

## VIII Causeway House, Northumberland

*Norman Emery, John Warner, Dr. Alan Pearson*

Causeway House (NY 763663) lies in the Northumberland National Park, at the side of the road leading down to the Roman Fort of Vindolanda (fig. 1). It is a rare surviving example of a building thatched with heather, a feature once fairly common in upland areas.

The house and attached buildings were built in, or around, 1770, possibly by the Thompsons of Tow House. The site was on just over 52 acres of cleared land of Henshaw township; much of the surrounding area was not enclosed

until 13 years later.<sup>1</sup> The earliest known occupant was William Pattison, a “yeoman”, and his wife Eleanor.<sup>2</sup> From the beginning it was known as “Causeway” though, perhaps locally, it was also called “Overton”, or “Iverton Shield”. William Pattison was buried in 1832<sup>3</sup>, and his wife appears to have died in Haltwhistle workhouse in 1858, at the age of 87.<sup>4</sup> William Thompson, a shepherd, his wife Jane, and their family, moved into Causeway House. William died there in 1875<sup>5</sup>, his wife surviving

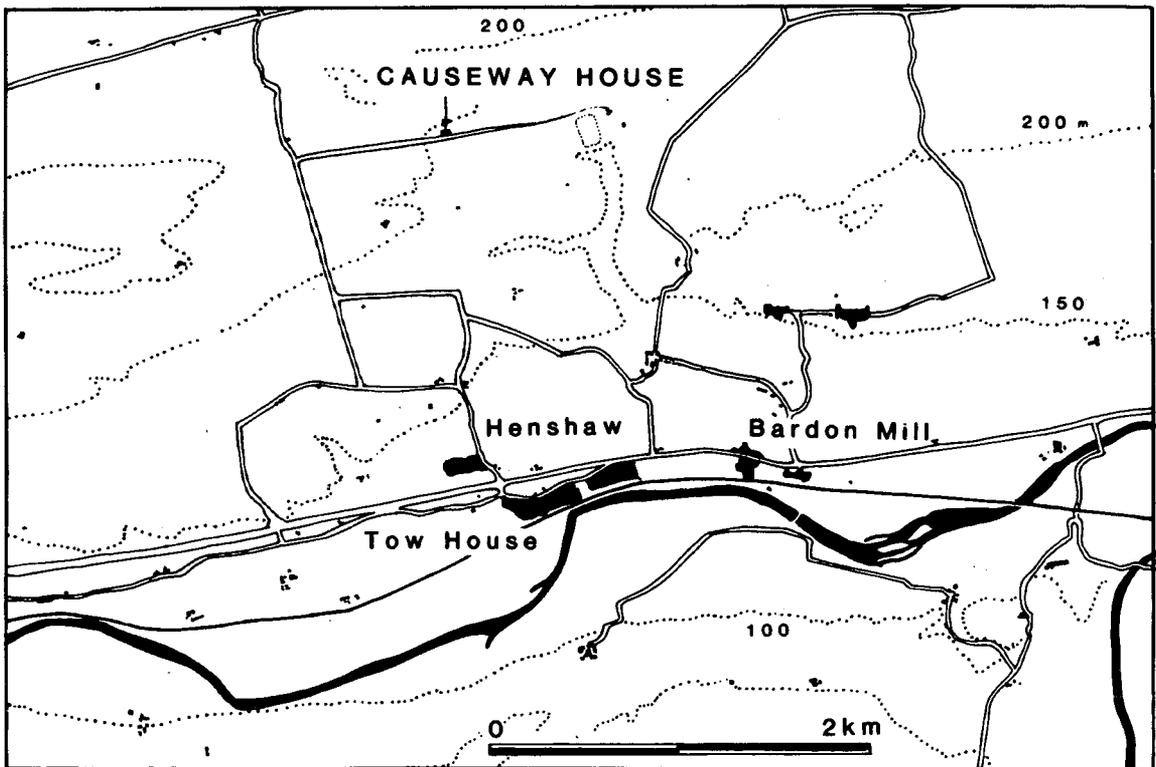


Fig. 1. Location map of Causeway House.

him. In the first half of the 20th century the Wilsons were residents, and were succeeded by the Wanlass family, who bought it in the 1960s.

In 1988 the Landmark Trust purchased the property, with the intention of converting it into holiday accommodation. Plans were produced by the Trust's advisers, Stewart Tod and Partners, chartered architects of Edinburgh, which included the proposal to re-roof in traditional materials. The firm of Barwick Bros. Ltd. of Gilsland began work on removing the thatch in June 1989, during which time a record of the building and its roof structure was undertaken, and samples of the roofing material were also collected. Once this work was completed, Mr. John Warner, a master thatcher from Brandon in Warwickshire, undertook the re-thatching of Causeway House.

#### The Building (figs. 2-4)

Causeway House is an E-W aligned building, facing south, comprising a two-storeyed main block of house, with a byre/granary on the left return; and a single-storeyed attached stable/

loose box on the right return. The main block is 44' (13.4 m) by 19' (5.8 m), and the loose box is 13' (4 m) by 19' (5.8 m).

The walls of the main building have an offset foundation course, and are constructed of neatly-coursed sandstone, with the corners tied by cut and tooled rectangular alternating quoins. These project slightly from the wall face, as do the plain architraves of doors and windows. The roof is gabled, with triangular sandstone blocks (reversed crowsteps) set as an outer facing to form the verge, and projecting above the inner face of the wall. The inner faces of these stones had been roughly tooled, and they were set onto flat stone slabs which had been laid on the wall-heads. It had been thatched with heather, but this was later covered by corrugated iron sheeting. The roof pitch is steep, 50°, a common feature of thatched structures. A brick chimney-stack is set at the E end, retaining a single square pot.

The house itself comprises a ground floor kitchen/living room, and an upper chamber divided into two. Access comprises a main front door and a rear door. At the centre of the

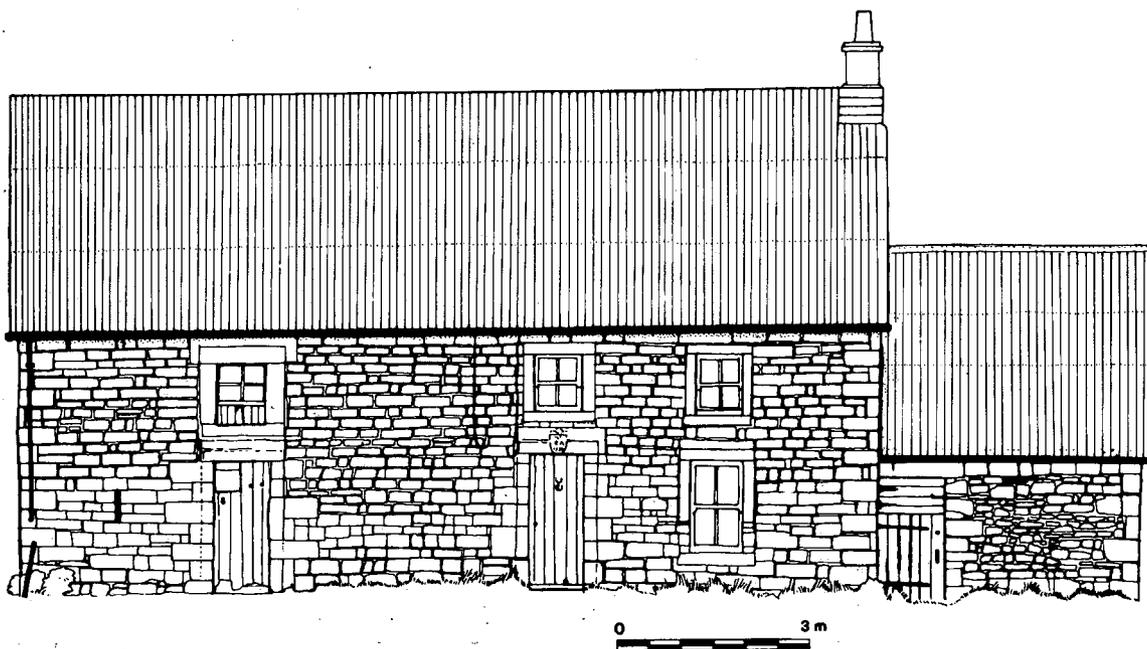


Fig. 2. Front elevation of Causeway House.

front door lintel is a carved shield inscribed T/R.A/1770, surmounted by a globe-like feature, possibly a helmet, with curling foliage at either side of it. The plank-built door has two horse-shoes and a rabbit's foot attached to it. A single front window provided the main natural lighting for the room. It is a tall 4-pane vertical sliding sash type, set into an opening which had clearly been increased in size.

The ground floor room was until recently used as a store-workshop. Against the gable wall is a kitchen-range surrounded by a plain

lintel and jambs. The range bears the date of 1912 and the mark of John Liddel and Sons, a firm involved in ironmongery, grocery, implement making and steam corn milling, of Hall Meadows in Haltwhistle.<sup>6</sup> The oven, on the right, is set above the level of the fire, a common feature on northern English ranges.

