

Great Eastern Railway Society



THE VICTORIANS

[Teachers' Notes]

**SOME TEACHING MATERIAL
FOR SCHOOLS**

**Based on the Minute Books of the
Eastern Counties Railway and
the Great Eastern Railway**

**PRESERVED AT THE NATIONAL ARCHIVES
(FORMERLY THE PUBLIC RECORD OFFICE) AT KEW**

THE SCHEME AS A WHOLE

The project:

The purpose of the project is to make available for educational use of some of the material hidden away in the records of one of our railways. The intention is that students should thereby have an opportunity to gain glimpses of what it was like to live in England in Victorian times, and to realise just how different their life and their way of looking at things would have been if they had been born then.

The work of Year 5 or 6 on the Victorian period has been kept in mind, but if the opportunity arose it could well be used also with older pupils at an appropriately greater depth.

The Railway:

This was the Great Eastern Railway, which existed as such from 1862 to 1922. Its principal London terminus was initially Shoreditch, but it later built Liverpool Street station. It served most of Norfolk, Suffolk, Essex and Cambridgeshire and ran a very intensive suburban service into London. There is a map showing the extent of the G.E.R. system on the back page of this booklet.

This project has been produced by the Great Eastern Railway Society, whose aims include research and making available the information thus obtained. Some of its members have spent several years compiling summaries of the Minute Books of the G.E.R. and the Eastern Counties Railway (one of its predecessors) by visiting the Public Record Office, now known as the National Archives, at Kew: this has provided the source material for this project.

The material:

This is organised in ten units:-

- Start here, please!
- Glimpse 1: Horses.
- Glimpse 2: The Working Classes.
- Glimpse 3: The Bosses.
- Glimpse 4: Born Rich.
- Glimpse 5: Discipline.
- Glimpse 6: Care for the Poor.
- Glimpse 7: Health.
- Glimpse 8: Life's Dangers.
- Glimpse 9: Crime and Punishment.

There are pupils' worksheets for each, typically two pages long. There are also teachers' notes to cover each of the units that offer information, guidance and a few anecdotes which may help to make the lesson come to life.

As its name implies, it is envisaged that you will start with the first of those units in order to set the scene and to help the students to realise that the purpose of the questions is to elicit suggestions from the group rather than give 'the right answer'.

After that the other units may be tackled in any order, and there is no obligation to try them all.

The approach:

This is entirely up to the teacher, of course. A single lesson could be devoted to a selection of the units, perhaps, or in order to add variety a series of units might be covered as 10-minute 'quickies' within successive lessons.

If possible all the pupils should have their own copy of the pupil material – either in the form of a single sheet for that unit, or as part of a complete book of units. Either may be freely copied from the CD-ROM for the use of the school.

You might choose to take the whole class together and use the unit as a basis for a discussion. Another way would be to divide the class into smaller groups to discuss the questions, then report back to the whole class on their thoughts.

Each pupil could of course write out their own responses, but that may not be the best starting approach for many children. The pupils' sheets are inevitably a bit 'wordy' for the average child of that age to cope with, and they were written with some sort of communal approach in mind. The teacher will know his/her class best, however.

Follow-ups:

- After a discussion, the pupils could write down their answers to the questions.
- Included on the CD are suitable drawings which you may print out for them to colour. Your attention is drawn to the folder labelled 'Assemble a Train' which you will find on the CD-ROM among the drawings to colour. The end point of this should be a coloured frieze ten feet or more long displaying a GER mixed goods train – you can pick-and-mix its make-up, and it will have as many trucks as there are children in the class.
- Topics may arise which are suitable for research (e.g. the workhouse, your local hospital or ragged schools).
- You might investigate the history of the railway, or some aspect of it, in your locality. (It is hoped that Society members will in due course produce some material with regard to at least some of the larger centres within the GER system which may be placed on the CD-ROM. See also below.).
- If you have a suitable contact locally who worked on the railways during the days of steam, perhaps you could invite him in or record his memories of the hardships the work involved.
- Arrange a guided visit to a railway preservation centre.
- If you are handy for London's East End, there is a Ragged School Museum which can provide a Victorian school lesson (48-50 Copperfield Road, London E3, web site www.theraggedschool.com, phone 020 8980 6405).

Local History Projects:

If your school wanted to do some further work on the development of the railway in their area, or indeed any other topic in rail history, the Great Eastern Railway Society *may* be able to assist.

