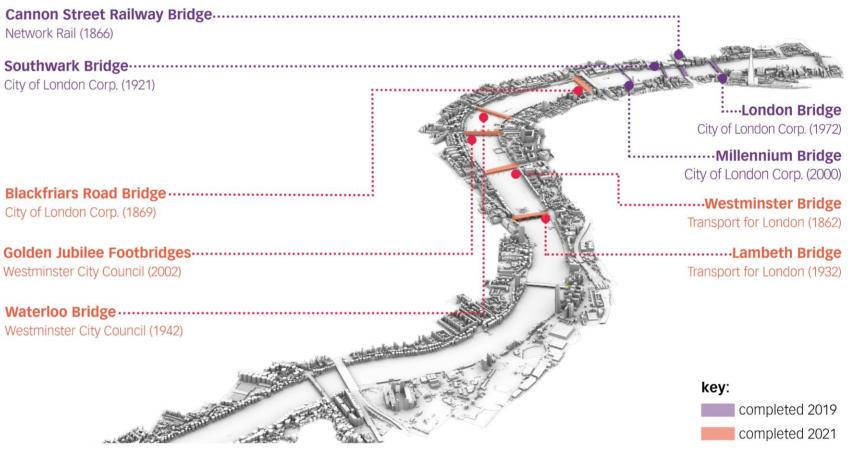
# Illuminated River

This extraordinary piece of public art, urban design and architecture, spanning 9 central London bridges, has hugely improved the environment and public realm for visitors and local communities along the Thames. It has unified the overall experience of the river, at the same time enhancing the individual quality of each bridge as an independent structure conferring its own civic space.

Huge care was taken to improve the environment for birds, bats and aquatic species, and to reduce energy compared with existing lighting. Illuminated River has catalysed environmentally motivated thinking about reducing light on less important buildings.



ILLUMINATED RIVER

LEO VILLAREAL

Lifschutz Davidson Sandilands

# Illuminated River – Blackfriars to Lambeth Bridges

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Illuminated River – Westminster, Golden Jubilee and Waterloo Bridges

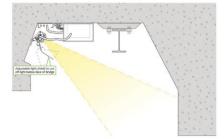
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#### Illuminated River – London Bridge

London Bridge is a significant focal point of the first phase of illumination. The art responds to the continuous stream of movement, colour, noise, and cultural activity in the areas at either end of the bridge - the City on one side and Southwark with Borough Market on the other. The simple form and silhouette of the steel and concrete bridge, constructed in 1972, is complemented by fields of broad and warm coloured light that blend and move along its sides and illuminate the underside, making it appear that the sides of the bridge are made of translucent glass.

The lighting casts a luminous wash that is fluid and subtly changing, dissolving what was previously a monolithic wall of light into a gently kinetic tableau informed by the light of the sky as it resonates with the water of the Thames, linking the architecture of the bridge with the currents and tides passing beneath. Inspired by an impressionist colour palette, the illumination provides a compelling presence, breathing great beauty into London Bridge (not perhaps one of the capital's finest structures) while also significantly reducing the previous high levels of direct light spill into the river.



Directing the light - The artwork is a significant improvement over the existing lighting condition by directing the light off the water and onto the bridge, removing the barrier of light fish currently experience.



A bespoke solution - a simple but effective tailored shield that connects to the luminaire. Each fitting is then aimed individually so that the light shines onto side of the bridge and not the water.





Previous high levels of illumination were unattractive and spilt onto the water

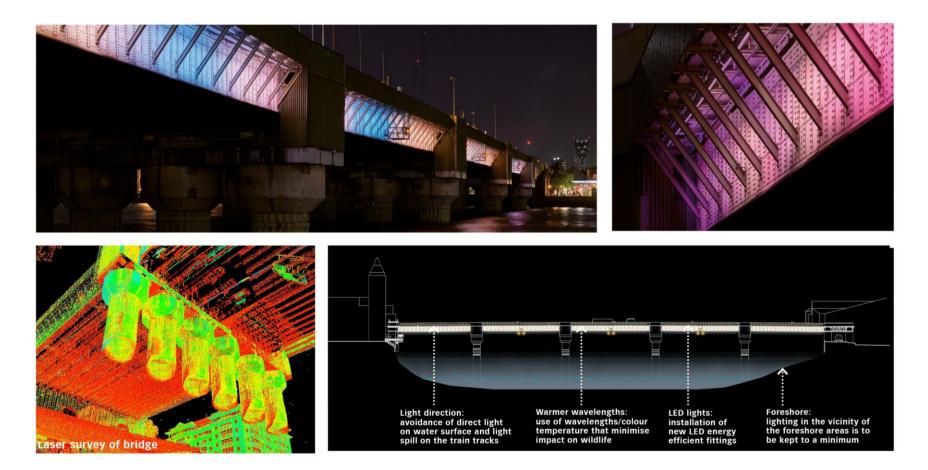
## Illuminated River – Cannon Street Bridge



### Illuminated River – Cannon Street Railway Bridge

Cannon Street Railway Bridge, which opened in 1866, is a rather utilitarian railway structure and has never had decorative lighting. Illuminated River transforms it with a new night-time identity illuminated by a colour wash on each side that enhances the clean horizontality and celebrates its robust character. The subtly kinetic play of light on these surfaces mirrors the motion of the trains as they pass above.

