



Bridging the divide

London's forthcoming - and controversial - Garden Bridge is set to offer pedestrians fine views of the capital from an oasis of horticultural excellence, with plantings devised by landscape designer Dan Pearson

Author: **Dan Pearson**, designer of the 'Laurent-Perrier Chatsworth Garden', Best Show Garden, RHS Chelsea Flower Show 2015

The Garden Bridge is to be a new 366m (1,200ft) footbridge that will stretch across the River Thames, from beside Temple underground station on the north side of the river across to the South Bank. But, excitingly, this will be a bridge with a difference: the new pedestrian route takes the form of footpaths that weave through an expansive garden, open between 6am and midnight, and free to all.

Garden Bridge will offer a new kind of green space, cementing London's status as the greenest European capital, and providing a centre of horticultural excellence. Planting has been designed to ensure

it frames and enhances views of London landmarks, and echoes the rich cultural heritage of the River Thames and both its riverbanks.

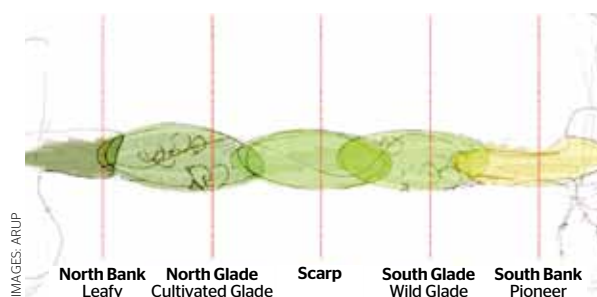
Planting has been inspired by the capital's history of plant communities and gardens over the centuries. Its design will tell the story of London's horticultural development, from the

wild marshland past of the South Bank to the ornamental gardens on the north, using a combination of native and cultivated plants to create a garden rich in biodiversity and horticultural interest.

Drawing on history

Until the 18th century, much of the South Bank was still marshland, protected from the influx of the Thames by embankments that were built up in Roman times, possibly even earlier. This is reflected in the street names, such as Lower Marsh, Upper Marsh, Bankside and Upper Ground, among others. In 1779, William Curtis (Director of Chelsea Physic Garden 1772-77), >>

A sketch plan (below) showing the five different planting areas or 'chapters' progressing across the bridge.



IMAGES: ARUP

Garden Bridge

established his own London Botanic Garden at Lambeth Marsh. His book *Flora Londinesis* featured wildflowers native to the capital. Historically, the southern bank of the Thames was also the site of osier (willow) beds, which have inspired a link to pioneer species that will be planted to colonise this end of the bridge.

Gardens of the north

Across the Thames, the Middle and Inner Temples were developed by the Knights Templar (a warrior religious order of wealthy and powerful individuals) from the 12th century, with gardens a key feature. Reputedly, the Knights brought back to the site many plants from the Holy Land, including figs, roses, irises and lavender. The gardens became revered in gardening circles over the centuries. The grandfather of great garden designer Gertrude Jekyll was Superintendent of Inner Temple Garden from 1810–19, while William Robinson (the Victorian gardener responsible for the concept of ‘wild’, naturalistic gardening) was also involved in the management of the gardens; between 1888 and 1911, Inner Temple Garden was used by the RHS for its flower shows. These historical precedents have informed the choice of ornamental plants in a naturalistic style juxtaposing the hardness of the city.

Actress Joanna Lumley, originator of the idea for the Garden Bridge, wanted it to be the slowest way to walk across the Thames, so we have designed a series of ‘chapters’ that unravel a horticultural journey. Five habitat and landscape chapters respond to the climatic conditions over the river, and to the bridge construction – which provides varying soil depths. Above the piers, soil is deepest (2m / 6½ft) which enables us to plant two copses to divide planting zones. The shallowest areas (40cm / 16in) dictate different planting yet allow a soil layer for roots to grow into, including areas under paths and paving.

Four main pathways running north-south will pass through the copses, past 19 balcony gardens >>

Progressing across the Thames: the five main planted areas

North Bank

As the bridge sails over Victoria Embankment, planting will provide a visual connection to mature London planes found here, as well as a leafy association to nearby Inner Temple Garden. Historical links to the area are made with *Laurus nobilis* f. *angustifolia* and cut-leaved *Ficus afghanistanica*, while vines, jasmine and *Wisteria* will be encouraged to trail for a visual connection to embankment pavements below. Underplantings of evergreens such as winter-flowering *Iris lazica* provide year-round interest, while exotics such as silvery-leaved *Astelia chathamica* link to the UK’s passion for plantsmanship and discovery.



(Clockwise from top left) *Iris lazica*, jasmine, wisteria and bay.



To the north, *Camellia sasanqua*, *Betula nigra*, *Malus* and magnolias will thrive.

