

LEVEL 3 BUILDING RECORDING OF A FORMER BARN AT GETHLEY BARN, LLAN Y NANT FARM, TRELLECH GRANGE, NP16 6QN



Report by: Trysor

For: George and Angela Prichard

June 2021



LEVEL 3 BUILDING RECORDING OF A FORMER BARN AT GETHLEY BARN, LLAN Y NANT FARM, TRELLECH GRANGE, NP16 6QN

By

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Trysor

Trysor Project No. 2020/770
GGAT HER EVENT PRN : E009532

For: George and Angela Prichard

June 2021

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Cover photograph: The interior of the threshing barn, looking east-southeast.

**Level 3 Building Recording of a Former Barn at Gethley Barn,
Llan y Nant Farm, Trelleck Grange, Monmouthshire NP16 6QN**

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Paratowyd yr adroddiad hwn gan bartneriad Trysor. Mae wedi ei gael yn gywir ac yn derbyn ein sêl bendith.

This report was prepared by the Trysor partners. It has been checked and received our approval.

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***Croesawn unrhyw sylwadau ar gynnwys neu strwythur yr
adroddiad hwn.***

***We welcome any comments on the content or structure of this
report.***

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GGAT – Glamorgan-Gwent Archaeological Trust
CIfA – Chartered Institute for Archaeologists
HER – Historic Environment Record
NGR - National Grid Reference
PRN – Primary Reference Number
WSI – Written Scheme of Investigation

Event Record PRN – GGAT HER

PRN	E009532
Name	THRESHING BARN, GETHLEY BARN
Type	BUILDING RECORDING
NGR	SO4954702939
Easting	349954
Northing	202939
Summary (English)	In March 2021, Trysor undertook a Level 3 building recording of the former threshing barn at Gethley Barn, Llan y Nant Farm, Trelleck Grange, Monmouthshire, NP16 6QN at SO4954702939. This survey was undertaken for the client, in advance of the submission of a planning application the conversion of the now derelict building, into a dwelling. © Trysor 2021
Summary (Cymraeg)	Ym Mawrth 2021, cariwyd allan arolwg adeilad Lefel 3 ar gyn-ysgubor dyrnu Gethley Barn, ar fferm Llan y Nant, Ystad Trellech, Sir Fynwy NP16 6QN (SO4954702939). Gwnaed yr arolwg ar gais y perchennog wrth baratoi cais cynllunio i droi'r ysgubor adfeiledig yn dy annedd. © Trysor 2021
Description	In March 2021, Trysor undertook a level 3 building recording of the former threshing barn at Gethley Barn, Llan y Nant Farm, Trelleck Grange, Monmouthshire, NP16 6QN at SO4954702939. This survey was undertaken for the client, in advance of the submission of a planning application the conversion of the now derelict building, into a dwelling. © Trysor 2021
Sources	Trysor, 2021, Level 3 Building Recording of a Former Barn at Gethley Barn, Llan y Nant Farm, Trelleck Grange, Monmouthshire NP16 6QN
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Historic Asset PRN – GGAT HER

PRN	12514g
Name	THRESHING BARN, GETHLEY BARN
Type	THRESHING BARN
Broadclass	AGRICULTURE AND SUBSISTENCE
NGR	SO4953402946
Easting	349534
Northing	202946
Summary (English)	<p>A former threshing barn at Gethley Barn, which was recorded in 2021 and found to be partially reconstructed but otherwise derelict. It measured 18.7 metres in length, west-northwest to east-southeast by 7.2 metres wide. As is typical of threshing barns of the post-medieval period, it has large, opposed doorways in the lateral walls and ventilation holes through the lateral and gable walls.</p> <p>Mortar samples taken by Martin Locock in 2021 indicate that the barn was built during the 18th century. A building is shown here on an estate plan of the Duke of Beaufort's lands in Trelleck Grange dating to 1765 which suggest that the building may date to the earlier 18th century.</p> <p>The barn was damaged by a German bombing raid during the Second World War. It was repaired but the theft of the barn's slate roof in the late 20th century led to the building falling into dereliction. © Trysor 2021</p>
Summary (Cymraeg)	<p>Gyn-ysgubor dyrnu yn Gethley Barn a gofnodwyd yn 2021, pan oedd mewn cyflwr adfeiliedig, er wedi cael ei ail-adeiladu'n rhannol. Mesuriadau'r adeilad oedd 18.7 metr o hyd, gorllewin gogledd-orllewin i ddwyrain de-ddwyrain, wrth 7.2 metr o led. Fel sy'n nodweddiadol o ysguboriau dyrnu o'r cyfnod ôl-ganoloesol, adeilad cerrig ydyw, gyda thyllau aer trwy'r muriau a drysau mawr cyferbyniol yn y ddwy ochr.</p> <p>Cymerwyd siamplau mortar yn 2021 a dengys y rhain bod yr adeilad yn dyddio i hanner cyntaf y 18fed ganrif. Mae adeilad yn ymddangos yma ar fap ystâd o diroedd Dug Beaufort ym Maenor Trellech, sy'n dyddio i 1765.</p> <p>Difrodwyd yr ysgubor hon gan fom Almaeneg yn ystod yr Ail Ryfel Byd. Fe 'i hatgyweiriwyd yn syth, ond pan gafodd to llechi'r adeilad ei dwyn tua diwedd y 20fed ganrif,</p>

	dirwyodd yr adeilad yn sylweddol. © Trysor 2021
Description	<p>The former threshing barn at Gethley Barn, when recorded in 2021, was a partially reconstructed but otherwise derelict stone-built structure, which measured 18.7 metres in length, west-northwest to east-southeast by 7.2 metres wide. As is typical of threshing barns of the post-medieval period, it has large, opposed doorways in the lateral walls and a number of ventilation holes through the lateral and gable walls.</p> <p>The barn stands within a small enclosure at the northern end of a farm lane which connects it to Llan y Nant Farm, some 900 metres to the southwest. There were previously three buildings here, including the threshing barn and two other barns or storage buildings, which are both in poor condition. These stood 15 metres to the north of the threshing barn and were arranged in an L-shaped plan.</p> <p>The origins of the buildings at Gethley Barn are obscure. Mortar samples taken by Martin Locock in 2021 indicate that they were all built during the 18th century, perhaps as a single development. Mortar taken from a surviving section of the wall which enclosed the group produced a similar date. Buildings are shown here on a stylised estate plan of 1765, when the buildings were already used in conjunction with Llan y Nant Farm, which was one of a small number of farms which developed within the bounds of Tintern Abbey's historic Trellech Grange in post-medieval times. The close relationship with Llan y Nant is perhaps reflected in the architecture of the building, which has a series of square ventilation holes in each of the original walls, comparable to those of another 18th century threshing barn on the farmyard of Llan y Nant itself (PRN 12511g). The buildings may have been erected during the same period by the same masons.</p> <p>From 1682 until the mid-19th century, it was held by the Duke of Beaufort as part of his extensive holdings in the area, which included Trelleck Grange. Gethley Barn was in use into the 20th century but was damaged by a German bombing raid during the Second World War, which led to the replacement of its western gable end wall. In the late 20th century the theft of the barn's slate roof led to the</p>

	building falling into dereliction. The western end of the building was thereafter reconstructed using the original stones to prevent the loss of the building. © Trysor 2021
Sources	Trysor, 2021, Level 3 Building Recording of a Former Barn at Llan Y Nant, Llanishen, Trelleck Grange, Monmouthshire NP16 6QN
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Contents

1. Summary	1
2. Copyright	1
3. Introduction	2
4. The Development	3
5. Proposed Planning Application	3
6. Methodology	3
7. Historical Overview	6
8. Description of Building	11
9. Phasing	15
10. Discussion	20
11. Photographs	21
12. Archive	21
13. Sources	21
Appendix A: Photographs	24
Appendix B: Mortar Report – M Locock	65

1. Summary

1.1 In March 2021, Trysor undertook a Level 3 building recording of a derelict barn called Gethley Barn, on Llan y Nant Farm, Trellech Grange, Monmouthshire, NP16 6QQ at SO4954002942. This survey was undertaken for the client, in advance of the development of proposals to convert the building.

1.2 The main building, and subject of the proposed development at Gethley Barn, is a former threshing barn, which stands some 900 metres to the north-northeast of the farmyard of Llan y Nant Farm. Originally it stood within a purpose built, contemporary courtyard alongside two storage barns. These stone, rubble-built buildings were connected to the Llan y Nant farmyard by a long farm lane. The former threshing barn was damaged by a bombing raid during the Second World War which is said to have demolished the western gable wall of the building. The wall was replaced but the theft of the roof slates in the 1990s led to the collapse of the western end of the building. The walls were subsequently reconstructed using the original stones of the building, but the structure has remained roofless.

1.3 Gethley Barn is named and shown on an estate map of 1765, when it was owned by the Duke of Beaufort. It is shown in more detail on Ordnance Survey maps of the 19th and 20th centuries. Mortar samples taken from the building for Trysor indicate that the barn, the associated storage barns and the courtyard wall which enclosed the group all date to the first half of the 18th century. The buildings may well have been built as a single development for the Beaufort estate.

1.4 The construction of Gethley Barn is very similar to a former barn on Llan y Nant farmyard (Trysor, 2021). The gable walls are inserted between the lateral walls and the ventilation holes are more or less square.

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3. Introduction

3.1 George and Angela Prichard of Llan y Nant, Llanishen, Trellech Grange, NP16 6QN, commissioned Trysor heritage consultants to undertake a Level 3 Building Recording on a former barn called Gethley Barn on the holding of Llan y Nant, Llanishen, Trellech Grange, NP16 6QN.

3.2 In 2020 Trysor produced a written scheme of investigation for an Historic England Level 3 building record for another threshing barn on the holding, see Appendix C. This was approved by the Glamorgan-Gwent Archaeological Trust and the following guidance was used:

- Chartered Institute for Archaeologists (CIfA), 2014, *Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures*
- Chartered Institute for Archaeologists (CIfA), 2014, *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives*
- Historic England, 2016 *Understanding Historic Buildings: A guide to good recording practice*
- National Panel for Archaeological Archives in Wales (NPAAW), 2017, *The National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales 2017*
- Welsh Archaeological Trusts (WAT), 2018, *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)*

3.3 This former WSI was used to inform the method for the Level 3 building recording of Gethley Barn.

3.4 The project has been identified as 2021/770 in Trysor records and given a site code GTH2021. The regional HER PRN for the Building recording Event is E009532 and the building itself has been allocated HER PRN 12514g.

