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Building bridges

This is a book about the spaces of 'modern cities' in Britain and North America during the second half of the nineteenth and the first third of the twentieth centuries, a period often identified as quintessentially 'modern' by cultural historians. For a simple working definition of 'modern' I will begin with Marshall Berman's 'dynamic and dialectical modernism' concerned with the 'intimate unity of the modern self and the modern environment'.[1] My interest is in the relationship between the modernisation of environment and society, the introduction of new ways of making sense of a changing world, and the development of new forms of self- and group-consciousness through the experience of modernisation. All these themes are predicated upon a 'shock of the new' – the realisation that now is not the same as then, but that there is an ongoing dialogue between past and present, remaking the past to serve the purposes of the present, the fetishisation of some aspects of the past in an 'invention of tradition', the rejection of other aspects in order to validate the new, but sometimes also the retention of the past as 'other' as a continuing proof of the superiority of the new.[2]

In practice, I will explore, on the one hand, new modes of representing city life, by social commentators, reformers, cartographers, novelists, artists and social scientists, and on the other, the planning, construction and use of new types of space within cities: new streets and public spaces and ways of modernising existing streets and spaces, new forms of residence in suburbs, apartment houses and 'model dwellings', new types of workplace, especially in office buildings, new spaces of consumption and recreation in department stores, exhibition buildings, parks and gardens, and new forms of connections between these segregated, specialised spaces – tramlines, railways above and below ground, pipes, sewers, cables, wires, the infrastructure vital to sustain circulation of people, goods and ideas in the forerunners of today's 'networked cities'.

I want to emphasise the active role of space in stimulating new forms of representation and shaping new identities. Space is not simply a container in which modern life is played out. Rather, the ways we conceptualise and operationalise space are products of political, economic, social and cultural processes. In turn, the organisation of space offers opportunities and constraints for the further development of those processes. For example, new artistic forms – such as the shift 'from realism to

the "impression"'[3] – emerged principally in major cities because that is where artists congregated, where an art market developed among a new urban bourgeoisie, where there were new subjects for art, including new sites and viewpoints, where the coincidence of all these things stimulated imagination and innovation – technologically, financially and artistically.[4] Earlier versions of this synergy might be associated with renaissance Florence or early modern Amsterdam,[5] but the scale of stimulation for change was of a different order of magnitude in nineteenth-century London, New York or Paris.

Within modern cities, rationalism – the search for spatial and economic order and efficiency, as embodied in planning, zoning and regulation – made space for pluralism – an increasing diversity of social, ethnic and gendered identities.[6] The development of specialised neighbourhoods did not simply accommodate existing classes, 'races' and sexual identities, but provided spaces in which hybrid identities emerged. To be Irish in 1850s London or Jewish in 1900s Toronto was not the same as to be Irish in Kerry or Jewish in Kovno. Broadway and Fifth Avenue, Times Square and Central Park, Regent Street and Victoria Street, Trafalgar Square and Piccadilly Circus, all offered new public spaces which stimulated new forms of looking and performing. At the scale of individual buildings, too, skyscrapers, department stores and mansion flats were more than containers for new functions and peoples; they offered the possibility (or the threat) of cross-class or cross-gender interaction; they required new ways of thinking about private and public space.

This implies a Lefebvrian view of the production of space, connecting 'representations of space', conceptualisations made by planners, politicians, academic theorists, the discourse of the powerful, telling us how space should and *will* be organised, to 'representational spaces', the spaces of the imagination, of resistance, of carnival, of subversion and appropriation made by the powerless. The third element of Lefebvre's spatial theory – 'spatial practices' – involves the implementation of both sets of visions as far as power allows: actually building an environment of boulevards or tower blocks, or introducing regulations to control land use or manage traffic; or of occupying space, not just symbolically, as in carnival, but in the practices of everyday life, the routine of the journey to work, or of house-hunting, or the 'polite politics' of tactical transgression associated with Michel de Certeau: what people actually do in spaces.[7]

De Certeau is also relevant for the contrast he drew between the panoptic view from above, discerning order at the expense of familiarity with individual actors, and the perceptions of walkers at street level, fully engaged with their immediate surroundings but unable to see beyond them. De Certeau distinguished between 'place' which we map, and 'space' which is actualised through the tour. 'Place' implies stability and an outsider's view, 'space' is about direction, movement, velocity. Space is a 'practiced place'. In Lefebvrian language, place can be associated with representations of space, while space, in Andrew Thacker's reading, is a combination of representational space and spatial practice.[8] This is useful in thinking about forms of representation in fiction, but it can be applied more widely, for example to contrast representations of cities as organisms or networks – as connected spaces – and as mosaics of different places. A recurring theme in cultural analyses of modern cities is

the creative tension between increasingly structured and segregated spaces and the opportunities among socially and geographically mobile populations to transgress the boundaries between them.