The rising vertical forms of the piers are left unlit, resulting in a band of light that harmonises with the tableau of London Bridge. The horizontality of the band unifies Cannon Street Bridge with the other structures in Illuminated River emphasized by linear light (eg Millennium, Golden Jubilee Footbridges and Waterloo Bridges). At the same time, the colour palette responds to and complements the colour of neighbouring London and Southwark Bridges.



# Illuminated River – Southwark Bridge



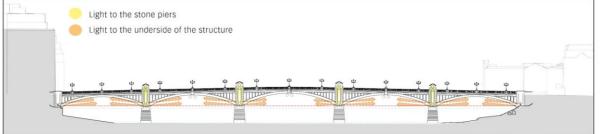
### Illuminated River – Southwark Bridge

Southwark Bridge is a highly articulated Grade II-listed crossing that links Southwark and the City. It has the lowest traffic of any of London's bridges and is one of the prettiest, with its series of five steel arches decorated with bands of painted teal with golden yellow detailing supported by four stone granite piers and topped by pierced decorative lunettes.

The lighting activates the inside and underside of the structure with fields of light in subtly shifting hues in order to emphasise the elaborate structural latticework. The illumination is limited to the franite piers and the undersides of the bridge and this picks out the massive masonry abutments and the delicate metal fretwork they support.

The colour scheme for this bridge is reminiscent of atmospheric tones at sunrise and sunset. Drawing inspiration from the colour palettes of the Impressionist masters, the bridge's illumination continues, with slightly more saturation, the colours used on Cannon Street Railway Bridge.





The light reveals all of the beautiful intricacies of the lattice steelwork inside the bridge arches Considered light fitting placement is key to ensuring the light is consistent within the structure of the bridge and that the light fittings themselves are discrete

# Illuminated River – Millennium Bridge

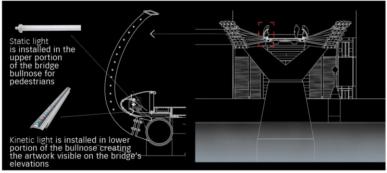


#### Illuminated River – Millennium Bridge

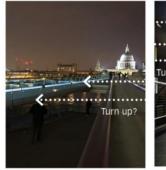
Millennium Bridge, completed in 2002, is a collaboration between Foster & Partners (with Sir Anthony Caro) and engineers ARUP. Conceived as a 'blade of light' across the Thames the pedestrian footbridge crosses from the South Bank at Tate Modern to the north bank at St Paul's Cathedral, linking two important areas of cultural activity. In accordance with the architect's original intention, (and working closely with Foster & Partners) the lighting scheme for Millennium Bridge highlights the structure's minimal beauty and restores the expression of the bridge as a 'blade of light'.

Millennium is the first bridge within Illuminated River to be lit using a monochromatic scheme, layering variations of white light that range in temperature from warm to cool in subtle pulses moving horizontally along the bridge's sides harmonising with the linear steel construction. The pulses mirror the movement of people crossing the bridge, highlighting their faces and casting silhouettes that enhance the bridge structure, while preserving the inky darkness of the Thames below.





Public realm: The artwork has influenced the surrounding public realm lighting in a positive way, encouraging the re-balancing of light levels to the landing points on both banks. We also replaced the existing underpowered light fittings illuminating the deck. Helped by site mockups, we were able to significantly improve distribution and levels of illumination to provide a better and safer environment for pedestrians, again without extraneous spill spoiling the iconic views of St Paul's or Tate Modern.







### Illuminated River – Blackfriars Bridge

Blackfriars Road Bridge, completed in 1869, is a Grade II listed structure. The western side of the road bridge is very visible from long distance views looking downstream from Waterloo Bridge. The artwork illuminates the sides and the underside of the structure with a subtly changing colour palette, harmonising with the red tones of the nearby freestanding supports of the original London, Chatham and Dover Railway Bridge. Washes of colour move across the underside at a slow pace with gentle transitions, brightening the detailing and ironwork of the arches and creating envelopes of coloured space above the water.

