

# NEWTON HALL

AND THE CRUCK BUILDINGS OF NORTH WEST ENGLAND



This introduction to the archaeological survey work and history of Newton Hall, Hyde and the cruck buildings of North West England is the eighth in a series of booklets designed to introduce to a wider public some of the most important archaeological and historical monuments in the Borough of Tameside. As such the series aims to provide an overview of the development of each site, and to assess its regional importance.

NEWTON HALL AND THE CRUCK BUILDINGS OF NORTH WEST ENGLAND

VOLUME 8



Volume 8 in the Archaeology of Tameside Series by Michael Nevell

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Tameside Metropolitan Borough Council  
& the University of Salford

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Newton Hall and the Cruck Buildings  
of North West England

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## Preface

This introduction to the archaeological survey work and history of Newton Hall, Hyde and the cruck buildings of North West England is the eighth in a series of booklets designed to introduce to a wider public some of the most important archaeological and historical monuments in the Borough of Tameside. As such the series aims to provide an overview of the development of each site, and to assess its regional importance. Drawing upon fieldwork undertaken originally by the University of Manchester and more recently continued by the University of Salford on behalf of the Tameside Metropolitan Council, including original research undertaken specifically for each volume, and using the rich archives held by the Local Studies Library in Tameside, these booklets aim to provide the most up-to-date and authoritative guides to the Borough's rich historical roots. The story of Newton Hall and the cruck buildings of the region concerns one of the oldest continuously inhabited building types in the region. The legacy of the conservation work undertaken at Newton in the late 1960s is the preservation of the oldest house in Tameside. Through the work of the University of Salford and Tameside MBC, the archaeology and history of this important building can now be brought to a wider public.

Cllr S. Roy Oldham, CBE,  
C. Eng. M.I. Mech. E.  
*Executive Leader of the Council*

## Acknowledgements

The concept of the Archaeology of Tameside series of volumes, as an extension of the Tameside Archaeological Survey project, arose in the course of a meeting between the Executive Leader of the Council, Councillor Roy Oldham, and John Walker, now Chief Executive of the York Archaeological Trust. The responsibility for monitoring the progress of the series for Tameside fell to the then Head of Learning and Information Services, Barry Delve, who has since retained an advisory role on the project, liaising where necessary with the Assistant Executive Director for Cultural and Customer Services, Adam Allen. Their support and that of Councillor Jacqueline Lane the current Project Head for Heritage, Emma Varnam the Head of Museums and Galleries in Tameside, the Tameside Local Studies Librarian Alice Lock, and the staff of the Tameside Local Studies Library at Ashton are gratefully acknowledged.

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The illustrations in Chapter 3 are reproduced with the permission of Christopher Kenyon, who also gave the author free access to his personal archive of letters and notes relating to the restoration and conservation of Newton Hall during the period 1967 to 1970. The late Victorian image of Newton Hall (Figure 28) is reproduced with the permission of the Tameside Local Studies Librarian.

Finally, thanks must go to all those involved in the production of the book; Brian Grimsditch for additional historical research, Ivan Hradil for photographing many of the cruck buildings studied and undertaking the drawing of the plans and sections, the staff of the Tameside Local Studies Library for access to their extensive historic photographic archive, and to Catherine Mackey who provided editorial assistance. If I have missed any individual from this list, my apologies. A work such as this necessarily rests on the goodwill of many people. Any mistakes or omissions are, of course, the sole responsibility of the author.

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University of Salford  
*April 2010*

# Chapter 1

## The Origins and Development of the Cruck Truss in North West England

### Introduction

Standing back from the western edge of Dukinfield Road between Ashton and Hyde, and hemmed around by 20th century business units, is one the most surprising buildings in Tameside and one of the oldest in Greater Manchester – Newton Hall (Fig 1). This black and white building in its island of green hides a recent story of rescue conservation, an older one of family decline, and a Medieval tale of land clearance. Stepping inside we find a tall, arched, space containing two pairs of curved timbers first erected in the late 14th or 15th centuries, when England still owned lands in France, the houses of Lancaster and York were battling for the throne, and Newton Hall was the centre of a manorial estate in north-eastern Cheshire. This striking structure is one of more than 4,000 similar buildings in Britain, representing perhaps the most visually attractive of the late Medieval timber building styles: the cruck house.



Fig 1: Newton Hall is a late medieval timber-framed cruck hall built by the Newton family.

one the most  
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in Greater  
Manchester



## Building a Cruck Structure

Crucks are large curved timbers, often referred to as blades and usually made of oak. They were formed by splitting or sawing a single curved tree trunk to form timbers roughly 10 to 12 inches (c. 0.30m) thick. Two such blades were then combined as an A-shaped truss, jointed at the top (the apex) (Fig 2). Beams running across the two cruck blades three-quarters of the way up (the collar) and at mid-height (tie-beam) made the structure ridged and allowed the crucks to transfer the full weight of the roof to the ground. Pairs of crucks were linked by beams at apex height (the ridge tree) and at mid-height (the purlins), which formed the framework for the roof. In such a structure, as at Newton Hall (Fig 3), the side walls were independent of the roof and were not load-bearing, though the mid-height tie-beam was usually extended beyond the line of the blades as far as the feet of the truss to form the seating for the wall plates (the top of the timber-framed external wall). Sometimes the base of a cruck blade had a small notch into which an upright post for supporting the external walls would have sat. The size of cruck trusses varied depending upon the quality of timber available but in general the truss was as broad as it was high with the wall plates one storey above ground level (Smith 1987, 15).

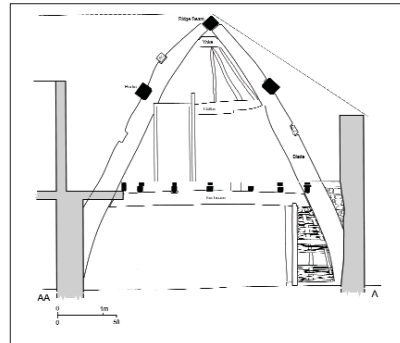


Fig 2: The northern cruck at Apethorn Fold, Hyde, is a good example of the form of the cruck truss with curving blades, and intact apex, collar and tie beam.

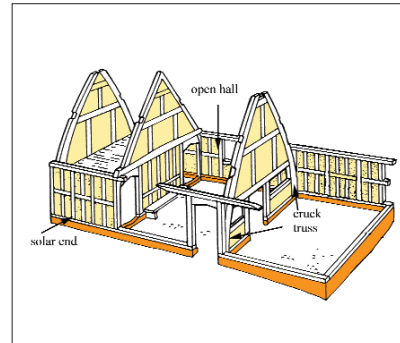


Fig 3: A three dimensional reconstruction of Newton Hall in the late medieval period showing the central open hall flanked by a service room at one end and a private room at the other.

