

THE MEDIEVAL AND EARLY POST-MEDIEVAL WOOLLEN INDUSTRY IN DYFED: THREAT RELATED ASSESSMENT 2016 – INTERIM REPORT



PRN 4639 Tregwnt Woollen Factory, Pembrokeshire

Prepared by Dyfed Archaeological Trust
For Cadw



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SUMMARY

The aim of this project was to assess the potential for enhancing the schedule of ancient monuments with medieval or early post medieval sites associated with the woollen industry in Carmarthenshire, Ceredigion & Pembrokeshire (the 3 counties of the former area of Dyfed). This site type is currently under-represented on the schedule of ancient monuments in Dyfed. This project forms an element of the Cadw grant-aided medieval and early post-medieval threat related assessment project.

The woollen industry in Dyfed during the medieval and early post-medieval period was mainly an industry of dispersed homesteads producing rough cloth for a family's immediate needs, with excess sold at local markets. However, technical innovations in looms and the application of water power to the fulling process revolutionised methods and marked the transition of the industry from farm to factory. Initially a 'factory' meant a single building where carding, spinning or fulling machines were driven by water power but by the last quarter of the 19th century the factories in north Carmarthenshire and Ceredigion would rival in size and production those found in the north and midlands of England.

The larger, generally later 19th century and early 20th century woollen factories are reasonably well recorded on the Historic Environment Record (HER) and National Monument Record (NMR). These will not be neglected, and records will be created for unrecorded sites, but the project will concentrate on the smaller, generally earlier sites: small woollen mills, weavers' sheds and cottages, fulling mills, and water power systems.

Fulling or tucking is a step in woollen cloth making which involves the cleansing of cloth (particularly wool) to eliminate oils, dirt, and other impurities; making it thicker. The Welsh word for a fulling mill is 'pandy' and the spread of fulling mills may be obtained from the occurrence of this word in place-names.

The National Wool Museum is based at Felindre, Carmarthenshire. Museum staff was consulted during the project. This consultation highlighted a number of sites of probable medieval origin where little is known about their current condition that deserved further investigation and it is intended that these are visited in the second year of the project.

As the overall resource had not been identified it was proposed to run this project over two years. Year 1, undertaken 2015/16, comprised the desk-top element of the project and included visits to a selection of sites to establish the characteristics and survival rate of woollen industry sites and buildings. It was intended that the results of Year 1 would inform what work will be carried out in Year 2 during 2016/17.

*This interim report discusses the results of the work undertaken in Year 1 which saw an initial primary sorting exercise identify a list of **461** sites associated with the woollen industry in Dyfed that included **106** new records identified by documentary research. The majority of the records on the HER are very basic and have no description. Site visits were made to approximately 30 sites.*

The desk-based appraisal of modern and historical sources carried out during Year 1 revealed that many of the smaller woollen mills and factories have been converted into domestic dwellings, and so will only require a rapid site visit to ascertain their condition, thereby increasing the number of sites that can be visited in one day. Attention will be paid to recording in more detail those sites thought to be in ruins or suffering from neglect.

INTRODUCTION

Over the past 18 years many major categories of site in south-west Wales, including all prehistoric and Roman sites, have benefited from a threat related survey project. In 2009/10 a scoping study was undertaken of medieval and post medieval sites (pre 1750) that had not been subject to such a threat related assessment. Identified during this study was a group of 263 sites on the HER that represented the woollen industry in Dyfed.

The purpose of this project therefore was to use the HER, NMR and secondary sources to assess the potential for enhancing the schedule of ancient monuments for the woollen industry in Dyfed.

With sheep a mainstay of the Welsh agricultural economy; it is not surprising that a woollen industry developed across the whole of Wales in the medieval period.

The woollen industry in Dyfed during the medieval period was mainly an industry of dispersed homesteads producing rough cloth for a family's immediate needs with any excess sold at local markets. However, technical innovations in looms and the application of water power to the fulling process transformed methods. The availability of water to drive machinery and the ready supply of wool meant that numerous farmsteads across Wales in the medieval and early post-medieval period established within their bounds a small weaving shed or fulling mill. Fulling or tucking is a step in woollen cloth making which involves the cleansing of cloth (particularly wool) to eliminate oils, dirt, and other impurities; making it thicker.

Geraint Jenkins (1969) suggests '*...the introduction of the fulling mill marked the first stage in the transition of the woollen industry from homestead to factory. While carding, spinning and weaving continued to be domestic pursuits as in past centuries, cloth could now be finished under the hammers of a water-driven fulling mill*'.