North Glade

The North Glade will be a secluded woodland environment but, in contrast to the South Glade, inspiration here is drawn from parks and gardens of old London. Planting will be subtly more ornamental. Trees provide seasonal interest: spring blossom from magnolias, autumn colour from maples and *Malus*, textured bark from *Betula nigra* and winter flowers are provided by *Cornus mas*. Hedging plants include yew, holly and blight-resistant *Buxus sempervirens* ‘Bowles’s Blue’. *Viburnum farreri* ‘Candidissimum’ and *Camellia sasanqua* will perfume the air, while an apple tree and a medlar illustrate Britain’s long association with edibles.

Scarp

With its open environment, the central span of the Garden Bridge will be the most challenging area. Plants have been chosen for their adaptation to exposure; many capture wind in their foliage or branches to animate this area of the bridge, creating an environment inspired by a scarp slope or cliff-top landscape. *Pinus mugo* and *Arbutus unedo* provide evergreen volume and a foil to hardy maritime plants with scented Mediterranean aromatics, including lavender, flowering sages, thymes and *Salix lanata*. Restio *Thamnochortus insignis* and thrift reflect the play of wind in their foliage and flowers.



Lavender, sage, *Pinus mugo* and *Arbutus unedo* lend a Mediterranean air.



Hawthorn, snowdrops, *Iris foetidissima* and *Galium* will create a woodland feel.

South Glade

The South Glade will be an ‘immersive’ woodland growing out of the coppiced willows to the south, featuring natives and ornamentals selected for spring blossom and autumn fruit. *Betula nigra*, cut-leaved alder and *Alnus glutinosa* ‘Imperialis’ will form dappled shade, while wild pears provide spring blossom and fruit for birds. Hedges will contain evergreen box, berrying hawthorn and native sweet briar roses for perfume. Perennials such as *Galium odoratum* and *Iris foetidissima* will be underplanted with wild strawberries intermingled with grasses, snowdrops and wild daffodils for spring interest.

South Bank

Approached from the southern end, planting on the Garden Bridge will have a wild feel and include pioneer species once common on Lambeth Marsh. It will also feature plants that were native to central London, such as birch, honeysuckle, primroses, violets and hops. Willows will provide winter stem colour and early catkins for pollinators, and these trees will be coppiced on rotation for a sense of dynamism and regeneration. Planting will include *Crataegus monogyna* ‘Biflora’ (Glastonbury thorn, a twice-flowering hawthorn) and Dunwich rose (a plant from coastal Suffolk) as well as bulbs and perennial fruiting plants.



Willow catkins, Dunwich rose, birch and primrose will grow at the South Bank.

‘Five habitats and landscape chapters respond to the climatic conditions over the river, and to the bridge construction’



which enable visitors to enjoy views of London framed by foliage. Though planting is gradual in its change through the five chapters, each resting area or ‘dwell space’ has an individual mood and identity. Benches will provide places to sit and site-specific lighting will bring the garden to life after dark.

Greening the bridge

Naturalistic planting is inspired by wild plant communities, using plants chosen to suit the local environment as well as having aesthetic value and the ability to support ecological diversity. Planting will include British and north European natives as well as garden plants from all over the world, maximising the season of interest, not only for visitors but also for the many pollinators and birds we aim to attract to foster biodiversity in the heart of the city. The ecological debate on the value of native versus ornamental plants is led by RHS research and we feel confident to be at the forefront of such planting. In selecting plants for this location, choosing the right plant for the right place is a key ethos. Multistemmed trees will be used for their low centres of gravity and ability to flex in the wind. Planted at no taller than 5m (16ft), they will be grown for two seasons in a windy position at Deepdale Trees in Bedfordshire, to

help acclimatise them. A series of radial hedges, clipped to 75cm (30in) will help provide microclimates, while an irrigation system has been incorporated to help establishment as well as for use in drought conditions. There will be interest in every season with a sequence of spring blossom and bulbs, summer-flowering perennials flourishing below shrubs, autumn colour from fruit and berries, and winter interest provided by evergreens, trees with coloured bark, skeletons of perennials and scented winter-flowering shrubs followed, once again, by early spring bulbs. The impression of more gradual change is to be introduced with coppiced willows near the South Bank, while quick-growing ‘nurse’ trees nurture noble oaks that will slowly mature, changing the profile of the bridge over generations. Long term, the management and maintenance of the Garden Bridge

Planting will include 270 trees, 2,000 shrubs and climbers, and many more perennials and bulbs (above left). The north end of the bridge will be adjacent to the top of Temple underground station (above right).

