A long way from paradise

Despite what you may have heard, the world before the car wasn't clean, green or particularly pleasant

When you look out over an angry city traffic jam, it's easy to yearn for simpler times, when people rode horses and the air was quiet and clean. The problem is, the clean, green world of the horse-powered age never existed.

Before horses, the only way of getting around on land was generally on your own two feet, so horsepower was something of a miracle.

However, it was a somewhat limited miracle; throughout history, humans travelling across land were generally limited to an average speed of about five miles per hour (8km/h). A journey could certainly be slower than five miles per hour, but except for short gallops, few journeys were faster. That's very difficult for the modern mind to accept, but it's true.

Every long journey was carried out in a series of short stages, which is where the term 'stagecoach' originated.

Long distance travel required teams of horses, and generally somewhere for the horses and their riders to stay at the end of each gruelling day. Horse-powered travel was hot and dusty in summer and cold and dangerous in winter. Horses frequently went lame, leaving their riders at the mercy of the weather and the locals.

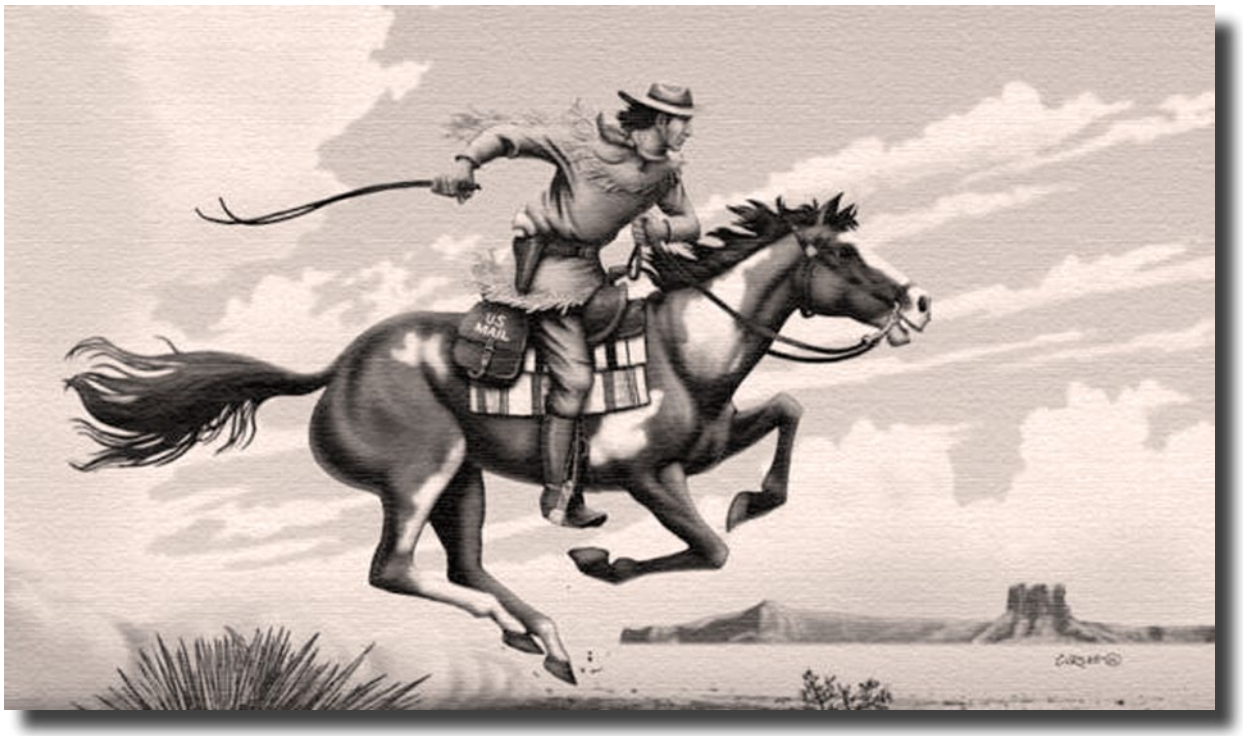
Even the best roads were shockingly bad; only in the centre of towns were the roads generally paved. The remaining roads were gravel, rocks or dirt. Clouds of dust accompanied travellers in summer, while in winter the roads turned to mud or ice and often became completely impassable. In outlying areas (and throughout America) large rocks or knee-high tree stumps were commonly scattered over the road.

Many four-wheel drive tracks of today are vastly superior to the main roads of old. Consider this: in 1703 the Holy Roman Emperor Charles VI, travelling on main roads in the best horse-drawn transport of the age, took three days to travel the fifty miles (80km) from London to Sussex. His carriage overturned 12 times.

You've probably seen movies where the soldiers of the US Cavalry gallop across the desert on their way to battle; like most cowboy legends, this is complete fantasy.

If you forced horses to gallop for any more than a short distance – especially in hot weather – they would probably drop dead, and often did. Soldiers very gently walked their horses to battle, then galloped only during the final charge.

The long distance speed record on horseback probably belongs to the legendary Pony Express, founded in 1860 and running the 1966 miles from St. Joseph, Missouri to Sacramento, California. By changing horses every ten to fifteen miles, and riders every 75-100 miles, the riders were able to travel at the fantastic speed of ten miles (16 kilometres) per hour. However, this miracle required 400 horses, 80-100 riders and staging posts every 5-15 miles. It was a brave venture but economic lunacy; the Pony Express went broke in less than two years.