The Welsh word for a fulling mill is 'pandy' and the spread of fulling mills is often suggested by the occurrence of this word in place-names.

During the 15th and early 16th century large quantities of rough woollen cloth or 'frieze' were exported to England and further abroad from Pembrokeshire and south Carmarthenshire. Carmarthen, and possibly other south Wales towns, had its own company of cloth workers. Despite this in the Welsh countryside the woollen industry in the main remained one of unorganised, independent homesteads, where the guilds had little influence over standards or techniques. Most Welsh cloth or 'frieze', at this time, was cheap, coarse and poorly made.

The early 17th century saw demise in the export of woollen cloth from Pembrokeshire and Carmarthenshire. Raw wool was still exported in quantities to areas where the production of cloth thrived such as north Wales and the west of England. Jenkins (1969) proposes that this demise may be due to the fact that coal not cloth had become the chief export from south Wales, '*Merchants came to the region to buy coal, raw wool and corn, leaving the rough cloth produced by the weavers of south Wales to find its own way out*'.

Whatever the cause it isn't until the late 19th and early 20th centuries that there is a reprise in the fortunes of the woollen industry in Dyfed, in the villages of the middle Teifi valley; Llandysul, Pentre-cwrt, Henllan, Drefach and Felindre in particular. For nearly half a century, following the introduction of power machinery, the area was the most important textile manufacturing region in the Wales; manufacturing flannel cloth a less coarse wool fabric than frieze.

Substantial factories built in the 20th century still stand, one of which now houses the National Museum of the Welsh Woollen Industry in Drefach Felindre, Carmarthenshire.

Historical sources for the study of the woollen industry in the region are fairly plentiful, and reflect the past importance of the industry in Wales' economy. However, these studies focus on economic and social history, and little attention has been paid to the physical remains of the industry.

AIMS AND OBJECTIVES

The main aim of this project is to use the HER, National Monument Record, secondary sources and field visits to assess the potential for enhancing the schedule of ancient monuments with medieval or early post-medieval sites associated with the woollen industry in Dyfed

The overall project's aims are:

- Assessment of the archaeological significance of sites associated with the woollen industry in Dyfed in both a regional and national perspective;
- Assessment of the vulnerability of this element of the archaeological resource, review of scheduling, and recommendations for future management strategies; and
- Enhancement of the regional HER and extended National Database.

The project's objectives are:

- To identify all sites associated with the woollen industry in Dyfed which require further assessment;
- To collate existing documentary evidence for the sites;
- To carry out a field assessment of those sites where necessary;
- To incorporate all the information into a database and enhance the Dyfed HER; and
- To advise Cadw on those sites which are of national value and currently without statutory protection.
- This project will be run over two years. The main objective of the first year was to complete the desk-top element of the project as well as undertaking a number of site visits to assess how site types survive on the ground. It is intended that the results of Year 1 would inform what work will be carried out in Year 2 during 2016/17.

METHODOLOGY

All possible early (pre 1750) sites associated with the woollen industry recorded on the Dyfed HER that had not been the subject of a previous threat-related assessment were identified and categorised by site type in a desk-based appraisal.

The later 19th century and early 20th century woollen factories were not neglected, and records were created for all unrecorded sites, but the project concentrated on the smaller, generally earlier, sites: small woollen mills, weavers' sheds and cottages, fulling mills, and water power systems.

The site types were then analysed in greater detail, providing an indication of total numbers, numbers of sites represented by earthworks, documents or place-names, and which sites are scheduled.

The desktop appraisal collated all the available information on each site as held in the Dyfed Archaeological Trust Historic Environment Record (HER). This included reference to the 1st and 2nd edition Ordnance Survey maps, tithe maps, SAM and Listed Building records, Ordnance Survey record cards and archived reports.

The records held by the Royal Commission for Historic Buildings and Monuments of Wales (RCAHMW) were consulted.

New records were created for any unrecorded site discovered during this research and these were entered onto the HER in a basic form, with the aim of completing them in more detail once site visits had been undertaken in the second year of the project.

A selection of site visits were undertaken to check the broad survival of sites on the ground with the aim of informing the methodology of carrying out field assessments in the following year.

Overall the two year project will result in a number of scheduling recommendations, a greatly enhanced HER and numerous one-to-one meetings with landowners.