Against the dividing wall, and lit by a small ground-floor window, is the staircase, a single flight to the upper level, the stairwell guarded by a balustrade with plain, square-sectioned, spindles.

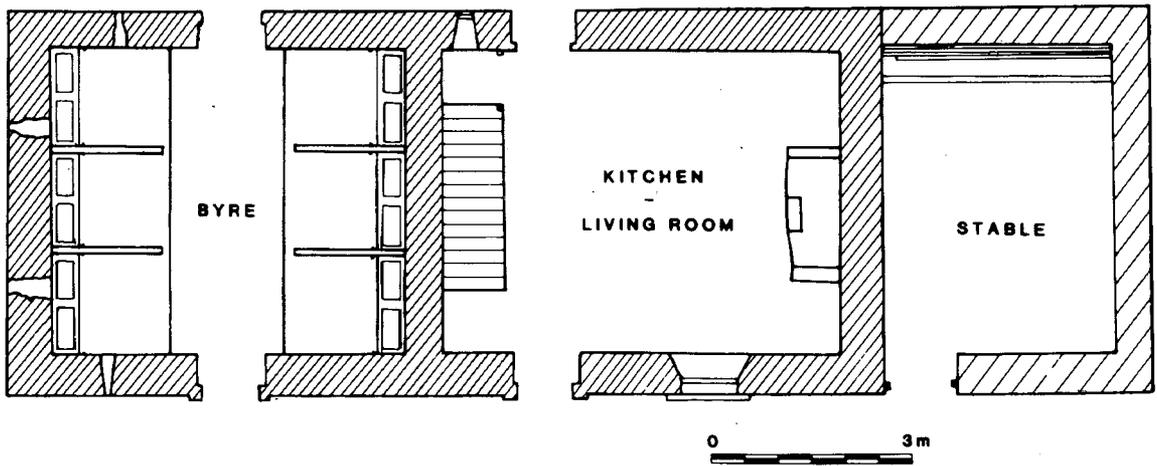


Fig. 3. Ground floor plan.

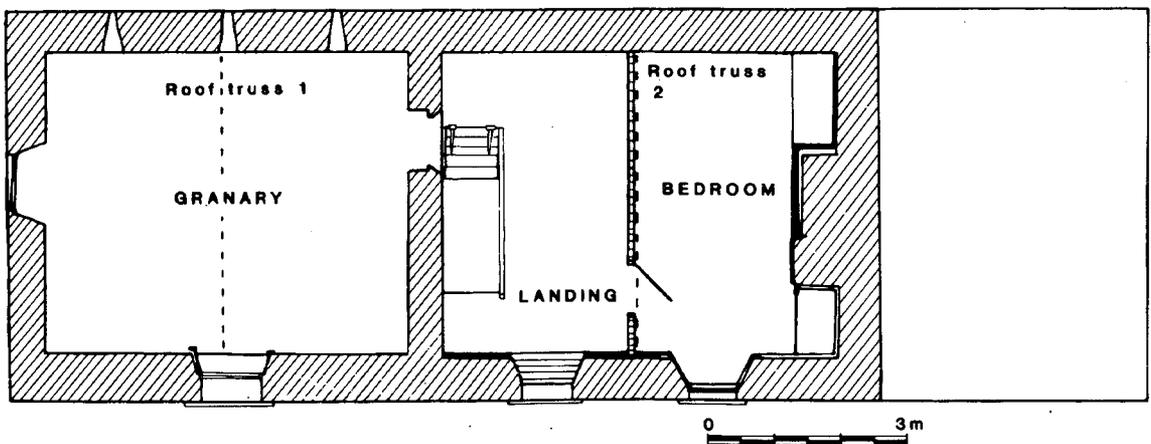


Fig. 4. First floor plan.

The upper floor is divided by a plank partition set up against the roof truss, (which was boxed-in), producing a landing and a small bedroom. The landing is lit by a 4-pane sash window, with moulded joggles, set in a splayed opening. The area has plank wainscoting, including the window reveals, and a simple skirting-board. The planks have been papered over, and a ceiling has also been inserted.

A painted, ledged, door in the plank-built wall gives access to a small bedroom. Again, the room is wainscotted, the planks tinted turquoise, but covered by wallpaper of a different pattern from that on the landing. The room is lit by a small 4-pane sash window set in a wide, splayed opening. Against the gable wall is a small cast-iron fire surround, its moulded decoration showing similarities to one at No. 62 Saddler St. Durham City. It is inserted into a stone chimney breast, and has later been bricked up. To the right is a wood-lined, built-in cupboard with a 3-panel door. It is, in part, lined with sheets of the Newcastle Journal of 27.5.1947.

The west end of the main block is also two-storeyed. The ground floor has been used as a byre, with a N-S through passage, and stalling for 12 cattle. The concrete flooring of the 6 double stalls is raised above the central walkway, down which runs a groove to drain urine out through the front door. The dividers are of concrete, and each stall is fitted out with metal bowl automatic water dispensers, double-glazed troughs, and slide-bars with tethering ropes. Ventilation is provided by 4 internally splayed slits in the walls.

The upper level, with a plank floor supported by 9 joists, has a single sash window set in a widely splayed opening in the S. front. At the left return is a loading door, and there are 3 internally splayed slit vents in the rear wall, suggesting the room's use as a granary. This upper room is reached from the house landing by lowering a flap over the stairwell, thus allowing access to the simple, ledged, plank door in the dividing wall. This doorway was opened up by Mr. Wanless.

Attached to the E. gable is a single-storeyed stable/loose box, steeply gabled, with a Dutch-

door in the S. front. The unit is fitted out with a manger and hay rack.

#### The Roof

The granary has one roof truss (fig. 5) set into the wall 1.34 m above the floor. Surprisingly the foot of the southern principal is set directly above the window. The principals are split timbers, trimmed, but still retaining much of their bark, and are united at the apex in a halved joint, secured by two pegs. The crossing formed a seat for a square-sectioned ridge beam, which had been wedged into place. To prevent outward splaying, the principals were secured by two levels of collar beams. These were set into trenches cut into the E. face of the principals and secured at each end with wooden pegs, usually 2, and, in the lower beam, by broad-headed forged spikes. The single level of purlins are set just below the top collar. On the northern side, a curvilinear trunk has clearly been cut in two and laid

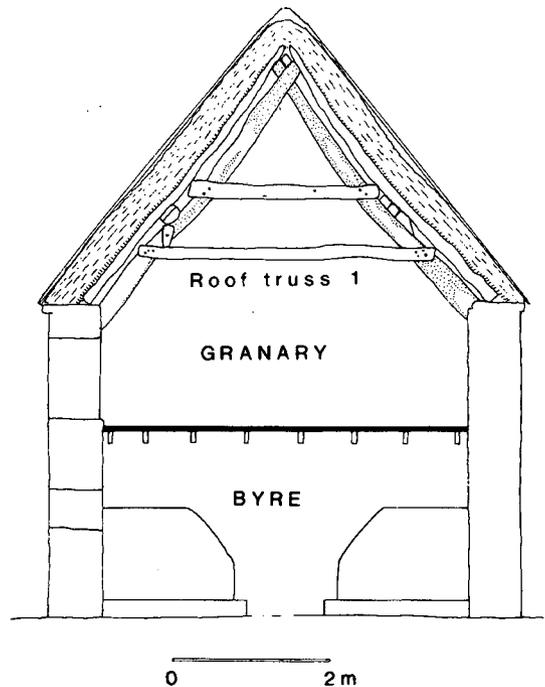


Fig. 5. Section through granary and byre.

horizontally to form one level. The ends of the two timbers are trimmed almost to a point and joined over the back of the principal in a rough scarf joint. They are held by a wooden cleat nailed onto the principal, though further support is provided by a prop, trimmed and roughly wedge-shaped, sitting on the lower collar, and secured with a T-shaped spike to the principal. The ends of the purlins are set into the walls, and flat stones projecting from the dividing wall provide added support.

The common rafters are set onto flat, projecting slabs laid on the wallhead, without a wall plate, and nailed onto the purlins. They are branches or roughly split sections of tree trunk, occasionally with the ends trimmed. Some are full length, reaching from the wall to the ridge, while in other places there are two levels of rafters. They are set fairly close together, from 3"-1'5" (7-43 cm) apart. On the N. side there are 23 common rafters, and 18 on the S. side.

The close spacing of the rafters was essential to hold divots (thinly cut turfs). They were roughly rectangular, 1'6"-1'9" (46-54 cm) long, and 1' (30 cm) wide, and compressed to around 2" (5 cm) in thickness. An examination of the plant and bryophyte remains on a turf sample was undertaken by Dr. Alan Pearson of the Department of Biological Sciences, Durham University. The species present were:

*Calluna vulgaris* (ling)—the main species present in most of the turf.

*Nardus stricta* (mat grass)—a number of small clumps present.

*Carex panicea?* (Carnation sedge)—a few individual plants present.

Bryophytes:

*Sphagnum recurvum*—a few individual plants present.