We have a panel of our members who have expressed a willingness to help. They each have an expertise in certain localities or in particular aspects of railways. A few may feel able and willing to talk to pupils, but most would probably be more at ease in advising the teacher.

We cannot promise that we would be able to match one of our members to your needs, but we are happy to try. If you were keen to avail yourself of this let us know, giving as much detail as you can of what you have in mind. Simply contact Barry Jackson (14 Quantock Close, Bedford MK41 9EW. Email barry-jackson@lineone.net).

How to contact the Great Eastern Railway Society:

The web site is www.gersociety.org.uk.

For matters arising from this publication write to Barry Jackson, GERS Publications Sales Officer, 14 Quantock Close, Bedford MK41 9EW. For more information about the hundreds of other items the Society publishes send him a large SAE

For membership queries write to Mr. J. Tant, GERS Membership Secretary, 9 Clare Road, Leytonstone, London E11 1JU.

A BASIC CHRONOLOGY

Naturally enough, most children have little or no idea as to when railways appeared – and, of course, they imagine those railways were like the ones they know today. An important but subtle difference between then and now, by the way, is that today's railways are principally for carrying passengers with a bit of freight on the side as well. At the start the situation was the opposite. Almost all goods which now go by road were conveyed by railway, even to tiny country stations. There was no electricity system, and most factories were powered by steam raised by burning coal: the coming of the railway resulted in dramatic cuts in the cost of coal at the point of delivery which obviously was of major benefit to business. The roads of the time were generally hopeless – stones and ruts, with dust or mud depending on the weather. The only real competition for the transport of goods was by water via the coastal seas, navigable rivers and canals; the new railways could offer a faster and more reliable service, however, and they tried to make sure they were cheaper as well.

A simplified account of the development of transport, then, would go something like this:-

- Before Victorian times considering the state of the roads there was a surprisingly efficient network of longer-distance stagecoaches, but these could carry only passengers and light goods. Local carriers' carts ran between market towns and the villages immediately round them. Such heavy goods as were transported about the country had to go by water.
- As industrial output increased in the later 1700s, the range of places served by water transport was extended by building canals.
- The building of railways began in earnest around the time that Victoria came to the throne (1837). In East Anglia the first railways came in the 1840s.
- Development at the start was frenzied but piecemeal. Several small railways in the area (of which the Eastern Counties Railway was one) amalgamated to become the Great Eastern Railway in 1862.
- After that the building of railways continued – by now mainly country branches to act as feeders for traffic. By the end of Victoria's reign (1901) building had virtually stopped. Motor vehicles were beginning to appear by now, but they were still not plentiful or reliable enough to be regarded as serious competition.
- In the early 1900s the GER itself actually began to run some of the earliest bus services. They used them to help fill in gaps in their network, running to the nearest railhead. Some of the buses were purchased from specialist builders, but others they built themselves in their locomotive works at Stratford (in East London).
- After the First World War (1914-1918) nearly all the railways of Britain were amalgamated into four larger concerns. Thus at the start of 1923 the GER found itself part of the London and North Eastern Railway (LNER); the main line ran from Kings Cross to Edinburgh, and East Anglia was now a bit of a railway byway. (The other three new railways were the London, Midland and Scottish, the Great Western and the Southern Railway).
- During the 1920s road competition both for passengers and freight began to hit the railways. In the First World War the government had built lots of lorries for the armed forces, who had instructed men how to drive them and maintain them. After the war these lorries were sold off cheaply as surplus stock; the ex-servicemen who knew how to handle them bought them up, and that was the real start of the road haulage industry. At the same time a network of bus companies sprang up; they were generally slower than the railways but their fares were cheaper and they served the centre of towns whereas the railway station too often was further out.
- During the Second World War (1939-1945) the four big railways played a vital part in transporting men and goods, but after it they were effectively close to bankruptcy with huge backlogs of maintenance to catch up on. The way out was deemed to be nationalisation, and so when 1948 dawned the old GER found itself part of the Eastern Region of British Railways.
- In 1962 Lord Beeching was appointed by the government as chairman of the new British Railways Board. He recommended the restructuring of the railway system, which resulted in many lines being shut down. There is no doubt that a pruning of the rail network by that time was called for, but hindsight suggests that some of the criteria used may have been at least suspect. Consider for example the branch from Kings Lynn to the seaside holiday town of Hunstanton on the Norfolk coast. The running costs were compared to its income, and in consequence the line was closed: the income, however, was taken to be the ticket sales at Hunstanton and the other stations on the branch, no allowance being made for the fact that all the holidaymakers had bought their return tickets at their home station. Many travellers now felt that if they could no longer go the whole way by rail they might as well do the whole journey by road and cut out the need to transfer on the way, and the impact of this may well have been underestimated.
- In the 1990s the railways were once more privatised. In a sense things had moved a full circle, but there was one big difference. In the early days a railway was always a single entity: the company owned and managed the track, the stations, the trains, the locomotive building and repair works, the marketing – everything. The idea that one company should own all the track, and other train-operating companies should hire running-time was new.

