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National Slate Museum

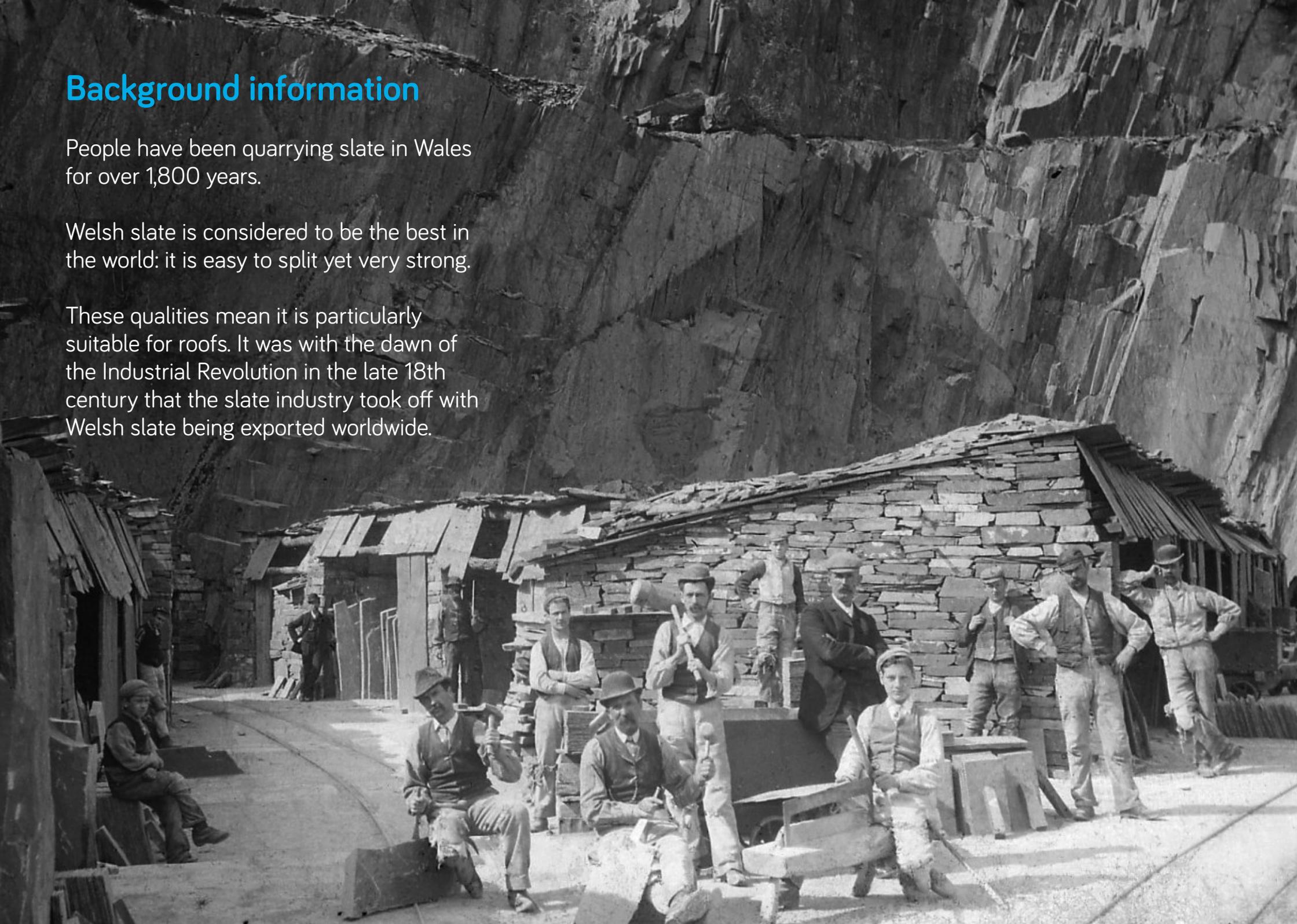


Background information

People have been quarrying slate in Wales for over 1,800 years.

Welsh slate is considered to be the best in the world: it is easy to split yet very strong.

These qualities mean it is particularly suitable for roofs. It was with the dawn of the Industrial Revolution in the late 18th century that the slate industry took off with Welsh slate being exported worldwide.



What will I find there?

