

THE TITHE MAPS OF WALES CYNNEFIN *Mapiau Degwm Cymru*

Iron and Coal in Wales

Coal overtakes iron

Iron and coal were the main industries in Wales between 1760 and 1914. Iron was one of the first industries to affect society and the landscape of Wales, but by 1850 there was a worldwide demand for Welsh coal, and this was having a huge effect on Wales. South Wales became one of the most important industrial areas in the world during this period.

Coal

Coal was the main industry in Wales during the second part of the Industrial Revolution. A staggering amount of coal was mined in Wales and exported across the world.

Some of the biggest towns in south Wales did not exist when tithe maps were produced in the 1830s and 1840s.

You can use maps to compare areas before and after the development of the coal industry.

1850
-
1914

1760
-
1850

Iron

The iron industry was the main driver for the first stage of the Industrial Revolution in south Wales.

By 1847 south Wales produced 35% of all British iron.

TTithe maps show that the iron industry was well established in Wales by the 1830s.



South-east Wales at the end of the 19th century

Wales was a rural, agricultural country at the end of the 18th century.

Businessmen from south Wales noticed that the south Wales valleys had all the raw materials to produce high quality iron.

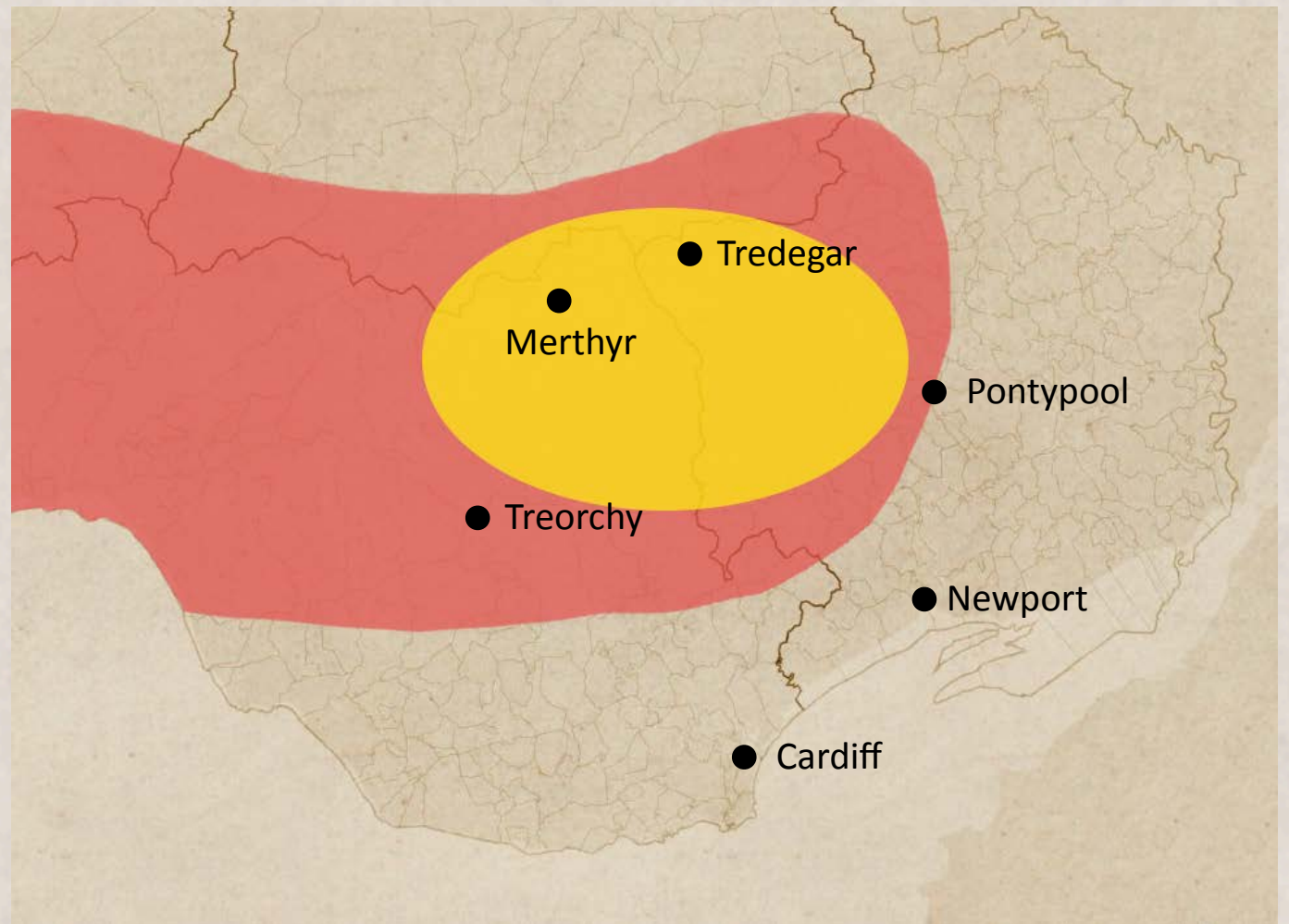
- Iron ore (rocks with iron)
- Coal (to heat the iron)
- Limestone (to accelerate the process)

At the beginning of the 19th century, canals transported iron from the valleys to the docks.

