FELIN FAWR

Photographic Record



Courtesy of Gwynedd Archives Service - ref: XCHS/1328/2

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Gwynedd Archaeological Trust

Report 356

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COED Y PARC

1. INTRODUCTION

Felin Fawr is the generic name for two nineteenth century slate mills formerly part of the Penrhyn Slate Quarries situated at SH614664 in the community of Llandygái (formerly Llandegai) near Bethesda, Gwynedd.

2. ASSESSMENT BRIEF

A photographic record of the two mills was requested from Gwynedd Archaeological Trust by Gwynedd County Council as part of larger overall survey to include the water-wheel, wheel-pit and wheel-house.

3 METHODS AND TECHNIQUES

3.1 Field search

The site was visited on 17 and 25 February 2000 by members of Trust staff. The two mills were photographed using Kodak Tmax 400 and Kodak Gold 200 ASL 35 mm film.

4. ARCHAEOLOGICAL FINDINGS

4.1 Historical background

Y Felin Fawr ('the big mill') is the name given to two mills for processing raw slate blocks into architectural slabs, situated in the former Coed y Parc yard of the Penrhyn Slate Quarries, and by extension is an alternative name for the whole yard. The yard is an industrial complex, part disused, part in re-use, which occupies a site approximately 400m long north to south on the western slopes of the Afon Ogwen in the community of Llandygái, immediately to the north of the present limits of the quarry permission.

The land on which it stands formed part of the Penrhyn estate; in 1765 Richard Pennant of Liverpool and Hanover Square, London (ennobled as Lord Penrhyn in 1793), married Anna Susannah Warburton, heiress of part of the estate, whereupon her husband began negotiations for the purchase of the remainder. From the 1780s he began to work the estate in a vigorous fashion, re-investing the profits from his Jamaican sugar plantations in agriculture, communications and, above all, in slate quarrying on the slopes of Cae Braich y Cafn. As the Penrhyn Slate Quarries, these grew to be of enormous size, amongst the largest man-made excavations in the world, in which the slate was won from both from hillside galleries and from a deep pit.

The quarry's first new transport link under the Pennant regime was a cart road, constructed in stages from the 1780s onwards to give the quarry direct access to the sea near the demesne at Penrhyn, but it quickly proved inadequate to the quarry's growing output. A horse-worked railway to the port was constructed between 1800 and 1801; at the first point out of the quarry premises where it crossed a stream, the Caledffrwd, a mill was constructed to produce slate slabs.

Unlike roofing slates, hand-processed in the quarry itself, slate slabs for architectural purposes or for gravestones or cisterns require mechanical sawing; since the Caledffrwd contained a fall of water sufficient to turn a water-wheel, it was here that a mill was erected, one of the earliest sites in the world where stone was mechanically processed. It was built by and for Samuel Worthington, agent to Michael Humble and Samuel Holland, Liverpool merchants who had a near-monopoly of the sale of Penrhyn slates at this stage. The relationship between them and the estate was not always a happy one – in 1804 Lord Penrhyn was enquiring of a leading local attorney whether he could appropriate the mill to his own use,¹ but an agreement was signed the following year, and the mill did not become Penrhyn property for a number of years.² Though there are hints that it was at the planning stage as early as 1798,³ and some reports speak of it as a fact by 1801 or 1802,⁴ it was

¹ National Library of Wales: Rumsey Williams papers 1669.

² University of Wales, Bangor: Porth yr Aur 29188, Penrhyn 2032, 2034.

³ NLW: Walter Davies notebooks.

in June 1803 that the first blocks were delivered from the quarry to Broad Malkin, the foreman, for sawing.⁵ This first monthly delivery was for 258³/₄ tons, but within fifteen years the amount processed had almost doubled. The most detailed description is by Faraday in 1819,⁶ which describes the operations of the reciprocating frame saws with which it was equipped:

'A number of large frames are connected each with a crank and united by one common axle. This is put in motion by a water wheel and the revolutions of the cranks backwards and forwards. Saws are attached at each end of the frames by a hinge joint and consequently move with it and cut anything placed beneath them. When the saws are not in use they are raised up and held by a string and then on the slab beneath the men arrange blocks of slate with the part which is to be cut in line with the saws' motion. One, two, three or more pieces are put down at once according to their size and the extent of the saw and then it is let down and commences cutting. Water is made to drip by small pipes on the saws as they work and the part by which they are attached to the large frame is furnished with a long screw which being made gradually to turn round preserves the saw as it sinks in cutting the slate always in a horizontal direction. Here slabs for tombstones, mantle pieces, tables etc, are cut and in another mill furnished in a similar way, their surfaces are ground smooth and polished if required.'

