

Skotland 2019

7. del

Vi går på Royal Museum of Scotland og slutter med lufthavnens parkeringsplads.

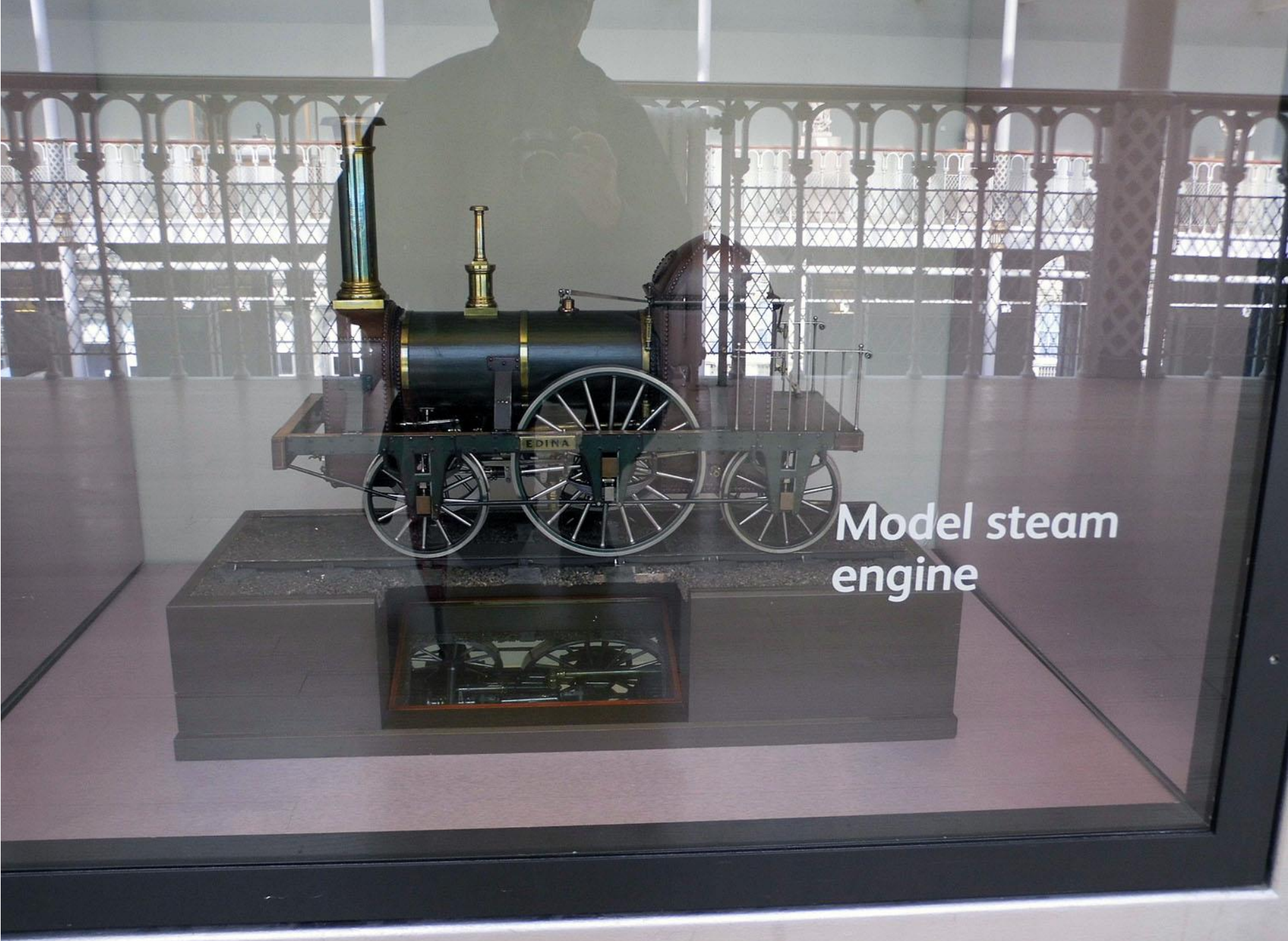








Track racing bicycles
do not use brakes



Model steam engine

Temporary display

This model of a Robert Stephenson designed locomotive of (1840) is on display while the working model of the 1848 Great Western Railway locomotive is overhauled in the museum conservation workshop.

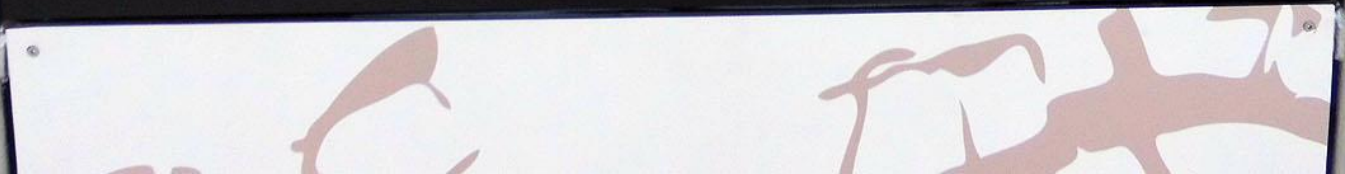
This model was made in the Bedlington Ironworks at the same time as the actual locomotive and was presented by friends and pupils to Professor Forbes at Edinburgh University in 1840.

