



Rhos-y-Bedw Mill

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Tir Gofal Farm Visit Historic Environment Report



Report No. 2003/9

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CAMBRIA ARCHAEOLOGY

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Tir Gofal Farm Visit Historic Environment Report

By

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CALL OUT VISIT

Within the Tir Gofal application, the owners Mr. Ward and Miss Evans had expressed an interest in restoring the Rhos y Bedw corn mill. Following a site visit by a Tir Gofal project officer, a follow up visit by Cambria Archaeology was requested to establish the condition of the building and provide recommendations on its sensitive restoration.

GENERAL DESCRIPTION OF COMPLEX

Rhos y Bedw mill (SN 63384441) is situated on the left bank of the Afon Camnant around 400 metres south west of Ffaldybrenin in Llanycrwys community. It is accessed by a short trackway, which leads off the Rhosybedw- Ffaldybrenin road. The mill house and a corn drying kiln lie to the east of this trackway, whilst the cornmill (now ruinous), millpond and associated water management features are situated to the west.

The 1838 tithe apportionment shows that Rhos y Bedw mill was occupied by Margaret Jenkins and owned by Anne Davis, whose antecedents had owned the Rhos y Bedw estate since the late eighteenth century. Although Rhos y Bedw mill is shown on the 1840 tithe map, the layout of the building complex is shown more clearly on the 1891 and 1906 Ordnance Survey maps. The mill complex layout appears to have changed little from that recorded at this time.

RHOS Y BEDW CORNMILL

The Rhos y Bedw (PRN 5122) mill is of considerable historical interest, and has benefited from investigations on two previous occasions. The Museum of Welsh Life, St. Fagans holds detailed notes and black and white photos of the mill remains and machinery taken in 1951 by Miss E.M. Gardiner. The mill is believed by A.J. Parkinson, who visited and recorded details of the mill for the RCAHMS in 1987, to be the only known example of a Vitruvian Mill in Carmarthenshire. Vitruvian or “pre-spur-wheel” gears are defined as those “in which the pit wheel drove the single stone nut directly.” The following description will elaborate on the current condition of the building and record further information, which was provided by the current owners.

The mill is likely to be of 18th century date and was operational until the first half of 20th century. It is shown as a working corn mill on a 1906 Ordnance Survey map although was out of use by the time of Gardiner’s visit in 1951. The mill is now in a ruinous condition and only the building shell remains.



Plate 1- the remains of the cornmill looking southeast.

Miss E.M. Gardiner's photographs and notes are currently the only known source of information about the nature of the mill gearing. Only three photographs from the Gardiner collection have yet been identified which relate to Rhos y Bedw mill.

A photograph taken of the eastern gable end shows one pair of intact mill stones, identified as being of Anglesey rock in the notes. Details of the Vitruvian gearing *in situ* and hurst beam, taken from below are also shown. The overshot mill wheel has been identified as being “around 10 foot in diameter with 6 wooden arms and an iron rim, cast in the Old Foundry, Carmarthenshire.”

No machinery or mill working apparatus now survives. Mr. Ward had managed to obtain information from a previous owner of the mill to the effect that the mill wheel, gearing and stones had disappeared by 1953. He did mention, however that a millstone lies in the riverbed upstream. It is not known whether this was one of the original millstones.

BUILDING DESCRIPTION

The mill comprises the end bay of a four unit linear building range which faces the Afon Camnant along an east west alignment. Parts of the building have collapsed, whilst others remained in a ruinous and unstable state. Walls are of uncoursed stone facing with a rough rubble core and bonded with lime mortar.

The two units at the west end of the building are almost entirely collapsed, although part of the southern lateral wall survives. Building debris remains in these two bays where the walls have collapsed inwards. The former extent and plan of these two units can still be made out. It is not clear to what height this section was built or how it was roofed. The present condition makes it difficult to ascribe a function.

A cartshed bay is situated between these units and the mill. Only the doorway dressings survive, although the structure has been rebuilt out of breeze blocks with a corrugated iron roof.