Hugh Derfel Hughes, who was at work at Penrhyn Quarry by 1844 when he was twenty-eight, devotes a paragraph to the mills in his *Hynafiaethau Llandegai a Llanllechid*, published at Bangor in 1866. Presumably drawing on the memories of older fellow-workers, he dates the first mill to 1813, clearly wrong but possibly an error for 1803, and describes the sixteen saws, 'that were moved forwards and backwards by cranks, which were connected together, and which derived their movement from the waterwheel." A paste of water and sea-sand was fed into the cuts - common frame-saw practice, since the sand itself acts as the cutting agent, rather than the soft wrought-iron blade.

The traveller Richard Fenton, by contrast, offers only a cursory description.⁷ One of Edmund Hyde Hall's manuscripts, preserved in the National Library of Wales, is more detailed than the version used for the published account of his travels, and describes the sand-saws, of which he says there are fourteen, and refers to a hand-operated circular saw.⁸

The earliest extant plan of the site is the Penrhyn Rail Road survey of 1829.⁹ This shows the Galedffrwd unculverted; to its north and alongside and to the east of the railway line is a building, and a further building immediately to the east again which is marked as 'Mill'. Between the mill and the river, alongside and to the east of the railway, is an L-shaped building, but no obvious waterwheel-pit or launder.

Coed y Parc was also the point where ochre, quarried on the hillside above the railway, was delivered by cart to the railway wagons, to be taken to Llandygái, where it was ground with flint and chert to supply the Herculaneum pottery at Toxteth, Liverpool.

The growing transport needs of the quarry prompted the development of the site as a small but well-equipped industrial complex. Stables for the horses that pulled the slate wagons to Port Penrhyn were in existence by 1801; these were later converted to housing, the present Tai'r Stablau in 1875.¹⁰ In 1835 an oil house is recorded¹¹ and in 1838 a foundry was in existence.¹²

The increased output of the quarry may also have been reflected in an improvement in slate-processing facilities at Felin Fawr; Lewis' *Topographical Dictionary*, published in 1834 speaks of 'a large mill where mantle pieces & tombstones are sawn, also for production of laminae for roofing'¹³ but from April 1834 to March 1835 the

⁵ Caernarfon Record Office: PQ22/1.

⁴ S Lewis, A Topographical Description of Wales (London, 1834), entry for Llandegai, W Williams, Observations on the Snowdonian Mountains (London, 1802) p. 129.

⁶ D Tomos, Michael Faraday in Wales (Denbigh, nd) p. 92.

⁷ R Fenton, 'Tours in Wales (1804-1813)' Archaeologia Cambrensis (Supplement 1917).

⁸ NLW: Ms 839c.

⁹ UWB: Penrhyn Further Additional 1829.

¹⁰ CRO: XPQ 997 p. 20.

¹¹ CRO: PQ22/2.

¹² CRO: XPQ 486.

¹³ Lewis, op. cit.

production records refer to a new mill, supplied by a new weir, without specifying where it was or what purpose it served. It may have been a corn or other mill elsewhere on the Penrhyn estate, but more probably it was a new slate mill at the Coed y Parc site;¹⁴ the Coed y Parc foundry records make a distinction between the slate mill and Felin Isaf, 'the lower mill'. To confuse matters, Felin Isaf does not appear on the foundry records¹⁵ until 1843, but there are references from their commencement in January 1837 to a 'New Ingein', which either means a machine of some description or equally possibly a slate mill, commonly *injan* in Welsh. The foundryman was also kept busy producing parts for his own machinery; in December 1840, wrestling with an unfamiliar language, he notes he had made a 'slite for Poreing Mach(ine).

From December 1843 there is another flurry of activity at the foundry when it was set to work producing parts for a waterwheel for Felin Isaf, as well as flywheels and cogwheels, all of which further suggest an industrial building rather than an agricultural mill. Two mill reservoirs on the Galedffrwd were constructed upstream from Coed y Parc in 1846 and 1848.¹⁶ The foundry also produced '8 collars for circle saws' in January 1846 and '2 Frames for Sawing Engine' and '2 Rack wheels for the Sawing Engine' in January and August 1847,¹⁷ suggesting that the new facilities included circular saws, such as were rapidly becoming standard in the industry.

Hughes gives some further details about this new mill; he states that in 1846 the then manager, 'Mr Francis built a new mill, which made use of circular saws (gwnaeth Mr Francis Felin newydd yn yr hon yr arferid y Llif gron) which almost completely supplanted (disodlu) the old one; and in it also were sawn the rock known to the quarrymen as the mottled black (crych ddu), which before this was good for nothing but flinging off the end of a tip, but these machines sawed it, and there came to be a great demand for them.¹⁸

Archival references to the use of circular saws, apart from the original hand-saw, therefore only appear to begin c. 1846. However, it has been suggested that there is archaeological evidence for their use at Felin Fawr before this, in the shape of gravestones dating from perhaps 1834, and that they were installed in the mill thought to have been constructed that year.¹⁹

It was not long before even these new buildings were inadequate; Hughes goes on to observe: 'In the year 1855 Mr Francis and his son built a bigger and better building again, which also was also more convenient; and as I write in the year 1865, another excellent and more convenient building is being constructed for the same purpose.'²⁰