*Pleurozium schreberi*.

*Rhytidiadelphus squarrosus*.

*Hylocomium splendens*.

*Polytrichum formosum*—a few individual plants present.

The plant species composition indicates the turf was taken from an area of acidic *Calluna* heath which overlaid a sandy soil. Given the

nature of the soil, a reasonable level of drainage would be expected, and this is borne out by the species present, in that they are found in areas of high precipitation but with little standing water.

The divots were laid from the eaves upwards, with the grass-side down. Some of the lowest course were tied to the rafters with twisted heather bands, and the other layers laid and overlapped. To prevent slippage they were fastened together with wooden spikes of various shapes, sizes and wood types, including oak. This formed a base for the heather, which includes long mature strands, laid apparently vertically, the material secured in place with wooden staples of birch and possibly ash and hazel. These were produced by taking branches and cutting *c.* 2'7" (80 cm) spars, which were then skilfully twisted and bent in the middle. Each end then received two sharp cuts to produce a point. The completed thatch cover was up to 2' (60 cm) thick. Later, corrugated iron covered the external surface, and was held down by stays at the gables, and by wires secured through the thatch.

The roof truss within the house had been boxed in, and only certain parts of the timbering were available for examination. Where visible, a collar beam, equivalent to the lower beam in the granary, had been pegged to the principals. It had a central kink, and had probably been re-used, as there was evidence of an old tenoned joint, cut across the E. face, in which were the stumps of 2 pegs. The thatch of the bedroom had been sealed by a plank ceiling.

In the stable the span did not require a truss, and a single level of purlins supported the common rafters, divots, and thatch. It appeared that the turf underlayer did not reach up to the ridge. Again the thatch was sealed by corrugated iron sheeting.

#### The Artifacts (fig. 6)

During the process of removing the thatch in 1989 a number of items were recovered—

- A. Child's right clog sole L. 5.25", W. 2", ht. at heel 1" (13.5 × 5 × 2.6 cm). It is roughly

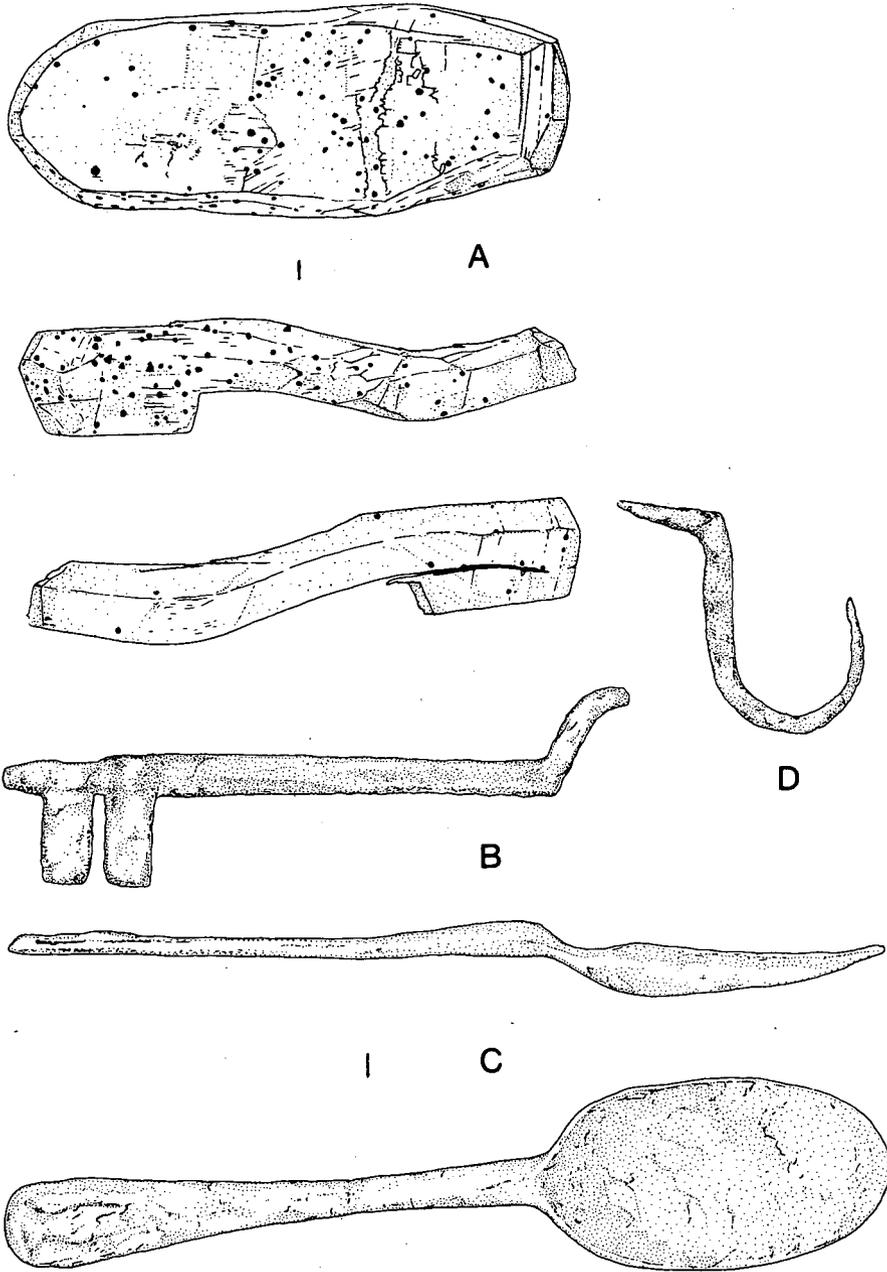


Fig. 6. Artifacts: A. Childs clog sole, B. Key, C. Pewter spoon, D. Iron hook. 1:2.

shaped with a stock knife, though there is no trace of the edge-groove, normally prepared with a snape and gripper, which would take the leather upper. This is probably due to the heel being split during shaping. The size suggests it was designed for a child aged around 18 months to 2 years.

Clogs were particularly popular, and in 1879, for instance, there were 20 firms in Northumberland making them.<sup>7</sup> Fallen from thatch onto the N. wall-head of the granary.

- B. Damaged iron key with untapering plain stem, and incomplete bow. Late 18th-early 19th c. Stem L. 5.25" (13.4 cm). Found amongst fallen thatch on the granary floor.
- C. Pewter table-spoon with oval bowl and flattish stem, thinning slightly towards the end. The splayed, rounded end is not upturned, and has a central broad ridge at the front. There are no marks. L. 8.5", bowl L. 3.25", W. 1.75" (21.5 × 8.3 × 4.6 cm). From the thatch at the rear of the house.
- D. Iron hook with a pointed tang L. 2" (5.2 cm). Found amongst fallen thatch on the granary floor.
- E-H. Four cotton dresses were found between the plank ceiling and the thatch in the bedroom. Naomi Tarrant, Curator of Costume and Textiles, National Museums of Scotland considers them to be working clothes of about 1890–1900. They were incomplete and quite heavily patched, and were probably rags when placed in the thatch.

The items from the thatched roof are an unusual collection. The hook can simply be explained as a functional item relating to the structure of the building. The other artefacts may be unwanted items pushed out of sight into the organic roofing material. The clothing, in particular, had been completely concealed by the boarding of the bedroom ceiling, but may perhaps have been used as a filler in the thatch. It is just conceivable that the artifacts may have been deliberately placed in the roof, perhaps for superstitious reasons. There are an increasing number of examples of specific items, often symbols of good luck or linked to white magic, being inserted into buildings, like the so-called "builders sacrifices" found in 16th–17th c. buildings, which often include dead cats or mummified birds, particularly

chickens.<sup>8</sup> They are most frequently found in the south of England, and, at the moment, little is known of them in the north, though an example of chicken bones in a blocked-up alcove is known at Rowley Gillet, a late 18th century farm in Co. Durham.

There are numerous superstitions linked to shoes, concerning the placing of them on a table, throwing them to a newly married couple, the way they are put on the feet, or positioned on a surface. The clog from Causeway House could well fall into a pattern of hiding shoes in buildings, a practice noted by Swann from the early 15th c. to 1935.<sup>9</sup> Shoes are found singly or in groups, the latter sometimes comprising both adult and children's footwear. It may be that they are deposited for good luck. Hole has suggested that, when worn, shoes become intimately linked to the owner, and even to that person's soul, and quotes examples of murder victims' shoes being buried to prevent the spirit walking.<sup>10</sup> In many cases the hidden shoes are well worn, and occasionally deliberately slashed. Similar beliefs seem to apply to clothing.

Less common is the placing of spoons in roofs, though a 15th–16th c. silver spoon was found in the rye thatch of Harome Hall, N. Yorkshire.<sup>11</sup> Other spoons deliberately hidden, though not in the roof, include a late 17th c. spoon at Combs Ford, Stowmarket, Suffolk, and an ?18th c. silver spoon from the High Street, Wootton under Edge, Gloucestershire. Both were found with shoes.

