

GEORGIAN PAPERS EXHIBITION: KING'S OBSERVATIONS

The exhibition forms part of the Georgian Papers Programme and stems from the work initially conducted as part of the King's Undergraduate Research Fellowship scheme, in which students worked with King's academics on a research project. By the end of the scheme, two broad themes had emerged from the Windsor collections: medicine and exploration. During the King's sixty-year reign, there were momentous developments in medical knowledge and explorations of the world that left a legacy lasting until today.

Exhibition, Great Hall
Cabinets, King's
Building, Strand
Campus, King's
College London, 29
November 2016 – 3
February 2017

Georgian Papers Exhibition: King's Observations

This exhibition forms part of the Georgian Papers Programme and stems from the work initially conducted as part of the King's Undergraduate Research Fellowship scheme, in which students worked with King's academics on a research project. By the end of the scheme, two broad themes had emerged from the Windsor collections: medicine and exploration. During the King's sixty-year reign, there were momentous developments in medical knowledge and explorations of the world that left a legacy lasting until today.

The exhibition has been co-curated by Dr Angel Luke O'Donnell, Dr Anna Maerker and history undergraduate students, Ayesha Hussain and Harrison Cutler with additional support by King's College London Archives.



George III (1738-1820), Queen Charlotte (1744-1818) and their Six Eldest Children. Oil painting by Johan Joseph Zoffany (Frankfurt 1733-London 1810), circa 1770. Courtesy of the Royal Collection Trust

Georgian Papers Programme

On 1 April 2015, the Georgian Papers Programme was launched at Windsor Castle in the presence of Her Majesty the Queen. The programme is a collaboration between King's College London and the Royal Collection Trust. The partnership will digitise, disseminate, and interpret an extraordinarily rich collection of materials, including correspondence, maps, and royal household ledgers. There are about 350,000 pages of Georgian material, of which only about 15% has previously been published. The majority of the collections pertain to George III and his reign, but there are also important documents from Kings George I, George II, George IV and William IV. By 2020, the project will make all this material freely available through a website.

The Georgian Papers Programme continues King's College London's historic association with George III and his descendants. George III's son, George IV, signed the College's charter in 1829. Twelve years later, in 1841, George III's granddaughter, Queen Victoria, donated a large collection of scientific instruments accumulated by King George III and others. The instruments formed the foundation of the George III museum. This museum acted as an important hub for both the general public and the students and teachers at King's to understand the world around them.

Ultimately, the Georgian Papers Programme is one of the many ways that the College aims to further world-leading research and make those discoveries relevant.

Website: georgianpapersprogramme.com

Twitter: [@GPP_Geo_III](https://twitter.com/GPP_Geo_III)

The Health of the Nation

The Windsor collections provide insights into how people observed and understood human health at the cutting-edge of medical practice and inside the home. The items in this case demonstrate a number of interesting aspects of Georgian medicine. For example, just as it is today, doctors kept meticulous notes about the health of their patients. The collections also show that performing cataract surgery was an entertaining spectacle. They reveal that curing scurvy among sailors required the captain to cajole his men, and how Lady Augusta Murray, wife of George's son Augustus Frederick, kept a book of cures to help her keep her family healthy. Together these examples show us there were many ways to observe health.



George III. Engraving by Samuel William Reynolds, 1820. [Reference: V0048367]. Courtesy of the Wellcome Library, London.

Under Scrutiny: Witnessing the King's Health

The Royal household had a large number of medical practitioners in its service: physicians and surgeons, as well as dentists, apothecaries, and specialists such as oculists (eye surgeons). These medical professionals were not always in agreement with each other. We can still see these disagreements because the doctors made copious notes observing the health of the royal family, and this sort of note taking is still a foundation of modern medical practice. Moreover, this constant scrutiny produced one of the most affecting accounts from the collections in Windsor—a report on the death of George IV on 26 June 1830.

The last hours of George IV

“At ½ past 11 o clock on Friday night June 25th, His late Majesty not finding himself worse than he had been for some days dismissed Sir Henry Halford who had been in attendance from 7 o clock in the morning and sent him to bed. His Majesty composed himself for the night. The Pages to the outer room and the King soon fell asleep in the same position to which he had lately accustomed himself, leaning on a table prepared for that sole purpose. And placed before him, with his forehead on one hand and the hand of Wathen-Waller who was sitting with him, in the other.

...awoke and asked for his medicines – This he took and drank after it a little clove tea.

...returned to his armchair and ordered the windows to be thrown open.