The mills constructed by Francis in 1865 were of the transverse type, in which the machinery is supplied by railways running across the building through doorways in the longitudinal wall. Though this type of mill was a feature of the Welsh slate industry by 1856, when Rhosydd quarry built its floor 3 mill,²¹ it appears that it was a type favoured and popularised by Francis. He had already constructed a similar, though smaller mill for the Prince of Wales Quarry in Cwm Pennant, in which he had a financial interest.²²

The quarry's own records state that the buildings were constructed between 1863 and 1868,²³ and roofing slates were supplied to the mills in 1866,²⁴ so a date 1865-66 for their construction seems probable. They are marked on a map of 1873²⁵ together with the present foundry and a large building on the south-eastern perimeter of the site which has now largely vanished. An account of the same year speaks of 'the mill where slates are sawn and planed into slabs.'²⁶ The northern extension on the western mill was started on 3 September 1867, to house a Hunter saw,²⁷ an experimental early use of renewable tip tooling, developed in the freestone quarries of Aberdeen, and which found a short-lived favour in a number of north Wales slate quarries. To the north of the

22 Mining Journal 1864, p. 916; 1865, p. 335; 1866, p. 488.

27 Ex info., Eric Foulkes.

¹⁴ CRO: PQ22/2.

¹⁵ CRO: XPQ486.

¹⁶ CRO: XPQ 997 p. 20.

¹⁷ CRO: XPQ486.

¹⁸ HD Hughes, Hynafiaethau Llandegai a Llanllechid (Bangor, 1866).

¹⁹ Ex info., Eric Foulkes.

²⁰ Hughes, op. cit.

²¹ MJT Lewis, J. Denton, Rhosydd Slate Quarry (Shrewsbury, 1974) p. 36.

²³ CRO: XPQ 997 p. 20.

²⁴ Ex info., Eric Foulkes.

²⁵ UWB: Penrhyn Further Additional 1873.

²⁶ MJT Lewis (ed.), Slate Quarries of North Wales in 1873 (Penrhyndeudraeth, 1987).

mills are marked a row of *gwaliau*, open-fronted booths where blocks were hand-split into roofing slates. These might have been used for splitting the sawn ends from the mills, trimming slates broken in transit from the quarry or for demonstration purposes.

The experimental use of steam power on the railway to the port in 1875²⁸ and its subsequent reconstruction and realignment as a purpose-built steam railway led to the decision to construct locomotive facilities at the site. It is possible that the locomotive shed which is integral with the west mill dates from this period.

A 1922 inventory lists twelve saw tables, six planing machines, one saw sharpener and an emery wheel in the two slab mills, and both a water wheel and a turbine to provide power. The foundry contained a cupola hearth, a fan, a crane and moulding boxes.²⁹

The mills continued to process slabs until 1965, though from 1952 only three of the old saw tables and a more modern diamond saw remained at work in the western mill, and an uncertain number of planers in the eastern.³⁰ The siding alongside the west mill was used to dump disused locomotives from the 1950s until 1965, when the rails were removed and the locomotives were sold for re-use or preservation elsewhere.

4.2 Description

The two mills stand on made-up ground north of the Penrhyn Quarry, at a point where the course of the former railway crossed the Afon Galedffrwd, and forming part of a cluster of industrial buildings connected with the quarry, which includes a foundry and locomotive repair facilities. The mills are orientated north-south. In between them is the iron backshot suspension water-wheel which formerly powered the two mills, in a slate-slab lined pit, over which there is a brick-built housing supporting a ventilation clerestory in the roof.

There are traces of below ground-level horizontal drive-shafts from the spur wheels in the wheel-pit to the two mills.

Note: for the purposes of the following description and the photographic record, the doorways in the mill are numbered 1 to 5 in the case of the west mill, 1 to 4 in the case of the east mill, from south to north in each case, and identified according the wall in which they are situated.

1. West mill

SH61476635

Category A (listed grade II*)

This structure was built in 1865-6; it is constructed out of a mixture of igneous rock, schist and granite, except for a northern extension built of slate-slabs, which have been cut with a circular saw. This extension is known to have been built to house a Hunter patent saw, and is therefore referred to here as the Hunter bay.

The entire mill is of the transverse pattern (that is to say, formerly served by transverse railways, and with a transverse process flow), with four pairs of doorways in the older part of the building, one in the newer. The doorways are of the segmental arch type, making use of stone on the outside and brick on the inside, except for doorway 5, east and west, where the segmental arch design is carried out in sawn slate slabs. Only in doorway 4 on the east side does the door itself remain intact, a single sliding wooden door, painted grey, with windows in the upper panels. The pitched slate roof remains intact, supported on king-and-queen-post trusses.