#### Heather thatching in the past

Heather, *Calluna vulgaris*, is a familiar sight on the uplands and heaths of N.E. England, but it also occurs on acidic soils of lowland areas, like central and eastern Durham.

It was one of a range of organic materials used as a roof cover in the region, along with straw and, in places like Shottlehopeside, Stanhope, turf. Documentary evidence records the use of heather as a thatching material by the 14th c. at Sacriston Heugh, Old Elvet and South Bailey in Durham, and Jarrow; and in

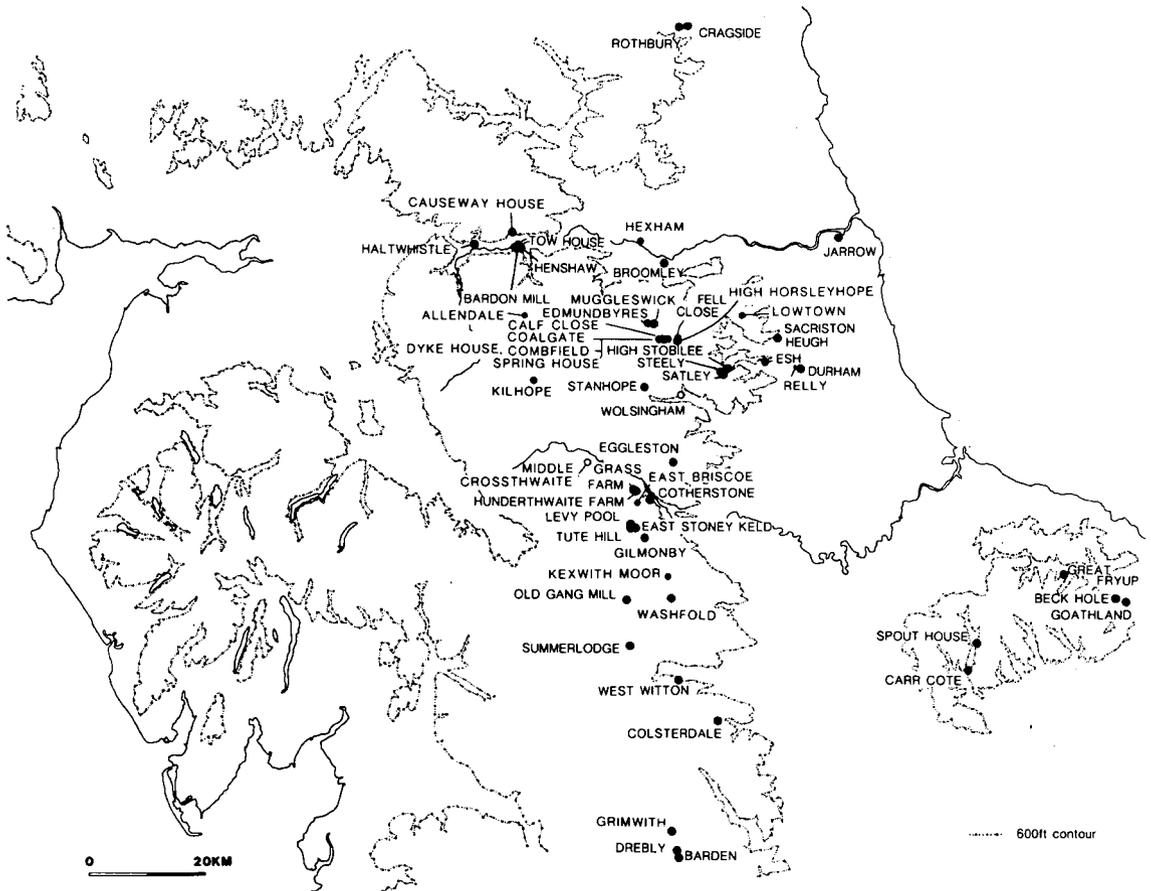


Fig. 7. Map showing the distribution of heather thatched buildings.

later centuries it was widely used on buildings on the fells and moorland.<sup>12</sup> In N. Yorkshire heather was sometimes used as an underlayer for straw thatch; in Denbighshire it formed a base for rushes<sup>13</sup>, while in Donegal, it was covered with marram grass.<sup>14</sup>

In the north of England heather thatch was often known as "black thatch", and an illustrated catalogue of buildings known to have had this type of roof cover is given below, with a map.

#### County Durham

##### **Calf Close Hill NZ 045486.**

On the S. side of the Coalgate Burn, near Muggleswick. A north-south aligned heather thatched home of the Ritsons. Demolished.<sup>15</sup>

##### **Coalgate Farm NZ 042486.**

Just W. of Calf Close Hill. Heather thatched farm house with byre and stables built onto the E. gable.<sup>16</sup>

**Combfield House NZ 059492.**

Close to the R. Derwent, S.E. of Muggleswick. Farmhouse by Narrowcomb Wood, the house of Thomas Leybourne in 1771. The pitch of the gables suggests it was once thatched.<sup>17</sup>

**Cotherstone NZ 012196.**

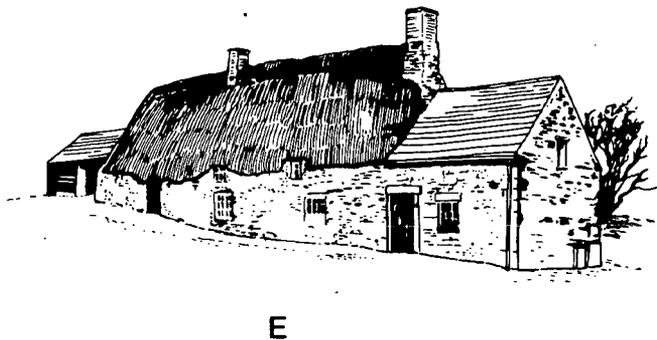
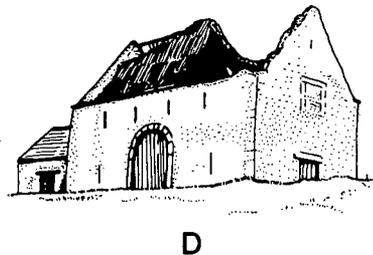
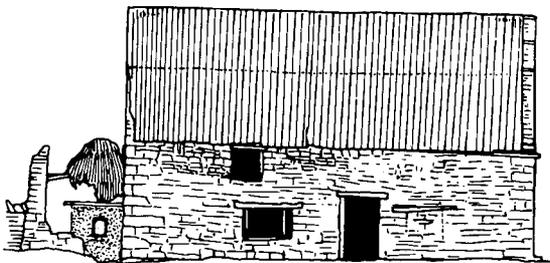
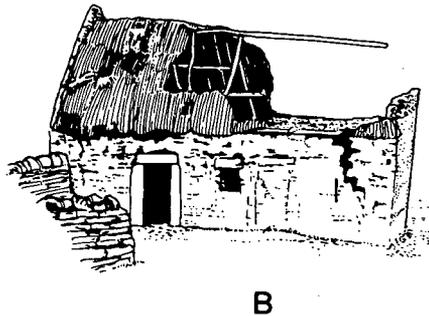
The "Red Lion Inn" had a heather thatch roof cover until the 1930s.<sup>18</sup>

**Durham City NZ 2742.**

Heather was used to thatch buildings in Old Elvet and South Bailey in 1357–8.<sup>19</sup>

**Dyke House NZ 030480 (fig. 8A).**

Near Coalgate. Small two-storeyed house with outbuilding on the right return. Possibly a gable-entry house.<sup>20</sup> Single chimney and thatched roof.



*Fig. 8. Examples of heather thatched buildings.*

*A. Dyke House,*

*B. East Briscoe,*

*C. Fell Close,*

*D. Gilmonby,*

*E. High Horsleyhope.*

**East Briscoe NY 978193 (fig. 8B).**

Small barn of coursed rubble and heavy alternating quoins, W. of Cotherstone.<sup>21</sup> Originally it had 2 doors in the frontage, though the right was later blocked. The left door has a massive lintel and jambs. A single central window, and a slit vent, also pierce the wall. Projecting slabs are laid at the wall-head, and there are reverse crowsteps to the gables. It has a principal rafter and tie-beam roof, with 2 levels of purlins, and 2 tiers of trimmed, slim, common rafters holding the heather thatch cover. No evidence of a turf underlayer.

**East Stoney Keld NY 983149.**

Building close to Levy Pool and Tute Hill. Probably 2 pairs of split trunk principal rafters, ?halved and nailed together at the apex. Riven timber was used as tie beams, still retaining bark. Two levels of sinuous purlins were trenched into the backs of the principals. Closely laid branches or their trunks supported the thatch.<sup>22</sup>

**Edmundbyres NZ 016500.**

a. Featherstonehaugh refers to a cruck-framed building of clay-bonded stonework with a roof cover of 2–3' of heather.<sup>23</sup>

b. A two-storeyed house beside the "Punch Bowl" with central front entry, flanked either side by windows, with two openings in the upper level. A steeply pitched roof of heather thatch extended round the massive gable chimneys, but was decayed by the 1920s and has been re-roofed.