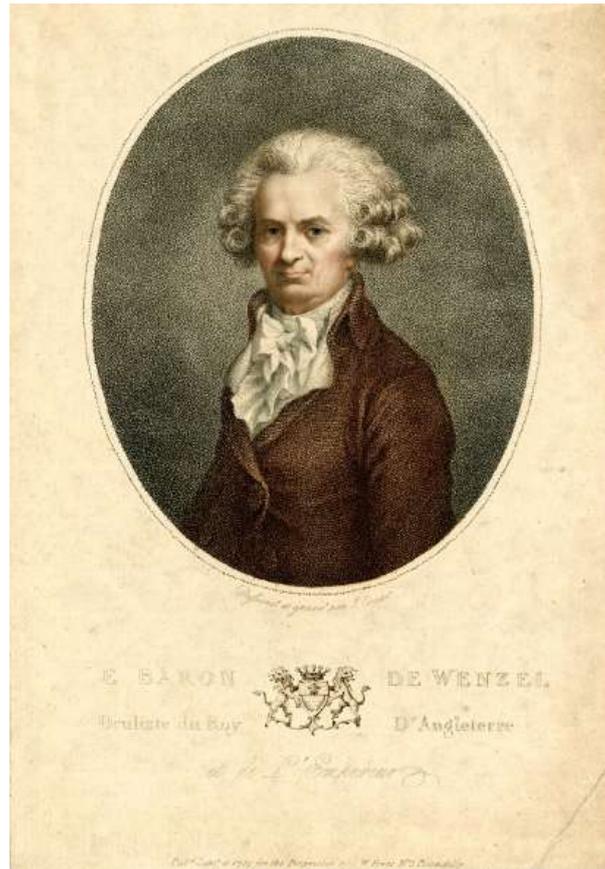
...His Majesty then pressed the hand of Sir Wathen-Waller...exclaimed distinctly ‘My boy, this is death.’ And then closing his eyes reclined back in his chair...with many few short breathings expired exactly as the clock struck the ¼ after 3.”

Letter, signed Wathen-Waller, June 27th, 1830. Royal Archives, Ref: 35853, Main Series.

Eye Health in the Georgian Period

In his old age, King George III suffered from blindness due to cataracts in both eyes. The King's doctors considered the possibility of an operation to remove the cataracts, but ultimately decided against it, as they feared a failed attempt to cure his blindness might upset the aged King's mental health. In general, however, surgeons and eye specialists of the Georgian period had already developed effective operations to remove cataracts.

Surgeons had no access to modern-day anaesthetic, and so eye surgeons had to develop methods that would cause the least suffering. Baron Michael de Wenzel (1724-1790) was known for the fast pace and accuracy of his operations. His method of cataract removal lasted less than thirty seconds, using his specially designed 'Wenzel knife'. The virtuosity of Wenzel's surgical performances meant that sometimes members of high society would watch his operations for entertainment.



Baron de Wenzel. Portrait by John Conde, 1789 [British Museum, no. 1862, 1213.22]. Courtesy of the British Museum.



People gather around a surgeon (Baron de Wenzel) performing an eye operation. Etching by Daniel Chodowiecki (1726-1801). [Reference: V0015913]. Courtesy of the Wellcome Library, London.

Petition to open an eye hospital

*Amidst the great Variety of public Charities
abounding in this Kingdom of Metropolis
for the Relief of human Misery, which shed
a Lustre on the British Name & Constitution,
and will shine undiminished even beyond
the Confines of this World; there has, as yet
been no Hospital exclusively, for the Reception
and Cure of Persons labouring under Diseases
of the Eye. The importance of this Organ
of its Utility to every Individual and not
he urged, but to the Poor it is their All.
Deprived of their Sight, their Endeavours
either for their own Support or that of
their Offspring are cut off, and they are
reduced to become a Burden on their
Parishes and a Misery to themselves.
Above 30 years ago Mr Watkin threw
open his Doors on certain Days & Hours
for the indiscriminate Admission of all Paupers
afflicted with Diseases of the Eyes, and the
number of these have amounted annually.*

Royal Archives Windsor: Letter from Wathen-Waller to the Duke of Cumberland. Ref: 4720-1, Main Series. Page 1 of 5.