4. The Development

4.1 The development is at SO4954002942, to the north-northeast of Llan y Nant Farm, 1.7 kilometres to the east-southeast of Llanishen, Trellech, see Figure 1.

4.2 The proposed development consists of the conversion of a former threshing barn into a dwelling with associated infrastructure.

5. Proposed Planning Application

5.1 This Level 3 building recording has been undertaken in anticipation of a planning application to be submitted to Monmouthshire County Council in due course.

6. Methodology

6.1 On March 1st, 2021, Trysor visited Gethley Barn and photographed the interior and exterior of the barn, took measurements and mortar samples.

6.2 A Level 3 record of the building was made to record its interior and exterior features. Historic England's *Understanding Historic Buildings: A guide to good recording practice* was used for guidance. This defines a Level 2 record as;

".... an analytical record, and will comprise an introductory description followed by a systematic account of the building's origins, development and use. The record will include an account of the evidence on which the analysis has been based, allowing the validity of the record to be re-examined in detail. It will also include all drawn and photographic records that may be required to illustrate the building's appearance and structure and to support an historical analysis."

"The information contained in the record will for the most part have been obtained through an examination of the building itself. The documentary sources used are likely to be those which are most readily accessible, such as historic Ordnance Survey maps, trade directories and other published sources. The record may contain some discussion the building's broader stylistic or historical context and importance. It may form part of a wider survey of a number of buildings which will aim at an overall synthesis, such as a thematic or regional publication, when the use of additional source material may be necessary as well as a broader historical and architectural discussion of the buildings as a group. A Level 3 record may also be appropriate when the fabric of a building is under threat, but time or resources are insufficient to allow for detailed documentary research, or where the scope for such research is limited."

Historic England, 2016, p.26, 5.31 and 5.32

*Level 3 Building Recording of a Former Barn at
Gethley Barn, Llan y Nant Farm, Trellech Grange, NP16 6QN*



Figure 1: Location of Gethley Barn at Llan y Nant Farm, Trellech Grange.



Figure 2: Detail of the buildings located at Gethley Barn.

7. Historical Overview

7.1 The now derelict building group at Gethley Barn, Llan y Nant Farm stands circa 900 metres to the north-northeast of the farmyard, to which it is connected by a farm lane. The buildings here are not recorded as historic assets in the regional Historic Environment Record (HER) or the National Monuments Record (NMR) and are not listed buildings.

7.2 The origins of Gethley Barn are rather obscure. During the 18th century it was part of the Duke of Beaufort's extensive estates in the area covering the neighbouring parishes of Trellech Grange, Trellech and Llandogo parishes.

7.3 The documentary and map evidence show that Gethley Barn has been associated with Llan y Nant Farm since the 18th century. Llan y Nant was one of a small number of farms which developed within the bounds of Tintern Abbey's historic Trellech Grange in post-medieval times. The grange was carved out of the Manor of Trellech in the 12th century, granted to the abbey as an estate by Gilbert de Clare, then Earl of Pembroke. It served as one of several granges which supplied food and necessities to the abbey throughout the medieval period. It had its own grange chapel as well as a corn mill, fishponds and farms. At present there is no evidence to suggest that Llan y Nant or Gethley Barn themselves were founded during the medieval period, however.

7.4 Following the dissolution of the monasteries and abbeys during the reign of Henry VIII in the 1530s, the granges of Tintern were passed into private hands. The Somerset family took control of Trellech Grange. Their principal residence was at Raglan Castle and it was there that Henry Somerset was born in 1629. Known as Lord Herbert, he acquired the Badminton Estate in Gloucestershire in 1663, which later became the principal residence of the family. In 1682 Lord Herbert was given the title of Duke of Beaufort by Charles II. For almost two centuries Trellech Grange formed part of the Beaufort estate, with the grange eventually being sold to Charles Henry Crompton-Roberts (1832-1891) of Drybridge House, Monmouth. His eldest son, Lt Col Crompton-Roberts sold the family properties in 1919 and the estate was effectively broken up at this time.

7.5 The first records of Gethley Barn appear during the time the estate was held by the Duke of Beaufort. The precise origins of the buildings of Gethley Barn are not known, but the earliest record of the complex dates to 1765, when the Duke of Beaufort's property in the area was recorded on a detailed estate map and apportionment (see Figure 3). This shows that one William Roberts rented 223 acres of land comprising the holdings of *Lananant & Gethley* from the Duke of Beaufort. This holding included the parcels numbered as 26, 27 and 28 on the estate map and

described respectively on the apportionment as *Gethley Meadow, Barn Fold etc* and *Carscibor* (Cae'r Ysgubor or Barn field). The estate map shows that there were three buildings within parcel 27, which, when considered with other evidence, are probably the barns which are currently found at the site. The largest of these is a threshing barn, which is accompanied by two other two buildings, a derelict, open-sided storage barn and a northern barn which is now wholly ruinous. There is no evidence to suggest that any of these buildings were dwellings.

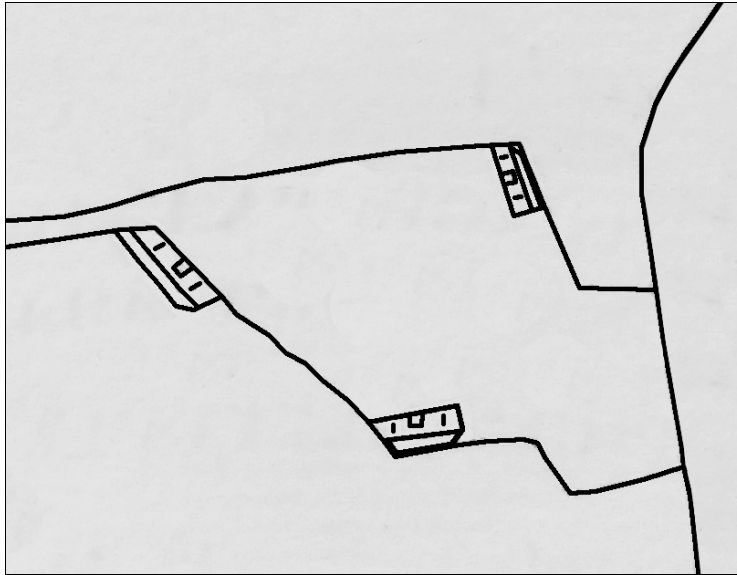


Figure 3: A tracing of Gethley Barn as shown on the 1765 Beaufort estate map. Three buildings are depicted, all of which were barns or store buildings. The map depicts houses as having chimneys and none of these buildings have chimneys. The layout shown on this map is not thought likely to reflect the true layout of the buildings at the time, but is an attempt to show that three buildings were present.

7.6 The Ordnance Survey's Original Surveyors' Drawings of 1812 shows two buildings at Gethley Barn, but the site is not named on the map (see Figure 4). It is probable that the L-shaped arrangement of two connected barns to the north of the threshing barn is represented as a single building on this map.

7.7 The Ordnance Survey's 1:63360 scale First Series map of 1830 names Gethley Barn and shows it to be linked to Llan y Nant by a lane (see Figure 4). In other respects it is similar to the 1812 Ordnance Survey representation of the buildings here.

7.7.1 This map does not show the cottage known as Gethley which stands less than 150 metres to the north-northeast of Gethley Barn. Gethley cottage does not appear on the 1840 Trellech parish tithe map and appears not to have been established until the middle of the 19th century. Gethley Barn does not take its name from Gethley cottage, therefore.

Level 3 Building Recording of a Former Barn at
Gethley Barn, Llan y Nant Farm, Trellech Grange, NP16 6QN



Figure 4: The Ordnance Survey's Original Surveyors Drawings of 1812 shows Gethley Barn (ringed in red) to the north of Llan y Nant. At least two buildings can be seen at the location at that time but the accuracy of the depiction is questionable.



Figure 5: The Ordnance Survey's 1:63360 map of 1830 (Sheet 35) shows and names Gethley Barn (ringed in red), with two buildings shown at the location.

7.8 Unlike most parishes which were surveyed and mapped in the mid-19th century as part of the ecclesiastical tithe survey, no survey was undertaken for Trellech Grange as the chapelry was wholly owned by the Duke of Beaufort and exempt from tithe payments to the church. No tithe map or apportionment therefore exists for the area.

7.9 The 1st edition 1:2500 scale Ordnance Survey 1st edition map of 1881 provides a first detailed view of the layout of buildings at Gethley Barn (see Figure 6). This map shows that the threshing barn was one of three buildings at the location, with the open-sided storage barn and northern barn also in place. By the time of the 1921 3rd edition of the 1:2500

Level 3 Building Recording of a Former Barn at
Gethley Barn, Llan y Nant Farm, Trellech Grange, NP16 6QN

map only the barn and one other building, the open-sided storage barn survived here (see Figure 7).

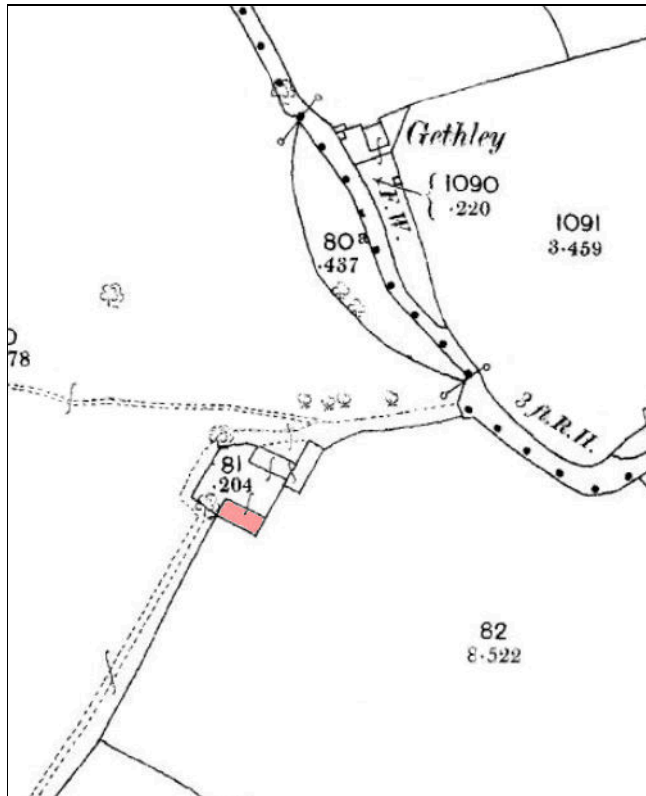


Figure 6: The 1881 Ordnance Survey map, 1:2500 scale shows Gethley Barn, shaded in red, one of three buildings at the location.