Railways were developed in the middle of the 19th century. They were a quick and effective means of transporting tonnes of iron and coal to the docks to be exported worldwide.

By the end of the 19th century south Wales had changed from being a rural area, and Wales became one of the first industrial countries in the world.

A map of south-east Wales

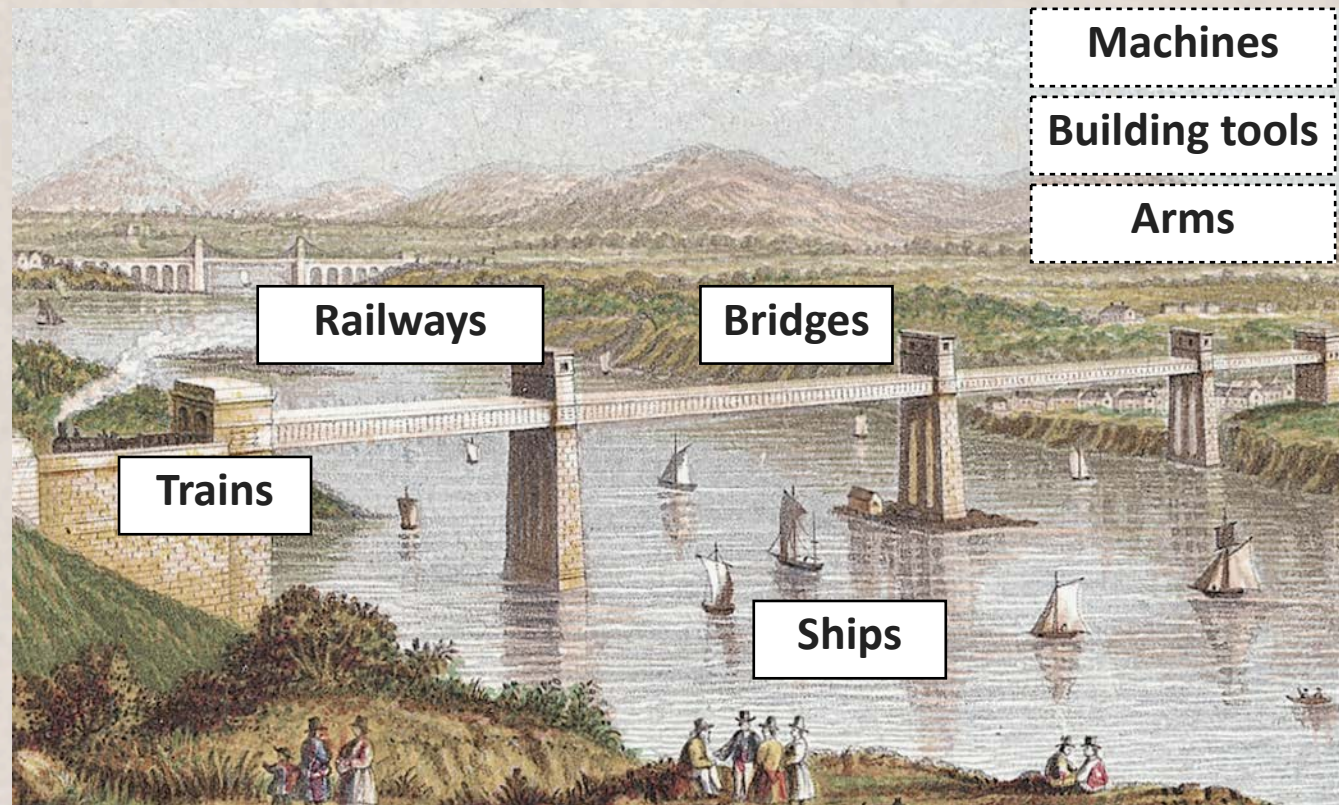


The iron industry in south-east Wales

Iron was one of the first industries to change Wales during the Industrial Revolution in the late 18th century. Some of the first iron works were built in Monmouthshire and Glamorgan. Large iron works were built around Merthyr Tydfil and Dowlais. The Crawshay family were famous iron masters that owned a number of iron works in the area.

Other iron works were opened to the east of Merthyr in Nant-y-glo, Blaenavon, and Tredegar in Monmouthshire.

What was made with iron?



