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FIGURES

SUMMARY

Lea End Farm contained a clay dabbins cottage and part of a possible clay dabbins barn that was supplanted by a red brick barn of probable 19th century date. There exists strong evidence that corresponding to the current building footprint was a suite of linear aligned buildings dating to at least 1762. The lay-out of the farmstead has a strong correlation with a typically small Cumbrian farm of around thirty acres prevalent in the 18th century.

1 INTRODUCTION

1.1 Project origins

The proposed scheme of improvement advocated by the client has the potential to affect the character and appearance of a building of special architectural and historic interest. Renovation will affect the character and appearance of the building and as a result, a programme of archaeological building recording has been initiated by the contractor prior to the alterations taking place.

In order to ascertain the historical and archaeological merits of the study building affected by this development, the contractor investigated known historical records through a rapid desk-based assessment and the survival of extant buildings via a programme of building recording equivalent to Level 3 as described by English Heritage: *Understanding Historic Buildings; A Guide to Good Recording Practice, 2006*.

The study building was located at NY 34730 60208 (figure 1) and is part of planning application 2/12/0439.

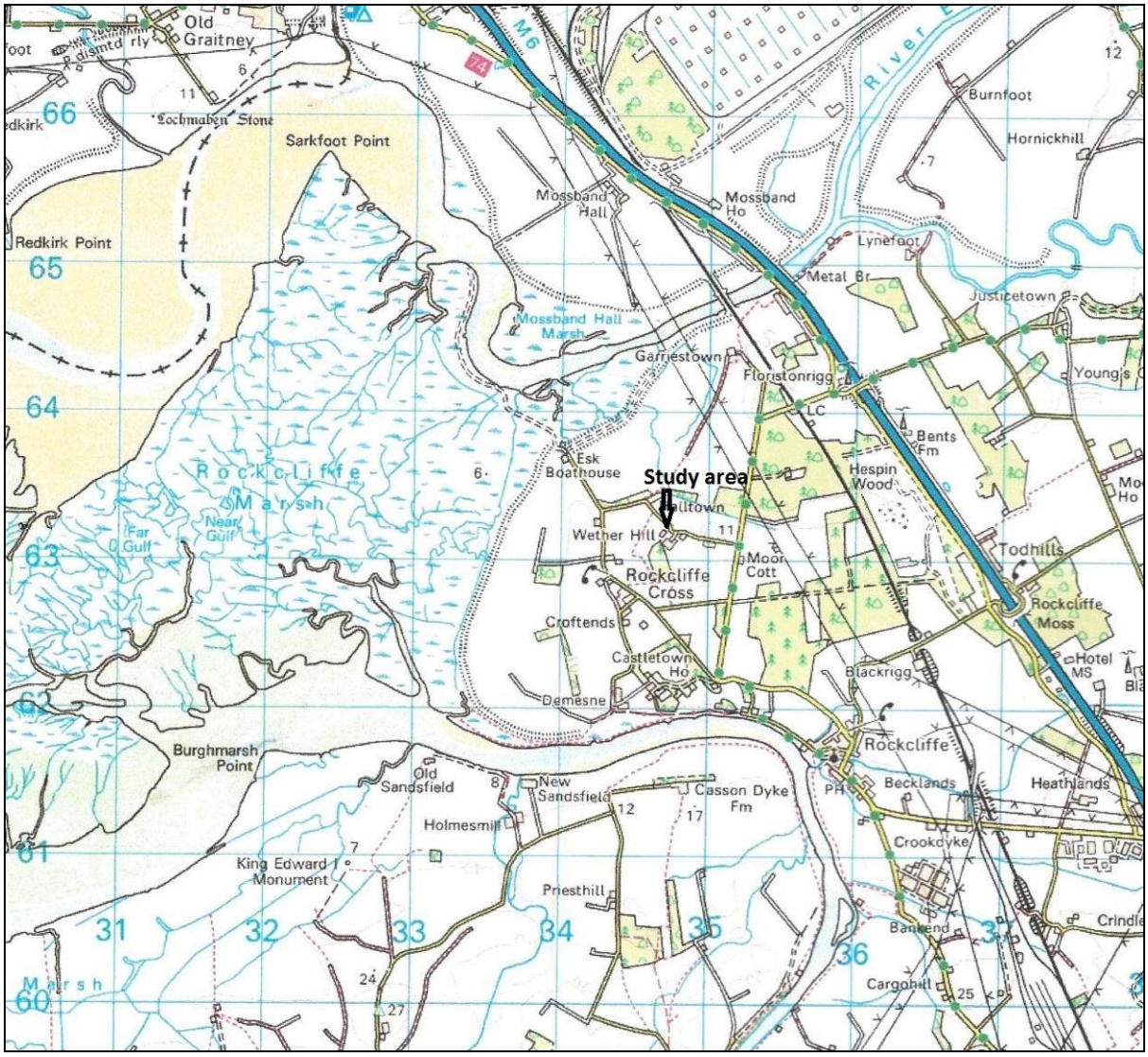

Figure 1. Location of survey. (OS copyright licence no. 100044205).

The desk-based assessment included visits to Carlisle Library and Cumbria Record Office, Carlisle. The objective of this research was to collate sufficient detail to identify the issues and potential for academic research in order to provide a historical context for targeted archaeological enquiry.

2 METHODOLOGY

2.1 Project Design

Gerry Martin Associates Ltd proposed a project design for the archaeological recording of an extant cottage and adjoining barn. This proposal outlined the contractors' professional suitability, a brief historical summary of the study area, general objectives required of the project, the methodology and the resources needed for the successful implementation of this work.

Gerry Martin Associates Ltd was commissioned to undertake the desk-based assessment and an archaeological building survey on behalf of the client Mr James Marshall.

The following report has been assembled to the relevant standards and protocols of the Institute of Archaeologists, combined with accepted best practice and in accordance with the brief prepared by the curatorial authority.

Fieldwork took place on September 22nd 2014.