Petition to open an eye hospital

to near two thousand. For these last twenty years Mr Philipps has had the Charge of them, and to the best of his Ability has supplied Him with Advice and Medicine. But this though some Relief, is utterly inadequate to their necessities as in a vast Variety of Cases particularly after Operations, many Eyes are lost for want of that necessary Care, Attention, Food and Medicine which an Hospital could alone supply. This supplies more particularly to Operations for the Cataract which however successfully performed are by the above mentioned Causes frequently among the Poor rendered ineffective. Within these few years these Diseases have greatly encreased among the lower orders of the People from the contagious. nature of that Complaint which has been called the Egyptian Ophthalmia, Disease before by no means infrequent in the Country and now much more common. The Soldiers and Sailors from their being more confined together have been the greatest Sufferers. The vast Importance of these Men to their Country.

Ophthalmia

Although cataracts were a common cause of blindness in the Georgian period, blindness could also result from complications with measles or smallpox. This plate depicts ophthalmia, or inflammation of the eye. In the late eighteenth century, it was called Egyptian ophthalmia because the condition affected many of the British soldiers returning from Egypt during the Napoleonic Wars.



Diagrams of “ophthalmia, inflammation of the eye”. Colour etching published in John Vetch, *An account of the ophthalmia which has appeared in England since the return of the British Army from Egypt*. London: Longman, Hurst, Rees, and Orme, 1807. [Reference: L0033534]. Courtesy of the Wellcome Library, London.

In the Navy: The Health of Princes and Sailors

The long sea voyages of the Georgian period took their toll on the health of sailors. Most dreaded of all was scurvy, a disease caused by Vitamin C deficiency. On a voyage to the South Seas in the 1740s, navy chaplain Richard Walter witnessed the crews suffering: “putrid gums, ulcers of the worst kind, rotten bones, and a luxuriantcy of funguous flesh”, and, for many, death.

[Richard Walter, *A Voyage Round the World in the Years 1740, 1, 2, 3, 4*, by George Anson (London: Knapton, 1748), p. 101-2.]

Scurvy produced many adverse effects, but an important symptom were the rashes on legs and arms, as depicted in these images. Curing scurvy was important for the Royal Navy, not only to ensure that British sailors could continue to sail the ships, but also because Prince William, the future William IV, served in the navy.

Curing Scurvy

The people of the Georgian period did not yet fully understand the causes of scurvy. Bad air and tropical climates were both seen as health risks. However, naval officers and medical professionals of the period understood that proper nutrition prevented and treated cases of scurvy. On his Tahitian voyages in the 1770s, Captain James Cook used a wide range of foods to prevent or combat scurvy - from malt and citrus fruit to mustard and sauerkraut. Cook's crew also harvested plants from South America, Tierra del Fuego, South Pacific Islands, Tongo, New Zealand, Australia, Great Britain, The Falkland Islands, and Kerguelen Island. Thus they discovered scurvy-preventing plants such as *Cardamine glacialis*, found in South America, which became known as 'scurvy grass.' As Cook's crew were rarely at sea for more than 60 days, and were encouraged by their captain to eat green salads and plants, outbreaks of the dreaded disease were rare on his ships. Yet, as this account from Cook demonstrates, sailors still needed to be persuaded to eat healthy foods.



Watercolour drawing of the leg of a patient, aged 50, who had scorbutus (scurvy) of 12 months' standing. The limb is affected with a purpuric eruption, which resembles psoriasis with subcutaneous haemorrhage. By Thomas Godart, 1887. [Reference: L0062031]. Courtesy of St Bartholomew's Hospital Archives & Museum, Wellcome Images.

How to get sailors to eat sauerkraut

“The Sour Krout the Men at first would not eate untill I put in pratice a method I never once knew to fail with seamen, and this was to have some of it dress'd every day for the Cabbin Table, and permitted all the Officers without exception to make use of it and left it to the option of the Men either to take as much as they pleased or none at all; but this pratice was not continued above a week before I found it necessary to put every one on board to an Allowance, for such are the Tempers and disposissions of Seamen in general that whatever you give them out of the Common way, altho it be ever so much for their good yet it will not go down with them and you will hear nothing but murmurings gainest the man that first invented it; but the Moment they see their Superiors set a Value upon it, it becomes the finest stuff in the World and the in venter an honest fellow.”

James Cook, *The Journals of Captain James Cook on his voyages of discovery. I. The voyage of the Endeavour, 1768-1771.*

Health and the (Royal) Home: A Mother's Recipe Book

Many medical practitioners were appointed to watch over the health of the royal family and their household. However, parents frequently took initiative themselves to preserve or restore their health and the health of their children. Lady Augusta Murray, wife of Prince Augustus Frederick, kept a "book of cures" in which she collected notes ranging from recipes for cough syrups to ways to diagnose the diseases of small children by observing the quality of their excrement. The book was a mixture of family remedies, doctors' recommendations and new discoveries from the popular press of the time. Lady Murray sometimes annotated or amended the cures according to her own observations. Here are excerpts of advice that Lady Murray collected and recorded about conditions that are still common today.