Britannia bridge, 1880



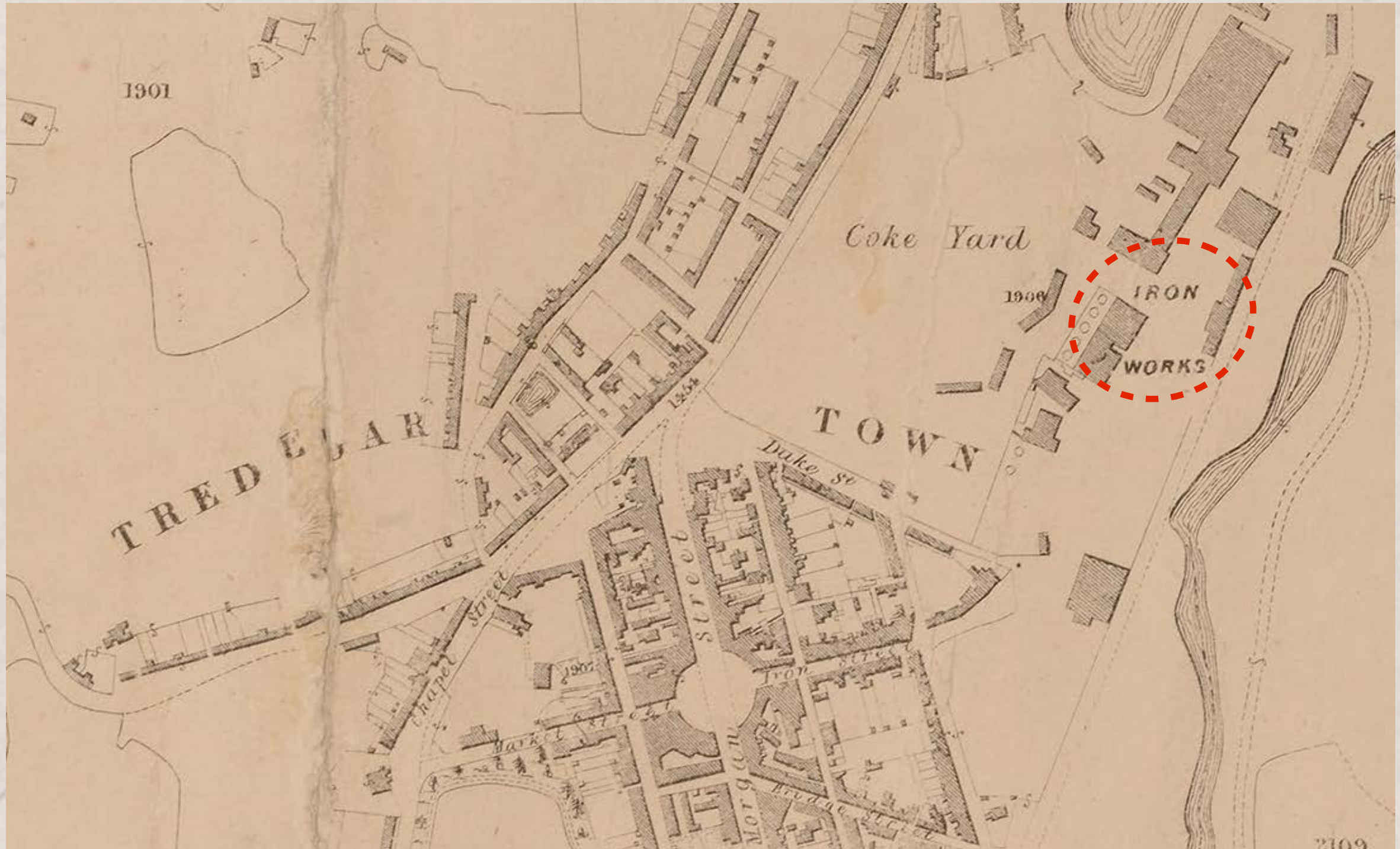
Nant-y-glo works around 1830



Coldbrook Vale works around 1830

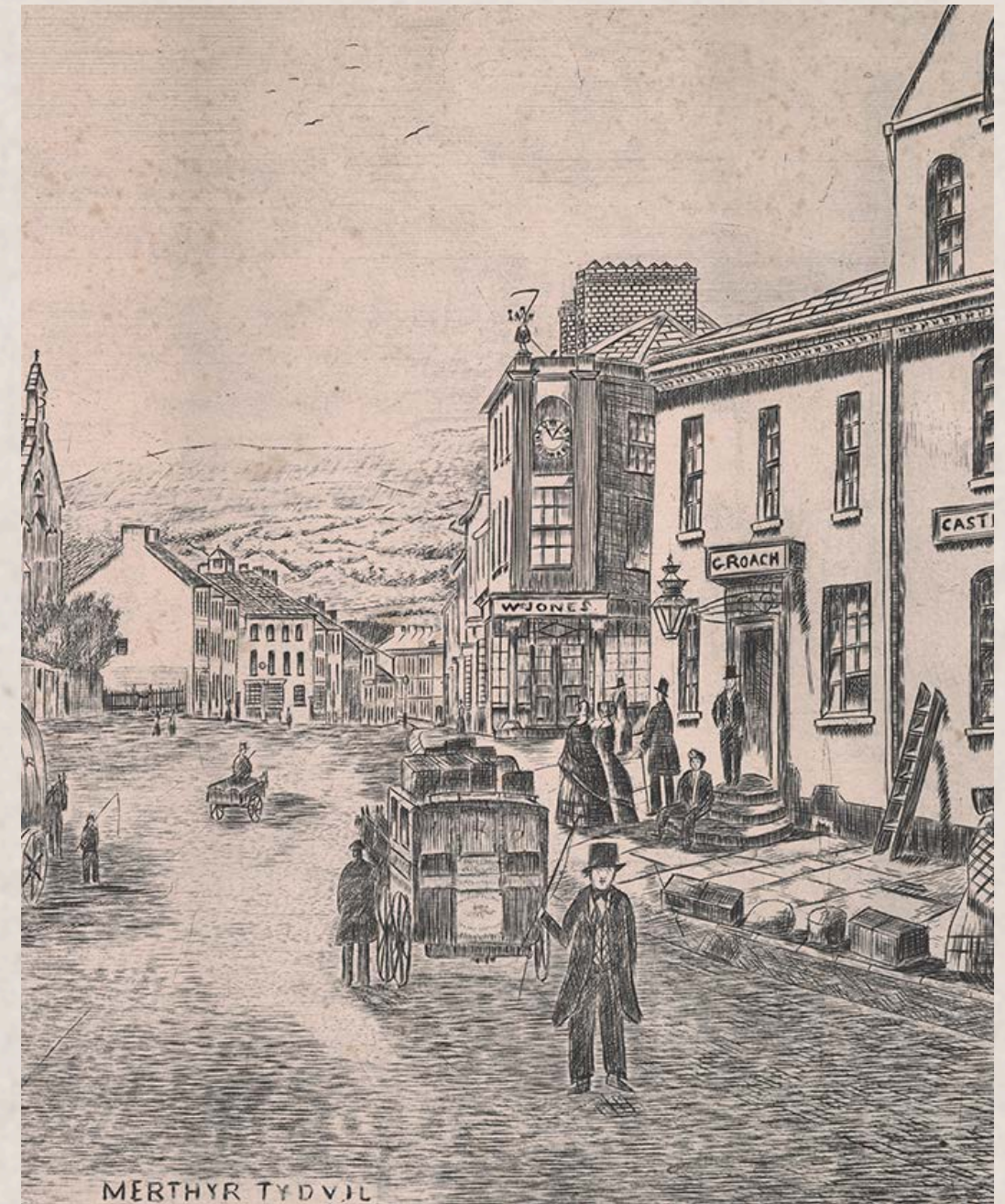
Iron towns

Towns like Tredegar were established around the iron works. Below is a tithe map of Tredegar from 1838.



Industrial towns

Merthyr Tydfil was the main iron town in Wales during the 19th century. There were 4 large iron works in Merthyr; the Cyfarthfa iron works are shown on the map. The Merthyr iron works produced the same amount of iron as 25% of the iron produced in the whole of the United States.



In 1696 there were only around 40 houses in Merthyr Tydfil. The first iron works were built in Merthyr in 1765. Merthyr town centre grew with the iron industry. By 1851 there were 46,378 living in Merthyr.

The iron masters

The majority of south Wales iron masters were wealthy businessmen from London and Bristol. South Wales changed forever because of the influence of these men, and they played a crucial role in shaping modern Wales.

Thousands of people came to live in the area because there was enough work available in the iron works. The workers were paid low wages and the masters profited from their hard work.

