

Crucks lecture YVBSG /YASmarch 09

**INTRO**

Sue Wrathmell has huge knowledge and experience as a professional buildings person. My talk will be rather different - largely based on work I did with Arnold Pacey 9 years or so ago.

SLIDE - Hetton reused cruck — typical example of cruck-re-used

Most of the examples in my talk will be from my patch of the Dales - the Craven area - whilst Sue works is further north and will probably have included more northerly examples.

**The evidence from documents and fieldwork** shows that cruck building in the Dales area, particularly the souther part, was once common. Cruck remains seem to be widespread from Ribblesdale to Upper Wharfedale and in Calderdale and Huddersfield to the south and into the Lancashire Pennines. Even in Swaledale

cruck-like timber with halvings is still found and padstones in long buildings such as *one* in Low Row. YVBSG records of crucks have helped fill some of the blank areas of the Pennines on the national distribution map of crucks (Nat alcock work on the catalogue of British crucks) *We are talking re-used cruck timber mostly in the dales*

**Evidence in docs.**

Amongst the doc evidence for crucks in the Dales is the often quoted Manor of **Cracoe Survey** of 1586. The area also included Silsden Moor. The village of cracoe lies on the limestone between Grassinton and Skipton and is a medieval layout of tofts and croft along a former wide green. The Lord of Skipton Castle made his 1586 survey of lands and houses in Cracoe to be "both by measure and valuation".

(Earlier in 1559 a survey had been made of the gritstone upland area of Silsden Moor) which was being let out to tenants to farm and is still a landscape of scattered isolated farms. **SLIDES- view; or stake hill thatched barn 1691 and attached ruin of firehood of house)**

Houses and barns are mentioned in the Survey in some detail and includes references to cruck construction.

Some cruck buildings were "newly builded" in 1559 on Silsden Moor.

Another building in Cracoe was of iij (3) pairs of crucks (suggests 2 bays, or more likely 4 bays, assuming stone walls - which most seem to have, rather than timber walls).

Crucks on the limestone area in Cracoe were made of "ash tymbre" and also of oak which must have been brought into the area and so more expensive.

Interestingly barns of oak. Ash is still common as 17/18 c interior beams in the Dales.

In 1556 - one house of three payre of crucks lately erected.

1586 records a "firehouse of four payre of crucks of ashe timber, one barn of 5 payre of crucks of oake timber lately builded, one other house for hay of three payre of crucks lately builded of oake timber, two other houses the one whereof is of three paire of crucks and tother of two pair of ashe timber"

A lease of 1572 at Kilnsey records building a house of " 3 pairs of crucks of white wood" The Lease is very similar to those of F Abbey of 1450s .

At Bordley, a grange of Fountains Abbey, leases in the 1400s record that all large timber was to be provided by the abbey and small timber by tenent . Unfortunately monastic accounts in the dales do not specifically mention crucks.

Crucks are mentioned in documents from Kirkby Malham in 1454/5 however. At Yeadon in mid Wharfedale refs to crucks go as far back as 1380.

Cracoe (Sue's work) - Coxons farm survives -1669 datestone- Coxon Family mentioned in 1520s. 1586 4 pairs of crucks and a firehouse (five bays?) Today linear much rebuilt but retains a door between house and barn. *possibly a longhouse*

**Distribution** - Fieldwork has shown crucks to be found in many old sites in the Dales. *there are examples*  
The YVBSG meeting in Hortin in R in 1995 found several reused crucks and so a gap on the cruck distributin map of crucks was seen infilled for that area. *Examples -*  
**(SLIDES 1995 weekend-** (Bracken bottom lintel; Low Birkwith field barn; timber; drawn)

Before this, cruck evidence in the Dales was noted in work by Maurice Barley, Nat Alcock and Colum Giles in '60s and '80s.