START HERE, PLEASE!

Q. Give an example of something we might say which would baffle a Victorian. Here are a couple of examples where they would know all the words but the meaning would be beyond them: “Was there anything good to watch on the box last night?” “I’ll ring you up tonight.”

[You’ll find that most of the questions coming your way don’t have one right answer. Instead, you will be expected to try to offer suggestions. Not all will be easy, but do your best ... and THINK. No one can ask more of you than that.]

The idea of this introductory unit is to set the scene and to give the children confidence in putting forward ideas. We’re looking for suggestions rather than right answers, and this needs to become clear to them.

There is an almost endless range of possible responses. Here are another couple: “What’s on special offer at the supermarket this week?” and “We flew to Tenerife for our holiday last year”.

The exercise may help some of them to begin to realise just how different it all was in Victorian times.

Another potential eye-opener is to ask them to imagine that on leaving school they have left their family and gone alone to work in another town. How would they keep in contact with their family nowadays, and how could they have done so then?

The isolation then was so much more. There were no phones, radio or TV. News travelled slowly. The only real communication was by post - so long as they could write, someone at the receiving end could read and they could afford the stamps. Beyond that there was nothing. Perhaps some of the children can understand that when they looked up at the moon and realised their family could see it too, this felt like a kind of link between them.

No wonder early photographs were usually portraits so the family could remember absent individuals. If a photograph was not possible, an alternative was to have a lock of the person’s hair as a keepsake.

You may be asked why the records of meetings are called ‘Minutes’. The name is actually derived from the Latin ‘minutum’ which may be translated as ‘a small thing’, and thus they are the recording of the small details of the decisions taken at a meeting. The only connection with minutes of time is that both, quite independently, are ‘small things’. Indeed it may be worth relating them to the other ‘minute’ pronounced ‘my newt’!

There were plenty of doom-and-gloom merchants when railways first came along. There was an underlying fear – fuelled by one or two scientists – that people would die if they travelled too fast (breathing might become impossible as you rushed through the air at speed, for example). Remember that before then nobody had travelled successfully at a speed greater than that of a galloping horse: the only people who had travelled faster were those who fell off a high cliff, and they *did* die!

A weekly magazine published in late Victorian times called ‘Science Siftings’ dealt with issues of science and technology, though it interpreted that brief quite widely. As late as August 1892 it reported:-

“An American scientist maintains there is good reason to believe that climate will be seriously affected by the railway. He says that there are in the United States 170,000 miles of railway tracks, part of which are double. On these tracks 29,000 locomotives and 960,000 cars are constantly rushing hither and thither. He thinks that the conflicting effect of these perpetual rushings of a million cars in all directions through a mobile and elastic atmosphere will be much greater than the violent and temporary effect produced by a great battle. He thinks that railways may generate cyclones, and lead to unusual snowstorms.”

Apparently it was common belief that a big battle would affect the weather. Spot the use of actual numerical data to lend weight to a slender argument!

GLIMPSE 1 – HORSES.

In 1890 the number of horses in London was reckoned to be about 300,000. The bus company (London General Omnibus Co.) owned 22,000 of them and the Great Eastern Railway possessed nearly 6,000.

Q. Why were so many horses being kept in a built-up area like London? Why might the bus company and the railway need them? What sorts of things might all the others be used for? [Hint: Think of all the things motor vehicles are needed for today.]

Taking the population of London at the time as around 3 millions (the value is a bit variable, depending on where you consider London to stop, but the figure is a reasonable one), you get roughly one horse to every ten people. It may help to bring things home to the children if you use that ratio to give the equivalent number of horses for a town near you.

