

# UNDERGROUND ITEMS FROM THE TELEVISION AN OCCASIONAL SERIES

by Paul Creswell

## THE TUBE: AN UNDERGROUND HISTORY

BBC2. 21.00 to 22.00 on Thursday 16 May 2013.

This year the London Underground celebrates its 150th birthday. It was the first subterranean railway in the world.

We joined Iain McPherson, station supervisor at Farringdon, as he was about to deal with a track circuit failure in the station area. This involved the need to 'scotch and clip' the crossover pointwork in the platform area, though we were not told what that term actually meant! Iain told viewers that rain had been a problem in the area since the railway was built. It had been constructed on the bed of the River Fleet (now running in a sewer), which probably explained the problems when rain fell. He reminded us that the track was live at 630 volts, which could prove fatal.

In the 1850s, London had begun to suffer from a now familiar problem, with too much traffic choking the streets. Iain explained that the population had grown rapidly, from about one million in 1800 to about two and a half million in 1850 – a one-hundred and fifty per cent increase. This meant there was hardly room to move.

This increase had been caused, in the main, by mechanisation in the rural areas, which reduced the amount of manpower needed there. People thus tended to move into the cities and London became the largest metropolis in the world. Transport in the city was entirely by buses, carts and on foot. London was choking on its own success.

In the boom years of the railways, laws had been passed to prevent the railway companies building stations in the centre of London and these had, instead, to be built on the edge of the central area, Paddington, Euston and King's Cross being examples. The problem became getting from these locations to the business and employment areas.

Charles Pearson was, by 1839, the solicitor for the City of London. He was concerned about the lack of a transport system for London's new and expanding labour force. With no such system in place, working class people were being crammed thirty or forty to a house, most of which were no better than slum dwellings. It was found that the occupants were often pining for the countryside in which they had previously lived, even to the extent of placing a single flower in a discarded teapot, as a tiny reminder of their recent past!

In 1845, Pearson had a brain wave of 'trains in drains' under the streets, which would enable workers to live away from the crowded slum areas and travel in to their employment. He lobbied the city authorities for eight years, without success. In 1853, he 'changed tack' and started emphasising his view that businesses might leave London if transport did not improve. Finally, the House of Commons passed a bill, allowing Pearson's railway to go ahead. He gathered together a 'rag bag' of investors and a private company, 'The Metropolitan Railway' was formed and construction commenced.

The first underground lines were built just under the surface by a method known as 'cut and cover', where a trench was dug, the railway placed in it and the surface was then replaced over the top. This method was undoubtedly a relatively cheap one, but it obviously caused immense upheaval on the surface during the construction period. It also displaced people due to the demolition of their dwellings, some twelve thousand being affected, just on the section from King's Cross to Farringdon. The middle classes, however, saw the construction as of benefit, for it removed the 'gin dens' and brothels that had previously existed in the areas concerned. However, Iain reminded viewers, it was the poor that suffered, as was usually the case in those times. The line eventually ran from Paddington to Farringdon.

Attention now turned to the trains. Atmospheric, hydraulic and cable systems were proposed, but, probably due to the relative cheapness and 'known technology' of the period, steam was eventually chosen. The locomotives were to have condensing boilers to trap the steam, rather than releasing it into the tunnels.

Today, steam returns to the underground, as a train with many VIP's on board carries them round the oldest stretch of the Circle Line.

Howard Collins, then Chief Operating Officer of London Underground (being interviewed in a radio studio) reminded us that, in 1863, when the Metropolitan Railway commenced operation, the American civil war was still being fought and a young Queen Victoria had not been very long on the throne. Heritage Operations Manager Andy Barr was shown organising the preparations for the steam special train. He commented on the simplicity of steam as a form of traction. You had a heat source, which heated water, which, in turn, created steam, this providing the movement.

The scene moved to what appeared to be a 'press event' at Kensington Olympia. Boris Johnson (London Mayor) was seen, as was Howard Collins. The ceremonial train was seen arriving. It was then seen passing through Baker Street, Earl's Court and Farringdon.

On 9 January 1863, the first train left Paddington. Within the first year of operation, the service frequency was increased to ten minutes (we were not told the initial frequency<sup>1</sup>). This increase caused passengers to start complaining about the sulphurous fumes. The company responded with a vigorous publicity campaign announcing the health benefits of steam and smoke! In the next few years, other companies decided to join in. The District Railway opened in 1868 and (reluctantly) combined with the Metropolitan to provide a circle around London by 1884.

In 1890, the Brunel family (reviewer: all of them?) pioneered the Greathead Shield. Paul Carroll (spelling?), station supervisor at Moorgate, took us to look at a surviving shield in a disused tunnel there. This allowed tunnels to be driven through the London clay, which though more expensive than 'cut and cover', caused relatively little surface disruption. Paul commented on how hard life must have been for the men working the shields, having to work very hard in shifts of, probably, twelve hours each. Whilst the general principle of the shield is the same today, it is a much more mechanised situation than it the general principle was in the nineteenth century.