Along the eastern external wall, cast-iron circular backing-plates embellished with a scalloped pattern secure truss-height cast-iron brackets at corresponding locations within the building. These brackets were to support the main longitudinal line-shaft, which has been removed. At a location within the building which corresponds to the position of the water-wheel outside are the remains of a more substantial cast-iron bracket for a vertical power-drive from below floor level. This bracket is integral to a substantial backing plate set in the outside wall. In a slate-lined pit in the floor directly beneath is the horizontal drive-shaft from the water-wheel, which ends in a bevel gear; next to the bevel gear is the bearing for the vertical drive shaft which took the power from it to the large bracket at truss height, in which it is presumed a further bevel gear drive the line shaft. This arrangement is typical of engineering workshops of the 1850s.

²⁸ D Clayton, 'An Account of George Sholto', *The Narrow Gauge* 117 (Winter 1987-8) (and correspondence in the vol 119).

²⁹ CRO: XPQ 997 p. 30.

³⁰ Ex info., lorwerth Jones.

Claws and brackets for secondary line-shafting survive attached to the roof trusses, and a number of bearings are evident in the gable walls. A central truss-height line-shaft was also noted in the Hunter bay.

No machinery survives. There are traces of a three-phase electrical supply in the southern gable wall. At roof level immediately above are traces of timber joists which may have supported an electric motor.

2. Locomotive shed

SH61496633

Category A (listed grade II*)

A slate slab-built locomotive shed constructed against the southern gable wall of the east mill, accessed by an arched doorway in its own southern gable and also by a doorway in the eastern longitudinal wall, believed to be a later addition for an internal combustion locomotive. Lengths of 2* gauge flat-bottom rail survive here.

It is probable that the locomotive shed dates from shortly after the introduction of steam on the main line in December 1875.

3. East mill

SH61496635

Category A (listed grade II)

This structure is coeval with the original part of the west mill; it is parallel to it and of similar construction, with four pairs of facing doorways in the longitudinal walls. The pitched slate roof remains intact, supported on queen-post trusses. On the northern gable is a slate-roofed lean-to canopy supported on four cast-iron pillars. On the southern gable are the pitched roofline and other traces of a projecting building on the same alignment, but less broad

An RSJ lintel has been inserted in doorway 1 on the east side, and a central pedestrian door with flanking windows has been inserted in the equivalent doorway on the west side. Both the east and west doorway 2 have been infilled to form a window. An RSJ lintel has been inserted in doorway 4 on the west side.

Along the western external wall, cast-iron circular backing-plates embellished with a scalloped pattern secure truss-height cast-iron brackets at corresponding locations within the building. These brackets were to support the main longitudinal line-shaft, which has been removed. At a location within the building which corresponds to the position of the water-wheel outside are the remains of a more substantial cast-iron bracket for a vertical power-drive from below floor level. This bracket is integral to a substantial backing plate set in the outside wall, and from its structure it is clear that the power-drive operated the line-shafting through bevel gears, an arrangement typical of engineering workshops of the 1850s.

Claws and brackets for secondary line-shafting survive attached to the roof trusses, and a number of bearings are evident in the gable walls. Bearings for a central truss-height line-shaft were also noted in the Hunter bay.

No machinery survives. There are traces of a three-phase electrical supply in the southern gable wall. At roof level immediately above are traces of timber joists which may have supported an electric motor.

5 BIBLIOGRAPHY

5.1 Published sources

Anon: The Slate Quarries of North Wales in 1873 (Penrhyndeudraeth 1987). Boyd JIC: Narrow Gauge Railways in North Caernaryonshire: The Penrhyn Quarry Railway 1985 Cadw: Welsh Historic Monuments, Countryside Council for Wales, International Council on Monuments and Sites (ICOMOS): Consultation Document Part 2:1 Register of Landscapes of Exceptional and Great Historic Interest Cardiff 1995 Clayton D: 'An Account of George Sholto', The Narrow Gauge 117 Winter 1987-8 (also correspondence in The Narrow Gauge 119) Fenton R: 'Tours in Wales (1804-1813)' Archaeologia Cambrensis Supplement 1917 Gwyn DRh: 'Power Systems in Four Gwynedd Slate Quarries', Industrial Archaeology Review XXI (November 1999) pp. 83-100. Hughes HD: Hynafiaethau Llandegai a Llanllechid (Bangor 1866). Hyde Hall E: A Description of Caernarvonshire 1809-1811 (Caernarfon 1952). Lewis S: A Topographical Description of Wales London 1834, entry for Llandegai Slate: the Penrhyn Quarry (Bethesda nd [1938?]). Roberts, T: Y Felin Fawr: Ei hanes a'i rhamant (Denbigh 1999). Tomos D: Michael Faraday in Wales (Denbigh nd) 92 Turner S: The Padarn & Penrhyn Railways (Newton Abbott 1975). Williams W: Observations on the Snowdonian Mountains (London 1802) p. 129

5.2 Map sources

2"/1 mile unpublished survey of 1819-1821 (photocopy in Caernarfon Record Office) Tithe map for parish of Llandegai 1845 (photocopy in Caernarfon Record Office) 1"/1 mile survey of 1839-41 (David and Charles reprint) 25"/1 mile XII 6 (1900 and 1914) 25"/1 mile XII 10 (1889 and 1914) 1/10,000 66NW