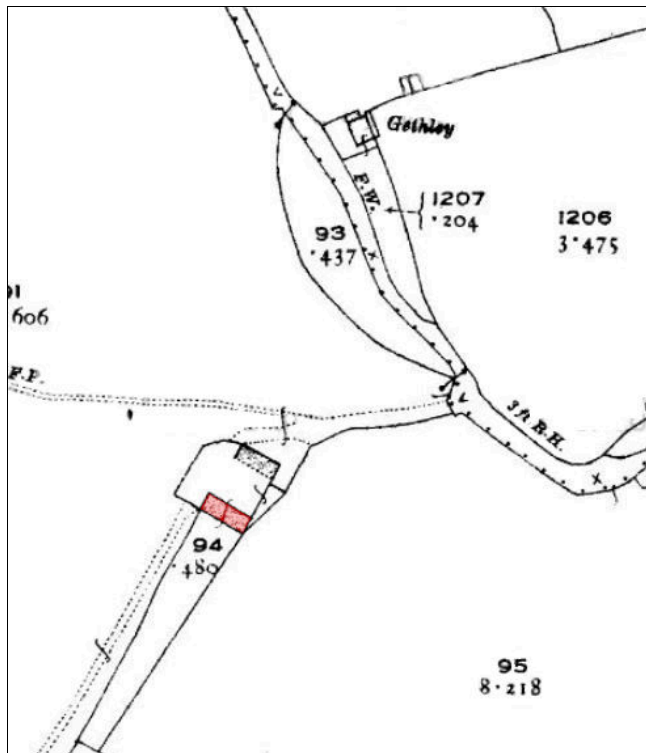


Figure 7: The 1921 Ordnance Survey map, 1:2500 scale shows Gethley Barn, shaded in red, now one of two buildings at the location, which corresponds to the present layout at the site. The northeastern building has clearly been lost by this stage. Note that the northern of the buildings is depicted as being open on its southern side, as at present. It may well have served as an open sided hay barn in the past.

7.10 The present owner provided information that the barn was damaged during the Second World War, when it was hit by a German bomb and the western gable wall was “destroyed”. This incident is mentioned in the parish history (Burton, Heath & Williams, 2001, p.45). The 1946 RAF aerial photograph shows that the barn was still roofed at that time, which suggests repairs were rapidly undertaken. The owner recalls that the damaged western end was rebuilt with concrete blocks during the 1960s, but this wall also decayed. The building remained in use into the late 20th century but in the 1990s the slate roof had been stolen, leaving the walls unprotected and susceptible to further deterioration. Following this the mid-20th century concrete block walling has been replaced by stone walling which is more sympathetic to the original structure and sits on the original footprint of the barn. The building remains roofless in 2021.



Figure 8: The 1946 RAF aerial photograph with the location of two of the bomb craters identifiable from a series of five created during a Second World War bombing raid. A third was made to the south and another two were reported as being closer to Gethley cottage to the north. (Welsh Aerial Photography Unit, 1946, 4650 RAFCPEUK1828 3301).

8. Description of the Building

8.1 Gethley Barn stands within a small enclosure at the northern end of a farm lane which connects it to Llan y Nant Farm, some 900 metres to the southwest. The lane continues for some 90 metres to the northeast to connect to a minor rural road which runs between the village of Trelleck to the north and the small hamlet of Parkhouse to the northeast.

8.2 There were previously three buildings here, as can be seen in Figure 5. These consisted of a threshing barn to the south and two adjoining buildings, which were arranged in an L-shaped plan and stood 15 metres to the north of the threshing barn. It should be noted that the 1765 estate map shows that there were three buildings here in the 18th century, although the actual arrangement of buildings shown on this estate map appears to be highly stylised and probably not reflective of the true layout at that time.

8.2.1 The L-shaped building range to the north of the threshing barn consists of two adjoining barns or storage buildings. Only ruinous fragments of the northern barn now remain. The southern part of the range survives as a rather derelict open-sided storage shed, with a modern corrugated cement sheet roof supported by steel girders and a surviving part of the northern lateral wall and eastern gable wall of the original building (Plates 12-16, 18 & 19, 24 & 25).

8.3 The main barn or threshing barn is the largest and the best preserved of the structures at Gethley Barn, despite damage caused by a Second World War bomb and later decay. The barn is stone built and measures approximately 18.70 metres in length, west-northwest to east-southeast, by 7.10 metres wide. The rubble-built walls are up to 0.70 metres thick and built with red and grey local sandstones, with some blocks of quartz conglomerate, typical of the Devonian Brownstone Formation rocks of southern Wales. The walls stand up to 4 metres in height and it is revetted into the slope at its eastern end. There are no internal divisions within the barn, either vertically or horizontally (Plates 1-5, 26 & 27, 37, 46, 50-52, 62).

8.3.1 The most significant architectural details are a pair of large, opposed doorways slightly offset to the east of centre in the north and south lateral walls (Plates 3, 27, 28 & 30) and a series of small, square ventilation holes, seen in the surviving sections of the original lateral walls and in the eastern gable wall (Plates 2-4, 21-22, 29, 34, 36-40, 42-43, 45). These details suggest that this was originally a threshing barn, which would make it likely that the adjacent buildings to the north were used to store grain threshed in the barn.

8.3.2 There is presently no roof on the building. At least one roof beam from the barn is currently stored in the neighbouring storage shed (Plate 14).

8.3.3 There is no evidence that the floor of the threshing barn survives, although evidence of the original flooring or earlier structures may be buried beneath the present ground surface.

8.3.4 The threshing barn stands on a levelled terrace, with the lower part of its eastern gable wall revetted into the slope. This wall has a central window in the upper part of the gable (Plates 4 & 37). A wooden lintel and stone cill remain in place in this window. This wall also has three pairs of square ventilation holes above external ground level and two similar apertures of unknown purpose in the lower part of the wall, below external ground level. The bottom of the window is over 3 metres above the present internal floor level. Two mortar samples were taken from the eastern gable. D was of the core mortar (Plate 57) and E was of the pointing (Plate 56). Both are likely to be of 18th century date and the pointing closer to the construction date than later in 19th or 20th century.

8.3.5 The southern wall of the threshing barn has a large doorway to the east of centre, which measures 2.72 metres wide and rises to wall plate level (Plate 3). This doorway faces an opposing doorway in the northern side of the barn. No doorframe or associated fixings survive.

8.3.6 The eastern door reveal has been repaired in modern times, but undoubtedly corresponds to the position of the original door frame as it matches the position of the opposing door reveal in the northern wall. The rest of the wall to the east of the doorway is original but repointed in modern times. A window had been inserted towards the eastern end removing two ventilation holes, leaving six ventilation holes in this section of wall. A mortar sample, G (Plate 59), from the core of the wall taken from within a ventilation hole is likely to be of 18th century date.

8.3.7 The first section of wall to the west of this southern doorway, including the door reveal, is original but repointed in modern times (Plate 45). It includes seven ventilation holes (Plate 43). There are no ventilation holes in the western end of the wall as that section of walling has been rebuilt in modern times (Plate 47). A mortar sample, F (Plate 58), from the core of the wall taken from within a ventilation hole is likely to be of 18th century date.

8.3.8 The western gable wall of the threshing barn has been completely rebuilt in roughly coursed stone since the 1990s. Previously, this wall was a breeze-block replacement of the gable wall damaged by bombing

during the Second World War. This modern wall has a central door at ground level with a window light above (Plates 23, 26, 46, 48-49 & 52).

8.3.9 The portion of the northern lateral wall to the west of the wide doorway is also of post-1990s date and of similar fabric to the western gable wall (Plate 42). To the east of the doorway the original door reveal and wall fabric survive (Plate 45). There are nine ventilation holes through this wall, arranged in three groups of three in lower, central and upper positions on the wall (Plate 43). Two mortar samples were taken from the eastern gable. B was of the core mortar (Plate 55) and C was of the pointing (no Plate). Both are likely to be of 18th century date and the pointing closer to the construction date than later in 19th or 20th century.

8.3.10 There are structural similarities between the threshing barn at Gethley Barn and another threshing barn on the farmyard at Llan y Nant, which suggest that they were built around the same time and quite possibly by the same masons. The similarities include the use of small, square ventilation holes in each wall (e.g. Plate 36) and also the technique of inserting the gable walls between the lateral walls, creating obvious straight joints in the internal corners of the buildings (Plates 38 & 39).

