Fraud, bankruptcy, suicide and transportation: The history of the London Underground railway

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16 March 2006

The title of this lecture is “Fraud, Bankruptcy, Suicide and Transportation for Life: The Early History of the London Underground Railway”. You may wonder what those rather sinister sounding things have to do with the history of the London Underground Railway. Well, all will become clear, because they all featured in its early history.

The current tube map represents what we think the Underground looks like. This is what it really looks like. An an early version of the Underground map, which was produced in the 1920s, shows what it really looks like. Although they had already began to use the idea of colours to distinguish the different lines, it is nowhere near as clear as the modern map. The first version of the famous map was produced by Harry Beck, 1901 to 1974, who was an electrical draughtsman employed by the London Underground, and regularly made redundant by them, because in those days, they had the kind of financial problems that they often have nowadays. During one of his intermittent periods of redundancy, he sketched out the map on the back of an envelope, literally, using principles associated with wiring diagrams. The way in which the map is constructed is that, first of all, as far as possible, you have straight lines. Where necessary, you have 45 degree angles or 90 degree angles, and the other characteristic of it is that there is no resemblance at all between the distance between the stations on the ground and the distance between the stations on the map. So, for example, Leicester Square to Covent Garden is about 400 yards, whereas Upminster Bridge to Upminster is about 3 miles, but they look the same on the map, and the reason is that they wanted to be able to get the whole system on one useable sheet of paper.

He submitted his design to the design committee of the London Underground, which was chaired by a man called Frank Pick, of whom more later, and they thought it was too revolutionary and that people would not understand it, but after a further attempt, they agreed to give it a whirl and printed 300,000 copies, which went within 48 hours, and they realised that this was actually quite a good idea. Someone then pointed out to Frank Pick, who was the Chief Executive of the London Underground, that since Harry Beck had produced this while he was redundant and therefore technically not an employee of the London Underground, he held the copyright. So Frank Pick said, “Offer him 5 guineas,” and he took it! Of course, since then, the London Underground has made far more money out of this map than it has ever made from running trains!

There is a competition at the moment for Britain’s greatest design icon. Concorde is one of the competitors, and the London Underground map is also one of them.

The Metropolitan Railway was opened in 1863, and in 1987 and the Docklands Light Railway opened. Bear in mind that different underground railway companies started life as separate enterprises, financed in the early days by private capital. They competed with one another, and often they did not get on very well.

The world's first underground railway was between Paddington and Farringdon, and it was what is known as a sub-service railway, by which I mean you dig a trench, you build a railway, you cover it in. The first of the deep level tube was the City and South London Railway, which was built with a tunnelling shield.

In 1907, the Charing Cross, Euston and Hampstead Railway was built, and in 1924, it was united with the City and South London Railway to create what we know as the Northern Line. The next major development had to wait until 1969 and the construction of the Victoria Line, so not a great deal was undertaken in the way of new lines, as distinct from the extension of existing lines, between 1907 and 1969.

They were private enterprises until 1933, when the London Passenger Transport Board brought them all together under one unified management, as a result of an arrangement between Herbert Morrison, whom some of you may remember, the grandfather of Peter Mandelson, and Lloyd Ashfield, who was the head of the underground system. But even then, they were not fully nationalised, because the previous shareholders were given interest-bearing stock, and the whole operation was overseen by trustees, a board who represented the London County Council, the Institute of Chartered Accountants, the Law Society, the Committee of London Clearing Banks and various other organisations. So it wasn't really until after the War that it came into public ownership in the full sense of the word.

Now, I want to talk to you about Victorian London's transport problem, which can be summed up in one word: railways. If you look at a map of London you will see the Marylebone Road, Euston Road and City Road, and you can see that the main line terminus stations are all situated to the north of these roads: Paddington, Marylebone, Euston, St Pancreas, Kings Cross, and Liverpool Street Stations. Why were they all situated north of this road when their passengers really wanted to be in the City? Two reasons: first of all, a terminus station takes up a lot of space, and it was cheaper for the railways to buy land in what was then still an agricultural area than in the City; and secondly, after 1840, Parliament decreed that no mainline railways could come south of that road line because of the disruption that their building caused. So these railways – the Great Western, the London Midland, and so on – were bringing people in and dumping them, when they wanted to be down in the City, and the result was that the City was full of traffic jams.