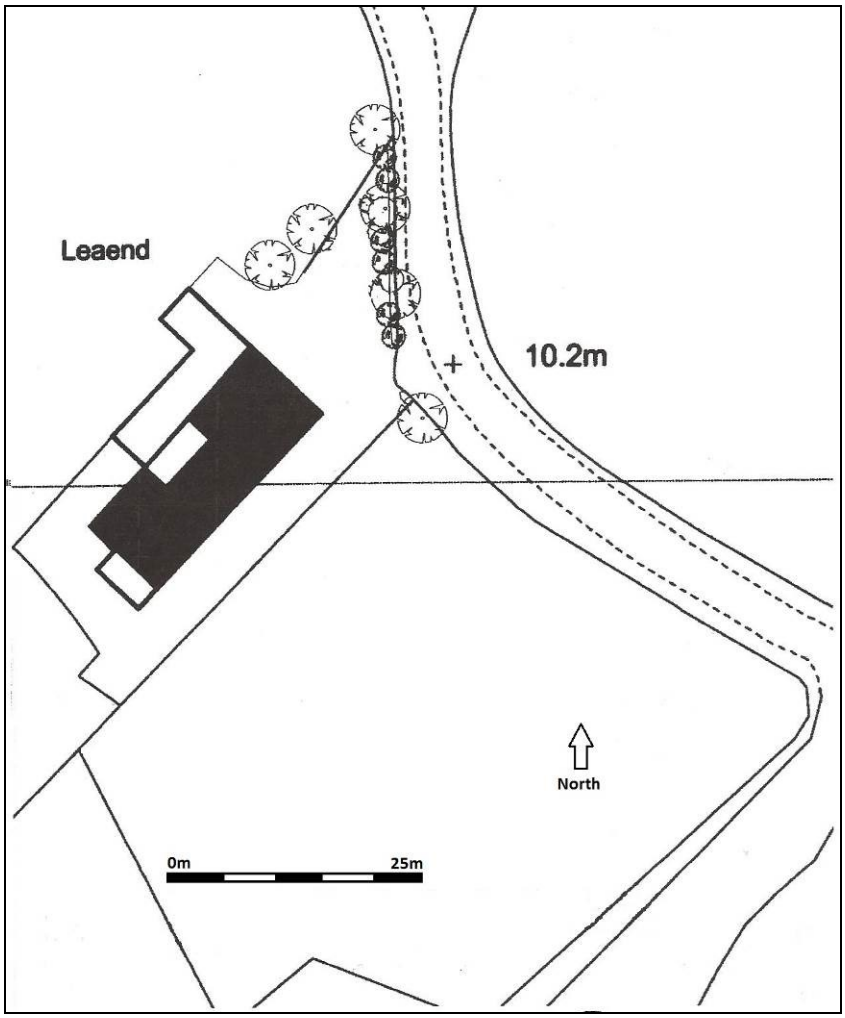

Figure 2. Location of study building (OS copyright licence no. 100044205).

2.2 Desk-based assessment

In accordance with the Brief, the rapid desk-based assessment investigated primary and secondary historical sources, maps and other literature in order to set the survey results into their past cultural, historical and topographic context.

The desk-based assessment comprised a search of three primary archival repositories.

- Carlisle Library provided sources for published works including newspaper articles, archaeological and antiquarian reports, photographs and journals.

- Cumbria Record Office, Carlisle was sought for details of landowners, occupiers and cartographic evidence.

- The Historic Environment Record, online, provided the Sites and Monuments Record describing previous archaeological reconnaissance and through electronic media showing the spatial distribution of these discoveries.

2.3 Archive

The archive has been compiled in accordance with the project design and the guidelines set out by English Heritage (1991, 1996, 2006 and 2008) and the Institute of Archaeologists (2001).

The archive will be deposited with an appropriate repository, Tullie House, Carlisle and two copies of the report donated to the County Sites and Monuments Record, as is standard practice in Cumbria.

A copy of the report will be filed online with the *Oasis* electronic archive of grey archaeological literature.

2.4 Walk-over survey

A brief walk-over of the site on 22nd September 2014 indicated that the study buildings had not been used for some time, probably redundant since the 1980s.

The curtilage for Lea End Farm remains tight; bordered by maize fields to the north and a paddock to the south. The location is largely overgrown with nettles and brambles compromising access whilst grass has encroached upon the concrete entrance into the maize field.

Figure 3. Location of buried wall

Figure 4. Detail of sandstone wall

Between the extant brick barn and the road (figure 3) was a stretch of sub-surface red sandstone wall 0.70m in length x 0.18m in width aligned east-west (figure 4) that may possess a structural form rather than debris laid down for field access.

3 BACKGROUND

3.1 Location, topography and geology

Lea End is part of a small hamlet of Wetheral and is known by that name by older residents and antiquarian references. It is also survives under the nomenclature Wether Hill. It lies within the township of Rockcliffe Castletown within the parish of Rockcliffe.

The underlying geology of the coastal area around Rockcliffe is made up of Triassic red and grey sandstones with partings of grey mudstone. The solid geology forms Kirklinton Sandstone, similar to St Bees Sandstone to the west of the county and lain as part of a braided fluvial system (British Geological Survey 2005, 12).

The land has been used for agriculture with narrow strip fields of probable medieval origin surviving in close proximity to the study buildings (figure 6). Elsewhere, large field units are evident indicative of enclosure and other agricultural improvements.

The topography is generally flat at a height of approximately 10m OD.

4 HISTORICAL CONTEXT

4.1 Historical background

From the 12th century, Rockcliffe was held from the King by Hugh de Morvill (the Lord of Burgh). In 1802 it was purchased by Robert Mounsey as part of the Castletown Estate.

The earliest cartographic reference for a structure appears to be located on an estate map of 1762-63 held by Castletown Estate (figure 5). This is a copy of George Wheatley's Survey of 1762 and 1763 for the Barony of Burgh (2/32/2/7 and D/LONS/L 2 Rockcliffe) that depicts two long buildings, one possessing a slight kink northwards.

An enclosure award was initiated in 1815 in Rockcliffe but the plan (QRE 1/91) does not appear to mention the study area.

A tithe award was initiated in 1842 (D/MWS/14) but a search by the staff of the Cumbria Record Office failed to locate the relevant map.

Tenancy of the study building is difficult to ascertain but a Joseph Cartner is mentioned as a farmer in 1847 at Wetheral (Mannix & Wellan 1847, 205). The Cartners appear to have been a prominent local family as in 1829 John Cartner is listed as a victualler at the Salutation Inn in Wetheral and William Cartner a victualler and boatman (Grigg 1988, 29).

In 1880 Thomas Cartner paid a tithe of six shillings and two pence, whilst Joseph Cartner paid a tithe of five and a half pence (D/MWS/14). Both are low figures, but the amount paid by Joseph Cartner suggests that he was retired or economically unproductive perhaps intimating that he was indeed the farmer cited in 1847.