All the omnibuses were then horse-drawn, of course – with seats inside, on top (literally) and a special seat by the driver. So too were the cabs, the equivalent of our taxis.

The railway companies used most of their horses for local goods deliveries within towns and cities. There was nothing at all on the roads corresponding to our long-distance heavy lorries: the railways carried all such loads to their local goods depots, where it was then transferred to open cart or covered van for final delivery.



In late Victorian times it became fashionable to bathe in the sea, an activity which was considered to be health-giving.

The GER showed commendable business initiative in offering a service by which Lowestoft sea water was sent up to London daily by train. There it was put into 3-gallon kegs which would be transferred to horse-drawn vans and delivered to private addresses in London to enable the occupants to have sea baths at home!

We have in the Minutes figures for one Saturday in July 1880 when no less than 4500 gallons had been supplied. We learn that

the demand suffered great fluctuations, however, because "during the unfavourable weather people did not wash themselves".



To understand what all the other horses were doing in a town, consider what we use road vehicles for today. Doctors and other well-off people all had their own personal carriages or little run-about traps. Many shops would provide their own delivery service to their customers. Milk had to be brought round to each house at least once a day in the absence of refrigerators. Service trades needed the equivalent of lorries and vans – builders, for example, or the men who took away the accumulated sewage from the outside 'privvies' (though often the equivalent of today's 'white van man' would have to make do with a hand cart, as seen in the drawing in the pupils' book). Easily forgotten too are the barracks with their contingents of mounted soldiers.

27 October 1864 "Feed for horses purchased: 200qtr. beans at £2 a qtr., 200 loads of hay (= almost 200 tons) at £6 a load." ('qtr' means a quarter; we are not sure what a quarter of beans was, but 200 qtr was probably at least 20 tons.

1 Sept 1869 "Street sweepings - horse manure. Mr. Betts of Beccles complaining that charge for the rail journey from London to Beccles (over 100 miles) of 5/- (25p) a ton was too high."

Q. What clue does the above extract give us as to what the streets of London must have been like then?

Q. Mr. Betts lived in Beccles, which was a small country town. Why on earth do you think he might be interested in buying London's street sweepings by the ton?

There were no petrol fumes in the streets, but that doesn't mean they smelt pleasant. 300,000 horses leave a lot of droppings in heaps all over the roads. A progressive local authority would ensure the streets were regularly swept, but what do you do with all the stuff after that? The answer was to sell it as fertiliser to the places which grew the food in the first place, thus returning the nutrients to the soil.

At the back of the county directories were listings of all the trades and services in the region (exactly like our Yellow Pages, though of course there were no telephones then). One well-filled category in the Suffolk directory was 'Manure Merchants and Agents'. Mr. Betts may have been one of these, or he may have been a farmer buying direct.

Note on quarters: A quarter doesn't relate directly to the fraction, but was simply a unit in which certain commodities were bought and sold – particularly in malting and brewing. The problem is that for different goods, a quarter was a different amount! A quarter of brewing sugar was 0.1 ton, a quarter of malt was 0.15 ton and a quarter of barley was 0.2 ton. We have so far been unable to trace what a quarter of beans was. There is a copy of a Victorian booklet of weights and measures on the CD-ROM, but it doesn't help with this one.

19 October 1855 "Life of a horse, two years average. £25 cost purchase." (*'Life' meant useful working life*).

30 September 1857 "Woodbridge horses in a poor state due to overworking. Men to receive 17/- (85p) per week, three horses to be withdrawn and four new horses to be placed as work is very heavy."

16 February 1865 "Purchase of 8 horses at £38.10.0 (£38.50) each; 6 horses worn out and sold at £4.15.4 (£4.77) each."

Q. In Victorian times individuals as well as companies sometimes had to buy a horse. Why was such a purchase a bit like us today buying a second hand car?

Q. What do you think happened to all the worn-out horses after they had been sold for whatever price could be got for them?

In today's money, the cost of a decent horse in 1855 was about £800, while ten years later the GER had to pay the equivalent of something more like £1300 each. Such money was totally beyond ordinary working people, and even for the better off a new horse would be a major purchase. If you found a man who had a horse to sell, it was very much a case of 'buyer beware'. There would be no written documentation, and you only had the seller's word as to its age and condition – doubtless many purchasers discovered too late that the bargain was really not such a good one after all.