So various ideas were put forward to transport people from the terminus stations to the City and Westminster. One of them was put forward by Sir Joseph Paxton, best known as the architect of the Crystal Palace, and he proposed his Great Victorian Way, which would link the terminus stations with this facility, enclosed in glass. It contained flats and shops, and a pedestrian way, with railways running at first floor level, linking the terminus stations. Estimated cost in the 1840s: £34 million, which in today's terms would be about £34 billion. So the parliamentarians said, "Great idea, Sir Joseph. Sorry we can't afford it."

Then there was another idea, which was put forward by an architect called William Mosley: the Crystal Way. Here the railways would have been at ground level, with shops at first floor level, and flats. Again, it was too expensive. By the way, these projects were enclosed in glass because the atmosphere of London at the time was so appalling that people didn't want to breathe it, owing to the mixture of smoke fumes and sewage.

So the next innovation was by a man called George Shillibeers, who on the 4 th of July 1829 instituted an omnibus service, the first in the world, between Paddington and the City. It was not a great success, basically because the roads were so congested. He went bankrupt, so he is our first bankrupt, though not our last, and fled to France. He was brought back from France, put in jail as a debtor, eventually emerged from jail, and redesigned the omnibus as a hearse, which I think it rather resembled anyway, and made his fortune. So he is also our first jailbird, though not our last.

Now we start to enter more sensible ideas. There was is Charles Pearson's arcade railway. He proposed to

build a railway down the middle of the Farringdon Road, which runs down towards Blackfriars (no doubt many of you are familiar with it, it is a wide road), and the idea was that this railway would be built beneath the surface but open to the sky, so that people could pass on either side. The mainline railway companies were very keen on any scheme that enabled their passengers to get into the City, and agreed to put up money to finance it. However, when the money was called upon, the money that had been put up by the Great Northern Railway, £170,000, roughly £170 million in today's terms, had been stolen by one of their officers, a man called Leopold Redpath, who was taken to court and was one of the last people to be transported to Australia, in 1857, so he's our transportation, but they did get their own back, because one of his descendants, Ian Redpath, the New South Wales batsman, caused the English cricket team a great deal of trouble in the century that followed!

Finally, we have a similar concept, the Metropolitan Railway from Paddington, which was opened in 1863, on the 9 th of January. Much of it was actually financed by the people who built it, the contractors, who thus became shareholders in it, which resembles the private finance initiative that we have been hearing so much about in recent times. That was opened in January 1863, conveying people from Paddington to Farringdon, and picking up people on the way at Euston and Kings Cross and St Pancras. That was followed, in 1868, by the District Railway, which ran along the Victoria Embankment, which was at that time being built by Sir Joseph Bazalgette. The Metropolitan Railway and the District Railway came together to create the Circle Line. They were all steam trains, and although vents were built in the pavements to allow the steam and smoke to escape, and although they built special engines which were supposed to produce less smoke and steam than the others, it was not altogether a success, as is shown by this extract from a letter to The Times, which described a journey in 1879:

The condition of the atmosphere was so poisonous that I was almost suffocated and was assisted from the train at an intermediate station. On reaching the open air, I went to a chemist. Without a moment's hesitation, the chemist said, "Oh, I see, Metropolitan Railway," and at once poured out a wine glass full of what he called 'Metropolitan mixture'. I asked him whether he often had such cases, to which he replied, "Why bless you, sir, we often have 20 cases a day."

Some years later, a Special Inquiry was instituted into atmospheric conditions on the Underground Railway, and the parliamentarians were informed by the manager of the Metropolitan Railway that in fact the smoky atmosphere was beneficial, especially to people who suffered from asthma and other similar respiratory conditions, and that one of their employees had been stationed at Great Portland Street Station because he suffered from asthma and this would help to cure him! The whole story came apart, however, when a driver on the Metropolitan Railway came to give evidence, and he said that he'd worked there, man and boy, for 30 or 40 years, and it hadn't done any harm at all, and besides, "only very rarely was the smoke in the tunnels so thick that he couldn't see the signals"!

When the Metropolitan Railway was being built down the Farringdon Road, there was one occasion when the Fleet River burst in upon the workings, causing great mayhem, but fortunately no one was killed. The Timesreported this, and said that the site was well worth a visit!