**Standing crucks and cruck remains**

**SLIDE Drebley outside**

There are few standing crucks in the Dales as there has been much rebuilding in stone and roof heightening & enlargement. Most crucks had a thatched roof so not enough roof space for hay storage or full two storey dwellings. **SLIDE Drebley inside.**

Type A apex. **SLIDE Red GABLES** (Agn end so longhouse - Thatched to c 1910)  
~~Steep rooflines of thatched roofs are widespread although there is uncertainty as to whether these had full cruck structures or cruck-like timber on top of the wall.~~

**(Dukes) SLIDE e** - Some crucks are clearly reset if the angle of the halvings are not horizontal as here at DUKES Barn Bolton Abbey. Carefull measuring of reused crucks using geometry can help decide the width of the original building (as at Hardy Grange Thorpe this year)

**SLIDE - UPPER CRUCKS** - There are upper crucks too ( eg Drebley - Little Gate farm) also at Beamsley and Consistone where they are most likely E 17thC. Slide also shows cruck truss at Red Gables

*stitch  
2/12*

*PIECES*

*STANDING*

*Upper*

*17thC house & barn*

*(5 bays?)  
2+3*

*at int*

*Examples -*

*Long Latch  
long rafters  
Half used on joint  
Type A apex*

*17thC wood  
panels -  
upper part*

Trusses

**SLIDE Lathie at low hall** Appletreewick is dated 1690 but looks earlier.  
**SLIDE Inside** are Reused crucks, again for tie beam and purlins (the hall was rebuilt c1658-substantial 17th C house 7 herthas. *There may be from old hall.*)

**SLIDE - drawings show** PARK HOUSE Eastby c 1680 which also has older walling and LOW HALL Addingham 1675. (another of Thorpe, hardly green-barn) The principal rafters have matching cruck halving and often two tie beams are also a matching pair. Low Hall's crucks could be from the old cruck hall, suggested by stonework remains. (that was rebuilt in the 17th C *as the good house*) Eastby also preserves the cruck apex in the principal rafters, which are sawn off upper parts of cruck blades. Indicates a Type A apex with a collar holding the top together. (Usually spindly apex in cut-thru use) Also see a sketch of the **Barren barn** that went to Shilden Hall- also a Type A apex.

Trusses

Most cruck blades are reused in the later roof truss as the building was heightened. Many are of a selected **tree trunk split** down the middle to make a pair of timbers. The matching pair is then ideal for reusing as a pair of slightly curving principal rafters.

**(SLIDE of trusses - Eastby and Add)**

Mostly what we see is reused cruck timber and Re-used crucks can be interpreted-

**SLIDE (Old Hall barn Thoraby) - steep thatched** roof lines eg here in Bishopdale along with fragments of reused cruck inside and plinth outside. *wooden roof lines very common & the dates which stone roofing would not be a sign of a cruck building.*

Purlins

**SLIDE The crucks and unusual cross over** Type D apex drawn by James Walton. **SLIDE The crucks and unusual cross over** Type D apex drawn by James Walton. *Carpet marks inside*

Padstones

**SLIDE - This padstones** at Crook House Oxenhope in the Worth valley are prominent the wall is still there and only the frontage and crucks seem to have gone. 3 bay + cartway. *3 bay + cartway*

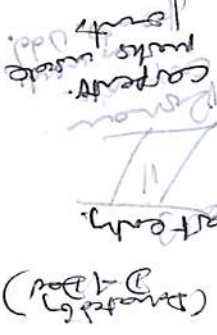
**(SLIDE) The High Lathie** at Barden was famously dismantled and taken to Shilden Hall Folk Museum c 1952 where it burnt down. It was surprising to find that much of the wall is still there and only the frontage and crucks seem to have gone. 3 bay + cartway. *(Dated 67)*

**SLIDE** gable wall lines indicated former cruck structure. Sadly no cruck timber. **SLIDE** Interpretation

Older walling is typically battered with low eaves. Often a zig zag alignment in plan between the cruck trusses. The walling may include padstones on which the crucks stood or lines where these stones have been pulled out. *Row in Sweden - At CROW TREES - battered walling, plinths and padstones and gable wall lines indicated former cruck structure. Sadly no cruck timber. SLIDE*

Walling

Most of the cruck timber we see has been recycled. Measuring timber in detail has produced some data so that lost crucks structures can be reconstructed. **SLIDE Crowtrees** Clues can include some of the earlier stone walling and padstones too. *Hole inside timber*



**SLIDE-High up in Ribblesdale** crucks are found in a remote barn at Lodge Hall Selside (monastic).  
SLIDE -drawing- The paired reuse of crucks and probably padstones indicate full crucks.

