

Interpretation Strategy for Wales Slate World Heritage Site Nomination Area

November 2019



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12th November 2019

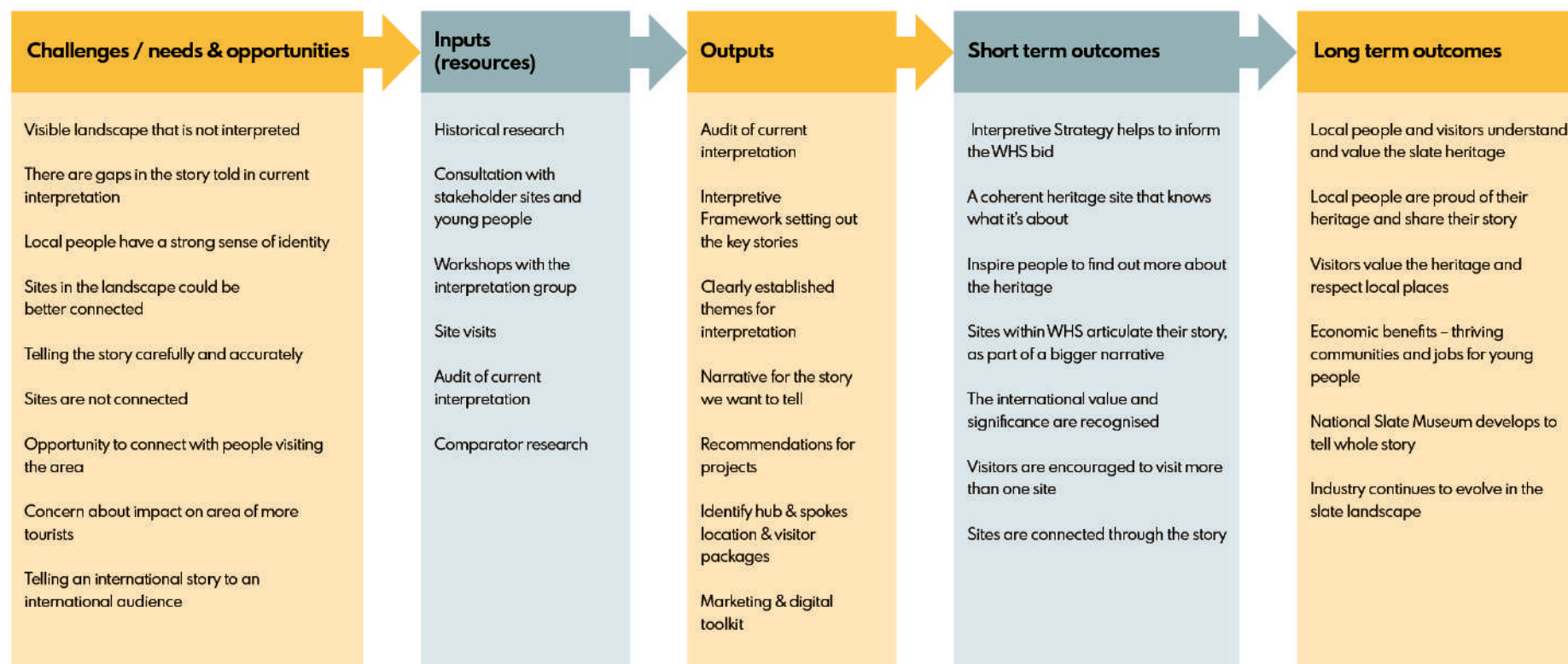
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PROJECT VISION

The interpretation of the slate heritage will empower, reconnect and regenerate the slate communities of Gwynedd.



BARRIERS TO ACCESS AND OPPORTUNITIES

CHALLENGES	SOLUTIONS
Gaps in the story and sites unconnected	Create a digital umbrella and gateway that sets out the whole story and connects sites
No coherent entity that brings together disparate attractions and places	Create a visual identity for the slate landscape and support stakeholders to use it
Issues of management and lack of facilities and infrastructure for more visitors to the area	Extend the visitor season and encourage people to visit a wider range of attractions
Visitors are concentrated at a small number of large attractions	Develop places that give a taste or snippet of information and support communities to tell their story
Museums and historic sites have old fashioned approach to interpretation	Develop a range of interpretive media, using art, performance and digital, interactive and bold graphics
Community have strong sense of identity and want to tell their story	Continue community engagement to ensure that they can tell their stories
The area is geographically spread out	Develop middle sized attractions that can help draw visitors through the area

AUDIT OF CURRENT INTERPRETATION

Topics	Ogwen	Dinorwig	Nantlle	Gorsedda and Prince of Wales Slate	Blænau Ffestiniog & railway	Bryneglwys, Abergynolwyn and Talylyn Railway	Aberllefenni
The rock and processing							
Transport and export							
People and communities							
Workers							
Making money							
Rediscovery and inspiration							
Ingenuity, skills and crafts							
Landscape and biodiversity							
Worldwide export							

	Current interpretation
	Opportunities for interpretation

THEMES AND KEY MESSAGES

OVERARCHING KEY MESSAGE:

The epic tale of Wales slate that roofed the world has shaped the landscape and communities of Northwest Wales

THEMES

The unique properties of slate made it perfect for roofing. For almost 200 years slate from here has been used to roof the world.

Quarry owners and engineers had to find innovative solutions and new technology to transport slate from the quarry to the ports. The narrow gauge railways built for slate inspired others around the world.

The quarries brought bustling towns and a strong sense of identity and pride which has been passed down the generations.

Quarry workers were skilled independent and at times in dispute with the quarry owners. Women played an active but less obvious role in the life of the quarries.

The quarry landscape once a source of wealth still inspires people who are looking for history, culture and adventure.

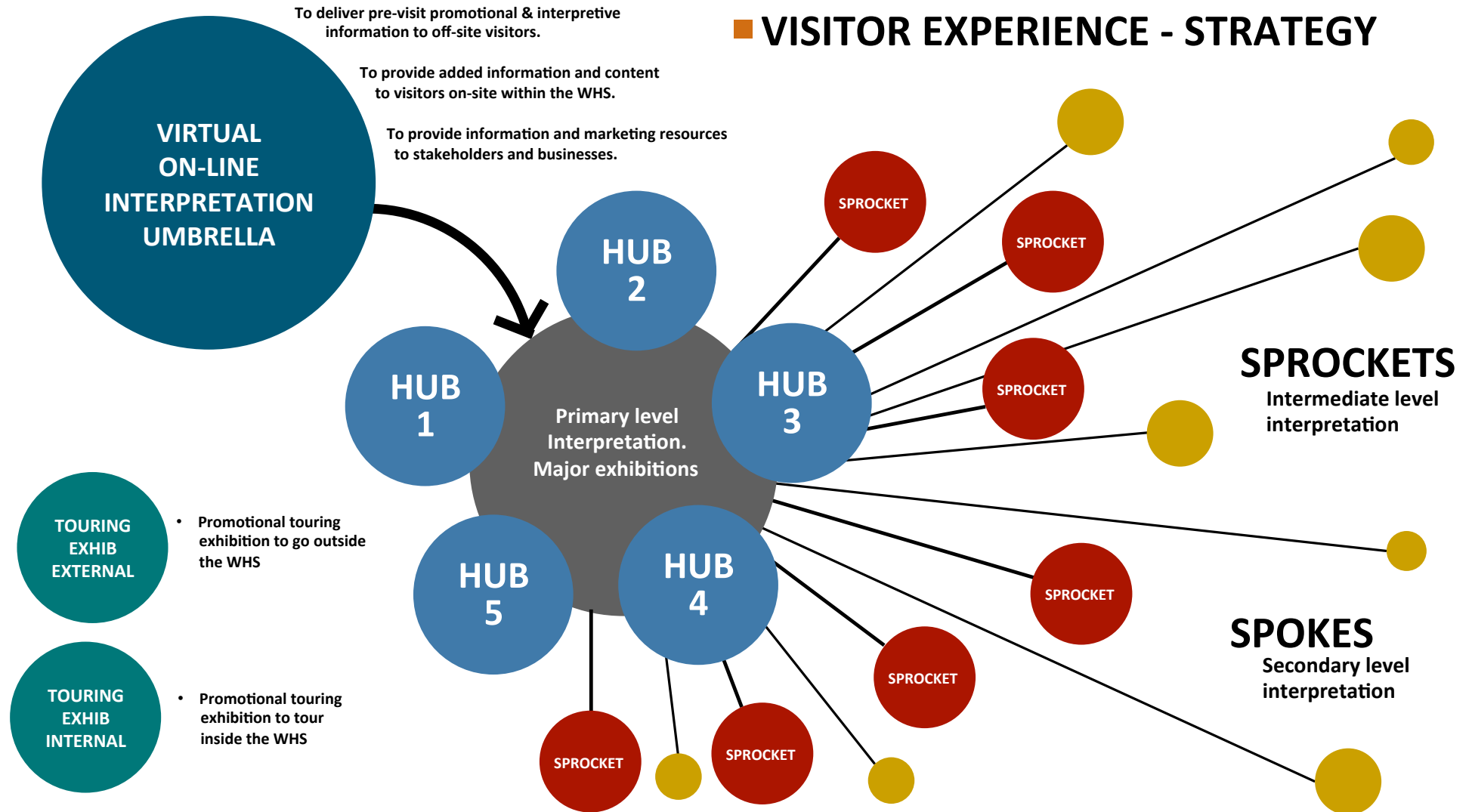
During the boom years the quarries roofed the world and the workers made the most of the good times.

Quarrying needed ingenuity and skill and the owners invested in the latest technology and ingenious solutions to the challenges of working in this landscape.

The unique landscape shaped by the slate quarries has created a distinctive and important environment that has been reclaimed by nature.

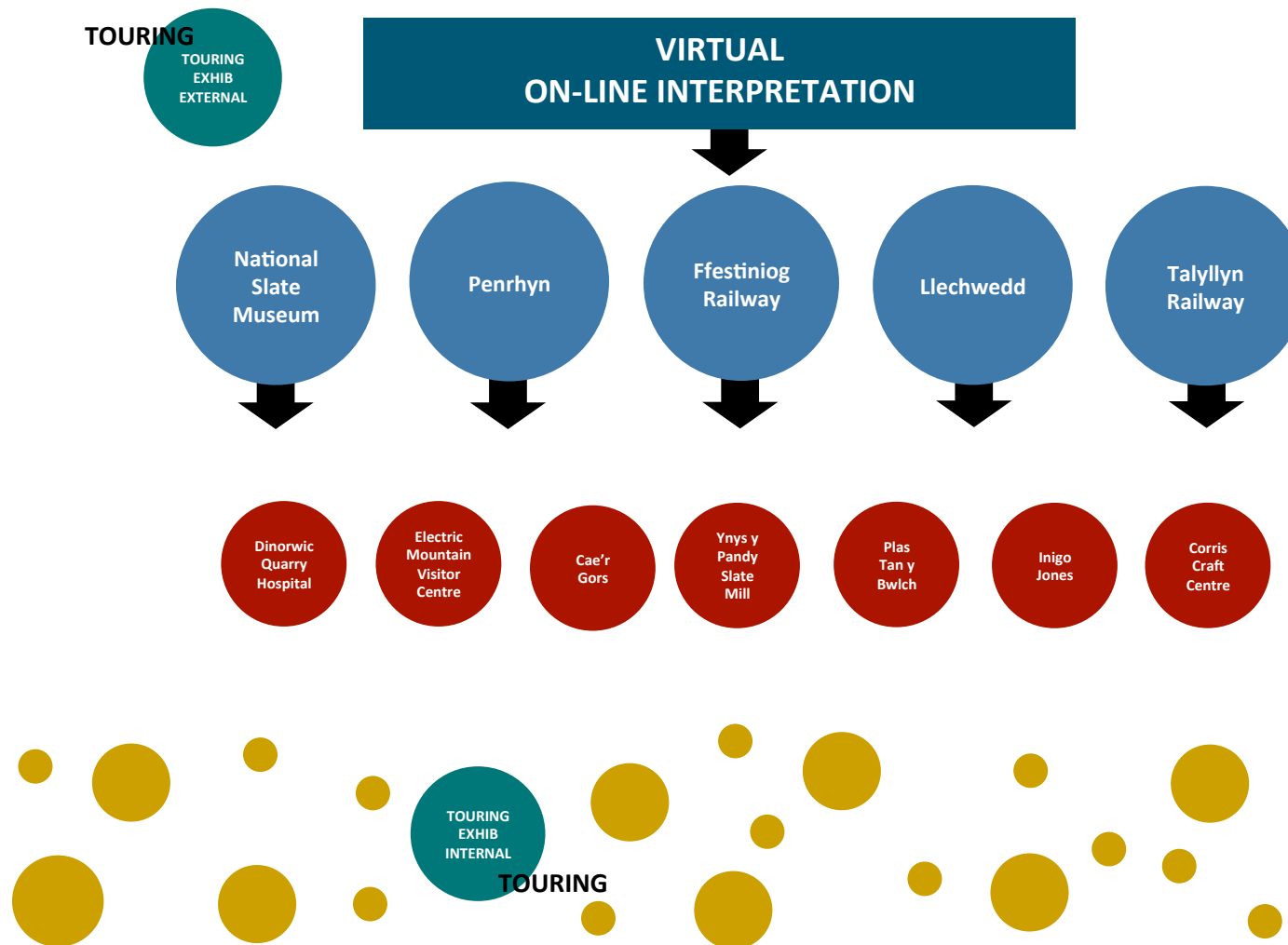
It wasn't just slate that was exported around the world, ideas, technology and skilled workers travelled from here too.

HUBS, SPROCKETS AND SPOKES



HUBS, SPROCKETS AND SPOKES

■ VISITOR EXPERIENCE - STRATEGY



VIRTUAL

Umbrella interpretation

- Pre-visit inspiration
- Tourist information
- Interpretive content
- What's on / events
- Stakeholder promo info. resource

HUBS

Primary level interpretation

- Major permanent exhibitions
- Outdoor graphic panels
- Art installations
- Trails
- Activities
- Guided tours

SPROCKETS

Intermediate level interpretation

- Minor permanent exhibitions
- Outdoor graphic panels
- Artworks
- Trails
- Access to on-line content
- Activities
- Self-guided

SPOKES

Secondary level interpretation

- Minimal internal graphic display
- Outdoor graphic panels
- Artworks
- Trails
- Access to on-line content
- Activities
- Self-guided

RECOMMENDATIONS

First Steps

- Develop a visual brand identity
- Create a new digital gateway

Developing capital projects at the Hubs

- Penrhyn Castle – telling the untold stories
- Ffestiniog Railway – new interpretation across the whole railway and Boston Lodge
- National Slate Museum – developing a strategy for complete redevelopment
- Llechwedd – Maenofferen Slate Mill – heritage, education and tourism project
- Talyllyn Railway – series of interpretive projects

Community Destination Plan Recommendations

- In partnership with the community

Developing Sprockets and Spokes

- Current projects at Ogwen Visitor Centre and Electric Mountain
- Untold Stories linked to Cae'r Gors
- Uncovering the Landscape at Plas Tan y Bwlch
- New graphic panels at other sites
- Touring exhibition within Gwynedd and further afield
- Introducing the characters through art and performance
- Develop new series of History Point information points linked to QR codes

1. Introduction

This Interpretive Strategy has been put together by consultants at Headland Design with support from historian Dr Dafydd Gwyn (of Govannon Consultancy who is providing research) to support a bid to UNESCO for World Heritage Site status for the Slate Landscape of Northwest Wales. Support for consultation in the medium of Welsh was provided by Headland associate Lowri Goss (of Lowri Goss Consulting). The report has drawn on research undertaken by Mari Beynon Owen, Rob Chambers and Julia Thomason for the Community Destination Plans. A separate Marketing Toolkit will provide simple ideas, advice and resources showing how stakeholders and local businesses can use the 'Wales Slate World Heritage Site' concept within their marketing campaigns to help promote their business. It will take a holistic approach to marketing initiatives throughout the Wales Slate World Heritage Site area and will make the 'visitor offer' more attractive to visitors by promoting businesses as part of something much bigger. It will help stakeholders and businesses maximise the benefits that being part of the Wales Slate World Heritage Site family can bring.

The work on the Interpretation Strategy has been informed by workshops and consultation with key stakeholders and strategic partners.

