

Streets of London

by Hannah Renier

Unless we're set designers for a costume drama, we don't usually think about historic road surfaces. Yet between London's roads and pavements now and those of, say, 1650, there is a world of difference.

It's never been easy to keep your feet dry hereabouts. The Thames and its tributaries have been shrinking into a narrower channel across the London plain since the last Ice Age, and there's no local stone. Outside today's HMP Belmarsh, a timber road was built on trestles (out of the wet) 6,000 years ago.

The Romans saw only sodden islets south of the river, so they settled on the higher, drier north side. When they made London the hub of their road network, their main cross-town routes lay straight along ridges along Cheapside and Cornhill. These were local gravel, with compacted rubble and ballast foundations and side ditches for drainage. Cheapside was 90 feet wide. London Bridge was wooden, and the road across Southwark bridged many streams. Lanes linked main roads but nothing went unregulated.

The colonists from Rome applied superior technology, a disciplined workforce, an efficient economy and military organisation. When they left, these left with them. Incoming Anglo-Saxons huddled around Aldwych and let the bridge and the walled city crumble until the late 800s. (Imagine 300 years of a wet Glastonbury. With folk music. In German.)

By the Norman invasion there were monasteries and churches partly built of recycled stone and terracotta, and a newly restored bridge, but sadly degraded roads, for a lot of the stone had gone. Trunk roads were appalling from 450 to about 1780 and roads immediately outside the City were worst of all. So London's main thoroughfare was the Thames; freight, the economic mainstay of London, was largely waterborne. Everything from building materials to food arrived by sea and river and - from the early 1800s - canals.

Why? London had clay, gravel, Thames ballast and cobbles on the foreshore, brick-earth in abundance, access to timber, expert engineers and an ever-growing supply of labour. But no effective administration. In the Middle Ages, householders and vestries were responsible, the City's well-intentioned bye-laws were ill enforced, and pressure of population didn't help.

At the Reformation there were shanty-towns outside the City and its rivers and ditches were overflowing sewers. In Queen Mary's time the Tudor Strand, a street of decaying palaces, suffered from passenger vehicles - immensely heavy wooden boxes on wooden wheels. These 'coaches' lumbered along drawn by up to eight horses in tandem (single file) with leather flaps to keep the rain out. They were a status symbol although nobody, unless they were half dead



*Water Lane, Richmond: a worn granite slipway.
Stone cartwheel tracks were common.*

or in their Court frock, travelled in one if they could help it. If you were rich and healthy you kept a barge or rode a horse. Everyone else walked, or hailed a waterman's boat.

The roads were bad because nobody wanted to know. London parishes were responsible for maintaining their own roads. Each vestry must supply workers to mend the King's Highway across the parish, under an overseeing 'surveyor'. Householders found vagrants to do the work for a pittance, and as to the annual appointment of a voluntary 'surveyor', he oversaw the infill of puddles and that was about all; he had his day job, doing something else.

None of this changed much in the seventeenth century. Cross-country coach or cart travel was impossible between October and April and when you did arrive in London you'd find muddy, stony, rutted streets, often draining into a sewer in the middle. Second-hand coaches and superannuated coachmen plied for hire as hackneys and annoyed Charles I by turning at the Whitehall end of the Strand. This made an axle-deep quagmire right outside his Mews. He insisted they must not ply, but stand, at the Maypole at the Aldwych end.

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Streets of London (cont.)



Then he was gone, and London's economy stagnated.

At the Restoration, trade returned, and after the Fire, there were plans for cobbled vistas radiating from the new St Paul's. City residents came back, found the charred remains of their houses, staked claims and quickly rebuilt. The new houses were of brick without oversails, and the new alleys were cobbled and cambered to gutters either side, but the higgledypiggledy road pattern of old remained.

In 1680 Charles I's equestrian statue was set up on the wet patch outside the Mews near Charing Cross. The first Squares were being built, with cobbled roads for coaches, smooth stone pavements and granite kerbstones. But elsewhere conditions remained so bad that sedan chairs were preferable to hackneys.