Representation lays stress on visuality and there is no doubting the significance of spectacle and display in modern cities, the self-consciousness of seeing and being seen that connected citizen and government, individual and crowd, performer and audience. Reacting against an overemphasis on representation, Patrick Joyce, in his introduction to *The Rule of Freedom*, claims to be less interested in 'the idea of a static and monolithic social *order*' and more concerned with 'the idea of social *ordering* as a fluid, open and many-stranded activity'. Consequently he focuses on 'questions of *agency*' – how things work – rather than representation – 'what things *mean*'.[9] Joyce's focus is on issues of governmentality and performance. But the language of representation is not incompatible with that of performance. Our knowledge of historical performance necessarily depends on representations in contemporary media or on our 'reading' of archaeological, architectural and environmental 'traces'; and the effectiveness of a 'rule of freedom' depends on citizens perceiving – representing to themselves – the disciplines of improvement and technology in ways intended by their instigators.

Nigel Thrift wants to dispose altogether of the language of modernity, which he sees as reductive and ahistorical. The 'shock of the new' cannot be confined to changes in politics, science and technology in the wake of an eighteenth-century enlightenment. 'Time-space compression' has gone on for millennia; the sense of alienation and 'placelessness' associated with modern cities is merely a reflection of people's inexperience with new places which, in time, come to be just as personal communities as the supposedly pre-modern places they left behind. Thrift is particularly concerned that portmanteau terms like 'modernity', 'capitalism' and 'imperialism' imply an inevitability about processes which, in reality, were tentative and uncertain, which could have turned out differently. Rather, we should focus on difference, on individual agency, on performance, on knowledge, on the interaction between rationality and irrationality.[10]

My intention in this book is not to add to the weight of social and cultural theory of modernity. I will continue to use 'modernity' as a form of 'historical shorthand',[11] acknowledging Thrift's caveats but also the self-evident truth that in Britain and North America and most other 'western' nations the nineteenth century witnessed urban growth, immigration and cultural diversity, and technological change on an unprecedented scale. But modernity for me is also a method, enshrined in Berman's dialectic between modernisation and identity, or Harvey's Marxist–humanist analyses of the experience of urban capitalism.[12] I aim to build bridges connecting cultural and economic interpretations of urbanisation, and between qualitative and quantitative modes of analysis, abstract theory and the wealth of often untheorised or differently theorised empirical studies of nineteenth- and early twentieth-century cities. To this end, I will devote most of this introductory chapter to the stories of three bridges, whose histories embody the range of arguments I want to make about the order, the ordering, the experience and the performance of cities at the end of the nineteenth and beginning of the twentieth centuries.

Three bridges: Brooklyn Bridge, Tower Bridge, and Bloor Street Viaduct

Brooklyn Bridge

In 1995, as she prepared to move after nearly sixty years in the same house, my mother uncovered a slim picture book – *New York Illustrated* – price 25 cents, undated but apparently published around the end of World War I: the title-page illustration depicted the temporary 'Arch of Victory' erected at Fifth Avenue and 24th Street (Madison Square) to celebrate the end of the war.[13] Facing this, the inside cover included scenes of 'Old New York', pointedly emphasising the extraordinary and never-ceasing transformation of the city over the preceding century. The message was reinforced by the captions accompanying these picturesque illustrations: 'This old wooden house stood no later than 1849 at a spot on 45th Street, near 5th Avenue. This has now become the most fashionable section of the city, famous for its costly residences and the millionaires that occupy them.' A sketch of City Hall noted that it 'was built in 1812 at the spot which was then the City limit. No one then ever thought the city would extend 16 miles north of that point. Skyscrapers have since taken the place of 2 and 3-story structures . . .' After this celebration of modernity through its 'other', most of the booklet's illustrations recorded the landmarks of new New York – the Statue of Liberty, the Woolworth Building, and a host of then-prominent office buildings and hotels, some either artists' impressions or heavily doctored photographs. One illustration – and only one – depicted immigrant New York, exoticising Chinatown as a place of otherness: 'Chinatown, with its crooked streets, its houses with subterranean communications, its joss houses, its secret societies and organizations, is still a problem to the New York Police. . . . It is a curious sight at night, and attracts a big crowd of visitors.' As intriguing as the caption's emphasis on the spectacle of deviance is the provenance of the illustration, derived from a photograph by Arnold Genthe which the Museum of Modern Art confidently identifies as 'Street of Gamblers (Chinatown, San Francisco)' and dates to the 1890s.[14] Evidently, the factual accuracy of the illustration was secondary in importance compared to the evocation of a counter-modern other at the heart of the modern city.