**Eggleston NZ 055261.**

Heather thatched small barn by the Blackton Beck, between Blackton Head and Slate Ledge.<sup>24</sup>

**Esh NZ 196441.**

Cross Keys public house in late 18th–19th c. with weaving shed and smithy attached. The pub was long and white-washed, with tall chimneys, and two-storeyed, with a steep roof of "black thatch".<sup>25</sup>

**Fell Close NZ 067477 (fig. 8C).**

House, between Castleside and Waskerley, of clay-bonded rubble and side-alternating

quoins. Central entry, originally with a through passage, though the N. door is now blocked. In the W. end is a kitchen area with a stone bread-oven, and at the E. end a small solid fireplace. In the upper level are 2 upper-cruck trusses, which originally supported a thatch roof cover, though this has been replaced with corrugated iron.

In the W. gable is an iron-studded door, with a small heather-thatched porch.<sup>26</sup>

**Gilmonby NY 999133 (fig. 8D).**

High two-storeyed field barn with large central arched doorway and slit vents in the frontage, and a door and blocked up opening on the right return.<sup>27</sup> The heather thatch was in a state of collapse in 1959. Demolished.

**Grass Farm NY 984211.**

Two-storeyed house with stone of HWD/1703 above the door. Surrounds to the windows. The roof cover comprised upper crucks, with one (?) level of purlins, and closely laid rafters overlain by the heather cover. Derelict in the 1950s.<sup>28</sup>

**High Horsleyhope Farm NZ 060475 (fig. 8E).**

Long, low two-storeyed farmhouse with a heather thatch, near Waskerley. Occupied by the Angus family in the late 19th c. The thatch hung over the eaves, and there was a ligger below the ridge.<sup>29</sup>

**Hunderthwaite Farm NY 986210.**

Linear arrangement of farm buildings, with a central two-storey house built by William Dent in 1790. Stone surrounds to casement windows, and gabled chimneys. Thatched with heather over upper-crucks, but replaced with Welsh style slate in the late 1930s.<sup>30</sup>

**Jarrow NZ 339653.**

The Jarrow Account Rolls refer to the purchase of 100 traves of heather in 1370 at a cost of 10/-, while in 1477 108/- was paid for heather and turf.<sup>31</sup>

**Kilhope NY 825430.**

A small stable was built at the Kilhope Lead Mining Museum in 1989, with a heather thatch. The building is 1½ storeys high with a central entry, and small windows at the wall-head, and

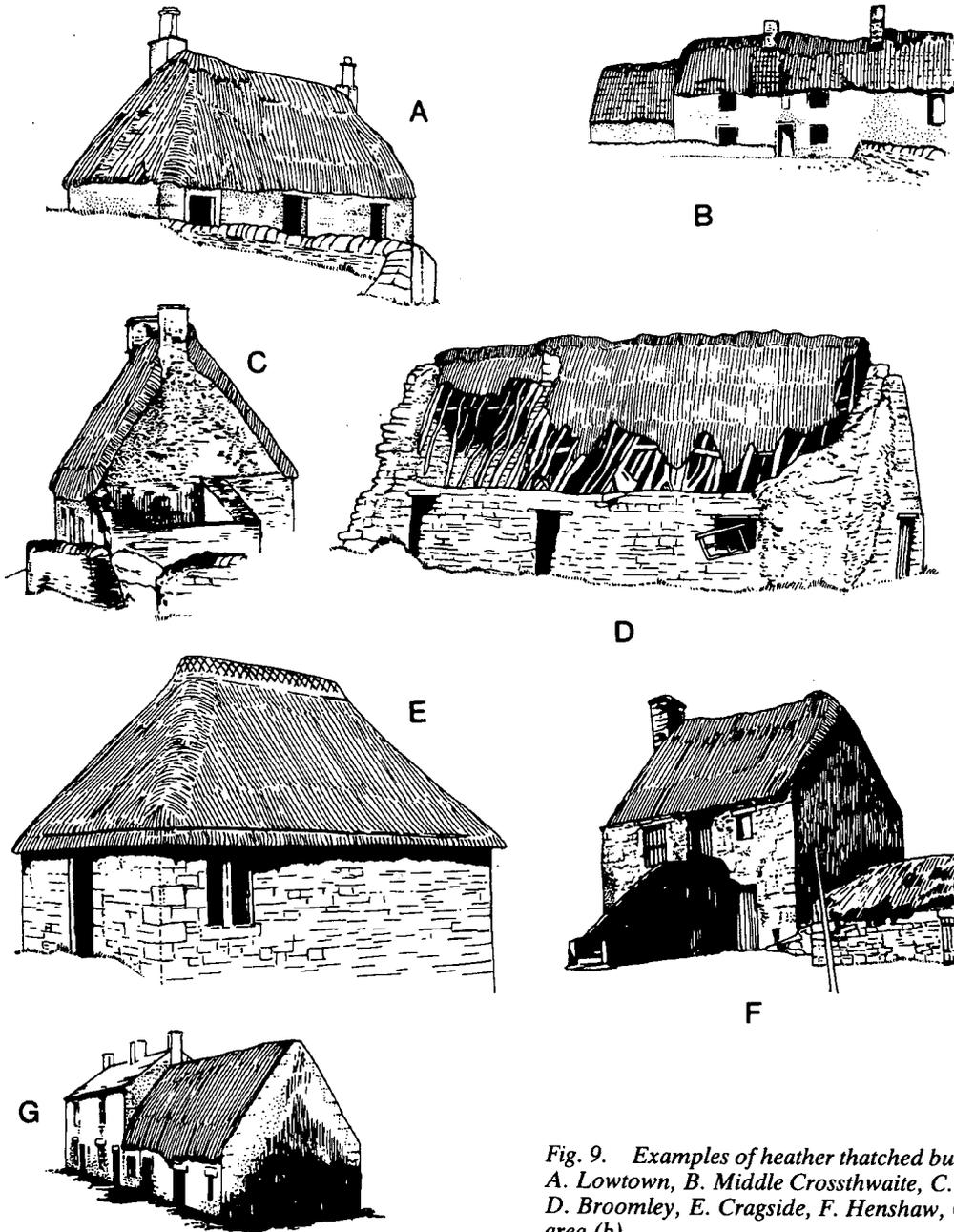


Fig. 9. Examples of heather thatched buildings. A. Lowtown, B. Middle Crossthwaite, C. Allendale, D. Broomley, E. Cragside, F. Henshaw, G. Hexham area (b).

a higher outer face to the gables, though they are edged with small stones rather than reversed crowsteps. The gable is flat-topped. Bark-stripped tree trunks, closely spaced together, acted as full length rafters, and a thick layer of heather bundles was applied.

**Levy Pool NY 968154.**

Linear farm of byre/house/barn. The house was built in 1763, and is two-storeyed, of neatly squared sandstone, with side-alternating quoins, and steep gables. Central entry, with a later mono-pitch roofed porch. Windows either side of the door, with projecting plain sandstone surrounds; and a small fire window. The roof has collapsed but was originally thatched.

The byre and loose-box has a steep gable, flat at the apex, and edged with long thin slabs. Machine-cut and halved jointed principals, with similarly cut ridge-board. Mix of tree trunk, machine cut, and re-used scarf-jointed purlins. The common rafters are closely laid tree trunks with the bark still adhering, laid as one or two levels; the upper rafters nailed to the ridge-board. They support a dense heather cover.

**Low Land House NZ 132443.**

House, also called High Stobilee, once thatched with heather. Demolished c. 1800.<sup>32</sup>

**Low Town NZ 155493 (fig. 9A).**

S.E. of Greencroft Hall, and close to the early 19th c. Greencroft Corn Mill. A single-storeyed, white-washed cottage with 3 openings (either a central door and 2 windows, or 3 separate doors) in the frontage. Two chimneys and a steep, hipped and thatched roof. Demolished.<sup>33</sup>

**Middle Crossthaite c. NY 9124 (fig. 9B).**

A photograph taken c. 1860 shows a linear arrangement of thatched house and buildings, near Holwick, Middleton in Teesdale.<sup>34</sup> The ridge is visibly darker than the rest of the thatch, which appears to be held down with numerous liggers. This may be a heather or straw thatch. It was in poor condition in 1872, and was later demolished, and replaced with a hay shed.