One well-known dodge was to inspect the horse's teeth. The older it got the greater was their wear, and this was the only practical check of the animal's claimed age. (The writer of these notes remembers an old man who gave him a tip when he was first planning to buy a second hand car. Don't trust the mileage recorded on the dial, he said; instead look at the amount of wear on the foot pedals. The dodge had evidently been adapted when the new-fangled cars came along!)

Working horses were treated much like machines: when they were worn out you scrapped them. A few presumably were sold on as 'old bangers' (e.g. to pull a rag-and-bone merchant's cart). Most, however, went to the local knacker's yard to be slaughtered.

Just as the disposal of London's horse droppings had to be planned, so did the disposal of its dead horses. The hair could be used to stuff sofas, skins could be turned into leather and the bones and hooves could be boiled to make glue. Another important use of the bones was to be ground up into bone meal fertiliser. There were plenty of rumours that some of the meat ended up for human consumption, sold as pork or other meat. Some may have gone for animal feed, and some must have been incinerated or left to rot. Truly the world was a smelly place!

Here are two more relevant extracts from 'Science Siftings'. The first, from the issue of 2 July 1892, gives a dramatic view of London omnibuses and why the horses 'wore out' so quickly:-

"The Horrors of the Highway are descanted on in the *Lancet*, in reference to the cruelty of omnibus traffic. Our contemporary complains that the strain imposed on the horses is sometimes appalling to witness, and hardly a week passes without numbers of them sinking under their load and dying where they fall. Twice last week, between Sloane-street and Piccadilly, a horse might have been seen to succumb on the incline, and after a few convulsive heart-heaves to breathe its last. The animals are as powerful as can be procured. But the omnibus which they are made to drag is a ton in weight before a single passenger enters it, and when it is full - fourteen outside and twelve inside, often with heavy packages in addition, the driver and conductor bringing the total up to twenty-eight - some notion of the exertion required to pull it at a brisk rate uphill may be imagined. Nor is this all. The incessant stoppages imposed by passengers who get up or down along the route, when half a minute more might bring them to a point where the vehicle pauses by regulation, add enormously to the strain exacted from the long-suffering animals. At the briefest of intervals they have to put on a fresh spurt, often on a slippery wood pavement, simply because some thoughtless "fare" - possibly on his or her way to an anti-vivisection meeting - will not take the trouble to wait till the "bus "stops by nature." Our contemporary has been very moderate in its charges. Instead of a ton, the light omnibuses weigh from twenty-four to twenty-five hundredweight, and those fitted with "garden seats" rarely weigh less than thirty-two hundredweight, or considerably over a ton-and-a-half. This with a full complement of passengers brings the load up to about three-and-a-half-tons - a fit load for two horses on a greasy road. The remedy we would suggest is lighter vehicles, a thing easy of accomplishment, and the Continental system of only taking up and putting down passengers at certain points, where a bureau should be established for the issue of tickets."

The second, from the 8 February 1896 issue, gives a clue as to the speed of road traffic in those days:-

"Cycles for the Police. Another epoch making departure is promised in England if our authorities will take pattern from the New York police. We hope they will, for it appears to us that the cycle-mounted policeman must be a most efficient preserver of the peace. The police cycle corps has proved most successful on the other side of the Atlantic. A number of meritorious arrests of reckless drivers and cyclists have been made by them. In the case of a driver the tactics followed are for the officer to ride ahead of the offending vehicle and allow himself margin enough for dismounting and making the arrest. In the case of a cyclist who was obdurate, the officer in this case ran into him, bringing wheels, officer, and cyclist down in a heap. But apart from such bellicose operations, how useful would the police cyclist be in summoning the fire brigade or ordering out a stretcher in case of an accident."

Incidentally, the same publication provides a salutary warning when we are tempted to foretell the future. It reported the development of a new super-accurate rifle. Just two decades before the carnage of the First World War, it proclaimed this as a most humane innovation which would virtually wipe out deaths in battles! Its reasoning was that it was far more effective to use a bullet merely to wound and not to kill, and this new rifle provided the means to do just that: in the heat of battle soldiers simply ignored dead colleagues, but if someone was wounded two or three would stop fighting to attend to him and his cries would help to demoralise the rest.

(The full Teachers' Notes continue to page 24)