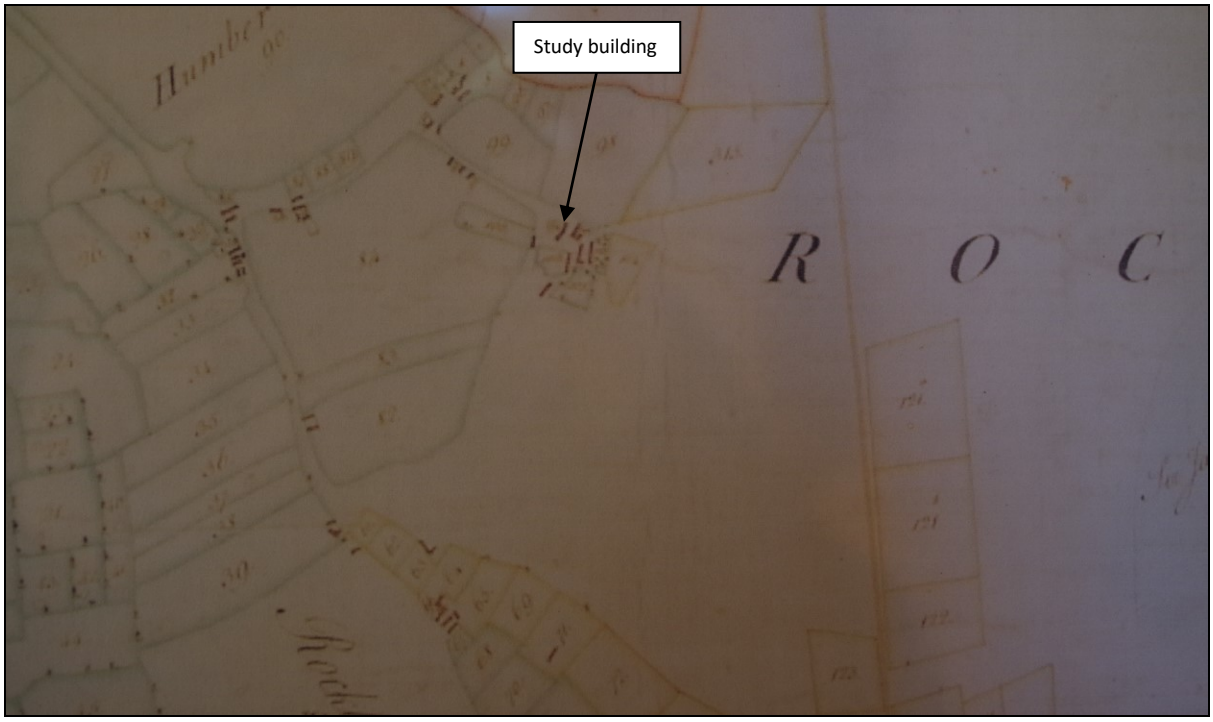

Figure 5. Estate map of 1762-63 held by Castletown Estate

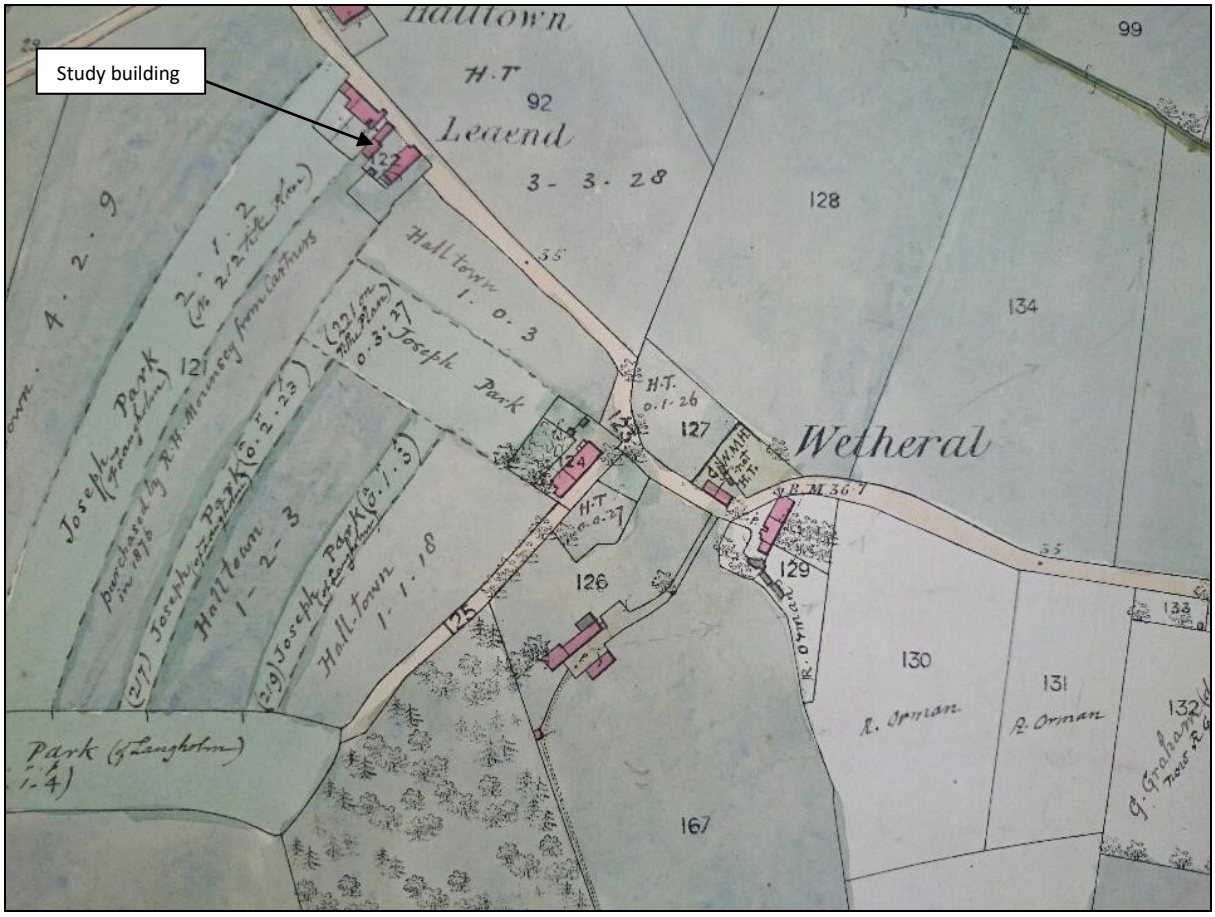

Figure 6. First Edition Ordnance Survey map

Current ownership was acquired in 1898 from Joseph Park, the tenant being Joseph Cartner who was still a tenant in 1909. Correspondence from 1909 suggests that the three former cottages had been reduced to one cottage let to Rebecca Percival.

By this juncture, the property appears to have produced a low income as it paid no tithe.

The study area (NY 34730 60208) currently comprises a range of dilapidated buildings that appear on the first edition Ordnance Survey map and includes a clay wall incorporated from an earlier structure (figure 6). A series of strip fields lie to the west of the study area perhaps indicating relict medieval farm practices.

A suite of buildings to the north of Lea End Farm depicted on the first edition Ordnance Survey map are no longer extant. Wether Hill Farm just to the south-east is still a working farm.

Brunskill has identified that hundreds of buildings in north Cumbria still retain clay walls incorporated into later reconstructions, particularly prevalent along the Solway Plain between Silloth and Carlisle. Documentary sources suggest that this tradition was further widespread although rarely are these buildings more than 400 years in age (Brunskill 2002, 159-160).

Jennings has suggested that this form of building dates from the fifteenth century constructed from a cruck-frame possibly continuing an earlier Viking or Scottish tradition (Jennings 2002, 24). A typical clay-built structure according to Jennings stands on a cobble plinth 0.40m in height with outside dimensions of approximately 15m x 6m. The walls are formed from pebbles and sand (80% aggregate) with a clay binder (20% of the total) strengthened with straw and standing to 2.3m in height with a ridge (apex of the roof) 5.3m in height (Jennings 2002, 20).

These buildings were simple in form and easy to construct utilising local materials and built with non-specialist tools. A description during the late eighteenth century detailing the construction method and the accompanying organisation suggests that building these structures was a communal affair, utilising 20 to 30 people who would undertake the work as a favour within a one to two day time-frame and then celebrate their effort with festivities provided by the fortunate beneficiary (Jennings 2002, 23).

The study building is part of a row of cottages that form an integral and significant part of a past historic landscape that captures former farming techniques and rural settlement patterns.

Most probably a lack of readily available timber since 800 AD and a prolific source of cobbles and boulder clay promoted this form of vernacular architecture. This particular building appears to be on the northern periphery of the distribution of both cruck and clay dabbins buildings (Jennings 2003, 1-2).

William Stukeley on his northern journey of 1725 described cottages near Netherby as “mean beyond imagination; made of mud and thatched with turf, without windows, only one story (sic)” (Ibid, 88). It can be inferred that clay dabbins buildings had advanced into this study area and that

the structures illustrated on the 1762-63 estate map were probably clay dabbins cottages albeit with greater architectural sophistication.

Researching the Nina Jennings archive of local building surveys compiled for the Royal Commission of Historic Monuments, England (RCHME), no entries existed for clay dabbins buildings north of the River Eden.

5. *SURVEY RESULTS*

5.1 Methodology

The buildings in the study area were surveyed on September 22nd 2014 by Gerry Martin with the use of tapes, a Laser Distance Measurement device and hand-held GPS equipment.

The buildings were fully accessible, although natural light was restricted within the study building, requiring occasional flash photography.

The survey comprised of scaled photographic recording of the interiors and elevations of all the buildings, with detailed photography of any worthy architectural elements.

Notations were undertaken regarding the characteristics of these buildings, including metrical data, thresholds, materials and building techniques employed.

The corpus of the report is formed from these notes and photographs.