(At Lower Winkill near Settle the 18thC barn also has reused oak crucks of substantial timber perhaps from a house with firehood and passage, to which the barn is attached. House mentioned in 1590s and again former monastic farm)

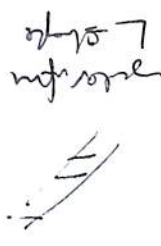
**SLIDE-** Even in Swaledale, where timber was always limited, are fieldbarns with trusses with cruck-like halving. The dimensions suggest full crucks but might be for raised crucks on stone walls. **SLIDE** of barn; **SLIDE** interior.

Interestingly Swaledale seems to have retained a tradition of halved-on joints in carpentry. **SLIDE** 1720 house in Low Row? Even Muker church roof is like this. *Hand a cruck*

**Field barns in upper Wharfedale** also have cruck timber. Field barns were already in existence in 1605 when a survey of Kettlewell records 53 tenants with 81 outhouses (fieldbarns or fieldhouses). Surviving buildings have plinths, battered walls and raised roof lines and sometimes reused crucks or cruck-like timber. **SLIDE field barn at Wibberton.** The barn has had alterations but has a reused cruck as does another barn nearby. This site overlies a medieval settlement that was already deserted by the 14thc. It had a reused **SLIDE** - the timber cruck is now in pieces and lying outside and the evidence is fast disappearing.

Not far away in Arncliffe **Sink Hill Barn (SLIDE)** lies in the former West Moor Pasture. It has a plinth, raised roof lines and crucks blades and purlins reused. Three collars ~~are surely for full crucks for roof too high and steep.~~

**SLIDE-Howbeck** laithe in Conistone - has accounts for rebuilding in 1689 recorded by Raistrick. **Howbeck** laithe - a field house or field barn - is to be rebuilt for £3. To be 11 yards long, 5 yards wide, 7 yards wide at shippon end i.e. L-shaped. 4 yards high. (Of all the barns at Howbeck, there was only one that fitted this size) To break all the great stones (quoins?) Hew one door. But first old Howbeck was pulled down. £1 paid for this in 1689. Payments include for stones for walling. There were slates and lead but no mention of any timber so this almost certainly came from the old fieldhouse. This one has trusses of substantial curved timbers with halving, too long for upper crucks or raised crucks.



Trusses

Trusses

Trusses

Trusses

Trusses



6-10-11 cruck self

In Upper Calderdale cruck remains were thought to be rather sparse but they are certainly still to be found and were noted by C Stell many years ago. (see GOLDEN) Standing crucks in Bridge Inn Ripponden appear much more curved than in Craven giving a slightly flatter roof. Type C or yoked apex is also seen in Calderdale and might be earlier.

**SLIDE - lost crucks of Craven compared to some standing examples - Lancs, Eastby +**

Drebley. Type A apex normal?

(Stonyhurst, Hady Hall)

Small Banks & Palsgrave Barn

Dates-

As far as dating goes there is little to go on.

At Apethornfold, a cruck building in Tameside in South Pennines, is 1522-1542.

Thorpe barn Almonbury dendro date 1594.

**SLIDE - (timber)** I used the Barbara Hutton method of manual dendrochronology for the dating of cruck slices from barns at **HOLE**, Silsden Moor and **Braescwell** near Skip-ton and got late 16thC dates.

A programme of dendro dating therefore would be helpful. The Silsden quartered timber has such uneven growth that it shows one of the problems with Pennine timber. (Pollard trauma??) Braescwell timber is better.

even No bark.

(Silsden piece did not date)



RECONSTRUCTING PLANS of former cruck buildings can be done in various ways;

Lengths vary from 2-3 bays to - 6 bays as shown by documents and reconstruction

Looking carefully at re-used crucks, and especially the long purlins can help to decide on the length of the earlier structure. The big Lancashire barns are still standing are 6 or 7 bays long.

(3/4/5 purlins in cruck bay) (6/5/6 bays)

**SLIDE (Ivy House)** Mostly we find a traditional **three bay barn** rebuilt with parts that include 2 pairs of blades and several purlins with windbrace halvings (eg IVY HOUSE Barn Small Banks Addinghame)

Drawing allowed interpretation of a vanished building; 4 cruck blades (so a 3 bay barn with stone end walls would fit), 6 purlins remained from both middle sections and end sections into the stone wall (no wind brace). One gave centre bay size of -5.50 m. Bay

**SLIDE - PRIEST bank BARN Kildwick (SLIDE)** also could be reconstructed in this way although here a **platform adjoining** indicates the new barn may have been built alongside the old.