The stakeholders are:

- The National Slate Museum
- Zip World
- Llechwedd
- Ffestiniog & Welsh Highland Railways
- Talylyn Railway
- Penrhyn Castle - National Trust
- Electric Mountain
- Dorothea Pumped Hydro
- Unloved Heritage
- Cadw
- Gwynedd Council
- Snowdonia National Park Authority

The strategic partners are:

- Welsh Government (Cadw)
- National Slate Museum
- The National Trust
- Snowdonia National Park Authority
- The Royal Commission for Ancient Historic Monuments Wales (RCAHMW)
- Bangor University

Interpretation is the connection between visitors and the heritage. It helps to inspire and inform people (visitors and locals) and to connect them to historic sites, museum collections, special places and stories of the past. In order to develop an interpretive strategy, we need to understand the interests and needs of the target audience (including current audiences), define the story we want to tell, understand and describe the heritage assets which visitors will encounter and set out how we will provide interpretation. The story we want to tell will be described from two angles; first through the geographical areas or components for the World Heritage Site bid, and secondly through a series of themes that bring together the key stories.

2. The Story of Gwynedd Slate (the story we want to tell)

The narrative set out below describes the story of the Gwynedd slate industry in a thematic rather than chronological approach, this is further explored through the Interpretive Framework in section 6.2.

The Rock and Processing

Slate is formed from mud placed under huge geological pressure and heat. It can easily be split by skilled workers into light, smooth, watertight sheets, which are ideal roofing materials. Slate has also been used to make school slates, billiard tables, lintels, gravestones, flooring slabs, brewery vats, furniture, switchboards, and urinals. Slates from Northwest Wales are mainly grey or purple, but some are green or striped.



Slate can be transported easily by ship and was exported all over the world. As a roofing material it was suitable for grand buildings such as palaces and cathedrals as well as for factories, warehouses and terraced houses. Slate from Northwest Wales is still exported widely, often for historic buildings. It is also sold as aggregate, gift-items and garden features.

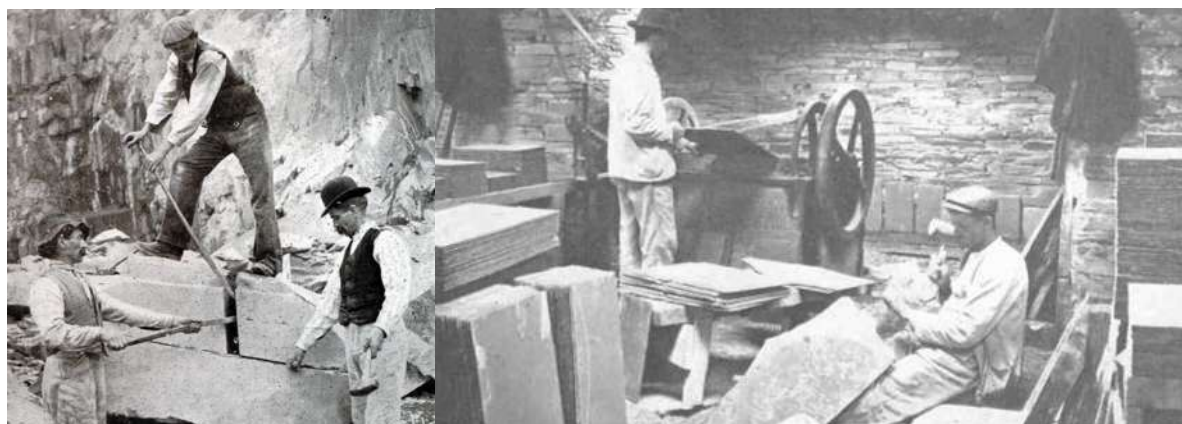


Slate was worked from stepped galleries on a hillside, from a valley-floor pit or from underground. Large blocks of slate were exploded from the rock face and then broken down with large wooden hammers or were mechanically sawn. Slate for roofing was then manually split by hammer and chisel.



There was a lot of waste, over 90% of the slate was unsuitable for use, and had to be tipped. These massive tips of waste rock still dominate the quarries, towns and villages and form distinctive shapes in the landscape. When times were hard, the tips were searched to find slate that could be sold and put to good use.

All the men who worked in a slate quarry or slate mine were referred to as *chwarelwyr*, (quarrymen), but there were many different roles. Rockmen extracted the blocks of slate from their geological formation. Splitters worked in an open shelter or a mill to produce the individual slates from these blocks. Badrockmen removed the waste, miners drove the tunnels in underground workings. Labourers moved and emptied wagons of rubble.



Slate quarrying was very skilled work, and intellectually demanding. Rockmen had to understand the geology, and how to get the best out of a block of slate. Even jobs like loading slate on a wharf needed careful thought, so that it could be easily transferred on to a ship or train.

Quarrymen were very proud of their skills and identified very strongly with their work. They often gave the particular part of the quarry or the mine where they worked a topical or a fanciful name. Agor Boni at Penrhyn Quarry means ‘Boney’s opening’ and was first worked during the Napoleonic Wars.

Transport and Export



In the early days slate and waste rock was moved by barrow or horse and cart, but from the early 1800s railways were used in the quarries. These used inclined planes with wagons pulled by rope, from a drum or a wheel at the top, with a waterwheel, steam engine or motor. If the load was going downhill, it could pull up empty wagons on a parallel track. Many of these survive in the quarries, and there is a working example at the National Slate Museum. Aerial ropeways also carried slate around the quarries. ‘Blondins’, were a particular sort of ropeway used at Nantlle quarries and named after a famous tight-rope walker.

The slate then had to be transported to the coast. Initially packhorses were used then horses and carts. In the Ffestiniog area, slate could be taken down river in boats to meet sea-going ships. The boatmen were known as ‘philistines’ and were famous for dressing ‘like Tipperary Irishmen.’ Boats

carried slate from Dinorwic quarry across Padarn lake to carts that went by road to the harbour at Caernarfon. One of these boats is preserved in the National Slate Museum.

As demand for slate grew the first railroad was built in 1801. This used the same principle as a canal – travelling along a level route and used inclined planes instead of locks. Famous engineers such as the Stephensons advised on the best design for these railways. Early railways used horses, and at Ffestiniog gravity for downhill journeys.

By the mid 1800s the demand had increased again, and horses were replaced by locomotives. The Ffestiniog and Talyllyn heritage railways still use many of their early locomotives. Engineers and government officials came from all over the world to see how the Ffestiniog Railway operated in its mountain environment, and then installed similar systems in their own countries.



The railways connected to harbours at Port Penrhyn, Caernarfon, Y Felinheli and Porthmadog. From here, small wooden sailing ships took slate all over the world. Once the main British railway network reached Northwest Wales, slates for house building in England could transported directly by train.

By the 1900s lorries had begun to replace the railways and little slate was being exported by sea. When the Talyllyn Railway was faced with closure in 1950, it became the first railway in the world to be taken over by a volunteer preservation society. A few years later volunteers revived the Ffestiniog Railway, which had become derelict. These two active heritage railways and the Llanberis Lake Railway continue to use historic locomotives, carriages and wagons. Others are preserved at Penrhyn Castle, the National Slate Museum and at the Narrow Gauge Railway Museum at Tywyn.

People and communities

The slate industry is the most Welsh of all Welsh industries, perhaps the only major British industry where nearly all the workers spoke a language other than English. The workers used their own language to describe aspects of the work. The Welsh language is spoken by nearly 900,000 people, mostly in Wales but also in England, Argentina and worldwide. It is descended from the language spoken by most people in Britain before and during the Roman period, and is closely related to Cornish and Breton, as well as more distantly to Irish, Manx and Scottish Gaelic. The publication of the Welsh-language Bible in 1588 set a standard for the language that has ensured it remained a written as well as a spoken language. Welsh is widely used in education, local government, business and everyday life throughout



Wales, with the highest percentage of Welsh speakers living in the Northwest of the country. Welsh became the language of the slate industry which is why Northwest Wales is a stronghold to this day.

When the quarries were opened up, they lay at some distance from villages and towns. Some quarrymen lived in towns like Caernarfon and Bangor, but most set up their own communities near where they worked or were provided with accommodation by the quarry owners. These took different forms. Some quarry families lived in quarrying-smallholding areas, where they were able to earn extra money raising animals and growing crops on a few fields or a garden plot. Others congregated in new towns and villages, where often a chapel was the first building and gave its name to this new community, such as Bethesda and Ebenezer (Deiniolen). These are now recognised as excellent examples of Victorian industrial settlements.

The quarry settlements were in many ways rough and raw, but also respectful of education. They were proud of strong traditions of music making and poetry, manifested in the Eisteddfod which also encouraged debating and discussion. These were also supported by the strong religious traditions which evolved in Wales in the 1700s. A well-delivered sermon was greatly prized and would be recalled for years to come. Ministers of religion were important local figures and encouraged the radical, progressive outlook of the quarry communities



Kate Roberts

Women rarely worked in the quarries themselves. In the 1700s and into the 1800s women who owned a quarry or shares in a quarry might be responsible for running it. Women often operated the pack-horses, the horses and carts and even at times the trains which took the slate to the sea. As the industry developed, their role in the quarry communities became restricted to raising families, sometimes running a shop. The novelist Kate Roberts celebrated the hard-working frugal lives of the women who lived in the quarrying-smallholding area of her native Rhosgadfan. However, other observers were critical of those who lived in the quarry towns, complaining that they were idle and gossipy. Angharad Ellis (sister of Tom Ellis MP) was a cooking instructor and critical of the quarry workers' wives who she described as extravagant and inclined to gossip.

She commented that they opened tins rather than cook proper meals. Some ministers complained about the behaviour of women – this could be a reflection on different attitudes between the towns and countryside. The first Welsh-language 'talkie', *Y Chwarelwr* ('The Quarryman', 1935) dramatises the often hard choices that had to be made in close-knit families; a Ffestiniog quarryman dies unexpectedly, depriving them of one of their breadwinners; his younger son gives up his studies at grammar school to work in the quarry, to allow his academically more able sister to take up her scholarship and become a doctor.

Many quarrymen and the women of the quarry communities were keen versifiers. A caban (cabin) might promote a competition to write a poem in one of the Welsh strict-verse metres. Verses would be published in one of the many religious magazines. The well-known Welsh poets Robert Williams Parry (1884-1956) and Sir Thomas Herbert Parry-Williams (1887-1975) both used the quarry as a recurring metaphor.

Workers

This was a family industry, boys and young men followed their fathers, uncles and older brothers into the quarry, and were taught the quarry skills by them. In the 1700s, women were often responsible carrying the slate to harbour by pack-horse or by horse and cart.

Rockmen and splitters worked in a partnership of between six and eight men known as the bargaen (bargain). They were contracted by the managers to take on a particular area of rock or an underground chamber. They were paid for the slates they produced, and their working hours were not tightly controlled. Men would often work from dawn to dusk. Labourers were paid by the ton to remove waste. Engine-drivers, mechanics and blacksmiths were paid by the day. Money was good by the standards of the 1800s. Some quarrymen lived near where they worked, others travelled great distances on foot or by train, lodging for the week in barracks. The paths and steps they took to and from work can be followed. At one quarry, each man had his own car gwyllt (wild car) to return home, a sort of skateboard which sat on one rail, with an arm reaching across to a parallel rail, which ran down the inclined planes.

For many years, management was light touch, but as demand declined in the late 1800s, managers began to expect fixed hours, and rates of pay did not increase. The North Wales Quarrymen's Union was set up in 1874 to represent quarrymen's interests. By today's standards the work was hard in difficult conditions, but in the 1800s there were other industries with worse conditions.



NID OES
BRADWR
YN Y TY HWN.

Quarrymen were independent-minded, providing their own tools and considering themselves responsible for their income and their health and safety, and they sometimes clashed with owners and managers. A prolonged strike by quarrymen at Penrhyn between 1900 and 1903 created bitterness between those who came out and those who went back into the quarry which time has not entirely healed. Women were active in the strike, the Bethesda women's choir raised money to support those out on strike. The social gulf between quarrymen and the major landowners is evident in the contrast between the buildings of the slate villages and the homes of the landowners such as Penrhyn Castle, Faenol and Plas Tan y Bwlch.



Dinorwig Quarry Hospital is open to visitors

The work was dangerous. Men were killed by falls, by being crushed by rock, by blasting accidents, by being dragged into machinery or being run over by trains. Circular saws and mechanical drilling created a fine slate dust that caused silicosis, a respiratory disease, which went unrecognised for many years. Three of the wealthiest landowners in the slate industry opened hospitals for the quarrymen and their families, at Penrhyn Quarry, in Ffestiniog and at Dinorwig Quarry. The Dinorwig quarry hospital opened in the 1860s and is now open to the public as museum.

The men had their own eating places for their midday meal which they called a caban (cabin). This became a hub of cultural life and place of debate and discussion. The caban (cabin) would raise a subscription for a quarryman to go to university or to theological college or to help sick fellow-workers. Most quarrymen and their families were religious. Some attended Anglican churches, but most went to the Methodist, Baptist or Independent Congregationalist chapels which are a feature of the Welsh landscape. These also encouraged literacy and learning.

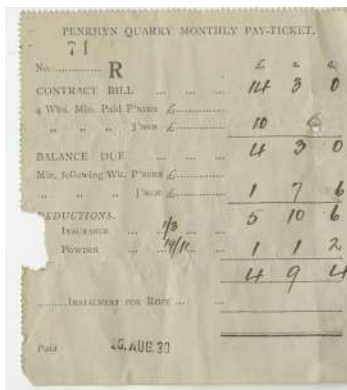
Making money



Lord Palmerston

Slate quarries and their transport systems were ways of making money. Owners often re-invested profits from land or other businesses to increase productivity in the slate quarries. The Penrhyn family and the Liverpool and Dublin bankers who invested in the Nantlle Railway and the Ffestiniog Railway, had made their money from the slave trade and slave-worked sugar plantations in Jamaica. The Oakeley family had made their money from Charles Oakeley's work as an administrator in, and then as Governor of, Madras (India).

Mineral rights belonged to the landowners. Some landowners leased rights to others (individuals, partnerships or companies) though some quarries, including the three biggest, Penrhyn, Dinorwig and Oakeley, were worked directly by their owners. This was unusual in British industry at the time but was not unique.



When times were good, slate quarries were a very valuable investment. Lord Palmerston, British Foreign secretary and Prime Minister derived much of the income that supported his political career from investments in Ffestiniog slate. Not all quarries made vast fortunes, and in some quarries such as Bryn Eglwys profits were marginal, and the shareholders lost money.

Quarrymen were well paid for much of the 1800s, but as the industry declined, less so by the 1900s. During boom times, quarrymen and their wives were considered by some to be over-dressed and showy. As demand for slate decreased, there was less and the work was less well paid.

Rediscovery and inspiration

From the early 1800s visitors from Europe and America made their way to the slate quarries and mines of Northwest Wales to see for themselves these stupendous locations, or to learn about their ingenious railway systems. Some were artists who painted the views and others wrote up their impressions of the area.

Following the decline of slate production people began to take an interest in the heritage of the industry. In 1951 enthusiastic volunteers revived the Talylyn Railway. One of them was the Reverend Wilbert Awdry, creator of Thomas the Tank Engine, who based his imaginary Skarloey Railway on the Talylyn. The Ffestiniog Railway was re-opened with volunteer support between 1955 and 1982. The Llanberis Lake Railway has operated with quarry locomotives since 1972. There has also been great interest in the remaining built heritage. From 1970 volunteer archaeologists have been recording the slate quarries themselves. Adventure tourism has become popular within former quarries and mines, including zip-lines, trampolines, bike trails, walking, caving and diving.



The people of Northwest Wales have been inspired by the quarrying environment and by their quarrying communities since the same time. Slate carvings created to decorate quarrymen's houses show a confident and outward-looking population enjoying the good things in life and taking an interest in their surroundings. This tradition has been revived by Merched Chwarel, a group of contemporary women artists inspired by the quarries.

The caban (cabin) culture and the emphasis on literacy encouraged men and women in the quarry communities to become musicians, historians, poets and novelists. William Williams of Llandygai was a pioneering writer in both Welsh and English. T. Rowland Hughes of Llanberis was a poet, hymn-writer and novelist, the first person to publish a swear-word in Welsh literature (in 1944). Kate Roberts celebrated the difficult life of women in the quarry communities in her novels and short stories, her childhood home Cae'r Gors is open to the public.

People are still taking inspiration from the slate quarries. This includes artists and musicians such as Peter Prendergast, Ivor Pritchard, M E Thompson, Super Furry Animals, Anweledig, 9Bach and Martin Dawes; Contemporary writers such as Manon Steffan Ros and Alys Conran, whose debut novel (set in Bethesda) won Wales book of the year 2017, also take inspiration from the area. Venues such as CellB and Neuadd Ogwen bring cultural events to the slate communities, and help visitors to discover this unique culture. Visitors to the area are encouraged to learn a little Welsh and to use Welsh place names which help to connect them to the sense of place.

Ingenuity, skills and craft

Quarrymen were skilled craftsmen who needed to understand geology in order to blast the slate blocks from the working face without shattering them, and in order to saw and split them. They needed to be able to secure the best rates for their bargin (bargain) from the managers, so they also had to be shrewd negotiators. Engineers, mechanics and technicians had to master different skills as new technologies were introduced to the quarries, including water-power, steam, compressed air, petrol and diesel engines, and electricity.