Structurally, the cruck truss was extremely strong and stable since it was essentially an equilateral triangle; that is it had three sides of equal length. It did not matter if the sides were straight, curved or wavy as the basic shaped remained the same. The individual sections of the cruck truss were held together by the use of half-lap and half-lap-dovetail joints held together by wooden pegs or trenails, usually three per joint and using holes drilled at slightly different angles with an augur. The framework was assembled on the ground using saws, chisels and augurs, and then raised into position using pulleys, ropes and scaffolding (Smith 1987, 17). Sometimes recesses survive on the blade surfaces that were used to secure scaffolding during the raising of the cruck. As well as being very strong such a structure could be dismantled and re-used elsewhere. Evidence for this locally may be found in the will of Arthur Schofield of Schofield Hall near Hollingworth in the parish of Rochdale from 1557. This documents mentions ‘...vjs [6] lodes of timber in Quyche [Quick in Saddleworth] and on[e] paire of crockes lyeing in the maister lawe...’ left to his son Christopher. John Smith has pointed out that the Schofields did not hold any land in Saddleworth at this date and therefore this must relate to the purchase of a cruck-truss for re-use elsewhere, a conclusion that can be paralleled elsewhere in England (Smith 1987, 17-8).

individual sections of the cruck truss were held together by the use of half-lap and half-lap-dovetail joints

cruck structures are found in the northern and western parts of the Britain Isles, but not in the South-East and East Anglia

## The Debate on the Origins of the Cruck Building Tradition

The tradition of cruck-framed timber building is long and its origins obscure. The earliest surviving examples have been tree-ring dated to the mid-13th century. There persists a suspicion the tradition might be considerably earlier, partly because the earliest surviving example of a particular style of building is seldom the first one of its type (Alcock 1981; Alcock 1997, 92-3). Archaeological excavations have yet to produce firm evidence for cruck buildings pre-dating the 13th century in Britain, although a number of claims have been made for late Roman and Saxon antecedents (Addyman 1981, 37-9), most recently for a 5th century timber building built on the stone ruins of a granary at Birdoswald Roman fort on Hadrian’s Wall in Cumbria (Newman 2006, 97). Bearing in mind that most surviving cruck buildings sit on padstones or stone sills, excavation is unlikely to find evidence of the footings for cruck trusses, since these will have been lost (see below chapter two for the excavated Greater Manchester examples). However, there are a few cruck buildings that have been recorded as having earth-fast posts and these have been used to suggest the plan form of a cruck building might be recoverable archaeologically as pairs of double post holes; the outer one to support the wall frame and an inner one angled for the footing of the cruck blade (Addyman 1981, 37). A handful of examples have been excavated from Saxon sites in England (Welch 1992, 197-208) and not many more from northern Europe, but even these examples can be interpreted as other types of structures; buildings with raised floors or platforms for instance.

There are two key points in this debate. Firstly, was the tradition of cruck construction significantly older than the 13th century and, secondly, did it originate in one locality or region and spread to the rest of Britain? Whilst the parallel between the pointed arch of the cruck truss and the pointed arch typical of the Early English architectural style might be evidence for its late 12th or early 13th century genesis, an earlier origin remains a possibility. It would seem more likely that dendrochronology rather than archaeology will provide the final answer (Alcock 2007, 12-13; Hill 2005). In terms of their distribution (Fig 4), and what this might say about the origin of the cruck-building tradition, cruck structures are found in the northern and western parts of the Britain Isles, but not in the South-East and East Anglia (Alcock 2002). The reasons for this gap in the distribution, and the occurrence of the related building technique of the base-cruck in some of this blank area (a technique tree-ring dated to the period c. 1245 to c. 1460), has been hotly debated (Alcock 1997; Alcock 2007; Hill 2005; Mercer 1996). The distribution of the earliest 13th century examples may provide an answer. These can be found in Northamptonshire, Oxfordshire and Shropshire in the Midlands, and Gloucestershire, Somerset, Hampshire and Devon in the South-West (Alcock 2002, 67). On the present evidence it seems likely that this is the home territory of the cruck building tradition and it emerged at a time when box-framed buildings were being revived in eastern and southern England. Along with aisled timber structures these three traditions, which used almost exclusively stone plinths and padstones, became the most common forms of construction during the 13th century, almost completely supplanting the earlier dominant technique of earth-fast posts (Chapelot & Fossier 1980, 247-50; Chapelot J & Fossier R, 1980, *The Village and the House in the Middle Ages*. B T Batsford, London.). In the North West this transition can be seen at Tatton Old Hall in northern Cheshire. Here, an early 13th century earth-fast post structure was replaced by a winged open hall on a stone plinth in the 14th century, though this was a box-framed structure not a cruck building (Higham 2000).

There is also the matter of the social status of cruck structures. Was the emergence and development of the cruck linked to social changes and social stratification, or did it emerge as a style independent of contemporary fashions with its own self-contained structural evolution?

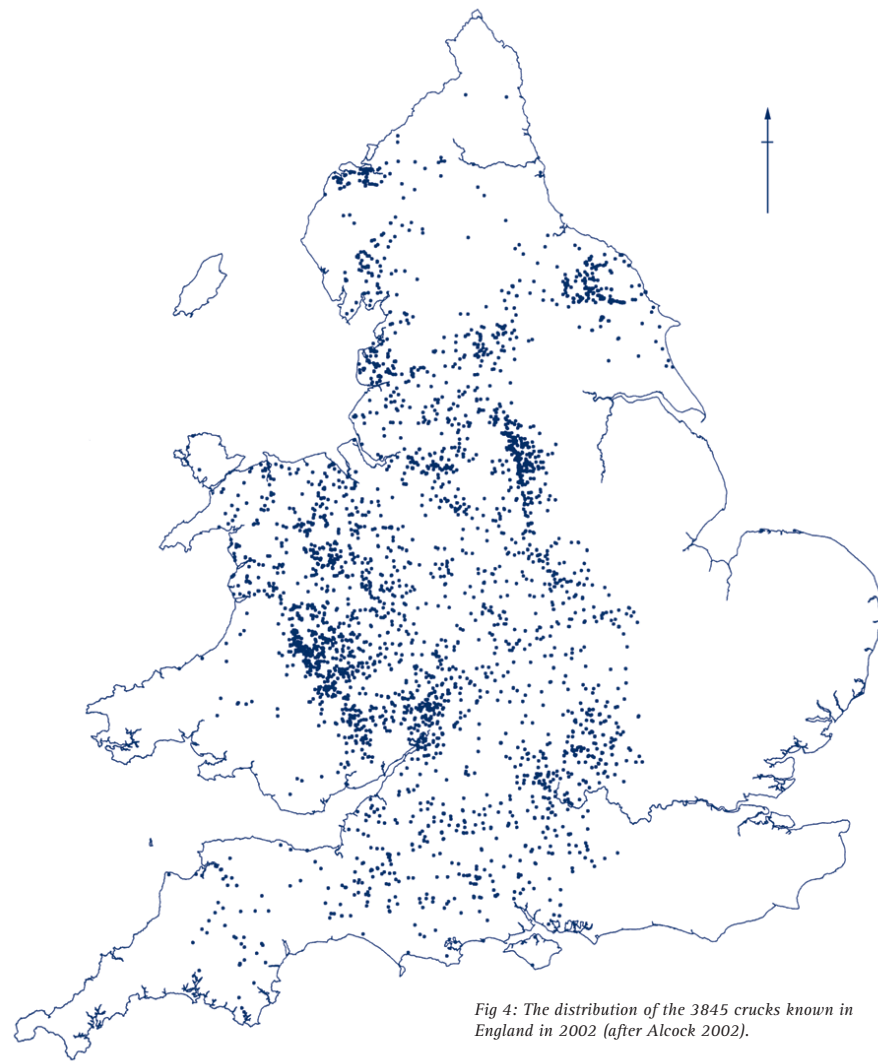


Fig 4: The distribution of the 3845 crucks known in England in 2002 (after Alcock 2002).