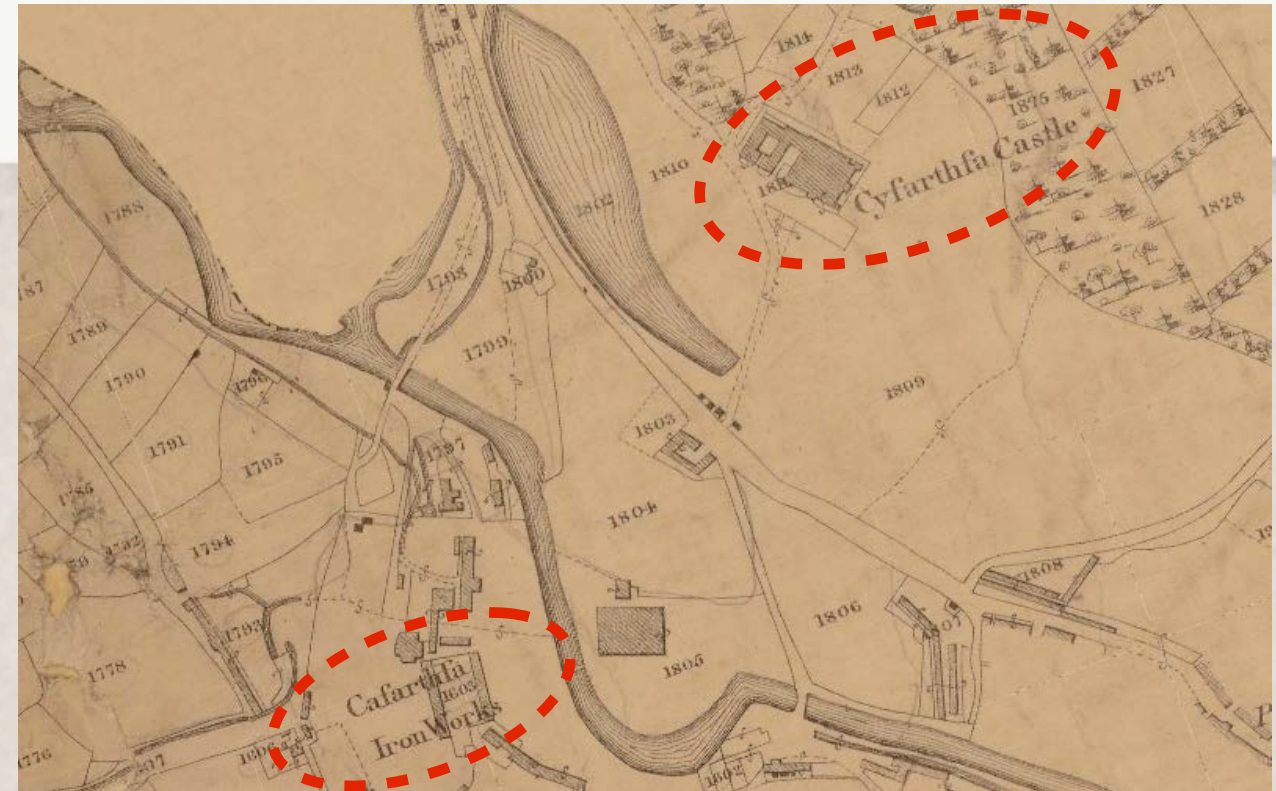
Richard Crawshay (1739-1810)

Richard Crawshay was a businessman. He began his career in the iron industry in London in the 1760s.

In 1786 he saw an opportunity to manage the iron works in Cyfarthfa in Merthyr. The venture was successful and the Cyfarthfa works grew to be one of the largest iron works in Britain.

Richard Crawshay's grandson, William Crawshay II built Cyfarthfa Castle. This large mansion looked over the iron works and was a symbol of the family's status.

The Crawshays had a big influence in South Wales, but they were not the only influential family. Many businessmen like Richard Crawshay took advantage of the opportunities that were available in the south Wales valleys.



Tithe map 1838



Cyfarthfa Castle, 1840

The workers

By 1830 Monmouthshire and east Glamorgan produced 50% of iron produced in the whole of Britain.

By 1840 around 40,000 people in Monmouthshire and east Glamorgan worked in the iron industry.

The Industrial Revolution brought big changes to society in Wales.

There was constant tension and friction between the workers and their masters. The workers were unhappy with their working conditions, and many workers families were living in poverty. This led to many strikes, rioting and protesting.

South Wales was seen as a turbulent area which was a threat to law and order by the Government.

Protests from the Scotch Cattle were a regular occurrence in Monmouthshire during the 1820s, there were riots in Merthyr in 1831, Chartist protests in Newport and the surrounding area in 1839, and the Rebecca Riots in west Wales between 1839 and 1844.



The Chartists attacking the Westgate Hotel, Newport in 1839.

CHARTIST INSURRECTION AT NEWPORT.

TOTAL DEFEAT OF THE INSURGENTS!

UPWARDS OF TWENTY KILLED,
AND A LARGE NUMBER WOUNDED.

We have this day to perform the most melancholy duty that ever devolved upon us as Journalists; and we write with the most intense feelings of regret.

The mania of Chartism, which has been produced and actively cherished in this country amongst the great body of the working classes, by selfish, designing, and profligate demagogues, has appallingly raged; and the blood of many infatuated wretches has been spilt in an insurrectionary