Specialist workers and experts came from other parts of Wales and from further afield to carry out specific tasks in the slate quarries. Mormon tunnel-drivers came to Penrhyn Quarry from Merthyr Tydfil in South Wales to cut drainage levels, then emigrated to Salt Lake City. Charles Easton Spooner followed his father as engineer of the Ffestiniog Railway after learning his skills with Isambard Kingdom Brunel. Technologies from other industries were adopted in the slate quarries, including the use of iron narrow-gauge railways (from South Wales), pumping engines (from Cornwall) and aerial ropeways (from Scotland).

The slate industry is still active today and specialist skills such as slate splitting are demonstrated in the National Slate Museum. The quarry communities are still busy places today. Slate is still being quarried and used not just for roofing and traditional building but also for jewellery making, art and as the setting for adventure activities. As Anweledig (a band from Blaenau Ffestiniog) said “I never worked in a quarry, but I have slate in my blood”. Visitors flock to the slate quarries and mines for experiences underground, trampolining and ziplines as well as cycle trails and walking. Inigo Jones Slate Works was founded in 1861 to make writing slates. As the demand for writing slates declined the company moved into new areas, such as electrical plates, made from enamelled slate. The company has continued to diversify and is still making slate products, and is open to the public for talks, tours and demonstrations.

Landscape and biodiversity

As the slate industry declined nature has moved in. Slate caverns and mines in Gwynedd are important hibernation sites for many species of bat, in particular the lesser horseshoe bat, which has its stronghold in North Wales. Gorseddau quarry is located within the Meirionydd Oakwoods and Bat Special Area of Conservation, a site designated for lesser horseshoe bats. Nantlle lies within 2 km of the Glynllifon SAC, a maternity and hibernation site for a large population of lesser horseshoe bat, that makes up about 6% of the total UK population. There are significant otter populations within the vicinity of quarries.

Some iconic bird species are associated with quarries and surrounding areas including chough a Schedule 1 species protected under the Wildlife and Countryside Act 1981, whose numbers are in serious decline. These birds often nest in quarries, mine shafts and even abandoned quarry buildings. Other species associated with quarry landscapes and which sometimes breed in quarries include peregrine falcon, raven and ring ouzel.

The landscape of Northwest Wales records the story of the slate industry. From evidence of the earliest quarries of the Romans to technology and buildings built in the later stages of the industry. The quarries and workings that were short-lived often provide the most remains, such as those of the Gorseddau Quarry. The remains still visible demonstrate the investment and the optimism of the owners, as well as illustrating transport and technological advances.

Worldwide export of ideas and slate

Slate was exported from Northwest Wales by the Romans, over 2,000 years ago. By the late 1600s Welsh slate was being used in the West Indies, on the Pennant family's estates there. Slate exports were affected by world events, such as the increase in tax on slate exported by sea, which was introduced in 1793 by Prime Minister William Pitt to help pay for the war. When the war came to an end in 1815, exports increased again. By 1830 half of New York's buildings were roofed in slate, and after a disastrous fire in Hamburg in 1842, Welsh slate became the preferred roofing material for the city. Welsh slate is still sought for prestigious, historic and new buildings.

Just as quarrymen and quarry engineers learnt from other industries and from newcomers, they also exported their own ideas and their skills. Many of them moved around Gwynedd and elsewhere sharing skills and experience. Others left Wales to run slate quarries in England, Ireland, Germany, Australia, Tasmania and America. The narrow gauge railways developed in the slate industry were adapted all over the world, for industrial and military purposes, and as a cheap form of public passenger railway for European colonies, such as the Darjeeling Himalayan Railway, itself a World Heritage site.

Slate from Northwest Wales is still being sold all over the world. The quarries at Penrhyn and Cwt y Bugail export distinctive Welsh slate worldwide.

The existing World Heritage site in Northwest Wales, The Castles and Town Walls of Edward I in Gwynedd, marks an important change in Medieval Wales, with the first return to urban living since the Roman period, and the introduction of a money economy, as the once-independent kingdom of Gwynedd was incorporated into the Norman-Plantagenet state. This is a story of subjugation as the castles were built by the Norman King, Edward I. The story of the slate industry mirrors this and is one of looking outwards. The slate industry demanded the development of new skills and trade which were exported around the world. In both cases the story is one of incorporation into a wider world, and the impact that this had on Wales. Other existing World Heritage sites in Wales illustrate another important changing point in the history of Wales – the first industrial nation. Like the Welsh slate story, the Blaenavon Industrial Landscape, and The Pontcysyllte Aqueduct and Canal show how Wales participated in the British Industrial Revolution. The Slate Landscape of Northwest Wales tells the story of a uniquely Welsh industry with a global reach.

3. The World Heritage Site nomination area

3.1 Introduction to the World Heritage Site

The slate landscape for the World Heritage Site (WHS) bid has been divided into seven geographical areas or component parts. Each area has a unique character defined by the geology, the way that the slate was extracted, transported and by those who managed the quarries and worked here. Each area has between four and twelve key elements which are the key sites that help to demonstrate the significance of the area. The slate landscape of Northwest Wales in Gwynedd demonstrates the spectacular story of evolution from a sparsely populated upland agricultural society to one dominated by the slate industry; with towns, quarries and transport links carving their way through Snowdonia to the iconic ports on the coast. Within the landscape the whole process from quarries, deep pits, mines and tips; the transport systems and settlements; and the finished product is clearly visible and easy to find.

During the development of the project the seven components has been reduced to six. The Aberllefenni Slate Quarry is no longer within the nomination area. However, it is still part of the story and this report covers all seven areas.

The seven areas have descriptive titles which are used in the WHS Dossier and have been abbreviated in this report in tables and for reference as follows (below). Each area is shown on the map on p16.

Penrhyn Slate Quarry and Bethesda, and the Ogwen Valley to Port Penrhyn	Ogwen
Dinorwig Slate Quarry Mountain Landscape	Dinorwig
Nantlle Valley Slate Quarry Landscape	Nantlle
Gorseddau and Prince of Wales Slate Quarries, Railways and Mill	Gorseddau and Prince of Wales Slate Quarries
Ffestiniog: its Slate Mines and Quarries, 'city of slates' and Railway to Porthmadog	Blaenau Ffestiniog and Railway
Bryneglwys Slate Quarry, Abergynolwyn Village and the Talyllyn Railway	Bryneglwys, Abergynolwyn and Talyllyn Railway
Aberllefenni Slate Quarry	Aberllefenni

3.2 Summary of the areas in the World Heritage Site Nomination area

Each of the seven geographical areas has been described below and is shown on the following map with the key elements within each area.

1) Penrhyn Slate Quarry, Bethesda, Ogwen Valley to Port Penrhyn

A huge quarry that thrived with investment from the Penrhyn family (and their sugar estates) and was often the first to use new technology. Penrhyn Castle sits within the area.



By the early 1800s the slate quarry at Penrhyn was the biggest in the world. Slate has been quarried from here for over 500 years and is still being extracted today.

From the late 1700s onwards the quarries were operated by a wealthy family who owned the quarries and later built Penrhyn Castle. The Pennant family had made their wealth in the sugar slave-estates in the West Indies and were able to spend money on the latest technology to extract the slate and to transport it from the quarries to the port, and from there all over the world. Felin Fawr slab mill was the first known place in the world to use powered circular saws to cut stone. The mill, like much of the equipment used in the quarry, was powered by water. Transport was by rail, pulled by horses and then steam locomotives.

The quarry workers and their families lived close by, some on the Penrhyn estate at Mynydd Llandygai, others were more independent and chose to build their own houses around the local Bethesda chapel. The town that grew up took its name from the chapel. A long-running dispute between workers and owners from 1900 to 1903 left a legacy of bitterness.

2) Dinorwig Slate Quarry Mountain Landscape

This is an area full of well-preserved buildings, equipment and transport routes that show technology from 150 years ago used to move and extract slate. Home to the National Slate Museum.

Set amongst stunning scenery of mountains and lakes. In the 1800s this was the second biggest quarry in the world, owned by the Assheton-Smith and then the Duff family, rivals of the Penrhyn family. From the 1700s the family leased the slate beds to others but in 1820 the landowner took over control. It was unusual (as at Penrhyn) for a landowner to manage the industrial working of their estate.



The quarries operated from the 1700s – 1969 and created 30 galleries of ledges in the side of the mountain. The National Slate Museum is based in what was the engineering buildings for the quarry. These are impressive buildings, a sign of the status of the owners. The museum has preserved and restored much of the quarry workings and buildings. An inclined plane is the only working one left from the many hundreds that were used in the area to move slate up and down the slopes of the mountains. The road system, railroad and railway connected the quarries with the port at Y Felinheli.

The workers formed the North Wales Quarrymen's Union to represent their interests. Craig yr Undeb (The Union Rock) marks their meeting place. Surviving buildings show the range of accommodation for workers, from Yr Dre Newydd (The New Town) also known as the Anglesey Barracks for quarry workers during the week, to cottages built by the workers' families (through cooperatives and loan schemes) in the villages of Deinolen and Clwt y

Bont. The landowner leased land to workers to build houses on the estate which had previously been common land. The quarry workers' hospital built by the estate owners is preserved as a museum showing treatment and explaining injuries and working conditions.

3) Nantlle Valley Slate Quarry Landscape

Quarries in this valley were operated by several landowners. Innovative technology from Cornwall and Scotland helped to overcome the difficulty of extracting slate from the valley.

This valley and the quarries were owned by several landowners who leased the quarries. Some of the quarries were in the valley floor rather than on the slopes and have now filled up with water. One of the largest, Dorothea Quarry, opened in 1829 and when it closed in 1970 it had reached a depth of 100M. It was at Dorothea Quarry that one of the last Cornish Beam engines was installed in 1906, to pump water from the workings.



At Penybryn Quarry waterwheels and flatrods were based on a system used in mines in the west country in England. Steam powered ropeways from Scotland known as 'Blondins' were used at Blaen y Cae Quarry and electric versions at Penyrsedd. Named after the famous tight-rope walker, Charles Blondin, the system lifted trucks of slate from the valley floor to connect to the railways and track ways.

The Nantlle Railway linked the inclined planes and internal railways in the quarries with the port. The railway was realigned when pits expanded or opened and was built using wrought iron rails and stone block sleepers. The manager of Pen yr Orsedd Slate Quarry provided houses for the workers at Nantlle village, with the aim of improving their living conditions and to keep them in line. Many of the quarrymen moved from rural areas to work in the quarries. The rough slate makers' shelters are still visible and illustrate the hard times of the 1930s when unemployed quarrymen reworked the slate tips to scrape a living.

4) Gorseddau and Prince of Wales Slate Quarries, Railways and Mill

The Gorseddau and Prince of Wales quarries date from the boom years of slate quarrying in the 1850-70s when there was big demand for slate.

Both quarries created stepped galleries in the hillside, and had water powered slate slab mills. The mill at Ynys y Pandy for the Gorseddau Quarry looks like a mill with big ambitions. The design reflects the owner's background in engineering and looks more like an abbey than a slate mill. The owners also built workers' houses at Treforys. The railway linking Gorseddau to Porthmadog opened in 1857 and later connected to the Prince of



Wales Railway. The Gorseddau Quarry did not produce much slate after 1866.

The grandly named Prince of Wales Quarry at Bwlch y Ddwy Elor (in Cwm Pennant) was worked on a small scale from the 1860s until 1886.

5) Ffestiniog: its Slate Mines and Quarries, 'city of slates' and Railway to Porthmadog

Slate workings above and below ground were connected by roads and river, and later by the famous Ffestiniog Railway to Porthmadog.

The first quarries in the Blaenau (uplands) of the parish of Ffestiniog were worked by quarrymen from the Nantlle area in the late 1700s. By the 1820s investment by English businessmen (including Lord Palmerston) and local families such as the Oakeleys, whose home was at Plas Tan y Bwlch, created a series of workings, quarries and mines to extract slate.

Slate workings here began on the surface, but most of the slate was below ground so mines were opened to follow the angle of the slate. The slate rock and rubble (or waste) was hauled up from the mines with powered inclined planes. Diffwys Slate Mill was the first steam powered mill that produced roofing slates rather than slabs of slate. Opened in 1904 Pant yr Afon was an early hydroelectric power station that made use of the high rainfall in this area, using water to drive the turbines. There is still a working hydro power station here today.



During the 1800s and until the 1940s, slate from the Ffestiniog quarries was exported via the port at Porthmadog. The roads of the Dwyryd Valley follow the routes that link the quarries to the slate quays on the river, where the slate was transferred to small boats. These routes were used until the coming of the Ffestiniog Railway in the 1800s. The railway began (in 1836) with loaded slate wagons that used gravity to go downhill and horses to pull them up to the quarries. In the 1860s the railway adapted to use steam locomotives when it also began to carry passengers as well as slate. The narrow gauge and steep route of the railway inspired railways around the world as well as those closer to home.

Blaenau Ffestiniog, called the City of Slates, was the largest quarry town in Northwest Wales, by the 1820s it was home to 12,000 people. The town which had four Anglican churches and 40 nonconformist chapels had sprung up in a short space of time, built for the quarrymen and their families.

6) Bryneglwys, Abergynolwyn and the Talylllyn Railway

The McConnell family, who had made their money in cotton, invested in technology and the first slate railway built for locomotives, which 100 years later was the first conserved railway.

Bryneglwys Quarry was first worked in the 1840s, but it wasn't until the 1860s that investment came from the McConnell brothers. They were concerned about their cotton business and were looking for new opportunities. Slate was quarried above and below ground and the new managers used technology from the quarries at Nantlle and Ffestiniog. This included a



water driven chain incline to hoist the slate out of the valley and a purpose built narrow gauge railway. The Talylyn Railway was the first slate railway built for steam locomotives and the first to connect to the mainline railway rather than the sea. This was a sign of the impact that the new mainline railway network had on industry. The railway was also the first to be successfully re-opened and operated by a preservation group in 1951, making it the first preserved railway in the world.

In 1910 the quarry was taken on by Sir Henry Haydn Jones to fulfil an election promise to keep the quarry open. The quarry only closed in 1946 when it became too dangerous and the railway in 1950 on the death of Sir Henry Haydn Jones. His refusal to increase wages did lead to a strike by the quarrymen in 1920.

The village of Abergynolwyn was provided by the McConnell brothers and looks more like a street from a Lancashire cotton town than a Welsh slate village. The houses were designed by a Manchester architect James Stevens and built of slate that was unsuitable to be split for roofing. An incline linked to the Talylyn Railway bringing goods and slate to the village and removing human waste (poo and wee) to be used as fertiliser.

7) Aberllefenni Slate Quarry

This narrow valley was a challenging place to quarry slate. Slate has been quarried here for 500 years, the longest continuous operation of any slate mine in the world.

Although this area is no longer part of the nominated area the story is an important one and will be told within the interpretation.

Within the narrow valley the slate was mined and quarried and brought to the Aberllefenni Slate Quarry Mill. Still working today, the mill has been used to process slate since the 1860s. The slate from Aberllefenni was of high quality and extracted as slab to be used as fireplaces, switchboard parts and machinery bases.



The mill building has slate roofs and walls and was built with two waterwheels to drive 20 saw tables which cut the slate. A reservoir provided water to power the mill. The quarries

were able to export slate via the Corris, Machynlleth & River Dovey Tramway built in 1859 which linked to quays at Derwenlas and later the mainline railway.

The quarry comprises three sets of works including mines with tall caverns. Foel Grochan was the last working slate mine when it closed in 2003. The other two workings Hen Gloddfa and Ceunant Ddu slate quarries became inaccessible after rock falls in the 1860s. French visitors in the 1880s compared the system of underground chambers to those used in France in the Loire Valley. Many of the workers lived in the village of Aberllefenni, where a bell in the bell house was used to call the workers to the quarry at the start of the day.

Nominated areas and the key stakeholders for the project



4. Developing a new approach

4.1 Challenges and opportunities

At the initial Interpretation Group meeting that Headland attended, staff from the stakeholder sites were invited to contribute to a SWOT to identify the strengths, weaknesses, opportunities and threats for the current interpretation within the slate landscape. These have been used to identify the key challenges and opportunities for developing the Interpretive Strategy.

Visible Landscape

The heritage of the slate industry is carved into the landscape, making it hard to ignore, but without interpretation it can be difficult for visitors to understand its significance. Interpretation needs to be easy to find and accessible. Digital interpretation would enable visitors to find the information, when they are in the area. It needs to tell the story and help people to understand the significance and to value the heritage.

Gaps in the story

There are gaps in the story (which will be further considered in the audit) especially around the social history of the slate industry and the role of women. Other parts of the story are told in more than one place. The strategy needs to identify the gaps and ways that these stories can be told and approaches that help sites to consider which stories to tell and understand more about how the story is told elsewhere.