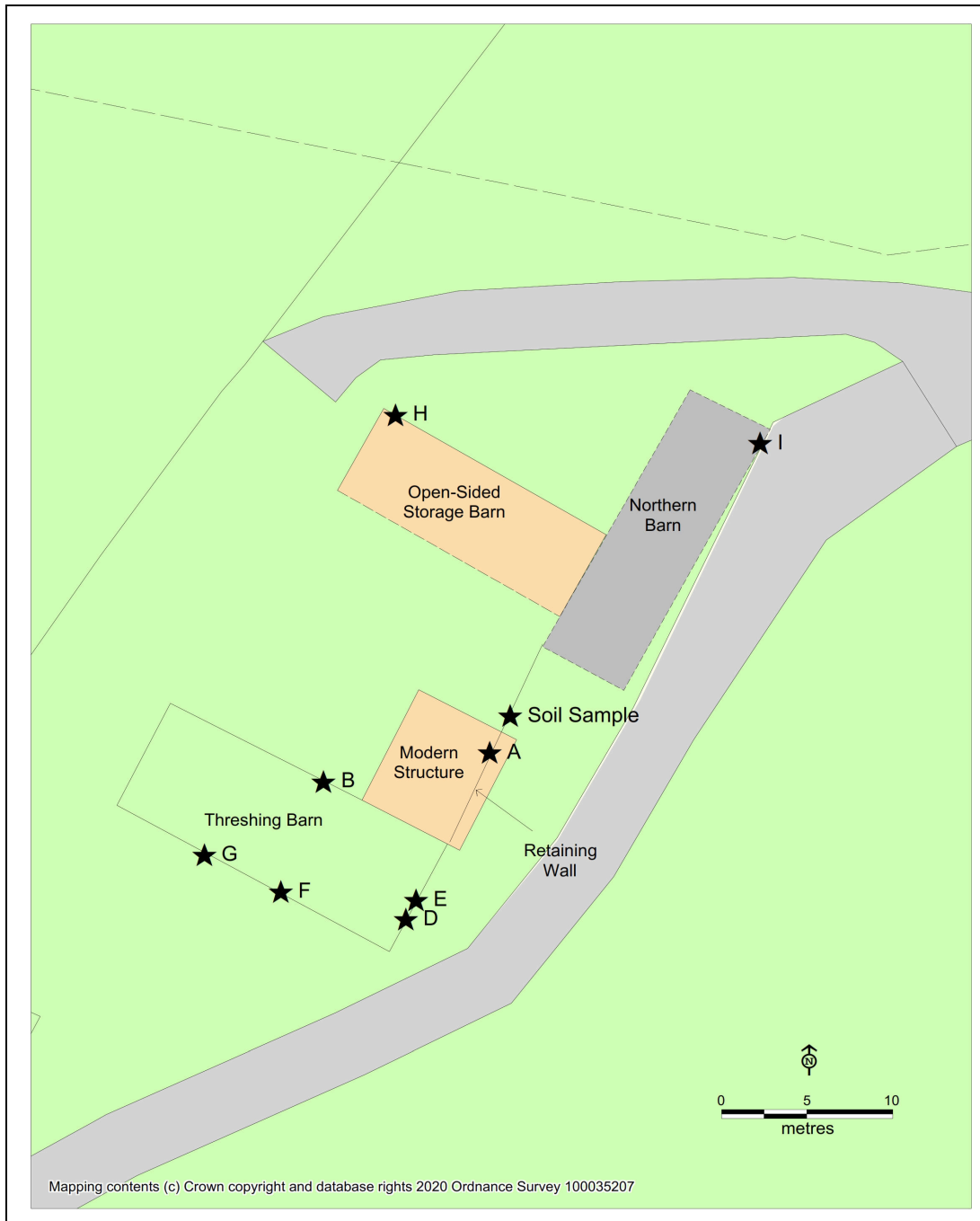


Figure 9: Plan of Gethley Barn complex showing the locations of mortar and soil sample points, details in Appendix B.

9. Phasing

9.1 The examination of the threshing barn showed three main phases of development (see Figures 10-13).

9.2 The earliest parts of the building are the surviving sections of walling which relate to the original threshing barn. Mortar samples taken at the time of the site visit indicate that the building was constructed during the 18th century, see Appendix B. It is likely therefore that this building is one of those represented at Gethley Barn on the 1765 Beaufort estate map.

9.3 The second identifiable phase of development occurred after the threshing barn was damaged during a bombing raid during the Second World War. The blast destroyed or severely damaged the western end of the building. Post-war aerial photographs show that the building was still roofed in 1946, but do not show the condition of the stone walls at the western end of the building (Welsh Aerial Photography Unit, 1946, 4650 RAFCPEUK1828 3301).

9.4 A photograph in the possession of the owner, which has been seen by Trysor but is not reproduced here, shows that by the later 20th century the western gable wall and the western ends of the lateral walls had been replaced with breeze block walling, none of which survives today.

9.5 After the roof slates were stolen from the threshing barn the roof timbers and walls of the barn deteriorated. The roof timbers were removed and worst affected parts of the walls at the western end of the barn were replaced with the present walls, built with the stones from the original structure. This represents the third phase of development at the threshing barn. Some repairs and modifications were also made elsewhere, such as the reconstruction of the eastern door reveal of the doorway in the southern lateral wall and the insertion of a new window at the eastern end of the same wall.

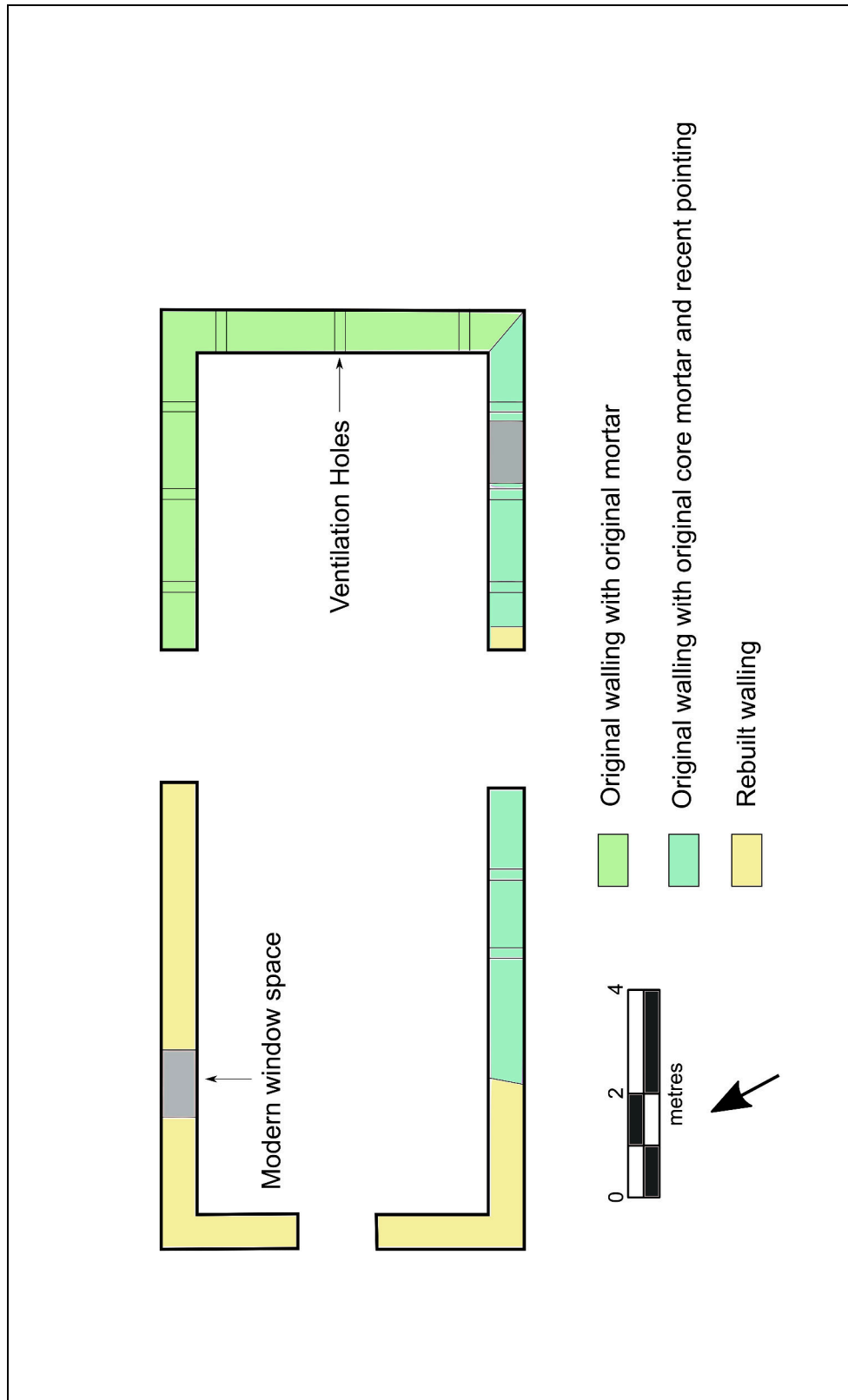


Figure 10: Plan of the Gethley Barn threshing barn, showing development phases.



