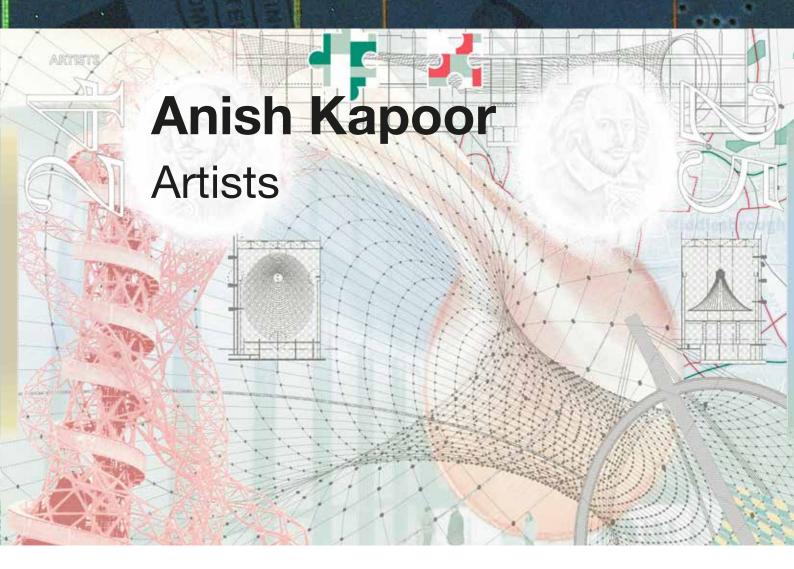
Another Place was installed in 2005 on Crosby Beach near Liverpool. It features 100 cast-iron, life-size figures spread out along over one and a half miles of beach, and over half a mile out to sea.

#### **Quantum Cloud**

Located in the River Thames at Greenwich, London, and built for the Millennium celebrations, *Quantum Cloud* is a sculpture of a man surrounded by a cloud of steel.

# Did you know?

Antony Gormley's own body is used as the basis for almost all of his works.



Anish Kapoor's inspirational works: *Marsyas, Temenos*, and *Orbit* are featured.

#### **Anish Kapoor**

Kapoor is a British-Indian sculptor born in India in 1954 who lives and works in London. Widely regarded as one of the foremost contemporary artists working today, he is perhaps most famous for public sculptures that are both adventures in form and feats of engineering. He manoeuvres between vastly different scales, creating sculptures that permeate both physical and psychological space.

#### Marsyas, 2002

Marsyas is a 150 metre long, ten-storey high sculpture, comprising of three steel rings joined together by a PVC membrane. It was the third in a series of commissions for the Turbine Hall in London's Tate Modern.

#### Temenos, 2010

Temenos was unveiled in 2010 in Middlesbrough. It was made in collaboration with engineer Cecil Balmond, and measures 110 metres long and 50 metres high.

#### **Orbit, 2012**

Orbit is a looping steel structure and observation tower in the Queen Elizabeth Olympic Park in Stratford, London. It was created to commemorate the London 2012 Games and reopened in 2014. It was also made in collaboration with Cecil Balmond.

# Did you know?

At 377 feet tall, *Orbit* is Britain's largest sculpture. It would take nearly 40,000 passports stacked on top of each other to reach the same height.



On the left hand side there is an image of the interior of the theatre, with a play in progress. There is also a map of the City of London in the background on the right, along with the exterior of the theatre in the foreground.

#### The Globe Theatre

Founded by the American actor and director Sam Wanamaker, the current Globe is a reconstruction of the original Elizabethan Globe Theatre, which burnt down in 1613. Opened in 1997, Shakespeare's Globe is dedicated to the exploration of William Shakespeare's work and the theatre for which he wrote. Since its inauguration, the Globe has become one of the most popular visitor destinations in the UK, at the heart of the regeneration of London's Bankside.