5.3 Manuscript sources

5.3.1 National Library of Wales

Walter Davies (Gwallter Mechain) notebooks Rumsey Williams papers 1669

5.3.2 University of Wales, Bangor

Penrhyn Further Additional 1829, 1844, 1873

5.3.3 Caernarfon Record Office

PQ 1 1-3 (Quarry bank books, 1834-1854) PQ 22 1-11 (Quarry production books 1800-1868) XPQ 419-421 (Quarry account books 1835-1852) XPQ 486 (Foundry account, 1837-1848) XPQ 581 (Inventory of machine tools, 1954) XPQ 997 (Abstract of old ledgers and engineering records)

5.4 Photographs

Caenarfon Record Office

XCHS 1328 2: photograph of the slab mills from the north east, ?1890s. Photographs reproduced in Boyd and Turner, *op. cit.*

Film Type/ASA		Mono √ CN CT		Film No. 1		Site Name & No. Felin Fawr			
Neg. No.	Site Sub-Div	Description			Scale/s	View From	Initials	Date	Archive No.
00	1						1		
0	1					-			
1	East mill	Door 1, show	ing inserted R	SJ lintel		E	DRhG	150200	G1609/1/1
2	East mill	Door 1, show	ing inserted R	SJ lintel		E	DRhG	150200	G1609/1/2
3	East mill	S end, showin	ng door 1	a de la companya de la		E	DRhG	150200	G1609/1/3
4	East mill	S end, showin	ng door 1 and	JCB		E	DRhG	150200	G1609/1/4
5	East mill	Longitudinal	wall, doors 2	to 4		SE	DRhG	150200	G1609/1/5
6	East mill	Longitudinal	wall, doors 2	to 4		SE	DRhG	150200	G1609/1/6
7	East mill	Door 4, show	ing course of	transverse railway		E	DRhG	150200	G1609/1/7
8	East mill	Door 4, show	ing course of	transverse railway		E	DRhG	150200	G1609/1/8
9	East mill	Longitudinal	wall, doors 1	to 4 (foundry to rear)		NE	DRhG	150200	G1609/1/9
0	East mill	N gable, show	ving lean-to ca	nopy		N	DRhG	150200	G1609/1/10
1	East mill	Door 4, show	ing inserted F	SJ lintel		W	DRhG	150200	G1609/1/1
2	East mill	N gable, show	ving lean-to ca	nopy		W	DRhG	150200	G1609/1/12
3	East mill	Longitudinal	wall, wheel-pi	t house		NW	DRhG	150200	G1609/1/13
4	East mill	Door 3, whee	l-pit house to	right		W	DRhG	150200	G1609/1/14
5	East mill	Door 1, show	ing inserted w	indows, etc.		W	DRhG	150200	G1609/1/1:
6	East mill	Door 1, show	ing inserted w	indows, etc.		W	DRhG	150200	G1609/1/10
7	East mill	Longitudinal	wall, wheel-pi	t house		SW	DRhG	150200	G1609/1/1
8	Mills	Longitudinal	walls, wheel-p	oit house		SW	DRhG	150200	G1609/1/18
9	East mill	S gable, show	ing axle-boxe	s and traces of lean-to		S	DRhG	150200	G1609/1/19
20	East mill	S gable, show	ing axle-boxe	s and traces of lean-to		S	DRhG	150200	G1609/1/20
1	Locoshed	Longitudinal	wall		1.1.1	E	DRhG	150200	G1609/1/21
2	Locoshed	Longitudinal	wall			E	DRhG	150200	G1609/1/22
.3	West mill	S-E corner, w	heel-pit house			SE	DRhG	150200	G1609/1/23
4	West mill	Door 1				E	DRhG	150200	G1609/1/24
5	West mill	Door 1				Е	DRhG	150200	G1609/1/25
.6	West mill	Door 3				E	DRhG	150200	G1609/1/26
7	West mill	Door 4				E	DRhG	150200	G1609/1/27
8	West mill	Hunter bay, d	oor 5			E	DRhG	150200	G1609/1/28
9	West mill	N gable				N	DRhG	150200	G1609/1/29
0	West mill	N gable				N	DRhG	150200	G1609/1/30
1	West mill	N gable				NW	DRhG	150200	G1609/1/31
2	West mill	Door 5				W	DRhG	150200	G1609/1/32
3	West mill	Door 4		NW	DRhG	150200	G1609/1/33		
4	West mill	Door 3, showi	ng in situ 2' g	auge rails		W	DRhG	150200	G1609/1/34
5	West mill	Door 3				W	DRhG	150200	G1609/1/35
6	West mill	Door 2, water	wheel beyond			W	DRhG	150200	G1609/1/36
7	West mill	Door 1, east n	nill beyond			W	DRhG	150200	G1609/1/37
8	Locoshed	General view				NW	DRhG	150200	G1609/1/38
OMM	IENTS							<u> </u>	

