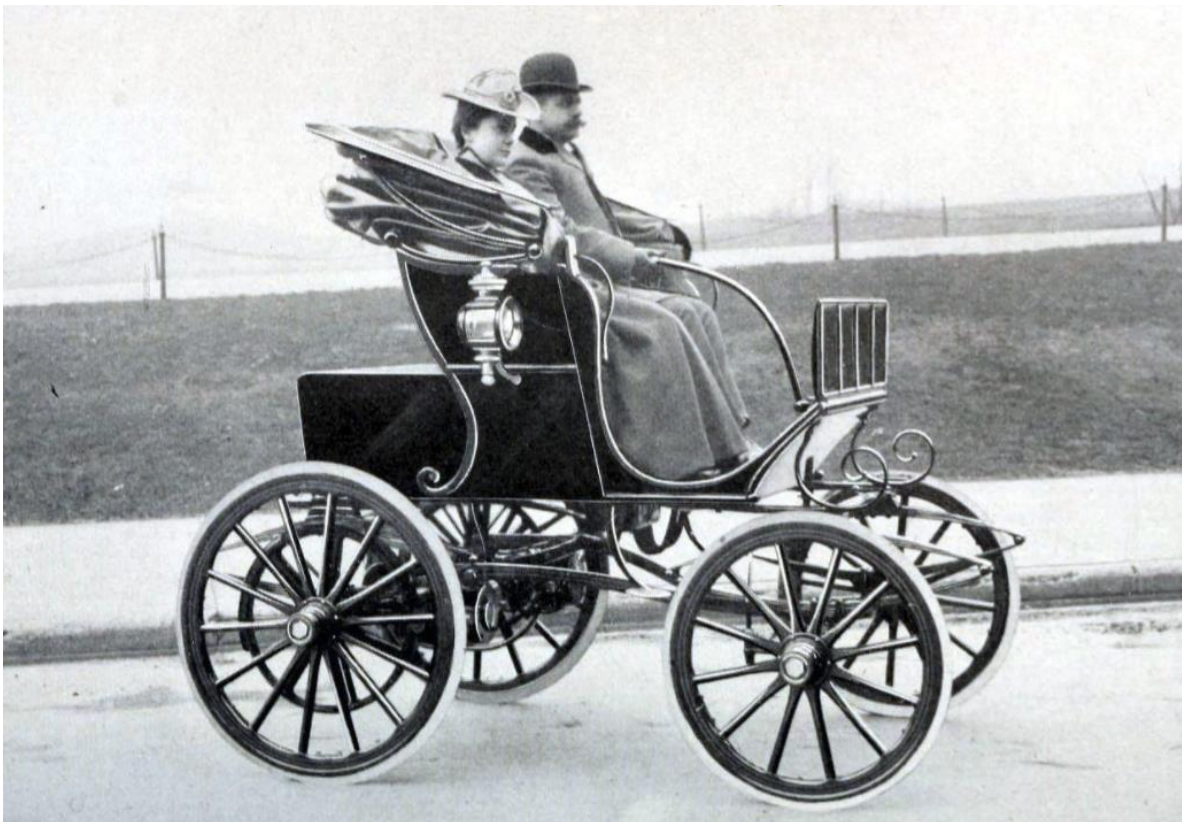


Getting around:

A history of urban travel for the last 200 years

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Introduction

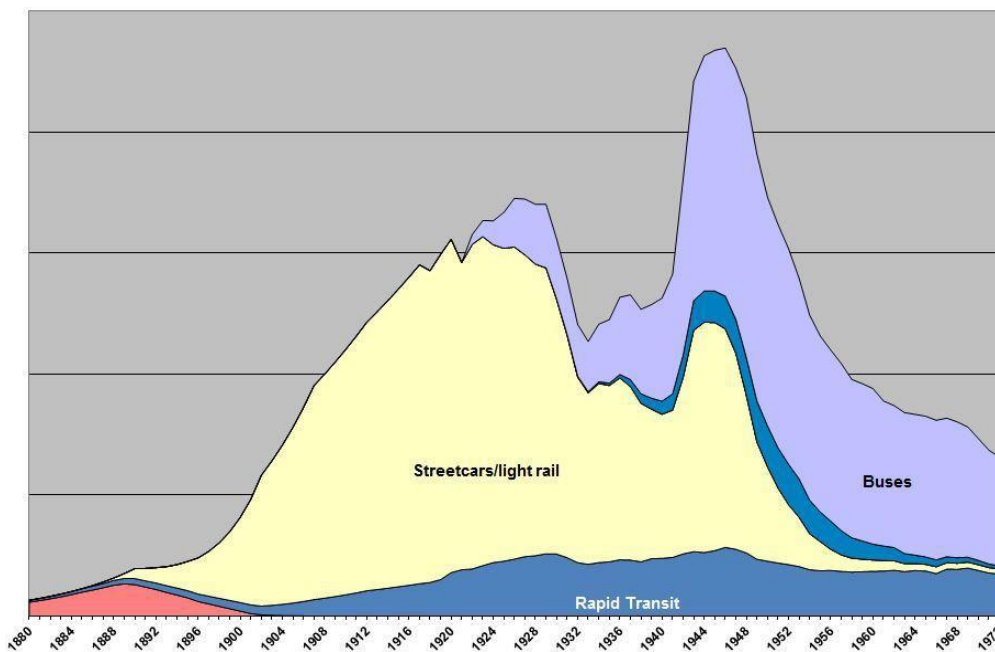
Our story is of how and why we have travelled within our urban areas in the last 200 hundred years. For most of that time it was by public transportation; today it is by the automobile.