Outside London, early Turnpike Trusts sensibly placed the expense of care on the traveller (who had to pay a toll to the Trust) instead of the parishioner. The result was better roads. But Londoners were slowest of all to invest. They had more exotic opportunities, such as the South Sea Company. John Gay, stomping around London in 1713, made even the pavements sound dangerous, what with hogsheads rolling into cellars, skiddy paper dumped, ruffians everywhere - it was better to 'walk without the post' in other words, to step into the road - 'what though the gathering Mire thy feet besmear.' Sometimes there were no guard-posts, and 'laden carts with thundering Waggon meet/Wheels clash with Wheels, and bar the narrow Street.'

Dirt, then, and chaos. On rainy days, women clattered on pattens and workmen wore clogs. Fish from the North Sea, so quickly perishable, arrived at Billingsgate by pack train as it had done in Roman times. The City streets were cobbled and drained, because the City got things done; but West End parishes were hopeless. The Tyburn, an open sewer, ran stinking across the bottom of Berkeley Square. The Westbourne regularly flooded the Knight's Bridge.

In the early 1780s, an Organising Mind at last appeared. Mr Palmer, an actor-manager from Bath, decided that he could run the Royal Mail better than anyone. He was proved right. One way or another, the efforts of Palmer and his successor led to sophisticated coach technology, professional status for surveyors and improved main roads. Teams of Post Office surveyors regularly inspected every coach road from end to end. If it was too bad for Royal Mail coaches, the coach contractor (there were six big names in London) would be ruined.

During the Napoleonic Wars, then, London's significant routes, such as Highgate Hill and Piccadilly, were properly looked after. Loads were weighed at tollgates so that they didn't wreck surfaces. Freight was carried overland where possible. French pirates and bad weather bedevilled coastal shipping, canals and harbours required dues, and rivers silted up.

In the East End, the new Docks were embanked and walled for security and granite was laid on the quays: when new and not abraded, it was less slippery than cobbles for the horses. The crash of iron-bound wheels on granite or cobble was so painful that the City and surrounding parishes banned hackney cabs; they were not allowed 'on the stones.'

Despite all this, by comparison with other ports London's failing infrastructure made it uncompetitive. Every road that wasn't turnpiked was a Vestry's concern, as before. At Old Street the locals rioted when a tollgate was proposed, saying turnpike roads excluded the poor. In 1800 the only canal link to London was at Brentford. You could get your load of timber to London Docks and over the City stones but then what? It would crawl through bumpy streets where axles broke. Herds of Smithfield-bound livestock blocked lanes for hours. Hay fell off wagons. Bristol, Liverpool, Hull had access to a hinterland. London sprawled, and choked.

Meanwhile one J L McAdam was overseeing road repair at Bristol. Conscientious and imaginative, he had worked out a better, cheaper way to resurface a road; layers of carefully graded small stones, bound if necessary with clay or cement, impacted by rolling and having only a shallow camber. Rain drained quickly from the gravelly top layer and there was no need for deep foundations.

McAdam had perfected his system by the peace of 1815 when money became available. England's trunk roads, leading to London, were quickly macadamed. His idea was taken up in London beyond the City, where macadam was acclaimed as quiet, good-looking and quick to install. The Regent's Canal opened, the docks were extended; London's infrastructure had been saved.

In 1825 there was a great blast of steam. Railways, and steamships, would soon change everything. Steam power made granite easier to split, and coastal steamships could get granite setts and chippings to London faster than sail. The newest Docks, the steep inclines down to stable yards everywhere, and punishing hills such as Haverstock and Highgate, were paved with durable granite setts. At Vauxhall, a manufacturer tried paving paths with mastic but it didn't work. In the late 1830s, thanks to improved freight transport, the Brunels and a Mr Claridge were able to supply and lay asphalt. Short stretches appeared in Whitehall, Kensington and at Bunhill Row. The world remained unimpressed.