The following report describes the study building which was divided into eighteen units, namely:

1. Living room
2. Parlour
3. Outshut
4. Larder
5. Bedroom 1
6. Cattle stall 1
7. Cattle stall 2
8. Threshing barn
9. Cow shed
10. Cattle stall 3
11. Cattle stall 4
12. Cattle stall 5
13. Cattle stall 6
14. Cattle stall 7
15. Lean-to shed
16. Toilet
17. Store
18. Bedroom 2

5.2 Ground floor internal lay-out

The suite of buildings forming Lea End Farm appeared to illustrate seven main structural phases within this rectangular plan configuration (figure 7):

- The surviving clay dabbins cottage (Rooms 1 and 2) and an east-west aligned back wall incorporated into an agricultural buildings (Rooms 6-9)
- Clay dabbins outshut (Rooms 3 and 4)
- Conversion of the eastern wing and central area of the clay dabbins building into an agricultural building
- Cattle stalls 10-14
- Installation of a toilet 16
- A modern lean-to shed 15
- An extension for a store 17

The cottage measured 9.25m in length and the barn 14.45m in length producing a combined length of 24.70m. Its depth measured 8.37m and the apex of the building stood to a height of 5.80m.

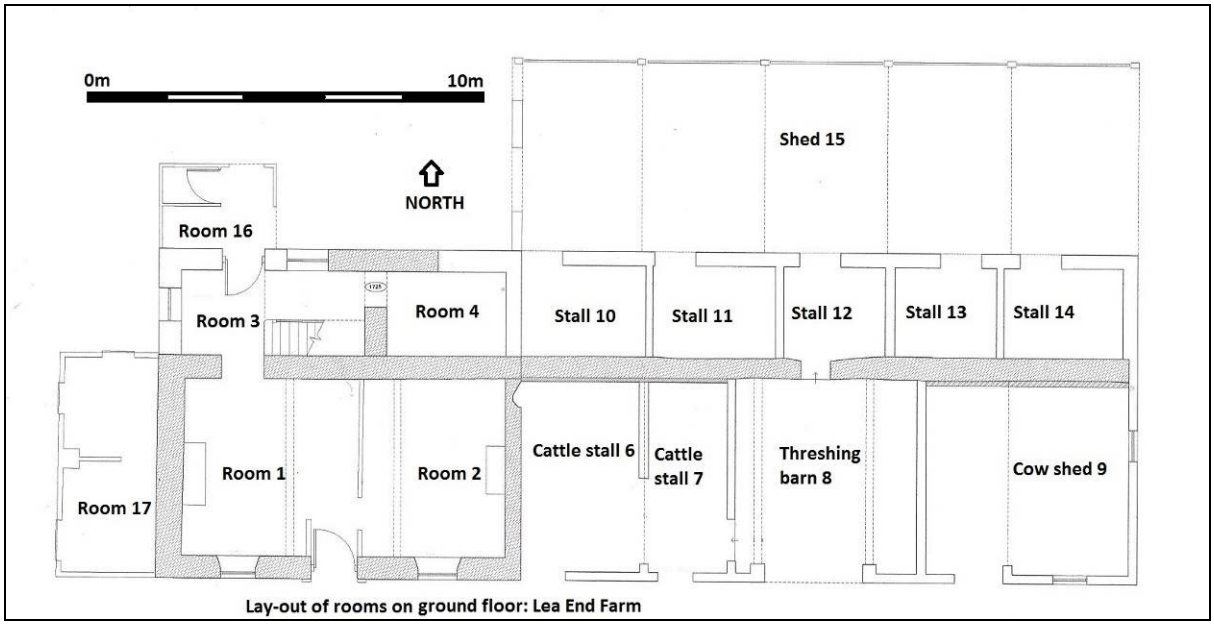

Figure 7. Ground floor plan of the study building

Room 1: Living room

Room 1 (figure 8) measured 4.56m in length (north-south) and 4.42m in width with a height of 2.11m to the ceiling. Wall thickness measured 0.50m comprising of clay dabbins on three sides (all originally exterior walls) built upon a cobble plinth 0.50m in height.

The room possessed a concrete floor with a single skin eastern brick wall 0.13m in width dividing the original living space in order to form a parlour (Room 2). The ceiling and timber joists were not part of the original building fabric.

Room 1 contained the following architectural features and furnishings:

- Door 20 provided entry directly into the room. The doorway measured 0.81m in width and 1.84m in height with flanking sandstone jambs measuring 0.21m in width, 0.17m in depth

and 1.84m in height. The masonry was hand-sawn, without embellishment surmounted by a sandstone lintel measuring 1.31m in length, 0.33m in height and 0.16m in depth (figure 9)

- Window 21 measured 1.37m in height and 1.03m in width. The timber surround lacked the three glazed window panes (figure 10)
- Wooden cupboard 22 (figure 11) measuring 1.25m in length, 0.28m in depth and standing to a height of 2.11m, infilling the recess between the front wall and range 23
- Range 23 (figure 12) consisted of a chimney 1.56m in width, 0.53m in depth and stood to a height of 2.11m. It possessed a fireplace 1.24m in width and 1.50m in height with a grate projecting 0.40m. Within this space a late 19th or early 20th century range had been installed complete with ceramic undecorated tiles and an iron mantelpiece
- Doorway 24 (figure 13) leading to outshut 3 lacked a door but measured 1.06m in width, 1.92m in height and 0.53m in depth, the breadth of the clay dabbins wall
- Doorway 25 (figure 14) leading to parlour 2 lacked a door and measured 0.80m in width, 0.13m in depth and 1.87m in height

Figure 8. Interior of Room 1

Figure 9. Doorway 20, Room 1

Figure 10. Window 21, Room 1

Figure 11. Cupboard 22, Room 1

Figure 12. Fireplace 23, Room 1

Figure 13. Doorway 24, Room 1

Figure 14. Doorway 25, Room 1

Room 2: parlour.

Living room 2 (figure 15) measured 4.51m x 3.58m with a height of 2.13m to the ceiling. It was formed on three sides by clay dabbins walls overlying a cobble plinth. The eastern wall was the probable gable end to the original building. The floor comprised timber floorboards whilst the ceiling was the same as Room 1.

Figure 15. Interior of Room 2

Room 2 contained the following architectural features and furnishings:

- Window 26 (figure 16) was a timber sash window lacking glazing measuring 1.33m in height and 1.00m in width
- Fireplace 27 (figure 17) measured 0.90m in width and 0.91m in height and was connected to a chimney breast measuring 1.20m in width, 0.48m in depth and 2.13m in height. The base of the fireplace was formed from stone with a wooden surround and an iron grate with tiled finish

Figure 16. Window 26, Room 2

Figure 17. Fireplace 27, Room 2

Room 3: outshut.

Outshut 3 (figure 18) measured 4.64m in length, 2.11m in length and stood to a height of 3.85m. Clay dabbins walls formed all four sides of the outshut. The floor was finished in concrete.

The outshut had been constructed in order to access the first floor of the cottage via a flight of stairs 31. The room also divided into two parts, a north-south aligned clay dabbins wall partitioning space to form a larder, Room 4.