Photographic Record

Film Type/ASA		WONO	Finit NO.	. 4	Site Name & No. Felin Fawr				
Neg. No.	Site Sub-Div	Description			Scale/s	View From	Initials	Date	Archive No.
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9	1	1						1000	
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11	1						1		
12	7	2.00				-	1 h	1	
13	East mill	Longitudina	l wall, doors 2 to	4		SE	DRhG	150200	G1609/2/13
14	East mill	Door 1, show	wing inserted RS.	J lintel		E	DRhG	150200	G1609/2/14
15	East mill	Door 1, show	wing inserted RS.	I lintel		E	DRhG	150200	G1609/2/1:
16	East mill	Doors 1 to 4	, foundry to rear			NE	DRhG	150200	G1609/2/10
17	East mill	Door 4				E	DRhG	150200	G1609/2/17
18	East mill	Door 3				E	DRhG	150200	G1609/2/18
19	East mill	Lean-to can	opy on N gable			E	DRhG	150200	G1609/2/19
20	East mill	Lean-to on N	N gable, column			Е	DRhG	150200	G1609/2/20
21	East mill	N gable, lear	n-to canopy			N	DRhG	150200	G1609/2/21
22	East mill	Door 4, show	wing inserted RS.	lintel		W	DRhG	150200	G1609/2/22
23	East mill	Longitudina	l wall, wheel-pit	house		NW	DRhG	150200	G1609/2/23
24	East mill	Longitudina	I wall, wheel-pit	house		NW	DRhG	150200	G1609/2/24
25	East mill	Door 3				W	DRhG	150200	G1609/2/25
26	East mill	Door 1, show	wing inserted win	dows, etc		W	DRhG	150200	G1609/2/26
27	East mill	Door 1, show	wing inserted win	dows, etc		W	DRhG	150200	G1609/2/27
28	East mill	Longitudina	I wall, wheel-pit I	nouse		SW	DRhG	150200	G1609/2/28
29	East mill	Longitudina	l wall, wheel-pit l	house		SW	DRhG	150200	G1609/2/29
30	East mill	S gable, bear	rings, traces of lea	an-to		S	DRhG	150200	G1609/2/30
31	Locoshed	General			-	E	DRhG	150200	G1609/2/31
32	West mill	S-E corner				SE	DRhG	150200	G1609/2/32
3	West mill	S-E corner				SE	DRhG	150200	G1609/2/33
4	West mill	Door 1				Е	DRhG	150200	G1609/2/34
5	West mill	Door 2			-	E	DRhG	150200	G1609/2/35
6	West mill	Door 3				E	DRhG	150200	G1609/2/36
7	West mill	Door 4				E	DRhG	150200	G1609/2/37
8						1	·		

Film Type/3/ASA		Mono CN√ CT			Film No. 3		Site Name & No. Felin Fawr			
Neg. No.	Site Sub-Div	Description	1	Scale/s	View From	Initials	Date	Archive No.		
00	/	1					1.1	1.00		
0	West mill	Door 5, Hu	nter bay			E	DRhG	150200	G1609/3/0	
1	West mill	Door 5, Hu	nter bay			E	DRhG	150200	G1609/3/1	
2	West mill	N gable				N	DRhG	150200	G1609/3/2	
3	West mill	N gable				NW	DRhG	150200	G1609/3/3	
4	West mill	Door 5				W	DRhG	150200	G1609/3/4	
5	West mill	Door 4				NW	DRhG	150200	G1609/3/5	
6	West mill	Door 3				W	DRhG	150200	G1609/3/6	
7	West mill	Door 3				W	DRhG	150200	G1609/3/7	
8	West mill	Door 2, wa	terwheel in backg	round		W	DRhG	150200	G1609/3/8	
9	West mill	Door 1				W	DRhG	150200	G1609/3/9	
0	West mill	Longitudin	al wall			SW	DRhG	150200	G1609/3/10	
11	Locoshed	General				W	DRhG	150200	G1609/3/1	
12	Locoshed	General				W	DRhG	150200	G1609/3/12	
3	Locoshed	S gable, ste	am locomotive en	trance	-	S	DRhG	150200	G1609/3/1.	
4	East mill	Gutter dow	npipe support			Е	DRhG	150200	G1609/3/14	
5	East mill	Iron strap b	y door 4			E	DRhG	150200	G1609/3/13	
6	East mill	Column on	lean-to			Ē	DRhG	150200	G1609/3/10	
17	East mill	Column bas	se on lean-to		Е	DRhG	150200	G1609/3/1		
8	East mill	Door 4, sho	wing backing-pla	te hole		W	DRhG	150200	G1609/3/18	
19	East mill	Backing pla	ate (between door	s 3&4)		W	DRhG	150200	G1609/3/19	
20	East mill	Drive shaft	backing plate			W	DRhG	150200	G1609/3/20	
21	East mill	Drive shaft	slot				DRhG	150200	G1609/3/21	
22	East mill	S gable (det	tail)			S	DRhG	150200	G1609/3/22	
23	East mill	S gable (det	tail)	-	- /	S	DRhG	150200	G1609/3/23	
24	East mill	S gable (det	tail)			S	DRhG	150200	G1609/3/24	
25	Sluice	Sluice				S	DRhG	150200	G1609/3/25	
26	Locoshed	Rails in situ	on side (petrol lo	oco) entrance		E	DRhG	150200	G1609/3/26	
7	East mill	Backing pla	te (by door 1)			W	DRhG	150200	G1609/3/27	
28	West mill	Drive shaft	backing plate			E	DRhG	150200	G1609/3/28	
.9	West mill	N gable, be	aring			N	DRhG	150200	G1609/3/29	
0	Locoshed	Chimney	-			NW	DRhG	150200	G1609/3/30	
1	West mill	S gable, ins	ulators			SW	DRhG	150200	G1609/3/31	
2	East mill	Drive shaft	bearing			N	DRhG	150200	G1609/3/32	
3	East mill	Drive shaft bearing				E	DRhG	150200	G1609/3/33	
4	East mill	Interior, sho	wing truss details	1	-	S	DRhG	150200	G1609/3/34	
5	East mill	N gable, she	owing bearing			S	DRhG	150200	G1609/3/35	
6	East mill	N gable, sho	owing bearing		-	S	DRhG	150200	G1609/3/36	
7		- Sucre, on				1		Contraction of		
-		· · · · · · · · · · · · · · · · · · ·								