There does appear to have been a significant social aspect to cruck construction (Mercer 1996). By the 16th and 17th centuries cruck structures appear to have been associated with tenant farmers and farm buildings, but in the 14th and 15th centuries such structures were also used by small-scale landowners and manorial lords. Whether this apparent decline in the status of the cruck structure was a result of fashion and style or the technical limitations of the building technique is not always clear. What is apparent is that the three types of timber structures that emerged in the 13th century (aisled buildings, crucks and box-framed structures) continued to be built throughout the later Medieval period (Grenville 1997, 57).

in the 14th and 15th centuries such structures were also used by small-scale landowners and manorial lords

one of the earliest documented references to a cruck building in the North West dates to 1357

## Discovering and Dating Cruck Buildings in the North West

Since the 1960s the Vernacular Architecture Group has been compiling a list of known and dated cruck buildings in Britain (Alcock 1973; Alcock 1981; Vernacular Architecture 33, 67-70; see Appendix 1 for North West examples). The most recent update of this work in July 2009 identified 4,039 cruck buildings. Of these 369 (approximately 9%) had been dated by tree-ring analysis; giving a date range of roughly AD 1262 to AD 1793 for this building type. However, 351 (95%) of the dated examples lay within the years 1262 to 1632, suggesting that the presence of a cruck building is a good indicator of an early settlement. Indeed, 237 (65%) of the dated cruck buildings were built before 1500 implying that two-thirds of all the known cruck buildings are probably late Medieval in origin. However, the number of surviving cruck buildings identified in Britain is a fraction of those built from the later Medieval period and into the 16th and 17th centuries. How complete the survival is remains unclear, but three pieces of evidence suggest in the North West at least they were once far more common.

Firstly, early photographs and documents can often reveal the location of lost cruck structures. A number of Greater Manchester sites in the gazetteer of cruck buildings listed in Chapter Four are known only through photographs. These includes Thorpefold Cottage in Oldham (77), a cottage on the southern side of the Old Market Place in Altrincham (91), and a barn at Woolley Farm in Hollingworth (90; Fig 5). Early documents can also reveal lost cruck buildings. One of the earliest documented references to a cruck building in the North West dates to 1357 and mentions such a house in Maulds Meaburn in Westmorland, Cumbria, which had eight crucks or 'fourches' (Alcock 1996, 8). A rental from 1602 relating to nine farmsteads in Skelsmergh, near Kendal, mentioned 19 buildings containing 61 'paire[s] of trees', a term which appears to have been used to describe cruck trusses (Tyson 2000, 181). Only one of these buildings, containing two cruck trusses, has survived as a standing structure into the early 21st century. As Brunskill has noted if this survival rate of just five percent were repeated across the region then crucks buildings would have been very common in the 16th century, if not the normal form of construction in many areas (Brunskill 2002, 151).

Secondly, fieldwork can often reveal the level of survival in a given area. A study of the clay walled buildings of the Solway plain (an area approximately 44km across and 20km deep with Carlisle at its centre) revealed 75 such buildings containing 167 pairs of full cruck trusses (Jennings 2003, 124). Richard Watson and Marion McClintock's study of the traditional houses of the Fylde, a lowland coastal area of some 20km by 20km in western Lancashire, surveyed 26 properties of which 12 were cruck-framed (Watson & McClintock 1979, 35-86). The Royal Commission for the Historical Monuments of England's survey of rural houses of the Lancashire Pennines around Burnley and Colne, the middle and upper reaches of the Ribble Valley, looked at 98



Fig 5: The remains of the ruinous cruck barn at Woolley Farm.

domestic properties between 1560 and 1760. Although only one was of cruck construction, antiquarian documentary references indicated cruck construction was not uncommon in this part of the Pennines, although most of these structures had long ago been rebuilt (RCHME 1985, 131, no 2). Gary Miller's study of domestic houses from 1300 to 1770 in the upper Douglas Valley, between Chorley, Ormskirk, and Wigan in south-west Lancashire, looked at 145 buildings (Miller 2002, 36-45). This intensive vernacular study revealed that of the 69 timber-framed structures identified, 25 were cruck buildings of which 19 were domestic structures. Two surveys of adjacent townships in the Bollin Valley, on the Cheshire-Greater Manchester border, indicate the variability in the survival rate of cruck structures. In the townships of Dunham and Little Bollington 61 farm buildings and farmhouses were studied between 2007 and 2009 of which just one (57; Nevell, Grimsditch & Hradil 2009) was a cruck building. Yet a survey of 48 farm buildings and farmhouses in the adjacent township to the west, Warburton, undertaken between 1996 and 2009 (Nevell 1999; McNeil & Nevell 2001) revealed eight surviving cruck buildings (Fig 6) and the sites of two demolished cruck structures.

Thirdly, the survival of re-used cruck truss fragments, typically the blades (Fig 7), can often reveal the existence of cruck buildings in areas where very few or none survive as well as in areas of higher survival. Both the Royal Commission study of the Ribble Valley and Gary Miller's study of the River Douglas Valley revealed large numbers of properties with re-used cruck truss parts. The Royal Commissions study of 98 rural houses in the upper Ribble valley brought to light more than a dozen references to re-used cruck timbers. In the Douglas Valley, in addition to the surviving cruck buildings 11 structures contained re-used cruck blades (Miller 2002, 36). Ahead of the building of the second runway at Manchester Airport, in the late 1990s, 11 farm buildings were studied in Mobblerley and Styal, including three box-framed farmhouses. A fourth timber building, Hanson Mews, was a box-framed barn but with a large number of re-used cruck blades and collars in the roof of the structure. Within Greater Manchester one of the most striking areas where re-used cruck trusses are found is the upland Saddleworth area of Oldham. This has just two surviving cruck structures (14 & 16), but there are records of two further demolished cruck buildings (77 & 78), whilst four 18th and early 19th century properties have been identified with re-used cruck blade fragments in their roof structure (Smith 1987). No doubt more such examples await identification across the city region.

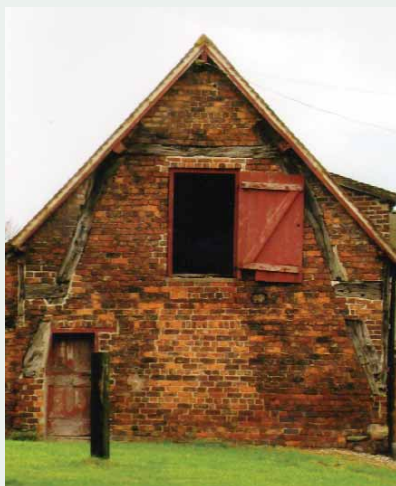


Fig 6: The gable end cruck at The Bent, Warburton.



Fig 7: Re-used cruck blades in the roof of Paddock Lane Cottage, Warburton, rebuilt in 1737.