Figure 18. Outshut 3

Figure 19. Window 28, Room 3

Room 3 contained the following architectural features and furnishings:

- Window 28 (figure 19) was missing its surround and measured 0.62m in width, 0.99m in height and 0.30m in depth. This window looked westwards

- Door 29 (figure 20) possessed a wooden door frame but the door was temporary. The doorway measured 1.02m in width, 1.87m in height and 0.46m in depth and led northwards.
- Window 30 (figure 21) measured 0.70m in width and 0.79m in height and looked northwards
- Stairs 31 (figure 22) stood to a height of 1.68m and 0.94m in width forming a wooden deck 0.92m in length accessing Room 5. The flight of stairs comprised seven timber steps and a bottom stone step. Access into Room 5 was via a further three wooden steps.
- Door 32 (figure 24) measured 0.88m in width, 1.73m in height and 0.46m in depth accessing Room 4, the larder; the door was absent
- Door 33 (figure 25) measured 0.73m in width and 1.77m in height and accessed Room 5
- Door 34 (figure 23) measured 0.68m in width and 1.78m in height and accessed the upper level of Room 4

Figure 20. Door 29, Room 3

Figure 21. Window 30, Room 3


Figure 22. Stairs 31, Room 3

Figure 23. Door 34, Room 3

Figure 24. Doorway 32, Room 3

Figure 25. Door 33, Room 3

Room 4: larder.

The larder (figure 26) measured 3.00m in length, 2.13m in width and stood to a height of 1.81m. A ceiling was missing that once was accessed via door 33. All the walls were formed from clay dabbins although on the exterior northern wall there has been a modern repair in breeze blocks (figure 27). The interior consisted of a series of stone benches measuring 0.74m in width and 0.62m in height.

Figure 26. Interior of the larder showing benches

Figure 27. Exterior wall showing modern repair

Room 6: stall 1

The room (figure 28) measured 4.84m in length, 3.02m in width and stood to a height of 2.38m.

Figure 28. Stall 1, Room 6

Figure 29. Stall 2, Room 7

Clay dabbins walls form the northern and western sides of the room the remaining walls being red brick. The unit divides into two stalls finished with a split level concrete floor that falls 0.19m. The ceiling is modern with an asbestos roof. Access into the room was via a doorway measuring 1.20m in width and 2.00m in height.

Room 7: stall 2

The room measured 4.84m in length, 1.96m in width and stood to a height of 2.57m (figure 29). Clay dabbins wall form the northern side of the room the remaining walls being red brick. The unit represents a single cattle stall finished with a concrete floor. The ceiling is modern with an asbestos roof.

Room 8: threshing barn

The room (figure 30) measured 4.59m x 4.54m and stood to a height of 5.42m at the ridge where a modern asbestos roof was present. Clay dabbins wall form the northern side of the room the remaining partition walls being red brick measuring 0.21m in thickness. Between Rooms 7 and 8 there was a partition door 0.83m in width and 1.84m in height that drops 0.24m onto a concrete floor. Access into the threshing barn was through a doorway measuring 2.47m in width and 3.20m in height.

Room 8 contained the following architectural features and furnishings:

- Doorway 41 (figure 31) measured 0.74m in width, 1.80m in height and 0.42m in depth, surmounted by a window lintel measuring 1.72m in length, 0.21m in width and 0.12m in depth that contained a tongue and groove planked door

Figure 30. Interior of threshing barn

Figure 31. Door 41, Room 8

Room 9: stall 3

The room measured 5.09m in length, 4.75m in width and stood to a height of 2.63m (figure 32). All four walls were constructed from red brick with the northern wall being a brick wall with possibly clay dabbins behind it. The unit contained wooden cattle stalls with a central trough finished with a concrete floor. The ceiling is modern with an asbestos roof. The room possessed a modern door

measuring 1.15m in width and 1.92m in height and two modern windows; the southern window measured 0.46m in height and 0.85m in width and the eastern window measured 0.46m in height and 0.81m in width.

Figure 32. Interior of stall 3, Room 9

Room 10: stall 4

The room measured 3.14m in length, 2.23m in width and stood to a height of 3.81m (figure 33). The southern wall was formed from clay dabbins as was the western end which possessed a cobble plinth. The remaining walls were brick partition standing to the height of the corrugated iron roof, 1.94m. Modern roof joists were present bearing a corrugated iron roof. The floor was formed from concrete.

Figure 33. Interior of stall 4, Room 10

Figure 34. Interior of stall 5, Room 11

Room 11: stall 5

The room measured 3.08m in length, 2.26m in width and stood to a height of 3.77m (figure 34). The southern wall was formed from clay dabbins. The remaining walls were brick partitions standing to the height of the corrugated iron roof; 1.86m. Modern roof joists were present, the floor formed from concrete.

Room 12: stall 6

The room measured 2.55m in length, 2.24m in width and stood to a height of 3.87m (figure 35). The southern wall was formed from clay dabbins. The remaining walls were brick partitions. Modern roof joists were present, the floor formed from concrete. A tongue and groove timber door (41) accessed the threshing barn (Room 8).

Figure 35. Interior of stall 6, Room 12

Figure 36. Interior of stall 7, Room 13

Room 13: stall 7

The room measured 2.56m in length, 2.28m in width and stood to a height of 3.78m (figure 36). The southern wall was formed from clay dabbins. The remaining walls were brick partitions standing to the height of the corrugated iron roof. Modern roof joists were present, the floor formed from concrete.

Room 14: stall 8

The room measured 2.99m in length, 2.23m in width and stood to a height of 3.63m (figure 37). The southern wall was formed from clay dabbins. The remaining walls were brick partitions standing to the height of the corrugated iron roof. Modern roof joists were present, the floor formed from concrete.

Figure 37. Interior of stall 8, Room 14

Figure 38. Interior of lean-to, Room 15

Room 15: shed

The room measured 15.41m in length, 4.72m in width and 2.88m in height (figure 38). It was constructed from concrete breeze blocks and corrugated iron sheet to form the roof. The floor was of concrete with a trough 1.10m set off the northern wall. This trough measured 0.50m in width and stood 0.23m in height and was formed from a ceramic pipe 0.30m in diameter.

Room 16: toilet

The room measured 2.70m x 2.18m and stood to a height of 2.83m (figure 39). The area divided into three areas; a toilet closet (without a toilet pan), cloak room and vestibule. The structure was constructed from corrugated sheet and accompanying concrete floor.

Figure 39. Toilet 16

Figure 40. Outbuilding 17

Room 17: outbuilding

The room measured 5.49m x 2.28m and stood to a height of 3.01m (figure 40). The outbuilding was formed from modern, hollow ceramic blocks split into two compartments: a store and a stove or fireplace. A specialist function probably occurred within this small outbuilding.

5.3 First floor lay-out

The first floor consisted of two bedrooms (Rooms 5 and 18) within the surviving clay dabbins cottage (figure 41).

The other buildings did not have dedicated first floor space apart from the roof space above Room 9 that had been used as a hayloft (figures 56 and 57).