We will start our story with the rise of public transportation in the U.S. during the period 1831-1926, a period when public transportation was mostly privately operated and profitable. During this period, “public” meant simply “publicly available,” rather than today’s understanding of it as “publicly-owned.”

The start of the period, 1831, marks the introduction of the horse-drawn omnibus in New York. While earlier publicly available urban transportation had developed, the omnibus was the first to have the basic characteristics of today’s public transportation in that it followed a fixed route and allowed passengers to board and alight along the route.

The end of the period in 1972 marks the post-World War II low in public transportation ridership and the time when the industry as a whole ceased to be profitable.

Public transportation ridership history



Prior to 1831, urban public transportation was not viable because cities were very small and thus walkable. The wealthy did not need it since they had their own carriages, and the poor would not have been able to afford it had they needed it.

The growth of public mass transportation required cities of a size large enough that distances between home and work required transportation and a sufficiently large number of reasonably affluent middle-class people in order to make it pay. During the 1800s fast-growing city populations with fast rising incomes provided them.

As we will see, urban public transportation began as a service that only the upper middle classes could afford. Over time it gradually evolved into transportation for the higher earning working class but even as late as the 1920s a minority of the working class could afford its regular use.

Over time the automobile would become the primary commuting vehicle and public transportation would, for the most part, be for those who could not afford the automobile.

In the U.S., ridership growth began slowly with the horse-drawn omnibuses in the 1830's, expanded to horse-drawn rail cars in the 1850's, burgeoned with the introduction of electric streetcars after 1890, peaked in the early 1920's as the motor bus and the automobile came of importance and then, World War II aside, declined by 1972 back down to the 1890 level despite an urban population that grew six times its former size in the interim.

By 1972, the automobile and the subsequent move of people, manufacturing and retailing to the suburbs had significantly reduced the need for public transportation and thus its use.

Much of our public transportation policy today has its origins in the distant past and often retains the vestiges of earlier customs. For example:

- The Boston Police Hackney Carriage Unit administers that city's taxi ordinances even though a hackney carriage has not operated in Boston for a hundred years.
- The present U.S. custom of charging a flat fare on buses and streetcars that began in the 1800's was unlike the rest of the world, where fares were generally charged commensurate with the distance traveled. The flat fare, regardless of distance traveled, has had a significant effect on U.S. suburban development.
- Granting public transportation operators a monopoly originated with the introduction of horse drawn cars on street railways and the demise of the horse drawn omnibus. Regulations were further strengthened with the emergence of electric streetcars and their typical ownership of electrical utilities. However, when subsequently the motorbus—which had the same operating characteristics as the omnibus—prevailed over the electric streetcar, and the rationale for monopoly no longer existed, government continued to grant public transportation operators monopolies.
- Today's standard rail gauge of 56.5 inches evolved from Cretan roads of 2000 B.C. whose ruts carved in mountainous stone roads in dangerous places determined the wheel widths of subsequent Greek and Roman vehicles. These in turn have influenced succeeding traffic up to today. ¹

And so, for a better understanding of today's urban public transportation, it is best that we learn about the earlier forms of public transportation that paved the way for the 1831 American horse-drawn omnibus.

In 40 BC, ancient Rome's population was about 450,000,² the largest city ever until surpassed by London in the 1700s, nearly two thousand years later. Rome provided the earliest form of publicly-available urban transportation with chariots that would wait at the city's limits offering to take passengers into the center of Rome. They were encouraged by regulations forbidding all other vehicles, except those of officials, high priests, and high-ranking citizens, from the center of Rome during the daytime in an effort to reduce traffic congestion.