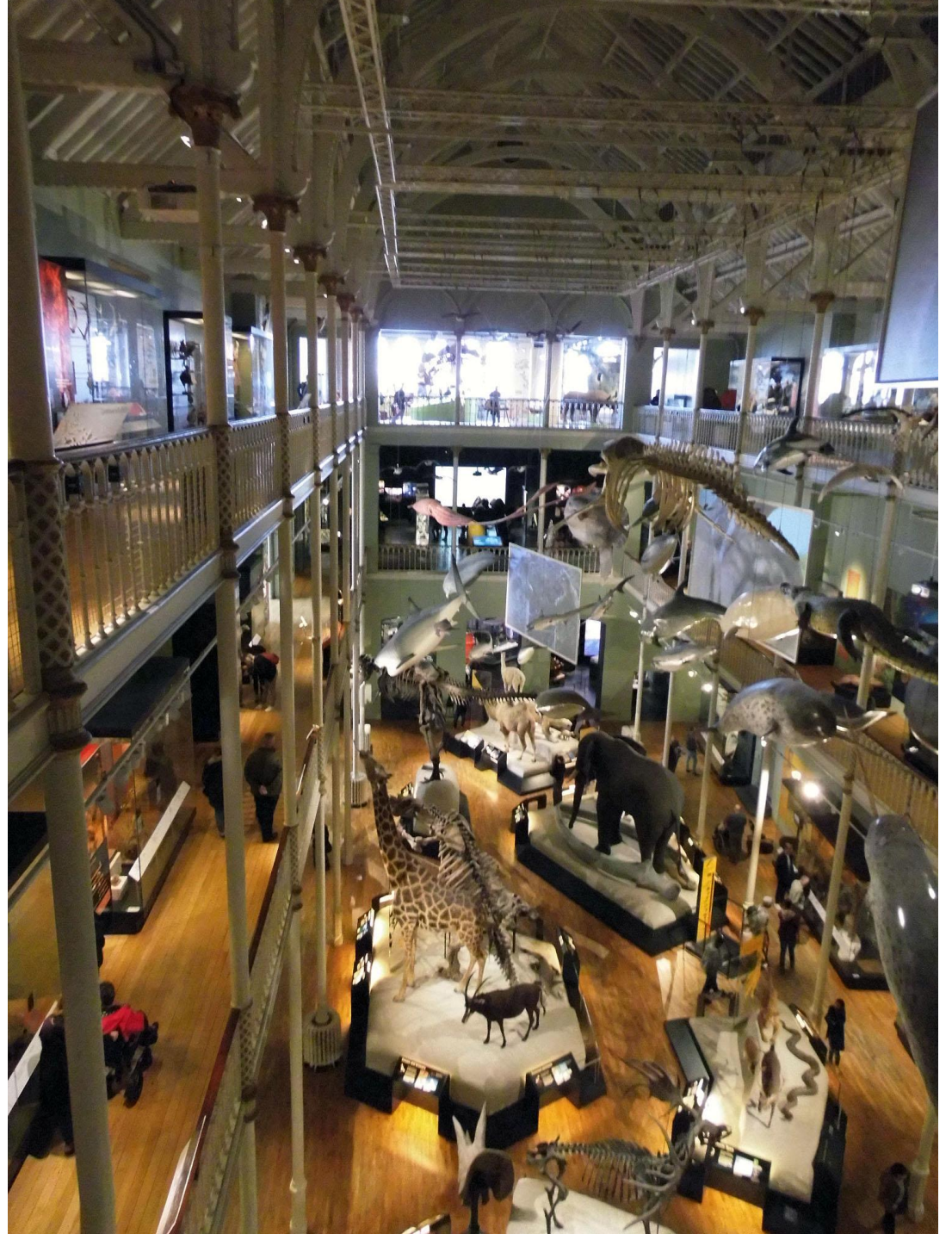
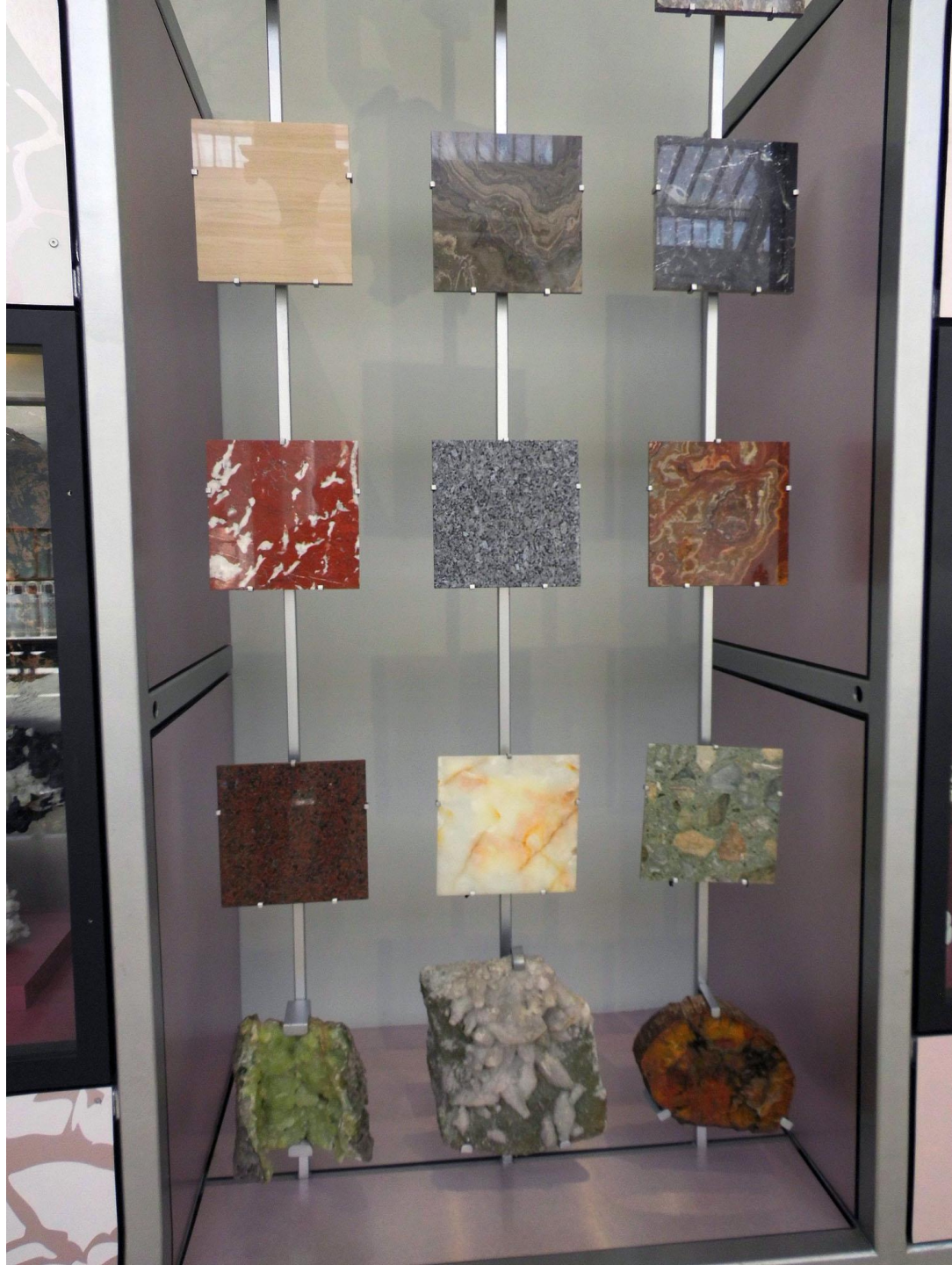


Probably the largest
sarcolite crystal
in the world

From the slopes of Vesuvius

This fine crystal is the largest known specimen of sarcolite or any other mineral found only in the gullies in Italy - Mount Vesuvius and the Apennine Mountains. Sarcolite was first discovered in around 1862, on Vesuvius. Dr. G. William Thomson (1818-1892) was the first to name the mineral and was sent to the University of Edinburgh and later transferred to Natural History Scotland.





THREAT TO SURVIVAL
POLLUTION

Human greed and global change

As global human populations rapidly increase, increasingly sophisticated technologies are used to exploit and deplete natural resources. Such intensive development damages the natural systems that regulate the air, soil and water on which all life depends.

Extinction rates may now be 1000 times greater than the natural background rate. If we do not change our ways, we will threaten our own survival. Life will continue, but we may not be here to see it.

University of
Illinois, Urbana-Champaign
Department of
Geology and Atmospheric
Science
Center for Environmental and Estuarine Science
Champaign, IL, USA



Donkey species

Donkeys are members of the family Equidae, which also includes horses and zebras. They are known for their strength and endurance, and have been used for centuries as pack animals and for transport. Donkeys are also used in agriculture and as a source of meat and milk. They are found in many parts of the world, particularly in arid and semi-arid regions.