Replicating the original, the Globe contains an open air yard and a partially-covered stage. The yard can hold 700 audience members standing, while the surrounding galleries seat 800. Performances also mirror the original Globe environment, continuing whatever the weather. The summer season runs from April to October each year, with the winter season taking place in the candlelit Sam Wanamaker Playhouse. In the winter, the main Globe stage is used for educational purposes and tours are available all year round.

# Did you know?

Shakespeare's Globe received special permission to build its iconic thatched roof, as they have been illegal in London since the Great Fire of 1666.



These are pictures representing UK performance festivals, combining artistic excellence and the celebration of diversity and culture.

#### **The Edinburgh Festivals**

The Edinburgh Festivals are a series of arts and cultural events that take place each year, mostly during the summer months. The festivals include theatre, comedy, music, dance, children's shows, opera, visual arts, talks and workshops.

#### Caribbean Carnivals

Caribbean Carnivals are a number of events that take place around the United Kingdom celebrating Caribbean cultures and traditions.

The streets are filled with Caribbean music, food, parades, and pop-up parties.

#### **Chinese New Year**

It is an important festival among Chinese communities across the world. Based on the lunar and solar calendars, the date varies between January and February each year.

Chinese communities across the UK celebrate with large public and private festivities, including lion dances and lantern displays.

#### Melas

Melas reflect the diverse South Asian communities in the UK. They are usually large-scale outdoor festivals, featuring dance, music, cuisine, and many other aspects of South Asian culture.

# Did you know?

The only events across the globe that sell more tickets than the Edinburgh Festivals are the Olympics and the FIFA World Cup.



There are the images of Charles Babbage's Analytical Engine, a representation of the code Ada Lovelace wrote, a URL, and modern computers. There is also a portrait of Babbage and Lovelace, and a map of Bletchley.

#### **Charles Babbage**

Babbage was born in Surrey in 1791. He was a mathematician and widely known as the first computer pioneer due to his work on automatic calculating engines.

#### **The Analytical Engine**

In 1834 Babbage invented the first fully automatic calculating machine, the Analytical Engine. It was intended to perform any arithmetical calculation, as well as be a memory unit. Little of it was ever built, but its design had all the essential elements of a modern computer.

#### Ada Lovelace

Augusta Ada King, known as Ada Lovelace, was born in London in 1815. She was a mathematician and writer, often regarded as the first computer programmer. She is mainly known for her work in the early 1840s on Babbage's Analytical Engine. Her notes interpreting the engine include what is considered to be the first computer programme, the algorithm designed to be carried out by a machine.

# Did you know?

Ada Lovelace was the daughter of the poet Lord Byron.



Five brilliant buildings which showcase the variety of architectural styles that can be seen throughout the United Kingdom are featured.

#### **Houses of Parliament**

The Palace of Westminster, known as the Houses of Parliament, incorporates the House of Commons and the House of Lords. Located on the River Thames in Westminster, London, its Tudor Gothic architecture was designed by Sir Charles Barry and built between 1837 and 1860.

#### The London Eye

At 135 metres, the London Eye is Europe's tallest observation wheel. It opened to the public in 2000 on the South Bank of the River Thames, London.

#### The Pierhead

The Pierhead in Cardiff Bay was designed by William Frame in 1897 as the Bute Dock Company's headquarters. It is now a unique visitor and events venue to complement the work of the National Assembly for Wales.

#### The Falkirk Wheel

The Falkirk Wheel is the world's first and only rotating boat lift. Created in 2002 by British Waterways, now Scottish Canals, it reconnects the Forth & Clyde and Union canals for the first time since the 1930s.

#### **Titanic Belfast**

Titanic Belfast is the world's largest Titanic visitor experience. It opened in 2012 beside the very place where the Titanic was designed, built, and launched in 1912. The iconic six-floor building hosts nine interpretive and interactive galleries that explore the story of the Titanic, from her conception in Belfast in the early 1900s, through her construction and launch, to her famous maiden voyage and tragic end.

# Did you know?

The Houses of Parliament covers eight acres, has around 1,100 rooms, 100 staircases, two miles of passageways and four acres of gardens.