Monmouthshire Merlin, 09/11/1839

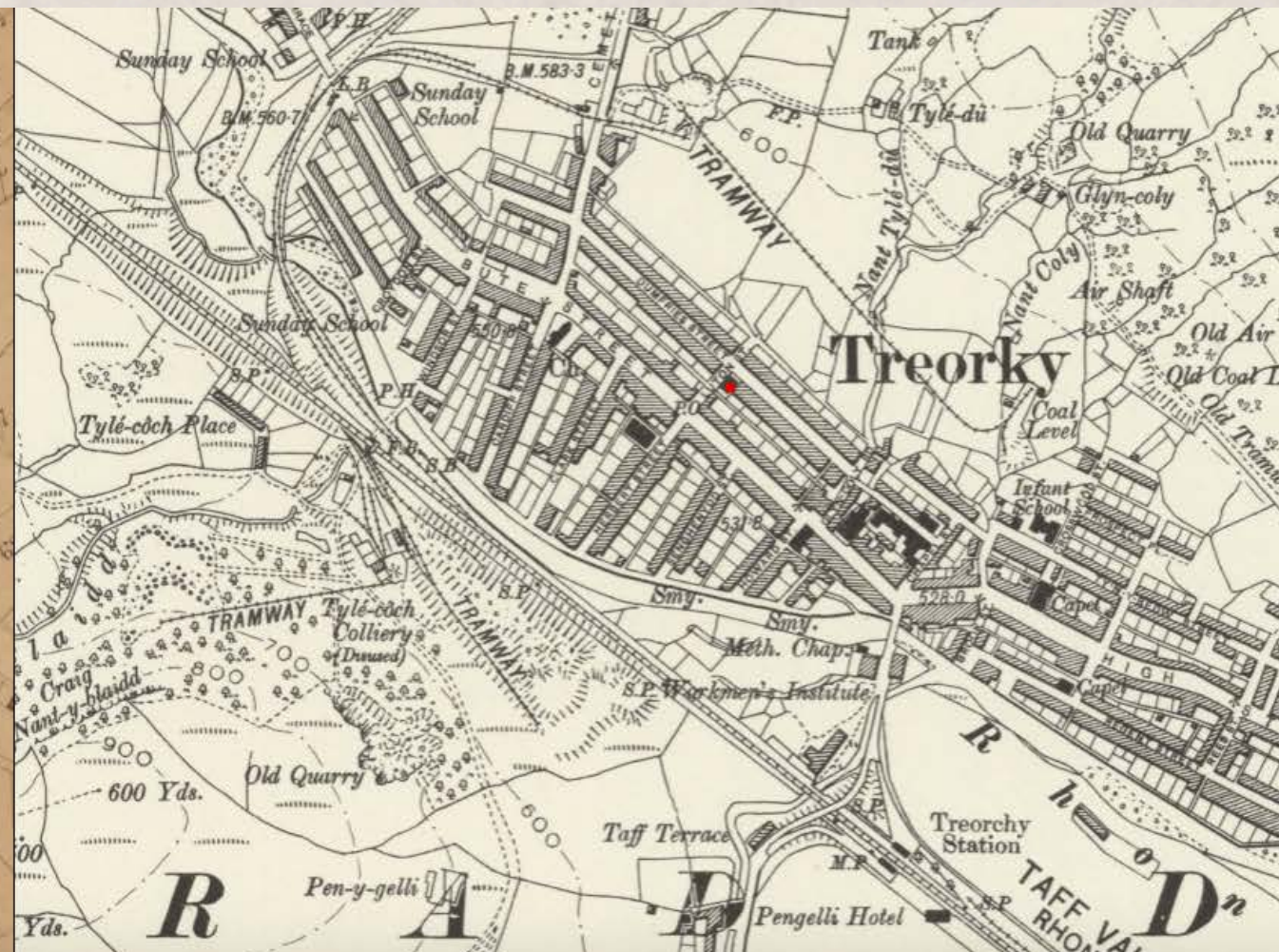
Comparing maps of the Rhondda

The Rhondda was one of the main centres for coal mining during the Industrial Revolution. By studying the tithe maps you can see that the town of Treorchy did not exist in the Rhondda in 1838. How and why did the town grow so quickly?

1838



1884



Comparing images of the Rhondda

By the beginning of the 20th century terraced houses had been built all over the valleys. Scenes of natural beauty in these valleys were transformed to include iron works, coal mines and homes for the workers.

1850



Berw Rhondda, Thomas Hosmer Shepherd

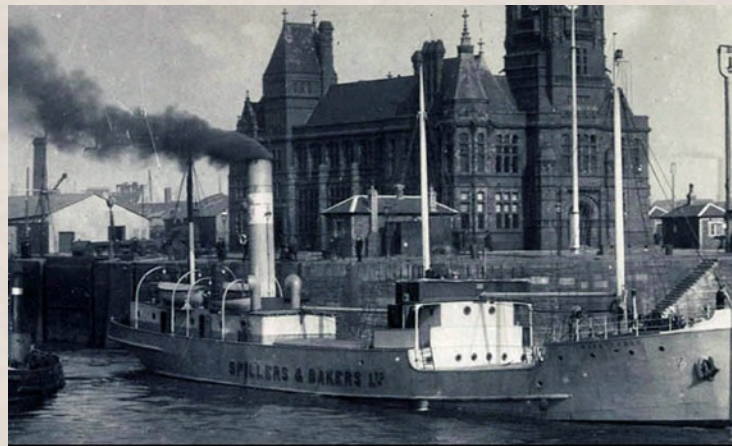
1907



Treorchy, W P Thomas

The demand for coal

Coal was used to fuel trains, ships and factories. South Wales became an important region in Britain and throughout the world because of the coal it produced.