Horses today are generally kept for recreational purposes by people who look after them well. These noble, well-groomed creatures look beautiful on farms and in movies, so it's easy to get a false picture of life in the horse-powered age. Forget the clean and healthy horses you see on tv – they have little in common with the miserable, mistreated animals that transported goods and people before the age of the car. The average horse in the nineteenth century lived, worked and died in filth.

Every year, each horse ate through the entire production of hay and oats from about five acres of agricultural land.

Out the back came up to a ton of shit annually. In New York in 1881, horses deposited 2.5 million pounds of shit every single day.

This shit mixed with the hundreds of litres of horse piss that each horse produced, to cover the streets of cities with a green, putrid sludge. In winter this sludge mixed with the mud and splattered the clothes of anyone who walked across it. In summer the dried up horseshit became a smelly dust, billowing into clouds that covered the clothes and filled the eyes and lungs of the city dwellers.

This cocktail of bacteria caused eye infections and fatal diseases like tetanus. There were various attempts at cleaning up the manure from many cities but the problem simply reoccurred with each passing horse. Wherever manure was collected for removal, to quote a New York City Citizen's Association Report in the 1860s: "The stench arising from these accumulations of filth is intolerable," The piles of manure also attracted clouds of flies that spread diseases like typhoid fever.

In Victorian England many urchins earned their living as shit-sweepers – they ran in front of the gentlemen and ladies with a brush and pan, so that their well-dressed customers could make it across the road with their clothes intact.

Horses lived about four years. They worked hard and often died on the job, causing hopeless traffic jams as they collapsed from abuse or exhaustion.

In the 1880s, 15,000 dead horses a year were being hauled off the streets of New York.

However, it often took the body snatchers a few days to get around to picking up the latest corpses, so the dead horses lay around in the sun for a few days, which was fun for the flies but not much fun for everyone else.

The dead horses were dumped in large enclosures for disposal, and God help anyone who lived downwind.

At least cities were quieter in the old days, you might think. Once again you'd be very wrong.

Horse-drawn carts had iron-covered wheels, and horses wore iron shoes; the combined noise of hundreds of iron shoes and wheels hitting the road made a din like a steel mill.

In the 1890s, a writer in *Scientific American* noted that in New York, due to the sharp clatter of the horses' iron shoes, conversations at the side of the road were often impossible.

Nor was the air cleaner in the pre-car age; the term smog came not from America, but from Scotland, where coal-fired pollution killed thousands in the early twentieth century. The word may have been new, but the problem was much older than that: during tranquil nights in winter, even small villages lay under a haze of smoke caused by open fires lit to stay warm.

The Romans used the term 'heavy heaven' to describe air pollution. In 1306, Edward I forbade the burning of coal when the English Parliament was in session because the Members of Parliament were having trouble breathing. During many years in the late nineteenth century, smog was killing over a thousand people annually in London alone.

Without coal, however, the world as we know it would not exist. Although dirty and inefficient, coal powered the steam engines that lifted mankind out of the horse age and into the modern world. Steam engines allowed the coalmines to be pumped free of water, thus allowing the Industrial Revolution to occur.

Steam-powered trains soon made journeys of hundreds of miles possible at a reasonable cost and in reasonable comfort. And the speed! Railways could move ten times faster than the fastest horse-drawn carriage. The steam revolution was not confined to land; steam-powered boats were eventually able to cross the Atlantic in one tenth of the time of a sail-powered craft.

According to many motoring writers, cars gave people freedom from the tyranny of the horse-powered age. These views do no stand much scientific scrutiny. It was the steam engine that gave people freedom; cars, by comparison, gave people the *feeling* of freedom. Not the same thing at all.

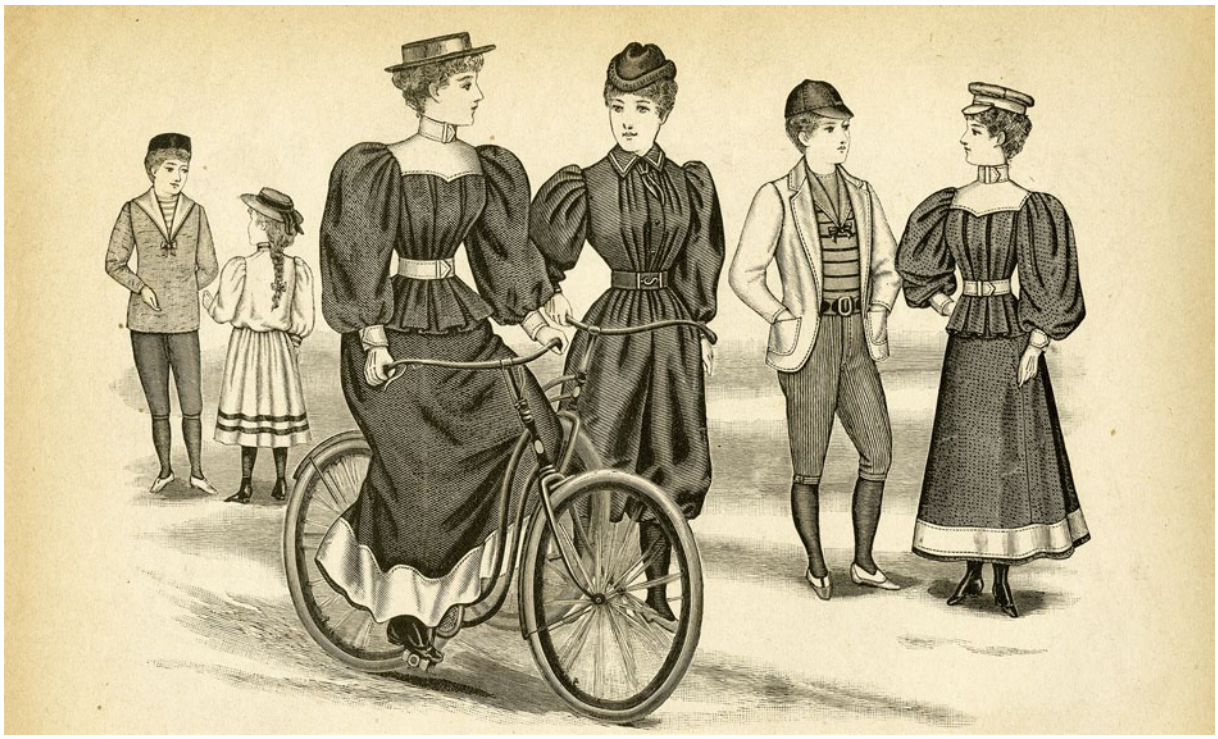
For example, steam trains and boats allowed the working man – who was previously restricted to the distance he could walk or ride in a carriage – to simply leave and get a better life somewhere else. Another city, another country, another continent.