Whose story are we telling

Many local people are descended from slate workers and feel a strong sense of ownership of the story. The historic railways and the adventure sites have been criticised for telling the story of the slate industry without proper understanding or consultation with the community. Consultation and community involvement need to be a critical part of any new development.

Places not connected

The sites within the slate landscape are telling part of the same story but are not connected and currently don't signpost visitors to other sites. There are huge opportunities to link sites so that visitors can easily make a day of it.

A popular tourism destination

The slate landscape is set across a relatively small geographical area which is popular with tourists and full of activities as well as heritage. There are opportunities to engage people who are visiting the area, with the heritage through new interpretation at outdoor and adventure sites. Interpretation can also be used to connect to visitors before and after their visit.

Managing tourism

Securing World Heritage Status could bring more visitors to the area, but there are concerns about the infrastructure and facilities for more tourists. The interpretation needs to include key messages about respect for the countryside, historic remains and local communities.

Getting the story right

Wales is a place of stories and legends and the slate landscape is no exception. Current historical research has placed a great emphasis on the landscape and physical structures and some research in the past has over emphasised the social injustices, it is important that the story is historically accurate and is told from different perspectives.

Telling an international story to the world

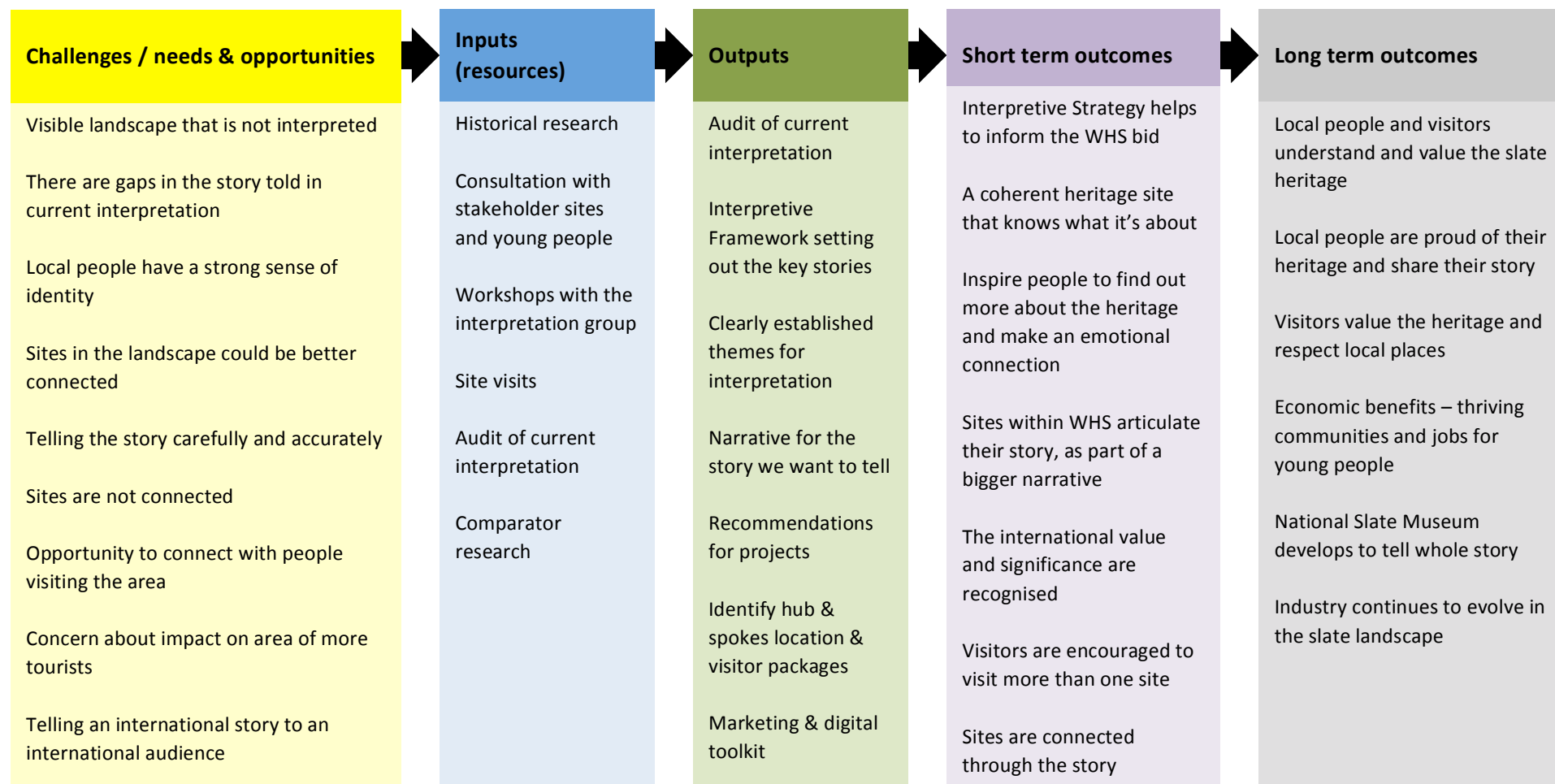
The story of an industry that exported goods around the world has world significance and through WHS status will draw a greater international audience. The interpretation needs to be bilingual and easy to understand for non-native speakers.

4.1.1 Safety in the slate landscape

The Slate Landscape of Northwest Wales by its very nature includes some elements that are inherently dangerous because of the remaining structures and workings. This includes redundant buildings, machinery and mineral workings (quarries, mines and shafts). Other places that are safety-critical include the active railways. World Heritage inscription does not confer any right of public access to private property, a significant proportion of the Nominated Property is within private ownership and a small amount of this is on land where no public access is permitted due to the nature of the business and or/landscape. Some sites are inaccessible as they are operational commercial businesses (e.g. sections of Dinorwig Quarry operated by Engie as a Hydro Power station) and other sites are inaccessible due to their dangerous nature (e.g. sections of the underground network). New interpretation must make it clear which parts of the nominated area are accessible and where there is no access.

4.2 Outcomes for the Interpretive Strategy

Project Vision: The interpretation of the slate heritage will empower, reconnect and regenerate the slate communities of Gwynedd.



5. Current interpretation

5.1 Introduction to audit of current interpretation

Current interpretation across the slate landscape is varied and does not tell a coherent story or provide a comprehensive visitor experience. The audit will consider for each area: places where there is interpretation, the stories that they tell, how the information is presented and opportunities for future interpretation that will help to fill the gaps and provide a wider range of interpretive media. This is summarised in a table in section 6.5.

There are a number of interpretive schemes that sit across the whole slate landscape. This includes:

- History Points
- Snowdonia Slate Trail

History Points

Digital interpretation that uses QR codes to give access to well researched histories linked to historic buildings and places. The QR codes are displayed on plaques on buildings or in the windows of buildings and link to the History Points website. Users don't need to use the QR codes they can go direct to the website. History Points began in Conwy and now provide access to Welsh heritage at over 1,500 locations in Wales. The project relies on sponsorship and commissions but provides most of the interpretation through volunteer input and limited resources. The website is bilingual and many of the histories are available in a range of other languages. There are also video clips with sign language and audio material making it very accessible. Information can also be explored on the website and includes a series of tours that are linked by geographical place or by theme.

Snowdonia Slate Trail

The Snowdonia Slate Trail has been created by Cwm Community Action Group with author Aled Owen.

The group put together the 85 mile trail to stimulate business opportunities in the former slate villages and to bring the slate story to a wider audience. The trail goes from Port Penrhyn (close to Bangor) to Bethesda, up to Capel Curig, through Penmachno, Llan Ffestiniog, to Beddgelert, Llanberis and back to Bethesda. A book accompanies information panels and way markers and includes sections about the history of the slate industry, the geology, Yr Wyddfa (Snowdon), the railways and the wildlife. There are

also maps, information and directions for each section and a passport to encourage people to visit more than one area. <https://www.snowdoniaslatetrail.org/home.html>



Snowdonia Slate Trail

Contemporary with this report there are projects focused on the slate industry and which include some interpretation:

- LleCHI Great Places scheme

- Unloved Heritage
- Rural Futures
- Destination Plans
- Merched Chwarel

LleCHI – Great Places

As part of the wider work to celebrate slate heritage, Gwynedd Council and its partners has developed a project to ensure that local communities make the most of the buzz surrounding the slate area. Gwynedd Council has secured over £500,000 in funding through various sources, including the National Lottery Heritage Fund Great Place Scheme, Cronfa Eryri, Arloesi Gwynedd Wledig and the Council itself to develop the “LleCHI” project, to ensure communities can benefit, whatever the outcome of the WHS bid. LleCHI is a play on words encompassing the Welsh words for slates and your place. This is a project to regenerate the slate quarrying communities through heritage with community engagement, building relationships, raising awareness and improving destinations. This includes looking at interpretation, the use of Young, Community and Business Ambassadors, and implementing improvements identified through community engagement.

Unloved Heritage

Funded by the National Lottery Heritage Fund this archaeology project is designed to engage, enthuse and inspire young people throughout Wales to get involved with their local heritage. Animating Dyffryn Nantlle is one of six projects and is managed by Gwynedd Archaeological Trust to look at the people and communities that worked in the Nantlle slate quarries during the 1800 and 1900s. The group of young people have taken part in activities throughout the year, including walks, research, archaeology, film making, and they are creating an App to tell the history of the Dorothea Quarry.

Rural Futures

Rural Futures is run by Severn Wye Energy Agency and the BRO Partnership and funded through a grant by The National Lottery Community Fund in Wales. The programme will support and enable people from within the communities themselves to identify local challenges and develop projects which will empower them to help tackle rural issues in their areas.

Our Heritage Cadw project

Funding was used to develop new interpretation at Dinorwig Quarry Hospital and digital resources including Taith y Lechen (Slate Journeys).

Destination Plans

Community Destination Plans have been developed as part of the preparation for the WHS nomination for the following areas:

- Blaenau Ffestiniog
- Bethesda
- Deiniolen
- Tywyn
- Llanberis
- Penygroes

The objectives for the plans are to:

- Increase awareness, pride and understanding of the rich heritage of the slate industry
- Promote the social and economic regeneration of the area

The proposals are focused on community and tourism sustainability which in some instances includes proposals for new interpretation. The developing projects will use the Interpretation Strategy to ensure that there is a coherent narrative.

Merched Chwarel

Merched Chwarel is a collaboration between four artists, Marged Pendrell, Jŵls Williams, Lisa Hudson and Lindsey Colbourne, whose work is connected to the quarries of North Wales where they each live and work. The group began working together in 2016, and with the support of the Arts Council Wales, and in collaboration with curator Jill Piercy, developed a series of exhibitions (Storiell April - September 2019, Amgueddfa Lechi Llanberis National Slate Museum and Quarry Hospital July 2019 - January 2020, Llyfrgell Blaenau Ffestiniog Library and Llechwedd Slate Caverns September - November 2019) in response to the question: *“Who are we, the Merched Chwarel of past, present and future? How are our aesthetics, identity and connection to place, culture and language mediated by the quarries?”*. Their work has included significant amounts of research into the untold stories of women, including collaboration with a range of researchers, performers and writers such as Dafydd Gwyn and Elin Tomos. They have developed a strong element of community engagement through Canu Chwarel Singing Slate (supported by the Llechi WHS bid) and Women’s Wall (supported by Fusion) workshops, working with community groups (such as Unloved Heritage in Tal y Sarn), talks and presence at community events. They have also featured on TV and radio. Their website www.merchedchwarel.org is an integral part of their work, and contains stories of Merched Chwarel, work by other creatives, events, on-line shop and commentary.

5.2 Audit of current interpretation

The table below shows how the stories are currently told across the different areas. The blue squares indicate that the story is being told and the orange indicates opportunities that would allow this story to be told and will be further discussed in the narrative below.

Topics	Ogwen	Dinorwig	Nantlle	Gorseddau and Prince of Wales Slate Quarries	Blaenau Ffestiniog & railway	Bryneglwys, Abergynolw yn and Talylyn Railway	Aberllefenni
The rock and processing							
Transport and export							
People and communities							
Workers							
Making money							
Rediscovery and inspiration							
Ingenuity, skills and crafts							
Landscape and biodiversity							
Worldwide export							

	Current interpretation
	Opportunities for interpretation

Ogwen

Focused around what was the biggest slate quarry in the world, with plenty of visitor facilities and a variety of interpretation this area has plenty for visitors to see and do. The landscape and the working quarry make it easy to read the landscape and understand the process and heritage. Penrhyn Castle is owned and managed by the National Trust and includes a Railway Museum. Throughout the landscape there are graphic panels highlighting interesting and significant sites. There are heritage trails around Bethesda village and the adventure trail at Zip World. Zip World also offer tours of the quarry on their Big Red Bus and there are occasional tours of the operational Penrhyn Quarry by owners Breedon Welsh Slate. The visitor centre for the SNPA (Ogwen Visitor Centre) is currently being refurbished and new interpretation will focus on the landscape and biodiversity of the area.



Railway museum at Penrhyn Castle



Slate bedroom Penrhyn Castle



Zip World, Llechwedd

The current interpretation tends to focus on the physical remains of the quarries and the story of the quarry owners and their relationship with the workers. The story of the strike at Penrhyn is well known and is told through graphic panels and the History Points website and plaque. The landscape, information at Zip World and the still operational quarry help to explain the processing of slate. Neuadd Ogwen and Llys Dafydd in Bethesda have displays and information about the heritage as well as hosting cultural events.



Graphic panels in Bethesda village

Opportunities

New interpretation at Penrhyn Castle will provide an opportunity to tell the story of an estate built from the slave trade and to examine the accumulation of wealth and understand the cost of building it. The Trust will also redisplay and interpret the railway collection to tell a wider story of the workers as well as the locomotives and railway. The LleCHI project working with the community to identify projects that will tell their story.

Dinorwig



National Slate Museum

Home to the National Slate Museum, this area is able to tell the whole narrative of the slate industry. There are some accessible quarries, the museum demonstrates the processing of slate, the railway and inclines show the transport challenges and solutions, the quarry hospital illustrates the realities of work in the quarries and there are plenty of graphic panels, trails and digital points that pick up the story.

However, the story at the museum is focused on the Dinorwig area rather than the national story and the interpretation is generally quite tired and in need of refreshment. TripAdvisor reviews confirm an interest in the subject, but that the displays are a bit old fashioned, or a “bit basic”. Reviews for the Quarry Hospital comment on the opening times (it’s not open every day and it’s a long walk up the steps to discover this!). People interested in the subject enjoy the displays but comment that it’s quite a small exhibition.



Dinorwig Quarry Hospital



Historic interior, National Slate Museum

The National Museum is long overdue a redisplay and a new approach that tells the story of the Welsh slate industry through the Dinorwig quarries. The Llanberis Lake Railway, the Quarry Hospital and Electric Mountain are smaller visitor attractions that provide further appeal. The sites could be better connected and linked through the stories that they tell.

Opportunities

The National Slate Museum are planning a major redisplay and re-interpretation of the museum to reflect the national story and to make best use of a range of interpretive media. Electric Mountain is currently closed for refurbishment and the new visitor attraction will include new interpretation about the Dinorwig quarries. The LleCHI project will develop new interpretation and artwork at the Quarry Hospital and at Craig yr Undeb (The Union Rock) about the Great Strike. There is also new interpretation proposed through the Rural Development Fund in Llanberis village.

Nantlle

Current interpretation in this area is limited. Cae'r Gors home of author Kate Roberts managed by Cadw is open one day a week and there are scenes of slate quarrying on the war memorial in Nantlle. Cae'r Gors is not well visited (there are only 7 reviews on TripAdvisor). The story of Kate Roberts is an important one, but the author's work is not well known outside of Wales. The Unloved Heritage project run by Gwynedd Archaeological Trust have undertaken research and archaeological excavation and are creating an App to interpret the story of the people and sites at Dorothea Quarry. There may be further interpretation through the LleCHI project, which is working with the community to identify projects that will tell their story.

Opportunities

There are a number of community venues that could provide a location for graphic interpretation including: Y Banc, Trigonos, Yr Orsaf, Nantlle Barracks (shop development) and Penygroes Library. Cae'r Gors, the childhood home of author Kate Roberts could be redeveloped to tell a wider story of the role of women in the slate industry, drawing on the detail in her novels of life at home for the families.

Gorseddau and Prince of Wales Slate Quarries

There are plans to install a new graphic panel at Ynys y Pandy Slate Mill. The Snowdonia National Park Authority have plans to develop better access and interpretation for the slate mill. The Gorseddau quarry is not accessible, but there is an opportunity to create new interpretation at the Prince of Wales Quarry.

Opportunities

New interpretation at Ynys y Pandy Slate Mill will make the site easier to understand and create a focal point for interpretation, which could signpost visitors to the nearby Prince of Wales Quarry which could also have some refreshed and refocused interpretation.