Julius Caesar identified traffic congestion as a serious social dilemma and took action by banning the movement of carts during the daytime. Later, Emperor Hadrian said,

“This luxury of speed destroys its own aim; a pedestrian makes more headway than a hundred conveyances jammed end to end along the twists and turns of the Sacred Way.”³

Rome’s fall around 450 AD, and the onset of the Early Middle Ages⁴ resulted in its population declining to 30,000 by 1000 AD. Similarly, London’s population of around 50,000 in 200 AD declined to almost nothing within 400 years. Thus, whatever was learned about traffic operations and regulation in Roman times was lost to future generations.

From the Early Middle Ages on the Western world slowly developed its economy. It did not come in fits and starts but rather through the steady development of new technologies and by the division of labor.⁵

There had been passenger coaches in Roman times, but that technology appears to have also been lost after the fall of Rome. Carts and wagons were used to transport goods during the Middle Ages but people, even kings and queens, traveled on horseback.

There were no coaches of any kind in England until the early years of the Elizabethan Age when we hear in Taylor’s story of *The Old, Old, Very Old Man* that Thomas Par,

... was 81 years old before there was any Coach in England: for the first that ever was seen here, was brought out of the Netherlands, by one William Boonan, a Dutchman, who gave a Coach to Queen Elizabeth, (for she had been seven years a Queen before she had any Coach) since when, they have increased (with a mischief) and ruined all the best House-keeping, to the undoing of the Watermen, by the multitudes of Hackney or hired Coaches: but they never swarmed so thick to pester the streets, as they do now, till the year 1605, and then was the Gun-powder Treason⁶ hatched, and at that time did the Coaches breed and multiply.⁷



The term hackney was originally *haquenée*, French for “a horse of middle size and quality, as distinguished from a war-horse, a hunter or a draught-horse.” Hackney horses for hire in England are first mentioned in 1393 and the hiring of a Hackney Coach is first heard of in the late 1500’s. These six-seat Hackney Coaches functioned as a taxicab does today where a party of one or more is conveyed from one specific location to another.

The first example of their regulation was Charles I’s proclamation of January 1612 that banned their use for trips of less than three miles.⁸ Almost from the first, the Hackney coaches were subject to regulation limiting their numbers and the fares they could charge.⁹

*Hackney Coaches, those exposed to hire, in the Streets of London, and some other Capital Cities, at Rates fixed by Authority Those in London are under the Direction of Commissioners, who take cognizance of all Causes and Disputes arising thereupon. They are distinguished by Numbers affixed to the Coach-Doors; and the Fares, or Rates, fixed by a Statute 14 Car. II. and confirmed by another in the 5th and 6th of K. William II For a whole Day of twelve Hours the Fare is 10 shillings for a single Hour one shilling and sixpence for every Hour after the first shilling. At these Rates, they are obliged to carry Passengers anywhere within 10 Miles of London.*¹⁰

In 1636 Hackney coaches were limited to 50 vehicles, with the authorized number increasing regularly until 1711 when a thousand were allowed. In 1833 the limits were removed.



During the 1600’s stagecoaches were introduced to provide long distance passenger service. The stagecoaches provided service at specific times and functioned much as long-distance buses do today.

During this period, the French were the first to offer public transportation as we know it even though it did not last long. In

1662 in Paris, Blaise Pascal, the philosopher and mathematician, persuaded some wealthy aristocrat friends to invest in seven eight-passenger horse-drawn carriages to run as fixed route, fixed time public transportation.¹¹ They were called *carrosses a cinq sous*— five sous carriages. Although at first well patronized by the well to do, they lasted less than a year. As soon as the novelty wore off, the well-to-do ceased to patronize them and the middle and lower classes could not afford them.¹² It would be a century and a half before they would be tried again.

During the 1700’s short-stage coaches evolved to provide transportation from the suburbs to the center of London. These coaches were bookable in advance and publicly available to unrelated parties unlike the hackney carriages, which were only for the exclusive use of whoever hired it for the journey, much as exclusive-ride taxis are today.

Regulations forbade short-stages from picking up or setting down any passengers whilst in London within the ‘Stones’¹³ (the paved city center) except at their appointed central

stop. Within the city limits the Hackney carriages had a monopoly on the picking up and dropping off of passengers.

For those passengers going north, the short stages would leave from the city center at the Bank and then, once outside the Stones, turn west along the New Road (now Marylebone and Pentonville Roads), picking up and setting down passengers until they reached their western terminus at the *Yorkshire Stingo*, a pub in Paddington. At this point they would turn around and work their way back to the city.

Thus, as London grew six-fold from a population of 200,000 to 1,200,000 between 1600 and 1800 the only options for public ground transportation were expensive. If one wanted to go from, say, the central city to the western part one could take a very expensive Hackney Coach directly, or take a short-stage coach that took an indirect route but was less expensive since it took other passengers — or one could walk. Short stage fares were still expensive for most people at one shilling & sixpence up to two shillings for one person from the City to or from outside London's periphery. Even skilled artisans of the time only earned £1, or 20 shillings, a week¹⁴ making regular use of such vehicles financially impossible.