And so the world lost its borders.

Here's a curious fact: America's pioneers rode to greatness on public transport. Before the train, attempting to cross America on foot or by horse would take months or even years, with no guarantee of surviving the trek. Frontier Americans counted themselves lucky to be able to find a trail, let alone a track or a road. Only large cities had paved streets, and these usually petered out into tracks or nothing at all a few miles out of town. Most large cities were based around sea ports, because the only practical transport was generally by boat around the coast.

Trains changed all that. The railroad companies drove their tracks through mountains and across rivers from coast to coast – a costly and brutal process that killed many of the construction workers.

Soon, however, the railways were hauling lumber, goods, minerals and people from state to state at a fraction of the cost and many times faster than a mere decade before.



The one problem with mass transport is what to do once you get to the end of your journey. A train may be fast and practical, but few people have a station right outside their door (or would want one). Therefore you have to have a way of getting from the station to your home or other destination. For those without access to a horse, walking was the only option until a miracle of technology gave freedom to the masses. No, not the car, the bicycle.

Nowadays, when bikes are mainly the transport of the young and the eccentric, it's difficult to imagine the impact that bicycles had in the later nineteenth century.

In the words of William Goldman, the bicycle craze was “bigger than rap music”.

The bike could travel at several times the speed at which a man could walk. He could carry it with him on a train and then ride to his final destination once he arrived at his station. A man could choose a nicer home further from his work and yet still save time travelling. And that was only the beginning. It wasn’t long before cyclists were pedalling for pure pleasure, and on Sundays crowds of people on bikes clogged the streets of every town and village across the developed world.

Oddly enough, most of the complaints about the car were first applied to the bicycle; the term 'road hog' was initially applied to cyclists who roared down the streets without regard for other people. Many members of the upper classes were deeply concerned at giving so much freedom to the masses. The people who had traditionally used the sleepy streets for games and trading also hated the incursion of these new, fast-moving machines.

Most scandalously of all, women started riding bicycles. Suffragette Susan B. Anthony once declared that the bicycle "has done more to emancipate women than anything else in the world."

The more conservative members of society looked on in horror as women in bloomers pedalled happily around the streets; a respected medical journal expressed deep concern that cycles were likely to arouse “feelings hitherto unrealised by the young maiden.”