However, it is the cover illustration of *New York Illustrated* which most attracted me. This illustration, in colour, depicted Brooklyn Bridge as a gateway to the cornucopia of opportunities represented by the skyline, rising behind the Manhattan tower of the bridge as viewed from the top of the Brooklyn tower. The central span, viewed end-on, provides a ceremonial avenue into the city, and the twin arches of the tower at the Manhattan end are both gatehouse and victory arch – welcoming but also regulating the pilgrim's entry to the promised land (Figure 1.1).

The building of Brooklyn Bridge was a heroic undertaking. There were plans for a bridge across the East River from early in the nineteenth century. As shipping increased, there was conflict between ferries crossing the river east–west and ocean-going vessels moving north–south. A bridge would stimulate a rise in property values in Brooklyn, encouraging more workers in downtown Manhattan to make their homes there; but it would need to allow unimpeded passage for river traffic. Hence the idea for a high-level suspension bridge. John Augustus Roebling, who had already built suspension bridges and aqueducts in Pittsburgh, Niagara, and

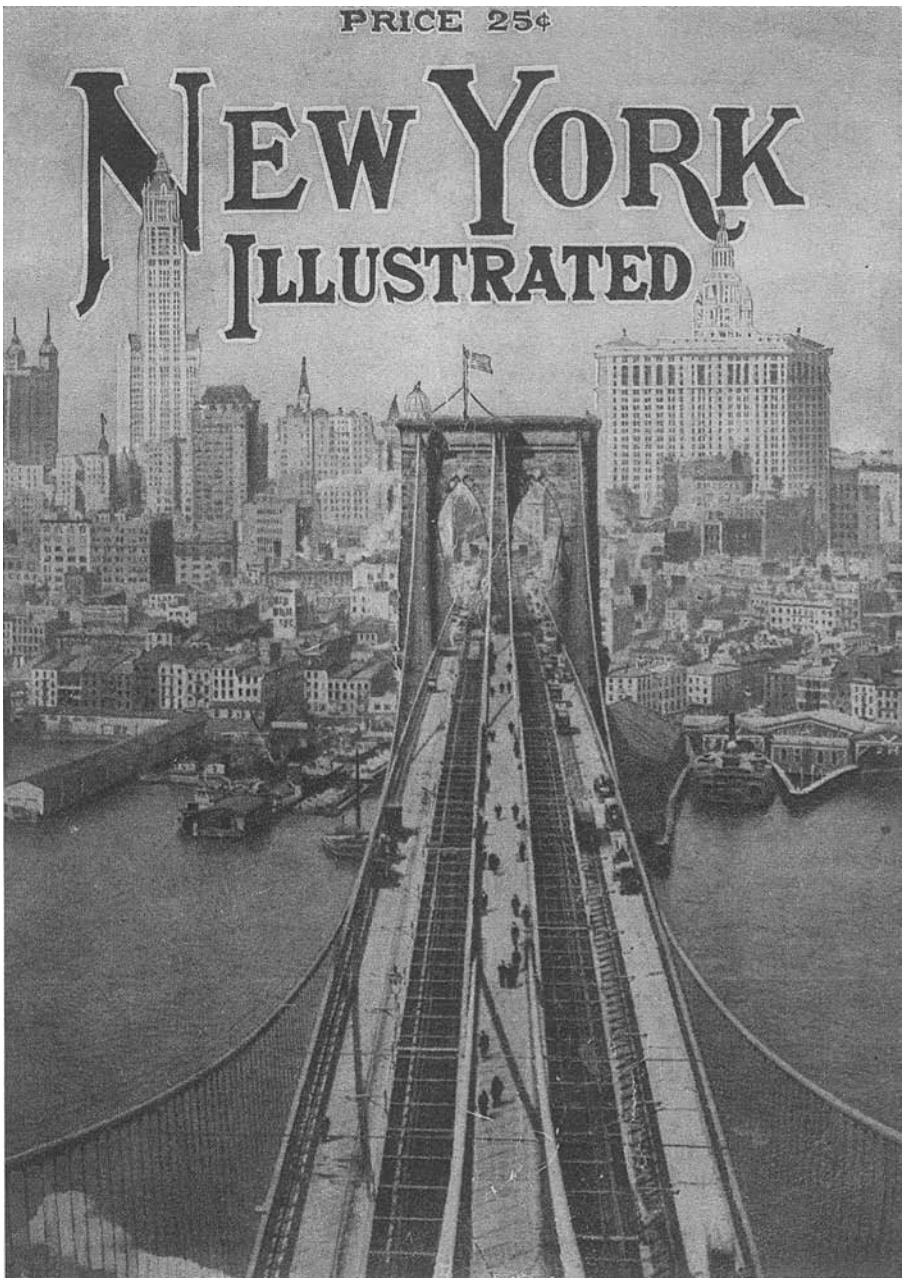

Figure 1.1. Brooklyn Bridge, from the Cover of *New York Illustrated* (c.1919) (Author's Collection).

along the Delaware & Hudson Canal, first put forward proposals for a bridge across the East River in the mid-1850s, but it was not until 1867 that a bridge company was officially chartered.[15] Roebling envisaged that New York would soon overtake London as the centre of world trade and that his bridge would need to be supplemented by further connections between Manhattan and Brooklyn, including tunnels under the East River. In practice, the first subway tunnel was opened

in 1909, by which time the Williamsburg and Manhattan Bridges had also been completed.[16]

Eventually begun in 1869, but not completed until 1883, construction of the Brooklyn Bridge proceeded despite the early death of its designer, fatally injured when a ferry collided with the jetty from which he was surveying the site for one of the towers. About twenty navvies also died during the building work, mainly those working long periods in caissons (compressed air chambers) beneath the riverbed, attempting to find bedrock on which to anchor the two towers. Washington Roebling, who took over from his father, himself fell victim to 'the bends' (decompression sickness) while supervising work in one of the caissons, and from 1872 onwards was obliged to direct operations from his invalid's bed in a house on Brooklyn Heights. The bridge was celebrated as a technological marvel, an eighth wonder of the world, 'more wonderful than the Pyramids'.