Treatment for Measles

*Dr Hollands treatment of my Girl in the
Measels, at Ramsgate 9 m[onth] the 3rd 1804—*

1st/ draught ----- for measures look at the 1st page

Milk of almonds fresh prepared 6 drahms or 6 ^ teaspoonfuls

Powder of antimony ----- 1 Grain

Purified Litre ----- 5 Grains

Syrup of Tohu----- 1 drachm and a half

mix the ingredients well together into a draught

to be taken every six hours.

Royal Archives Windsor: Extract from a 'book of cures' by Lady Augusta Murray. GEO/ADD/51/5.

Treatment for Purging

*Dr Thornly's prescription to stop my
Treasure's purging in [1796]
4 ounces of Chalk mixture
10 Grains opiate confection, mixed
1 Table spoonful to be given occasionally.*

Royal Archives Windsor: Extract from a 'book of cures' by Lady Augusta Murray. GEO/ADD/51/5

Blood purification

*Virginia's Irish purifier of the
Blood - July 1811*

*Boil a pint of new Milk; while it is
boiling- out into it a tea spoonful
of milk of sulphur & a little sour
milk, just enough to turn the new
milk- it will then become whey, pour
off the whey & drink it- take the curds
& rub with it, any bumps a child may
have on the shin.*

Royal Archives Windsor: Extract from a 'book of cures' by Lady Augusta Murray. GEO/ADD/51/5.

Exploration

A rare astronomical event occurred during George III's reign: the transit of Venus, in which the planet Venus passes between the Earth and the Sun. Timing this pass would help mathematicians to better calculate the distance of the Earth to the Sun, and the expanse of the Solar System. The British government supported a scheme to observe this astronomical event at many points throughout the world.

One of these voyages, captained by James Cook, was also an expedition to observe the cultures and lands of the Pacific, and particularly to confirm the existence of the continent of Australia. The Pacific was relatively unknown to Europeans. Eighteenth-century scholars predicted that the Australian continent existed but had never found conclusive proof. Aboard Cook's ship, the *Endeavour*, were naturalists who collected plant specimens to understand the environment of the Pacific islands. They also recorded the languages in Tahiti, New Zealand, and many other stops on the voyage to understand the connections between the people of the Pacific. Together these observations helped Georgians understand the huge variety of Earth's lands and cultures.

George III also oversaw a massive expansion of the British Empire in America to include many more Native American nations. Europeans had been fascinated with Native Americans since first contact between the two peoples at the end of the fifteenth century. The Georgians continued their observation of Native Americans, but modern viewers should be wary of these accounts. Often European observers saw Native Americans according to what they wanted to see, rather than how Native Americans lived or saw themselves. Yet European sources are still valuable for understanding Native American society.

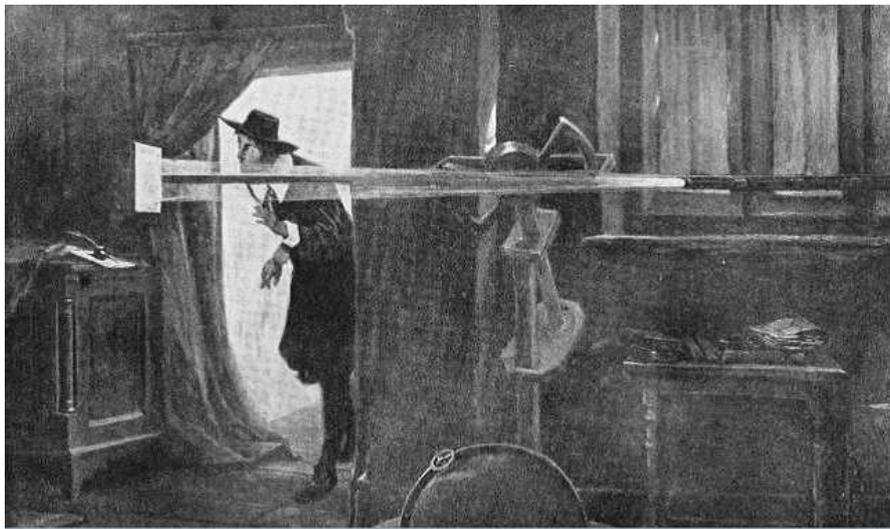
Finally, this cabinet brings us up to date to look at the legacy of George III for King's College itself. We look at how the scientific instruments collected by George helped the general public and students understand the natural world through experiments and museum exhibits.