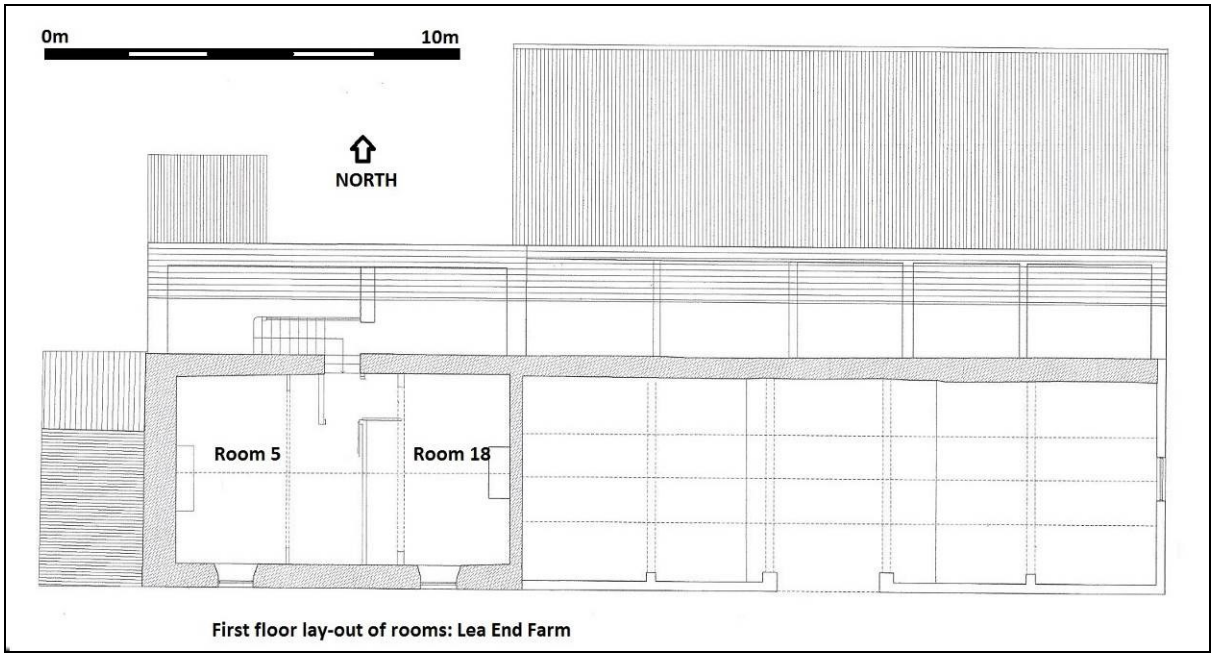

Figure 41. First floor lay-out of the clay dabbins cottage

Room 5: bedroom 1.

Room 5 represented bedroom 1 and measured 4.63m x 4.45m with a height of 2.10m to the hardboard ceiling (figure 42). The roof comprised Welsh slates fastened onto timber purlins (figure 43). One set of cruck blades was visible within the northern and southern clay dabbins wall. The floor comprised timber floorboards.

Figure 42. Interior of Room 5

The partition wall with Room 18 consisted of lathe and plaster 0.10m in thickness.

Room 5 contained the following architectural features and furnishings:

- Sash window 35 (figure 44) measuring 0.66m in width and 1.10m in height

- Fireplace 36 (figure 45) bearing a chimney breast 1.57m in width, 2.10m in height and 0.39m in depth that contained a cast iron fireplace measuring 1.25m in width, 1.14m in height and 0.44m in depth
- Timber door 37 (figure 46) measuring 0.80m in width and 1.86m in height leading to Room 18 (bedroom 2)

Figure 43. Exposed roof and cruck blade

Figure 44. Window 35, Room 5

Figure 45. Fireplace 36, Room 5

Figure 46. Door 37, Room 5

Room 18: bedroom 2.

Room 18 formed bedroom 2 and measured 4.67m x 3.58m with a height of 2.09m to the hardboard ceiling (figure 47). The roof comprised Welsh slates fastened onto timber purlins. One set of cruck blades was visible within the northern and southern clay dabbins wall that measured 0.35m in width and 0.10m in thickness. The floor was timber floorboards.

Room 18 contained the following architectural features and furnishings:

- Fireplace 38 (figure 48) bearing a chimney breast 1.21m in width, 2.10m in height and 0.43m in depth that contained a cast iron grate measuring 0.99m in width, 1.06m in height and 0.19m in depth within a painted sandstone surround
- Sash window 39 (figure 49) measuring 0.87m in width and 1.10m in height that faced southwards
- Timber door 40 (figure 50) measuring 0.80m in width, 1.88m in height leading onto the landing within Room 3

Figure 47. Interior of Room 18

Figure 48. Fireplace 38, Room 18

Figure 49. Window 39, Room 18

Figure 50. Door 40, Room 18

5.4 Front or southern elevation

The front or southern elevation illustrated the original cottage and barn, part of a group of buildings that forms Lea End Farm (figure 51). The elevation measured 24.70m in length and stood to a maximum height of 5.82m with a wall height of 4.00m.

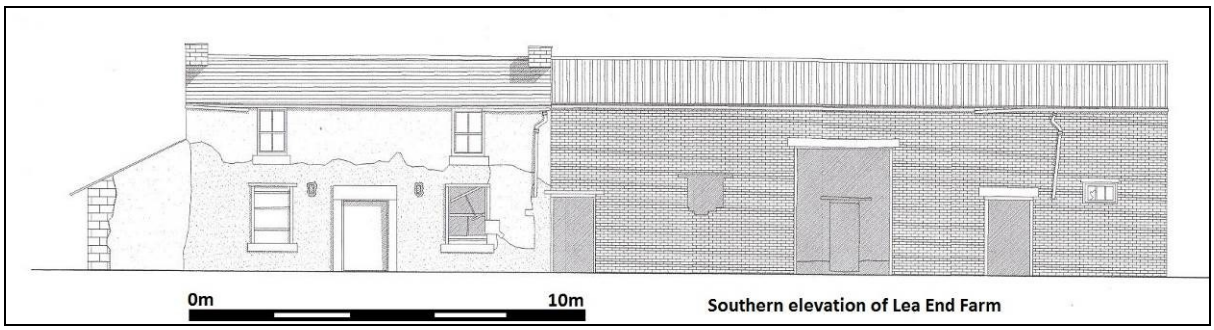

Figure 51. Front or southern elevation of the study building

The cottage (figure 52) had a cement render applied to the clay dabbins fabric and composed of a central doorway with flanking double sets of symmetrical windows. The Welsh slate roof appeared to be in reasonable condition with a stone ridge. Two chimneys had been truncated and probably disused.

The barn (figure 53) was built from red brick probably of late 19th or early 20th century date. The façade was plain and utilitarian and possessed an asbestos roof.

Figure 52. Clay dabbins cottage, southern elevation

Figure 53. Brick barn southern elevation

5.5 Rear or northern elevation

The rear elevation (figure 54) possessed restricted access but consisted of two elements; the original clay dabbins cottage and a modern lean-to shed. The overall elevation measured 24.70m in length with the shed being 15.60m in length and the cottage 9.10m in length.

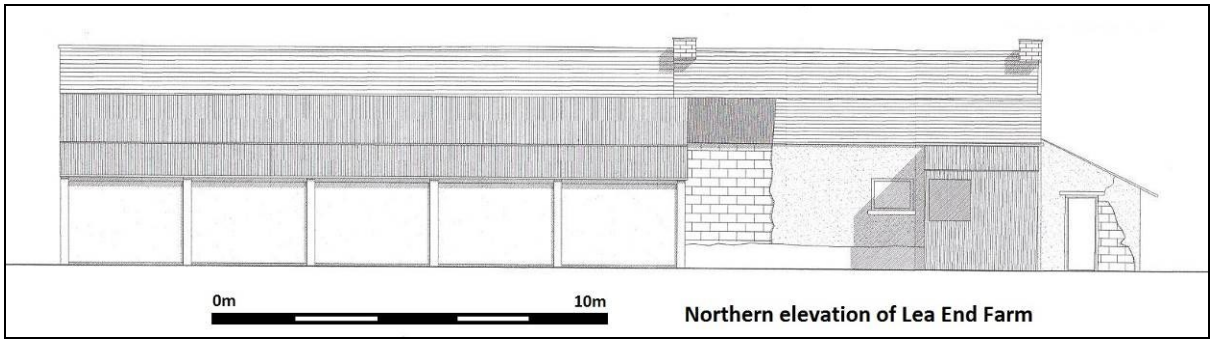

Figure 54. Rear or northern elevation of the study building

An outshut added to the cottage was partly repaired with modern breeze blocks, conjoining a cement rendered clay dabbins wall.

The shed possessed a corrugated roof that partly extended over the outshut attached to the barn. The walls were formed from pre-fabricated concrete slabs (figure 55).