**Muggleswick NZ 044499.**

The church was formerly thatched with heather.<sup>35</sup>

**Relly NZ 256419.**

A mill on the S. bank of the R. Browney, probably in existence in the 14th c. In 1479–80 repairs were made to it, including thatching with “30 thrawe de le lynge” at 15d per thrawe.<sup>36</sup>

**Sacriston Heugh NZ 235480.**

Heather or “bruera” was used in thatching buildings in 1338–40.<sup>37</sup>

**Satley NZ 117433.**

The late 12th–13th c. church had a steeply pitched, heather-thatched roof in the 17th c. In the early 18th c. the thatch was repaired with heather from Satley Fell, but was removed in 1792 and replaced with stone slabs.<sup>38</sup>

**Satley NZ 118433.**

Red Lion public house, which stood to the N. of the Punch Bowl public house, was black thatched. It was c. 40' square, with a N. extension, and was demolished in 1903.<sup>39</sup>

**Spring House Farm NZ 047487.**

Across the Coalgate Burn and N.E. from Calf Close Hill. ?Bastle house, with heather roof cover. The tombstone of Amos Wilkinson, 1797 was used as a dairy shelf. The house was demolished in 1951.<sup>40</sup>

**Stanhope c. NY 996393.**

During the Commonwealth period pastor John Bewick's right to take ling and turf from the common to thatch the parsonage barn was questioned.<sup>41</sup>

**Steeley Green NZ 117437.**

Just N. of Satley Village, and at the beginning of a track to Steeley Farm. Rev. J. W. Fawcett records two black-thatched cottages S.E. of Steeley Farm, though the 1857 O.S. map shows one main building S.W. of the farm. It is aligned E-W, with units attached to the N. and E. sides. A tiny structure lay in a paddock to the W. These buildings were removed in 1867.<sup>42</sup>

**Tute Hill NY 976149.**

Building W. of East Stoney Keld, in the Deep Dale area, re-thatched c. 1930.<sup>43</sup>

**Wolsingham NZ 060375.**

A number of old photographs and paintings of streets in Wolsingham show buildings with very dark coloured thatch, which might be heather. These include Minikins blacksmith shop, in the market place, which was demolished c. 1885<sup>44</sup>, a building in Silver Street, the Cross Keys Inn, a two storeyed building with a patched roof cover held down with liggers, and banding at the eaves; and a two-storeyed low house with steep roof pitch, which was demolished to make way for a youth-club.

*Northumberland***Allendale NZ 840560 (fig. 9C).**

A photograph of 1900 shows a black-coloured steeply pitched thatch roof on a house in the village.<sup>45</sup>

**Broomley NZ 037601 (fig. 9D).**

A long rectangular house apparently divided into two rooms, one larger than the other, with a fireplace for the former on the central wall, an off-centre door replacing a blocked opening, a single window and gable door. The smaller room had a door in the gable wall, which was also buttressed. The gables were steeply pitched. The closely laid rafters were sinuous, slender, trunks laid over 2 or possibly 3 levels of purlins, and with their feet set on the wallhead, where there was no clear evidence of projecting flat eave stones. There may have been pegged divots underlying the heather, and there was a prominent cover over the ridge. Demolished.

**Causeway House.**

See above, main text.

**Cragside NU 085018 (fig. 9E).**

Estate acquired by Lord Armstrong in 1864. During the 1880s Blackburn Lake was formed, partly for recreation, but also to serve as a head of water for the farm at Cragend where an hydraulically operated silo was installed.

Between the Lake and Nelly's Moss Lake is a heather-thatched boathouse. This was re-thatched in 1983 by G. Dunkley. The heather was pulled or cut with chainsaws or strimmers a mile from the site. The collecting was done within a month, and the heather tied into bundles of 3 or 4 strands. Thatching took place in July/August and took 60 man days. No divots were used. The heather was laid with roots uppermost, the lower layer secured with steel spikes to the rafters. Hazel staples were also used. At least 3 layers of heather was laid over the ridge, with butts and tops alternating. Sedges were also used in the ridge cover, which was secured with hazel spars and liggers. In the possession of the National Trust.<sup>46</sup>

**Haltwhistle NY 704638.**

Two thatched buildings once stood near the station.<sup>47</sup>

**Henshaw NY 765645 (fig. 9f).**

A two-storeyed building with the dwelling in the upper level reached by a central flight of steps. The lower level may have been for animals. Single gable chimney, and a thatch extending down to eaves level.<sup>48</sup>

**Hexham area (not precisely located).**

a. Thatched barn of rubble walling, alternating quoins, and reversed crowsteps at the gable. Frontage pierced by 4 openings. The thatch may be heather.<sup>49</sup>

b. Farm building (fig. 9G) attached to a two-storeyed house, with steeply pitched thatched roof. Reversed crowsteps at the gable. In the Hexham area.<sup>50</sup>

**Rothbury NU 060020.**

J. T. Dixon's illustration of Rothbury in 1840 shows the "Three Half Moons" inn with a heather/turf thatched roof.<sup>51</sup>

**Tow House NY 767643.**

Rectangular, full cruck, building of roughly coursed rubble walling, with a central through passage. The N. gable has been re-built in brick, and part of the structure has been used as a byre. Adze-trimmed collar beams are pegged to the cruck blades, and project beyond them to take a single level of purlins, of very

roughly scarfed lengths. Lower machine-cut ties have later been bolted into place. The common rafters are closely spaced riven trunks, still retaining their bark, on which the heather has been laid. Staples are visible where the thatch projects beyond the present corrugated iron cover.

There is early photographic evidence in the J. P. Gibson collection at Northumberland Record Office (N.R.O. 1876) for thatched buildings at Coanwood, Colwell, Corbridge, Embleton, Featherstone, Hexham, High Rochester, Kit Shield, Ponteland, Riding Mill, Wall, and Warden, but it is not entirely clear what the thatching material is.

### *Yorkshire*

#### **Barden Scale SE 055568.**

Long barn with a prominent high central doorway with double-doors. Heavy alternating blocks at the gables and at the door. A door and 2 slit openings in the right return, and 3 small rectangular openings in the frontage. Two pairs of crucks, with 2 levels of purlins supporting clearly laid common rafters and heather thatch. Dismantled and moved to Shibden Hall, but burnt in a fire.<sup>52</sup>

#### **Beck Hole NZ 821023.**

Hartley and Ingilby believe most of the houses were once thatched with heather.<sup>53</sup>

#### **Carr Cote SE 577917.**

Cruck-framed long house converted into a central entry farmhouse in the late 18th c. Two-storeyed, with a forehouse and parlour, and added parlour and service area on the right return. Thatched with straw and heather.<sup>54</sup>

#### **Colsterdale SE c. 130810.**

Two-storeyed house with front garden. Three windows in the upper level with projecting sills. Chimneys at both gables. Thick heather cover, projecting somewhat over the gable, and bound with 2 lengths of hazel rods, and also hanging over the eaves. Turf cover over the ridge. On the left return is a low farm building with 2 doors on the frontage. The gable has

neatly shaped reversed crowsteps. The thatch projects slightly over the eaves, but not at the gable. Probably a turf cover on the ridge, with some pegs visible. Burnt down post-1938.<sup>55</sup>

#### **Drebly SE 054589.**

A cruck-framed barn in Wharfedale with a heather thatch.<sup>56</sup>

#### **Goathland NZ 834014.**

A 30' × 15' single-storeyed poorhouse thatched with straw and heather re-built in 1799.<sup>57</sup>

#### **Great Fryup SE 72-74, 02-07.**

Early 19th c. engraving shows most of the houses in the dale thatched, possibly with heather.<sup>58</sup>

#### **Grimwith SE 072644.**

Small cruck-framed barn near the reservoir. Formerly thatched with heather, and covered with corrugated iron sheeting. Acquired by Yorkshire Water Authority, and re-thatched c. 1982 by G. Dunkley, using heather from the Chatsworth Moors.<sup>59</sup>

#### **Grinton SE 050964.**

Peat-store, probably heather-thatched, near late 18th c. lead-smelt mill flue.<sup>60</sup>

#### **Kexwith Moor NZ 053062.**

Small barn of rubble construction, with flat slabs at the wall head, large reversed crowsteps at the gables, and a slab forming a flat apex. Two (?) levels of purlins, and closely laid common rafters, with heather cover.<sup>61</sup>

#### **Old Gang NY 974005.**

Heather thatched peat fuel store for a late 18th-19th c. smelt-mill in Arkengarthdale.<sup>62</sup>

#### **Spout House SE 575936.**

Cruck long-house with alterations. Comprises fore-house, parlour, dairy, and additional parlour and cellar.<sup>63</sup> Thatched with straw and heather.