The City & South London Railway pioneered the use of the Greathead shield with its line from Stockwell to the City, opened in 1890. There are dozens of similar disused stations and tunnels under London (your reviewer questions this number of stations, though clearly there are very many tunnels). The new method of construction was a great success, with the Waterloo & City Railway following in 1898 and the Central London Railway in 1900. A further significant factor in the success of deep level tubes were the advances made in electricity. Fleeting examples shown included traction, lighting, signalling and train description equipment. Piccadilly Line driver Dylan Glenister was interviewed in the cab of his train at various locations on the line. He theorised that electricity, and particularly its use for lighting, must have been amazing, particularly for children, who would have had nothing like that at home. Dylan has a collection of over 800 discarded tiles from the underground and he related how, in those days, many people could not read or write and the patterns and colours of station tiling allowed them to recognise their station from the train.

As the number of lines increased, there became a 'labyrinth' of tunnels under London and some problems became severe. As the lines were built by private companies, each in competition with the others, interchange between them was difficult, passengers often having to come to the surface and then descend again to change lines (e.g. Holborn). Separate tickets also had to be purchased for journeys involving more than one line.

These problems (amongst others) resulted in Parliament forming the London Transport Executive in 1933. The chairman was Lord Ashfield and his deputy was Frank Pick. The result was a new era of commercial ambition, coupled with a desire to see the whole system now unified by a common identity.

Mike Ashworth, Head of Design and Heritage, showed us some examples of preserved heritage, starting with the former W.H. Smith bookstall on the platform at St. James's Park station. He was not so pleased with the readily visible galvanised iron conduits taking the electricity supply to the electronic information board at the top of the stairs from the same platform! His view was that such installations should be looking at their being viewed for the next 40, 50 or 60 years when they were first designed.

He moved into his work-place, 55, Broadway (above the station). This was built in 1929 and was, then, the tallest office building in London. Mike conducted us down the 'corridor of power'. The layout of this building was the vision of Frank Pick, who was quite a shy man. Only one moving

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<sup>1</sup> It was every 15 minutes.

picture of him is known to exist and he had a habit of writing everything in green ink<sup>2</sup>. He went 'all out' to modernise design, including a standard typeface, system branding and innovative posters, all with the objective of drawing in more passengers.

The system's 'circle and crossbar' logo was believed to have appeared in 1908, though its origin is uncertain. One theory is that it was 'stolen' from the Paris Métro!

Underground lines (whether 'sub-surface' or 'tube') were expensive to build, so Pick had the idea of extending lines on the surface, into the suburbs, so as to reach more population centres at somewhat less expense.

We were taken to look at one such Surface extension, station, Highgate. There, Dylan Glenister (see previously) showed viewers around. It was built in 1939, for an extension to the Northern Line, but was stopped by the advent of World War Two and never got to see a tube train in service. Dylan located a discarded glass milk bottle (yes, glass!) and conjectured as to its last use at the station. It had embossed on it that it cost 4d. to manufacture, encouraging return for re-use. Younger readers might wish to note that a 'green' environment did, just, exist in those far-off days, also that 4d. is just over 1.5p. today.

The 'new' approach, nurtured by Frank Pick, served to create demand, instead of just meeting it. It also helped in serving to initiate the 'suburban dream' of a nice house in the leafy suburbs.

In 1932, a man called Harry Beck revolutionised people's view of the Underground, by producing a diagrammatic style of map in distinct contrast with the existing geographical style then in use for many years. He left his original drawings in the care of graphic designer Ken Garland, who described Harry's map styling as 'amazingly elegant'.

Beck was a freelance electrical draughtsman, who had done some work for the Underground companies in the 1920s. His new style of map was based on his experience with drawing electrical circuits and he submitted his idea to the Underground's headquarters. At first it was rejected out of hand, as it was thought that the public could not relate to such a representation of the system. He persevered and, eventually, the 'powers that be' agreed to a trial run of his idea. A small number of copies were placed at some strategic stations. These were consumed by the public at an unprecedented rate! Thus his idea gained public acceptability and the new style of map was well and truly born. Beck became the effective 'custodian' of 'his' map style, providing a new version each time the system expanded.

In 1960, Beck was alarmed, when passing through his local station, to find a new version with someone else's name at the bottom instead of his. For the last 14 years of his life, Beck continued to submit versions of 'his' map, but all were politely rejected. The reason for this is not clear, but Ken Garland thought that it may have had something to do with a continuing problem with Beck's version, where Wimbledon (District Line) and South Wimbledon (Northern Line), serving (obviously) the same part of London, were a good distance apart. (*Reviewer: they are actually about one mile apart*). However, Beck was posthumously recognised in 1997 and his name has always appeared on London Underground maps since then.