Figure 55. Barn and shed, northern elevation

5.6 Eastern elevation

The eastern elevation (figure 56) comprised a red brick barn 5.80m in length and 5.80m in height with two windows. The upper window was inaccessible and was probably an access into a hayloft whilst the lower window measuring 0.81m in length and 0.51m in height illuminated a cattle stall (figure 57).

The overall elevation measured 12.98m in length and included a brick outshut 2.48m in width and a shed 4.70m in width. The outshut has been added to a central clay dabbins wall which also served as the northern side of the brick barn. The shed was open at the eastern end.

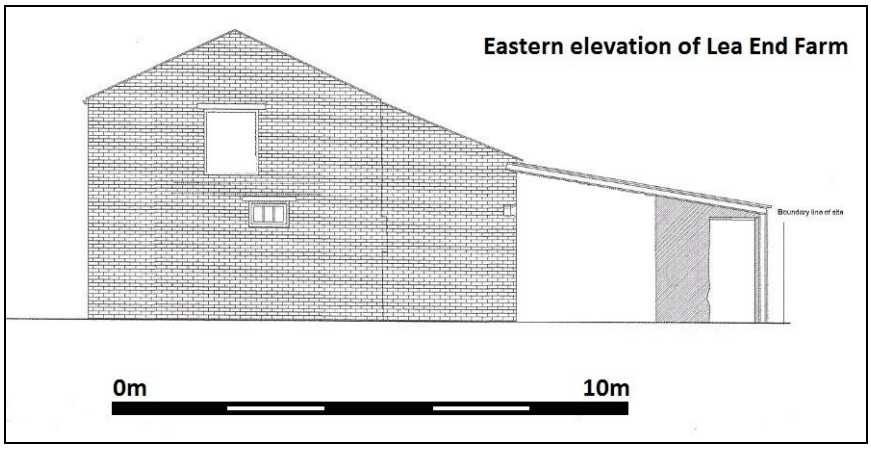

Figure 56. Eastern elevation of the barn and shed

Figure 57. Barn and shed, eastern elevation

5.7 Western elevation

The western elevation (figure 58) illustrated a gable end to the cottage that was cement rendered as was the attached outshut. The overall elevation measured 12.98m in length and included a shed 4.70m in width.

A modern lean-to was added to the gable end of the cottage (figure 59) as was a corrugated sheet outside toilet.

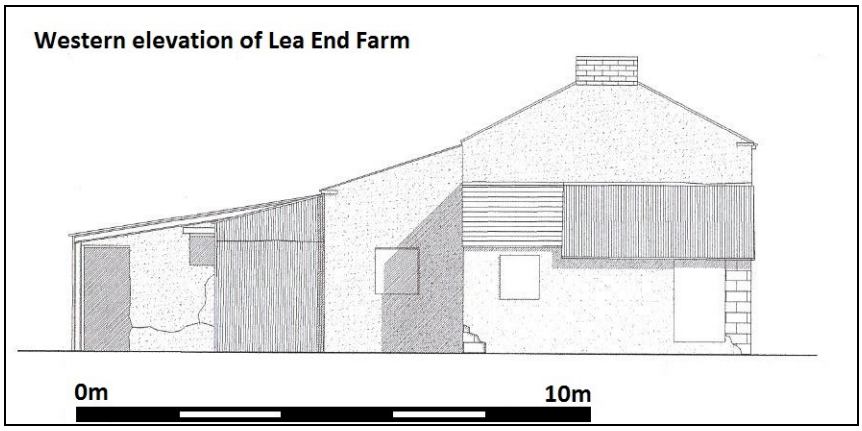

Figure 58. Western elevation of the cottage

Figure 59. Cottage, western elevation

6. DISCUSSION

6.1 Academic merit

Past cultural settlement in Cumbria has been primarily rural, where agriculture has been the main economic driver and product. Increasingly, those features associated with past farming technique

have been lost or converted for domestic use or for local tourism. Moreover, neglect has also contributed to a loss of building stock.

A challenge to historians, archaeologists and other researchers is to compile a record of those rural buildings and customs that reflected past agricultural practice and social conditions, before their economic, agricultural and historic context is lost.

6.2 Phasing

Seven major structural phases were identified during the field survey (figure 60).

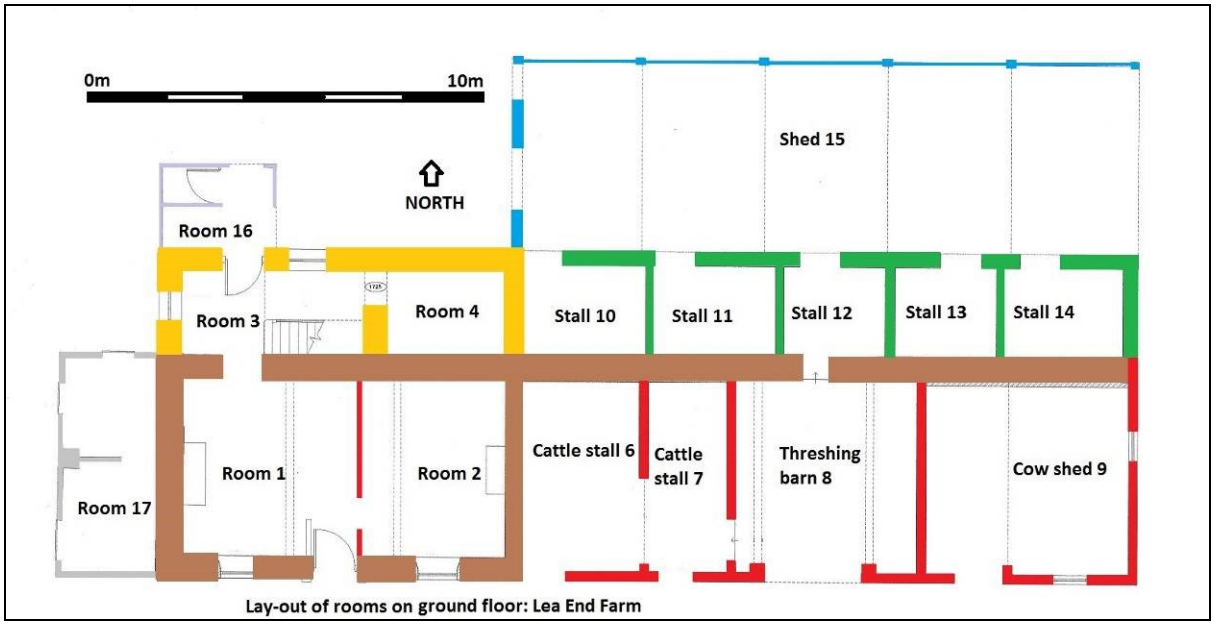

Figure 60. Phase plan of the study building

Phase 1

The original structural phase (brown outline) consisted of a rectangular plan clay dabbins building comprising of a single unit cottage measuring 9.25m x 5.73m and a single remaining clay dabbins wall that formed the northern wall of a later barn (Phase 3).

It would appear likely that the surviving clay dabbins wall was part of a suite of conjoined buildings either further cottages or agricultural buildings attached to the clay dabbins cottage.

The clay dabbins cottage possessed a central doorway and a first floor that was originally a single unit, later divided by a plaster lath wall.

Unusually, the cottage yielded two fireplaces and chimneys (12 and 17, respectively) serving originally a single room (figures 12 and 17). It would appear probable that fireplace 17 may have been added at a later date when greater privacy necessitated the division of the ground floor into a two-unit house. As fireplace 12 served as a range, a tradition of food preparation at the western end of the building (Room 1) may indicate that this chimney was the earliest.