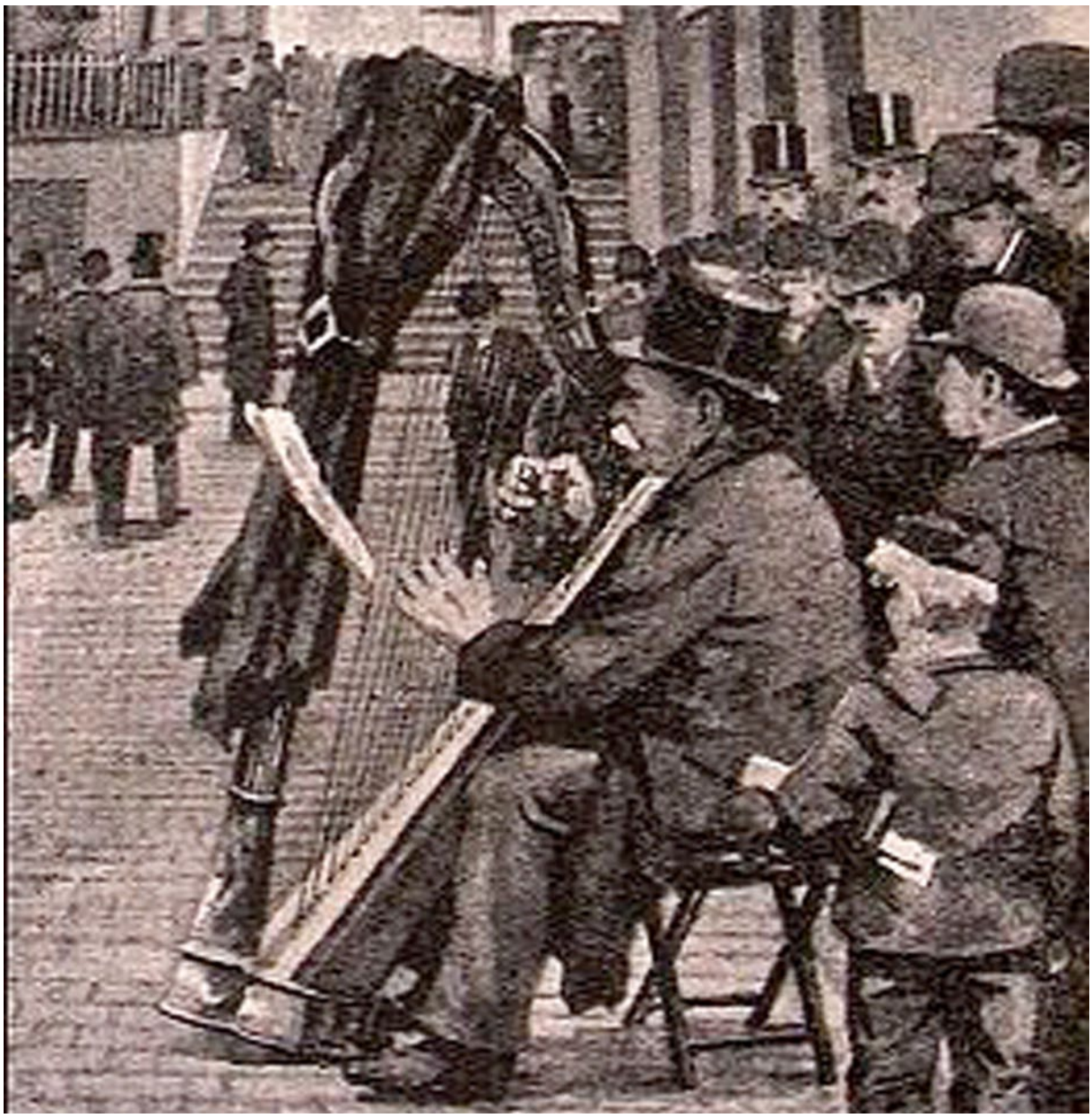
By comparison with the train, the boat and the bicycle, the early car offered little but an unrealised dream of freedom. To quote Bill Bryson in his book *Made in America*:

"Cars were not just unnecessary but, since there was almost no place to go in them, effectively pointless. As late as 1905, America possessed not a single mile of paved rural highway. Such roads as existed were unmarked dirt tracks, which became swamps in the wet months: and were hopelessly rutted for much of the rest.

In many parts of the country even a dirt track would have been welcome. To drive through Nebraska or Kansas often meant to cross a trackless prairie…those who made long journeys were deemed heroic or insane."

England and France had plenty of roads, but the problem was, they weren't empty. They were full of horses, pedestrians, cyclists, children playing, buskers and street merchants, as well as men and women simply enjoying somewhere less cramped then their tiny and grim homes.

As Ruth Bryson put it in her book *Auto Mobile*:

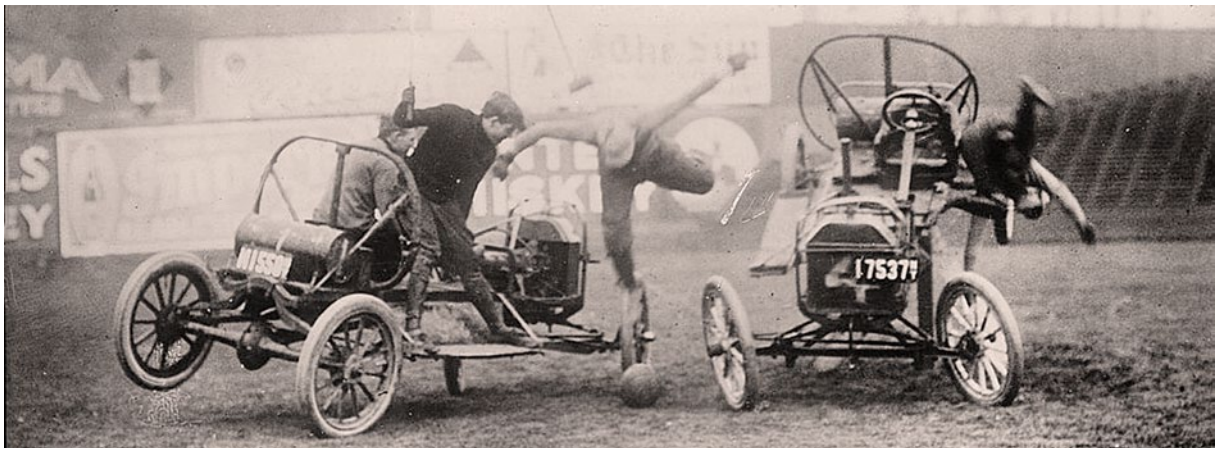


"Streets, when cars first appeared, were not necessarily, or even primarily, roads. Rather they were the arena of public life. New York's first stock market met under a tree on Wall Street. The London poor gathered in the streets on Sunday afternoons to drink, play cards, dance, promenade and generally enjoy themselves.