Blaenau Ffestiniog and Railway

This area is probably the most visited area, with large tourist attractions such as the Ffestiniog and Welsh Highland Railways, Llechwedd and Zip World. These are not primarily heritage attractions but are firmly grounded and connected to the slate heritage and have some interpretation. The historic railway has almost no interpretation about the slate industry and the history of the railway (except



Boston Lodge, Ffestiniog Railway



Maritime Museum, Porthmadog

in the guidebook) but is developing a project to secure funding for development at the historic engineering works at Boston Lodge and for new interpretation across the railway. At Llechwedd in addition to the high adrenalin activities there are guided tours of the historic slate mines. In Blaenau Ffestiniog town and within Antur Stiniog and Ty Mawddach there is interpretation and artworks. At Plas Tan y Bwlch, home of the Oakeley family, quarry owners there is some interpretation about the house, the family and the wider slate industry but it is not easily accessible, and the visitor route and access are unclear. Porthmadog Maritime Museum is volunteer run and has well presented displays of objects that tell the story of Porthmadog and the Ffestiniog Railway. The LleCHI project and the Community Destination Plans will look to deliver new interpretation in Blaenau Ffestiniog. The proposals include ideas about linking the town with a walking route to the attractions at Llechwedd. The Antur Stiniog bike trails (named after quarrying terms) make use of the stunning slate landscape.

Current interpretation is delivered through graphic panels, guided tours (at Llechwedd), artworks and through digital and leaflet trails such as the History Points website. There are some low tech interactive displays at the Maritime Museum but generally the information is written and aimed at an adult

audience. The Ffestiniog History Society exhibition in Caffi Antur Stiniog is a great example of community-led interpretation.



Outdoor graphic and displays at Plas Tan y Bwlch



Opportunities

There are plans to develop a project to conserve and interpret Maenofferen slate mill and the mine at Llechwedd. The Ffestiniog Railway have applied to NLHF for funding to develop new interpretation and activities linked to Boston Lodge engineering works. This will also include site wide interpretation to tell a wider story of the local slate industry. At Plas Tan y Bwlch a more coherent approach to interpretation would create a more appealing visitor attraction and could tell a wider story. New interpretation and walking routes can help to draw visitors to Blaenau Ffestiniog and to enable them to discover the story of the people and communities that created the slate landscape. There are plans to combine the mainline and heritage railway station at Blaenau Ffestiniog and to provide interpretation as part of this.

Bryneglwys, Abergynolwyn & Talyllyn Railway



Narrow Gauge Railway, Tywyn



Graphic panels at Talyllyn Railway

The current interpretation in this area is focused in Tywyn and Abergynolwyn. At Tywyn the Narrow Gauge Railway Museum tells the history of narrow gauge railways with a focus on those created for the slate industry and the links with Reverend Wilbert Awdry (author of Thomas the Tank Engine stories). Although the museum is independent from the railway many passengers visit the museum as well. The Talyllyn Railway has some introductory graphic panels at Tywyn Railway Station that give a context for the railway and explain its significance. There are also History Points in Tywyn village about the railway. The local history society have developed new interpretation around the town which includes historic walks, leaflets and new graphic panels. There is a graphic panel at Bryneglwys Quarry and a display of historic photographs in the community hall at Abergynolwyn.



Talyllyn Railway

The interpretation in this area is quite limited and focuses on the railway and the context of narrow gauge railways, rather than the slate industry. The Talyllyn Railway have a series of plans for developing new interpretation. This includes interpretation within a wagon, a new facility to house carriages and wagons, developments at Abergynolwyn and at the engineering workshop at Tywyn Pendre.

Opportunities

New interpretation at Abergynolwyn Station could build on the interest in the display of historic photographs to develop interpretation that introduces the story of the Bryneglwys quarry, and the village built by the Lancashire cotton merchants.

Aberllefenni

Both the village and the quarry are accessible. In the village there is a series of graphic panels about the history of the area and the slate industry, and there are public footpaths into the quarry. The village of Corris (outside the WHS area) also has interpretive panels and further heritage is accessed through the historic Corris Railway and the Corris Mine Explorers attraction.



Graphic panels at Corris



The village institute, Corris

Opportunities

Further interpretation could be developed in the villages of Aberllefenni and Corris linking the stories of the workers and communities to the slate industry.

Outside the WHS areas

The story of the Wales slate industry is told in places close to the WHS nomination area. Some of the places discussed above are within the nomination area but are not listed elements. There are also other places that are close and either currently tell part of the story or have the potential to do so.



Merched Chwarel, Storiell

Cei Llechi in Caernarfon is being developed to create a small visitor attraction in the Harbour Master's Office alongside spaces for businesses and site wide interpretation that will tell the story of the transport and export of slate and the development of the slate quay in Caernarfon. At **Storiell in Bangor** the exhibitions tell the story of the people of Gwynedd. There are displays of beautiful objects made from slate and the story of the industry of the county. The museum also hosts changing exhibitions and has worked with Merched Chwarel.

5.3 Consultation with key attractions and stakeholders

During the development of this plan the consultants met with stakeholders and partners through meetings and workshops and in the case of some of the larger places arranged further conversations to understand plans and opportunities.

This included:

- Stakeholder workshop
- Meeting at Penrhyn Castle
- Meeting at National Slate Museum
- Meeting and site visit Talyllyn Railway
- Meeting at Ffestiniog Railway
- Feedback workshop for stakeholders
- Consultation events and site visit with Youth Ambassadors and Unloved Heritage Youth Group
- Landowners meeting
- Conversation with Dave Penberthy - Head of interpretation Cadw
- Meeting with Visit Wales

The notes below summarise these conversations and meetings.

Stakeholder Workshop

The group represent the main partners and stakeholders in the slate landscape. The group took part in an initial workshop, beginning with a SWOT to look at the strengths, weaknesses, opportunities and threats for the current interpretation of the slate industry. The group also discussed the current audiences for their attractions or sites, which varied from site to site, and included tourists and local people, and older people and enthusiasts as well as families and thrill seekers. The group looked at the Theory of Change model and discussed the long term outcomes for this project. This was used to develop the Theory of Change model in section 4.2 which shows the outcomes and outputs for the project.

Meeting at Penrhyn Castle

The National Trust have invested in a project called Transformations which will examine the history of the castle, its owners and tell the complete story. The new interpretation will focus on industry, wealth and labour, the history of accumulation (of power and wealth) and craft and design. The current interpretation focuses on the story of the Pennant family.

They describe the vision as “to collaboratively share the complete story of Penrhyn Castle, reconciling what it once stood for and its impact and influence locally and worldwide, with what it is now and into the future: a dynamic and engaging place, which is as relevant and captivating to those new to the story as it is to those who live with its legacy.” Currently the castle signposts visitors to other National Trust properties, but this could be linked to the slate heritage and suggest places where the story continues. There are also plans to redisplay the railway collection. The current display is aimed at railway enthusiasts but if the story was widened this could be a more

appealing display that helps to tell the story of the people who worked on the railway and the quarries.

National Slate Museum

The museum staff are working towards a Feasibility Study to look at developing a new visitor welcome building, new storage for the collections, space for touring exhibitions and re-focused interpretation. This would be in four stages:

- The new building
- Apprenticeships and new workshops to preserve and demonstrate traditional skills
- Develop more buildings with historic interiors
- Develop routes and access to the Dinorwig quarries to enable visitors' safe access and views

One of the challenges is to tell a national story of the slate industry in an iconic building which is rooted in its locality. The museum is marking the 50th anniversary of the closure of the quarry (in 1969) with events and activities in partnership with the Welsh Place Names Society to record the names of the galleries alongside modern names and to create a map and artwork.

Conversation with Dave Penberthy, Head of Interpretation, Cadw

Cae'r Gors is the childhood home of Welsh author Kate Roberts. Her novels and short stories in Welsh describe the places and experiences of people who lived and worked in North Wales and many were set in the slate landscape. The house is currently only open one day a week (or by appointment) and has seen declining visitor numbers. The interpretation could be developed to tell the broader story of the role of women in the slate industry and community which would have a wider appeal.

Talylllyn Railway

The Railway and the Narrow Gauge Railway Museum are two separate trusts. The Railway is open seasonally but the shop and café remain open all year round. The railway relies on volunteers and attracts 46,000 passengers per year. A recent project secured funding to improve the toilets and there are now plans to create a new volunteer hostel and further workshop space at Pendre to allow visitors to see restoration work taking place. There are also plans to develop new interpretation at Abergynolwyn station, which would provide a focus for visitors at that end of the line and an opportunity to tell a wider story about the railway, the local slate industry and the people who worked here. The museum opened in the 1950s having acquired objects related to narrow gauge railways. One of the star attractions is the recreated study of Rev W Awdry (Thomas the Tank Engine author) who was a committed volunteer and supporter of the historic railway.

Consultation with Youth Ambassadors and Unloved Heritage Group



Young people from the WHS Youth Ambassadors Programme met with young people from the Unloved Heritage group to discuss the stories and themes for the slate heritage and to review the emerging Interpretive Framework for the slate heritage. The group discussed the stories that they had uncovered during their research and preferred types of interpretation. They shared stories of some of the people who worked in the

quarries and their families. They particularly liked the story of Alice Griffiths and stories of survival after accidents in the quarry. They were also interested in the technology used at the quarries such as the pumphouse and Blondins at Dorothea. They would like to see the slate industry interpreted for the future, to protect the landscape and to bring more visitors to discover it. The Unloved Heritage Group are creating digital interpretation and other young people have recently taken part in a drama production at the National Slate Museum led by theatre group Frân Wen called Llechan Wen.

Feedback from stakeholder workshop

Stakeholders and the interpretation group were invited to attend a feedback meeting to review the Interpretive Framework and the emerging themes. Many people contributed feedback on the document via email, which was also incorporated.

Meeting at the Ffestiniog Railway

The staff have made an application to the NLHF for funding to conserve the heritage and develop a new visitor offer at the Boston Lodge Engineering Works and to develop site wide interpretation that will help visitors and passengers to discover the story of this unique railway. The new interpretation will create hubs for interpretation at the stations at Blaenau Ffestiniog and Caernarfon and at Boston Lodge supported by interpretation along the route and on board the carriages. The interpretation will explain why this is an inspiring place, tell the story of the building of the railway, the history of Porthmadog and Boston Lodge and the restoration of the railway. Visitors will discover the context of the wider slate story and will meet characters from the past who worked and travelled on the railway.

Landowners' meeting

The landowners and estate managers who manage property within the WHS area meet regularly to discuss the impact of the development of the WHS bid. The group were invited to comment on the Interpretive Framework and discuss the proposals for new interpretive media. The group were interested in an approach that allows visitors to discover the stories without having to visit the site. At the same meeting there was a presentation about the Adventure Smart campaign which takes a positive approach to encouraging visitors' safety. The group felt that interpretation about visiting the slate landscape needs to include principles about responsible behaviour in terms of safety and the countryside code.

Meeting with Visit Wales staff

Conversation with Andrew Forfar (Regional Engagement Manager) and Catrin Elis (Marketing Manager). We discussed the proposed marketing and digital toolkit and they asked to ensure that the brand takes account of the Visit Wales branding. Visit Wales have used 'the year of ..' for the last three years, this was part of the Strategy for 2016-2020. A new strategy is due at the end of this year which will have a focus on Culture, Adventure and Landscape. Annual campaigns will link to these three aspects. Visit Wales help to develop the international tourism market for Wales. International tourists following the WHS places often only goes as far as Llangollen and the Pontcysyllte Aqueduct and don't venture further west, the slate WHS nomination will help to change this. We also discussed the Cadw Follow the Story campaign, which worked well in some ways, linking sites

together but it didn't have enough strength behind the key messages and was quite complicated to put into practice.

5.4 Barriers to access and opportunities

The illustration below sets out the challenges identified through consultation and the audit with potential solutions that will be discussed through the following sections.

CHALLENGES		SOLUTIONS
Gaps in the story, sites unconnected and incorrect story told at some locations	→	Create a digital umbrella and gateway that sets out the whole story and connects sites. Create framework and quality control
No coherent entity that brings together disparate attractions and places	→	Create a visual identity for the slate landscape and support stakeholders to use it
Issues of management and lack of facilities and infrastructure for more visitors to the area	→	Extend the visitor season and encourage people to visit wider range of attractions
Visitors are concentrated at a small number of large attractions	→	Develop places that give a taste or snippet of information and support communities to tell their story
Museums and historic sites have old fashioned approach to interpretation	→	Develop a range of interpretive media, using art, performance and digital, interactive and bold graphics
Community have strong sense of identity and want to tell their story	→	Continue community engagement to ensure that they can tell their stories
The area is geographically spread out	→	Develop middle sized attractions that can help draw visitors through the area

6. A new approach

This section of the report describes the strategy for interpretation of the slate industry. It sets out the themes and key messages, an identity for each stakeholder site, a strategic approach to the visitor experience, places and opportunities for interpretation and recommendations for future interpretation.

6.1 Themes and key messages

During the project we invited groups to tell us the key stories about the slate industry. Alongside this we have drawn on the research already undertaken for the nomination documents. These stories have been grouped together into topics, which in turn have been developed into themes.

The topics are:

- The rock and processing
- Transport and export
- People and communities – culture and language
- Workers
- Making money
- Rediscovery and inspiration
- Ingenuity, skills and craft
- Landscape and biodiversity
- Worldwide export

The Welsh language and unique culture of Northwest Wales is entwined with the slate industry and will be a thread running through all of the topics. In particular it is a key component of: People and Communities, Workers and Rediscovery and Inspiration.

These topics are used for ease of reference in tables in the following sections. The themes that have emerged for each topic are set out on the next page along with the overarching key message.

Interpretive themes are different to topics and should be:

- Compelling
- Contain an idea or key message not just facts
- Provoke the reader (or listener) to sit up and say, “Hmm. I’m intrigued. Tell me more”, or “Wow I didn’t know that”

THEMES AND KEY MESSAGES

OVERARCHING KEY MESSAGE:

The epic tale of Wales slate that roofed the world has shaped the landscape and communities of Northwest Wales

THEMES

The unique properties of slate made it perfect for roofing. For almost 200 years slate from here has been used to roof the world.

Quarry owners and engineers had to find innovative solutions and new technology to transport slate from the quarry to the ports. The narrow gauge railways built for slate inspired others around the world.

The quarries brought bustling towns and a strong sense of identity and pride which has been passed down the generations.

Quarry workers were skilled independent and at times in dispute with the quarry owners. Women played an active but less obvious role in the life of the quarries.

The quarry landscape once a source of wealth still inspires people who are looking for history, culture and adventure.

During the boom years the quarries roofed the world and the workers made the most of the good times.

Quarrying needed ingenuity and skill and the owners invested in the latest technology and ingenious solutions to the challenges of working in this landscape.

The unique landscape shaped by the slate quarries has created a distinctive and important environment that has been reclaimed by nature.

It wasn't just slate that was exported around the world, ideas, technology and skilled workers travelled from here too.

6.2 Interpretive Framework and themes

The interpretive framework below sets out the themes with the key stories, heritage assets and key sites.

Overarching key message:

The epic tale of Wales slate that roofed the world has shaped the landscape and communities of Northwest Wales.