[17] Moreover, the Pyramids had been built by slave labour whereas Brooklyn Bridge was 'a monument to the skill of a free people'.[18] With a main span of 1595 feet, it was the longest suspension bridge in the world, efficiently segregating different categories of traffic: outer lanes for road traffic, middle lanes for a cable-operated, later electric, railway, and an elevated pedestrian boardwalk. The latter was envisaged not only as a walk for commuters, many of whom in fact proved to be in too much hurry not to use public transport, but also as a healthy promenade, a downtown equivalent of Central Park.[19]

When erected in 1875, the towers of the bridge, each 277 feet in height, were the tallest non-religious buildings in the city, allowing photographers such as Joshua Beal to produce panoramic views hitherto possible only from the less secure vantage point of a hot air balloon (Figure 1.2).[20] New Yorkers could start to make sense of their city from above, much as de Certeau discussed, yet without resorting to flights of fancy. In the ease of access (if not to the towers then at least to the boardwalk, itself high enough to offer a view over and into what was still a low-rise city in the early 1880s), there was also a sense of democratisation: everybody (or, at least, everybody who could afford the one-cent toll) could survey and make sense of the city.

Brooklyn Bridge straddled not just the East River but, in its lengthy approaches, several blocks of eighteenth- and nineteenth-century counting-houses and warehouses on and behind the waterfront. The modern city was superseding and surpassing the old mercantile city. The practical reason was to provide a gentle approach for pedestrians, horse-drawn vehicles and cable cars, but the effect was to deposit those who crossed the bridge right in the heart of the city, City Hall to the right and a proto-skyscraper, the 260-feet high Tribune Building, to the left. During the decades following the opening of the bridge, this area became the core of modern Manhattan, flanked by additional newspaper head offices to the south, massive new municipal buildings to the north, and the 792-foot Woolworth Building closing off the view to the west.

