London's high-rise skyline may not reach the heights of Shanghai or Dubai, but with icons such as the Gherkin and the Shard, the city stands tall on the world skyscraper stage. What few realise is that London has been building great skyscrapers since 1929

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ondon Transport's stone cruciform headquarters at 55 Broadway was the capital's first high-rise, standing 53 metres and 12 storeys above St James's Park Underground station. It was a sixth of the height of New York's contemporaneous Chrysler Building, but there was a reason why London was not building high: building regulations limited height to 30m, or the longest fireman's ladder. Architect Charles Holden got around that by designating the tower head of 55 Broadway for storage, a trick he later repeated at London's tallest pre-war skyscraper, University College's monumental library building Senate House.

Not until 1956 were London's heightlimiting regulations lifted. In this optimistic time of national recovery, architects were obsessed with the fresh, functionalist ideals of modernism. When the distinguished architect Howard Robinson designed

55 Broadway/St

James's Park

the Shell Centre, there was outrage that it was not in keeping with the steel-and-glass box style, like the latest towers rising in Manhattan, There, Mies van der Rohe created the ideal in the Seagram Building a severely minimalist tower with curtain walls of dark glazing, rising from a clear plaza. In London, only the St Helen's (previously Aviva) Tower, designed by GMW Architects, followed its style, and established the City skyscraper cluster that is still growing today. Most other office towers were formulaic box slabs mounted on podium buildings, which spread across the metropolis in the 1960s, as did systembuilt social-housing tower blocks.

While much of the new high-rise became banal, there were extraordinary exceptions. Tallest and most bizarre was the Post Office Tower (now BT Tower), designed by the Ministry of Works. This 177m-high

structure, looking like something from a sci-fi B-movie, is not always considered a skyscraper, yet it has 26 inhabitable floors, including a distinctive rotunda housing one of the world's first revolving restaurants.

Richard 'Colonel' Seifert was the most prolific commercial architect of the time. but was dismissed by the architectural establishment as being calculating. He was indeed the master of squeezing the most from planning regulations, and built cheaper and more efficiently than rivals, but he and partner George Marsh were also innovative design geniuses. Their unique, expressionist, blade-thin masterpiece Centre Point, with its hypnotic zig-zag grid facades, was described by artist Eduardo Paolozzi as 'London's first Pop Art building'. It was said that no other architect since Christopher Wren had such an effect on the London skyline, and Seifert would dominate it long after the 1960s.

SKYLINE THAT NEVER SLEEPS



64m, 19 storeys, Charles Holden The centrepiece of University College, this

& Ralph Maynard brooding library tower Smith was said to be designated Just when everything was going glass and steel, by Hitler as London's the trend was defied in this riverside HQ.

Building, West Brompton, 1961 100m, 30 storeys, London's first skyscraper to reach 100m, Now remodelled, it retains its

Shell Centre. Park Lane Hilton.

107m, 26 storeys,

Sir Howard Robertson

101m, 28 storeys, Lewis Solomon Kave Built just down the road from the Dorchester, its height and style reflected the jetsetting world of the 1960s.

Millbank Tower, 1963 118m, 32 storeys, Ronald Ward & Partners Alternate convex and concave facades distinguish this landmark that was originally designed for defence conglomerate Vickers.

Centre Point, 1965

117m, 35 storeys, Seifert & Partners The best (and most notorious) skyscraper by the UK's greatest 20th-century commercial architect, Richard Seifert.

Post Office (now BT) Tower, Fitzrovia, 1965 177m, 26 storeys/54 levels, Ministry of Public Building & Works Once the hub of the microwave-technology trunk phone network, this bizarre B-movie sci-fi tower was for many years London's tallest building.

Tower, then Aviva Helen's Tower. City, 1969 118m, 28 storeys, Architects GMW respond to New York's Seagram Building with a Miesian black-glass

Knightsbridge Barracks, 1970 94m, 29 storeys, Sir Basil Spence The architect of Coventry Cathedral created this landmark to house Household Cavalry

families.

tower concept.