The rock and processing <i>The unique properties of slate made it perfect for roofing. For almost 200 years slate from here has been used to roof the world.</i>	
Key stories	Heritage assets & historic sites
<ul style="list-style-type: none"> • Slate formed from mud that was under pressure and heat • Fissile property of rock – easy to split • Different colours of slate from different quarries • Quarry workers became skilled at extracting slate and able to split blocks of slate • Slate has a low weight to cost ratio so worth exporting • Slate extracted in underground quarries, open pits or underground in mines. • The hillside quarries started were worked in a series of stepped galleries which accommodated the steep sides of the quarries. The galleries were given quirky & topical names such as Agor Boni (Bonaparte's Opening). The names are still used today. • Pits were accessed by ropeways. • An incline, shaft or sinc gave access to mines. Within the mines support was provided by the pillars of slate left in position. • Working conditions different in quarries and mines, both dangerous (although not the worst at the time). • In Penrhyn quarry the tunnellers were Mormons from Merthyr Tydfil who emigrated to Salt Lake City • Slate extracted using hand tools, development of blasting and mechanisation although roofing slates still split by hand • Saws were used to cut the slabs of slate • Processing done away from slate workings to keep area clear of waste slate. At least 90% of what was extracted was waste product – this was tipped and forms distinctive shapes in landscape. Later in times 	<p>Roman evidence of use of slate Edward I castles – high status buildings with slate roofs Quarry workers' tools Photos showing workers carrying out process</p> <p>Paintings and engravings showing the quarries</p> <p>Sawmills</p> <p>Quarries</p>

<p>of hardship the tips were used to find slate that could be sold.</p> <ul style="list-style-type: none"> • Slate provided thin light and strong building material used for roofing, cladding, blocks, floors and lintels. • Other uses – billiard tables, gravestones & memorials. School slates, blackboards, urinals, switchboards, furniture and vats for breweries. • Welsh slate found on Roman sites and was used for Edward I's castles – prestigious places. • Use of slate influenced architectural design – Samuel Wyatt was a slate merchant and architect who used slate extensively • Development of terraced houses linked to slate. • Use of slate today – gifts, aggregate, garden features and exported (including via Port Penrhyn). • Can visit Inigo Jones slate works. 	
<p>Transport and export</p> <p><i>Quarry owners and engineers had to find innovative solutions and new technology to transport slate from the quarry to the ports. The narrow gauge railways built for slate inspired others around the world.</i></p>	
<p>Key stories</p>	<p>Heritage assets & historic sites</p>
<p>Transport in the quarries:</p> <ul style="list-style-type: none"> • Raw blocks and waste rock were moved by innovative methods: • Inclined planes – based initially on technology used in canals. • Aerial ropeways & blondins (from Scotland). • Internal railroads and railways. <p>Transport from quarries:</p> <ul style="list-style-type: none"> • By road and along rivers – River Dwyryd quays. • The carters • 'Philistines' – Dwyryd boatmen who dressed 'like Tipperary Irishmen'. • Rail lines– horses then locomotives. • Slate carters who worked with horses to carry slate out of quarries – included women workers. • Ffestiniog Railway - early use of narrow gauge railways in mountainous environment – influenced other railways • Talylllyn Railway 1st slate railway for locomotives and 1st preserved railway. 	<p>Locomotives Wagons Historic railways</p> <p>Slate boat at Porthmadog Maritime Museum Cei Llechi, Caernarfon</p> <p>Ffestiniog Railway Talylllyn Railway Inclined plane at Vivian (Dinorwig) Porthmadog (Maritime Museum) Slate quays on River Dwyryd</p>

<ul style="list-style-type: none"> • Harbours at Port Penrhyn, Caernarfon & Porthmadog – slate loaded onto ships and exported around the world. • Later the quarry railways linked to national rail and from there or via roads to the canal network allowing export of slate across UK. • Development of Porthmadog as a harbour to transport slate & ship building industry grew up. • Nantlle Railway used horses on railway until 1963. • Slate still exported worldwide. <p>Significance:</p> <ul style="list-style-type: none"> • This railway landscape shows how railways developed within an industrial setting – from horse drawn wagons to locomotives and the importance of narrow gauge railways which were used in many settings (industry & WWI & II). • Penrhyn Quarry Railway – was an early innovative iron railway for transport of quarried stone and an early example of an iron railway using flanged wheels (rather than flanged rails). • Ffestiniog Railway – converted to locomotive operation in 1860s and inspired narrow gauge railways around the world. Boston Lodge engineering works still making carriages and engines. • Tallylyn Railway – purpose built for steam locomotives & first to link to mainline railway. • The network of narrow-gauge railways brought the mainline railways into the area. 	
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People and communities (culture) <i>The quarries brought bustling towns and a strong sense of identity and pride which has been passed down the generations.</i>	
Key stories	Heritage assets & historic sites
Settlement: <ul style="list-style-type: none"> • In the 1700s less than 1,000 people working in quarries so lived in farms / families. By 1800s workers were mostly full time and needed housing. • Quarry workers lived in barracks close to the quarries – cramped living conditions. Anglesey Barracks named after the workers who migrated from Anglesey. • Owners built company villages for quarry workers & families to maintain some control over workforce, some families preferred to live elsewhere and built their own through housing corporations with loans and shared resources - Bethesda & Blaenau Ffestiniog towns that were ‘built by the quarrymen’. 	Collective memories / oral history Language of the quarries Barracks – Dinorwig & Nantlle Quarry workers’ cottages Blaenau Ffestiniog, Abergynolwyn &

<p>Cultural life:</p> <ul style="list-style-type: none"> • Within the slate quarry communities, the new settlements needed churches and chapels, which became a focus for community life. The size and substance of the chapels shows growing confidence of non-conformism and wealth of the area. • The new towns and villages built in the 1800s for the quarry workers has embedded the Welsh language and culture, more than almost anywhere else in Wales (around 70% of people living in slate valley communities are Welsh speakers). • Libraries provided reading material and workers were well read. The workers supported new schools and Bangor University to help improved education of their children. Choirs (Cor y Penrhyn and Brythoniaid), brass bands and football teams were founded in the communities. • Women played an active role in the community. • Angharad Ellis (sister of Tom Ellis MP) was a cooking instructor and critical of the quarry workers' wives who she described as extravagant and inclined to gossip. She commented that they opened tins rather than cook proper meals. Some ministers complained about the behavior of women – this could be a reflection on different attitudes between the towns and countryside. • Workers wrote poetry and took part in singing in the caban (cabin) and at home (in the village / town). Workers migrated from other Welsh speaking areas so relatively few English speakers. Although there were workers from other places Englishmen in senior positions / specialists, other nationalities included Danish, Prussian & Polish. Mary King Sarah is good example – she was a well-known singer whose father came from Cornwall and she herself emigrated to America. • Many of the houses had smallholdings which were largely run by the women – it was common to marry more than once due to young mortality. 	<p>Bethesda villages</p>
<p>Workers</p> <p><i>Quarry workers were skilled independent and at times in dispute with the quarry owners. Women played an active but less obvious role in the life of the quarries.</i></p>	
<p>Key stories</p>	<p>Heritage assets & historic sites</p>
<ul style="list-style-type: none"> • The slate industry is often described as the most of Welsh of all Welsh industries – the only industry of any size in the UK that operated completely in a language other than English. The workers used their own language to describe aspects of the work. Welsh was the language of business. 	<p>Quarry workers tools</p> <p>Remains of caban (cabin) building</p>

<ul style="list-style-type: none"> • Place names and technical terms were in Welsh • The industry helped to preserve the Welsh language. • Quarry workers worked in a bargaen (bargain) – groups of six to eight workers negotiate the rate and were paid piecemeal for the slate extracted. • Management initially was light touch - pay was based on weight of slate so working hours were not tightly controlled. • Labourers were paid a tonnage weight to remove waste or dig tunnels. • Range of other jobs in the quarries - engineers, blacksmiths paid by the day • For most of the 1800s quarrymen earned a good wage, but it was dangerous work – ladders and ropes to access the slate there were accidents and from the 1890s – 1930s undetected risks of respiratory disease (silicosis) from slate dust. In the 1940s equipment was introduced to help diagnose silicosis. Lord Dafydd Wigley (MP) undertook significant work to secure compensation for the workers. • Risk of disability and injury. • 3 of the big quarry owners (Penrhyn, Ffestiniog & Dinorwig) built hospitals. Penrhyn in 1840 along the lines of the practice on the Jamaican sugar estate. Dinorwig opened 1860s and now open to public as museum. Ffestiniog built by Mrs Oakeley. • Caban (cabin) in the quarry was not just for lunch but hub of cultural life and place of debate. • In 1700s women worked in the quarries moving slate, some evidence of work in quarries in 1800s too. Alice Griffiths was married to a quarry worker and was the local butcher. She was well known for her skill as a horse rider and ran the household. She died in old age after a horse riding accident. • North Wales Quarrymen's Union set up by workers to represent their interests. This was one of the early unions. • Routes to work by workers – steep paths, car gwyllt (wild car used on incline to go downhill), steps (into mines and up mountains), routes from villages & towns and travel by railways. • The sound of workers walking to and from work was a distinctive often remembered sound of hob nailed boots. Quarrymen talk about becoming a man when they got their corduroy trousers and new boots to go to work. • Strike by workers at Penrhyn between 1900-1903. This was one of the longest running strikes in the UK. Some of the quarry workers moved to south Wales and found work in the coal mines, rather than staying out on strike. The women provided support for the strikers by singing in choirs to raise funds. • Workers' independent attitude – own tools, paid by weight of slate produced so management & time 	<p>Penrhyn Castle Plas Tan y Bwlch</p> <p>Slate quarry strike memorial – Bethesda</p>
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keeping light touch	
Making money <i>During the boom years the quarries roofed the world and the workers made the most of the good times.</i>	
Key stories	Heritage assets & historic sites
<ul style="list-style-type: none"> • Much of the capital used to invest in the quarries came from money made on estates in the British Empire, including slave estates – the Douglas-Pennants had estates in Jamaica, money for the Nantlle quarries came from the Liverpool slave trade and the Oakeley family made their wealth in India. • Mineral rights belong to the landowners. Some landowners leased rights to others - individuals, corporations • 2 biggest (Penrhyn & Dinorwig) quarries owned and managed by owners - this is unusual for industrial sites as usually owners leased out rights. • The scale of the quarry owners' houses shows the level of profits – Penrhyn & Plas Tan y Bwlch, and at Penrhyn the lavish furnishings and decoration are part of the visitor experience. • There were good times for the quarry workers when there was money to spend and times when there was less income. Shops and the market hall in Blaenau Ffestiniog show the wealth of the workers who had money to spend (when times were good) and often had the latest fashions. The shops sold consumer goods as well as the essentials. • In the 1870s and 1880s there were quarrymen who invested in Cardiff shipping. This was a lucrative form of investment. • There were times when there wasn't enough work. • Capitalism – investment in industry paid for by slave and international trade. 	<p>Penrhyn Castle and contents</p> <p>Plas Tan y Bwlch</p> <p>Blaenau Ffestiniog Market Hall</p>
Rediscovery and inspiration <i>The quarry landscape once a source of wealth still inspires people who are looking for history, culture and adventure.</i>	
Key stories	Heritage assets & historic sites
<ul style="list-style-type: none"> • Slate artwork in homes – Bethesda village and Storiell museum collection • Merched Chwarel – contemporary artists today inspired by quarries. • Quarry poets of the 1800s and 1900s. • Novels of Kate Roberts about life in the quarries, other authors and poets – T. Rowland Hughes and Caradog Prichard. 	<p>Carved slate and decorations in houses</p> <p>Objects and decoration at Penrhyn Castle</p>

<ul style="list-style-type: none"> • Inspiration for artists – lots of paintings showing quarries working and painting by Henry Hawkins showing tourists. Study visits from abroad to see quarries and railways and history of people coming to marvel at the quarries. • Development of adventure tourism using the slate landscape – zip world, bounce below, bike trails, walking, caving & diving. • Heritage tourism and historic railways. • Encourage visitors to respect landscape and communities and learn Welsh place names and use Welsh language. • Tourists inspired to visit from the 1800s when it was easy to get here via the new road to Anglesey. Queen Victoria visited as a child and with Prince Albert stayed at Penrhyn Castle in 1859. • Theatre and music have been inspired by the quarries. Pop culture has strong links to the quarry communities including Super Furry Animals, Anweledig, 9Bach and Martin Dawes. 	<p>Kate Roberts' novels</p> <p>Beds made of slate at Penrhyn</p> <p>Paintings of tourists visiting – Henry Hawkins</p>
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Ingenuity, skills and craft <i>Quarrying needed ingenuity and skill and the owners invested in the latest technology and ingenious solutions to the challenges of working in this landscape.</i>	
Key stories	Heritage assets & historic sites
<ul style="list-style-type: none"> • Quarry workers were skilled craftsmen and needed to be businessmen too in order to negotiate the rates for the slate. • The workers and surveyors understood the geology of slate and used this to their advantage. • Skills were passed from father to son and shared as workers and engineers moved around the quarries. • In the early quarries hand tools were used to quarry and process the rock. As demand increased technology was introduced to solve problems and to make the process more efficient and profitable. • The engineers made use of technology developed in other industries such as inclined planes from canals and railroads from the iron works in South Wales, pumping engines from Cornish tin mines and Blondin ropeways from Scotland • Blocks of slate were sawn using sand saws and circular saws, powered in sawmills – Felin Fawr is first known use globally of circular saws used to cut stone. • Power for inclines, ropeways, mining equipment, transport and sawing the slate used water, steam and electricity. The quarries were often self-sufficient as they used gravity and waterpower, as well as 	<p>Quarry workers' tools</p> <p>Prepared slates</p> <p>Felin Fawr</p>

<p>wood from their land.</p> <ul style="list-style-type: none"> • Water was used to power equipment but also presented a challenge in the mines and had to be pumped out. Channels and tunnels helped to drain the workings. Electricity introduced at Llechwedd Quarry by engineer Charles Warren Roberts. • Slate industry today – slate workings, sawmill and hydro power station still working today. Quarry owners still innovating and using new technology – diamond saws. • Volunteers today have a range of skills especially engineers on heritage railway. • Skills have been passed on and rediscovered. • In order to develop innovation technology owners had to be prepared to have a go and fail. 	
<p>Landscape and biodiversity</p> <p><i>The unique landscape shaped by the slate quarries has created a distinctive and important environment that has been reclaimed by nature.</i></p>	
<p>Key stories</p>	<p>Heritage assets & historic sites</p>
<ul style="list-style-type: none"> • The slate workings and mines have created environment that supports a biodiversity of wildlife. • Slate caverns and mines are important hibernation site for many species of bat especially the lesser horseshoe bat. • Chough (50% of Welsh population breed in Gwynedd) – nest in quarries, mine shafts and abandoned quarry buildings. • Peregrine falcon, raven and ringed ouzel also nest in slate landscape. • Water vole (needs low mink numbers) and otters linked to water features. • Mine sites also provide conditions required for special types of lichen as well as shrubs, heath and grassland. There are also areas of ancient woodland. • Aberllefenni Slate Quarry is within Dyfi Biosphere which is representative of salt marshes and estuarine systems that support one of the most important wildfowl and shorebird centres in Wales. It is also SSSI. • Archaeological sites across the area have been preserved and protected by landowners, SNPA and Cadw. 	<p>Mines and quarries with bat populations</p> <p>Dyfi SSSI</p>
<p>Worldwide export of ideas and slate</p> <p><i>It wasn't just slate that was exported around the world, ideas, technology and skilled workers travelled from here too.</i></p>	
<p>Key stories</p>	<p>Heritage assets & historic sites</p>

<p>Worldwide export:</p> <ul style="list-style-type: none"> • Late 1600s Welsh slate used in West Indies (on Penrhyn estate). • Welsh slate was sought for prestigious buildings – the White House is thought to have, at one time, been partly roofed in Welsh slate. • By 1830 half of New York buildings were roofed in slate. • 1842 fire of Hamburg led to decree that all new buildings to be roofed in Welsh slate. • Welsh slate is still sought for prestigious / historic buildings. • Workers moved around Gwynedd and elsewhere sharing skills and experience and went abroad to other quarries. <p>International visits to see quarries and railways.</p> <ul style="list-style-type: none"> • Industry affected by world events - 1793 war with France expensive and Pitt increased tax on slate going from harbours to help pay for the war. • Penrhyn able to invest in quarries because of fortune made on sugar estates with slave labour. • 1880s competition from abroad for slate. • Technology of narrow gauge railways used around the world. • The transport of slate abroad brought imports from all over the world to the slate communities – pitch pine from America & Canada was used in the local houses and Elsinor bowls were brought back by ship captains as souvenirs from Scandinavia. • WHS links – mark significant points in Welsh history - Castles of Edward I bring urbanisation and a money economy to Wales, the slate industry brought industry to North Wales (the castles were roofed in Welsh slate). The Darjeeling Himalayan Railway (a WHS) was inspired by the Ffestiniog Railway. 	<p>Penrhyn Castle National Slate Museum Ffestiniog Railway</p>
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6.3 Identity for each stakeholder site

Key messages for each of the stakeholder sites have been developed. These focus on the key historical stories, that the sites can tell and are connected to the themes set out in the Interpretive Framework. They may be different to the key marketing messages used by the sites and could be developed into an overarching key message for future interpretation at each place.

Big Facts:

The Big Facts below apply to the region overall and summarise the whole region, further facts have been added to the identity for each stakeholder site.

- At one time this region produced one third of the world's output of roofing and architectural slates
- This was the most Welsh of the large Welsh industries and today this area has the highest percentage of Welsh speakers
- 15,000 men employed in the slate industry at its peak
- ½ million tons of slate produced per year in the 1800s

The National Slate Museum

The heart and guardian of slate heritage. The museum tells the national story of slate with a local connection to the Dinorwig Quarry. This is where your journey to discover the history of the slate industry starts.

- The waterwheel in the old engineering works is the biggest surviving waterwheel on mainland Britain
- Set alongside the Dinorwig quarries which were at one time the 2nd biggest in the world
- Created between 1700 and 1969 there are 30 galleries of ledges in the quarries
- The inclined plane at Dinorwig is the only preserved working inclined plane for the slate industry that survives from the 1800s
- Dinorwig quarry shows the transport network with the remains of roads, railroads and railway

Zip World, Penrhyn Quarry

Set in what was once the largest slate quarry in the world is the fastest zip line in the world. Slate has been quarried here for over 500 years and used for buildings all over the world.