Swan species

Swans are large waterfowl, members of the family Anatidae, which also includes ducks and geese. They are known for their long necks and elegant appearance. Swans are found in many parts of the world, particularly in temperate regions. They are often used as a symbol of grace and beauty.

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Informational text on a white panel, likely describing the bird specimen.

Scottish reintroductions
A taxidermy specimen of a mountain goat with long, dark, spiraling horns and white fur is mounted on a wooden base. The background is a blue wall with a silhouette of a tree and other taxidermy specimens visible in the distance.







Geodes can be small
your hand or big
cave that you could

These beautiful purple
geodes. You have to break
Geodes form when
As the top cools down
bubbles. The walls
The purple crystals

crystals



Practical, beautiful or visually playful, ceramics are used to make everything from household fittings and ornaments to high-tech components in science and industry. Art of Ceramics celebrates the diverse properties and applications of ceramic materials and the creativity of the makers.



Water vessel (Dishu)

The 'Dishu' is a traditional Chinese water vessel. It is made of dark grey ceramic and has a long, narrow neck. The vessel is decorated with a circular motif on the front. It is a typical example of the 'Dishu' style, which is used for serving water. The vessel is made of dark grey ceramic and has a long, narrow neck. The vessel is decorated with a circular motif on the front. It is a typical example of the 'Dishu' style, which is used for serving water.

Ceramics for communication

Communication, one of the earliest forms of writing, which dates to around 3500 BC in Mesopotamia (modern Iraq), was inscribed on clay tablets. Clay was readily available and easy to work with and tablets could be transported across great distances. In the 19th century, they were used in another form of long distance communication - to make message insulators for telegraph poles.

1. Clay tablet inscribed with an approximate king. Mesopotamia, circa 3500-3000 BC.
2. Earthenware telegraph insulator. Japan, Meiji era, circa 1868-1912.
3. Bowl for serving alcohol. The decorated porcelain bowl is inscribed in the form of the Chinese character '酒' (alcohol). It embodies the desire for long life - a blessing which the sip of a bowl like this might bring about. China, Qing Dynasty (1644-1911), Kangxi reign (1662-1722).
4. Insulator (vaselet). The 'Insulator Bowl' ceramics are decorative, holding the telegraph wires in a way of incorporating the character which the bowl was allowed to hold on a telegraph line. The bowl, the insulator with decorative motifs, which telegraph engineers found ideal. 'China' is a decorative medium in shape & style. Made by the artist, insulator artist. Japan, Meiji era, circa 1868-1912.
5. Beads in the shape of a water jar. The 'China' is a traditional Chinese water vessel. It is made of dark grey ceramic and has a long, narrow neck. The vessel is decorated with a circular motif on the front. It is a typical example of the 'Dishu' style, which is used for serving water. The vessel is made of dark grey ceramic and has a long, narrow neck. The vessel is decorated with a circular motif on the front. It is a typical example of the 'Dishu' style, which is used for serving water.
6. Progression of a water jar (Dishu). An abstract representation of the water vessel, designed by the artist, insulator artist. Japan, Meiji era, circa 1868-1912.

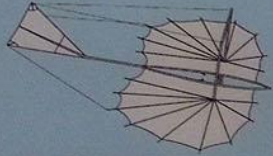


Shubukh Body 1
Shubukh is a traditional form of pottery from the region of Shubukh, India. It is made of dark green clay and is decorated with intricate cut-out patterns. The vase is a large example of this form, featuring a central circular motif with a stylized bird and floral design. The vase is displayed on a tiered pedestal in a museum gallery.

Shababik Birds 1

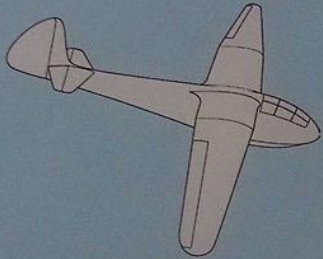
Shababik, by Ibrahim Said, is carved with geometric star patterns inspired by ancient Egyptian clay filters. These filters, hidden in the necks of water jugs, are only visible to the person drinking from the jug. Said makes their beauty visible for everybody. The name *Shababik* – Arabic for ‘windows’ – plays on the idea of a window which allows the viewer to look both ways, inside and out.

By Ibrahim Said (b1976), Greensboro, USA, 2016



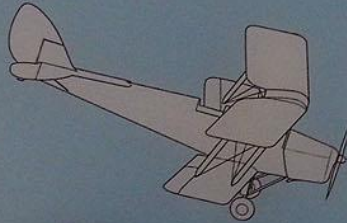
Hawk glider

By Percy Sinclair Pilcher and
Ella Pilcher, Glasgow, Scotland, 1896



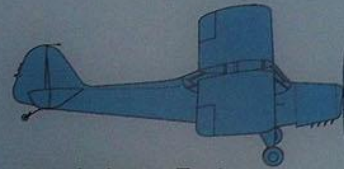
Slingsby Gull glider

By Slingsby Sailplanes,
Yorkshire, England, 1938



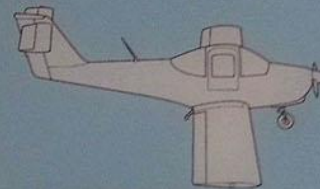
Tiger Moth

By de Havilland Aircraft, Hatfield, England, 1940



Beagle Auster Terrier

By Auster Aircraft, Leicester, England, 1946



Piper Tomahawk

By Piper Aircraft, Lock Haven, USA, 1979

In flight

Supported by Walter Grant Scott

Beagle Auster Terrier

The Terrier was the mainstay of British light aircraft production after the end of the Second World War and was used by the Royal Air Force for military observation. By the 1960s, the Terrier was outdated, replaced by all-metal designs. This example was converted from military to civilian use in 1961.





d light

Colour vision



Explore

From one of the two oldest surviving railway locomotives in the world to the sheep, this gallery highlights some of the most important scientific and technological innovations of the last 250 years.