It is not just for its technological modernity, its segregation of users, or its contribution to efficient circulation that Brooklyn Bridge merits its place in this introduction. It also quickly assumed the status of an icon. The combination of Gothic arches and immensely strong steel cables embodied the integration of old and new, tradition and modernity, just as many pre-World War I skyscrapers combined steel frame, electric elevators and lighting with curtain walls decked out with Gothic detail, crenellations, grotesque gargoyles and other medieval affectations. Such a hybrid of Gothic and

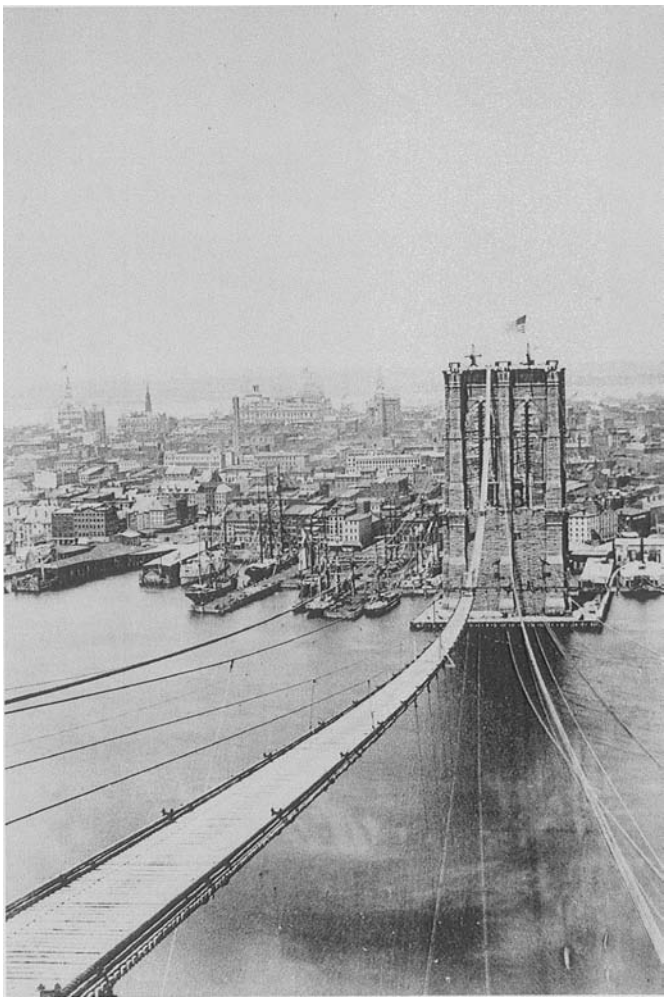

Figure 1.2. Brooklyn Bridge Under Construction with a View over Lower Manhattan (c.1880). By kind permission of Royal & SunAlliance Insurance Group plc; Guildhall Library, City of London Ms 31522/285.

modern was not to everyone's liking. The contemporary architectural critic, Montgomery Schuyler, 'admired the engineering but deplored the art'. He praised the steel superstructure as an honest marriage of form and function, but thought that the Gothic towers disguised rather than emphasised the structural elements of the bridge.[21]

Brooklyn Bridge may have provided a link for commuters from Brooklyn to Lower Manhattan, but in spirit, it was a bridge from the Old to the New World. It was sketched, painted and eulogised endlessly in literature and film. Most artists celebrated it as gateway to Manhattan, or exaggerated its elegant curvature to imply a kind of balletic movement, an exuberant take-off into the modern world.[22] But a few representations depicted the vertical cables as prison bars, the city seen through a wire mesh and under storm clouds.[23] Brooklyn Bridge could be a place for romantic meetings but also the ideal location for suicide: a consummation of the individual's new-found freedom, or of the city's potential for alienation. As an example of

'absolute stability' created out of an 'aggregation of unstable elements', of conflict translated into harmony, the bridge was a parable of what America could become, a moral as well as a mystical symbol.[24] In 1923, the year after publication of T. S. Eliot's *The Waste Land*, Hart Crane began to write his epic poem, *The Bridge* (1930). In *The Waste Land*, the crowd that flowed over London Bridge was a procession of the dead; but Crane wanted to celebrate life in his use of Brooklyn Bridge. In the same vein, Lewis Mumford, the eminent American urbanist, confessed to a transcendental vision while crossing the bridge in the 1920s. Setting off from Brooklyn late on a blustery March afternoon, but with enough light in the sky for the Manhattan skyscrapers to appear in silhouette against a setting sun, Mumford claimed to sense his whole life laid out before him, and to be conscious of 'the power and glory of the present world'. So, to quote Alan Trachtenberg, the bridge provided 'a roadway for traffic below and a structure for poets above'.[25]