- Slate has been extracted from here for over 500 years
- This was once one of the biggest quarries in the world
- Investment in the quarries increased productivity but came at a price. The Pennant family, owners of this quarry made their money on slave estates in the West Indies
- Penrhyn Quarry was the site of one of the longest running disputes between workers and owners

Llechwedd

The slate industry has always been a place of innovation and ingenuity, when engineers used the latest technology to meet the challenges of the landscape. The slate mines are home to new attractions sharing heritage and epic adventures.

- The deep mine experience has the steepest cable railway in Britain

- The quarry is close to Blaenau Ffestiniog the wettest town in Wales (it has more rainfall than anywhere else)
- Blaenau Ffestiniog has a population of 5,000 people but in the late 1800s it was more than double this (12,000)
- The mine above Llechwedd at Maenofferen was working until 1999
- The hydro power station at Pant yr Afon is an early surviving example

Ffestiniog & Welsh Highland Railways

A place of inspiration for over 150 years. The railway used innovative technology to transport slate from the Ffestiniog quarries to Portmadog on the coast. It's not just slate that was exported; this railway has inspired others around the world.

- The oldest independent railway in the world
- One of the first narrow gauge railways to introduce steam locomotives
- A tourist attraction and world influencer – people came from all over the world
- Made innovative use of bogie carriages and articulated Fairlie locomotives

Talylllyn Railway

The Bryneglwys quarry expanded with investment from Lancashire cotton entrepreneurs who built the first railway for slate powered by steam locomotives. The Talylllyn Railway was the first in the world to be preserved and reopened as a heritage attraction.

- An early narrow gauge railway built for locomotive and passengers
- The first of the slate railways built to connect to the national railway network
- The first railway to be taken over and successfully operated by a preservation group
- Complete with original locomotives and carriages

Penrhyn Castle

Built on the proceeds of the slate landscape which in turn were founded on the profits from slavery this imposing castle has a story to tell about the quarry owners and the people who worked in the biggest slate quarry in the world.

- Neo-Norman Castle built between 1820 and 1837 on the site of an earlier building
- The family that lived here owned what was the biggest slate quarry in the world
- Investment in innovation was funded by the family's slave estates in the West Indies
- This is one of the most lavish houses in Britain

Electric Mountain

A power station hidden inside a mountain, built to provide hydroelectric power within the slate landscape.

- The power station is 750 M inside the mountain
- There are 16 KM of tunnels underground
- Each generator weighs on average 450 tons (this is the same as 90 elephants)

Dorothea Slate Quarry

This quarry and community have been shaped by the slate that was quarried here. A beam engine from Cornwall still stands as a reminder of the cost-effective solutions needed to solve the challenges of working in this environment.

- The Cornish Beam Engine at Dorothea was the last ever to be installed in the world
- This was the first ever industrial monument to be scheduled in Wales

Cae'r Gors

Kate Roberts' novels describe the working and home life of the quarry communities, her childhood home reveals the hidden stories of the women whose lives were shaped by the slate industry.

- Kate Roberts was born in 1891 when the slate industry was at its peak
- Kate was brought up here, she later bought the house and gifted it to the nation
- She started writing novels after the First World War, when her brother had been killed
- She and her husband owned Gwasg Gee printing press and she continued to run the business after his death

Plas Tan y Bwlch

Home to quarry owners the house tells the story of the impact that the slate landscape had on the communities and the natural environment.

- This was the home of the Oakeley family who owned slate quarries in Ffestiniog
- The house overlooks the Dwyryd River where slate was transferred from carts to boats
- The Ffestiniog Railway, built to transport slate passes through the grounds of the house
- The gardens are full of exotic plants brought back from India where the family had estates

6.4 A strategic approach to the visitor experience

Following desk research, we have set out places that already have interpretation about the slate industry, have potential to be used as sites for interpretation or both. These include sites that are elements within the WHS bid, tourist attractions and local amenities such as libraries. We have listed these places on the map and in a table showing what we know so far about current interpretation and places where we think there will be opportunities for future interpretation.

New interpretation will use a range of interpretive media and will be on a varying scale of size reflecting the size of the venues (both inside and outdoors), what is appropriate in the historic setting and the opportunities available for funding. This might range from outdoor graphic panels or art works to small graphics and displays that can be put into shops, libraries or public places, leaflets and websites that help people to connect different places and major capital works to create new interpretation through guided tours, museum exhibitions and interpretation further afield.

The interpretation has been developed around a model of Hubs and Spokes, with larger sites acting as conduits to draw visitors to the area and to encourage visitors to visit the smaller sites and attractions – spokes. In between the Hubs and Spokes are medium sized places which have been called Sprockets as they are larger than Spokes and have a good sized heritage offer already.

The following visuals describe this approach.



■ VISITOR EXPERIENCE - STRATEGY

TOURING

TOURING
EXHIB
EXTERNAL

VIRTUAL ON-LINE INTERPRETATION

VIRTUAL

Umbrella interpretation

- Pre-visit inspiration
- Tourist information
- Interpretive content
- What's on / events
- Stakeholder promo info. resource

National
Slate
Museum

Penrhyn

Ffestiniog
Railway

Llechwedd

Talyllyn
Railway

HUBS

Primary level interpretation

- Major permanent exhibitions
- Outdoor graphic panels
- Art installations
- Trails
- Activities
- Guided tours

Dinorwic
Quarry
Hospital

Electric
Mountain
Visitor
Centre

Cae'r
Gors

Ynys y
Pandy
Slate
Mill

Plas
Tan y
Bwlch

Inigo
Jones

Corris
Craft
Centre

SPROCKETS

Intermediate level interpretation

- Minor permanent exhibitions
- Outdoor graphic panels
- Artworks
- Trails
- Access to on-line content
- Activities
- Self-guided

SPOKES

Secondary level interpretation

- Minimal internal graphic display
- Outdoor graphic panels
- Artworks
- Trails
- Access to on-line content
- Activities
- Self-guided

TOURING
EXHIB
INTERNAL

TOURING

6.5 Places and opportunities for interpretation

6.5.1 Introduction to places for interpretation

Hubs

Four of these places for interpretation are seeking large grants to invest in new interpretation. Five sites will act as hubs for the project, providing large scale interpretation and an opportunity to access the facilities. The Hubs are:

- Ffestiniog Railway - Boston Lodge Engineering Works in Porthmadog and the wider railway. The railway has submitted an application to the National Lottery Heritage Fund (NLHF) in August 2019.
- National Slate Museum in Llanberis have long term plans to develop an Interpretive Strategy with a view to a phased redevelopment.
- Llechwedd – Maenofferen Slate Mill – hope to find a new purpose for the mill with support from Heritage Enterprise grant from NLHF
- Penrhyn Castle (National Trust) have a Transformations Project at to review how the story is told and to provide a better focus on the story of slate and slaves, with a view to a large re-interpretation project in the future.
- Talylyn Railway have plans to develop new interpretation at Tywyn Wharf, at the engineering works at Tywyn Pendre and further interpretation across the wider railway.

Sprockets

The Sprocket Sites are:

- Dinorwig Quarry Hospital (SNPA)
- Electric Mountain Visitor Centre
- Cae'r Gors, childhood home of author Kate Roberts (Cadw)
- Ynys y Pandy Slate Mill
- Plas Tan y Bwlch
- Inigo Jones
- Corris Craft Centre

Spokes

The spokes are a mixture of historic sites that have just one graphic panel, community centres, villages that have created artworks or historic trails or visitor attractions that are within the area but have only a small connection to the story.

The map on the following page shows the locations of these sites, which are described further in the table.

Places and opportunities for interpretation



6.5.2 Places and opportunities for interpretation

The table below shows sites within each area which either have current interpretation or the potential to have interpretation in the future. Heritage sites which are part of the WHS nomination are noted below as elements with reference numbers from the Dossier. The letter references refer to the map at 6.5.1)

Site	Attraction / element / community group	Current interpretation Digital	Opportunities	Link to themes & stories
(A) Ogwen				
(A1) Penrhyn Castle & Garden - National Trust	National Trust site Element 1.7	NT house, gardens & displays, slate furniture and objects Douglas-Pennant family	Plans for new interpretation – global histories of objects House as symbol of wealth	Making money Workers Rediscovery & inspiration
(A1) Railway Museum – Penrhyn Castle	National Trust site	Railway museum	Plans for new interpretation	Transport & export Workers
(A2) Port Penrhyn – Penrhyn Estates	Element 1.4	GP along cycle & footpath routes (limited access due to H&S)	Limited access	
(A2) Penrhyn Slate Quarry Railroad	Element 1.3	GP as part of slate routes Our Heritage website	No plans currently	
(A3) Neuadd Ogwen	Cultural venue	Cultural events including some linked to slate heritage – annual programme	Potential for future events	
(A4) Zip World – Penrhyn Quarry	Attraction – tours Element 1.1	Zip lines and quarry tour (Big Red Bus) Adventure trail building provides some new interpretation	Recently opened terminal building will have new interpretation	The rock & processing People & communities Ingenuity, skills & craft
(A4) Penrhyn Slate Quarry (operational quarry) – Welsh Slate	Element 1.1	Tour of slate quarry	Plan to offer guided tours of operational quarry	The rock & processing People & communities Ingenuity, skills & craft
(A5) Bethesda village including (A6) Library & (A7) Ffarm Moelyci	Element 1.6 & 1.5	Trails around village – slate routes Llys Dafydd Our Heritage website https://www.visitsnowdonia.info/cy/treftadaeth-diwylliant History Point & QR codes http://www.historypoints.org/	Interpretation and artwork to be developed through LleCHI scheme	People & communities

		Figure of quarry bugler in Bethesda History Points – strike memorial, market hall, Christ Church, sculpture http://www.historypoints.org/	Small display / exhibition	
(A8) Ogwen Centre (Ogwen Cottage) SNPA	Visitor centre for Snowdonia National Park - outside WHS	Interpretation being revamped	New interpretation about natural history & landscape	The rock & processing Landscape & biodiversity
(B) Dinorwig				
(B1) National Slate Museum – National Museum Wales	Attraction Element 2.5 engineering dept	Museum displays Workshops Demonstrations & tours	Plan for future re-interpretation of site	All themes
(B2) Vivian dept in quarry - National Museum Wales (?)	Element 2.4	Graphic panel & operational incline History Point http://www.historypoints.org/	No plans currently	
(B3) Electric Mountain Visitor centre	Attraction outside of WHS	Interpretation being revamped	Interpretation about the Dinorwig slate quarry	Ingenuity, skills & craft The rock & processing People & communities
(B4) Quarry Hospital – Gwynedd Council	Attraction Element 2.10	Interpretation & recreation of hospital History Point http://www.historypoints.org/	Interpretation & artwork to be developed through LleCHI	Workers Making money Community life
(B5) Craig yr Undeb – The Union Rock	Element 2.9	Graphic panel on site History Point http://www.historypoints.org/	New interpretation to be developed through LleCHI	Workers Making money
(B6) Llanberis Lake Railway	Attraction outside WHS	Railway & locomotives (not original to this line) History Point http://www.historypoints.org/	No plans currently but could widen interpretation to include slate	Transport & export
(B7) Snowdon Mountain Railway	Attraction outside WHS	Not linked to slate but impressive views of quarries & steam train	No plans currently, could link to views	Landscape The rock & processing
(B8) Llanddeiniolen	Community council		Walking routes & connection to National Slate Museum Protection of Welsh place names	People & communities

(B9) Llanberis village	Community group – Menter Fachwen	Graphic panels History Point – station & rubble wagon, explosion memorial, former bomb store http://www.historypoints.org/	New interpretation planned through Rural Development Fund linked to writing slate mill	People & communities Workers Worldwide export
(B10) Y Felinheli (Port Dinorwig)		History Point – slate dock & harbour http://www.historypoints.org/	No plans currently	Transport & export
(C) Nantlle				
(C1) Dorothea Slate Quarry & Unloved Heritage	Accessible site on private land Elements 3.1, 3.2. 3.3	Unloved Heritage Dyffryn Nantlle developing augmented reality app, oral history project and community improvements & slate ambassadors https://unlovedheritage.wales/_trashed/	Could have interpretation on site or elsewhere Include info about Cornish beam engine	People & communities Workers
(C2) Cilgwyn Slate Quarry Tip	Element 3.1		At tip	Rock & processing
(C3) Yr Orsaf (Nantlle)	Attraction outside WHS		2022 – Centre of Services & digital space for young people The new centre could include interpretation Portrait of publican (1 st station master)	People & communities Workers
(C4) Inigo Jones	Slate works	Self-guided tour of works		Rediscovery & inspiration
(C5) Nantlle & Talysarn	Village	War memorial showing slate quarry scenes in Nantlle	Nantlle- Trigonos (arts centre) in Quarry Manager's House could create interpretation Further interpretation planned through LleCHI	People & communities Workers
(C6) Penygroes & Llanllyfni	Village	Developed through LleCHI project – street banners, new marketing officer & film of Dyffryn Nantlle anthem	Llanllyfni interpretation group developing proposals	??
(C7) Y Banc (Antur Nantlle)	Food Deli	No	Could host touring / pop up exhibition	

(C8) Nantlle Barracks	Café & shops	No	Could host touring / pop up exhibition	People & communities Workers
(C9) Penygroes Library	Library	No	Could host touring / pop up exhibition	
(C10) Cae'r Gors	Cadw site outside WHS (currently closed)	Significant Welsh novelist Kate Roberts' home	New interpretation could tell wider story of women in slate quarrying	People & communities
(D) Cwm Ystradllyn and Cwm Pennant				
(D1) Ynys y Pandy Slate Mill (free access)	Element 4.3	Old graphic panel	SNPA have plans to implement a site development plan including access & interpretation	Ingenuity, skills & craft
(D2) Gorseddau Slate Quarry	Element 4.1 - fragile environment	Limited access – interpretation needs to be elsewhere	No plans currently	
(D3) Prince of Wales quarry	Element 4.		Graphic panels on site	Rock & processing Ingenuity, skills & craft
(E) Blaenau Ffestiniog and Railway				
(E1) Blaenau Ffestiniog Historic Society	Displays in Antur Stiniog	Exhibition about the history	Future exhibitions	Workers People & communities
(E2) Llechwedd site	Element 5.1	Graphic panels on site	Develop further interpretation	Rock & processing
(E2) Llechwedd – Ffestiniog quarries and mines	Element 5.2 Attraction including mine tours	Guided tours of mines – Victorian heritage	Develop content for wider story and to link to other places	Rock & processing Ingenuity, skills & craft
(E2) Maenofferen Slate Quarry – Llechwedd	Element 5.5	Limited guided tours to the mine	Plans for the slate mill will combine education, heritage & tourism	Rock & processing
(E3) Zip World Blaenau Ffestiniog	Bounce below, zipline & underground assault course	Access to the slate caverns	No plans currently	Rock & processing Ingenuity, skills & craft