Lord Palmerston, then Prime Minister, was invited to attend the opening of the Metropolitan Railway, and replied – he was getting on, he actually died the following year – he hope to remain above ground for a little longer!

The Metropolitan Railway had three rails. This is because the Metropolitan Railway had to accommodate not only the standard gauge shuttle trains that ran backwards and forwards between Paddington and Farringdon, but also the Great Western Railway's wide Brunel gauge trains. They wanted to be able to bring their trains from Reading in the west to Paddington, straight on to the Metropolitan Railway and into the City, and they were doing that from 1863. You have probably heard all about this on-off love affair with Crossrail and how we want to be able to run trains from Paddington into the City and beyond. Well, the

Victorians were doing it in 1863, so it is not that revolutionary.

Special Metropolitan Railway locomotives were devised to minimise the amount of steam and smoke that was escaping. They had a special pipe that took the steam back into the water tank, where it was condensed but, as we have seen, it was not altogether successful.

The Metropolitan Railway's first class carriages were just the same as they were on an ordinary surface train. They were not what we think of as an underground train at all. The Metropolitan Railway thought of itself as a surface railway which occasionally had to go below the surface.

Let us look now at some of the characters that were involved in this. There was a man called James Staats Forbes, who was what we would now call a company doctor. He was the chairman of the London, Chatham and Dover Railway, and also the District Railway, now the District Line, which never made any money, and he was brought in to rescue it from bankruptcy.

His bitter rival was Sir Edward Watkin, who was the chairman of the South-Eastern and Chatham Railway, the great rival of the London, Chatham and Dover, and also was the chairman of the Metropolitan Railway, amongst many others. He was a very strange and rather irritable man, who on one occasion, at a shareholders' meeting, was asked a perfectly sensible question by a shareholder about one of his crazy schemes, and he replied, "That is about the most stupid suggestion I have ever heard, even from a shareholder!" He was not a man to whom diplomacy came naturally. He wrote an insulting letter to one of the engineers on his railway, who he thought was ripping him off, and started the letter by saying, "I apologise in advance for any offence that this letter may cause." You knew where you were with him!

He conceived a plan to build a tower at Neasden. He went to Paris for the exhibition of 1889, or whenever it was, and saw the Eiffel Tower, and thought "I want one of those. I'm going to build one at Neasden, and then people will come and visit it and travel on my railway." So he started building this tower at Neasden, which became quickly known as the Watkin Tower. It was going to be, naturally, taller than the French tower. He got it up to the first stage, then the magistrates refused it a liquor licence, and he ran out of money. It lay there for many years as a sad reminder of the activities of Sir Edward Watkin. It was finally blown up in 1904, and its present site is being occupied by the new Wembley Stadium. So it did become a major centre of activity after all, though not in the way he intended.

He also had a plan for building a railway from Manchester to Paris, via Quainton in Buckinghamshire, which was going to be the Clapham Junction of the Sir Edward Watkin railway system. People would be able to get on a train in Manchester and travel on railways which were chaired by Sir Edward Watkin, down to Aylesbury on the Great Central, from Aylesbury to Baker Street, and then along the Metropolitan Railway, under the Thames on the East London Railway, also chaired by Sir Edward Watkin, and then on the South-Eastern and Chatham Railway to Dover, and he actually started building a Channel Tunnel in 1881, close to the present site of the Channel Tunnel.

He was also a Member of Parliament, and he was asked by one of his fellow MPs, "Don't you think that this would be a gap in our national defences and we could be invaded by the French or the Germans or whoever we happened to be quarrelling with at the time via the Tunnel?" He replied, "No, you don't need to worry about that, because I've got a button on my desk, and if I press it, I can blow it up in two minutes." Quite how the passengers would have felt about this was not clear! But that was the end of the first attempts at the Channel Tunnel.

He also built a little railway from Quainton to the hilltop village of Brill in Buckinghamshire, using funny little engines which were chain-driven, rather like Thomas the Tank Engine. When this railway was finally closed

in the 1930s, lots of nostalgic letters were written to the newspapers in which people said how the shunting was carried out by a horse, and how when the carriages came off the rails, which apparently quite often happened, the passengers would get out, and with the assistance of agricultural labourers from the neighbouring fields, they would push them back on to the line.