Figure 11: Northern elevation of the
Gethley Barn threshing barn



Figure 12: Southern elevation of the
Gethley Barn threshing barn

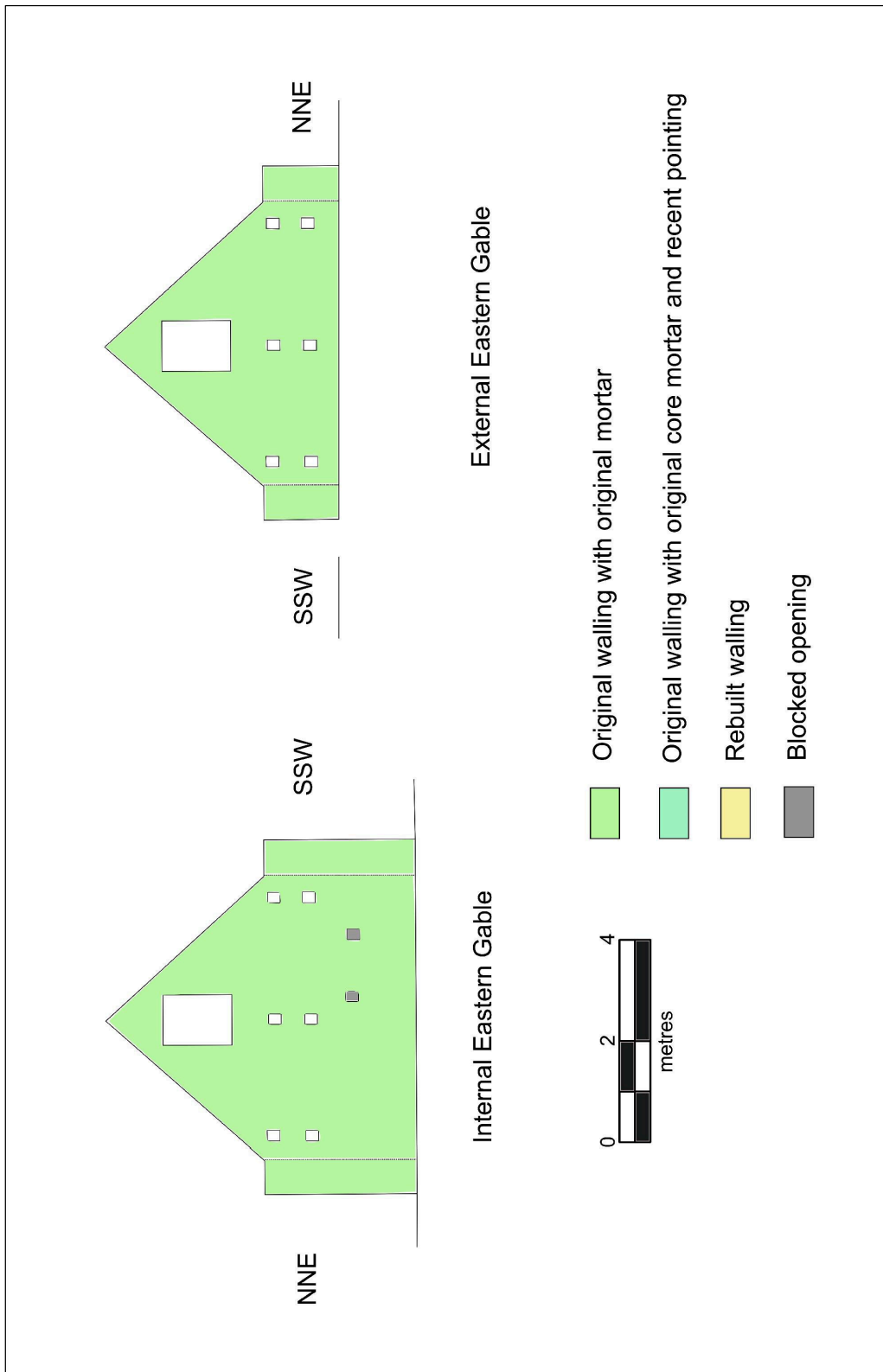


Figure 13: Internal and external elevations of the eastern gable wall of the Gethley Barn threshing barn

10. Discussion

10.1 The former threshing barn at Gethley Barn has provided mortar samples typical of the early 18th century. Both of the associated barns to the north as well as the remains of a stone courtyard boundary revetment wall associated with the group have provided mortar of similar type, which suggest that the whole group was built as a single development, probably during in the 18th century. If the threshing barn is one of the buildings on the 1765 estate map this would place it in the earlier part of the 18th century.

10.2 It is perhaps significant that the Duke of Beaufort acquired the Manor of Trellech Grange c.1682. Gethley Barn fell within the bounds of the manor, as did Llan y Nant Farm. The development may therefore symbolise the influence of the estate early during its period of ownership and an attempt to modernise and expand agrarian activity within Trellech Grange.

10.2.1 There are structural similarities between the threshing barn at Gethley Barn and another on the farmyard at Llan y Nant, which suggest that they were built around the same time and quite possibly by the same masons (Trysor, 2021). The similarities include the use of small, square ventilation holes in each wall, similar mortar and also the apparent technique of inserting the gable walls between the lateral walls, creating obvious straight joints in the internal corners of the buildings. The fact that Llan y Nant and Gethley Barn were farmed as a joint holding by the time of the 1765 survey of the Duke of Beaufort's lands in Trellech Grange is perhaps significant.

10.2.2 Eurwyn Wiliam, in *The Historical Farm Buildings of Wales*, states that the vast majority of surviving barns in Wales are post-1800 in date (Wiliam, 1986, 147 & 149), reflecting an increase in the cultivation in the country during this period. Barns in the 17th and 18th centuries were used to store the main crops of the period, oat, wheat and barley, with wheat being predominant in Monmouthshire during the 18th century (p.148).

10.3 A Statement of Significance: In view of the historical link with the estates of the Duke of Beaufort and the mortar samples of early 18th century type recorded at Gethley Barn, the threshing barn and its associated structures should be considered to be of historic interest. The threshing barn and its associated structures are of **Local Importance**, but they have an association with an estate of high regional significance in view of the links between the Beaufort estate and important heritage themes and sites within the county of Monmouthshire and beyond. The retention of the standing buildings at Gethley Barn as a landscape feature of historic significance is desirable from an historic environment perspective.

11. Photographs

11.1 Colour digital photographs were taken inside and outside the building complex using a 16M pixel camera. A 1-metre scale divided into 0.5 metre segments was used.

11.2 The photographs are included in Appendix A at the end of the report. A table describes the content of each photograph included in the project archive and where each was taken from and the directions of the photographs are provided in two maps, see Figures 14 and 15. The photographs were taken by Jenny Hall on 1st March 2021.

12. Archive

12.1 The archive and a copy of the report and photographs will be deposited with the National Monuments Record, Aberystwyth. Photographs are in TIFF format, following the standard required by the RCAHMW.

12.2 A further pdf copy of the report and photographic archive will be supplied to the Historic Environment Record at the Glamorgan Gwent Archaeological Trust, Swansea.

13. Sources

13.1 Non-published

NPAAW, 2017, *The National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales 2017*

RCAHMW, 2015, *RCAHMW guidelines for Digital Archives*, Version 1

Trysor, 2020, *Written Scheme of Investigation for Level 3 Building Recording of a Former Barn at Llan y Nant, Llanishen, Trellech, NP16 6QN Planning Application: DM/2019/00998 (Monmouthshire)*

Trysor, 2021, *Level 3 Building Recording of a Former Barn at Llan y Nant, Llanishen, Trellech, NP16 6QN Planning Application: DM/2019/00998 (Monmouthshire)*

WAT, 2018, *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)*

13.2 Published

CIfA, 2020a, *Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures*

Chartered Institute for Archaeologists, 2020b, *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives*, available online from the CIfA website, www.archaeologists.net

Historic England, 2016, *Understanding Historic Buildings: A Guide to Good Recording Practice*

Williams, Euryr, 1986, *The Historical Farm Buildings of Wales*

13.3 Web based materials

Historic Wales, <http://historicwales.gov.uk/>

Google Earth, 2004 to 2020, accessed through Google Earth 10/10/2020

13.4 Cartographic Sources

Cook, S., 1765, *Plan of His Grace the Duke of Beaufort's Estates in the Manor and Parish of Trelleg Grange & Parishes of Trelleg & Llandigo in the County of Monmouth*. National Library of Wales

Burton, A.M., Heath, D. & Williams, D. H., 2001, *The Story of Trellech Grange*.

Ordnance Survey, 1812, *Original Surveyors Drawings, Sheet 175*

Ordnance Survey, 1830, *First Series 1:63360 scale, Sheet 35*

Ordnance Survey, 1881, *First Edition 1:2500 scale, Monmouthshire Sheet XX.11*

Ordnance Survey, 1886, *First Edition 1:10560 scale, Monmouthshire Sheet XX*

Ordnance Survey, 1901, *Second Edition 1:2500 scale, Monmouthshire Sheet XX.11*

Ordnance Survey, 1921, *Third Edition 1:2500 scale, Monmouthshire Sheet XX.11*

13.5 Aerial Photographs

Welsh Aerial Photography Unit;

1946 4650 RAFCPEUK1828 3301

1947 4709 RAFCPEUK1997 1258

1951 5112 RAF58_676 4080

1952 5232 Meridian46_52 4031

1970 7042 OS 70_022 136

1970 7043 OS 70_056 159

1970 7043 OS 70_056 160

1971 6th July 7144 BKS158 025

1971 71129 OS71_361 055

1975 7558 OS75_285 230

1984 8402 ADAS202 007

1991 Geonex6091 156

2009 Nextperspectives

2010 Bluesky Getmapping 2010-05-23

2013 Air Defence and Space

2017 Bluesky Getmapping

APPENDIX A:

PHOTOGRAPHS

Site Code: GTB2021	Site Name: Gethley Barn, Llan y Nant Farm. Trellech Grange	
Photo Number	Description	Looking
GTB2021_001	A view of the threshing barn from the adjacent trackway.	West-southwest
GTB2021_002	A view of the threshing barn from the adjacent trackway. The ventilation holes are seen in the surviving original walls.	North
GTB2021_003	A view of the threshing barn from the adjacent trackway.	North-northeast
GTB2021_004	A view of the external face of the eastern gable wall, showing the pitching window and a pair of ventilation holes on the right, the other four are obscured by vegetation.	West-northwest
GTB2021_005	A view of the threshing barn from the adjacent trackway.	West-southwest
GTB2021_006	A view of the adjacent open-sided storage building which uses the northern wall of an earlier building.	Northwest
GTB2021_007	A view of a ruined fragment of the northernmost of three buildings which once formed the group here.	Southwest
GTB2021_008	A view of the very slight ruins of the northern barn.	South-southwest
GTB2021_009	A view of the building group at Gethley Barn.	Southwest
GTB2021_010	A view of the building group at Gethley Barn.	South-southwest
GTB2021_011	A view of the building group at Gethley Barn.	South-southeast
GTB2021_012	A view of the northern side of the open-sided storage barn, showing a surviving fragment of the wall of the original building.	Southeast
GTB2021_013	A view showing the make-up of the surviving stone wall of the open-sided storage barn.	East-southeast
GTB2021_014	A view inside the open-sided storage shed north of the threshing barn. Note that part of a roof truss from the threshing barn lies on the floor and stone flagstones are also stacked here, source unknown.	East-southeast
GTB2021_015	A view inside the open-sided storage barn showing its combination of old and modern roof timbers.	East-southeast