Transit of Venus

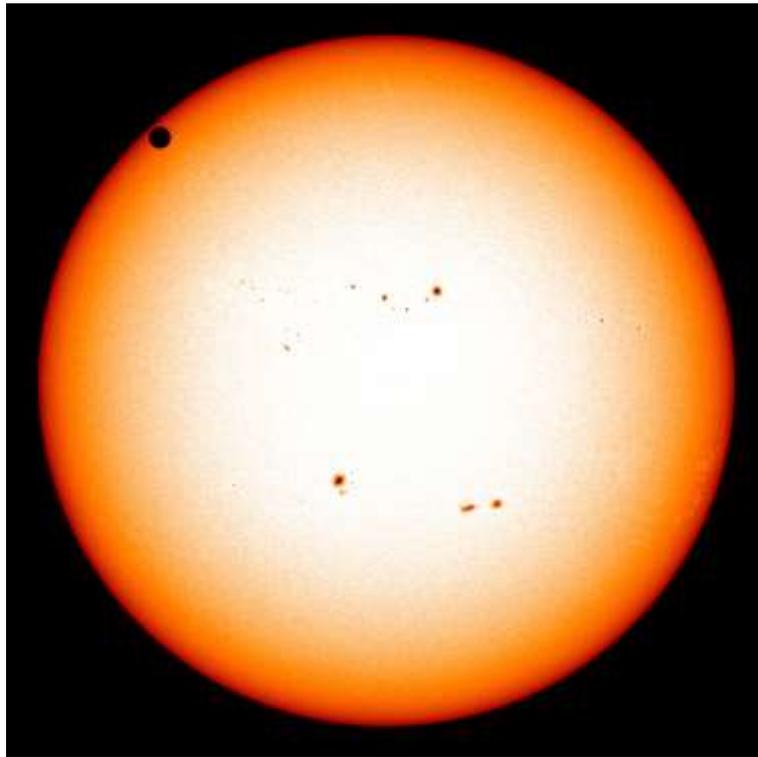
A Venus transit is a phenomenon in which the disk of the planet Venus passes like a small shadow across the face of the Sun. The transit can be seen by the unaided eye and looks something like a moving sunspot. Among the rarest of astronomical events, Venus transits occur eight years apart—and then do not happen again for more than a century.

The transit was first scientifically observed in 1639 by Jeremiah Horrocks in Much Hoole, near Preston, England on 4 December 1639. The significance to the advance of astronomy was realised when that the transits could be used to calculate the astronomical unit (the distance of the Earth from the Sun). This could be obtained through observations made at widely spaced points on the surface of the Earth allowing the astronomical unit to be calculated through geometric triangulation.

Sir Edmund Halley (1656-1742) proposed in his 1716 paper, 'A new Method of determining the Parallax of the Sun, or his Distance from the Earth', that during the next Venus transits in 1761 and 1769, scientists from various nations should observe the event, and using the collected data, calculate the distance of the Earth to the Sun.



Drawing/painting: Jeremiah Horrocks's first observing of the transit of Venus by causing the sun's disc to be thrown through a tube so as to show the planet crossing the sun's face, as he had foretold. [Reference M0004627]. Courtesy of Wellcome Library, London.



Cropped HMI Continuum. Ultra high definition view of 2012 Venus transit taken by Solar Dynamics Observatory. Courtesy of NASA.

Observing the transit in 1760s

The 1761 transit unfortunately happened to coincide with the Seven Year War (1754-1763). The war managed to hamper both British and French expeditions and insufficient observations were made by European astronomers to calculate the astronomical unit. Attention turned to the next transit due on 3-4 June 1769.

The 1769 observation of the transit of Venus was a major international scientific event. Multiple observation points were set out across the globe including on the island of Tahiti where the crew of the HMS Endeavour set up a small fort and observatory for the occasion which is now called Point Venus.

Observations were collected throughout Europe, including at the Royal Observatory in Kew, Surrey. Within the manuscript notebook entitled 'Observations of the Transit of Venus', is a report of the event carried out with the Royal Family present. The description notes that King George was the first to observe Venus passing the edge of the Sun, recording the exact time of the sighting to the second. The notebook also includes the observations of Venus from other parties in the United Kingdom such as Nevill Maskeyne, Royal Astronomer in the Greenwich Observatory and a report from Abraham Gotthelf Kaestner, Professor of Mathematics and Natural Philosophy, University of Göttingen, Germany.