(E4) Pant yr Afon – hydro power station (operational & accessible)	Element 5.3		No plans currently	Ingenuity, skills & craft
(E5) Go Below Cwmorthin	Adventure attraction	Adventure trips Visits to mine by candlelight (pre-booked)	No plans currently	Rock & processing Ingenuity, skills & craft
(E6) Blaenau Ffestiniog & Antur 'Stiniog Café & Downhill trails	Element 5.6	Street Words – inscribed in pavement & toilet building Town Centre Improvement - interpretation and sculptures Ty Mawddach – historical display on Blaenau High St (by Cymdeithas Hanes Bro Ffestiniog) David Nash Exhibition History Point – Cwmorthin Terrace, railway station & home of Silyn Roberts http://www.historypoints.org/	Link town to quarry/ Slate Mountain attraction – use quarrymen's routes Interpretation through LleCHI & Community Destination Plan Potential to have display in the library	People & communities Workers
(E7) Plas Tan y Bwlch – National park study centre	Element 5.7 Attraction	Public talks and courses looking at quarries & narrow gauge railways Interpretation about landscape & house SNPA website	Could develop interpretation to tell wider story and improve range of interpretive media	Making money (Oakley family) Landscape & biodiversity
(E8) Slate quays on Dwyrdd River	Element 5.8		Develop on site interpretation	Transport & export
(E9) Ffestiniog Railway (& Welsh Highland Railway)	Element 5.9	Current interpretation limited and focused on the history of the railway	Project to develop interpretation at Boston Lodge (engineering works) & across the railway	Transport & export People & communities Worldwide export
(E10) Porthmadog Harbour & Maritime Museum	Element 5.10 Attraction	Museum in slate shed on the harbor, large collection of objects & displays about development of the town, slate industry, ship building (schooners & western ocean yachts) & the railway History Point – harbor, museum, railway stations, Lombard St, Britannia Foundry http://www.historypoints.org/	No plans currently	The rock & processing Transport & export Worldwide export People & communities
(E11) Cell B – hostel and				

venue				
(F) Bryneglwys, Abergynolwyn and Talyllyn Railway				
(F1) Talyllyn Railway	Attraction Element 6.3	Graphic panels at Tywyn station explain history of railway	Plans to develop further interpretation at Abergynolwyn station, within a wagon, a new shed and at engineering works	Transport & export People & communities Ingenuity, skills & craft
(F1) Narrow Gauge Railway Museum – Tywyn	Attraction (independent of the railway)	Tells the story of narrow-gauge railways, lots on slate and has the Rev W Awdry	No plans currently	Transport & export People & communities Ingenuity, skills & craft
(F2) Y Ganolfan Abergynolwyn	Attraction (village) Element 6.3	Collection of photographs in community hall including the slate industry	Could develop new interpretation around the village	People & communities
(F3) Bryneglwys Slate Quarry	Element 6.1	Graphic panel on site	Could develop new interpretation	Rock & processing
(F4) Tywyn village	Library	History Point – station & railway wagon http://www.historypoints.org/	New interpretation around the village – historic walks, leaflet & graphic panels by local history society History Point	
(F4) Tywyn History Society	History society	Guided historic walks	Future plans for new interpretation	Transport & export People & communities
(G) Aberllefenni				
(G1) Aberllefenni village	Element 7.4		Could develop new interpretation around the village	Worldwide export (French quarries)
(G2) Corris Mines Explorers	Attraction outside WHS	Underground visit to see slate mines	No plans currently	Rock & processing
(G3) Corris Railway	Attraction outside WHS (railway & museum)	Narrow gauge slate railway	No plans currently	Transport & export
(G4) Corris Institute &	Community centre	Graphic panels about history of village	Could develop new	

village	outside WHS		interpretation in village	
(G5) King Arthur's Labyrinth				
(H) Other				
(H1) Cei Llechi, Caernarfon	Restored harbour buildings	Current restoration work History Point – Cei Llechi, station, De Winton Foundry & quarry locomotive	New interpretation & artwork about the harbour, worldwide links, slate industry & railway	Transport & export People & communities The rock & processing
(H2) Snowdonia Slate Trail	Slate route with book and website	Book & website App		
(H3) Storiell (Bangor)	Museum	Relevant collections & interpretation	Signpost visitors	
(H4) Gwynedd Archive Service	Archive			
(H5) History Points	QR codes and website	QR codes at Ffestiniog Railway & Gwynedd Recreational Route Pwllfanogl Anglesey (slate writing tablets) & Deganwy Dock http://www.historypoints.org/		
(H6) Centre for Alternative Technology				

6.6 Recommendations

The recommendations have been developed from the opportunities identified earlier in this report. They recognise that the interpretation of the slate landscape is an evolving process with many stakeholders, partners and owners. This means that the interpretation will be developed ad hoc when funding is available. This strategy sets out the story and principles of the interpretation to ensure that there is a coherent narrative and approach to interpretation across the slate landscape.

The recommendations seek to:

- Ensure that the whole story is told and to identify ways to tell parts of the story that are not told
- Ensure that there are substantial and high quality visitor destination hubs
- Connect sites and historic places that are unknown and not visited
- Create a cohesive strategic approach to interpretation
- Establish a working group and identify the brand and story guardian
- Use a range of interpretive media that is appealing to new and current audiences
- Makes use and builds on interpretation and facilities at already established attractions

6.6.1 First Steps

This project has a budget of £35,000 identified to start developing interpretation for the slate landscape. This needs to be used strategically to create an overall approach that will benefit the whole area and start to tell the complete story.

The current working group will continue working together and will develop revised terms of reference and vision and a clear mandate to work with stakeholders and community partners to ensure that new interpretation follows the approach and principles outlined in the Interpretation Strategy.

A) Develop a visual brand identity

The starting point is to create a visual identity for the World Heritage Site. This will build on the branding story and will guide all future online marketing and interpretation that follows. This will create a distinct identity, graphic style and tone of voice for the interpretation.

B) Create a new digital gateway

A new website will provide inspiration, information and interpretation for visitors. This is more than a website and will help people to not just find places to visit but will engage them with the epic story. The initial pages will inspire people to visit, be followed by essential information on places to visit and the interpretation will ensure that people can discover the why, the how, the where, the who and the what about the slate industry and landscape. This will also be accessible to visitors who are on location in the area and want to find out more about the history of the place, as well as visitors planning a trip and reflecting after their visit. This will also link to the development of resources for the Marketing Toolkit.

Digital content and interpretation rely on good promotion and access to internet or wi-fi. Access to digital information tends to be greater before people visit, and after. However, it is important to provide a means for visitors to access digital content while they are visiting the area. This can be done in partnership with local businesses and community places that provide wi-fi, and are able to link visitors to the new website. For places that have limited phone signal or no wi-fi a local internet such as Info-point should be considered. This creates a local signal and gives access to content but not the wider internet.

Costs for a single Info-point unit which is mains powered, excluding content - £3,000 - £3,500 ex vat

Costs for a single Info-point unit as above but solar powered - £6,000 - £7,000 ex vat

6.6.2 Developing the Hubs

The five hub sites are larger visitor attractions that already draw people to the area and have adequate facilities for large numbers of visitors. Each place has identified a capital project to conserve the slate heritage and to develop new interpretation to make it accessible to visitors. These projects will seek a mix of grant funding including the National Lottery Heritage Fund. The projects need to build on the work of the Interpretation Strategy and develop the key stories identified and connect to other places encouraging visitors to explore more widely.

Penrhyn Castle

New interpretation will create art works and a variety of interpretive media to create a new way of telling the story of the Penrhyn family and their links to the slave trade and estates in Jamaica. The story will provoke discussion and questions about the accumulation of wealth and the cost of both slavery and the slate industry.

Link to key topics: Making money and Workers

Ffestiniog Railway

A project to conserve the unique heritage of Boston Lodge engineering works will create activities and interpretation that tell the story of the railway and the engineering solutions created to overcome the challenges of the landscape. The project has been widened to include site wide interpretation that will connect to the story of the slate industry and the people

Link to key topics: Transport and export, Re-discovery and inspiration, Ingenuity, skills and craft, and Worldwide export of ideas and slate

National Slate Museum

The museum is planning a phased approach to a complete redevelopment which will create better facilities and a new approach to interpretation. The museum will tell the national story of the slate industry whilst maintaining its local sense of place and connection to the community. This is the only site that can tell the complete story of the slate industry, introducing all the themes and connecting to other sites.

Link to key topics: Introduce all themes

Llechwedd – Maenofferen Slate Mill

The mill sits above the slate mine, this represents the largest remaining untapped slate heritage resource in Northwest Wales. Part of the assets managed by Llechwedd there are plans to restore the buildings. This would be part of the mixed economy of tourism at Llechwedd and would incorporate heritage, education and tourism.

Link to key topics: Rock and processing, and Ingenuity, skills and crafts

Talylyn Railway

At Tywyn Wharf the trustees are planning a series of linked interpretation sites. The first will be a reinstatement of a section of the main line siding along the Wharf edge with a standard gauge

wagon. This will provide a display of how the slate was trans-shipped from the narrow gauge to the standard gauge. This will be followed by a new heritage facility to house original carriages and wagons when they are not in use. This will have interpretive displays about the history of the rolling stock and the people and goods they carried as well as the impact of the Railway on the local community. A new AV will tell the story of the railway. At Tywyn Pendre, there are plans for a new engineering workshop, which will include an interpretive centre based around the engineering side of the Railway, its history and impact.

6.6.3 Community Destination Plan Recommendations

The Community Destination Plans set out proposals for different communities in terms of tourism and community facilities and interpretation. These need to be developed and taken forward as funding is identified. The content and design need to adhere to the principles and approach set out in the Interpretive Strategy, and the project visual identity and branding.

6.6.4 Developing Sprockets and Spokes

Between the Hubs and the Spokes are a series of middle sized attractions that already have a visitor offer and are planning to develop new interpretation, these have been called Sprockets. In some cases, these will take place independently and in other examples they could be developed to be part of a wider project that is delivered in partnership with other organisations and sites. These projects will have a greater impact if they are developed around a theme and link different places, creating new partnerships. The projects set out below are ideas for developments. There are two projects already underway and described under current projects.

Current projects:

Electric Mountain and Ogwen Visitor Centre are developing new interpretation that whilst not directly about slate will link to the Slate Landscape story and help draw visitors to the area.

Untold stories

The story of women in the slate industry is being uncovered through research by groups and individuals such as Merched Chwarel. New interpretation at Cae'r Gors, home of the author Kate Roberts will be developed to tell a wider story of women, who lived and worked in the slate landscape, alongside that of Kate Roberts. New interpretation will also be developed at sites across the area to tell some of the stories uncovered such as Margery Jones who is on the census records of 1871 as a carrier of slate and women listed as carriers in Penrhyn Quarry in the 1740s.

Uncovering the landscape

The current interpretation at Plas Tan y Bwlch, home of the Oakeley family, quarry owners lacks a clear structure and visitor orientation and welcome. The current interpretation is quite general about the slate industry and could be refocused to tell the story of the Oakley family, and their role in the quarry industry and their connection to India as well as helping people to explore the natural environment and to learn more about the natural history of the area. Redeveloping the visitor offer would help visitors discover the story and the site could become a middle sized hub (sprocket) and link to the locally developed spokes.

Carrying slate

The Talylyn Railway was the first slate railway built for steam locomotives and the first to connect to the mainline railway. The railway trust is planning a project to redevelop Abergynolwyn Station as a destination for passengers on the historic railway. This will include new interpretation and could link to wider interpretation about the slate industry of the Bryneglwys Quarry as well as the significance

of the railway and the story of the line and the people who worked here. This interpretation will link to the themes of transport & export, making money, people & communities and ingenuity, skills and craft. The new interpretation should also link to a community led project at the Community Centre in Abergynolwyn using archive photographs and the project at Tywyn led by the local history society.

There are further opportunities at the other Sprockets sites

- The Maritime Museum (Porthmadog) could develop new displays that link to people and communities and use objects to explore transport & export and worldwide links
- Ynys y Pandy Slate Mill has had graphic panels on site in the past but currently lacks interpretation
- Zip World could develop a set of graphic panels that help visitors to explore the wider area and introduce the theme of people and communities and suggest further places to visit close by
- Dinorwig Quarry Hospital is a popular place to visit but has limited opening times. This needs to be reviewed or access offered through interpretation outside the building

Touring exhibition

There will be two exhibitions which will be modular and available for loan to museums, historic sites, libraries and community centres. One exhibition will be designed to be at places within the slate landscape and will help move visitors around the area and engage with the local community. The other will be lent to venues outside of Gwynedd including counties such as Cheshire and Shropshire. This will raise the profile of the story and help draw visitors to the area or will interpret the story for people who may never visit.

Introducing the characters

Smaller scale interpretation will help uncover the stories of people through art, performance and new graphic panels in community places.

History Points

There are History Points at various places – strategic approach and proper theme for the slate industry will make more of this untapped resource.

6.6.5 Indicative costs

Costs for new interpretation

These costs are a guide and it may be useful to ask companies for quotes prior to securing funding.

Outdoor graphic panel

A single encapsulated GRP sign 1200h x 800w inc. design, artwork, support frame - (Assuming content and images are supplied)	£2,800.00
PC sum for delivery and installation per sign	£600.00

Indoor graphic panel

A single 12mm MDF panel with digital wrap and protective clear laminate - 1200h x 800w inc. design, artwork. (Assuming content and images are supplied)	£1,200.00
PC sum for delivery and installation	£600.00

3D tactile sculpture

Cast bronze model/sculpture	£10,000 - £20,000
PC sum for delivery and installation	£1000.00

Pop-up travelling exhibition

Pop-up exhibition with graphics and transport cases. Including design and art working. (assuming content and images are supplied)	£5,200.00
Simple accompanying interactive exhibit	£5,000.00
Accompanying 22" touchscreen with CMS and wi-fi connection. (Kit only, excluding content)	£3,500.00
Small secure exhibition grade, portable showcase	£7,000.00
PC sum for delivery and installation	£600.00
	£21,300.00

6.7 Suggested visitor packages

These will need to be developed in tandem with new interpretation. The visitor packages will be created around thematic subjects as well as geographical locations.

World Records – the biggest and the oldest

Aimed at families this visitor package will start at Penrhyn Castle where visitors will learn more about the slate quarry that was over 100 years ago the biggest in the world. They will continue to the Ffestiniog Railway, holder of three Guinness World Records and Blaenau Ffestiniog the wettest town in Wales.

Getting to know the locals

These packages will help visitors to the big attractions discover the communities and villages nestled in the slate landscape and will suggest places to visit that tell the story of the people who created this epic landscape.

Get your boots on

These packages will encourage visitors to get out into the hills and mountains and to explore the slate workings and historic buildings. These will include advice on maps and routes and ensure the safety of visitors and responsible behaviour.

Thematic

Sites will be linked by the stories that they tell. This will use the principle of the Cadw 'Follow the Story' campaign, encouraging visitors to visit other places that are close by and that tell a connected story.

7. Monitoring and evaluation

7.1 Outcomes and measures

Generic Learning Outcomes

The Generic Learning Outcomes (GLOs) were developed as part of the Inspiring Learning For All Framework and are underpinned by a broad definition of learning which identifies benefits that people gain from interacting with arts and cultural organisations. GLOs are a recognised method of planning for and providing evidence of impact of museum displays and activities. The table below sets out the target audiences and the outcomes we want to see for each.



Target Audience	Knowledge & understanding	Skills	Attitudes & values	Enjoyment, inspiration and creativity	Activity, behaviour and progression
Tourists	Discover the epic heritage of the slate landscape Learn about the Welsh language and culture shaped by the slate industry	Take part in activities and learn a new skill Have a go at using Welsh words	Understand the significance of the slate heritage and value its important role in Welsh & British history Respect and understanding of community heritage	Be inspired by the landscape to find out about the history Enjoy their visit and come back / share experience	Find out about other places to visit in the area & stay awhile Develop understanding and respect for local communities
International visitors	Learn about the world significance and connections to slate Learn why Welsh slate is the best in the world	Take part in activities and learn a new skill	Understand the significance of the slate heritage	Enjoy their visit and come back / share experience	Find out about other places to visit in the area & stay awhile
People on coach trips	Discover the epic heritage of the slate landscape Learn about the Welsh language and culture shaped by the slate industry	Take part in activities and learn a new skill	Understand the significance of the slate heritage and value its important role in Welsh & British history	Enjoy their visit and come back / share experience Inspired by the landscape to discover why and how it was shaped	Discover more about the history and plan future visits
School pupils	Discover the epic heritage of the slate landscape Learn about the people who worked in the industry	Be inspired to learn new research skills and discover more	Understand the significance of the slate heritage Understand and value the community heritage	Take part in arts and culture locally	Be inspired to become heritage ambassadors for the slate heritage
Local communities	Learn more about the people who worked in the slate industry	Learn new skills to help gather and share their stories with new audiences	Pride and sense of ownership in slate history Able to share their stories	Enjoy getting involved to help interpret the heritage and share stories Take part in arts and cultural activities	Learn something new about their local heritage and get involved in volunteer projects linked to heritage

Families	Discover the epic heritage of the slate landscape Discover the biggest, the oldest and the fastest, fun facts	Take part in activities and learn a new skill	Understanding and value for the epic heritage and scale of the slate landscape	Take part in arts and cultural activities	Discover more places to visit for adventure and heritage
Enthusiasts (heritage / railways)	Understand the slate industry that innovated and built ingenious solutions to the challenges	Get involved as a volunteer and learn new skills supporting the heritage Have a go at using Welsh place names	Value and understanding of the wider story of the slate heritage and culture	Enjoy exploring wider slate landscape	Plan to get involved and to make future visits
Thrill seekers	Understand how the slate industry carved out this landscape and the challenges faced	Take part in activities and learn a new skill	Understand significance of the slate heritage and the impact on this area	Enjoy finding out more about the heritage	Discover the heritage while taking part in other activities and spend time finding out more
Walkers and cyclists	Understand how the slate industry carved out this landscape	Take part in activities and learn a new skill	Understand significance of the slate heritage and the impact on this area	Enjoy finding out more about the heritage	Discover the heritage while taking part in other activities and spend time finding out more

7.2 A programme for monitoring and evaluation

Tasks	Date	Output
Visual identity brief		Create new visual identity
Digital hub: Meeting with Gwynedd Council IT dept Brief for new website /content		Create new digital hub
Community Destination Plans proposals		Deliver community projects
Interpretation Group Programme of meetings and workshops Updates on Hub and Sprocket projects Develop plans for funding for recommendations		Programme of meetings & workshops
WHS nomination Submission Visit by WHS committee Decision on nomination	Jan 2020 Sept 2020 July 2021	