The map is currently updated when changes occur, such as the recent London Overground extension to Clapham Junction. These updates tend to happen about twice a year. Beck's influence is still to be seen, both in London and on many other Metro systems' maps around the world.

After the Second World War, the system was nationalised, but did not receive any subsidy. Neglect began to become apparent and passenger numbers started falling, notably due to the effect of greatly increased car ownership. Recruitment of staff also became a severe problem, due mainly to full employment in the United Kingdom.

In 1956, London Transport started recruiting in Barbados and Jamaica, as well as at home. Views of staff being trained were shown, both on platforms, on trains and practising the use of 'Gibson' ticket machines. Your reviewer clearly remembers these on buses and trolleybuses, but not on the underground. However, our Editor corrects me in that they were found at the little-used Roding Valley station booking office!<sup>3</sup>

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<sup>2</sup> Robert Dell, Chief Signal Engineer, always used green ink. So did he copy Pick's idea?

<sup>3</sup> For a short time they were also provided at Harrow-on-the-Hill for use by Ticket Collectors to give receipts for excess fares, but it is believed that they were rarely used.

Customer Services Assistant Steve Parkinson ('Parky') was shown at Moorgate, performing the unenviable task of closing off an escalator for a short while, caused by platform overcrowding. When he was 13 years of age, a recruitment drive had visited his small village in Jamaica with a loudhailer mounted on a lorry inviting the people to come over to London and 'help the mother country'! He related that the average wage then (in Jamaica) was around 30 shillings a fortnight, (*Reviewer: this equates to £1.50*) whereas anyone 'joining up' to move to London was promised £8 to £10 a week. (He did not add that, whilst this sounded fantastic, nothing was said to them, assumedly, about the much greater cost of living in London, compared to Jamaica).

At the age of 17, his parents sent him to London, where the difference between expectation and reality began to dawn. We were shown (probably set-up for the camera, but undoubtedly generally true) a black man being refused accommodation by a landlord<sup>4</sup>. Steve said that people from the commonwealth could (then) not expect to get beyond the lowliest jobs, even though the transport system benefitted greatly from their arrival over here. Today, Londoners in general and also Transport for London's staff, are about one third non-white. 'Parky' had achieved 35 years' service on the tube.

The system continued to be starved of funds in the 1970s and 1980s and passenger numbers continued to fall. By 1982, the figure was thirty per-cent down from the post-war peak figure. Still, London Transport continued to pull in people from far and wide to work for it. Iain McPherson (see earlier) at Farringdon had grown up in the Scottish highlands in the 1970s, but had come to London because of the shortage of employment where he lived. He had been working at King's Cross and got himself into the 'Evening Standard' paper on 11 December 1990, with his very 'amusing' public address announcements to passengers there. He told us that he (in those days) tried to always announce the situation as he knew it was – if he knew not the reason for a delay, he would say so! He was absolutely not prepared to feed the passengers 'bullshit'<sup>5</sup>. (Your reviewer pauses to wonder what he does in today's world – we were not told!).

On 18 November 1987, after many years of system neglect, there was a horrendous fire at King's Cross. At about 19.25, someone stubbed out a cigarette on a wooden escalator there. At 19.45 hours, a 'flashover' or 'fireball' exploded up the escalator and into the ticket hall and a total of 31 people were killed. For some reason the sprinkler system was not initiated. Money in the ticket machines was later found melted into one metallic block.

Iain remarked that this disaster 'woke up' both the political left and the political right of central government to the lack of investment in the system. Public money was now spent on upgrading the system, so that, currently, nearly half the money for upgrades derives from central government. Ten billion pounds is now being spent on the latest programme of upgrade work.

Returning to Iain's current station (Farringdon), this is one of the oldest stations (being the terminus of the original Metropolitan Railway line), but will soon become one of the most modern, as it is having much work done for its future role as a major interchange with Crossrail. It will then become one of the country's busiest stations.

Since the tube began, London's population has increased from about 2½ million to about 8 million, with a further one million or so expected by 2030, so Iain was sure that the Underground would have to continue expanding.

Ending on a lighter note, Dylan Glenister (see earlier) wondered if the future expansion would see 'endless trains' in a form similar to escalators, or perhaps the rails would be removed to be replaced by flat flooring – passengers would then pay a pound to hire roller skates for their journey. (*Your reviewer's mind boggles at the thought of the accident rate at 'trailing junctions with such a system!*).

This was a good programme, overall, from 'Blast!' films. Where there were errors (at least one scene appeared to be of an American subway, not London and there were certainly shots of steam hauled trains in the London area, but not having anything to do with the Underground), they can reasonably be forgiven, as the average viewer would be very unlikely to notice.

<sup>4</sup> Perhaps controversial but it is true as I vaguely remember hearing of such instances in my time as an Apprentice, from 1958 to 1963.

<sup>5</sup> This was the word used to the xx-million people viewing the programme, and it was after the 21.00 'watershed'!