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slump in building activity that lasted until the late 15th century and broadly coincides with the arrival of the Black Death in 1348 and its aftermath

Cruck buildings were one part of the wider timber-building tradition in late Medieval Britain, which included aisled and box-framed structures. Tree-ring analysis has been used to date many of these buildings. Study of the 712 timber buildings of all kinds dated by 2000 showed different trends could be detected in the development of urban timber buildings, rural aristocratic and gentry timber houses, and rural vernacular timber houses, of which cruck buildings formed a significant element (Pearson 2001, 68-9; Fig 8). Thus, the date-range of

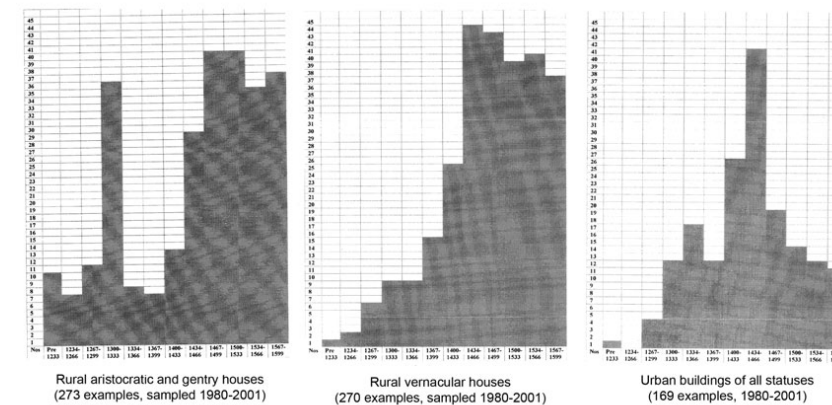


Fig 8: The chronological distribution of tree-ring dated timber buildings in England, Scotland and Wales by status and location (after Pearson 2001).

rural aristocratic and gentry timber buildings includes surviving examples going back to the mid-12th century when aisled halls were common, whilst there is a significant upsurge in timber building activity in the first third of the 14th century. This was followed by a slump in building activity that lasted until the late 15th century and broadly coincides with the arrival of the Black Death in 1348 and its aftermath. By contrast, rural vernacular timber houses of lower status show a different development, with a steady but slow increase in numbers from the mid-13th century onwards, with the main flowering of building occurring from the mid-15th century to the late 16th century (Pearson 2001, 68-9). Urban timber buildings show a third development pattern; though far fewer structures have been dated from these contexts so the conclusions drawn from the evidence needs to be treated with more caution. Few timber buildings survive from before the mid-13th century and two peaks in construction activity are visible: a small one in the first two-thirds of the 14th century, followed by a small dip and then a much larger peak in activity in the mid-15th century that falls significantly and more rapidly than rural house building down to the end of the 16th century. This may reflect both the impact of the Black Death in the mid-14th century, and the widely charted decline in towns in the late 15th century and early 16th century (Pearson 2001, 69). The sample size of 74 tree-ring dated buildings of all structural types from the North West is probably too small for reliable chronological analysis, so it is unclear whether the two observable peaks in activity in the early 16th century and in the late 16th century are really representative of the timber-building pattern in the region.

Cruck buildings were neither particularly rural-based nor urban-based, and nor were they exclusive to the landowning gentry. Consequently, when the evidence for the 369 dated cruck buildings from England and Wales is studied (Fig 9) a distinctive three peak pattern of activity

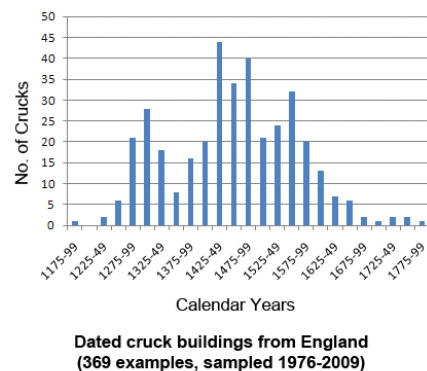


Fig 9: The chronological distribution of tree-ring dated cruck building in England, Scotland and Wales.

### The Cruck Building Tradition in Greater Manchester and North West England

Cruck buildings are one of the most significant, and extensive, categories of archaeological evidence for the late Medieval and early Post-Medieval periods in North West England (Newman 2006, 119-20). They are also the earliest building tradition to survive within the region. Such buildings are often associated with the earliest settlement within a manor and are thus good indicators of the spread of Medieval settlement within an area. Yet precisely how many cruck buildings were built in the North West is unknown. The Vernacular Architecture Group records 630 known buildings of this type in North West England (that is 16% of all known crucks), with 125 in Cheshire, 226 in Cumbria, 73 in Greater Manchester and 13 in Merseyside. This includes both surviving and demolished or lost structures. The current study has looked in depth at the records for surviving, surveyed, and excavated cruck buildings within Greater Manchester and the 72 buildings studied are listed in Chapter Four. A further 23 lost or little studied cruck buildings were also noted within the city region, bringing the total number of known cruck structures within the Greater Manchester area to 95 (Fig 10).

This increase in the number of known cruck buildings within Greater Manchester is partly due to four vernacular building studies undertaken since 1990. The building studies in the neighbouring townships of Dunham, Little Bollington and Warburton have already been mentioned above. In Dunham and Little Bollington, only four surviving timber-framed buildings were identified amongst the 61 farm buildings studied, of which just one was cruck-framed (57). In addition, survey work indicated the existence of three demolished timber structures, whilst 18th and early 19th century estate records mentioned three more timber-framed farmhouses since replaced by brick buildings. How many of these six lost timber-framed buildings were cruck structures is unknown, but there is evidence elsewhere within Dunham for two further cruck structures; Old Thatched Cottage on Oldfield Brow, which was demolished in the early 20th century (92), and Box Tree Cottages, a surviving cruck farmhouse rediscovered in the 1990s (55). In Warburton the number of known cruck structures rose from one in 1990 to ten in 2008 (Fig 11) and the opportunity was also taken to excavate the sites

emerges. First, a peak in the mid-14th century followed by a substantial fall off after 1350. Secondly, a sustained and high level of building activity between 1425 and 1500. Then, a final peak in cruck building activity in the last quarter of the 16th century is followed by a steady and steep decline to almost nothing in the third quarter of the 17th century. It is within this broader landscape and structural context that the following discussion on cruck buildings within North West England needs to be seen.

Cruck buildings are one of the most significant, and extensive, categories of archaeological evidence for the late Medieval and early Post-Medieval periods in North West England

location of cruck buildings

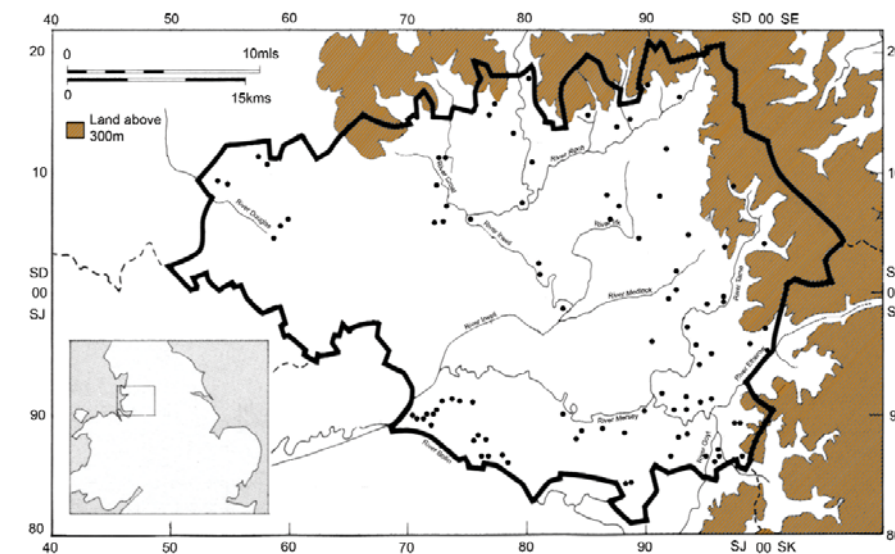


Fig 10: The location of cruck buildings within the Greater Manchester region.