The 1760s led 400 published observations of the transit Venus taken from around the globe, enough to estimate the astronomical unit to 153 million kilometres (95 million miles). The figure was 1% off the correct figure but was not radically improved upon until 20th century with radar echolocation.



Transit of Venus.

3: of June. 1769.

His most sacred Majesty King George the 3.
Her most sacred Majesty Queen Charlotte.
His Serene Highness Prince Ernest of Mecklenburg-Strelitz.
His Serene Highness Prince George of Mecklenburg-Strelitz.
attended by.

Colonel Desaguliers.

The Rev. Mr. Geo. Wollaston.

Stephen Rigaud.

John Vuilliamy.

Jerem. Sisson.

Ben. Vuilliamy.

John Cuff.

Doctor Stephen Demainbray.
present.

His Majesty the King who made his Observation with a Short Reflecting Telescope, magnifying Diameters 170 Times, was the first who saw the Penumbra of Venus touching the Edge of the Sun's Disk.

The exact Mean Time (according to civil Reckoning) was attended to by Stephen Demainbray, appointed to take exact Time by Shelton's Regulator, previously regulated by several Astronomical Observations.

Extract from the manuscript notebook entitled 'Observations on the Transit of Venus', 1768-1769 [Reference: King's College London: K/MUS/1/1]

Observations on the transit of Venus

Transit of Venus
3rd of June 1769

His most sacred majesty King George the 3rd
Her most sacred Majesty Queen Charlotte
His Serene Highness Prince Ernest of Mecklenburg-Strelitz.
His Serene Highness Prince George of Mecklenburg-Strelitz.

Attended by.
Colonel Desaguliers
The Rev Mr Geo: Wollaston
Stephen Rigguaud
Jerem. Sisson
Ben. Vuilliamy
John Cuff
Doctor Stephen Demainbray
Present.

His Majesty the King who made his observation
With a Short Reflecting Telescope magnifying
Diameters 170 Times, was the first who saw
The Penumbra of Venus touching the Edge of
The Sun's Dish.

The exact Mean Time (according to Civil Reckoning)
Was attended to by Stephen Demainbray, appointed to
take exact Time by Shelton's Regulator, previously
regulated by several astronomical Observations.

Manuscript notebook entitled 'Observations on the Transit of Venus', 1768-1769. K/MUS/1/1.

American Travelling: Native American History

It was not uncommon for European travellers to misrepresent their familiarity with Native Americans. They neglected to tell readers about the translators who helped them communicate or else they included anecdotes of derring-do to entertain the reading public. One notorious case is Jonathan Carver's popular *Travels to the Interior of America*. Carver lied about his own involvement with Native Americans and plagiarised other travel writers of the time in order to embellish his own account. He cooperated with another unscrupulous author, Alexander Bicknell, to put together a travel account that played to European expectations of the Native Americans as noble savages.

There are still interesting observations in his book. Most importantly, as these two prints illustrate, Carver showed how Native Americans incorporated European goods into their own way of life. The descriptions of Native American material culture corroborate other travel accounts that Native Americans were happy to adopt European imports and then adapt them to fit in with Native American culture.

Cultural observations did not go one way. Joseph Brant, an important political figure in the Mohawk nation, visited Europe twice in his life. When he first visited London in November 1775, it was to discuss the imperial relationship between Britain and America. Brant met with George III to negotiate Mohawk support for Britain in the War of Independence. During his time in Britain, Brant was treated as a celebrity and sat for a number of drawings and paintings. As such, he is one of the most painted Native Americans. Like the Native Americans in Carver's print, Brant mixed European and Native American designs in order to demonstrate his status.

Thayendanegea (Joseph Brant) by Gilbert Stuart

This portrait of Thayendanegea, Joseph Brant's name in his native Iroquoian language, was painted by famous American artist Gilbert Stuart. Brant sat for the portrait in 1786, ten years after America's independence, when Brant returned to Britain to ask for George III's protection against the United States of America. Brant mixed European and Native American ornaments by wearing a feathered Native American cap and a silver gorget round his neck. George III had gifted the gorget to Brant in their first meeting in 1776.