More commercially, but often as imaginatively, Brooklyn Bridge was used to sell everything from beer to Vaseline, boots to 'Pinkham's Vegetable Compound'. Most appropriately, an advertisement featuring a side-on view of the Brooklyn Bridge, emphasising the strength in elegance of the suspension cables, asked 'Have you a Singer sewing machine?'[26] Singer's own headquarters, at Broadway and Liberty Street, not far from the Manhattan end of the bridge, a 47-storey, 612-feet high, dome-topped tower, completed in 1908 and, briefly, the world's tallest building, was itself as important symbolically as commercially, an unmistakable shape for a company logo, and a popular subject for painters and photographers (Figure 1.3).[27]

Back in 1883, the *Brooklyn Daily Eagle* had sought to position the opening of the bridge in the context of world geography and history. The paper noted how the bridge provided an incentive to unite the two sides of the East River administratively and politically in a single city, just as 'it is London on both sides of the Thames and Paris on both sides of the Seine'.[28] Opening Day, 24 May 1883, coincided with both Queen Victoria's birthday and the crowning of Tsar Alexander III in Moscow. The spontaneous celebrations of a 'free people' in Brooklyn were contrasted with the orchestrated celebrations of imperial subjects. Festive displays in the city's shop windows plundered the classics for quotations applicable to the bridge: 'Here's metal more attractive' (Hamlet); 'We extol ancient things, regardless of our times' (Tacitus).[29] With no hint of irony, or recognition of the fate that ultimately befell the cities to which it alluded, a leading Brooklyn department store proclaimed that 'Babylon had her hanging garden, Egypt her pyramid, Athens her Acropolis, Rome her Athenaeum; so Brooklyn has her Bridge'.[30]

Yet Opening Day proved a highly contested occasion: Irish labourers protested at the choice of Queen Victoria's birthday, Brooklyn's Common Council *directed* its citizens to take a day's holiday whether they wanted to or not, no construction workers were invited to the official opening, and the general public were not allowed onto the bridge until midnight, and then only on payment of the toll. Haw concludes that 'Rereading the opening day from a historical distance, we find little in the way of democratic practice or public support. Instead, we discover a tightly controlled municipal event characterized by segregation and omission.'[31] There could be few better illustrations of the tensions between disciplinary and liberating dimensions to modernity.

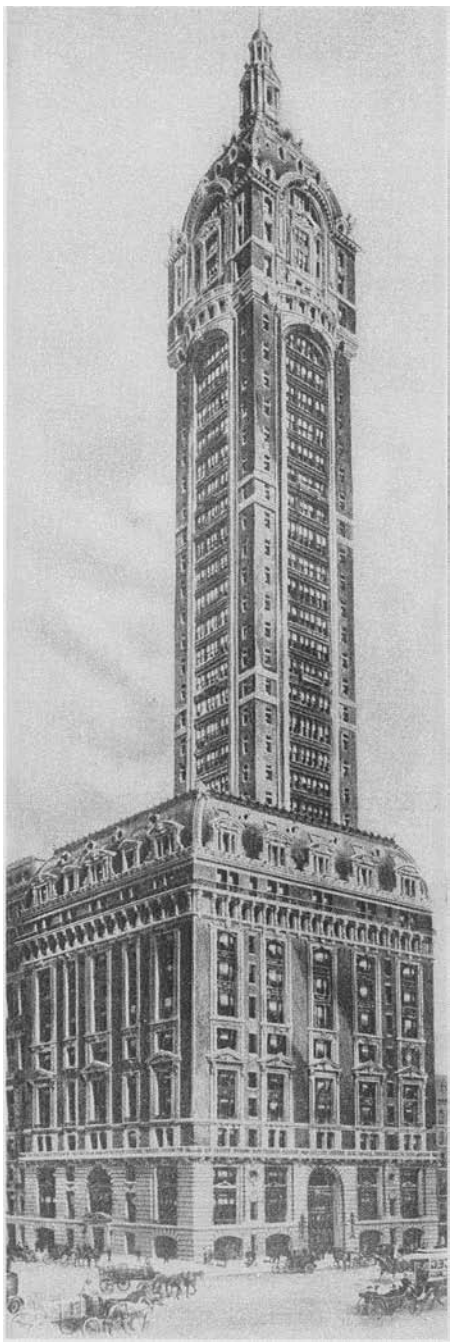

Figure 1.3. Singer Building, Lower Manhattan, from *New York Illustrated* (c.1919) (Author's Collection).