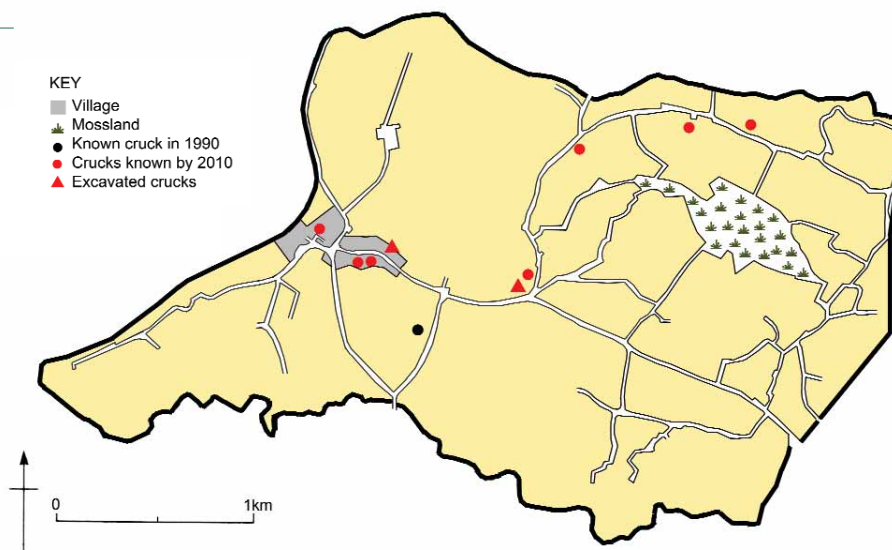


Fig 11: The location of cruck buildings within Warburton, showing the impact of systematic fieldwork since 1990.



of two demolished cruck buildings within this group (see below Chapter Two). Finally, a study of the buildings of Tameside, undertaken between 1995 and 1998, as part of the Tameside Archaeological Survey, increased the number of known and surviving examples of cruck buildings from four to 13 (Nevell & Hradil 1998). Such intensive studies, though, do not always reveal the early evidence that might have been anticipated. Thus, 11 rural buildings were recorded in detail in the Kingsway area of Rochdale between 2004 and 2007. This was a late Medieval and early post-Medieval upland enclosure landscape on the northern side of the River Roch covering roughly two square kilometres. None of these properties proved to be timber-framed, though documentary analysis revealed a reference to a demolished cruck-framed longhouse within the study area (17). Sometimes the absence of evidence really does provide evidence for the absence of this building type.

The structural forms of the cruck buildings from the Greater Manchester area can be characterised as Alcock Type C (Alcock 1981, 97). This form was found in 123 recorded examples in 52 buildings across Greater Manchester. Just five examples were type D, double or multiple curves (10, 16, 51, 60), four were Type S, straight (34, 46, 54), and two were Type E, elbow-shaped. The latter both occurred in a barn at Ashworth Hall in Rochdale (79). Despite 39 cruck trusses had their blade shapes unrecorded, largely through demolition, this still leaves Type C as the overwhelmingly most common shape of blade (Fig 12). To create a single smooth curved blade for a cruck usually involved felling a tall, mature, oak tree and suggests the majority of the oak trees used in this form of construction were from older, managed woodland. Those used at Newton Hall, for instance, were c. 5m in length and more than 150 years old, and most of the tree-ring dated examples from Greater Manchester had Type C blades suggesting that well managed mature oak woodland survived in the region into the 16th century.

Turning to the form of the top of the cruck truss, the most common apex style was Alcock Type A (Alcock 1981, 96), a simple triangular arrangement that braced the top of the cruck. 60 examples are known in 26 buildings of all types from across Greater Manchester (Fig 13). The focus of the distribution of apex Type A was North West England and the Derwent Valley in Derbyshire, with outliers in the Severn Valley to the south. There were also a small number of other variants the most significant of which were 16 examples known as Alcock's Type L1, where the two trusses were tied together at the very tip with the aid of a short brace. These were found in eight buildings across all social strata; three barns (8; 18; 38), three tenanted

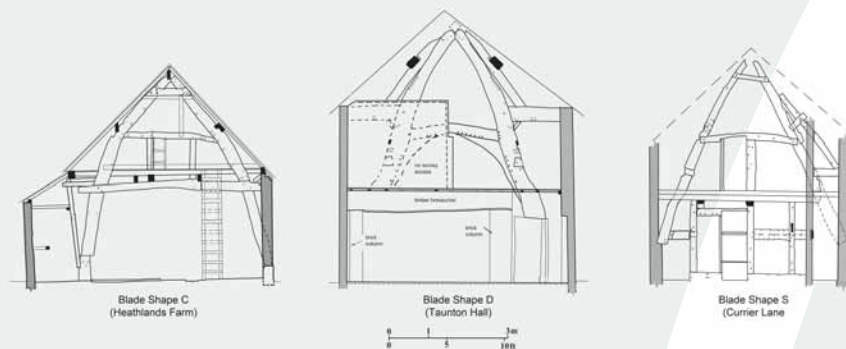


Fig 12: Sections of cruck-truss forms from Greater Manchester cruck buildings.

Tameside  
Archaeological  
Survey, increased  
the number of  
known and  
surviving  
examples of  
cruck buildings  
from four to 13

Type A, forms  
part of a wider  
distribution  
pattern of more  
than 337 such  
forms across the  
north and west  
Midlands and  
North West  
England

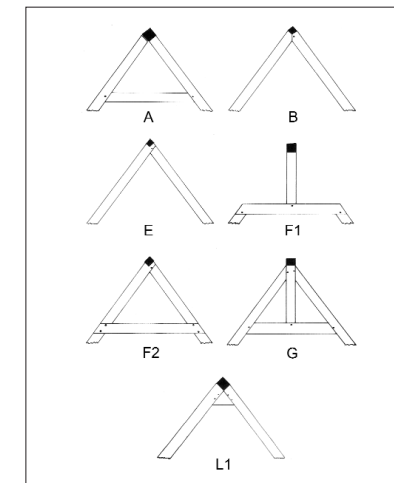


Fig 13 Cruck truss apex styles known from examples in the Manchester city region (after Alcock 1981).

G (six examples). These were as widespread across the country as Types B and E. These various forms appear to reflect differing carpentry traditions at a regional level (Grenville 1997, 57-8), suggesting that both the carpenters and the owners of the buildings recognised that different styles of apex were an important feature of a cruck building. Thus, the most common apex form in Greater Manchester, Type A, forms part of a wider distribution pattern of more than 337 such forms across the north and west Midlands and North West England. The isolated group of Type

cottages (16; 29; 66) and two halls (69 & 70). The focus of the distribution of the few Type L1 apexes known lies in South West England in Devon, Dorset, and Somerset, with a handful of outliers along the Welsh Borders. The Greater Manchester evidence is both the most northerly extension of this group and is geographically separate (Alcock 1981, 19). Five other forms were also recorded in the Manchester region of which the most numerous were Type B, with eight known examples including Newton Hall (27, 34, 47, 50, 51, 72). The Greater Manchester examples (Fig 14) provide a link between the heartland of this type along the Welsh borders and a small outlying group in West Yorkshire (Alcock 1981, 14). Type E, with three known examples, is most common over the South West, Wales and the North. The final three types are somewhat different each having the ridge tree braced by a King post; Type F1 (with two examples), Type F2 (five examples) and Type