By the mid-1820s there were approximately 600 short-stage coaches making 1,800 daily journeys.¹⁵

Short stage lines were also active in New York although not to the extent of London. Beginning in 1811, a stage ran between Greenwich Village and Federal Hall five times daily whereas up to that time it had only run once daily. From 1816 Asa Hall's stage line improved this route to hourly service.

Undoubtedly, the operation of omnibuses in London was deterred by the regulations that favored the Hackney-coaches within the central area of London as an attempt at congestion control.

Until the early 1800s the Hackney Coach (later Carriage) and the short-stage held sway as the only publicly vehicles available for travel within London.

These were the first stirrings of public transportation and this was the situation just prior to the first true public transportation vehicle, the horse-drawn omnibus. There were others but they were of an experimental nature and not in the mainstream of urban transportation development.

Prior to the introduction of omnibuses almost simultaneously in Paris, London and New York in 1828-1831, hackney carriages plied both U.S. and British streets together with short-stage coaches. But they were not urban transportation in the sense of publicly available transportation operating over fixed routes at either fixed times or at high frequency. Short stages tended to not keep to a tight schedule and would deviate from routes to pick and drop off passengers.

As the Industrial Revolution began to pervade Britain, and subsequently Europe¹⁶, and the middle classes expanded so did the need arise for mass transportation to cover the greater distances in these newly expanding cities.

Endnotes:

- ¹ For a full explanation see, Lay, Maxwell G. *Ways of the World: A History of the World's Roads and of the Vehicles That Used Them*. Rutgers University Press. 1992. pp. 34-7.
- ² Estimates vary between 450,00 and one million with the latest estimates favoring the lower figure. See Storey, G.R.. *The population of ancient Rome*. Journal of Antiquity, Vol. 71. pp. 966-78. 1997. For the higher figure see Hall, Peter. *Cities in civilization*. Fromm. 1998. p.
- ³ S. Hayes, "Auto-Biography: An Alternative History of the Car," in S. Zielinski and G. Laird (eds.), *Beyond the Car* (Toronto, 1995), p. 25.
- ⁴ Using the convention of dividing the Middle Ages in three parts, the Early Middle Ages from about 400 to 1050 AD, the High Middle Ages from about 1050 to about 1350 AD and the Late Middle Ages, from about 1350 to about 1450 AD.
- ⁵ Stark, Rodney. *How the West Won*.
- ⁶ The "Gun-powder Treason" was a conspiracy to kill James I, King of England, at the opening of Parliament on November 5, 1605. Guy Fawkes, a soldier of fortune, placed 36 barrels of gunpowder beneath the House of Lords but before they could be exploded, he was caught and subsequently hanged. British children commemorate Guy Fawkes Day annually with fireworks.
- ⁷ Taylor, John. *Works of John Taylor, the Water-Poet* (comprised in the folio edition of 1630). New York, B. Franklin. 1967. PR2380 A1 1967. First published in London "for Henry Groffon, at his shop on London Bridge, neere to the Gate. 1635."
- ⁸ Gorman, Gilbert & Samuels, Robert E. *The Taxicab: An Urban Transportation Survivor*. The University of North Carolina Press. 1982. p. 14.
- ⁹ BBC. *The History of the Black Taxi Trade*. <http://www.bbc.co.uk/dna/h2g2/A737778>
- ¹⁰ *Coach, Hackney Coaches*. Chambers Cyclopaedia. 2nd ed. 1738. p. 242. H31 .C7 no.364
- ¹¹ Palmer Foster M. *The Literature of the Street Railway*. Harvard Library Bulletin 12. 1948. pp. 117-138. Z881.H34 m.s.
- ¹² Moore, Henry Charles. *Omnibuses and Cabs: Their Origin and History*. London: Chapman & Hall. 1902. pp. 1-9.
- ¹³ London's *Stones* was the central area of London paved with stones beyond which the streets were paved with wooden blocks and other surfacing.
- ¹⁴ Taylor, Arthur J. *The Standard of Living in Britain in the Industrial Revolution*. Methuen. 1975.
- ¹⁵ Barker, T.C. and Robbins, Michael. *A History of London Transport*, Vol. I. George Allen & Unwin Ltd. 1963. p. 26
- ¹⁶ "Between 1750 and 1900 Europe's population rose faster than anywhere else in the world (except North America), from 150 million to over 400 million." Colin Clark: *Population Growth and Land Use*. London. 1969. (106f, Table iii, 14.)