<u>& LONDON</u>

SKYLINES

n the 1970s, brutalist architecture was in vogue. The label derives from the French for raw concrete, béton brut. The architecture exploits concrete's solidity and mass, as do some of London's most distinctive skyscrapers from the period. The Chamberlin, Powell and Bon-designed Barbican Estate in the City includes three virtually identical triangular apartment towers, finished in pick-hammered concrete. Their serrated, angular forms are very different from the Trellick Tower in North Kensington, designed by the radical Hungarian emigré Ernö Goldfinger. He created one of the most recognisable high-rise profiles in the world by using bridges to connect a tower with lifts, a glass boiler-house and other services, to a tower of flats. London's third iconic brutalist skyscraper, Guy's Hospital, is also two towers, but without a gap, and its hammerhead cantilever accommodates a lecture theatre. It is the world's tallest 20th-century medical facility.

Richard Seifert continued to transform the skyline. His final masterpiece was the NatWest Tower, which was London's tallest when completed after nine years in 1980. Engineered by Pell Frischmann, Tower 42 (as it is now known) was one of the most advanced skyscrapers in the world, with innovations such as pressurised stairwells to resist fire – an idea revived after 9/11. Its office floors hanging off its massive concrete core make it the world's tallest 20th-century cantilevered structure.

But architecture was changing in the 1980s. Richard Rogers brought the hi-tech style he had pioneered at the Centre Pompidou with Renzo Piano to London in 1986, in the form of the new Lloyd's Building. The inside-out architecture, where services and plant machinery are outside, free the interior for office space. It was not the only new trend. As Terry Brown, then partner at GMW, recalls: 'Postmodernism emerged, with its historical references and its yearning for cultural depth and complexity.' Its revival of architectural decoration is perhaps most lyrical in GMW's Minster Court, which evokes a gothic citadel.

But these new-style skyscrapers were not particularly high. The Big Bang in 1986 had deregulated trading practices, and overnight the financial sector demanded large electronic trading floors. 'Floorplate' area, not height, was king. The City was hard-pressed to offer sites big enough, and the financial sector looked elsewhere to expand. Canary Wharf in Docklands offered a huge tract of mainly brownfield space, and at its heart a skyscraper was to rise on a scale never before seen in London.

One Canada Square was almost a facsimile of a New York tower by the same developers and architect, but it symbolised London's return as a global financial powerhouse. Ken Shuttleworth, who led the Gherkin's design under Norman Foster, sums up Canary Wharf as 'exactly what the market needed: simple, cool, pure, efficient'.

Residential skyscrapers also re-emerged in the 1980s, this time for the upwardly mobile private buyer. As riverside luxury-apartment-tower developments gradually built momentum, high-rise living transformed into a stylish lifestyle choice.

Trellick Tower, North Kensington, 1972

98m, 32 storeys, Ernö Goldfinger Once the epitome of tower-block hell, Goldfinger's split tower is now bot property and a recognised brutalist masterpiece.

Guy's Hospital, London Bridge, 1975

144m, 32 storeys, Watkins Gray Woodgate International This brutalist bammerbead tower is the world's tallest medical building, now getting a facelift to stand up to The Shard next door. NatWest Tower, now Tower 42,

City, 1980

183m, 42 storeys,
Seifert & Partners
Seifert's last masterpiece
was the tallest
y and
cantilevered building of
the 20th century and
technologically way
abead of its time.

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Lloyd's of London, City, 1986

84m, 14 storeys,
Richard Rogers
Partnership
Richard Rogers'
pioneering bi-tech icon
still stands at the
epicentre of the global
insurance world.

Belvedere Tow Chelsea Harbo

77m, 20 storeys,
Ray Moxley
This modest pyramidroofed tower was the first
riverside luxury tower,
starting a trend that
basn't stopped yet.

Cascades, E14, 1998 64m, 20 storeys,

CZWG

This sloping residential tower brought high-rise living to the borders of Canary Wharf.

Minster Court,
City, 1991
74m, 14 storeys,
GMW
The whimsies of
postmodernism excel
bere – it was Cruella de
Vile's HQ in the film

101 Dalmatians.

One Canada Square, Canary Wharf, 1991

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235m, 50 storeys,
César Pelli &
Associates
A bland facsimile of
the 2 World Financial
Center tower in New
York, but nevertheless
noteworthy for changing
the scale, height and
even geography of
London's offices.