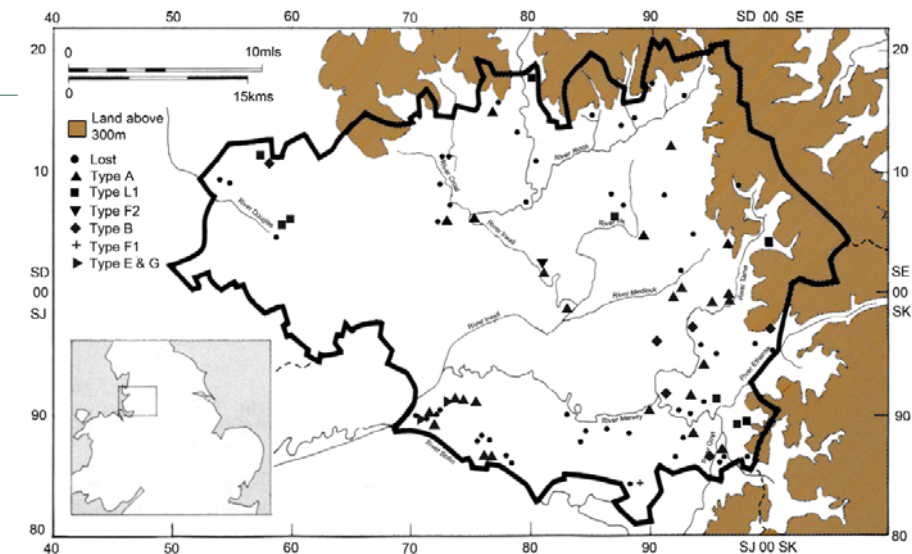


Fig 14 The distribution of apex styles from the Greater Manchester region.

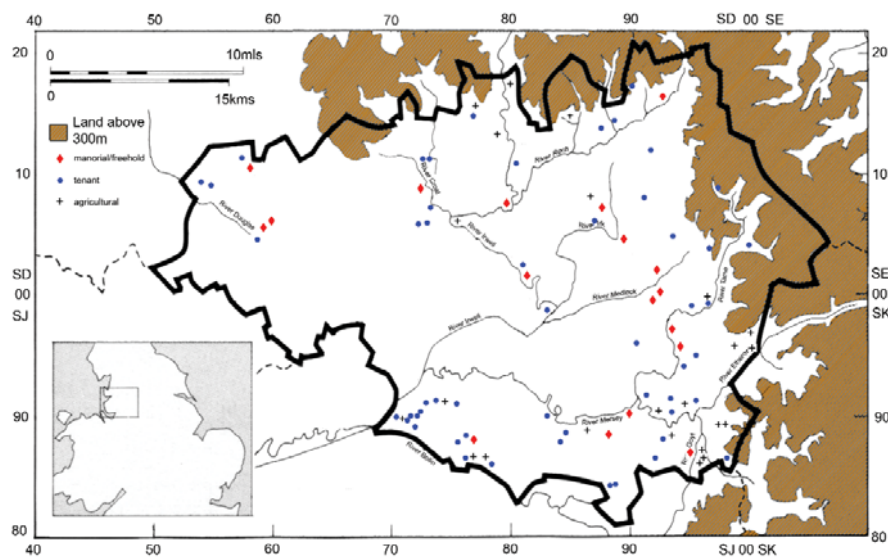


Fig 15: The status of the cruck buildings known from the Greater Manchester region.

L1 apex is rather striking, and whilst the reasons for its presence are unclear it does demonstrate a local tradition in cruck carpentry in the Greater Manchester area.

Apex and blade forms can reveal a large amount about contemporary carpentry and woodland management techniques. However, it is the plan forms of cruck buildings which provide evidence for the social context of this late Medieval building type. The footprint of such buildings in the Manchester region can be divided into two categories; linear plan forms and buildings with cross-wings. If the 24 agricultural structures are excluded, leaving just the domestic sites, these categories can be refined into linear plans of which there are 49 examples, cruck buildings with contemporary cruck-framed wings of which there are four, and cruck buildings with later box-framed wings of which there are 17 sites (Fig 15). Within this group single range houses form the largest category, which is unsurprising since this was the most common tenanted/peasant house form. These tended to be three bay buildings, as at Box Tree Cottages in Dunham (55), with a room space in each bay, the central room or house body usually being the only heated one. Normally, such buildings were one storey high but sometimes one of the end bays had an upper floor accessed by a ladder which could be used as a private space, or solar. The kitchen was usually found in the opposite end bay. Onion Farmhouse in Warburton (61) had this kind of arrangement.

One feature that is found in most linear plan form cruck houses and in all winged cruck houses was the open hall (Fig 16). The houses of the manorial lords, freeholders and some of the wealthier tenant or yeoman farmers, in the late Medieval period were focused upon such open halls. These were usually two or three bays in length, and were often, but not always, flanked by one or two multi-storey wings containing service rooms or private apartments and giving a characteristic T-shaped or H-shaped plan to the house (Brunskill 1994, 11; Champness 1989, 31-2; Platt 1994; Fig 1.10). The term open hall indicates the room was open to the roof timbers, with no first floor. This arrangement was necessitated by the heating of this space, which took the form of a hearth centrally placed on the floor with the smoke exiting through a louvred opening in the roof. The gothic arch of the cruck truss lent itself naturally to this

Normally, such buildings were one storey high but sometimes one of the end bays had an upper floor accessed by a ladder which could be used as a private space, or solar

Such arch-braced crucks in open halls were a sign of wealth and higher status

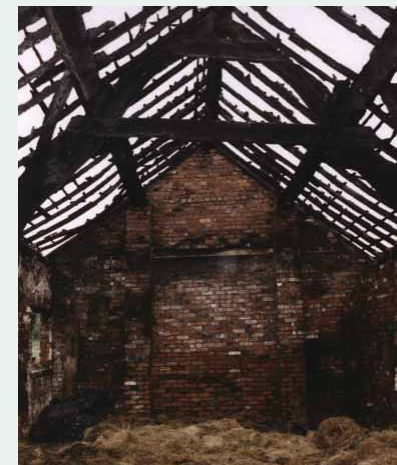


Fig 16: The cruck trusses in the fifteenth century open hall at Apethorn Fold, Hyde.

Hall (70), both near Wigan. Within the Manchester region fine tenant examples of open halls include the 15th century Apethorn Fold (44) and probably from the same period The Bent Old Farmhouse (53). The early 16th century Kersall Cell (22), built by Lenton Priory was also of this form.

The open hall was sometimes emphasised by decoration. Within the Manchester region this was most typically by simple chamfering along the edges of the blades within the hall. Such examples include Apethorn Fold, Newton Hall, and Taunton Hall all in Tameside. Occasionally wall paintings are found on one wall of the open hall, as at Onion Farm (61). Whilst this may once have been a common form of decoration their survival is now rare. There were a group of cruck buildings where the open hall was more elaborately decorated and was emphasised by arch-braced crucks (Fig 17). Five such cruck halls within the Manchester region are known, at Cinderland Hall, Peel Hall, Taunton Hall, The Bent, and Worthington Manor House. Only The Bent (53) was a tenanted property, although the late Medieval family in residence here, the Drinkwater's, were of high status being the bailiffs for the local manorial estate. Of the other four arched-braced open hall cruck houses, three are known to have had cross-wings, whilst the remaining one, Cinderland Hall (45), probably had one to the west of the cross-passage although this does not survive. Such arch-braced crucks in open halls were a sign of wealth and higher status, or at least an

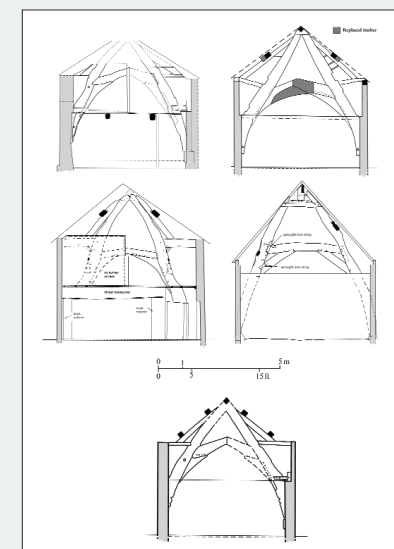


Fig 17: Arched-braced cruck trusses from Greater Manchester cruck buildings.

aspiration to a higher status. They were common elsewhere in England and Wales, although the Manchester region examples were not as elaborate as those seen in Shropshire or Wales.