Plate 2- the cartshed and remains of the southern lateral wall looking west.

The mill itself forms the east bay of the range and is the best preserved element, although only the shell remains. The front (southern lateral) wall and eastern gable walls survive albeit in an eroded and unstable condition. The northern lateral and western partition walls have been lost (the former having collapsed inwards sometime since 1953, whilst the latter has been replaced by a breeze block wall).

Access was provided in the front wall by either a wide entrance, now with a displaced wooden lintel, or a narrow doorway positioned in the centre of the building with a red brick dressing and concrete lintel.



Plate 2- southern elevation of the cornmill

The eastern gable wall would formerly have supported the mill wheel, although the mill axle fitting is no longer visible, the central section having been rebuilt with coarse rubble.

A rectangular opening c.0.5m with stone lintel in the front wall may have supported the hurst beam. None of the mill apparatus supporting structure or internal building fabric remains to confirm this; the building interior being much overgrown and possibly with as much as 1.5 metres depth of building debris.

The photographs taken by Miss E.M. Gardiner in 1951 suggest that part of the front wall may survive to its original height. A photographic elevation of the eastern gable end shows a shallow pitched slate roof covering the structure, which was in a semi-derelict state by this time. A loft is also visible in the photograph. It is possible that a scarcement, which remains visible on the interior of the southern lateral wall, may have supported floor joists.

MANAGEMENT RECOMMENDATIONS

The mill building requires stabilisation if it is to be preserved. Only the shell of the structure survives. The walls are now self supporting, no longer benefiting from the binding influence of floor joists or a roof structure. Added to this is the problem of water ingress into the masonry structure, which is washing away the lime mortar bonding and promoting instability.

Restoration of the mill building is feasible and should be encouraged, although this will require considerable rebuilding and renewal. A thorough understanding of the history and characteristics of the building is necessary before any repair work can be carried out. The notes and photographs taken by Miss E.M. Gardiner in 1951 provide a useful record of the mill's original appearance and should be used to inform the sensitive restoration of the mill building using traditional materials and techniques. The Royal Commission on the Ancient and Historic Monuments of Wales also hold information on the mill, which could be used to inform a sensitive restoration programme. Any restoration works should be compatible with existing materials and methods of construction.

Rhos y Bedw cornmill is of great historic importance, believed by A.J. Parkinson to be the only known example of a Vitruvian mill in Carmarthenshire. The building debris within and around the mill building provides an obvious source of building materials for any proposed works. The proposed restoration works provide an opportunity to gain additional information about the structure of the original building, which may lie within buried deposits. It is suggested that an archaeological record is carried out partly during and at the end of the clearance work within and around the mill, which will help to inform the restoration process. Please contact Cambria Archaeology in advance of any clearance or restoration works for further advice.

Whilst there is a general presumption in favour of retaining historic fabric, this has to be balanced against the economic costs of restoration. The best method for the preservation of a historic building is to find a new use for which the necessary expenditure would be justified.

In the event that building restoration is not pursued, masonry should be consolidated and wall tops capped with a lime mortar mix in order to prevent further collapse. Intrusive vegetation growth should also be kept to a minimum.

Attached is a list of specialists in traditional building conservation and restoration. The Welsh Mills Society advises on the preservation and use of historic watermills and may also be able to provide advice on sensitive restoration of the building.

RELATED WATER MANAGEMENT FEATURES

The wheel pit is still present and remains in good condition, although it is partly infilled with building debris. The head race is still visible although no evidence of any structural water management features are visible. A small overflow channel leading from the head race and running along the rear and western gable ends of the building preserves its stone lining and continues to divert water. The owners have sensitively restored a stone capped culvert in the tail race following its collapse in 2002. The leat can still be recognised and its path traced to the Afon Camnant around 300 metres upstream.

MANAGEMENT RECOMMENDATIONS

These features should be maintained in a stable condition, using traditional building materials and techniques if restoration works are necessary. The leat should be kept free of debris to allow the free flow of water and to prevent damage to the adjacent structures.