Site Code: GTB2021	Site Name: Gethley Barn, Llan y Nant Farm. Trellech Grange	
Photo Number	Description	Looking
GTB2021_016	A view of the steel girders holding up the roof of the open-sided storage barn.	East-southeast
GTB2021_017	A view of a modern timber lean-to structure against the northern side of the threshing barn.	South
GTB2021_018	A view inside the open-sided storage barn next to the northern barn showing the ruinous fragments of the original building.	Northeast
GTB2021_019	A view of the eastern end of the open-sided storage shed showing the ruinous fragments of the original building and the collapsed southern end of the northern barn.	East
GTB2021_020	A view of the ruinous remains of a former boundary revetment wall which springs off the northeastern corner of the threshing barn.	South-Southeast
GTB2021_021	A view of the external side of the eastern end of the northern lateral wall of the threshing barn showing four ventilation holes, one of which has been blocked up.	South-southeast
GTB2021_022	A view of the external side of the northern lateral wall of the threshing barn to the eastern side of the large doorway.	South-southwest
GTB2021_023	A view of the western end of the external face of the northern lateral wall of the threshing barn, which has been completely reconstructed on the original wall line.	West
GTB2021_024	A view of the open-sided storage barn to the north of the threshing barn.	North-northeast
GTB2021_025	A view of the open-sided storage barn to the north of the threshing barn.	Northeast
GTB2021_026	A view of the western end of the threshing barn, showing the reconstructed section of the building.	South-southeast
GTB2021_027	A view of the threshing barn, showing the opposed doors through the lateral walls.	South-southwest
GTB2021_028	A view of the threshing barn, showing the largely unaltered walls at the eastern end of the building.	South
GTB2021_029	A view of the threshing barn, showing the largely unaltered walls at the eastern end of the building.	South

Site Code: GTB2021	Site Name: Gethley Barn, Llan y Nant Farm. Trellech Grange	
Photo Number	Description	Looking
GTB2021_030	A view of the threshing barn, showing the largely unaltered walls at the eastern end of the building and the opposed door.	South
GTB2021_031	A view of the eastern end of the northern lateral wall of the threshing barn. A surviving section of the revetment wall which enclosed an associated enclosure around the three buildings at Gethley Barn is visible on the left of the photo.	South-southwest
GTB2021_032	A view of the eastern end of the northern lateral wall of the threshing barn. A surviving section of the revetment wall. Note the ventilation holes of the threshing barn.	South-southwest
GTB2021_033	A view of the door reveal at the eastern side of the northern doorway into the tithe barn. This is an original wall.	East-southeast
GTB2021_034	A view inside the eastern end of the threshing barn, showing largely original walls.	East-southeast
GTB2021_035	A view of the door reveal at the eastern side of the northern doorway into the tithe barn. This is an original wall.	East-southeast
GTB2021_036	A view inside the eastern end of the threshing barn, showing the original eastern end of the northern lateral wall.	East
GTB2021_037	A view inside the eastern end of the threshing barn, showing largely original walls.	East-southeast
GTB2021_038	A view of the inside of the northeast corner of the threshing barn showing a straight joint where the lateral wall and gable wall meet. This compares with the threshing barn at Llan y Nant Farm.	East-northeast
GTB2021_039	A view of the inside of the southeast corner of the threshing barn showing a straight joint where the lateral wall and gable wall meet.	South
GTB2021_040	A view inside the eastern end of the threshing barn, showing the original eastern end of the southern lateral wall. The door reveal to the right has been repaired in modern times.	South-southeast
GTB2021_041	A view of the door reveal at the eastern side of the northern doorway into the tithe barn. This is a modern reconstruction.	East-southeast

Site Code: GTB2021	Site Name: Gethley Barn, Llan y Nant Farm. Trellech Grange	
Photo Number	Description	Looking
GTB2021_042	A view of the eastern end of the threshing barn, showing the original eastern end of the southern lateral wall. The door reveal to the right has been repaired in modern times and the window is a modern insert.	East-northeast
GTB2021_043	A view of the western end of the threshing barn, showing the rebuilt western end of the southern lateral wall. The section of wall with ventilation holes is original.	North
GTB2021_044	A view of a large iron hinge found on the ground surface outside the southern side of the barn.	-
GTB2021_045	A view inside the western end of the threshing barn, showing the western end of the southern lateral wall.	West
GTB2021_046	A view inside the western end of the threshing barn, showing largely reconstructed walls. Only the first part of the wall to the left is original.	West-northwest
GTB2021_047	A view inside the western end of the threshing barn, showing the reconstructed wall bonded with the original wall to the left.	West-southwest
GTB2021_048	A view outside the western end of the southern lateral wall, which has been reconstructed on the original foundation.	Northeast
GTB2021_049	A view of the wholly reconstructed western gable wall.	East-southeast
GTB2021_050	A view through the modern doorway through the southern gable wall into the threshing barn with the eastern gable end facing.	East-southeast
GTB2021_051	A view from inside the western gable wall of the threshing barn with the eastern gable end facing.	East-southeast
GTB2021_052	A view of the threshing barn showing the largely reconstructed western end.	Northeast
GTB2021_053	A view showing Martin Locock taking a sample of the subsoil from an exposure alongside the revetment wall to the north of the threshing barn.	East-southeast
GTB2021_054	A view showing Martin Locock taking Mortar Sample A from the revetment wall to the north of the threshing barn.	South-southeast

Site Code: GTB2021	Site Name: Gethley Barn, Llan y Nant Farm. Trellech Grange	
Photo Number	Description	Looking
GTB2021_055	A view showing Martin Locock taking Mortar Sample B from the eastern end of the northern lateral wall of the threshing barn.	North-northeast
GTB2021_056	A view showing Martin Locock taking Mortar Sample E from the eastern gable wall of the threshing barn.	East-southeast
GTB2021_057	A view showing Martin Locock taking Mortar Sample D from the eastern gable wall of the threshing barn.	East-southeast
GTB2021_058	A view of the lowest ventilation hole to the east of the doorway through the southern lateral wall. Mortar sample F was taken from the core of the wall within the ventilation hole	South-southwest
GTB2021_059	A view of the lowest ventilation hole to the west of the doorway through the southern lateral wall. Mortar sample G was taken from the core of the wall within the ventilation hole.	South-southwest
GTB2021_060	A view showing Martin Locock taking Mortar Sample H from the core of the northern wall of the open-sided storage barn to the north of the threshing barn.	East-southeast
GTB2021_061	A view showing Martin Locock taking Mortar Sample I from a surviving fragment of walling from the largely lost northern barn.	Southeast
GTB2021_062	A view of the threshing barn.	South-southeast

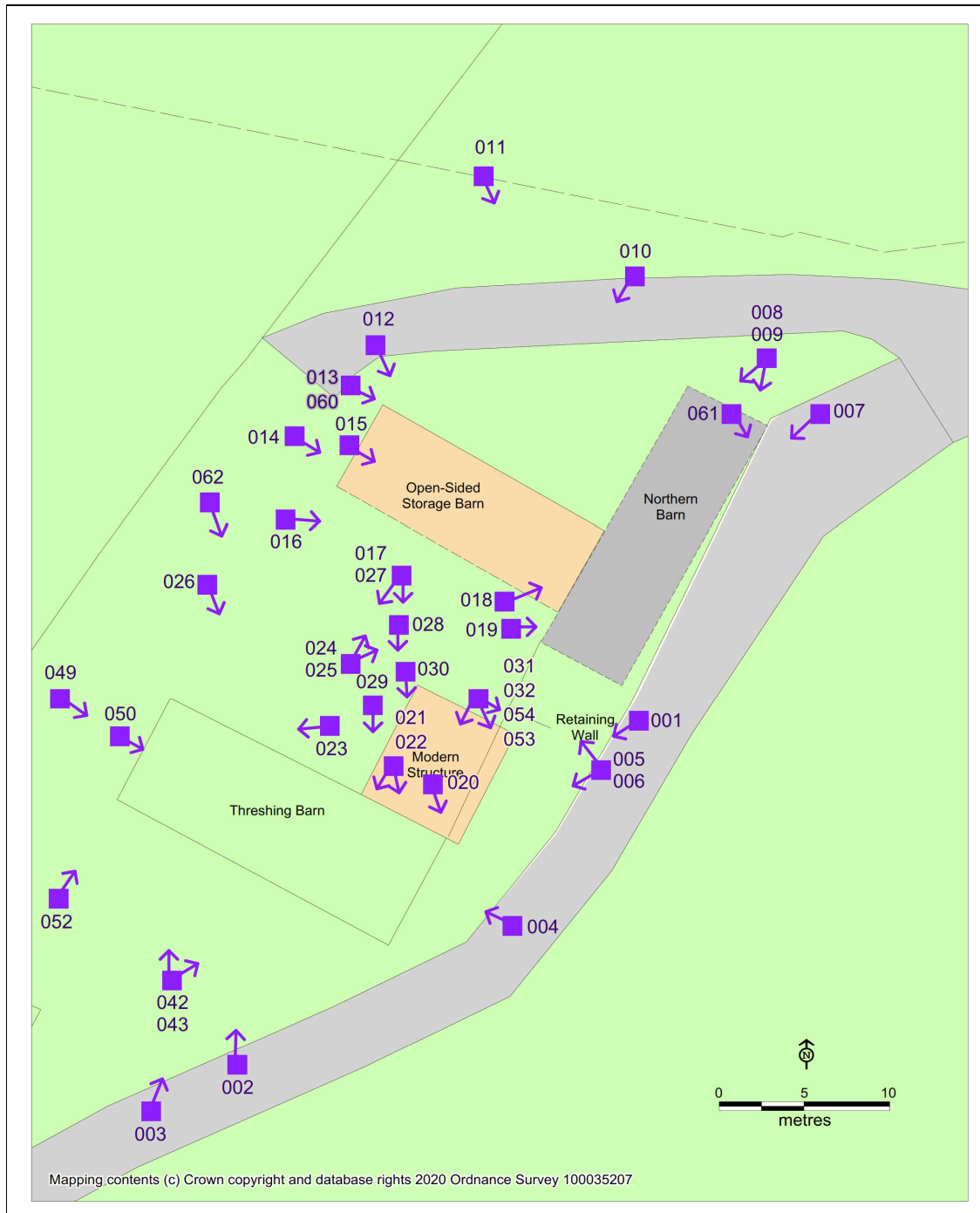


Figure 14: Location of photographs external to the Gethley Barn threshing barn.