Phase 2

A clay dabbins outshut (yellow outline) was added to the Phase 1 clay dabbins cottage. This incorporated a flight of stairs 31 (figure 24) that allowed access to a first floor (Rooms 5 and 18).

This alteration indicated a change of use for the first floor from storage loft to bedroom and complemented taller walls and improvements in headroom and access (Brunskill 2002, 77).

The outshut followed the same catslide continuation of the main roof, a development that led to the provision of additional rooms including a larder (Room 4). Brunskill suggests this development was consistent within the period 1730-1820 (Op cit, 77).

Phase 3

Probably during the mid or later 19th century major renovations occurred with the suite of buildings east of the cottage being no longer fit for purpose. This may have meant the loss of two cottages (see page 9) or more plausibly, a period of agricultural investment that replaced a former clay dabbins barn with a brick barn (red outline).

The new structure incorporated a clay dabbins wall (figure 61) and was built in red brick with minimal windows and doorways stressing its utilitarian function.

Room 8 appears to possess the characteristics of a threshing barn; tall outward-opening doors, an open space for winnowing and a rear door to provide a draught. Cattle stalls for seven beasts flanked the threshing floor indicating mixed agricultural practice.

The ground floor of the cottage was probably sub-divided in order to provide a parlour (Room 2).

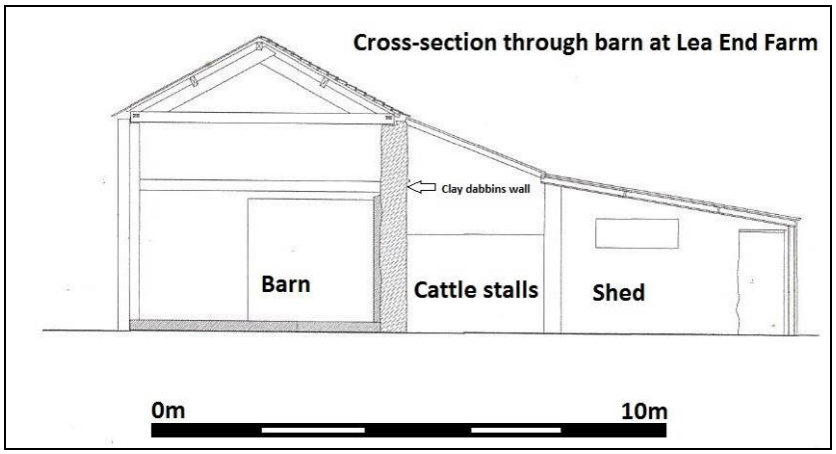

Figure 61. Cross-section through barn, cattle stalls and shed

Phase 4

During the late 19th or early 20th centuries further stalls were attached (green outline) within a brick outshut to the north of the Phase 3 barn (figure 61). These stalls were used exclusively for livestock perhaps suggesting that the arable component had declined.

Phase 5

An outside toilet (mauve outline) was attached to the outshut (Phase 3). This asset did not appear to be connected to drainage and was probably a night soil toilet.

Phase 6

During the mid-20th century an open cow shed (blue outline) was added to the Phase 4 cattle stalls. This feature has no architectural merit.

Phase 7

An adjunct small structure (grey outline) that yielded an oven was attached to the Phase 1 cottage between circa 1970-1980.

6.3 Discussion

The study building possessed very few architectural embellishments; primarily constructed as a modest dwelling heavily altered during the 19th and early 20th centuries when the brick barn and other cattle stalls were constructed.

The clay dabbins element within this suite of buildings existed within the cottage and its outshut (Phases 1 and 2) and as a central wall within the brick barn (Phase 3).

The cottage incorporated two sets of cruck blades (figure 62) that conformed to Brunskill's categorisation of a "raised cruck with blades supported on the wall" (Brunskill 2002, 148-149). This supported a simple tie-beam truss, popular throughout the 18th and 19th centuries (Ibid, 152-153).

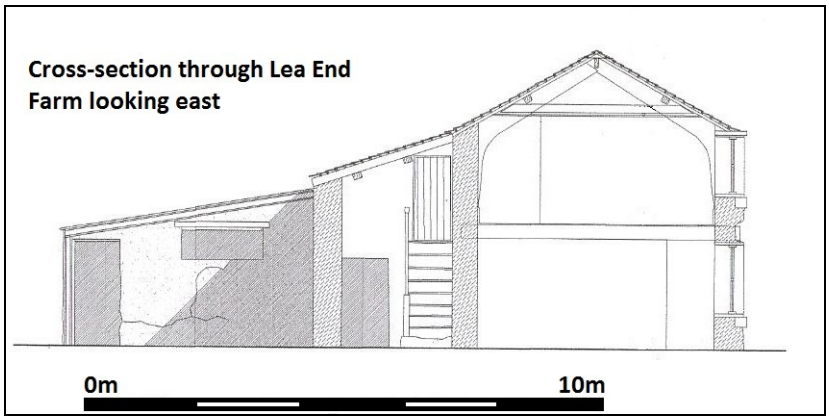

Figure 62. Cross-section through the clay dabbins cottage

By the end of the 17th century, the tradition whereby the cruck blades supported the roof had become obsolete and thereafter, the roof and its eaves rested directly upon the superstructure of cobble plinth and clay dabbins, allowing a second floor to be created that could be used as a hayloft, store or extra accommodation (Brunskill 2002, 159-160).

The clay dabbins cottage was a simple manifestation of a one bay, single storey structure that acquired a rear outshut (Phase 2) that would have served as kitchen and larder. The upper floor was probably added during this action further, divided into two bedrooms (Rooms 5 and 18).

The study building was originally a single bay cottage consequently divided into a two-unit house probably during the mid-19th century with the insertion of a single skin brick wall (Phase 3) in order to segregate the kitchen/living room (communal space) from a parlour (private space).

The lay-out of Lea End Farm neatly corresponds to the laithe-house plan common throughout the 18th century whereby farm buildings were attached to the upper end of a farmhouse or cottage without a cross-passage with all the building elements arranged in a single alignment.

Typically in Cumbria, such a farmstead serving around thirty acres (12.15 ha) with rough grazing would consist of a farmhouse, a barn with a threshing floor, a stable and accompanying loft that could accommodate two horses and stalls or boxes for ten or a dozen cattle. Buildings of this type were usually contemporaneous with a house of two storeys in height and a common roof running over the whole range. Superficially similar to the longhouse, the spatial arrangement was different and unlikely to be earlier than the 18th century (Brunskill 2002, 100).

The study buildings appear to belong to a period of investment in farm buildings initiated during the later 18th Century that lasted to about 1880. This period reflected three distinct phases:

- The second half of the 18th Century when demand increased from industrialising communities and transport improvements facilitated long distance trade
- The Napoleonic War 1793-1815, when there was nationally, a large rise in agricultural production and where protectionism maintained high prices
- 1815-1880 when increased mechanisation and scientific methods increased the efficiency of the Cumbrian farm (Brunskill 2002, 27-28)

Development was enhanced by the effects of enclosure that rationalised farm holdings and scientific improvements in farming that lead to greater productivity and efficiency. This evolution was reflected in the farm buildings where basic forms developed into specialised structures, culminating in designs of some ingenuity with architectural pretensions and representing a considerable capital investment (Brunskill 2002, 95).

The Phase 3 brick barn at Lea End Farm probably belongs to the third phase of agricultural improvement (1815-1880) and would have probably been used for grain storage and husbandry. Most probably the barn was constructed during the mid or later 19th Century although the First Edition Ordnance Survey map shows that the frontage of the building is slightly set back perhaps denoting a presumed earlier clay dabbins barn.

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