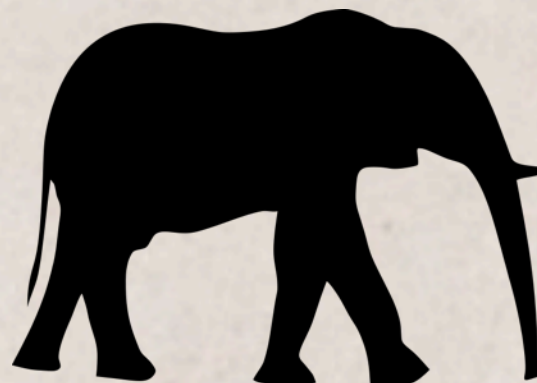
Coal exports in 1913

In 1913 the Welsh mines reached a peak in output. 36 million tonnes of coal were produced that year, more than at any other time in the country's history.

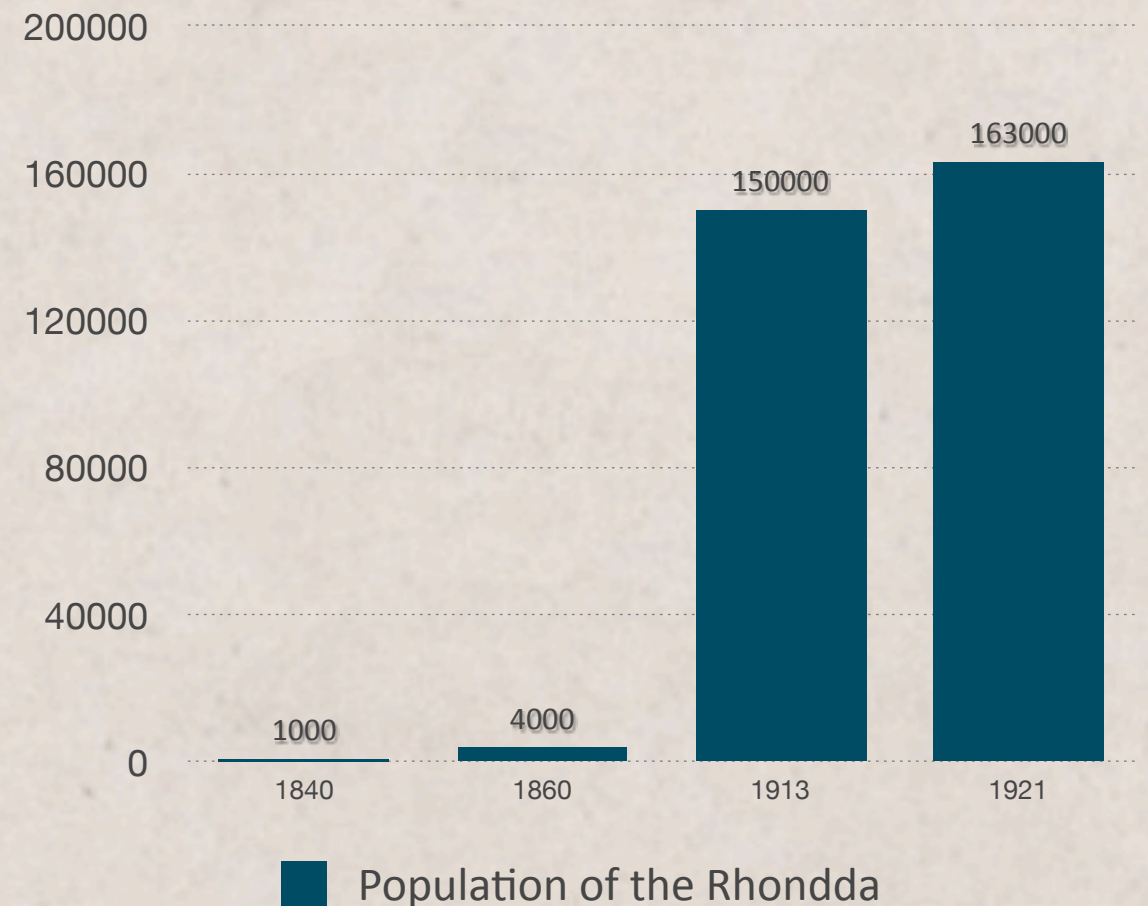


36 million tonnes of coal

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The weight of 5 million elephants!



- In 1840 only about 1,000 people lived in the Rhondda. It was a rural region with land for farming
- In 1853 a large coal mine was opened, and within four years a railway was built to transport the coal to the docks.
- The area changed quickly! By 1921 the Rhondda had a population of 163,000.

Coal changing Wales

Coal was the main industry in Wales in 1913.

The south Wales valleys mined coal that was used across the world. The iron industry grew side by side with the coal industry.

By 1913 ⅓ of people working in Wales worked in the coal mines.

People moved from the Welsh countryside, England and Ireland to the industrial areas of Wales because there was plenty of work to be had in the coal mines, and towns and villages grew around the mines.

The work wasn't easy.

The workers spent the majority of their day underground in close dark spaces. Hundreds of people died each year in the coal mines as a result of accidents and underground explosions.