The form of the open hall (Airs 1995; Johnson 1993), separated as it was into lower and upper ends, encouraged in the wealthier homes the building of extra rooms in cross-wings at either end. Such winged halls were common to both box-framed houses and cruck-framed houses, and both forms are known within the 16 examples known from the Manchester region. The lower or service end of the hall often opened into a cross-passage running across the width of the building as at Cinderland Hall (45). Beyond this passage was a cross-wing occupied at ground-floor level by service rooms and entered from the passage via two doorways, as at Taunton Hall (51). These rooms included a pantry and a buttery, each accessed by a doorway in the end wall of the open hall. Sometimes a third, central doorway led to a kitchen that, because of the risk of fire, was often a separate building. The upper end of the hall was reserved for the lord and his family, who at meal times sat at a high table, raised on a dais. A second wing attached to this end of the hall served as their private accommodation. Unlike the central open hall, the wings were often floored and the upper floor of the service wing was sometimes used for additional private accommodation or as a guest room. The addition of one or two cross-wings marked these late Medieval structures as some of the highest status buildings within the city region.

Within the open hall cruck buildings of Greater Manchester only four had contemporary cruck wings, of which three survive; the high status freehold buildings at Kirklees Hall (69), Stubley Hall (20) and Taunton Hall (51). The fourth, Bridge Hall (25), was demolished in the 1950s, was also a freeholder property. The crucks at Stubley Hall and Taunton Hall both belong to the 1490s, whilst the archaeological evidence from Bridge Hall also suggests a 15th century date. The earliest date of Kirklees is unclear but it was at least 15th century in origin. The other 12 winged cruck halls all had later box-framed cross-wings. This appears to be in part a response to the structural problems of adding a two-storey wing to a one-storey cruck hall. Inherent in the H-shaped arrangement of a winged hall was a change in the roof alignment, irrespective of whether or not the wings projected beyond the central open hall. Structurally this was easier to achieve with the addition of a box-framed wing which might explain the dominance of the cruck hall with a box-framed cross-wing. Good examples from Greater Manchester include Foxdenton (13), Haulgh Hall (3), Kersall Cell (22; Fig 18) and Peel Hall



Fig 18: Kersall Cell, Salford. A cruck hall of c 1515 which was expanded in the later sixteenth century by the addition of two box-framed cross-wings.

The upper end of the hall was reserved for the lord and his family, who at meal times sat at a high table, raised on a dais

as 16th century building styles moved more towards extra rooms for added personal space, specialisation, and social segregation it was the box-framed timber building that became most popular

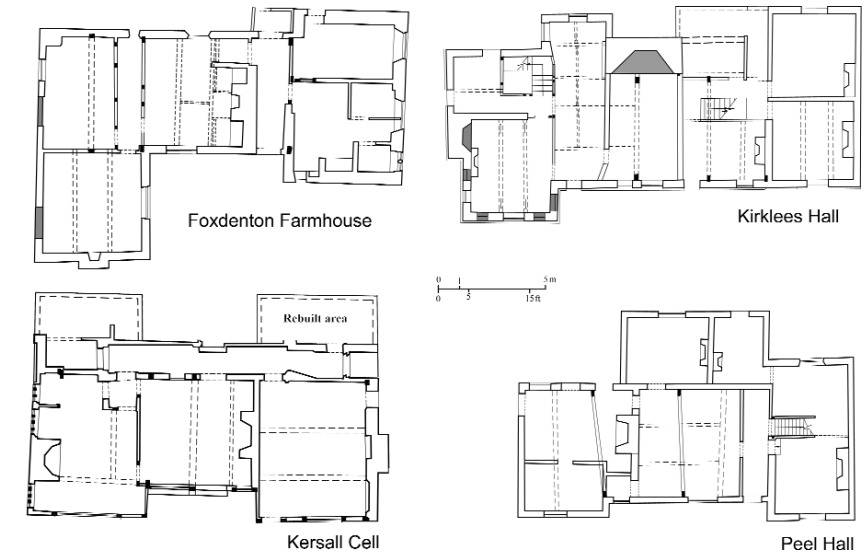


Fig 19: Plans of cruck buildings in the Greater Manchester area with box-framed cross-wings.

(70). Whilst none of these box-framed wings have been tree-ring dated stylistically most appear to have been built in the late 15th or 16th centuries. Some cruck buildings though had a box-framed wing added as late as the early 17th century as at Moss Farmhouse in Bowdon (59) and Wybersley Hall in Marple (43) (Fig 19).

The prevalence of cruck halls with later box-framed cross-wings suggests a reason for the decline in the use of cruck trusses in higher status dwellings during the 16th century - the inflexibility of the design. A cruck structure was fine for framing and supporting room spaces open to the roof in the open hall house, but could not easily accommodate intermediate floors. One solution was to raise the crucks on tall stone plinths but this was expensive, and so not very common, and the evidence suggests did not occur in North West England. As box-framed construction used small pieces of straight oak timber they were inherently more flexible (Fig 20). A building could be extended in depth, length and height by the addition of extra wall-frames made from many short lengths of timber (Champness 1989, 33). Thus, as 16th century building styles moved more towards extra rooms for added personal space, specialisation, and social segregation it was the box-framed timber building that became most popular. At Staircase House in the Old Market Place, Stockport (40), the c. 1460 three-bay cruck hall house was encased in a new box timber-framed, winged, two-storey house during the mid-16th century to get around

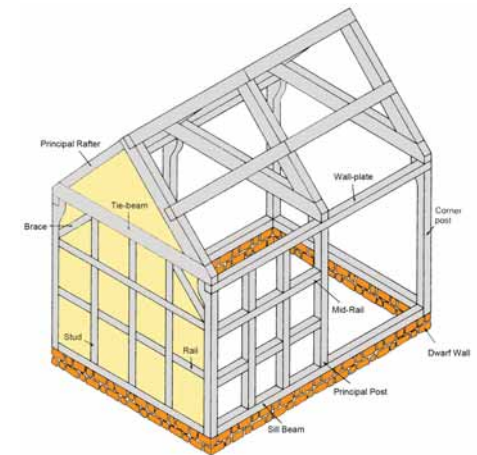


Fig 20: A schematic of a typical sixteenth century box-framed building from the North West.

this problem. This shift in house design towards greater room specialisation and more personal space is sometimes referred to as the Great Rebuilding (Airs 1995; Hoskins 1955; Newman 2001, 57-9). One of the characteristics of this shift was the insertion into the open hall, whether it was in a cruck or box-framed building, of a ceiling and an upper floor, and often on the ground floor an inglenook fireplace. Of the 16 winged cruck halls known from the Manchester region 12 had ceilings and upper floors inserted into the open hall during the 16th and 17th centuries. Open halls in box-framed properties such as Baguley Hall, Denton Hall and Ordsall Hall suffered a similar fate during this period (Nevell & Walker 2002, 16-18).