RESULTS

HER records

- The scoping study undertaken in 2009/10 identified c.263 sites possibly associated with the woollen industry in Dyfed.
- After further interrogation of the Dyfed HER, historic maps and other ready sources of information the total number of woollen industry related sites numbered **461** (Figure 1). These included:

Woollen mill	125
Fulling mill	76
Mill	53
Woollen factory	49
Textile mill	2
Carding mill	2
Weavers cottage	93
Weavers workshop	15
Hosiers cottage	12
Tenter ground	2
Mill race	23
Leat	5
Sluice	1
Aqueduct	1
Forge	1
Water wheel	1

- A dossier was produced for each site recorded on the Dyfed HER containing all available information, including reference to the 1st and 2nd edition Ordnance Survey maps, tithe maps, SAM and Listed Building records, Ordnance Survey record cards, aerial photographs and archived reports.
- Though few in number, dossiers were also produced for woollen industry sites not recorded on the Dyfed HER but recorded by the RCAHMW.

New sites from historic mapping

- The 1st and 2nd edition Ordnance Survey maps of the 3 counties were interrogated to establish whether there were woollen industry sites not yet recorded on the Dyfed HER. This work resulted in the identification of **78** sites. These were new records and not duplications of current HER recorded sites.
- In total **106** new records have been created and they have now been entered onto the Dyfed HER, albeit in a basic form. Their descriptions will be updated in the second year of the project when site visits have been completed.
- Provisional attempts have been made to draw polygons around groups of related sites. The polygons will complement the single point records on the HER. It is envisaged that during 2016/17 many more polygons will be created and/or revised following further research and the results of site visits.

Scheduled sites and listed buildings

- There is only 1 woollen industry site that has been scheduled; albeit because of falling within the scheduled area of a late 17th century iron forge site. Llandyfan forge (PRN 8876, SAM CM223) was a late 17th century forge site sited on the west bank of the Afon Loughor; the remains of which were scheduled as a good surviving example of an early iron forge. In the early 19th century part of the site was superseded by a woollen mill (PRN 4864) and this falls within the scheduled area of the forge.
- At least 33 sites associated with the woollen industry are Grade II listed buildings, the majority of which are later 18th or early 19th century woollen mills or factories. Only one site is graded higher, that being Ceulan woollen mill (PRN 5194) in Talybont, Ceredigion, a Grade II* listed building (Cadw Ref 18885).

Consultation with the National Wool Museum Drefach Felindre

- Staff from the National Wool Museum in Drefach Felindre were consulted during the first year of this project. Mark Lucas, Curator: Woollen Industry, at the museum kindly gave access to a database of over 300 woollen mill sites in Dyfed, compiled at the museum from many sources over a number of years. Although there is some overlap with known sites on the HER, an initial examination of the database suggests there are a substantial number of sites not recorded on the HER. These sites have yet to be added to the HER and it is intended to carry out this work in the second year of the project.
- Consultation with the museum highlighted a number of sites of probable medieval origin where little is known about their current condition; including Llanrystud Pandy (pictured below) that deserved further investigation and it is intended that these are visited in the second year of the project.



Llanrystud Pandy (PRN 8718) - © National Wool Museum.