Design a robot

PIPER TOMAHAWK

G-B

NO STEP





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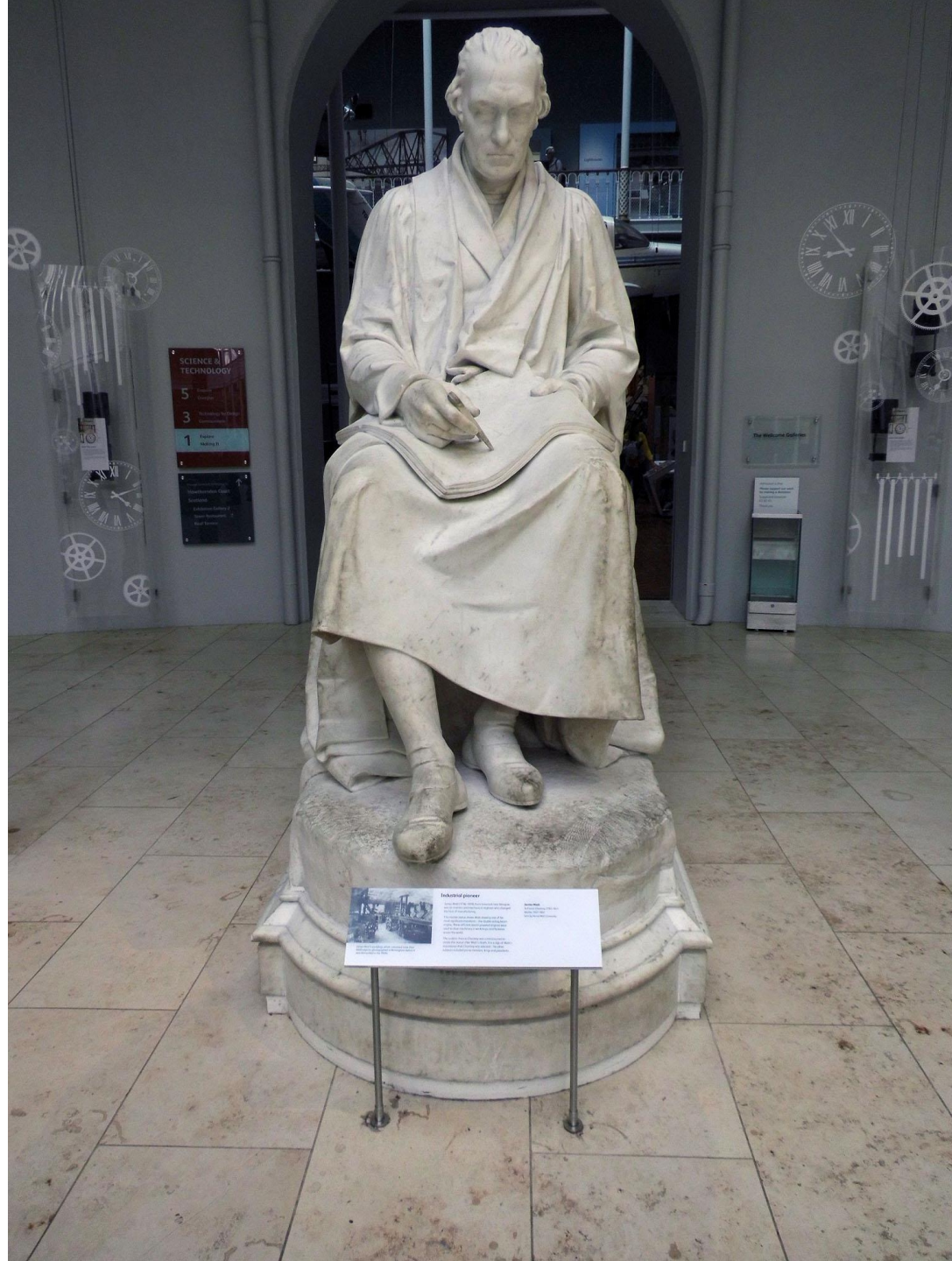
James Watt's workshop, which contained more than 6600 objects, photographed in Birmingham before it was dismantled in the 1920s

Industrial pioneer

James Watt (1736–1819), from Greenock near Glasgow, was an inventor and mechanical engineer who changed the face of manufacturing.

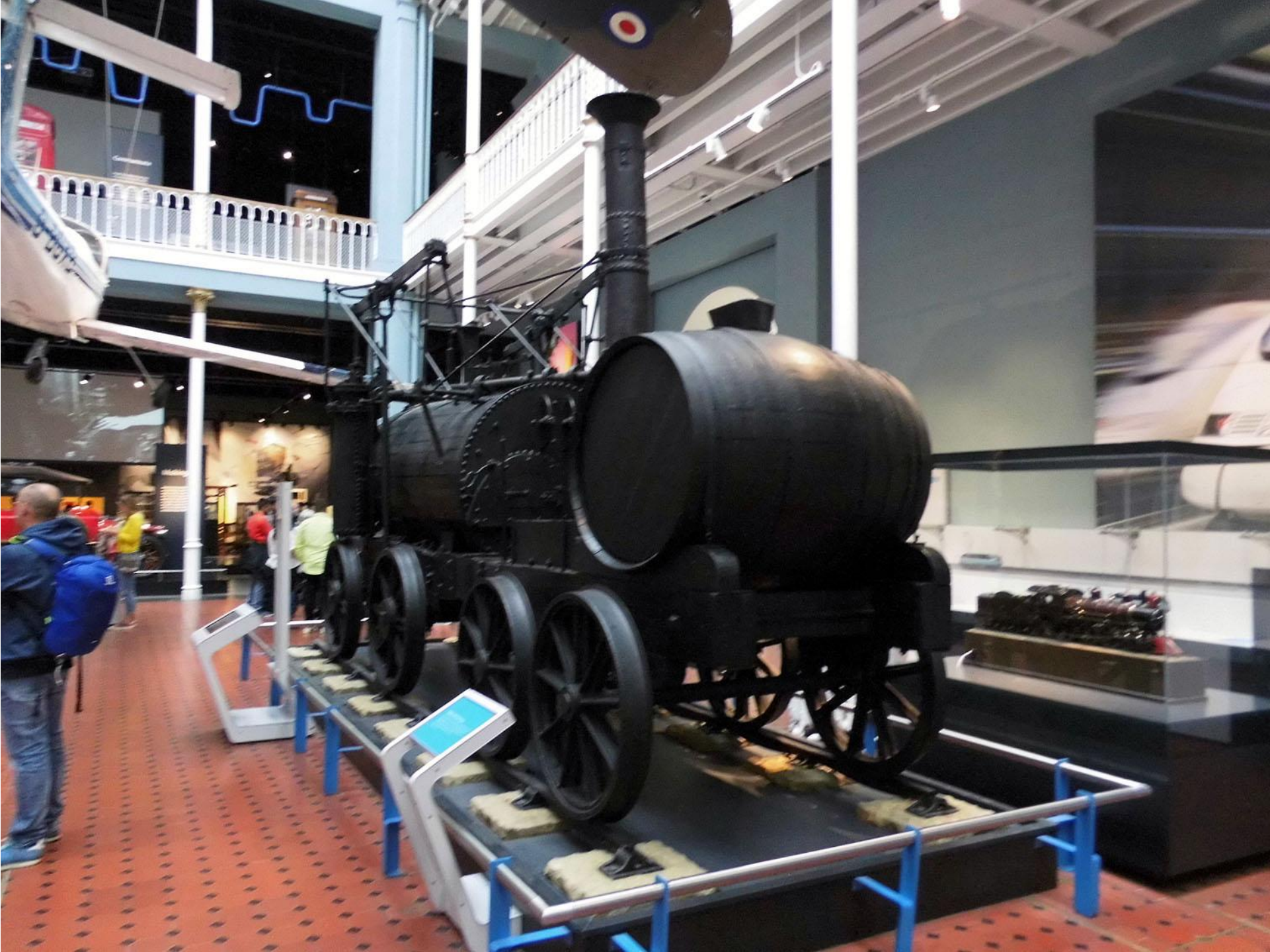
This marble statue shows Watt drawing one of his most significant inventions – the double acting beam engine. These efficient steam-powered engines were used to drive machinery in workshops and factories across the world.