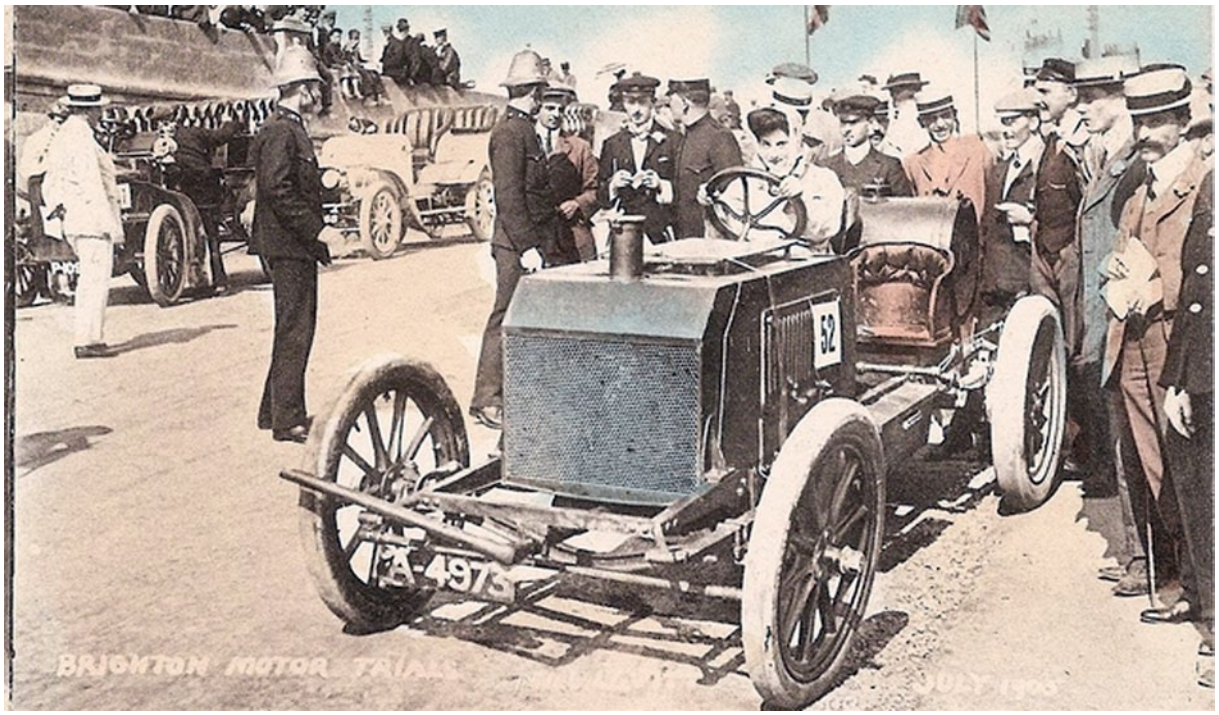
[Streets] were a play-space for children and an ongoing marketplace where street vendors and peddlers, selling from door to door, supplied fridgeless housewives with perishable goods. Naturally streets also accommodated transport, but this was just one of their many uses. Large, fast vehicles such as stagecoaches kept to the few post-roads. For the rest, horse-powered transport moved at a steady pace and announced itself in good time, with a clatter of hooves or rumble of cartwheels. But cars, unlike horses, give little warning of their coming. And if you don't get out of their way you're dead."

Nor was this crowded situation confined to the cities. At any time of the day, the country roads were shared between horses, carriages, flocks of cattle or sheep and simply people walking along.

Some motoring pioneers were happy puttering down rural lanes at a gentle pace, enjoying a pleasant sense of freedom and adventure. Most were not. In the early days the majority of car enthusiasts were rich and were frequently both arrogant and breathtakingly reckless.



Car engines quickly grew in size and power, but the brakes on early motor cars were less effective than the brakes on a modern bicycle; not that brakes really mattered: the rich and reckless car drivers often simply ran other road users off the road, or, if the other road users were not quick enough, they ran over them. The ease with which the drivers got away with their conduct was also breathtaking.



Mega-rich American businessman W.K. Vanderbilt (above) ran over a six-year-old in the Italian town of Pontedera and was attacked by an angry mob. Vanderbilt was rescued by the arrival of the police, who handcuffed him and took him to the relative safety of the police station.

After the crowd dispersed, Vanderbilt was released into the custody of the local mayor, who entertained him and put him on the next train out of town. Vanderbilt's chauffeur (who was not driving the car when it hit the child) was left to sneak the car away and meet his master in Monte Carlo.

During the Paris-Madrid race of 1903, Vanderbilt casually knocked over around 100 spectators who were watching the races. He was disqualified for approaching the starting line on the wrong side of the timer, but was not penalised for hitting the spectators.

Vanderbilt's friend, Lorraine Barrow was killed when his car ran into a tree. Including drivers and spectators, fifteen people died during that race.

Vanderbilt's brother-in-law, Charles Fair, and Fair's young wife, died in an automobile accident near Paris.

The British political establishment generally hated cars, or rather, they hated change of any kind. Archaic laws controlling motorised vehicles effectively killed the early British car industry, but probably saved many lives. *

France, which had much the same size population as England, but four times the space, initially had less of a problem with the unregulated motorcar.

Although France had some of the best roads in the world, they were little more than dirt tracks in many places, which quickly turned to mud with the first rain. In towns and villages the streets were often cobbled, and became as slick as ice in wet or cold weather. The resulting carnage was impressive.

**The British anti-car laws were not quite as public-spirited as they may appear. Many of the British politicians were also shareholders in the railways, and resented cars as an intrusion into their commercial interests. However, it's worth noting that the authorities generally weren't opposed to people racing around in cars – they were mainly opposed to people racing their cars on public roads.*

America was worse.

The lack of rural roads and crowded city streets did little to deter America's upper classes from exercising their natural rights to a little spontaneous freedom: in New York alone over a thousand children were killed by cars before 1910.