Dressing the coal ready to be sold in the market



Placing the coal on a tram in the mine

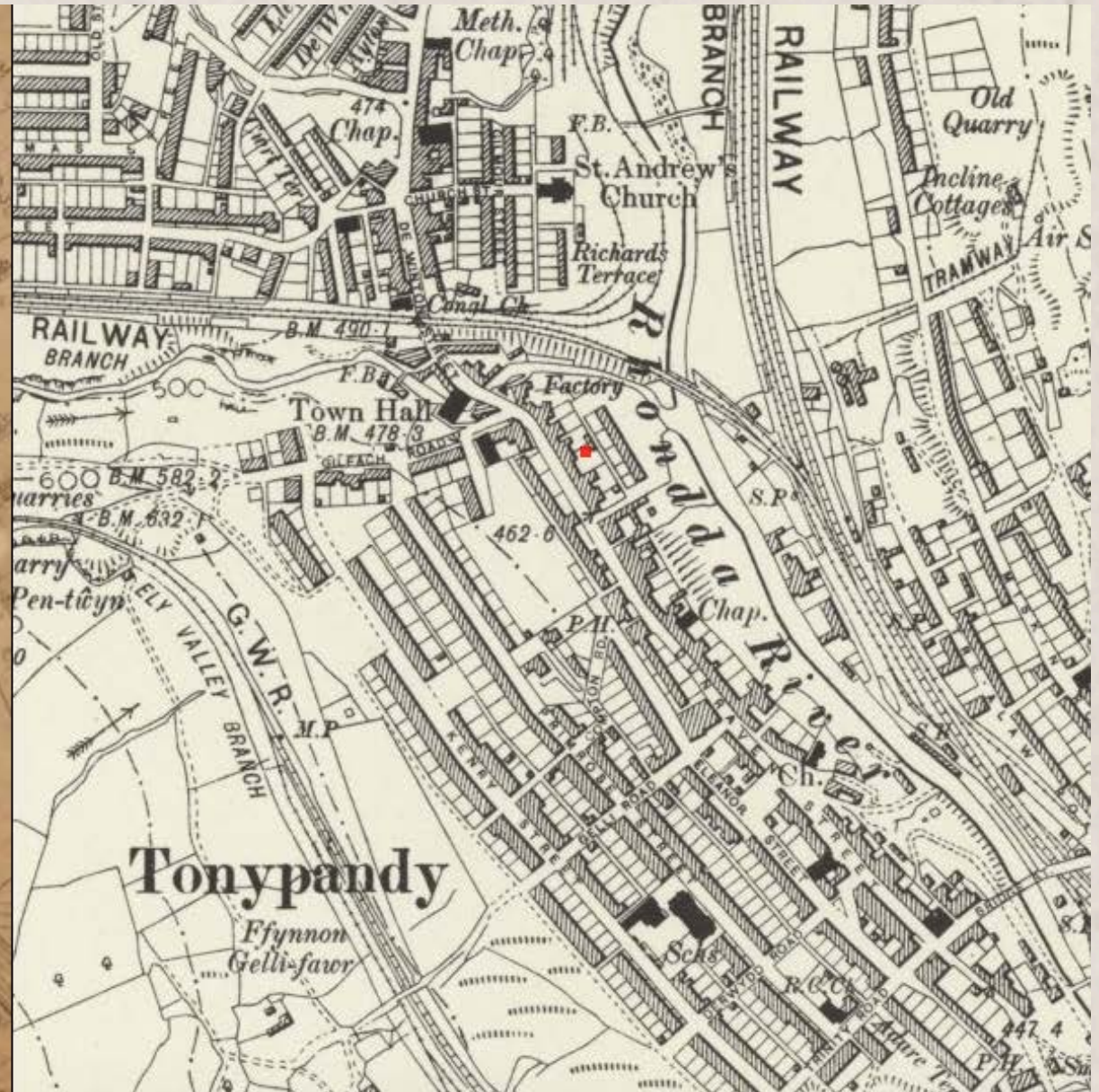
Different use for the land

Tonypandy is an example of how the land in the valleys of south-east Wales changed from being farming land to an urban area in a short amount of time. Within a short period the coal industry had changed the area. Work in the coal mines attracted a lot of people to these areas and terraced houses were built for the workers and their families. The railway transformed the town further and offered links with other towns.

1838



1885



The railway

The railway was one of the main reasons why the iron and coal industries grew so rapidly. Coal from the valleys could be transported quickly and easily to Cardiff and Barry docks to be exported across the world.

By 1913 Barry docks was the busiest coal port in the world, with Cardiff dock being the second most busy.



Cambrian coal mine: Electric belts



Cambrian coal mine: Electric tipping trams



Cambrian coal mine: Electric belts



Cambrian coal mine: Picking coal



Cambrian coal mine: Train leaving for Barry docks

Work in Wales

The Welsh working landscape changed dramatically during the second stage of the Industrial Revolution. The number of people working in agriculture reduced significantly and those working in heavy industries such as iron, coal and copper increased.

● Agriculture ● Other work