The doors are numbered 1 to 4 (east mill), 1 to 5 (west mill) starting from the south.

Film Type/ASA		Mono √ CN CT		Film No.	4	Site Name & No. Felin Fawr			
Neg. No.	Site Sub-Div	Description	Scale/s	View From	Initials	Date	Archive No.		
00	1					1	1	1	
0	1					b			
1	Locoshed	General				W	DRhG	150200	G1609/4/1
2	Locoshed	General				W	DRhG	150200	G1609/4/2
3	Locoshed	Gable - stea	m locomotive	entrance		S	DRhG	150200	G1609/4/3
4	East mill	Lean-to, colu	ımn detail		-	E	DRhG	150200	G1609/4/4
5	East mill	Lean-to, colu	ımn base			Е	DRhG	150200	G1609/4/5
6	East mill	Backing-plat	e for shaft (be	ween doors 3&4)		W	DRhG	150200	G1609/4/6
7	East mill	Backing plat	e for vertical d	rive		W	DRhG	150200	G1609/4/7
8	East mill	Drive shaft s	lot		11	W	DRhG	150200	G1609/4/8
9	East mill	South gable	(detail)		-	S	DRhG	150200	G1609/4/9
0	East mill	South gable	(detail)			S	DRhG	150200	G1609/4/10
1	Sluice	Sluice, whee	I-pit house			S	DRhG	150200	G1609/4/1
2	Locoshed	Rails in situ	on petrol loco	entrance		Е	DRhG	150200	G1609/4/12
13	West mill	Interior, show	wing shaft-brac	kets	-	S	DRhG	150200	G1609/4/13
4	West mill	S gable (deta	il)		-	N	DRhG	150200	G1609/4/14
5	West mill	S gable, bear	ing and oil sta	in		N	DRhG	150200	G1609/4/15
6	West mill	S gable (deta	il)			N	DRhG	150200	G1609/4/16
7	West mill	Shaft bracke			DRhG	150200	G1609/4/17		
8	West mill	Drive shaft.	showing bevel	gear	-		DRhG	150200	G1609/4/18
9	West mill	Drive shaft h	earing	D			DRhG	150200	G1609/4/19
20	West mill	Drive shaft b	earing				DRhG	150200	G1609/4/20
1	West mill	Interior, door	3. showing ra	ils in situ		W	DRhG	150200	G1609/4/21
22	West mill	N gable				S	DRhG	150200	G1609/4/22
3	West mill	Door 3 and s	aw-table base			W	DRhG	150200	G1609/4/23
24	West mill	Interior show	ving trusses an	d brackets	-	N	DRhG	150200	G1609/4/24
5	West mill	Trusses show	ving brackets			-	DRhG	150200	G1609/4/25
26	West mill	Interior	This oracles			N	DRhG	150200	G1609/4/26
7	West mill	Interior			-	N	DRhG	150200	G1609/4/27
8	West mill	Door 1				E	DRhG	150200	G1609/4/28
9	West mill	S gable (deta	il – electrical s	upply)		Ne	DRhG	150200	G1609/4/29
0	Fast mill	S gable (deta	il)	uppiy)		Ň	DRhG	150200	G1609/4/30
1	East mill	Interior purl	ins and nine)			E	DRhG	150200	G1609/4/31
2	Fast mill	Interior	ino una pipe)		-	N	DRhG	150200	G1609/4/
3	Fast mill	Interior				N	DRhG	150200	G1609/4/33
4	Fast mill	Interior door	.2		-	W	DRhG	150200	G1609/4/34
5	Fast mill	Interior, door 2				F	DRhG	150200	G1609/4/35
6	East mill	Drive shaft b	earing			N	DRhG	150200	G1609/4/34
7	East mill	Interior	caring		1	R C	DRhG	150200	G1609/4/30
0	East mill	C call				N	DPMC	150200	G1600/4/3/
0	East mill	s gable				IN	Dialo	150200	01009/4/30