& LONDON SKYLINES

ondon ushered in the new millennium with celebrations that dazzled the world, yet the city centre's skyline seemed frozen in the last century. London's first elected mayor Ken Livingstone and the City's planning officer Peter Rees were determined to change that - the former to attract development revenue to help finance his plans for the metropolis, the latter to tackle the drain of financialsector companies to Canary Wharf and rival European cities. The problem was that new skyscrapers would disrupt the existing layers of urban fabric and the historic skyline - and the heritage lobby was powerful, led by English Heritage.

The test case was the Heron Tower. It cleared its public enquiry in 2002, and that paved the path for a flood of City skyscraper plans, including Norman Foster's Gherkin, whose parametric design and elegance of form made it an instant global celebrity. It had even gained the approval of English Heritage, but they were still to challenge London's most ambitious skyscraper yet, the 306m-high Shard that

overlooks London Bridge, by an architect many considered the best in the world:
Renzo Piano. 'In some ways, the building became better,' he says of the experience of the 2003 public enquiry. The mixed-use tower tells 'a good story... The way the city may save land, instead of dispersing, the idea that the city can grow from inside.' Situated in the transport hub of London Bridge, it is, says Piano, 'a building that can intensify the city, especially in a place that needs life, without adding traffic'.

Almost finished and virtually a new global icon already, the 224m-high Leadenhall Building (or 'Cheesegrater') now faces the Shard across the Thames, and brings Richard Rogers' practice back to the City. With its sloping southern facade, a north side animated by lifts and light and its steel structure revealed. 'It is a building that displays an immense, if not heroic, clarity,' says Graham Stirk, lead architect.

More purely glazed skyscrapers are already underway, but Ken Shuttleworth, since 2004 the head of Make Architects, gives a blunt warning: 'There's been an orgy of glass. It's all out of date.' He praises the likes of the Shard, but calls for a return to solid facades, and more rational rectilinear forms. That's evident in his design for the Cherry Orchard tower in Croydon, and is likely to characterise more and more of the other residential towers set to emerge from sites across the metropolis.

In 2000, skyscrapers clustered in just Canary Wharf and the City. Now, emerging clusters are rising along the South Bank as far as Vauxhall, and in reinvigorating satellite centres like Stratford and Croydon. Inevitably, London will continue to build upwards, not least to accommodate over a million more people by 2022, and because the denser a city is, the less its per capita carbon footprint. Unlike booming Far Eastern rivals, London has pulled off the trick of retaining its historic environment while building upwards. The juxtaposition of heritage and skyscrapers is turning out not to be a clash, but something that is helping make London the most exciting city in the world.

HSBC, Canary Wharf, 2002

200m, 45 storeys, Foster + Partners Norman Foster designed the bank's Hong Kong HQ 20 years before and bere delivers Canary Wharf's most stylish and dramatic office tower yet.

The Gherkin (30 St Mary Axe),

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City, 2004

180m, 40 storeys,
Foster + Partners
Perhaps the world's
most iconic skyscraper
of the past decade,
and one of the tallest
buildings in the City.

Strata, Elephant & Castle, 2010

148m, 43 storeys, Hamiltons The three massive wind turbines don't turn much but they do create a unique profile on the London skyline.

Heron Tower, City, 2011

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230m, 46 storeys, KPF When this stacked office-village tower was approved in 2002, it was chocks away for the current wave of

London skyscrapers.

City, The Shard,

London Bridge,
2012
306m, 72 storeys,
RPBW
More than just the EU's
tallest building, this
is a transportorientated mixed-use

tower by Renzo Piano.

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Walkie-Talkie (20 Fenchurch Street), City, 2014 160m, 37 stores

160m, 37 storeys, Rafael Viñoly This office skyscraper bulges out and hosts a three-storey sky garden.

25 Chee

Cheesegrater (Leadenhall Buiding), City, 2014

224m, 48 storeys, RSHP This astonishing modular-built landmark

separates services into
a kinetic wall connected
to the glass office wedge.

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