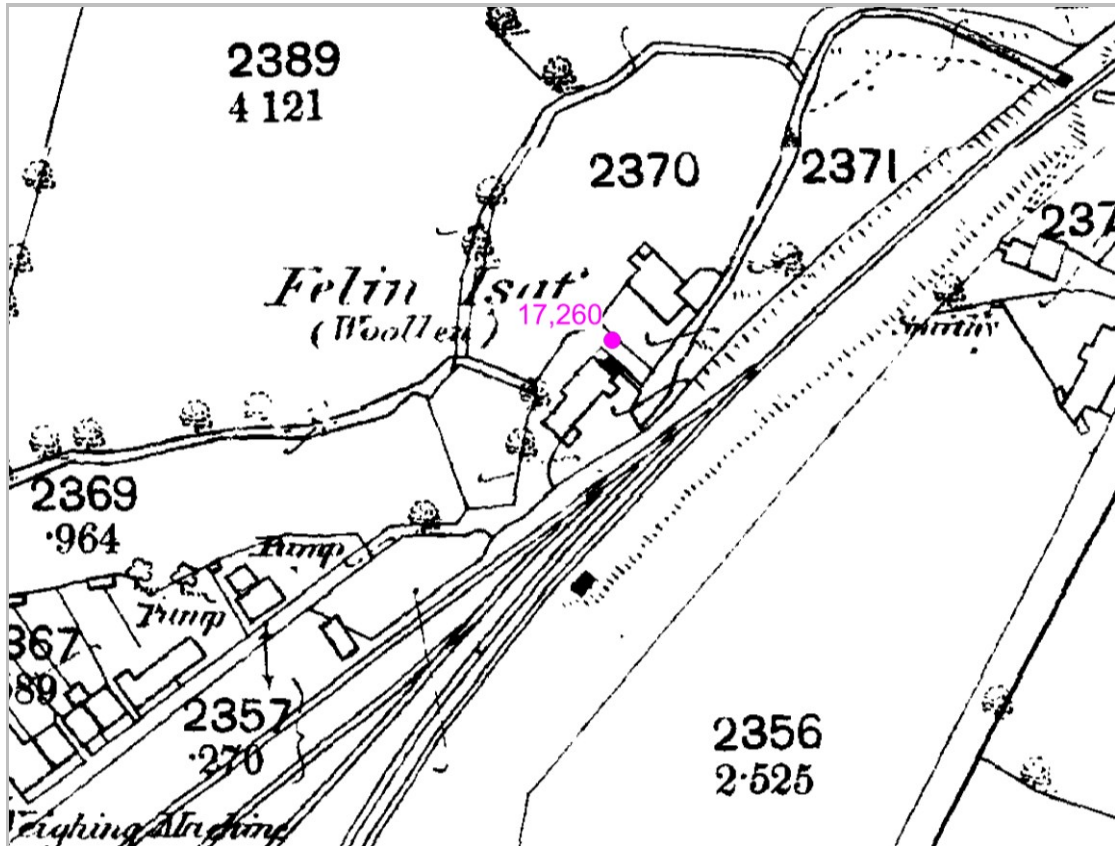
Site visits

- Approximately 30 sites were visited to establish the characteristics of the woollen industry sites on the ground and how well they survive.
- In general Year 1's desk-based appraisal and the sample of sites visited indicate that:
 - 1) A number of the sites had already been visited as part of a threat-related assessment. During their lives water powered mills changed use from fulling mill to corn mill or vice versa, sometimes changing use more than once. Consequently a number judged to have been corn mills have already been visited and assessed as part of the 'Medieval and Early Post-Medieval Mills - A Threat-Related Assessment 2012-14' (Ings 2014) and therefore do not require assessing in this project.
 - 2) Much of the evidence for medieval fulling mills comes from documentary evidence. Jack (1981) studied all known documentary sources for fulling mills in Wales and worked with Terry James of Dyfed Archaeological Trust to try and determine the locations of the sites in Dyfed; the majority of these sites having no standing remains. However, even this extensive study could only provide many of the sites with a somewhat vague and imprecise location. Unfortunately it is outside the remit of this project to try and establish the exact position of these former fulling mills and visiting the areas would not be productive. The report by Jack has been incorporated into the HER in a basic form but these records require enhancement and it is hoped to carry out this work in Year 2.
- Later 18th and early 19th century woollen 'factories' are often noted on the 1st and 2nd editions of Ordnance Survey 1:2500 maps. A factory simply meant a 'building where carding or spinning machines were driven by water power' (Jenkins 1969). These buildings appear to have survived quite well because their size lends them to conversion to private dwellings.



The former Ffrwd-wen woollen factory in Newcastle Emlyn (PRN 16030) now converted into private houses.

- The larger later 19th and 20th century woollen mills or factories have not fared so well and many of them have been demolished, although some have changed use to become amongst other things workshops and warehouses.



An extract from the Ordnance Survey 1st edition 1:2500 map published in 1889 showing Felin Isaf Woollen Mill (PRN 17260) that is now a building supplies warehouse shown in the picture below.



- The conversion of former woollen industry buildings into domestic dwellings, means that many only require a rapid site visit to ascertain their condition, thereby increasing the number of sites that can be visited in one day. Attention will be paid to recording in more detail those sites thought to be in ruins or suffering from neglect.



PRN 103431: Possible ruined woollen mill site near Thomas Chapel, Kilgetty, Pembrokeshire.



PRN 18613: Aberarth Woollen Mill and mill race falling into disrepair.

- A number of woollen mills or factories are still operational and producing woollen cloth. Melin Tregwynt (PRN 4639) in Pembrokeshire, pictured below, is at least 200 years old. A later 20th century mill that still operates is Middle Mill (PRN 4600), near Solva, Pembrokeshire. Built in 1907 the owners have recently restored the water wheel that once powered the looms (see picture below).



PRN 4639 – Tregwynt Woollen Factory, near Mathry, Pembrokeshire.