So that's the surface railway; now let's talk about the deep level tubes. We can't do that unless we first talk about the Thames Tunnel, which runs between Wapping and Rotherhithe and was designed by Mark Brunel, the resident engineer being his better known son, Isambard Kingdom Brunel. It took 18 years to build, 1825 to '43. It was the first tunnel ever built beneath a river. It was a financial disaster, and an engineering triumph. Mark Brunel is our second jailbird, because he was also sent to the Marshalsea Prison for debt, and finally released when he threatened to sell to the Czar of Russia the right to use a patent that was being used by the Admiralty. It was completed in 1843. It was a foot tunnel. It never made any money. Its debts gradually piled up through the accumulation of interest, and it was sold to the East London Railway, and to this day, it still carries that rather forgotten little bit of the London Underground system beneath the River Thames. So it has this claim to fame that the East London Railway is still carried in the world's oldest tunnel beneath a river.

It was built using a tunnelling shield. This was Mark Brunel's invention. You have a cast iron frame, divided into compartments. Each compartment contains a labourer, known as a miner. The miner excavates the ground in front of him with a pick axe, then he shovels what was excavated on to a trolley, which carries it away. When all the miners have excavated about two feet of ground, the tunnelling shield is then pushed forward by hydraulic jacks, bricklayers come along behind and line the roof of the tunnel, and they start again. In the meantime, of course, the tunnellers, the miners, are protected by the iron frame from any falling debris. That is the way in which tunnels are built now, using more recent versions of a tunnelling shield, but the same principles. Of course they are power driven now and have blades which rotate. It was by this means, invented by Mark Brunel, that the Channel Tunnel, for example, was built.

They later used electric locomotives, because they couldn't afford to have steam emissions in the tunnels. They were barely man enough for the job, because when the line went beneath the River Thames, it went down into a kind of dip and then had to go up the other side to London Bridge, and sometimes the engine could barely do this and you would have lights flickering and occasionally it wouldn't make it, and you would have to stop, reverse, and take another run at it. So it can't have been much fun.

The City and South London Railways carriages were known as padded cells, partly because they had very lavish upholstery and partly because they had tiny windows, because the designers thought that if people saw the tunnel walls flashing past, they would be frightened.

Ten years later opened the Central London Railway, with electric locomotives, an altogether grander affair. This was opened in 1900. Amongst the people who attended the grand opening ceremony was one Samuel Clemens, better known as Mark Twain. In the newspapers, this is what they said about it:

"The conductor was all of a quiver of joy and pride, but there was no indecorous exhibition of emotion. Every man was resolutely British."

The early Central London carriages had rather elaborate gates at the end to let people on and off, and they had to have a conductor for each one, which was rather expensive. So they then replaced them, in the 1920s, with the sliding door stock and did away with the conductors, but these used up an awful lot of space for the motors. A later development put the motors beneath the carriages to give more space for passengers, and some of this 1938 stock is still in use on the Isle of Wight Railway, which actually has the best punctuality rail records for any mainland railway!

Let's not forget either the Post Office Railway, between Paddington and Whitechapel, to convey mail

between those two points and at various intermediate points. It opened in 1927 and was built to bypass the terrible traffic congestion, and it was actually closed in 2003 amidst much lamentation. I blame Ken Livingston, because when he introduced the congestion charge, it once again became viable to drive Post Office vehicles through London and they found that they didn't need it.

Now, let's talk about some of the wackier personalities who were involved in building the London Underground Railway. First of all, Whitaker Wright, an Englishman who made a lot of money out of mining in America and, in 1898, started building the Bakerloo Line. In 1900 he ran out of money and stopped, attempted to raise money by fraudulent means, and when this didn't work, he fled to France. When he found they were trying to extradite him from France, he then fled to America, but was brought back and tried in the relatively new law courts in the Strand, and he was sentenced to seven years' hard labour for fraud. He left the court, protesting his innocence, collapsed shortly afterwards, and was found to have swallowed a cyanide tablet. When they searched his clothing, they found, in one of the pockets, a loaded revolver. So here is our next crook, but it is perhaps worth bearing in mind that without people like this, we would not have a London Underground Railway.

