

# The Master Builder [B2]

Isambard Kingdom Brunel è stato un ingegnere pioniere il cui lavoro ha plasmato in modo significativo il paesaggio della rivoluzione industriale.

---

Over the course of his career, Brunel built twenty-five railway lines, covering around 1,900 kilometres of [track](#), in England, Ireland, Italy and Bengal. He also constructed more than one hundred bridges and three ships, as well as [docks](#) in Bristol, Cardiff and Milton Haven. During the Crimean War, in 1854, Brunel designed a pre-fabricated hospital which was then transported to Turkey and constructed on-site. The hospital provided access to sanitation, ventilation, [drainage](#) and even simple temperature controls — designs which are still used today.

## THE GWR

Brunel's best-known work is the network of tunnels, bridges and viaducts he built for the Great Western Railway. However, the network was actually a partial failure. Brunel introduced a new, wider [gauge](#), in place of the standard [gauge](#), to make his trains faster and more comfortable, but his idea was ignored. He did [overcome](#) the problematic rivers, valleys and hills through innovative viaducts, bridges, stations and tunnels; the 2.9-kilometre Box Hill Tunnel was the longest railway tunnel of its time. The GWR enabled towns such as Swindon and Reading to become some of the fastest-growing in Europe. To meet the needs of the railway workers, Brunel built hospitals, churches and even housing estates. The [pièce de résistance](#) came with the building of the main terminal in London. Brunel worked with the architect Matthew Digby Wyatt to design and build the wonderful Paddington Station, with its iconic [wrought iron](#) and [glass roof](#). Still in service, the station is now a popular tourist attraction – and home to the statue of Britain's favourite bear, named after Brunel's masterpiece.

## BRUNEL AND TIME

The engineer even had an impact on time! Before the arrival of the railways, clocks all over Britain told different times, according to the position of the sun. Before the GWR, there was little reason why a clock in the South West should tell the same time as one in London — so Bristol had its own time zone, ten minutes behind London. The construction of this railway, and the general need for standardised [timetables](#) throughout Britain, led to the adoption of Greenwich Mean Time all over the country.

## MYTHS AND FAILURES

Brunel was so famous and prolific that he was even given credit for things he did not actually do! Some of his projects came to nothing or the money [ran out](#) — [his schemes](#) required enormous quantities of money. Investors and companies went bankrupt, and people often lost their jobs.

## BRUNEL'S CHARACTER

Brunel's short life was full of [astonishing achievements](#). And yet his private diaries reveal that, although highly ambitious from an early age, he [was plagued](#) by self-doubt and particularly sensitive about his height. He always wore his trademark twenty-centimetre [stovepipe hat](#) to try to look more authoritative. One historian called it the 'short man syndrome'. As his fame and fortune grew, he learnt how to hide his insecurities, becoming a consummate networker skilled in courting London society for the investments he needed. Innovation was his priority in all his work. He loved ignoring rules and breaking traditions: "I am opposed [to the laying down](#) of rules or conditions to be observed in the construction of bridges lest the progress of improvement tomorrow might be embarrassed or [shackled](#) by recording or registering as law the prejudices or errors of today." He was not blind to the negative consequences for the environment. Recently-discovered letters show that he worried that factory waste was contaminating Bristol's water supplies, and he also acknowledged that the GWR was harming the environment.

## REPUTATION AT HIS DEATH

On his death, Isambard Kingdom Brunel was a celebrity, one of Victorian Britain's most recognised figures. Before his [burial](#) in Kensal Green Cemetery, London, thousands of railway workers and members of the public [lined](#) the funeral route. During his life, Brunel was one of the best examples of the volcanic creative forces behind the Industrial Revolution. He transformed Britain's landscape and helped to bring modern society into being. His determination to build on a colossal scale [fitted hand-in-glove](#) with the ambitions of Britain's ever-expanding empire.

---

# Glossary

- **docks** = moli
- **ran out** = finire
- **astonishing** = sorprendenti
- **achievements** = conquiste
- **drainage** = drenaggio
- **overcome** = superare
- **stovepipe hat** = cappello a cilindro
- **fitted hand-in-glove** = stare a pennello a, adattarsi
- **his schemes** = strategie, piani
- **shackled** = mettere dei freni
- **burial** = sepoltura
- **gauge** = scartamento
- **wrought iron** = ferro battuto
- **glass roof** = tetto di vetro
- **timetables** = orari
- **lined** = mettersi in fila
- **track** = binari
- **pièce de résistance** = pezzo forte
- **was plagued** = flagellare
- **to the laying down** = stabilire