

**UK Rail Facts**

* The UK railway network has over 9941 miles (16000 km) of railway tracks to explore
* There are over 50,000 bridges and tunnels on the network
* The longest station platform in England is at Gloucester and measures 602.6m in length

**Teacher Resources**

2

**Theme: UK Manufacturers**

2.8

Manufacturing Area:

**York**

**Magnum Photographer: Mark Power**

**Cultural Partner - York, The National Railway Museum**

**Short biography:**

Power is renowned for his long-term, self-initiated projects alongside a number of large-scale commissions in the industrial sector. He is Professor of Photography at the University of Brighton.

**Photographer’s Commission:**

For the National Railway Museum in York, Mark Power’s commission has been based solely around the UK’s evolving transport industry, particularly on Derby-based Bombardier, who suffered significant staff cuts after losing its Thameslink contract to Siemens in 2011. Mark Power’s commission celebrates the craftsmanship and the human aspect of this manufacturing giant and covers in great detail the often space-age production of both carriages and train interiors. Power also covered the award winning Camira Fabrics, suppliers of Bombardier’s seat textiles; and the Nissan car plant in Sunderland, as part of his national portfolio.

**Photographer’s Approach:**

“On reflection, I perhaps made a mistake by beginning my project with a visit to the extraordinary photographic archive held in the National Railway Museum in York. There (along with what is thought to be the first ever child's drawing of a steam train, preserved in a letter from a young boy to his sister) I was shown dramatic images of the Derby Railway Works from the latter part of the 19th Century and the early part of the next.

Of course, I knew the modern Bombardier site would look nothing like the world portrayed in those wonderful documents. For a start, it's much smaller today. There are no steelworks belching out dramatic black smoke, no workers doused in soot. The fact is, modern Bombardier could hardly be more different: it's a clean, tidy, and surprisingly quiet\* assembly-line producing, on average, about one train per day, with parts arriving from all over the world. It's a challenge to make something of this, especially in the knowledge of what the site used to be like.

So, rather than trying to describe exactly what they do there now (because, at times like these, I'm reminded of photography's weaknesses; of all the things it can't do) I've instead concentrated on tiny details of the process: flash-lit pictures of human effort, concentration and skill made theatrical by the black backgrounds, seen alongside large-format black and white images of the site's exterior.

One of my favourite photo-books is Lee Friedlander's 'Cray' (later reworked and expanded with some of Friedlander's other industrial projects into the more easy-to-find 'At Work'). 'Cray' shows us the building of the Cray-1 supercomputer, then the fastest in the world. The employees are seen consumed by the paraphernalia of their work, as man and machine morph into one. Later, Chris Killip's 'Pirelli Work' did much the same thing but (perhaps) with even greater elegance. These books are my inspiration, from which I'm trying to find my own way.

My assistant on the project, Murray Ballard, has been collecting sounds on site, concentrating on the plethora of radios pumping out romantic pop music; little islands of sound in a (mainly male) sea. His microphone slowly moves towards each radio, lingers a little, then moves on. Collectively, these create a soundscape rooting the work firmly in the present.

I'm also fascinated (as I often am) by the words and phrases we are finding across the site... strange health and safety notices mixed with the aims and objectives of the day. Although written in English, I have no idea what most of them mean: they resemble secret codes decipherable only by a select few, reminding me that I'm only a visitor passing through. I'm going to make use of this in some way, I'm sure, perhaps as some graphic 'backdrop' to the pictures themselves.

I'm trying to conceive the work as a complex, multi-faceted exhibition.”

\* Apart from the radios!

**Manufacturers visited:**

|  |
| --- |
| 1. Bombardier (planes and trains) |
| 2. Camira Fabrics (seat fabrics for passenger transportation)  |
| 3. Nissan (automotives) |

Level of Engagement:

**Cross-Curricular**

Activity Name:

**Transport in Industry**

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This activity is …………

An exploration of the impact of transport in the manufacturing sector

Before the project……….

Work with colleagues in other departments to plan a cross-curricular programme – use the planning forms that are available.

Decide on key factors such as which subjects to include, how to distribute responsibility and what are your aspirations for your shared learning outcomes.

Start by……….
Select relevant images from *Open for Business* - these can be from either the Magnum photographers or the images taken by their assistants. Use Mark Power’s images from Bombardier as a source of inspiration, and look across the collection for images depicting transport – both in production and as a vital part of the supply chain.

Next……….
Create project groups for pupils to investigate the role of transport in industry. Ideas may be based on one of the following, or developed from pupils’ input, such as:

* the distribution channels for transporting products
* a historical look at the role of trains
* the changing role of transport / technology

Next ……….

Devise a range of opportunities (with pupil input if possible – (enabling them to make choices) to develop a research base for their area of study. This could be in the form of a visit to the *Open for Business* Exhibition or you could try to get a site visit to one of the manufacturers featured in *Open for Business* (or others locally)

Finally……….

Create opportunities to share the work – such as the Open for Business online upload facility, and at school enabling pupils to share with peers / assemblies.

Options for Delivery / Timescale:

The timescale for this sort of project across departments in school will vary from setting to setting – it has to work for you and your pupils, so find out where there may be flexibility to create cross-curricular development. Talk to the SMT and ensure that there is positive endorsement from the Headteacher – it will work best if the whole school / key stage are able to understand the aims and potential outcomes of such a project before you start. It may be that this is something that could be achieved in an intensive period, such as a 3 day collapsed timetable, or Super Learning Days – or it may be that you have some cross-curricular flexibility in your school already and can work in the project over the period of a half term or a term, scheduling regular project sessions.

Curriculum Links:

The intention is that with cross-curricular projects relating to Open for Business, you can incorporate as many subjects areas or as few as you like. It is important that you can make relevant links to curriculum for teaching and learning, and that you plan content with colleagues carefully.

Learning outcomes and curriculum links………

* thinking and decision making
* investigating and imagining
* interpreting information
* working with others and developing social skills
* valuing others opinions
* discipline
* developing questioning skills and exploring how they can be used to elicit important information
* research skills

Extension Activities:

Examining the role of trains in the Industrial Revolution – linking to history.

An exploration of the component parts of manufacture in the supply chain for trains – such as a focus on the fabrics used for seating (see Camira Fabrics images).