Now we start getting even more exotic, with a man called Charles Tyson Yerkes. He was an American, a Quaker, though you would never have guessed it from his activities. He was jailed for selling dodgy bonds to his fellow citizens in Philadelphia. Then he went to Chicago and got involved in setting up that city's urban transit system. The local authority, the Chicago City Council, decided to take it out of his hands, so he went along to City Hall to bribe the legislators, as he had often done in the past, only to find a group of angry shareholders, brandishing firearms and hanging him in effigy. So instead, he went to New York, and from there, he came to England, where by means that defied the understanding of the City of London, he managed to raise enough money to buy and electrify the District Railway, to finish the Bakerloo Railway, to start building the Piccadilly Line, and to build the Charing Cross, Euston and Hampstead Railway, the northern part of the Northern Line.

One of the things he did was to sell £15 million worth of shares, bonds and what he called "profit sharing notes". When the chief accountant of the London County Council was asked to comment on the viability of this proposition, he explained that he couldn't understand a word of it and wouldn't touch it with a bargepole, as a result of which, most of the money to electrify the District and build these other lines was subscribed on the Continent and in America, by Americans, Austrians, Germans and French, and they never saw any of it again. Where are they now, these people? Why isn't Sebastian Coe touring the capitals of Europe raising money from foreigners to build the Olympic City? But again, without these kind foreigners and without people like Charles Tyson Yerkes, we would have no Underground Railway. I hope that by the time I've finished speaking, you will have come to the conclusion that Ken Livingston is a pussy cat compared with some of these! He died in the nick of time, Charles Yerkes, in his gold-plated bedstead, in his Fifth Avenue apartment in New York, leaving the railways behind bankrupt. He left his picture collection and his gold bedstead to the citizens of New York, but they never got to see them because his creditors got there first.

Now, now we start getting responsible. There was a man called Frank Pick, who was a pretty dour character and was the Chief Executive of what was in effect London Transport from about 1910 to about 1939, the outbreak of war. In his entry in Who's Who, he said his recreation was visiting and studying foreign railways, which will give you an idea of the kind of character he was, but he did have one very good idea which, had it been taken up, might have been good for everyone. He went before a parliamentary committee, and he pointed out that when the Piccadilly Line, for example, was extended north of London, or the Central Line east of London, the railway had to exercise compulsory purchase powers to buy farmland over which it passed. When they bought a farm or a field, they could either do a deal with the farmer, or they could exercise compulsory purchase powers, which involved the law courts and sometimes politicians, so very often, they would choose to do a reasonably generous deal with the farmer instead. The farmer would say, "Well look, I know you only need 30 yards of my field, but by buying 30 yards, you have left me with a useless piece of land on either side, so please buy the lot," and that's what they would do. Having built the railway, two things followed: one, they have a lot of land on either side of the railway which

they don't actually need; two, that land has enormously increased in value, because if you build houses on it for people who want to travel to work in London, it becomes more valuable.

What he said to the parliamentarians was this: we, the railway company, should be able to realise the additional value of the land that we have created and use that to put it towards the enormous capital cost of building a railway. It makes a lot of sense, and had that idea been adopted, the capital shortage problems from which London transport has suffered for the last 70 years might never have arisen. But what the parliamentarians said was, "No, your job is running railways. Any surplus land has to be sold back to the original owner at the original price." So the money was made by the original owners and the developers, rather than by the railway, which would I think have benefited the community as a whole had it been allowed to go ahead, but it was not to be.

He was a noted art connoisseur and employed some later very well known artists to design posters promoting travel on the London Underground. Mabel Lucy Atwell was one. Rex Whistler was another.

When I was writing one of my books, I interviewed a man called Anthony Bull, then well into his nineties, who in the 1930s had been a personal assistant to Frank Pick. As war approached, Frank Pick, who was known to be very well connected in the artistic community, was contacted by the government, who said we want to produce a recruiting poster for the Women's Voluntary Service, later the Women's Royal Voluntary Service, whose services we think will be needed should there be a war, and could you please go and find a suitable model for such a poster. We want a woman who is attractive but not too glamorous, and suitably resolute. So Anthony Bull went and found a young woman, and they put her picture on the poster, and presumably it did its job because the Women's Voluntary Service recruited lots of extra members and people admired the poster. They said, well who is this? So Anthony Bull made enquiries, and it turned out that she was German! Now, this was hushed up, and told to me by Anthony Bull about six years ago. It's possible that she is still alive, so if anyone runs into her, put her in touch with me and Iwill tell her where she can pick up her royalties!