Now 5 bay but contained reused blades and at least 9 purlins. cruck purlin analysis showed 4.60 bay in centre area - still a bit wider than later roof truss bays.

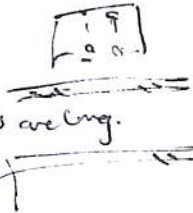
**SLIDE - Small cottages, many cruck built and of two bays** survived to be photographed in the 19thC (eg Castle Bolton, Ilkley and Wharfe valley) but were easily rebuilt to a very similar plan.

BAYS

BAYS

BAYS

Here





RE-USE EVIDENCE

SLIDE- Parcival

These examples all assume that cruck timber was re-used on site, not brought in, and documents support this. Rebuilding accounts in the 18<sup>th</sup> C show that old timber and stone was recycled to save costs.

- 1) Day books of Thomas **Parker**, c 1790 describe rebuilding of Craven barns. *recycling old materials*
- 2) A barn dated **1737** at APPLEIREWICK is full of reused cruck timber -

SLIDE - full of reused timber

Heather Beaumont *found some interesting accounts.* did some interesting doc research. (It was part of Bolton Priory estate until the Dissolution.) In 1736 <sup>from</sup> it was bought by Henry Simpson. An inventory of 1736 records a large barn 24 yds x 7 yds with very good timber but thatched with ling. It was noted that if the barn was "taken down and rebuilt there are in it stones and large timber sufficient and will want only slates, laths and spars (rafters)" It was rebuilt as 16 yds long (a bay shorter) but still 7 yards wide. (They kept the foundations) <sup>the</sup> older barn was probably of four bays since there are at least 5 cruck blades re-used. So we know timber <sup>was</sup> re-used to save money.



3) SLIDE- Accounts in upper Wharfedale include rebuilding **Hillcastle s barn**

**Conistone-**

Again the accounts are for pulling down the old field house. Two gauges of slates were purchased for 14 shillings and payments for cutting stones, for walling, getting and bringing the corner stones (quoins) and Slating the porch 3 shilling. *purchase* but accounts also include 30 shillings for getting ling and thatching. Again no accounts for timber so possibly it was just rethatched perhaps with old roof timbers reset. Unclear if these were cruck-like for thatched roof or full crucks.

*(still to look for this barn but is one of them)*

Form and size

Having measured quite a few re-used cruck one could start to compare their sizes and form and reconstruct the lost cruck structures. Many have type A apex but in scale do not compare with nearby Lancashire barns. The very long cruck purlins often over 7 m long are also reused and can give clues to bay widths as (as at ~~Lower~~ *Whinskill or Moor Cottage H Brael*)

*2 miles*

Just over the border in **Lancashire** are some huge cruck barns for comparison (many on med sites). They include **STONYHURST**, (SLIDE) 6 bays and 8m high. ~~HAKIN HALL~~ *(16 miles from Skipton)*

*think roof height + timber post*

Near Huddersfield is **THORPE HOUSE** barn Almondbury, (SLIDE) another large cruck barn 7.3 m high is dendro dated 1594. (Timber side walls) *no res.*

*C to I Copants*

SLIDE - Pendle example being moved to pendle Heritage Center. SLIDE (Note rearing hole in foot)

*less steep roof slope - added blocking pieces (a feature in Calderdale too as found in unrefined.)*

*West Pidsy - Pendle H. Cedar*

soil and still supports oak trees.  
 largely on limestone the area of river gravel at the valley bottom must be more acid  
 near Malham and this would have come from nearby Kinsey Wood. Although  
 Fountains abbey was to provide all timber for building for their granges at Bordley  
 Langcliffe Settle are oak.  
 The substantial crucks at L Whinskill (a Sawley Abbey farm) on the limestone near  
 Priory and would have been the nearest source of oak.  
 house) came from Farnhill wood in the mid Aire valley which belonged to Bolton  
 limestone areas. In 1450 (or 1540) oak for a house in Malham (possibly a cruck  
 Oak however does not grow on the limestone and has to be imported into the  
 named in the 16th C. and were the trees of the limestone areas  
 Most timber that we have identified is oak, although ash and white wood are also  
 once a common type of local acid soil woodland.