Plate 3- the millpond looking west

MILLPOND

The original extent of the millpond, as shown on historic maps exceeds the current outline. The owners propose to clear the west end of the pond to reinstate it to its full extent. Mr. Ward had learned from a previous occupant that there had once been a tap for domestic use in the east bank. No traces of this tap remain visible.

MANAGEMENT RECOMMENDATIONS

The restoration of the millpond is to be encouraged, and should as far as possible attempt to follow its original extent. Care should be taken during any restoration works not to damage or remove the original clay lining or any water management structures which may survive within the millpond. It is recommended that an archaeological record is carried out during pond restoration works. It is hoped that any features could be recorded and used to inform sensitive restoration. Please contact Cambria Archaeology in advance of any pond restoration works for further advice.

REFERENCES

- Brunskill, R.W. (1971) Illustrated Handbook of Vernacular Architecture. Faber and Faber., London
- Brunskill, R.W. (1987) Traditional Farm Buildings of Britain and their conservation. Orion Group Publishing Ltd., London.
- Jones, F 1987 Historic Carmarthenshire Homes and their Families
- Ordnance Survey 1891 Carmarthenshire VIII.NE
- Ordnance Survey 1907 Carmarthenshire VIII.NE
- Tithe Map 1840 Llancrywys Parish
- Tithe Apportionment 1838 Llancrywys Parish

Rhos y Bedw

REPORT NUMBER 2003/9

January 2003

This report has been prepared by William Steele

Position: Archaeologist (Tir Gofal)

Signature W Steele Date 28/1/2003

This report has been checked and approved by Ken Murphy on behalf of Cambria Archaeology,
Dyfed Archaeological Trust Ltd.

Position: Principal Archaeologist, Field Operations

Signature K Murphy Date 28/1/2003

As part of our desire to provide a quality service we would welcome any comments you may have
on the content or presentation of this report

Tir Gofal list of contact numbers for building restoration

The following organisations may be able to provide further information or advice to assist with the conservation and restoration of buildings of historic interest:

CADW - provide information and advice about the restoration of traditional buildings.

Contact: Judith Alfrey, tel.(02920) 500200 (general enquiries) or e-mail Judith.Alfrey@Wales.GSI.Gov.UK

St Fagans, Welsh Rural Life Museum - can provide up to date information and advice about contractors and suppliers that deal with traditional buildings and materials.

Contact: Gerallt Nash, tel. (02920) 573445

Ty Mawr Lime Ltd. - suppliers and manufacturers of traditional and natural building materials as well as providing advice, support and training about the use of lime products and other natural building materials for mortars, plasters, renders and paints.

Contact: Nigel and Joyce Gervis, Ty Mawr Lime Limited, Ty Mawr Farm, Llangasty, Brecon, Powys, LD3 7PJ, tel. (01874) 658249, e-mail: tymawr@lime.org.uk

Society for the Protection of Ancient Buildings - a nationwide organisation providing publications and advice about architectural conservation.

Contact: 37 Spital Square, London E1 6DY
tel. (0207) 377164 or e-mail: info@spab.org.uk

South Pembrokeshire partnership for Action in Rural Communities (SPARC) - provide advice about the restoration of historic farm buildings and information about local building contractors that specialise in traditional methods of restoration.

Contact: Richard Tree (Heritage Officer), tel. (01834) 860965

Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) - provide detailed archaeological and architectural advice about buildings and other features of historic interest in Wales.

Contact: Crown Building, Plas Crug, Aberystwyth, Dyfed, SY23 1NJ
tel. (01437) 720861, www.rcahmw.org.uk/wms

Local Authority Buildings Conservation Officers - provide advice and information about buildings of historic interest, in particular Listed Buildings.

Carmarthenshire (01267) 234567

Contact: David Priest (Head of Conservation), John Llewelyn, Adrian Griffiths

Pembrokeshire (01437) 764551 ext no. 5720

Contact: Ian Bartlet

Pembrokeshire Coast National Park (01437) 764636

Contact: Rob Scourfield

Melin (Welsh Mills Society) - offers information sheets and practical advice about the recording and conservation of mills.