#### **Summer Lodge SD c. 965957.**

Swaledale. Hoghouse in neatly coursed rubble, with central entry, and 2 small openings either side. Slit vents in the gables, which are flat-topped at the apex. Projecting flat slabs at the wallheads, and neat heather thatch.<sup>64</sup>

**Washfold NZ 056027.**

Small barn, near Hurst, of neatly coursed rubble and reversed crowsteps at the gables. Three openings in the frontage.<sup>65</sup>

In the thatching process vast quantities of heather were gathered, preferably from an exposed area close by, where there were strands of ling of a suitable length and quality. John Collier, a thatcher from Cotburn in Aberdeenshire, advised that "The best heath for thatching is found growing in close beds, with a slender feeble stem, to the height of 18 inches or 2 feet, so weak and slender as to be unable to support its own weight without leaning—and this kind is the most durable that can be obtained".<sup>66</sup>

Collection times varied. In Yorkshire it could be from January to April or May<sup>67</sup>, in Renfrew and Dumbarton it might be after the harvest.<sup>68</sup> Sometimes wet heather would be dried out for several days, or even collected in the spring and left for use in the autumn. At Fearnbeg in Ross and Cromarty stored bales of heather were found in a deserted building in 1973.<sup>69</sup> Generally the heather was pulled, not cut. Occasionally, some thatchers cleaned the soil from the roots, but at Levy Pool (Co. Durham) clay was still adhering to some of the 2' (0.6 cm) long strands of mature heather. The strands were collected into bundles called "log-gins", 24 of which made a "thrive" or "threave", a term often used as a corn measure, usually equivalent to 12 sheaves. Fenton and Walker recorded that 7 thraves could be pulled in a day.<sup>70</sup>

An important factor in the thatching process was that the roof should be at a steep pitch to ensure effective drainage. While the type of truss varied from building to building, a necessary feature was closely laid common rafters. They were either slim trunks or long branches, of various types of wood, laid as one or two tiers, often less than a foot apart, to form a base for the roof cover. In many cases, like Causeway House, Tow House, and Levy Pool these rafters still retained the bark.

At Tow House and Levy Pool heather was used throughout, while at Causeway House

turf divots formed an underlayer, laid from the eaves upwards, overlapping and pegged, with the grass side placed downwards. The use of divots as an underlayer was widespread in Scotland, for heather on Skye, and for straw in Lewis, Argyll, the central highlands, and from Angus to Caithness and the Northern Isles.<sup>71</sup> In Shetland the turfs were cut with a U-bladed tool having a central haft fitted to a broad shaft with a long handle. Similar "turf-spades" were used elsewhere. The thatching work was often done just by the thatcher, sometimes aided by a labourer or a boy.

Thatching began at the eaves, and the heather was laid in various directions, vertically, or horizontally from gable to gable. The layers were pressed into a surface either by trampling, beating with a mallet, or weighting with stones. In Weardale the cover was built up with alternating layers of heather and peat.<sup>72</sup> In Aberdeenshire 5 horizontal layers were built up in setts along the eaves, and layers 1, 2, 3, and 5 were stuck together by a clay bedding. The thatcher then continued upwards, shaping the layers, and occasionally using more clay. Long staples were frequently used to hold the roof cover in place, but in Ross and Cromarty wooden pins fastened with a leather tab were an alternative. Ties, and nails or spikes were also used. The technique used in covering the ridge varied—in parts of Yorkshire the heather was laid alternately over the ridge, while in Denbighshire, Peebleshire, and in Colsterdale turfs or "flaughts" were used. Although long wooden spars were used on the external surface of the thatch in parts of N. Yorkshire, limited use seems to have been made of them elsewhere in Northern England. The heather would then be trimmed with a knife or shears. In Bute the heather would be further secured by being held down with ropes tied to stones, a method also used on the straw thatch of Hebridean blackhouses.

Unlike the straw and reed-thatched houses of southern England, the heather thatch was not generally taken over the gable wall, but was laid over the inner face, the outer face projecting above it to prevent the wind lifting it off. The projecting flat stone slabs set on the

wall-head (or 3–4 rows of slates in parts of Scotland) also formed a useful base for the thatch, and took rainwater over the wall.

In 1831 the cost of thatching work was £1.14.0d a rood. This price included the pulling of the heather for 7/-, carting over a distance of a mile for 4/-, and laying on 24 threaves per rood for £1.3.0d.<sup>73</sup> During the re-thatching of Goathland poor-house with straw and heather in 1799, a straw threave cost 1/6d, while a ling threave cost 4d.<sup>74</sup>

#### Re-thatching of Causeway House, by John Warner

The heather thatching of Causeway House had to start with a rough estimate of how much heather would be required. If it had been straw or water reed that can be purchased like so many bags of concrete, then a quantity per specific area would have been no problem. As with all ancient discontinued types of thatching a certain amount of guesswork is necessary over and above any calculations. Also the seemingly ever present problem with such odd materials is the one of obtaining further supplies should the original calculation prove to be insufficient to finish the job. It was therefore decided that a percentage should be added to the calculation to cover all eventualities. A figure of 50% extra was decided upon although only about 25% was taken.

Heather was offered by the Forestry Commission from a site that was intended for burning and planting so that the wholesale stripping of an acre of hillside was not a problem. (The stripping of moorland for thatching in the dim, distant past must have been a considerable problem). Long heather, over 2–2'6", is difficult to find particularly where vehicles can also get to take it off, so that although there appears to be heather available closer to Causeway than the site chosen at Callaly Moor at Thrunton Woods (approx. 5 miles north of Rothbury), it was the hard road constructed for the Commission that went right up to the edges of the moor that was the deciding factor. Approximately half an acre of heather was cut using modern undergrowth powered cutters and the other half

pulled in the time-honoured way. Both the cut heather, at about 2 feet long on average, and the pulled, of up to 4 feet, proved to be needed for different parts of the roof, with the longest being kept for the ridge. Removing the heather from Callaly in bales, about as big as a small barrel, proved both costly and time-consuming. The quantity removed amounted to almost four large high-sided lorries, or something like 300 bales. The heather was gathered in April/May. Five pulled handfuls then made a "Loggin" and 25 loggins made a "Threave", where 5 threaves represented a day's work. 200–400 threaves, "Varra near a field full" was needed for an average roof.<sup>75</sup>

Considerable research was carried out in the reference section at Beamish Museum to decide on the most accurate finished look for Causeway. The only other heather thatching to be seen is at Cragside Estate, Rothbury and "Old Leanach Cottage", Culloden, Inverness, both of which seemed inappropriate. At Beamish many photographs of similar buildings to Causeway were turned up together with much text. Decisions were made, regarding amongst other things, the eaves. It was decided to opt for an eave that extended beyond the "Drip-Stones" to shed water by at least 6" more than the 2–3" of the drip-stones. (Some of the photos showed eaves and some "none" where the thatching started above and inside the edges of the drip-stones—but were the latter as a result of age and wearing anyway?) Certainly gales in an exposed region like Causeway would easily have ripped away an eave before the days of netting. Although photographic evidence confirmed that the roof surface should be plain and unadorned with a flush wrap-over ridge there were also plenty of examples of a gable ligger as protection from gales. Also for a final turf dressing over the ridge. An eave ligger would seem obvious to keep the eave in place (as at Cragside) but no evidence at all was found to include one. One photo taken at Muggleswick in County Durham appeared to show a cross patterned ridge.

Although the original roof timbers would have been overlaid with hand dug "Divots" the

modern equivalent was used: lawn turf, laid in rolls approximately 18" wide × 16" long. Laid "green-side" down so that the drying soil wouldn't simply fall out into the rooms below; the turf was also laid double thickness because it came on the thin side. (It transpired in fact that it could have been ordered much, much thicker, but we didn't know that!) The choice of lawn turf was not only because of cost but mainly because one piece of turf viewed from the inside looked very much like any other piece of turf.

The thatching started at the eaves and progressed to the ridge in horizontal "Courses", filling the quite cavernous space below the level of the stone gables and eave drip-stones to a thickness of approximately 16-24" although the finished thatch has no apparent thickness viewed from below; the almost non-existent eave giving the roof a very insubstantial, but traditional, appearance. Each course was fixed with modern thatching hooks (Crucks) of 9-16" in length securing an iron "Sway" or bar to hold the heather onto the rafters. The crucks were fixed approximately 18" apart horizontally, and each course 18-22" vertically. Iron crucks were found in the roof but were certainly associated with the last time the roof was repaired as all the other fixings were of a more ancient and insecure method (cords, mud, turf and pegs).

Heather is a material which is laid "upside down" in relation to other types of conventional thatch, in that the root end is not placed on the outside exposed surface, but on the inside against the turf. Because the root end of any bunch of thatch (whether it includes the root, and most others do not) is thicker than the other end, a "bundle", "bunch", "yealm", "wad", etc. is laid with this taper against the rafters and the wedge effect is used to drive the thatch tighter beneath the sway. Heather therefore is somewhat unique in that it has to be laid and overlaid in a manner totally different from conventional thatching to stop it building up in thickness and filling up the space required for the next course. The process of overlaying can, and was, done in the past, with an overlay of wet peaty turf which doubled up

as a "muddy" fixing.

The top course of heather was fixed to the "Ridge Tree" with a double layer of sways to make a firm base for the ridge "Spars". All the longest lengths of heather were kept for the wrap-over and were laid alternately roots one-sided then roots on the other. The ridge was held in place with long (12") hazel and willow "Spars" (a 2' length twisted at the centre and doubled to form a giant hair-pin with points). The surface split hazel rod, or "Ligger", that forms the visible horizontal pattern on a conventional thatch into which the crosses are inserted was used to secure the ridge to the top of the roof. It is the liggers that are visible as the three rows of horizontal lines on the ridge.

When complete the ridge was clipped of rough ends and finally dressed with a layer of turf pegged with spars and green side up. It is expected that this will form a growth of grass along the ridge as can often be seen on old photos of thatched roofs in Northumberland.