By the mid-17th century the spread of brick as the main building material combined with the shift towards politer domestic architecture to render timber-framed buildings and the cruck truss in particular, with its Medieval gothic-looking arch, outdated architecturally. At Kirklees Hall, in Aspull (69), for instance, the timber open hall with its three cruck trusses were clad in brick and stone to produce a two-storey winged hall of symmetrical and vaguely classical appearance. Lesser cruck dwellings, the tenanted farmhouses of the Manchester region, were also rebuilt in brick from this period onwards, but particularly during the 18th century. In the township of Warburton, which with ten cruck-framed buildings has the highest number of known such buildings within the county, most of the farmhouses were rebuilt in brick in the 18th century. Sometimes this was a piecemeal process, as at The Bent Old Farmhouse (53; Fig 21) and Mosslane Farmhouse (95); where the wattle and daub walls were replaced with brick leaving just the main upright timbers and gable-end cruck trusses visible. In other farmhouses all of the external timber-framing was removed, hiding one or two surviving cruck trusses within the later brick structure as at Onion Farmhouse (61), Paddock Lane Farmhouse (63) and Wigsey Farmhouse (65). The cruck barns of the township, Birch Farm Barn (54) and Wigsey Farm Barn (64), suffered a similar fate during rebuilding. This rebuilding appears to have marked the abandonment of some cruck farmhouses in favour of newer brick-built dwellings, the older property being converted into a barn. This abandonment of the Medieval cruck house can be seen at The Bent Old Farmhouse (53) and Heathlands Old Farmhouse (58).



Fig 21: The Bent Old Farmhouse, a late medieval cruck-framed farmhouse replaced by a box-framed farmhouse around 1600. By the eighteenth century the old farmhouse was being used as barn and the wattle and daub walls were replaced by brick.

wattle and daub walls were replaced with brick leaving just the main upright timbers and gable-end cruck trusses visible

By the late 19th century all forms of cruck building had become an antiquarian curiosity, sketched by local historians

The building of cruck structures was not dead. There are 17th century examples in the North West include two sites from Cumbria; a barn at Moorhouse Farm, Moorhouse (NY 330 585), dated to 1608, and Lamony Farmhouse, Burgh-by-Sands, NY 326 592 (Vernacular Architecture 29, 108-9), dated to 1615. On Merseyside a cruck truss in a cottage on Liverpool Road in Birkdale was dated to the period 1628-56 (SD 332 154; Vernacular Architecture 31, 125), whilst from around the same period (1655) was a clay-walled house with a cruck truss at Washhouse Cottage in Moorhouse, northern Cumbria (NY 330 568 Vernacular Architecture 30, 90).

## The Survival of the Cruck Tradition

Although true cruck construction across most of the North West was in steep decline during the 17th century, there were several areas where the tradition survived and developed. In the Douglas Valley, north and west of Wigan, a late 17th century variant emerged - the upper cruck (Miller 2002, 45-6; Fig 22). Although known from earlier buildings elsewhere in the England and Wales, the North West variants appear to be late. They were used as triangular roof trusses with the cruck blades resting on a tie-beam at wall plate level. The earliest dated example is the North West is from Bounty Farm, in Upholland near Chorley, and belonged to 1667 (Miller 2002, 46). Upper cruck trusses are even known from a gentry house roof of the period 1700-10 at Lowe's, Newburgh.

At least five buildings with upper crucks are known from the Greater Manchester area. Four of these can be found at No 10 Firwood Fold in Bolton, at Brandlesholme Old Hall in Bury, at Scotson Fold in Radcliffe and at the Whitesmiths Arms on Standishgate in Wigan. The latest structure to use them appears to be a field barn behind Gardeners' Cottage, in Dunham, on the Stamford estate near Altrincham. This small brick barn appears to be mid-18th century in origin and, as far as we know, marks the end of this sub-style of cruck structure in the region.

The last area to retain a cruck building tradition in the North West, possibly in England, was the Solway plain in northern Cumbria (Brunskill 2002 & Jennings 2003). Here many barns, particularly those with clay walls, continued to use a crude form of cruck truss made from poor quality, young, oak with multi-curved blades. The cruck truss within a clay-walled house at Moorhouse Farm, Cumbria (NY 334 567), for instance, has been tree-ring dated to 1742 (Vernacular Architecture 30, 91).

The cruck structure remained a useful building style for barns with their mass storage function and requirement for large open spaces, and this may explain their survival in parts of Cumbria into the late 18th century. By the late 19th century all forms of cruck building had become an antiquarian curiosity, sketched by local historians such as Owen and Rowbotham or derided as the epitome of rural squalor; 'little shanties of dwellings, with no room in them for the exercise of social and domestic decency; old, tumble-down, thatched cottages with walls bending in and out in all directions...' (Hewitson 1872).

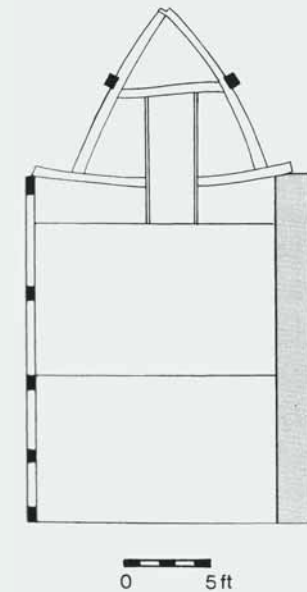


Fig 22: Re-used cruck truss blades in the roof at Giant's Hall, Standish (after Miller 2002 46). These acted in effect as a raised cruck.

## Glossary of terms

<b>aisle</b>	a secondary space running alongside an open hall separated from it by columns, piers, or posts.
<b>arcade</b>	a series of arches supported by columns, piers, or posts.
<b>ashlar</b>	cut stone, with a very smooth surface.
<b>bay</b>	a building division, usually determined by the position of major cross-walls or roof trusses.
<b>box-frame</b>	a form of timber-framing where vertical and horizontal wall members support the roof.
<b>bressumer</b>	heavy beam spanning an opening, typically of a firehood or inglenook fireplace.
<b>chamfer</b>	service formed by cutting off a square edge or corner.
<b>cove</b>	a broad concave moulding often used to mask the eaves of a roof.
<b>cruck truss</b>	pairs of inclined timbers or blades usually curved that usually rise from the ground to meet at the top and support the weight of the roof.
<b>Inquisition</b>	medieval legal investigation into a deceased's property and inheritance
<b>mullion</b>	stone or timber upright dividing a window into lights
<b>open hearth</b>	hearth normally placed clear of the walls, without a chimney stack or hood above.
<b>plinth</b>	projecting courses at the foot of a wall or column.
<b>post</b>	main upright in a timber-framed building.
<b>principals</b>	the pair of inclined lateral timbers of a truss which carry the common rafters and purlins.
<b>purlins</b>	a horizontal longitudinal timber bracing the roof structure and supported by the roof trusses.
<b>quoins</b>	stone blocks used to strengthen the exterior corners of a building.
<b>sill</b>	horizontal member at the bottom of a window, door, or wall-frame.
<b>spere truss</b>	truss at the lower end of a hall, dividing the cross entry from the hall proper.
<b>tie-beam</b>	the main horizontal, transverse, timber which carries the feet of the principals at wall-plate level.
<b>truss</b>	a main structural component of a roof formed by a horizontal tie-beam and inclined principle rafters. All other elements of the roof are supported by the truss.
<b>wallplate</b>	timber that lies on top of a wall and supports the rafters.
<b>windbraces</b>	straight or curved strengthening timbers in a roof connecting the purlins and principal rafters.

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