When war started, Frank Pick was recruited by the government to help with propaganda works. He had a row with Winston Churchill, and this conversation I have verbatim from one of the witnesses. In the early stages of the war, we were dropping leaflets on Germany rather than bombs, trying to persuade them to get rid of Hitler. Pick objected that some of the information contained in the leaflets was false. So he was summoned to 10 Downing Street, and the following conversation took place:

Churchill: "Now Mr Pick, I understand you have been objecting to the dropping of the leaflets."

Pick: "Yes Prime Minister. What is written on the leaflets is not wholly true, and that is bad propaganda."

Churchill: "This is no time to be concerned with the niceties!"

Pick: "Prime Minister, I have never told a lie in my life."

Churchill: “Mr Pick, yesterday the Germans shelled Dover with their long range guns. This afternoon, I shall be visiting Dover, I may be killed by a German shell and, if so, it will be a great comfort to me to know that on the last day of my life I spoke with a man who had never told a lie in his life. Get out!”

That was the end of Frank Pick’s contribution to the war effort.

In the 1930s, one Nikita Khrushchev was building the Moscow Metro, largely with slave labour. People were sent to see how London ran its Underground. It is hard to believe now, but in the 1930s, people came from all over the world to London to see how to run an urban transit system. Out of gratitude, an honorary badge of merit was awarded by Stalin to Frank Pick and his boss, Lord Ashfield, and as a gesture of thanks, they decided to build a station on the Central Line in a similar mode to that of Moscow’s Pushkin Station, which is like the Piccadilly Circus of the Moscow Metro. So you have a little station out on the borders of Essex and London which has got a wonderful assembly hall. It is in fact Gant’s Hill.

He also employed an architect called Charles Holden to build stations on the Piccadilly Line and the Central Line in accordance with the principles of the Bauhaus, which was a German design group. A lot of the Bauhaus people left Germany in the 1930s because Hitler didn’t really approve of them, and a lot of them came to England. Broadly speaking, the Bauhaus school of architecture maintained that you should use simple geometric forms – circles, squares, rectangles and so on. One such station is Arnos Grove, which was described by the architectural historian, Nicholas Pevsner, as being as important as any of the buildings of the Bauhaus.

Number 55 Broadway, opened in 1929, was the headquarters of London Transport then, and indeed still is now. When it was built, it was the tallest office building in London, decorated with sculptures by Epstein, which caused great offence at the time, but is now regarded as one of London’s icons.

Frank Pick visited Sudbury Town Station, and was annoyed to see that lots of vending machines and things had been built on the platforms, cluttering them up, and he sent a withering note to the engineer, who apologised profusely and said that he would have them removed, and Frank Pick said, “No, leave it as a permanent memorial to the department that cannot do its work properly.” How’s that for a put-down?!

Tottenham Court Road Station has fairly recently been redesigned, with saxophones and guitars and so on, to reflect the entertainment traditions of the area.

Canary Wharf on the Jubilee Line won an award for architectural merit.

Now let’s look quickly at Metroland. John Betjeman did not invent the title Metroland; it was invented by the Metropolitan Railway to describe the suburbs that they were serving and creating. One of the characteristics of the Metropolitan Railway, possibly because it was the first railway, was that, unlike the others, they were allowed to develop the land whose value they enhanced, and that no doubt explains why the Metropolitan Railway was always relatively profitable compared with the others.

An advertisement for a nice cheap house in Metroland in Rickmansworth shows a five-bedroomed house for £2,000 in the 1930s, I think you will agree, quite a bargain!

See if you recognise this place… One of the suburbs created by the Metropolitan Railway had this written about it in th 1920s:

“A model garden village on which a number of semi-detached residences have been erected. Peace and quiet prevail, and the stretches of country around offer plenty of opportunity for invigorating exercise to those who are inclined to walking and cycling.”

That’s Neasden! I should have told you it was an estate agent’s description!

Let’s see if you do better with this:

“A beautiful garden suburb on a hillside facing south, protected from north winds and catching every gleam of sunshine.”