Around 40 percent of the bridge’s total area is devoted to planting, equating to 2,500sq m (27,000 sq ft). The design of the bridge and its planting has been modelled extensively (below).



is flexible. With time and increasing maturity, the plant community will adjust as individuals compete for space, nutrients, water and light, but the aim is to encourage biodiversity and changeability rather than provide a fixed, static vision. Importantly, the bridge will have an educational role. The dedicated team of gardeners who ensure planting thrives will maintain a vital people-plant connection, encouraging visitor interaction. Horticultural apprenticeships will be available, and it is hoped to establish a volunteer scheme for local community involvement for those wishing to work on the gardens. Who knows, schoolchildren of the future could be growing plants from seed collected on the bridge, spreading far and wide the plants and the knowledge used to raise them. Not to mention the stories and history behind the bridge itself. ●

PROJECT DETAILS

Idea originator: Joanna Lumley. Location: from the north bank of the Thames by Temple underground station, to the South Bank. Bridge design: Heatherwick Studio. Engineers: Arup. Planting design: Dan Pearson Studio. Soil supplier: Tim O’Hare. Contractors: Bouygues Travaux Publics and Cimolai (preferred bidders; to be confirmed early 2016). Total projected cost: £175m.

Garden Bridge timeline

1998

Joanna Lumley has the original idea for a ‘floating’ garden for pedestrians that spans the River Thames.

2012

Architect Thomas Heatherwick and landscape designer Dan Pearson begin to work on ideas for the Garden Bridge.

2013

Arup, Heatherwick Studio and Dan Pearson Studio officially appointed; Garden Bridge Trust formed to deliver the project and raise £175m.

2014

Planning application for the Garden Bridge submitted; plans approved by Lambeth and Westminster councils.

2015

Judicial review application appeal hearing.

2016

Construction begins off-site (in Italy).

2017

Bridge to be floated up the Thames on barges and fitted into place. Podiums to be built.

2018

Soft landscaping of the bridge will begin. Bridge due to open.

2019

Bridge building specialist Bouygues Travaux Publics and steel manufacturer Cimolai appointed as preferred bidders to build the bridge.

2020

Ground surveys of the North and South Banks and the River Thames conducted.

2021

Prototypes of bridge manufactured by Cimolai and images released.

2022

Tree selection begins from stock at nurseries in northern Europe and the UK.

Dividing opinions

Much has been written and spoken about the Garden Bridge, with views both for and against the project

Jim Gardiner, RHS Executive Vice President
The Garden Bridge will be open daily, offering visitors a free and unrivalled method of crossing the River Thames, walking through a garden landscape that has been expertly crafted by one of the world’s most creative garden designers, and whose plantsmanship skills will be evident in all the inspiring plant associations on view.

People of all ages will learn from this ever-changing horticultural and educational experience; the project’s benefits will spread widely across the horticultural industry, as people are inspired by the plantings on show. Paths across the bridge (itself wider than nearby Waterloo Bridge) will encourage visitors to meet, provide pedestrians with sensory and health benefits, and offer some of the world’s finest views, all framed by plants.

Andrew Fisher Tomlin, Chairman of the Selection Panel for RHS Chelsea Flower Show
I’m not against the idea of a garden bridge; we already have many throughout Europe (there are more than 600 in the Netherlands alone). But I don’t feel this is the right location and we shouldn’t be gifting public space to private ownership.

So much has been written about the procurement process and the design of the bridge, both by those in favour and those against the project, that it is difficult to know what to believe. Certainly the bridge will have wildlife value and will be something of a spectacle, but it will also destroy historic views. Using the £30 million spent by HM Treasury to help fund the project, we could provide so much more for community gardens and public parks across the UK.

Tim Richardson, Director, Chelsea Fringe Festival
My main objection to the Garden Bridge is the huge initial cost to taxpayers with no tangible benefits for ordinary people. The Treasury pledged £30m and Transport for London (TfL) another £30m. The sum from TfL has been ‘reduced’ to £10m but, in fact, the other £20m is now simply considered a 50-year loan. And on top of this, TfL has already pledged to foot the maintenance bill of several million pounds a year.

This is to be a tourist destination linking two parts of London which don’t need linking; it is a bauble for a mayor eager to create a legacy. It will also ruin one of the best views in London – from Waterloo Bridge to St Paul’s. The Garden Bridge does not reuse redundant infrastructure (as the High Line in New York, USA did) and it does not help regenerate business and community life in an area which needs a boost. The cultural hub of the South Bank Centre is already packed, while the Temple on the north bank is a rather rarefied zone, reserved for high-powered lawyers.

Hundreds of new parks and open spaces could be created with this cash; the bridge is not even going to be publicly owned, but managed privately and used for money-making activities (when it will be closed to the public).

Sally Scantlebury, Farm Manager, Oasis Garden Farm, Waterloo, South London
This new public garden will benefit the whole community. And, on top of that, it will give the students at our two local Oasis Academies – as well as all the other schools in the area – a wonderful chance to learn more about horticulture and the importance of creating green space in the heart of the city.