PRN 4600 – Middle Mill, near Solva, Pembrokeshire.

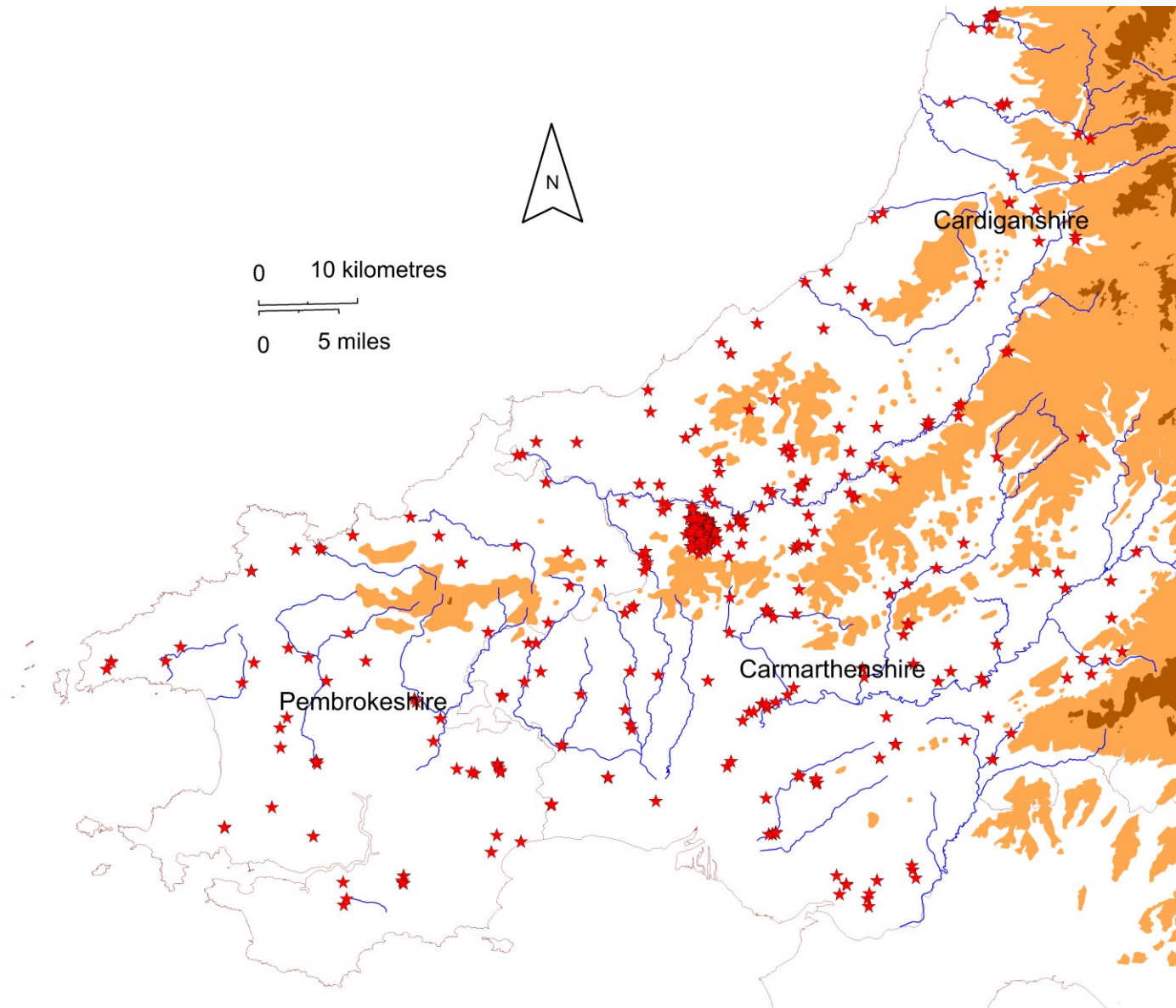


Figure 1: A map of Dyfed showing all sites associated with the woollen industry identified during Year 1 of the project.

SOURCES

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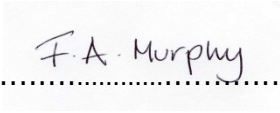
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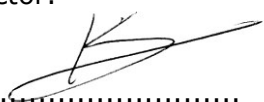
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Llofnod / Signature  Dyddiad / Date 31/03/2016

Yn unol â'n nôd i roddi gwasanaeth o ansawdd uchel, croesawn unrhyw sylwadau sydd
gennych ar gynnwys neu strwythur yr adroddiad hwn

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