Painting of Thayendanegea (Joseph Brant) by Gilbert Stuart, 1785. [reference Am2006,Ptg.1]. Courtesy of the British Museum

Joseph Tayadaneega called the Brant, the Great Captain of the Six Nations by George Romney

This portrait of Joseph Brant was painted by George Romney when Brant first visited Britain in 1776. Brant is wearing Native American-style clothes and jewellery manufactured in Britain.



Print of Joseph Tayadaneega called the Brant, the Great Captain of the Six Nations, 1779. [Reference: 1902,1011.5057]. Courtesy of the British Museum

Carver Prints

One plate shows how Native Americans had their own clothing preferences while still adopting the European flintlock musket. The other plate shows how Native Americans made traditional items such as tomahawks and daggers out of new imported metals. The truthfulness of Carver's observation should be carefully scrutinised, but his travel narrative is still an important source for understanding a society that left little in the documentary record.



Engraving of a man and woman of the Ottagaumies in Carver, Jonathan, 'Travels through the interior parts of North America, in the years 1766, 1767, and 1768', 1781. Courtesy of Foyle Special Collections, King's College London



*A War Club, or Caska Tate.
The Ancient Tomahawk.*

*A Naudowessie Dagger,
formerly made of Stone.*

Engraving of A pipe of peace, war club, or caska tate, the ancient tomahawk and a Naudowessie dagger, formerly made of stone in Carver, Jonathan, 'Travels through the interior parts of North America, in the years 1766, 1767, and 1768', 1781. Courtesy of Foyle Special Collections, King's College London

Engraved Tomahawk Pipe

This is a tobacco pipe shaped like a tomahawk. The inscription on the handle reads: 'Given to my friend Joseph Brant from the Duke of Northumberland 1805'. Both the tomahawk and the tobacco pipe were important symbols in Native American diplomacy. Throughout the eighteenth century, Britain manufactured thousands of tomahawks for Native Americans.



Photograph of engraved tomahawk pipe. [Reference: Am1981,17.1]. Courtesy of the British Museum

Pacific Travels: People and Places of the Pacific Ocean

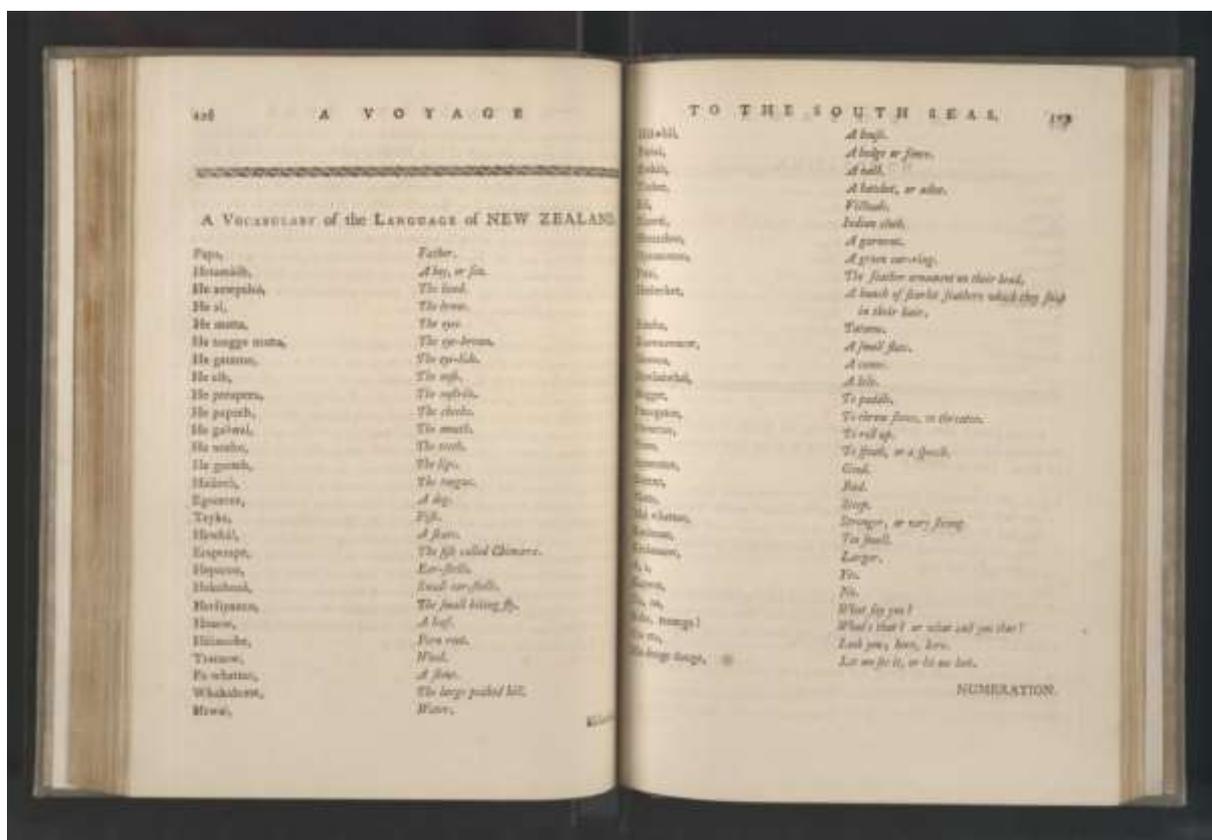
Aboard Captain Cook's ship, the *Endeavour*, were naturalists Joseph Banks, David Solander, and Sydney Parkinson. Before the *Endeavour*, very few Europeans had ever visited the lands of the Pacific Ocean, and therefore, the observations of Banks, Solander, and Parkinson were among the first reports that Georgians had of the region.