The sculptor Francis Chantrey was commissioned to create this statue after Watt's death. It is a sign of Watt's importance that Chantrey was selected – his other subjects included prime ministers, kings and presidents.











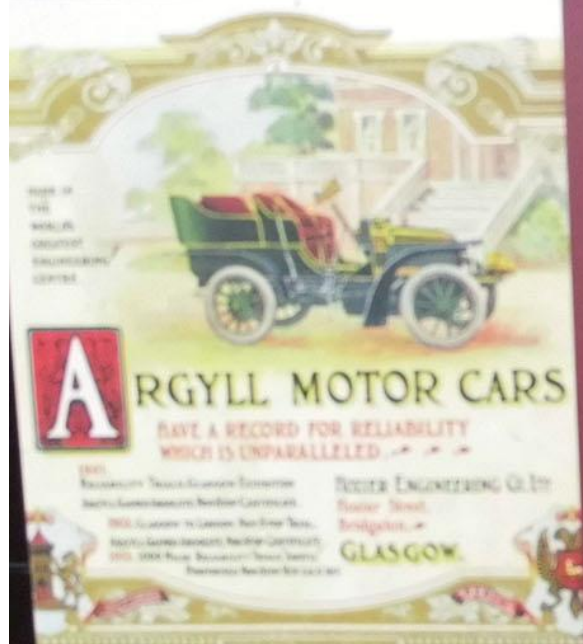




Race circuit

Use a car and take a test drive.
Can you beat the fastest time of the day?

The Formula 1 racing car reaches speeds of up to 200mph, so F1 drivers need quick reaction times. The Morris Mini is designed to handle the twists and turns of city driving.



© CSG CSC Glasgow Museums and Libraries

Advertisement for Argyll cars

Argyll Flying Fifteen
By Argyll Ltd, Alexandria,
Dunbartonshire, Scotland,
1910

The Argyll factory

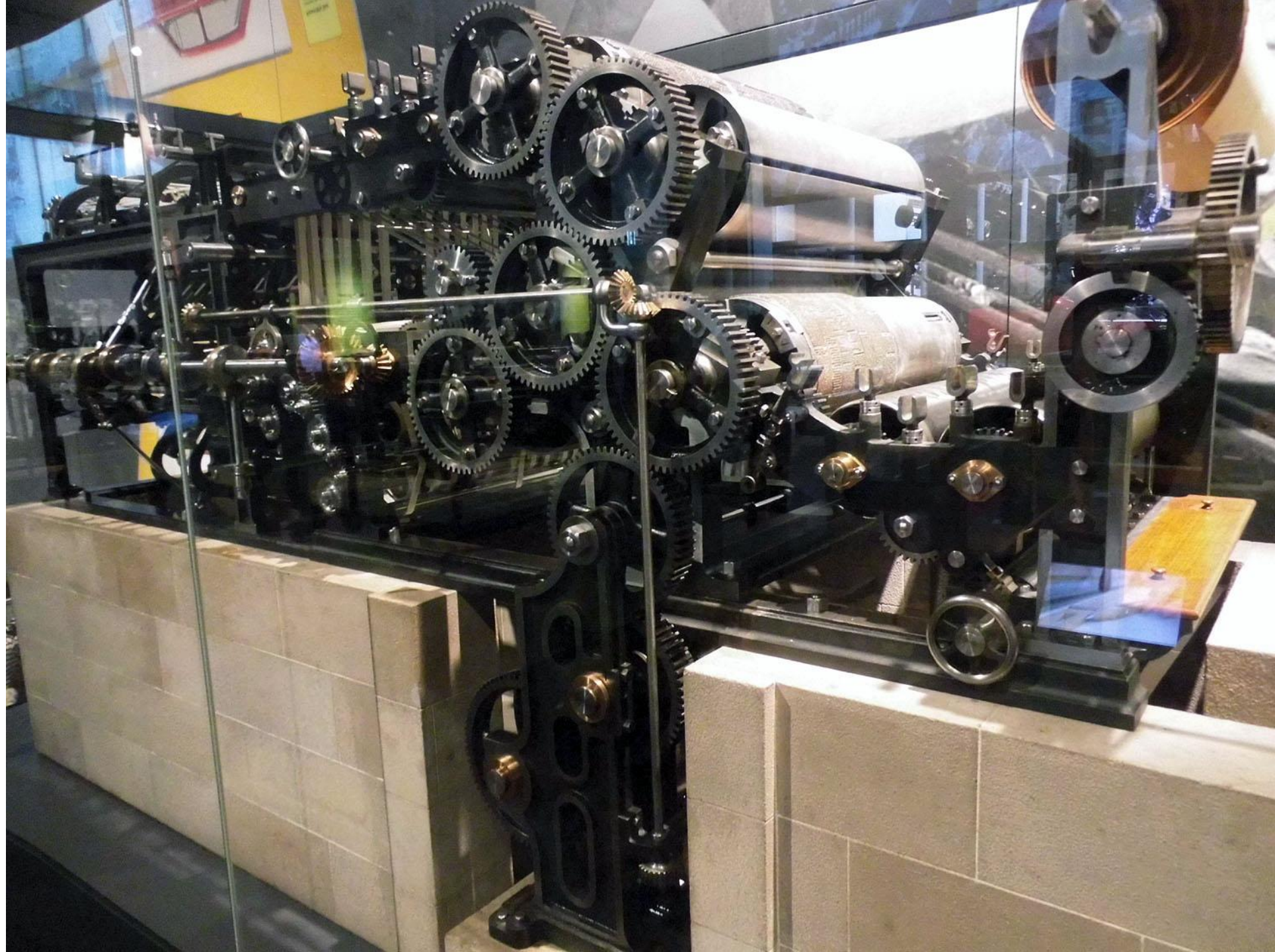
The Argyll car factory was one of Scotland's great manufacturing success stories. Founded in 1899, by the early 20th century it was producing more than 800 cars per year, more than any other European car company at the time. Based in Alexandria, in Dunbartonshire, the company employed over 1300 workers. Argyll cars were considered cutting edge technology at the time and had a reputation of being highly reliable.



Making

Machines have transformed the way we make things, where they are made and who, or what, makes them. From the steam-powered machines that powered the Industrial Revolution to complex robots and machinery, this gallery explores the innovations that have changed industry manufacturing over 200 years.







Window on the world

The Museum's collections offer a window on the world. It is a place where the cultures of Scotland and the world meet, where the arts and sciences combine and where collections reflect human creativity and invention and the wonder and diversity of the natural world.











Arctic materials

Arctic peoples know how to get the most out of their materials.

• Touch the materials and find out what they are used for



Arctic peoples know how to get the most out of their materials. Touch the materials and find out what they are used for.