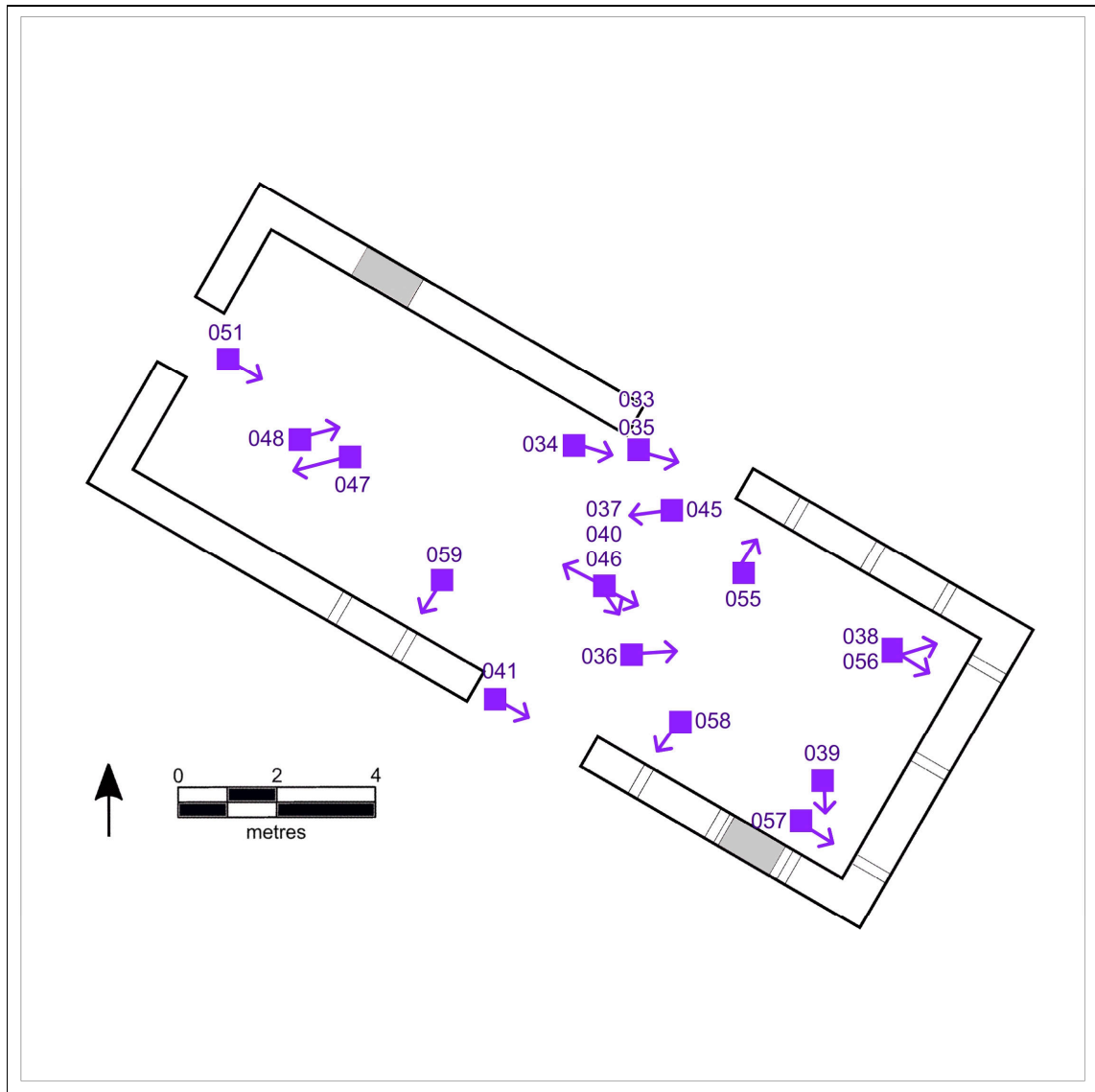


Figure 15: Location of photographs inside the Gethley Barn threshing barn.



Plate 1: GTB2021_001 - A view of the threshing barn from the adjacent trackway. Looking west-southwest.



Plate 2: GTB2021_002 - A view of the threshing barn from the adjacent trackway. The ventilation holes are seen in the surviving original walls. Looking north.



Plate 3: GTB2021_003 - A view of the threshing barn from the adjacent trackway. Looking north-northeast.



Plate 4: GTB2021_004 - A view of the external face of the eastern gable wall, showing the pitching window and a pair of ventilation holes on the right, the other four are obscured by vegetation. Looking west-northwest.



Plate 5: GTB2021_005 - A view of the threshing barn from the adjacent trackway. Looking west-southwest.



Plate 6: GTB2021_006 - A view of the adjacent open-sided storage building which uses the northern wall of an earlier building. Looking northwest.



Plate 7: GTB2021_007 - A view of a ruined fragment of the northernmost of three buildings which once formed the group here. Looking southwest.



Plate 8: GTB2021_008 - A view of the very slight ruins of the northernmost of three buildings which once formed the group here. Looking south-southwest.



Plate 9: GTB2021_009 - A view of the building group at Gethley Barn. Looking southwest.



Plate 10: GTB2021_010 - A view of the building group at Gethley Barn. Looking south-southwest.



Plate 11: GTB2021_011 - A view of the building group at Gethley Barn. Looking south-southeast.



Plate 12: GTB2021_012 - A view of the northern side of the modern storage shed next to the barn, showing a surviving fragment of the wall of the original building. Looking southeast.



Plate 13: GTB2021_013 - A view showing the make-up of the surviving stone wall of the modern storage shed next to the barn. Looking east-southeast.



Plate 14: GTB2021_014 - A view inside the open-sided storage shed north of the threshing barn. Note that part of a roof truss from the threshing barn lies on the floor, and stone flagstones are also stacked here, source unknown. Looking east-southeast.



Plate 15: GTB2021_015 - A view inside the open sided storage shed next to the barn showing its combination of old and modern roof timbers. Looking east-southeast.



Plate 16: GTB2021_016 - A view of the steel girders holding up the roof of the open-sided storage shed next to the barn. Looking east-southeast.



Plate 17: GTB2021_017 – A view of a modern timber lean-to structure against the northern side of the threshing barn. Looking south.



Plate 18: GTB2021_018 - A view inside the open-sided storage shed next to the northern barn showing the ruinous fragments of the original building. Looking northeast.



Plate 19: GTB2021_019 - A view of the eastern end of the open-sided storage shed showing the ruinous fragments of the original building and the collapsed southern end of the northern barn. Looking east.



Plate 20: GTB2021_020 - A view of the ruinous remains of a former boundary wall which springs off the northeastern corner of the threshing barn. Looking south-southeast.



Plate 21: GTB2021_021 - A view of the eastern end of the external side of the northern lateral wall of Gethley Barn showing four ventilation holes, one of which has been blocked up. Looking south-southeast.



Plate 22: GTB2021_022 - A view of the external side of the northern lateral wall of Gethley Barn to the eastern side of the large doorway. Looking south-southwest.



Plate 23: GTB2021_023 - A view of the western end of the external side of the northern lateral wall, which has been completely reconstructed on the original wall line. Looking west.



Plate 24: GTB2021_024 - A view of the open-sided storage shed to the north of the threshing barn. Looking north-northeast.



Plate 25: GTB2021_025 - A view of the roofed storage shed to the north of the threshing barn. Looking northeast.



Plate 26: GTB2021_026 - A view of the western end of the threshing barn, showing the reconstructed section of the building. Looking south-southeast.



Plate 27: GTB2021_027 - A view of the threshing barn, showing the opposed doors through the lateral walls. Looking south-southwest.



Plate 28: GTB2021_028 - A view of the threshing barn, showing the largely unaltered walls at the eastern end of the building. Looking south.



Plate 29: GTB2021_029 - A view of the threshing barn, showing the largely unaltered walls at the eastern end of the building. Looking south.



Plate 30: GTB2021_030 - A view of the threshing barn, showing the largely unaltered walls at the eastern end of the building and the opposed door. Looking south.



Plate 31: GTB2021_031 - A view of the eastern end of the northern lateral wall. A surviving section of the revetment wall which enclosed an associated enclosure around the three buildings at Gethley Barn is visible on the left of the photo. Looking south-southwest.



Plate 32: GTB2021_032 - A view of the eastern end of the northern lateral wall. A surviving section of the revetment wall. Note the ventilation holes of the threshing barn. Looking south-southwest.



Plate 33: GTB2021_033 - A view of the door reveal at the eastern side of the northern doorway into the tithe barn. This is an original wall. Looking east-southeast.



Plate 34: GTB2021_034 - A view inside the eastern end of the threshing barn, showing largely original walls. Looking east-southeast.



Plate 35: GTB2021_035 - A view of the door reveal at the eastern side of the northern doorway into the tithe barn. This is an original wall. Looking east-southeast.



Plate 36: GTB2021_036 - A view inside the eastern end of the threshing barn, showing the original eastern end of the northern lateral wall. Looking east.



Plate 37: GTB2021_037 - A view inside the eastern end of the threshing barn, showing largely original walls. Looking east-southeast.



Plate 38: GTB2021_038 - A view of the inside of the northeast corner of the threshing barn showing a straight joint where the lateral wall and gable wall meet. This compares with the threshing barn at Llan y Nant Farm. Looking east-northeast.



Plate 39: GTB2021_039 - A view of the inside of the southeast corner of the threshing barn showing a straight joint where the lateral wall and gable wall meet. Looking south.



Plate 40: GTB2021_040 - A view inside the eastern end of the threshing barn, showing the original eastern end of the southern lateral wall. The door reveal to the right has been repaired in modern times. Looking south-southeast.



Plate 41: GTB2021_041 - A view of the door reveal at the eastern side of the southern doorway into the threshing barn. This is a modern reconstruction. Looking east-southeast.



Plate 42: GTB2021_042 - A view of the eastern end of the threshing barn, showing the original eastern end of the southern lateral wall. The door reveal to the right has been repaired in modern times and the window is a modern insert. Looking east-northeast.



Plate 43: GTB2021_043 - A view of the western end of the threshing barn, showing the rebuilt western end of the southern lateral wall. The section of wall with ventilation holes is original. Looking north.



Plate 44: GTB2021_044 - A view of a large iron hinge found on the ground surface outside the southern side of the barn.



Plate 45: GTB2021_045 - A view inside the western end of the threshing barn, showing the western end of the southern lateral wall. Looking west.