Asked about his reckless habits while driving in America, W.K. Vanderbilt replied:

"Arrest me every day if you want to...It's nothing to pay fines for such sport."

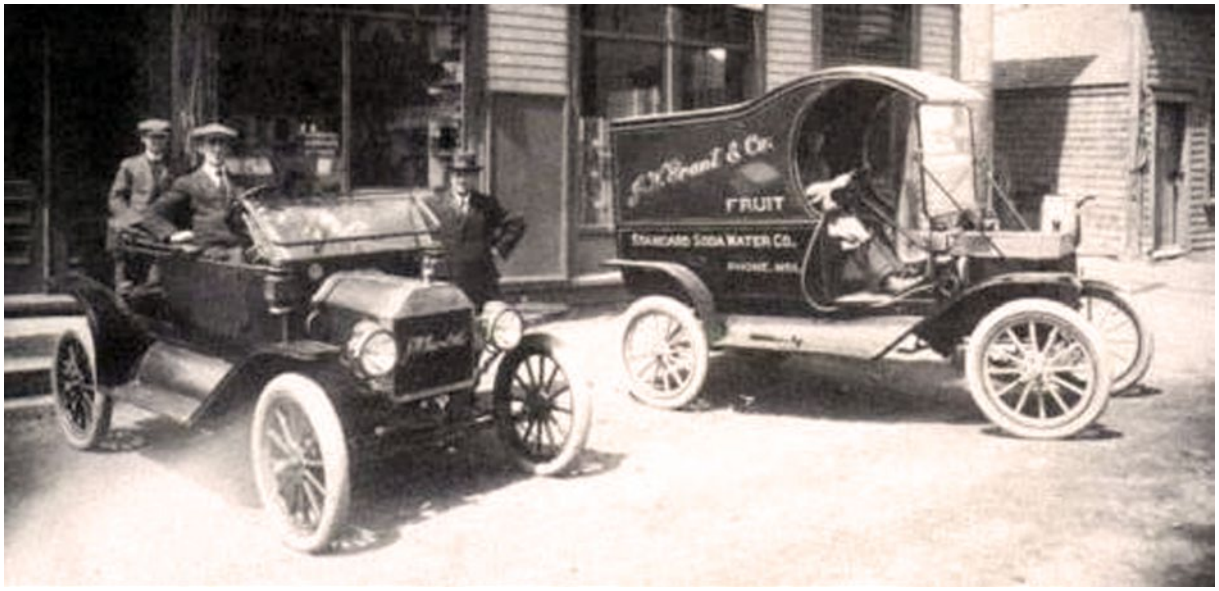
In 1906, Woodrow Wilson, who would later become US president, expressed his exasperation with the likes of Vanderbilt by saying:

"Nothing has spread socialist feeling in this country more than the automobile."

Amazingly, Vanderbilt survived his own reckless driving, but those around him were frequently not so lucky. Years later, while returning to New York from the family estate in Florida, Vanderbilt's only son and heir, William K Vanderbilt III, died in a road accident in South Carolina. He was 26.

Henry Ford can probably be credited with saving the American upper classes from some of the wrath of the masses: he offered every man and woman an automobile at an affordable price, and thus the car – and later the roads to run it on – spread across the continent and across the planet. Whatever happens in America usually happens everywhere else a few years later, so it's worth looking at the American history of the private motorcar.

For the American working man, having a steady job and a Model T Ford was a form of heaven. Many Americans, even then, had a lifestyle most people in Europe could only dream of.



Cars are very good for one thing: driving to places that few other people are going to. People whose lifestyle or job requires them to be at unusual places at unusual times are often totally reliant on their vehicles. Country people have always been great fans of cars, because there has never been public transport in many areas and the car allows them to commute long rural distances with ease and comfort.

Country people loved the car, but as soon as the car arrived, people left the wide open spaces: when Ford first released the Model T, three out of four Americans lived and worked in the country. By the time the last Model T had been sold, three out of four Americans lived and worked in the city.

The car certainly promised freedom, but frequently failed to deliver, for two very frustrating reasons: the first is that as long as there have been cars, the supply of roads has generally lagged far behind the demand for them.

If the congestion gets bad enough, the authorities will start building new roads, but roads are costly and need careful planning, so they are inevitably years or even decades behind the public demand for them.

When a new road finally opens, there is a general euphoria that lasts for a few brief months, then the new road fills up again and it's back to long queues and traffic jams. Obviously, the problem is worst in densely populated areas and least in sparsely populated areas, but the basic equation still applies across the world.

Which brings us to the second problem:

When cars are cheap, everybody buys one. While each driver has a theoretical freedom to go anywhere anytime, he or she doesn't go anywhere anytime – he or she generally wants to go to the same places as everyone else, and generally at the same time as everyone else. You drive to work, and so does everyone else. You drive into town on a Saturday night, so does everyone else. You drive to the beach on a hot summer's day, only to discover that everybody else had the same idea as well.

Peaceful, quiet country areas near cities get quickly gobbled up by city dwellers looking for a way to escape this madness. The city dwellers' escape, however, simply brings the city to the peaceful, quiet areas, so the madness continues, along with a long commute through the traffic jams.

It's not that there aren't still some gloriously long, empty roads scattered around the western world, but they tend to be empty at the very times that most people can't get to them; midweek, when most people are working, at night or off-season, when most people are stuck at home. Go to any popular rural tourist destination at the nicest time of the year and you're straight back into the traffic jams that you left the city to escape.