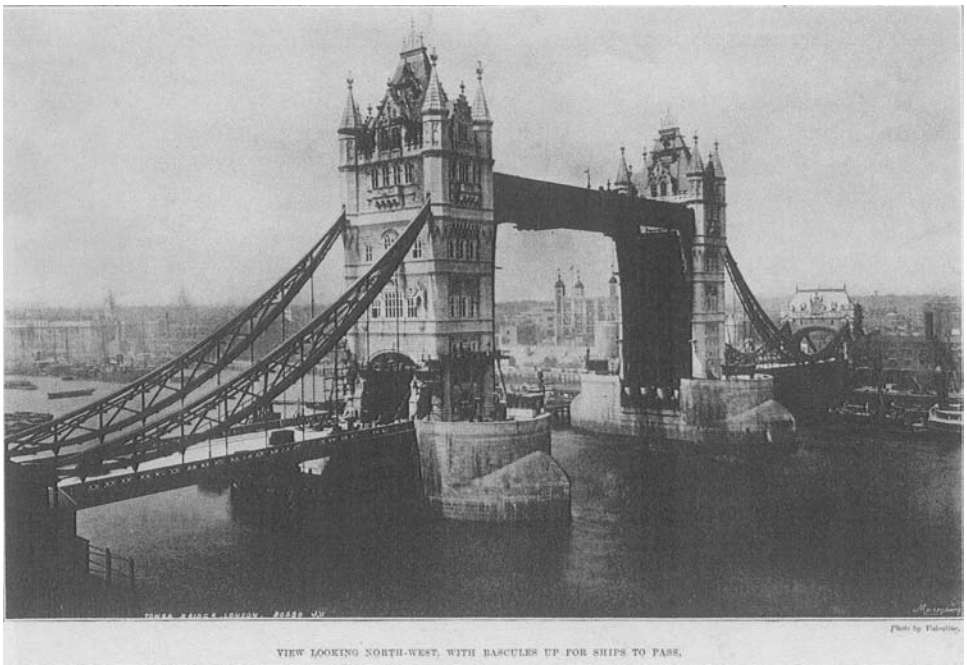

Figure 1.4. Tower Bridge in 1894: 'View looking north-west, with bascules up for ships to pass'. *Illustrated London News*, 30 June 1894, p. 817. Senate House Library, University of London.

Tower Bridge

London's Tower Bridge may seem more like tourist kitsch than modern icon. Yet, in its more vulgar way, it too embodies the integration of tradition and modernity (Figure 1.4). The need for a river crossing downstream from London Bridge, but which still allowed ocean-going vessels passage to wharves facing and adjacent to the Custom House, such as Hay's Wharf and Billingsgate (London's fish market), became more acute during the course of the nineteenth century. London Bridge had been rebuilt in 1831, but mid-nineteenth-century prints show it intensely congested with commuters, travelling between south London suburbs and the City, entangled with carts moving both everyday goods and cargoes to and from the docks and riverside wharves.[32] Two pedestrian tunnels had been constructed under the Thames, completed in 1843 and 1869. Like the Brooklyn Bridge, the Brunels' Thames Tunnel – between Wapping and Rotherhithe – suffered a succession of engineering and financial crises during a 20-year construction period. It had been intended for vehicular traffic, but there were insufficient funds to build ramps at each end, so it catered solely to pedestrians until, as the novelty of a lengthy underground promenade wore off, it was converted to a railway tunnel in the 1860s. The Tower Subway, opened in 1869 between Tower Hill and Bermondsey, was more speedily and efficiently constructed, a successful trial for James Greathead's tunnelling shield which was subsequently used to construct London's tube network; but it was a tiny bore (only seven feet in diameter) of limited capacity. Originally intended to carry a cable-operated tramway, it was soon converted to pedestrian use.[33] Both tunnels therefore allowed workers, whether City clerks or dock labourers, to cross the Thames, but at the cost of a