This is not St Tropez…it’s Edgware!

So that’s how they promoted the development of suburbia, which occurred of course so rapidly between the wars.

Chiltern Court in Marylebone was the headquarters of Metroland, and the building contained many luxury flats, whose residents included H. G. Wells and Arnold Bennett.

Let’s just look now at the Underground’s role in the war. Originally, the government said that no one was to use the Underground stations as air raid shelters because they were convinced that the fatalities would be so enormous that they would need to use the Underground system to transport the corpses to burial places. In fact, the total number of people killed in the Blitz throughout the war was the number that the government anticipated in the first 24 hours. So eventually, Londoners decided how the tube stations were to be used. Police tried to stop people getting into the Underground stations. There was a punch-up, which didn’t last very long, and people made their way on to the platforms, and of course they were used as air raid shelters throughout the war.

There were eight strange large round structures: one is at Belsize Park, another at Chenies Street, near Goodge Street Station, and they were mostly built alongside the Northern Line. They are huge tunnels, eight of which can accommodate 8,000 people. So you could accommodate 64,000 people in these eight underground structures. No one has ever really said what they were for. They were built on the order of Herbert Morrison, probably to house the government in the event of some kind of unexpected weapons being launched on London. The one at Chenies Street was used as headquarters by Eisenhower and Montgomery to plan the invasion of France before they moved to Portsmouth, and they are now mostly used as document stores for companies.

There were a lot of facilities. For example, there was a little infirmary at South Kensington Station. Babies were born in the Underground during the Blitz.

There was the world’s longest factory – five miles long, between Leytonstone and Gant’s Hill. At the time, the Central Line was being built but had not yet been completed. The tunnels were there, but the rails were not. So they turned it into an aircraft factory component factory, and aircraft components were built in the five mile long factory throughout the war. At the end of the war, they emerged from their troglodytic existence and set up in Ilford in the form of the Plessey Company, which some years later actually passed into German hands. It was bought by the Siemens Company. This functioned throughout the war, and they built a little narrow gauge railway to move the components up and down.

Now, the big yellow duster. Three million of us use the Underground every day, and we leave behind large bits of our DNA – skin, hair and so on – which is potentially combustible. Until comparatively recently, this was removed by a formidable group of ladies, known as fluffers, who went down into the Underground at night with masks, dustpans and brushes and removed it. What happened then was that an engineers' train was converted. It has got three components: the first one has nozzles which blow air out and throw the debris into the air; the second has nozzles which then suck the debris in; and the third is the store of our DNA. This runs round the system each evening, about three or four miles an hour, in order to keep it safe and clean.

So, what's gone wrong with the Underground railway and why is it in such a state? Well, first of all, under-investment, and political influence on management. I have worked in both the private sector, for a food company, and I also worked in the public sector for British Rail for four years. When I worked in the food company, if I wanted some money for a new product or an advertising campaign or something like that, I had to persuade my elders and betters that it was a good investment, and that they would get as good a return by investing in my product as in anyone else's. When I worked for British Rail, I had to do that as well. I was involved in the construction of a freight terminal in Southampton. First of all, I had to persuade the railway management, and then they had to persuade the Ministry of Transport and the Treasury (and in those days, the Minister of Transport was one Barbara Castle) that investing in this freight terminal would be a better investment than building a bypass for a marginal constituency or knocking tuppence a pint off beer just before an election. Consequently, investment in the Underground has been bedevilled by political considerations ever since it was nationalised. On four occasions, major capital investment decisions have been determined by unemployment factors rather than by need.

For example, the Victoria Line was first proposed in the very early 1950s, but nothing was done until the 1960s because the government would not release the money. Then early in the 1960s, the London Underground management discovered that the government was worried about unemployment in the North-East, and there was an election coming up. So they said to the government, "Look, if you give us the money to build the Victoria Line, we will order the tunnel segments from shipyards in the North-East, and then everyone will live happily ever after." That is how the Victoria Line came to be authorised, and I am glad it was, but it is a very strange way to make management decisions, especially when it's accompanied by this horrible word "annuality", which means that the government will say, in a press release, we have agreed that there will be umpteen zillion pounds invested in the London Underground over the next ten years. Wonderful! Then they will say to the management of the Underground, "But, by the way, don't actually commit anything for more than 12 months, because otherwise there might be a financial crisis, or those nasty rough boys from the other party might be elected and put a stop to your plans." Of course you cannot make plans on that basis.