Contact: Hilary Malaws, Y Felin, Tynygraig, Ystrad Meurig, Ceredigion, Wales, SY25 6AE, tel. (01437) 720861, www.rcahmw.org.uk/wms

Association of Energy Conscious Builders

Contact: Keith Hall tel. (10559) 370908

Centre for Alternative Technology, Machynlleth - provide advice about organisations that specialise in the restoration of historic mills. They also provide their own consultancy service.
Tel. (01654) 705989

British Hydropower Association, Cheshire - services include consultancy, feasibility studies, refurbishment and repairs of watermills.
tel.(0161) 4409196, www.brit-hydro.cwc.net

Dorothea Relations, Bristol - specialise in the refurbishment of watermills and run a nationwide service.

Contact: G.J.O Wallis, Unit 6, Riverside Business Park, St Annes Road, Bristol BS4 ED, tel. (01179) 715337, www.dorothearest.co.uk

Heritage Engineering, Glasgow - specialise in the recovery, restoration and/or replication of water-powered machinery.

Contact: J.S. Mitchell, 22 Carmyle Avenue, Glasgow G32 8HJ, tel (01417) 630007

Capel (The Chapels Heritage Society) - offers information sheets and practical advice about the recording and conservation of chapels that are no longer required for their original purpose.

Contact: Penny Icke, RCAHMW, tel. (01970) 621210, www.rcahmw.org.uk/wms

The Welsh Mines Preservation Trust

Contact: David Bick, Denefield, 111 Barn Lane, Golborne, Warrington WA3 3PR

Building material specialists - provide advice about specific traditional building materials.

Slating Consultant - Contact: Terry Hughes tel. (01286) 650402

Timber Consultant - Contact: Bob Childs tel (02920) 573245

Architect specialising in Timber Frames - Contact: Nick Joyce tel. (01905) 726307

Lead Sheet Association - tel (01892) 822773

The Welsh Mills Society – can also provide advice on the preservation and use of historic watermills

Contact: Hilary Malaws, Y Felin, Tynygraig, Ystrad Meurig, Ceredigion, Wales SA25 6AE.
www.rcahmw.org.uk/wms

Tir Gofal Traditional Buildings

Requirements for General Photographic Surveys of Buildings

The purpose of the survey is to produce a photographic record of the building prior to any demolition, alterations or renovation being started, as well as recording any fixtures, fittings or features which come to light during the works. This survey may be the only record of the original form of the building available for future reference. The survey will then be referenced within the Regional Site and Monuments Record for Carmarthenshire, Pembrokeshire and Ceredigion (held and managed by Cambria Archaeology), and deposited with the National Monument Record in order that the information is publicly available for study and reference.

Photographs should be taken using 35mm format colour print film (preferably Kodak or Fuji). ASA 200 film is a good standard for most light conditions but ASA 400 should be used where light conditions are poor. 36 exposure film should be used in all cases and at least one whole film must be exposed. Alternatively, a digital camera may be used. Please contact Cambria Archaeology for further information on the quality of digital image required.

Photographs should be taken of all exterior and interior wall elevations which are affected by the proposed works together with photographs of the interior roof detail where this is altered. Features of particular interest (e.g. obvious differences in wall makeup, windows and doors whether blocked up or not, fireplaces, timber framing) should also be fully photographed. If available a scale, of noted measurement, should be placed within any detailed shots but this is not essential.

A plan of the building is also required to record the direction in which each of the photographs has been taken. Architectural drawings can be used where available or a sketch plan can be produced. Location reference numbers on the plans should be copied onto the backs of the prints together with brief descriptive details of the location. If using a digital camera this information should be used to name the photographs.

A copy of the survey should be provided to Cambria Archaeology, The Shire Hall, Carmarthen Street, Llandeilo, Carmarthenshire, SA19 6HU either directly or via the Countryside Council for Wales Tir Gofal Project Officer.