Far away from the big cities are long, empty roads through beautiful areas that seem so peaceful and green to the occasional tourist, but these roads are often empty because there are few jobs and fewer prospects for the people who live nearby. Many of the locals have already headed for the city; to sit in traffic jams and dream of the wide, open spaces.

Cars changed everything about the world, but they changed the lives of teenagers beyond recognition. Before the car, teenagers and young adults did much of their courting at or near home, under the watchful eyes of their parents.

For teenagers throughout the twentieth century, cars were their ticket to freedom. Cars enabled young people to attend social functions that were a long way away from home. Cars became a place of semi-privacy, the site of a first kiss or sexual experience. And cars became one of the primary causes of death among young adults.

Not all Americans joined the great stampede towards cars and car culture. In the early 1950s, four out of ten American households did not even own one. Many people were quite happy to take public transport, which in those days was both plentiful and cheap.

You probably think of Los Angeles as a city built around the automobile, but you'd be wrong. Los Angeles grew fat and wide because it was connected by an efficient and cheap public transport system. In the early 1950s Los Angeles had over 1500 kilometres of rail and trolley lines.

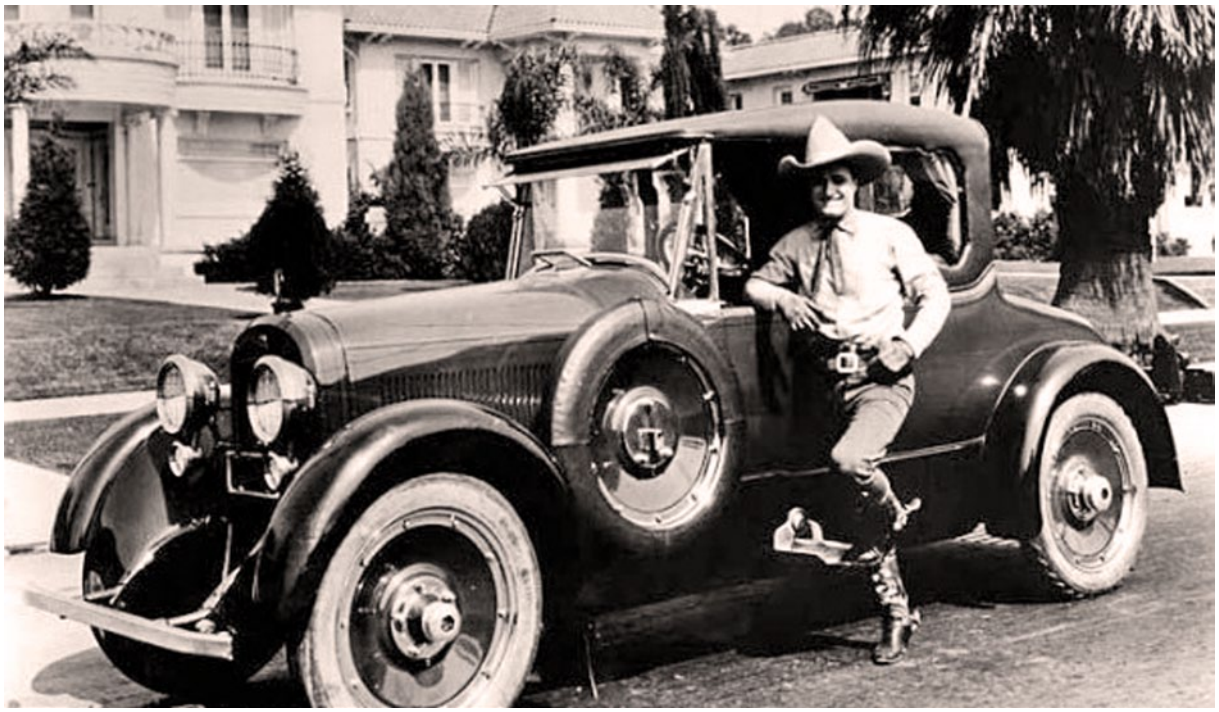
By comparison the entire State of California had only a few miles of freeways. Just after the end of World War II a public opinion poll in Los Angeles showed that 88% percent of the public favoured expansion of the rail network.

The automotive companies had different ideas. General Motors, Standard Oil of California and Firestone began in the mid-1930s by buying the largest bus maker in the US, and then secretly funded a company called National City Lines, which by 1946 controlled streetcar operations in 80 cities. National City Lines systematically closed down its streetcar systems. By 1955, only a few remained.

Then came State Senator Randolph Collier. Under Collier, plans for railways were simply rammed off the agenda. Collier openly scoffed at anyone who didn't want a car, calling trains 'rabbit transport'.

New motorways sprouted like spaghetti, and Collier's solution to the resultant traffic jams was to build more motorways, and as those motorways filled up, his solution was to build more motorways, and as those motorways filled up, his solution was to build more motorways.

Today, gentle reader, Los Angeles drivers spend up to four hours a day driving to and from work. One third of the city's area is dedicated to the automobile and the Los Angeles County Transportation Commission has a larger budget than the city of Los Angeles.



Much of the blame for America's current gridlock rests with greedy corporations and corrupt politicians. However, that's only half the story: the other reason that America is the nation of the car is that many people wanted it that way. Once you see a car you want one; you think you'll be able to drive anywhere at anytime and do anything.

That's what happened in America and around the world; a large hunk of the population fell in love with the car, and love is blind.

Throughout America, the problems of congestion and pollution were there from the beginning, but the few people that saw the problem were generally simply ignored or attacked as being anti-American. America was the land of freedom, and freedom meant cars, at least as far as Henry Ford was concerned.