From land comes life

The land provides the raw materials for many traditional Indigenous clothing items.

With the help of modern tools and techniques, traditional clothing is being made in new ways.

Many Indigenous people are still making their own clothing, and some are teaching others how to do so.

Making with the Tl'achi people

The Tl'achi people have a long history of making traditional clothing. They use animal skins and plant fibers to create their garments.

Many Tl'achi people are still making their own clothing, and some are teaching others how to do so.

Contemporary collecting

The National Museum's National Partnership with the Tl'achi provided a greater understanding of our collection and created a new opportunity to share the Tl'achi's rich cultural heritage with the public.

The Museum benefited from the Tl'achi's generosity and assistance in making a new collection to complement the historic one, creating a legacy for the future.

Beaded and braided

Traditional Tl'achi clothing is often decorated with intricate beadwork and braiding. These designs are passed down through generations and are a source of pride for the community.

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TRADITIONAL WINTER TRANSPORT

The sled is a traditional mode of transport used in snowy regions. It is made of wood and canvas, and is used to carry heavy loads over snow. The snowmobile, on the other hand, is a modern mode of transport that uses a motor and skis to travel over snow. It is much faster and more efficient than a sled, and is used for recreation and transport in snowy areas.

SKI-DOO

The Ski-Doo snowmobile is a popular mode of transport in snowy regions. It is a motorized sled that can be used for recreation and transport. The Ski-Doo 440 is a high-performance model that is capable of reaching speeds of up to 40 mph. It is a great choice for those who want to enjoy the winter season in a new way.



Clothing and craft

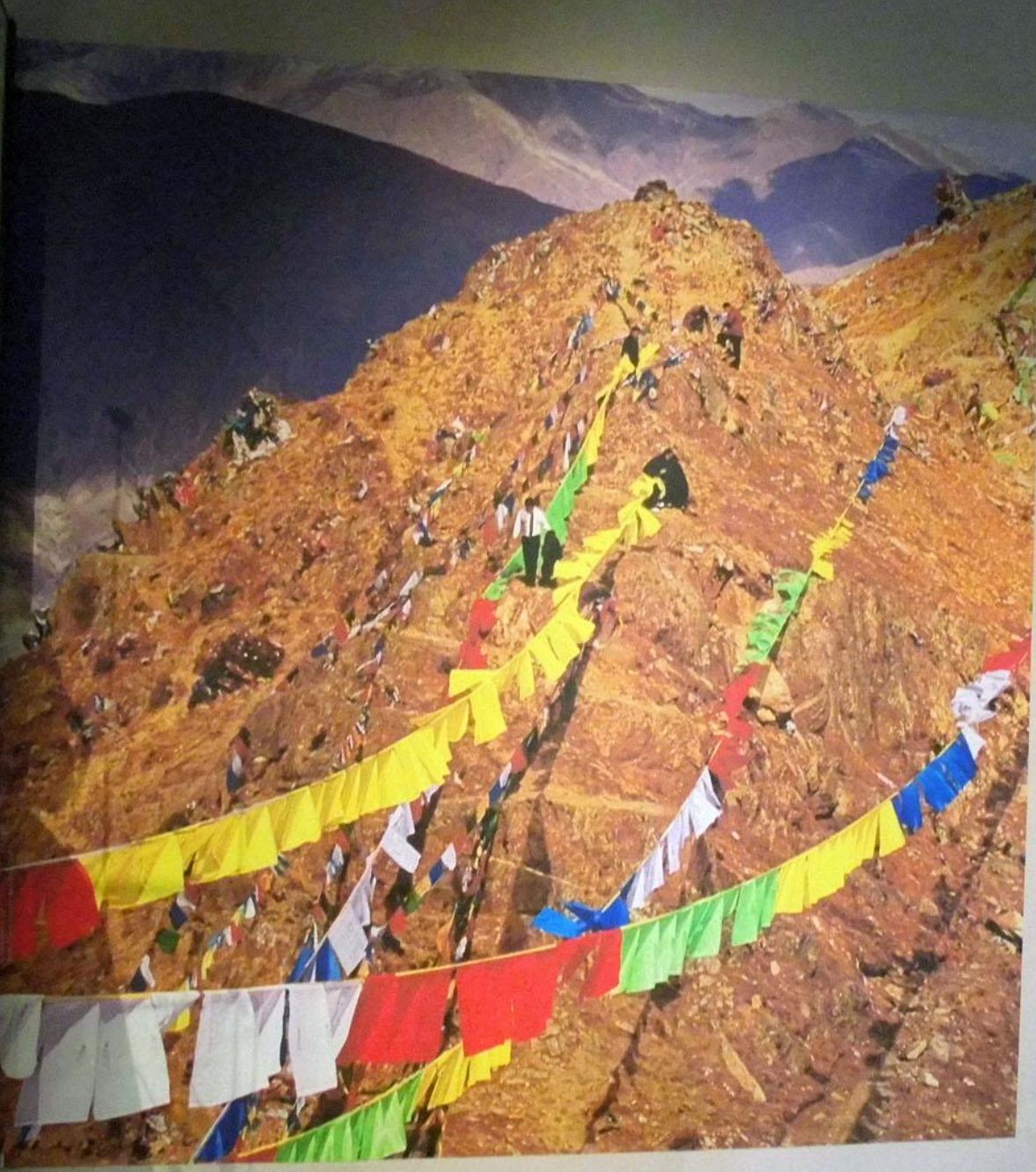
The Chinese Hanbok is made from natural silk and cotton. It is a traditional Korean clothing with a high collar and long sleeves. The Hanbok is made of natural silk and cotton. It is a traditional Korean clothing with a high collar and long sleeves. The Hanbok is made of natural silk and cotton. It is a traditional Korean clothing with a high collar and long sleeves.



Amida Bopu (18th-19th)

This is a traditional Korean metal vessel, often used for cooking or as a decorative item. It is made of brass or copper and has a long handle. The Amida Bopu is a traditional Korean metal vessel, often used for cooking or as a decorative item. It is made of brass or copper and has a long handle.

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Clothing and craft

The yak is a hardy animal that has adapted to high altitudes and cold climates. Its thick, shaggy coat is made of long, coarse hair that is used to make traditional clothing and crafts. The yak's horns are also used in traditional crafts and are a valuable resource for the local population.

The 'roof of the world'

Tibet is often called the 'roof of the world' as it is the highest inhabited region on earth. To the south lie the Himalayas, to the north the Kunlun Mountains, and between them the Tibetan Plateau with its grassy plains and river valleys.

For Tibetans the landscape is sacred, with lakes, mountain passes, rivers and mountains all having spiritual importance. These sacred places are marked by Buddhist shrines and temples, which pilgrims visit as they travel across the land.

Most Tibetans live in cities, towns and villages, but many remain nomadic, herding yak, sheep and goats. Monasteries are found throughout Tibet, providing a focus for cultural and religious life.