The National Slate Museum is located in Gilfach Ddu, the buildings that once housed the workshops of the former Dinorwig Quarry. Built in 1870, these workshops catered for all the repair work at the quarry which, at its height, employed over 3,000 people. The Museum houses artefacts and exhibits. As well as having audio-visual aids and interpretation panels there are enthusiastic members of staff who are willing to answer your questions.

What story do we tell?

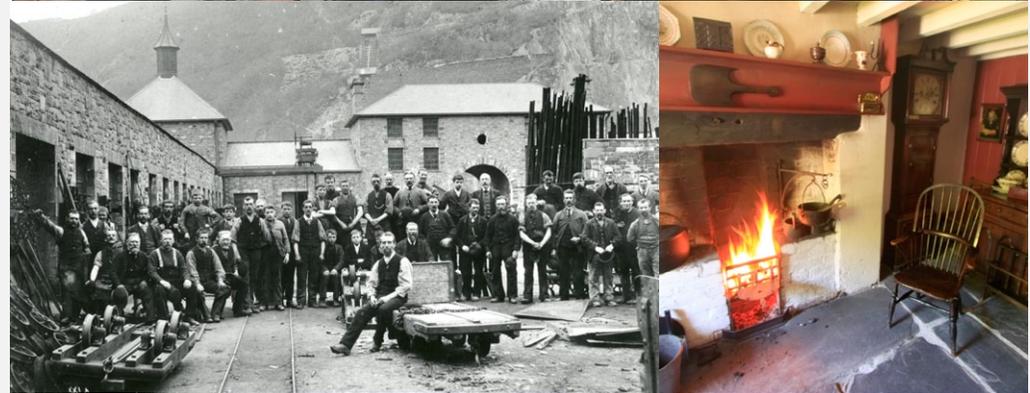
You can gain access to a wealth of knowledge about how the slate industry developed over the decades. Here are some of the main themes:

Transport

Quarry owners invested heavily in building roads and railways to improve the links between their quarries and the ports. In 1778, it was more expensive to get the slate from Dinorwig Quarry to the port of Felinheli than it was to take it all the way to Liverpool! Initially, the slate was carried in panniers on horseback, and then transported by boat to Cwm y Glo before being placed in wagons and taken to ships at the ports of Caernarfon or Felinheli. By 1824 a horse tramway had been built to connect the quarry and Felinheli. By the mid-19th century, a steam railway had evolved. Railway connections could make or break a quarry. The railway was also later used to carry workers to and from work.

A series of inclines were used to transport slate down the steep mountain side. Loaded wagons travelled down the incline on rails. Their weight would haul the empty wagons back up the incline on a parallel track, and the process began again.

The Museum has many examples of different modes of transport, for example a restored incline can be regularly seen working near the Museum, a wooden boat dating back to around 1788, with some of its load and Una, a working steam engine. Out on the yard there is a collection of wagons, velocipedes, carriages and cranes.



Water and Steam Power

The Museum houses the largest working water wheel on mainland Britain. It was used to power the Gilfach Ddu workshops between 1870 and 1925, when it was replaced by the Pelton Wheel.

The wheel itself is a testament to the talent of the local engineers and still works perfectly a century and a half after it was built.

The power created by the water wheel was carried to the various workshops by means of line shafting. This in turn powered the lathes, saws and drills bringing the machinery to life.

Industrial Mechanisation

Originally, the slate quarries were very small, shallow excavations, worked by local people for their own individual needs.

Mechanical techniques appeared to have been used as far back the 1820s, for example Cilgwyn Quarry used horse whimsies for raising slates, and winches were in use by 1827.

Open quarries like Dinorwig and Penrhyn lagged behind in introducing more modern methods compared to Llechwedd in Blaenau Ffestiniog, where electricity was introduced from the late 19th century. Pneumatic drills were not introduced to Penrhyn Quarry until 1913.

Steam engines were replaced with petrol and diesel locomotives from the 1930s onwards.

Laser guided machines are now used to trim the slates, resulting in quicker production.



Decline of the Slate Industry

Several factors were responsible for the decline of the industry in the 20th century:

- Severe depression in the building trade during the 1900s.
- Industrial disputes
- Cut-throat competition
- Imposition of duties on foreign slate by some countries, for example, France and Switzerland
- The effects of the World Wars
- Slate became unfashionable

However, there remains an active slate industry today using innovative technology and selling its product worldwide.



For more information please follow this link
www.museumwales.ac.uk/slate/learning