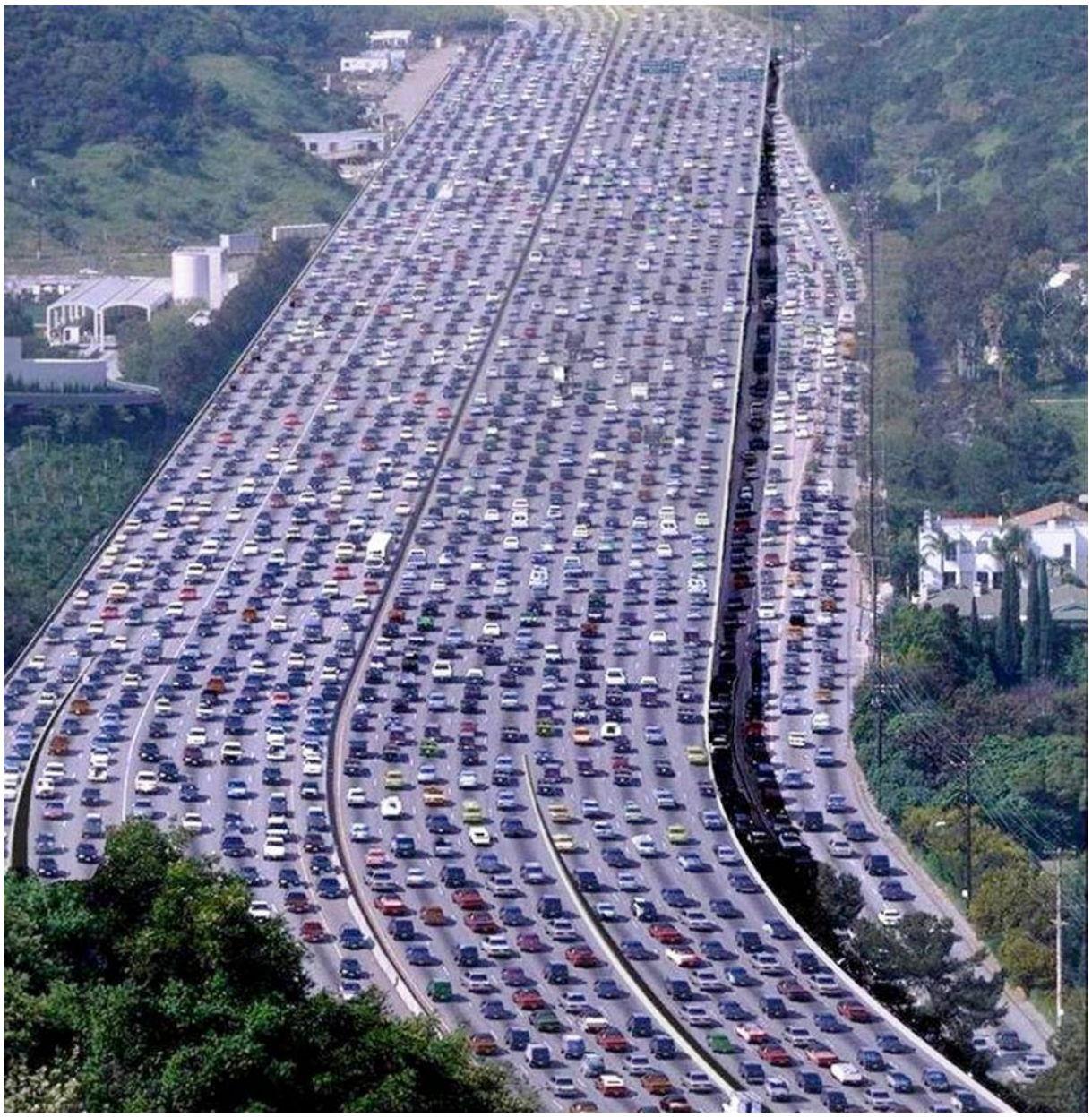
Once the original inhabitants had been removed, the USA was also the land of vast open spaces. From day one, America's solution to congestion and pollution was to simply keep expanding the towns and cities outwards into the surrounding countryside. This was already happening in the days of trains and buses, but it quickly grew into a brutal stampede when the car took over.

As city-dwellers moved out into the cleaner and more spacious suburbs, the inner cities became slums. As the needs for more roads across the cities grew, the inner city slums became the favourite targets of the road builders.

Everybody wants new roads, but not in their backyard. The residents of the inner city slums were largely politically powerless, so they were frequently simply evicted, their homes bowled and motorways constructed in their place.

For nearly 100 years the illusion of car-driven progress continued unabated; however bad the congestion and pollution grew, it seemed like just a matter of time before the problem was solved. A new road here, a bypass there. Some radical new plan to drive an eight-lane expressway through Never-Never Land.

The roads and the cars kept coming faster and faster, with the Promised Land always just over the horizon. As quickly as roads were built, they filled with cars eager to escape the traffic jams.



As more and more cars used the same roads, the roads that were meant to ease congestion instead created it. Throughout the twentieth century the pattern was repeated.

Every road chewed up space, yet every new road was urgently needed. With every new road more people used more cars, so more roads were needed. And then one day the illusion became simply too difficult to maintain any longer.

A few years ago, the then-Californian Governor, Gray Davis, chose the ribbon-cutting ceremony for a new freeway just outside Los Angeles, to declare that it would be the last one built in the state. It was time to find other ways to move people, he said •