People of the Coast

As the first people to settle in the Pacific Northwest, the indigenous peoples of the coast have a rich and diverse cultural heritage. Their art, including masks, carvings, and textiles, is a testament to their creativity and skill. The artifacts displayed here are a glimpse into their lives and traditions.

History of the Coast

The history of the Pacific Northwest coast is a complex and fascinating story. It is a story of exploration, discovery, and the meeting of different cultures. The artifacts displayed here are a testament to the rich and diverse heritage of the region.

Artifact Description

This artifact is a traditional indigenous shawl, known as a 'k'wá. It is made of wool and features intricate black and white geometric patterns. The shawl is a symbol of status and identity, and is worn during important ceremonies and events.

Artifact Description

This artifact is a large, dark wooden box, known as a 'k'wá. It is carved with intricate designs and is used to store and display important items. The box is a symbol of power and authority, and is often used by chiefs and other leaders.

Artifact Description

This artifact is a large, light-colored textile, known as a 'k'wá. It features a prominent black and red design, and is a symbol of status and identity. The textile is made of wool and is woven using traditional techniques.





Eucalyptus is poisonous to most animals, but it's pretty much the only thing koalas eat!

Odd food, animal tool-kits

Some animals use tools that are made out of wood, stone, or other materials. They use them to get food, build nests, or for other purposes. Some animals even use tools to make tools. This is called tool use. It's a very interesting behavior that we can learn a lot from. Some animals use tools in ways that we can't even imagine. For example, some birds use twigs to build their nests. Some primates use sticks to get termites out of their mounds. And some birds use mud to build their nests. It's amazing how creative animals can be when it comes to using tools.

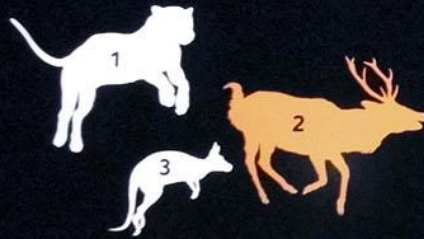
Chlorophyll

Chlorophyll is a green pigment found in plants and some algae. It is essential for photosynthesis, the process by which plants convert light energy into chemical energy. Chlorophyll is found in the chloroplasts of plant cells. It absorbs light energy and uses it to drive the chemical reactions of photosynthesis. Chlorophyll is also responsible for the green color of plants. There are several different types of chlorophyll, including chlorophyll a, chlorophyll b, and chlorophyll c. Each type has a slightly different structure and function. Chlorophyll a is the most common type and is found in all photosynthetic organisms. Chlorophyll b is found in higher plants and green algae. Chlorophyll c is found in brown algae and diatoms. Chlorophyll is a complex molecule with a central magnesium atom coordinated by four nitrogen atoms. The side chains of the nitrogen atoms are attached to a long phytol chain, which anchors the chlorophyll molecule in the membrane of the chloroplast. Chlorophyll is a vital component of the photosynthetic apparatus and is essential for the survival of all photosynthetic organisms.

[Detailed specimen labels and descriptions are visible along the bottom edge of the display case.]



How to move fast



- 1 Tiger, *Panthera tigris*
- 2 Sika deer, *Cervus nippon*
- 3 Red kangaroo, *Macropus rufus*

Who will win this race? Tigers, sika deer and red kangaroos all move fast. They have all evolved longer legs for longer strides to cover more ground more quickly. Just like us, they store energy in their tendons to reuse in their next stride or hop.

Surprisingly, over short distances there is not much between them. With top speeds ranging from 61 to 72 km/h, it could be a photo finish.



Stretching stride
have a comprom
running over sho
limbs to capture
backbone which
with every stride



Ravenous carnivores

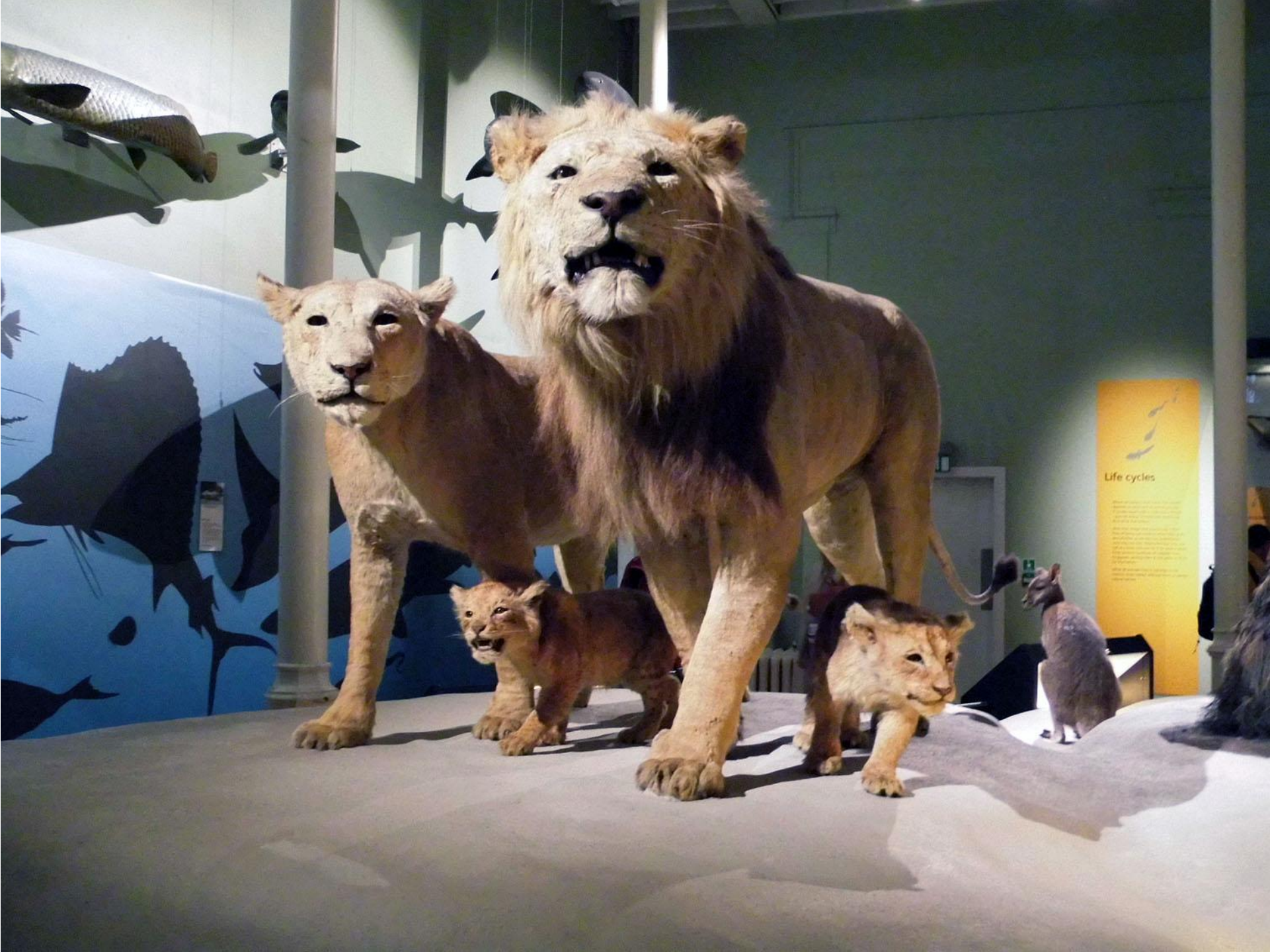


Most sharks usually have powerful jaws and sharp pointed teeth to grab hold of slippery prey and slice meat into bite-sized chunks.