**SLIDE Bolton Wood - survival of an oak wood with wood-pasture landscape probably**

Slisden Moor: SLIDES both footings pile measured bits. Timber was available long lengths  
 respected throughout medieval times. My looking at cruck timber began at Hole on  
 There was never really a shortage of timber and managed woodlands were

Timber availability - with Eric (as seen: sketch)

however looks too wide unless it was distal not cruck built.  
 well relate to cruck built structures. Earthworks of sheep houses in Middleham, West Yorkshire  
 derived from longhouses (field work in progress). Long earthworks in the Dales may  
 16th C are still linear with evidence of low thatched roof lines, so again these may be  
 which had granges for sheep, for fountains abbey, three farms mentioned in the  
 Monastic accounts however do not mention crucks specifically - but at Bordley  
 to have been cruck longhouses at first but are now good 17th C stone houses. **Slide**  
 there by the 1500 and recorded in various rentals of Charities. Again these are **linear**  
 around the edge of a circular enclosure to a manorial park and they were certainly

**SLIDE On Addingham Moorside (FELL EDGE)** a number of linear farms are found

**HOLE** provided a lot of timber for dating.  
 house and barn passage area. Below chimney is part of the barn

**SLIDE - CROW TREES** has a partition wall with curving cruck lines and a door near the

at this farm because stone cross walls to save on timber.  
 an example. Still a door where a passage may have been in the centre. No crucks  
 to tenant farmers. Many of the farms are still linear but much rebuilt. DIXON GREEN is  
 in the 16th C the Cliffords of skip ton castle began to rent out parts of **Slisden Moor**,  
 may be left in the partition wall.

too where the paved passage remains in a barn. Masonry of the earliest period  
 where the cross passage area may have been. And at Lower whinskill Ribblesdale  
 plan. At Cracoe-Coxons farm - a door remains (or 2 adjoining doors at Baxters-Feld)  
 and Slisden Moor. Alternate rebuilding over the centuries has arrived at the present  
 are linear with an attached barn which suggests a **longhouse tradition** eg Cracoe

A number of farms which contain reused crucks or have stone evidence of crucks building  
**SLIDE - DIXON GREEN longhouse?**

Most **medieval woods have gone** and are just place names but most townships had a wood until the Dissolution. The 1605 **survey of estates in Wensleydale and Upper Wharfedale** noted that there were no woods or trees except in Bishopdale and Raydale but there was hedgerow ash, hazel and holly. *Nappa Hall has massive roof timbers of oak. 1459*  
 It is quite possible that the larger oak crucks of the southern area of the Dales - Settle and Bolton Abbey, were partly to do with monastic timber management that continued into the late 16thC, before many woodlands were cleared for fields.

**CONCLUSION**

**Slide - STACK OF OLD CRUCKS?**

The evidence for cruck buildings in the Dales is strong and more can be discovered through careful measuring of the cruck timber remains and probably through archaeology. No dendrochronology has been done in the Dales but this would be the only way of dating a type of structure that seems to have been common until about 1600. *Question remains - are there any crucks that are earlier?*

*The Skipton History Project (for which Sue W is Project leader) has recently discovered a building*

The SKIPTON HISTORY PROJECT, for which Sue Wrathmell is project leader, is discovering a number of reused crucks in Skipton town centre. They are found in early 18thC gentrified houses and warehouses - buildings going up at a time when Skipton was wealthy from wool and expanding rapidly. Proposals for a canal cut along the river Aire to Skipton in the 1740s put down a shortage of building timber in the town as one reason for the cut. Some of this cruck timber therefore is likely to be salvaged from around Skipton. It was not until 1773 that the Leeds Liverpool canal reached Skipton and big "Baltic" timber could be brought in for building. At the Cock and Bottle Inn, an old building on an old site, (with a long passage down the side) the substantial reused crucks and timber posts in the 17thC? roof, are more likely to come from the site.

SLIDES- Brick Hall/Woolly Sheep 18thC town house, cellar beams  
 3 storey wool warehouse, sheep street, roof trusses.

*(wall plates) (cruck)  
 (truss (truss))*

*Low Hall, Adel; Grimwith reservoir thatched house - Crucks??*

*(timber cruck)*

*BSV Script  
 Forward*

*Why  
 not  
 later 16th*