Photographic Record

Film Type/ASA		Mono	CN√	CT	Film No	Film No. 5		Site Name & No. Felin Fawr			
Neg. No.	Site Sub-Div	Description		Scale/s	View From	Initials	Date	Archive No.			
00	1		1999 - C. 1999 -								
0	West mill	Hunter bay.	, n gable (interio	r)		S	DRhG	150200	G1609/5/1		
1	West mill	Hunter bay,	, n gable (interio	r detail)		N	DRhG	150200	G1609/5/2		
2	West mill	Hunter bay	(interior)			N	DRhG	150200	G1609/5/3		
3	West mill	Hunter bay,	, truss detail			N	DRhG	150200	G1609/5/4		
4	West mill	Hunter bay,	truss detail			NW	DRhG	150200	G1609/5/5		
5	West mill	Hunter bay,	n gable			S	DRhG	150200	G1609/5/6		
6	West mill	East wall, d	oor 4			W	DRhG	150200	G1609/5/7		
7	West mill	Saw table				W	DRhG	150200	G1609/5/8		
8	West mill	1							L		
9	West mill	Door 3			12.5	W	DRhG	150200	G1609/5/9		
10	West mill	Drive shaft,	bevel gear			N	DRhG	150200	G1609/5/10		
11	West mill	1			1						
12	West mill	1			-	2211	1	1000			
13	West mill	1									
14	West mill	Drive shaft,	bevel gear		L	W	DRhG	150200	G1609/5/11		
15	West mill	Interior				N	DRhG	150200	G1609/5/12		
16	West mill	1				10.000					
17	West mill	Drive shaft	bracket			W	DRhG	150200	G1609/5/13		
18	West mill	S gable				N	DRhG	150200	G1609/5/14		
19	West mill	S gable				N	DRhG	150200	G1609/5/15		
20	West mill	Interior				S	DRhG	150200	G1609/5/16		
21	West mill	Interior			1	S	DRhG	150200	G1609/5/17		
22	West mill	Interior				S	DRhG	150200	G1609/5/18		
23	West mill	Line shaft b	racket			SW	DRhG	150200	G1609/5/19		
24											
25											
26									1		
27	1	-						1.1.1			
28											
29											
30							1				
31							1	1			
32								1.1			
33											
34		1									
35		1									
36						-					
37		_				1			1		
8											

Film Type/ASA		Mono √	CN	CT	Film No. 6		Site Name & No.Felin Fawr			
Neg. No.	Site Sub-Div	Description		Scale/s	View From	Initials	Date	Archive No.		
00										
0							1			
1	Site	General				S	DRhG	250200	G1609/6/1	
2	Site	General				S	DRhG	250200	G1609/6/2	
3	West mill	Roof				W	DRhG	250200	G1609/6/3	
4	West mill	Roof				W	DRhG	250200	G1609/6/4	
5	Site	General				S	DRhG	250200	G1609/6/5	
6	Site	General				S	DRhG	250200	G1609/6/6	
7	Site	General				NE	DRhG	250200	G1609/6/7	
8	Site	General				NE	DRhG	250200	G1609/6/8	
9										
10							1.0			
11								-	0	
12					-					
13	-									
14										
15										
16										
17	1	-				-	-			
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19										
20										
21										
22										
23										
24					-					
25										
26										
27		1								
28										
29									-	
30								-		
31								13-21		
32										
33										
34		1								
35					-					
36									1	
37										
38										
COMM	AENTS							-		

Film Type/ASA		Mono	CN√	CT	Film No	Film No. 7		Site Name & No. Felin Fawr			
Neg. No.	Site Sub-Div	Description	1		Scale/s	View From	Initials	Date	Archive No.		
00											
0							1				
1	Site	General				N	DRhG	250200	G1609/7/1		
2	Site	General				N	DRhG	250200	G1609/7/2		
3		-									
4											
5											
6											
7											
8	21.000										
9		1						-			
10							1	1			
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35											
36											
37	1										
38											
COMN	IENTS										



G1609/1/5 - East mill, longitudinal walls, doors 2 to 4



G1609/1/10 - Northern gable, showing lean-to canopy



G1609/1/36 - West mill, door 2, showing waterwheel beyond



G1609/4/3 - Loco shed, gable - steam locomotive entrance



G1609/4/18 - West mill, drive shaft, showing bevel gear



G1609/4/26 - West mill, interior

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