Glassy sharks have extendable jaws that allow them to capture fish, seals, dolphins and turtles with their hundreds of serrated, triangular teeth. Sharks have sharp teeth that can slice through...



Sharks have a unique jaw structure that allows them to bite through their prey. The lower jaw is attached to the skull by a hinge, and the upper jaw is attached to the skull by a hinge. This allows the shark to bite down on its prey and tear it apart.

















Mighty mammals

The African elephant is the largest land mammal. Adult males weigh up to 6,000 kg and have tusks up to 3 m long.









Animal World

From the deep sea to the highest mountains, from the deepest valleys to high into the sky, the world is full of life. From the smallest insects to the largest animals, every living being, fighting and producing, has its place.

Come and explore the wonders of the animal world.













Sealions and fur seals eat stones to act as ballast, to stop them popping up to the surface

Moving around... in water

Animals that live in water have many different ways of moving around, not just swimming. While some swim, others slide or crawl. Some even walk on the seafloor. Some can even walk on water.

It's hard water to move through water than air. As well as sliding it is also important to be streamlined so the water doesn't push against them.

A large variety of animals live in the sea, from the massive blue whale to tiny crustaceans. Most of them spend their entire lives in water. Some come out. Moving around is essential to life on land, escape predators, breed and migrate.

Streamlined swimmers

Some animals have evolved to be streamlined swimmers. They have a body shape that allows them to move through water with less resistance. This is important for swimming at high speeds or for long distances.

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8 Slice cut from a wrought iron shaft, probably a ship's propeller and etched to show structure which is characteristic of wrought iron. 1850-1860

9 Sections of single-headed iron rails, made at Monklands Ironworks

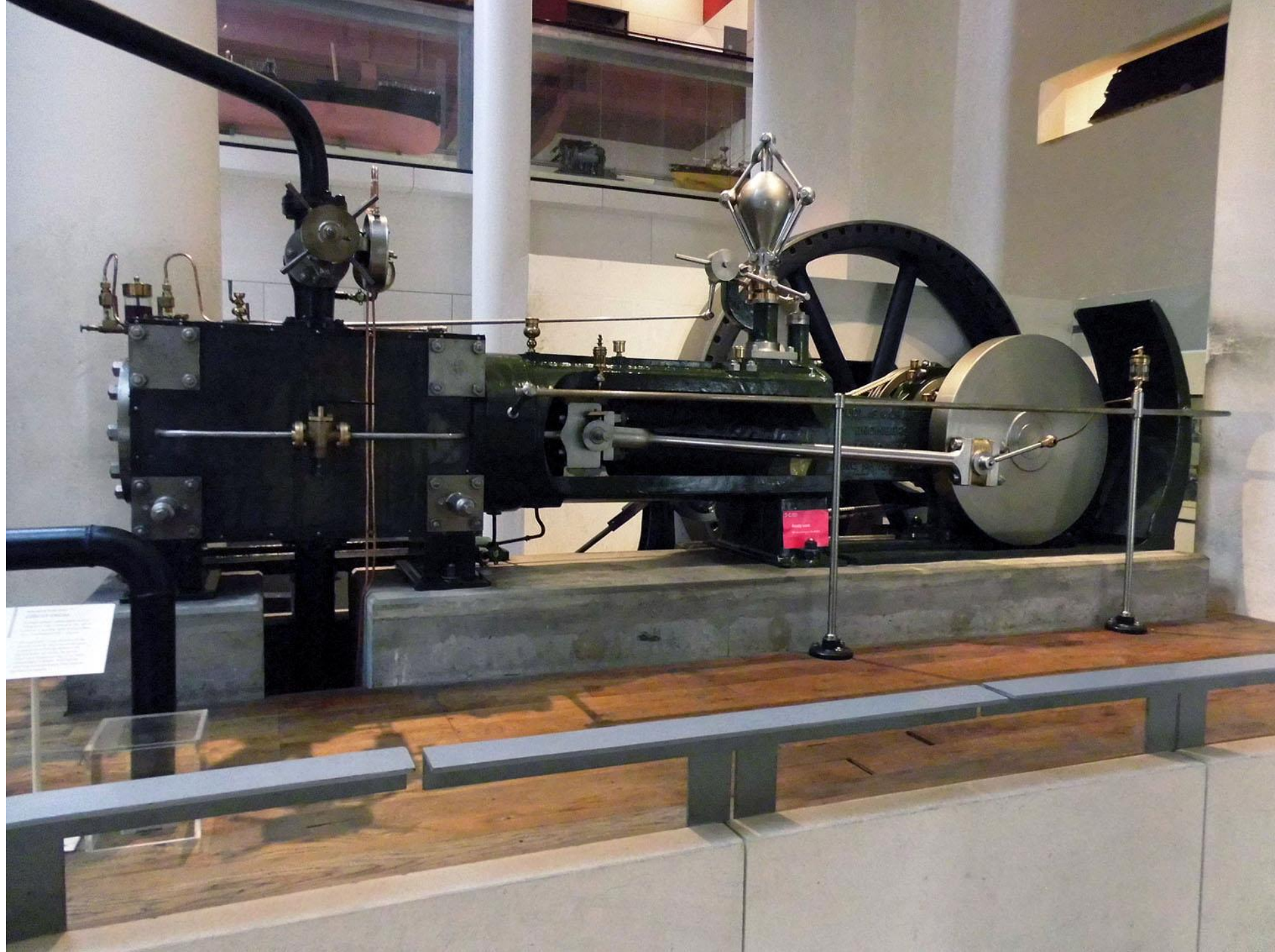
11 Sections of T-shaped iron from Monklands Ironworks. 1850-1860. Given by William Murray

14 Specimen of wrought iron strip partly split into 24 lengths for drawing into wire, from Monklands Ironworks. 1850-1860. Given by William Murray

12 Section of wrought iron ships' deck beams from Monklands Ironworks. 1850-1860. Given by William Murray

13 Section of wrought iron railway carriage tyre from Monklands Ironworks. 1850-1860. Given by William Murray

15 Sections of wrought iron rail from









FUEL FOR THE FIRE

Hand made charcoal was used for cooking and heating. It was made by burning wood in a kiln. The charcoal was then used to make a fire in a hearth. The hearth was a large stone structure with a chimney. The fire was used to cook food and to heat the house.



MAKING LIGHT

Light was made by burning tallow in a lamp. The lamp was made of a piece of wood with a hole in the middle. The tallow was poured into the hole and lit. The lamp was used for lighting the house and for cooking.



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