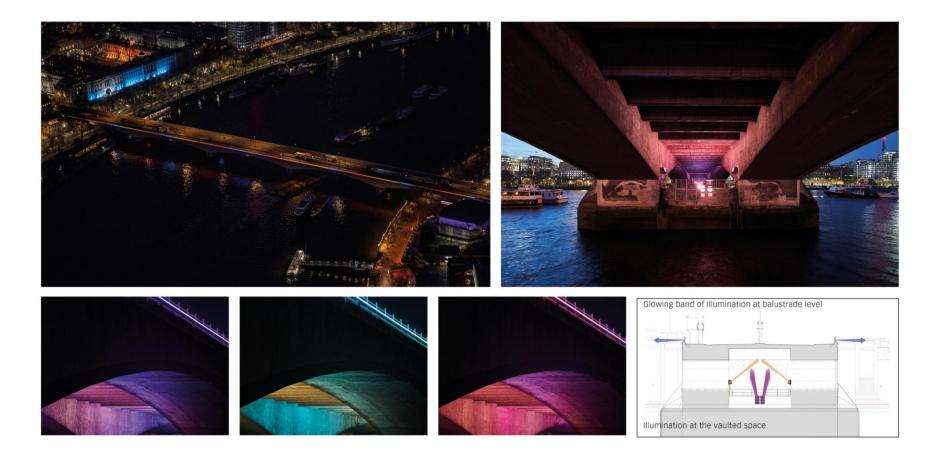


# Illuminated River – Waterloo Bridge

#### Illuminated River – Waterloo Bridge

The present Waterloo Bridge was designed by Giles Gilbert Scott and opened in March 1942. Its design has both sculptural and painterly overtones, with Scott proclaiming that he had brought 'light and sweetness' to its underside - a feature much emphasised by this artwork. The bridge links two major cultural spaces - Somerset House on the north bank, and the Southbank Centre on the South Bank. Offering sweeping views of several other bridges across the Thames, Waterloo Bridge is set within the lively riverside activity of the Southbank, and the artwork embraces and reflects this surrounding spirit - reaching out from the quarter to the north bank.

The references for Waterloo are drawn from the bridge's architecture, detailing, and history. There is a visual tie with London Bridge, with colour on the bridge's masonry arches and external faces. A 380 metre band of light at balustrade level stretches across each side of the bridge in addition to washes of light within the volumes underside, creating an interplay with huge visual impact.



Illuminated River – Golden Jubilee Footbridges

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### Illuminated River – Golden Jubilee Footbridges

The four-metre wide Golden Jubilee Footbridges, designed by Lifschutz Davidson Sandilands and completed in 2002, are suspended off the Hungerford Railway Bridge. The footbridges are located at one of the most vibrant points of the Southbank next to The Royal Festival Hall and near the London Eye, with Embankment Pier, Charring Cross Station and Victoria Embankment to the north.

The footbridges have stainless steel balustrades supported on solid twin vertical stainless uprights between which are new LED fittings that glow in both directions. The inner fittings illuminate the bridge decks, while the outer fittings have both warm and cool white diodes, controlled by the artist's software to create mesmerising patterns that seem to syncopate with the shifting scene all around - the movement of people, tides and the slowly rumbling trains. High level light fittings, set between the cable fans, provides background illumination. The monochromatic lighting palette is respectful to the primacy of nearby Palace of Westminster, complements the more subtle saturation of Westminster Bridge and provides an interlude to the more colourful Waterloo Bridge upstream.





# Illuminated River – Westminster Bridge





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#### Illuminated River – Westminster Bridge

This is the oldest bridge included in Illuminated River - a memorable seven-arch, cast-iron structure. The bridge shares Gothic Revival details with Barry's Houses of Parliament, which was built concurrently. Ornate and elegant, the bridge is painted a verdant green to match the colour of the seats in the House of Commons, located at the bridge's north landing. The bridge also features octagonal lanterns, grouped in threes, which complement the overall design. Westminster Bridge is part of the UNESCO World Heritage Site of the Palace of Westminster and is Grade II\* listed.

The artwork has LED fixtures under the 250-metre length of the bridge illuminating the arches in soft green tones, complementing the bridge's characteristic colour and activating the previously dark and negative spaces. As with other iron bridges in Illuminated River, the artwork highlights the volume of the arches and the ribbed vaulting of its structure, and seems to respond to the passing waters of the Thames. Additional white lighting placed behind the ornamental gold shields that adorn the bridge's spandrels, bringing into prominence the decorative coats of arms of London and Westminster.



### Illuminated River – Lambeth Bridge

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### Illuminated River – Lambeth Bridge

Lambeth Bridge, completed in 1932 is a five-arch steel structure with a cast iron balustrade and lampstands. It is Grade II listed and the listing designation includes the parapets, lamps, obelisks and the approach walls. Like its immediate neighbours, Vauxhall Bridge upstream and Westminster Bridge downstream, Lambeth is painted in a distinctive colour (red), in this case relating to the leather benches in the House of Lords, located at the southern end of the Palace of Westminster at the bridge's north landing. The artwork complements the bridge's existing colouring using corresponding varied hues of warm light under the handrails and the bridge's underside, accentuating the texture and curvature of its arches. Other lights are set on the piers and directed at the granite faced abutments and their obelisks.

The kinetic activity and visual language of the lighting scheme is sensitive to the setting of nearby heritage assets - Lambeth Palace and the Albert Embankment upstream, and the Palace of Westminster World Heritage Site downstream.