Plate 46: GTB2021_046 - A view inside the western end of the threshing barn, showing largely reconstructed walls. Only the first part of the wall to the left is original. Looking west-northwest.



Plate 47: GTB2021_047 - A view inside the western end of the threshing barn, showing the reconstructed wall bonded with the original wall to the left. Looking west-southwest.



Plate 48: GTB2021_048 - A view outside the western end of the southern lateral wall, which has been reconstructed on the original foundation. Looking northeast.



Plate 49: GTB2021_049 - A view of the wholly reconstructed western gable wall. Looking east-southeast.



Plate 50: GTB2021_050 - A view through the modern doorway through the southern gable wall into the threshing barn with the eastern gable end facing. Looking east-southeast.



Plate 51: GTB2021_051 - A view from inside the western gable wall of the threshing barn with the eastern gable end facing. Looking east-southeast.



Plate 52: GTB2021_052 - A view of the threshing barn showing the largely reconstructed western end. Looking northeast.



Plate 53: GTB2021_053 - A view showing Martin Locock taking a sample of the subsoil from an exposure alongside the revetment wall to the north of the threshing barn. Looking east-southeast



Plate 54: GTB2021_054 - A view showing Martin Locock taking Mortar Sample A from the revetment wall to the north of the threshing barn. Looking south-southeast



Plate 55: GTB2021_055 - A view showing Martin Locock taking Mortar Sample B from the eastern end of the northern lateral wall of the threshing barn. Looking north-northeast



Plate 56: GTB2021_056 - A view showing Martin Locock taking Mortar Sample E from the eastern gable wall of the threshing barn. Looking east-southeast



Plate 57: GTB2021_057 - A view showing Martin Locock taking Mortar Sample D from the eastern gable wall of the threshing barn. Looking east-southeast.



Plate 58: GTB2021_058 - A view of the lowest ventilation hole to the east of the doorway through the southern lateral wall. Looking south-southwest. Mortar sample F was taken from the core of the wall within the ventilation hole



Plate 59: GTB2021_059 - A view of the lowest ventilation hole to the west of the doorway through the southern lateral wall. Looking south-southwest. Mortar sample G was taken from the core of the wall within the ventilation hole.



Plate 60: GTB2021_060 - A view showing Martin Locock taking Mortar Sample H from the core of the northern wall of the roofed storage shed to the north of the threshing barn. Looking east-southeast.



Plate 61: GTB2021_061 - A view showing Martin Locock taking Mortar Sample I from a surviving fragment of walling from the largely lost northern building in the complex at Gethley Barn. Looking southeast.



Plate 62: GTB2021_062 - A view of the threshing barn. Looking south-southeast.

APPENDIX B:

MORTAR REPORT
By
Martin Locock

GTH2021

Mortar analysis

Martin Locock BA MA MCIfA

Introduction

Nine mortars were recovered during the survey, six from the threshing barn walls, one from the courtyard revetment to the east of the threshing barn, one from the open-sided barn to the east, and one from the east-west barn. These were examined for possible dating evidence. The key issues of interpretation were identified as:

- What mixes of mortar and other materials were used?
- When was the threshing barn constructed?
- Were the four surviving walls of the threshing barn built at the same time?
- Was the pointing/repointing on the interior of the gable and east walls part of the original construction, a later addition, or more recent?
- How does the chronology of the threshing barn construction relate to the other structures in the complex?
- How does this structure's chronology compare to the nearby Llan y Nant barn (Locock 2021)?

Sampling and recovery strategy

Samples were selected from the visible elements of the threshing barn and nearby structures. Clean samples of 8g or more were collected and bagged and retrieved for processing. All retrieved samples were then analysed through chemical treatment.

Limitations of evidence and assumptions

The analysis is based on the assumptions that the mortars were mixed to a certain formula of components (eg 1 part mortar: 2 parts aggregate); that the samples taken are representative of the mortar used for that phase of the structure; subsequent weathering, burial, or environmental conditions has not significantly affected the chemical constituents of the mortar; and that differences in formula reflect the relative cost and availability of the materials (in particular lime). Sample size was kept to a minimum to reduce the risk of destabilising the standing fabric. As a result some aliquots were small and comprised the entire sample.

Samples were taken from locations where the risk of contamination by modern repointing was low.

Methodology

In March 2021 the samples were recovered, examined visually and described by colour and presence of inclusions. Hardness was tested by resistance to manual pressure.

Hardness	Description
Very hard	Impossible to break with manual pressure
Hard	Breaks with manual pressure
Soft	Breaks under light manual pressure
Very soft	Crumbles without additional pressure

A single aliquot (subsample) from each sample was dried and crushed, then dissolved in dilute hydrochloric acid as recommended by Cadw (2004, 2); the residue was filtered and dried by gentle heating, and weighed. Overall composition of the mortar was calculated from the aggregate and soluble (Calcium Chloride) components.



Dates were assigned based on the established chronology (Locock 2010; Morton et al., n.d), summarised as:

Medieval	Earth mortars with clay or lime binders; lime-rich mortar used for pointing only
17 th century	Earth mortar stabilised with 10% hydrated lime
18 th century onwards	Lime mortars (60%+)
1750 onwards	Lime mortars with coal and charcoal aggregate; lumps of lime visible
1850	Lime mortars with use of soot and ash as aggregate/binder; cement mortars introduced
1900	Cement mortars used as standard

Results

Sample	Description	Aliquot Gross wt g	Residue wt g	Lime wt g	% lime	Residue notes
A Revetment wall - core	Soft red brown earthen mortar	13.95	4.95	9.00	0.65	Red brown sandy silt

*Level 3 Building Recording of a Former Barn at
Gethley Barn, Llan y Nant Farm, Trellech Grange, NP16 6QN*

Sample	Description	Aliquot Gross wt g	Residue wt g	Lime wt g	% lime	Residue notes
B Eastern part of northern wall of threshing barn – core, Plate 55	Hard pale red brown lime mortar with lime lumps	15.44	3.99	11.45	0.74	Red brown sandy silt
C Eastern part of northern wall of threshing barn - pointing	Soft red brown earthen mortar	7.14	1.99	5.15	0.72	Red brown sandy silt
D Eastern gable wall of threshing barn – core Plate 57	Hard pale red brown lime mortar with lime lumps	9.65	1.24	8.41	0.87	Red brown sandy silt
E Eastern gable wall of threshing barn – pointing Plate 56	Soft red brown earthen mortar	23.11	11.86	11.25	0.49	Red brown sandy silt
F Eastern part of southern wall of threshing barn core Plate 58	Hard pale red brown lime mortar	10.7	4.47	6.23	0.58	Red brown sandy silt
G Western side of southern wall of threshing barn – core Plate 59	Soft red brown earthen mortar	7.82	4.03	3.79	0.48	Red brown sandy silt
H Open-sided barn wall – core Plate 60	Hard very pale red lime mortar	8.02	2.17	5.85	0.73	Red brown sandy silt
I Northern barn – core Plate 61	Hard pale red brown lime mortar	14.1	3.69	10.41	0.74	Red brown sandy silt

Interpretation

All of the mortars are characteristic of 18th century date. The absence of charcoal, soot, or other additives, and the general absence of lime lumps, suggests an early date (1700-1750 perhaps).

Aggregate for all mortars was derived from the subsoil of the site without additional stones. Samples G and E used a 1:1 ratio lime :

aggregate; samples A-C, F, H, and I used a 2: 1 ratio. Sample D (gable pointing) was 9 : 1. It is assumed that mortar was purchased from an area with limestone outcrops such as the Wye at Tintern, although the surviving lime kilns there are later (19th century).

The similarity of the mortars suggests that the threshing barn was built in a single campaign, contemporary with the other buildings and the courtyard revetment wall. It appears likely that the pointing of the interior was part of the initial construction, rather than a 19th or 20th century addition.

The mortars used for the threshing barn at Llan-y-Nant are similar and it might be suggested that the construction of the two barns took place close in time and using overlapping personnel, as also suggested by the use of ventilation holes as a local feature, rather than the more common use of vertical slits.

Archive and data

The archive contains an Excel spreadsheet containing the Sample ID, weight of aliquot (pre-treatment), weight of residue, calculated weight of lime, and % lime. The primary lab notes have not been retained. The archive contains the untreated remainder of the samples and the aliquot residues.

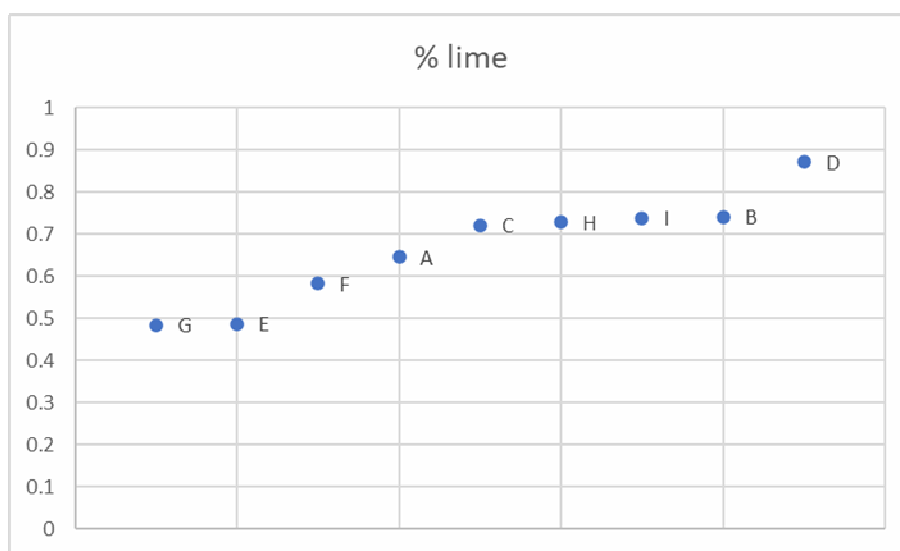


Figure 1: lime in mortar samples

References

Cadw	2004	<i>The use of lime mortar in historic structures</i> (Technical Conservation Note 2) (Cadw, Cardiff).
Locock, M	2010	Bricks and mortar: post-medieval buildings archaeology in Wales. <i>The Archaeologist</i> 75 : 37.
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