When the *Endeavour* landed on Tahiti the crew met Tupaia, a local priest and navigator. Tupaia agreed to travel with Cook round the Pacific islands. Fortunately, when the ship next landed at New Zealand, Tupaia was able to speak with the local Maori people because the Tahitian and Maori languages are mutually intelligible. This prompted one of the naturalists, Sydney Parkinson, to record the vocabularies of Tahitian and Maori languages to illustrate their similarities.

Another form of observation was to collect plant specimens. While in the Pacific, Joseph Banks and David Solander collected an estimated 30,000 specimens from 3,000 species, including 1,400 species that were new to Europeans - many of them are now in the Natural History Museum here in London.

Vocabularies

Sydney Parkinson believed that the similarities in the Tahitian and Maori languages helped explain how the Pacific islands had become populated. This is a branch of study called philology. By looking at the comparisons in language, philologists drew conclusions about the history of migration because, as they reasoned, the closer the language the more recent the separation between the two groups of people. This is still a method that modern linguists use to understand patterns of human migration. Parkinson concluded that the Maori had colonised Tahiti because the Maori had what he perceived to be a more sophisticated material culture and therefore, the Tahitians had left at an earlier stage of development. The contemporary theory is that New Zealand was colonised by people travelling from South East Asia, arriving first in Tahiti before moving on to New Zealand.



A vocabulary of the language of New Zealand, in Parkinson, Sydney, 'A journal of a voyage to the South Seas, in his Majesty's ship, the Endeavour', 1773. Courtesy of Foyle Special Collections, King's College London

Silver Fern

Here is one of the iconic species to emerge from Cook's voyage, the New Zealand silver fern. The silver fern is the symbol of many New Zealand sports teams. Banks and Solander collected this silver fern and then preserved it on the voyage home between pages of John Milton's *Paradise Lost* that Banks had bought from a printer in London.



Photograph of a botanical sample of a Silver fern, *Cyathea dealbata* (G.Forst.) Sw., collected by Joseph Banks, 1769. Courtesy of Te Papa (Museum of New Zealand)

George III Museum

One of the defining characteristics of George III was his interest in the way that the world worked. George had been educated in natural philosophy, or what we would call science today. The King inherited scientific instruments from his great grandfather, George I, and grandfather, George II. He also commissioned objects himself so that he could continue his study of the natural world, and he built an observatory at Kew so that astronomers could observe the transit of Venus. In fact, before his scientific instruments became the collection of the George III museum, they were stored at the Kew observatory.

Throughout the nineteenth and early twentieth century, the George III museum helped both the general public and King's College students to observe scientific experiments. When the museum opened, the College refurbished rooms here in the King's building to house the collections. In this picture, Prince Albert is looking at Charles Babbage's calculating machine, an important predecessor of the modern computer. At the opening ceremony, Charles Wheatstone, professor of natural philosophy at the College, exhibited his work on electricity by demonstrating a speaking machine, a battery, and a telegraph. Visitors to the museum would also have seen important models by early scientists such as Robert Boyle and James Watts, including his steam engine. Eventually, the museum also served as a research room for students.

The museum collection is on long-term loan to the Science Museum in Kensington and it has recently been exhibited in South Korea, thereby still fulfilling its original brief of helping people understand the world.



Engraving of Prince Albert opening the George III Museum, King's College London, 1843