Also, you cannot spend money on the Underground quickly. It has to be done gradually. I gave this lecture last year, and I was approached afterwards by a man called Sir Keith Bright, who is mentioned in my book, and who was the Chairman of London Underground at the time. He said, "In the 1980s, I did a deal with Margaret Thatcher that any money we saved through increased productivity could be used to upgrade the system." This was the time when they were putting in driverless trains on the Docklands Light Railway and single man operations and the ticketing system which does not require lots of ticket collectors, so they were saving a lot of money. He said, "We just could not spend it quickly enough on upgrading the infrastructure," because in order to upgrade the infrastructure, you have to wait for the last train to go through at night, then you have to get all your equipment into position, do what you have to do, and get it out again before the first train comes through in the morning, which means that, if you are lucky, you get three or four hours of actual work. This is (a) very expensive, and (b) you can only do so much at a time, so trying to spend great splurges of money just does not work.

Now, there is talk now about the system, or bits of the system, being closed down for weeks at a time, and this was inspired by the accident that occurred at Chancery Lane in early 2003 when, you may remember, a motor fell off a train at Chancery Lane Station and they closed the Central Line for about ten weeks,

which caused a great deal of inconvenience, but the world did not end. This made them think, well, if we had known this was going to happen, if we had known we had got to close the line for ten weeks, we could have renewed the points, which are all custom-made, and the rails and the signalling system, and we could have got in there and put it in, but you cannot do that at short notice. You don't just nip down to your local B&Q or your local Ford dealer and say, "Look, I need three of these points and 12 of these signals and so many hundred metres of these rails – can you deliver them tomorrow please?" But they are now thinking about closing bits of the system for weeks at a time, and running bus services, so that they can do in a few weeks what might otherwise take years.

Finally, let's just look briefly at the public/private partnership and what the problem is. Some years ago, I was contacted by a chap from a well known financial newspaper, whose name I cannot mention, but it is not printed on white paper…., and he said, "I'm doing a television programme on how it was that the Victorians managed huge infrastructure capital projects in a way that we don't seem to be able to," and he wanted to talk to me about the London sewers. So we did a programme on the London sewers. This was about four or five years ago. He said to me, "You don't know anyone who knows anything about the history of the London Underground Railway, do you?" So I said, "Well, I might be able to help there as well." I knew that this guy had interviewed lots of government ministers and goodness knows what, and I said, "Yes, I'll help out, provided you tell me what the real issue is with the public/private partnership." What he said was this. Her Majesty's Government has no confidence in public servants' ability to manage major capital projects. They say look what happens when we allow civil servants and politicians access to large sums of money – Concorde, the Millennium Dome, Portcullis House, that office building for MPs. They said we think if we give Red Ken (Ken Livingstone) his head and we say, yes, you can go and raise money from the public, through bonds and so on, we are pretty sure that in a couple of years time he will be back and he will say, "I need some more because it rained" or "The sun shone," or "It got dark at night," or something like that which we had not foreseen, and, in no time at all, we will have a major fiasco on our hands; whereas if we put it into the private sector and there are difficulties, as with the Channel Tunnel, the shareholders pay, and the Chancellor of the Exchequer and the Prime Minister do not have to answer awkward questions in the House of Commons.

On the other hand, Ken Livingston and Robert Kylie had no confidence in the priorities of the Consortia. They were worried that the Consortia would, first of all, refurbish the stations so that they could put lots of shops in and get money back quickly, rather than refurbishing the track and signalling, which is what they want them to do.

So some kind of deal has been done. My guess is that Ken Livingston has said to the Consortia, "Okay, you have won this one, but if I catch you not spending money on the right things at the right time quickly enough, and someone gets injured or there is an accident, then I will make sure that you never work again," or words to that effect. I think we are just beginning to see the signs on some of the lines, with new rolling stock, but it has taken 70 years to run the system down, and I think it is going to take a good few more years for it to be built up again. But if you hear that they are going to close down some part of the line for a few weeks in order to get the work done, you will now know why.

I hope I have managed to convince you, as I started by saying, that compared with his predecessors, Ken Livingston is a pussy cat!