Finally the entire roof was given a protective layer of  $\frac{3}{4}$ " square, black, UV protected plastic mesh. This was secured on the slopes, gables and under the eaves with black stained spars pushed onto the heather in a manner so as not to run water below the surface. Because finished heather naturally lies in "hills" and "hollows" (where all other thatch lies quite flat) it seemed natural to position the spars in the hollows, thus stretching the netting over the "hills". In fact it proved a disaster because the finished roof viewed from an angle looked akin to a giant buttoned sofa. All the securing spars were moved and the final roof looked fine.

Storms towards the end of the thatching were shed without any great penetration (1-2"). Black Thatch has the reputation of leaking like a sieve.

Heather is a very, very hard material and would appear to be hardy enough to live up to some claims of 80 years of life. Other claims of 20+ years would seem more realistic.

#### Acknowledgements

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## NOTES

<sup>1</sup> Northumberland County Record Office (hereafter N.C.R.O.) ZCL/B/374 valuation of Tow House and Causeway House farms, 1897; QRD 7/1/1 enclosure map and award, Melkridge and Henshaw, 1787; ZAD/11 Act 1783.

<sup>2</sup> Parson, W. and White, W. (1828), *History, Directory and Gazetteer of the Counties of Durham and Northumberland* (Newcastle) 2, 585.

<sup>3</sup> N.C.R.O. M633: Haltwhistle Parish Records, Wm. Pattison, 21.9.1832, burial.

<sup>4</sup> *Ibid.*, Eleanor Pattison, 7.10.1858, burial.

<sup>5</sup> *Ibid.*, Wm. Thompson, 14.5.1875, burial.

<sup>6</sup> Kelly & Co. (1902), *Kellys Post Office Directory of Northumberland* (London), 146.

<sup>7</sup> Kelly & Co. (1879), *Kellys Post Office Directory of Durham and Northumberland* (London), 890.

<sup>8</sup> Merrifield, R. (1987), *The Archaeology of Ritual and Magic* (London), 128–131.

<sup>9</sup> Swann, J. W. (1969), "Shoes concealed in buildings", J. Northampton Museum, 6.8–21.

<sup>10</sup> Radford, E., Radford, M. A. and Hole, C. (1961), *Encyclopaedia of Superstitions* (London), 12.

<sup>11</sup> Hurst, J. (1972), *The Story of Harome Hall and its reconstruction* (Rydale Folk Museum) unpaginated.

<sup>12</sup> Emery, N. (1986), "Fell Close Farm and the use of 'Black Thatch'", *D.A.J.* 2, 91–6.

<sup>13</sup> Peate, I. C. (1944), *The Welsh House* (Liverpool), 176.

<sup>14</sup> Gailey, A. (1984), *Rural Houses of the North of Ireland* (Edinburgh), 96.

<sup>15</sup> Wade, F. (n.d.) *A History of the Muggleswick and Castleside District* (typescript), 31.

<sup>16</sup> *Ibid.* 25.

<sup>17</sup> *Ibid.* 39.

<sup>18</sup> Chapman, V. (1982), "Heather-thatched buildings in the Northern Pennines", *Trans. D. & N.* 6, 9.

<sup>19</sup> Fowler, J. T. (1898) *Durham Account Rolls I*, Surtees Soc. 99, 124, & II (1898), 560.

<sup>20</sup> Beamish Museum Photographic Archive (hereafter B.M.P.A.) neg. no. 8546.

<sup>21</sup> Atkinson, F. (1977), *Life and Tradition in Northumberland and Durham* (London), pl. 14.

<sup>22</sup> Hartley, M. and Ingilby, J. (1968), *Life and Tradition in the Yorkshire Dales* (London) pl. 232.

<sup>23</sup> Featherstonehaugh, W. (1900), "Edmundbyres", *AA*<sup>2</sup> xxii, 95–6.

<sup>24</sup> Chapman, op. cit. in note 18.

<sup>25</sup> Wigger, W. R. (1914), *Esh Leaves* (Durham), 11.

<sup>26</sup> Emery, op. cit. in note 12.

<sup>27</sup> Chapman, op. cit. in note 18.

<sup>28</sup> Chapman, V. (1977), "Cruck framed buildings in the Vale of Tees", *Trans. D & N* 4, 38.

<sup>29</sup> B.M.P.A. neg. no. 5144.

<sup>30</sup> Chapman, op. cit. in note 18.

<sup>31</sup> Raine, J. (1854), *Inventories and Account Rolls of Jarrow and Monkwearmouth*, Surtees Soc. 29, 56, 118, 120.

<sup>32</sup> Fawcett, J. W. (1914), *The Parish Registers of St. Cuthbert's Church, Satley* (Durham), 199.

<sup>33</sup> Wade, F. (1970), *A History of the Lanchester Area* (typescript), 31; Dixon, L. (1989), *More about Lanchester* (Coxhoe), 18.

<sup>34</sup> B.M.P.A. neg. no. 14612.

<sup>35</sup> Wade op. cit. in note 15, 9.

<sup>36</sup> Fowler, J. T. (1898), *Durham Account Rolls I*, Surtees Soc. 99, 249.

<sup>37</sup> Fowler, J. T. (1898), *Durham Account Rolls II*, Surtees Soc. 100, 378.

<sup>38</sup> Fawcett, op. cit. in note 32, VI–VII.

<sup>39</sup> Fawcett, op. cit. in note 32, 135.

<sup>40</sup> Wade, op. cit. in note 15, 30.

- <sup>41</sup> Durham Dean & Chapter: MS. Hunter 10, sheet 9.
- <sup>42</sup> Wade, op. cit. in note 15, 155.
- <sup>43</sup> Fowler, op. cit. in note 19.
- <sup>44</sup> Lister, G. L. (1980), *Old Wolsingham in photographs* (Wolsingham), 3, 17, 20.
- <sup>45</sup> B.M.P.A. neg. no. 9294.
- <sup>46</sup> Q. L. Sutton, property administrator, National Trust, Rothbury, pers. inf.
- <sup>47</sup> W. Dodds, pers. comm.
- <sup>48</sup> B.M.P.A. neg. no. 18193.
- <sup>49</sup> B.M.P.A. neg. no. 1181, 1809, 1812.
- <sup>50</sup> B.M.P.A. neg. no. 18301.
- <sup>51</sup> Dixon, D. D., (1903), *Upper Coquetdale*, 372–4.
- <sup>52</sup> Hartley & Ingilby op. cit. in note 22, pl. 231.
- <sup>53</sup> Hartley, M. and Ingilby, (1972), *Life in the Moorlands of North-East Yorkshire* (London), 82.
- <sup>54</sup> *Ibid*; R.C.H.M. (E) (1987), *Houses of the North York Moors* (London), 86.
- <sup>55</sup> Hartley & Ingilby, op. cit. in note 22, pl. 228.
- <sup>56</sup> Hartley & Ingilby, op. cit. in note 22, pl. 59.
- <sup>57</sup> Hollings, A. (1971), *Goathland: The Story of a Moorland Village* (Whitby), 89.
- <sup>58</sup> Hartley & Ingilby, op. cit. in note 53, 82 & pl. 4.
- <sup>59</sup> D. Milner, Yorkshire Water Authority, Bradford, pers. inf.
- <sup>60</sup> Atkinson, F. (1974), *Industrial Archaeology of North-East England*, Vol. 2: The Sites (Newton Abbott), 317.
- <sup>61</sup> Chapman, op. cit. in note 18, referred to as Hurst.
- <sup>62</sup> Atkinson, op. cit. in note 60, 324–5.
- <sup>63</sup> Hartley & Ingilby, op. cit. in note 53, 82; R.C.H.M. (E) (1987) *Houses of the North York Moors* (London), 66.
- <sup>64</sup> Hartley & Ingilby, op. cit. in note 22, pl. 230.
- <sup>65</sup> B.M.P.A. neg. no. 461.
- <sup>66</sup> Collier, J. (1831), “On Thatching with Heath”, *Trans. Highland and Agricultural Society of Scotland*, 2, 192.
- <sup>67</sup> Hartley & Ingilby, op. cit. in note 22, 107.
- <sup>68</sup> Fenton, A. and Walker, B. (1981), *The Rural Architecture of Scotland* (Edinburgh), 62.
- <sup>69</sup> Stell, G. and Beaton, E. (1984), “Local building traditions” in Omand, D. (ed.) *The Ross and Cromarty Book* (Golspie), 210.
- <sup>70</sup> Fenton & Walker, op. cit. in note 68, 63.
- <sup>71</sup> Fenton, A. (1987), “Thatch and Thatching” in Scottish Vernacular Buildings Working Group, *Building Construction in Scotland: Some Historical & Regional Aspects*. (Dundee & Edinburgh), 39–51.
- <sup>72</sup> Atkinson, op. cit. in note 21, 59.
- <sup>73</sup> Collier, op. cit. in note 66, 195.
- <sup>74</sup> Hollings, op. cit. in note 57.
- <sup>75</sup> Hartley & Ingilby, op. cit. in note 22, 107.