London Bridge station opened in 1835 and Nine Elms (for trains to Southampton and the Atlantic steamers) in 1836. Coaching inns declined and country roads emptied. Long-distance road freight was expensive. When the Houses of Parliament were rebuilt in the 1840s and 50s, the stone was sent from Yorkshire by narrowboat and sloop. The initial eight-mile section of the journey by horse haulage cost six shillings per ton weight moved, while the whole 210-mile trip by water cost ten shillings a ton.

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In the next forty years, railways and steamships meant a million new Londoners and urban spread, with vastly more local inner-London horse haulage and passenger traffic. By the end of the century macadam or tarred wood blocks covered London's smart suburbs almost everywhere west of the Fleet and north of St Pancras. Wood blocks were quiet but they couldn't take much traffic; they got dislodged. On the Greenwich Peninsula Christie's the timber importer had a factory that cut them. When scored for grip, and properly laid, they were easy on the horses, solid and quiet. They were laid in smart areas such as Mayfair, Belgravia and St John's Wood, in Lambeth (which wasn't smart) around the Archbishop's Palace, and outside hospitals. From the 1870s onward they were often tarred for preservation. When the gang arrived to lay hot tar on top, kids were taken to inhale the pungent smell, which was thought to be good for their chests. Workmen would break them off a warm bit to chew, to clean their teeth.

As to macadam, its maintenance in town was endless. Gangs of 'scavengers' had to be employed to sweep its chippings back and water it in dry weather. It sank into puddles and its loose stones got into horses' hooves. Tramlines could not run on it but must always be laid with 18 inches of granite setts or wood blocks set in concrete on either side. Thoroughly impacted by a steam-roller as in Hyde Park, macadam worked well. But in most parishes it never was impacted by a steam-roller. If at all, a regular roller was hauled over it by six or seven carthorses in tandem. A steam-roller was expensive. In 1863 there were 77 small parishes. Seven years later by amalgamation these had reduced to 39, but they were still too small to afford steam-rollers. A very rich parish might as well go the whole hog and invest in maintenance-free granite, but then everyone would complain of deafening noise. So Westminster Bridge, for instance, cost a fortune to maintain, with five and a half inches of fresh gravel needed on its macadam every year.

So a London horse in 1880, travelling between Kensington and the City in the course of a day, might trot over wood, macadam, asphalt, granite setts, cobble and unmade roads; everywhere the surface changed without warning.

In the last quarter of Victoria's reign there was very little asphalt on London roads although as the vestries conceded more power to the Metropolitan Board of Works, it gradually became ubiquitous. It covered Bazalgette's new embankments from the '70s. Cabbies and carmen complained that there was insufficient grip for the horses in bad weather, but in the 1880s it was laid at the new north extension of Castle Street (Charing Cross Road), on Shaftesbury Avenue and in the streets around the British Museum. And soon the horse question would be irrelevant. In 1900 hardly anyone had seen a motor car. In 1910, when Shell Oil was importing petroleum in quantity, more than half London's omnibuses were motorised. Early motor vehicle tyres were solid, not pneumatic; asphalt gave a smooth quiet ride.



There was probably little wrong with the rest of this stone pavement (at Gloucester Circus, Greenwich) but it was replaced, leaving only the pavers with coal-holes inset

After the First War, tarmacadam covered the old macadamed streets around Paddington and St John's Wood - put simply, the troublesome top layer of gravel was bound with tar. Most streets and bridges outside the City and West End were still made of plain macadam in the late 1920s and Mayfair and other places were laid with tarred wood blocks. These were manufactured until the 1950s.

Cobbles are rare in London, although at low tide, you see millions. Redevelopers usually rip up and sell London's pleasing old granite setts and stone pavers, which are back in fashion (see the lovely riverbank by City Hall). For years, as we've all seen, asphalt was laid over granite setts. Long may it continue to peel off.

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About Hannah Renier

Hannah has ghost-written many published books of biography, autobiography and social history for other authors. She got interested in road surfaces when she was researching a book about London's first 1,900 years of dependence on horses.