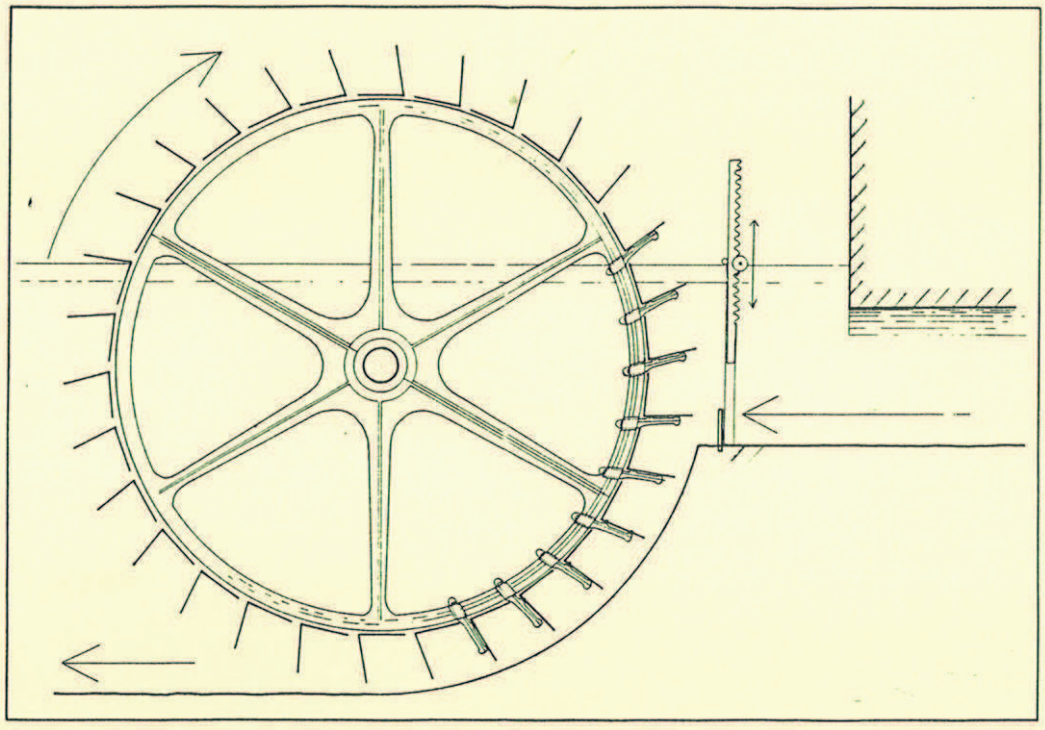
Nealon Tanner Architects

LOWER FARM BARN
WASING
WEST BERKSHIRE

HISTORIC BUILDING RECORDING



OXFORD ARCHAEOLOGICAL UNIT

October 1999

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Summary

A proposal to convert two farm buildings at Lower Farm on the Wasing Estate in West Berkshire allowed their recording prior to the development. The buildings themselves, a late-eighteenth/early-nineteenth century barn and a mid-nineteenth century cartshed/granary were of some local interest but of particular significance was a surviving breastshot waterwheel with gearing and overhead shaft which powered farm machinery within the barn.

1 INTRODUCTION

1.1 Background

1.1.1 The Oxford Archaeological Unit was commissioned by Nealon Tanner Architects to undertake a programme of historic building recording of two farm buildings at Lower Farm on the Wasing Estate, c.1 km west of Aldermaston in West Berkshire (NGR: SU 5800 6500). The buildings consist of a long barn forming the south side of the farmstead and a cart shed to the north within the yard.

1.1.2 The recording relates to a planning application for the conversion of the structures to office use. The buildings are of historical interest and in accordance with national planning guidelines (PPG15) West Berkshire County Council's Conservation Officer requested that a programme of archaeological building recording be undertaken prior to the commencement of any development work. Neither structure is listed but they are considered to be within the curtilage of the Grade II listed granary.

1.1.3 Due to unusual circumstances the recording was undertaken before West Berkshire County Council had issued a brief for the work and the recording was therefore based on a brief written by Nealon Tanner Architects following discussions with the County's Conservation Officer.

1.1.4 Of particular interest was a surviving water wheel and overhead shaft which powered farm machinery within the large barn. It is likely that the wheel, gearing and shaft will be at least partially removed by any development but when the survey was undertaken this has not been conclusively decided.

1.2 Aims and objectives

1.2.1 The main aim of the project was to provide a written and visual record of the buildings prior to their alteration in the proposed development. The recording concentrated on the overall structure of the buildings along with their construction, phasing and function.

1.3 Methodology

1.3.1 The recording was primarily of a photographic nature. External and internal photographs (black and white prints and colour slides) were taken of all the main features of interest together with general shots of the buildings. Descriptive notes and dimensioned sketches of significant elements were also made. The site work was undertaken on the 18th and 19th October 1999.

1.3.2 A limited amount of historical research was also undertaken at the Berkshire Record Office. Relevant cartographic sources were consulted together with the principal secondary sources. A full bibliography is included at the rear of this report.

1.3.3 An archive, consisting of the photographic negatives, site notes and drawings will be prepared and deposited with the relevant local museum.

1.4 Historical background

1.4.1 The barn and cart shed formed part of Lower Farm on the Wasing Estate to the north-east of Wasing Place and its surrounding parkland. The farm is located immediately to the north of the eighteenth century turnpike road between Aldermaston and Brimpton which appears to have divided the parkland from the arable farmland on the estate.

1.4.2 The farm is moderately well covered with historical maps which confirms the general dating of the structures. Neither building is shown on the earliest two maps consulted from c.1750 (Manor of Wasing, held by the Berkshire Record Office) and from 1763 (Plan of Wasing, held at the Wasing Estate Office). This later map was drawn up three years after the manor had been purchased by John Mount, whose family still own the estate.

1.4.3 The next available map is the Wasing Tithe map of 1849 on which the barn is shown although the cart shed is not. The brick wheelhouse which projected from the south of the barn appears to have been constructed by this date but neither the small projection to the north nor the two shallow wagon porches to the south are shown. A wider projection however is shown at the approximate location of the western of the two porches. The apportionment agreement relating to the Tithe Map makes no reference to a pond, waterwheel or watercourse. The only information it adds is that Wasing Lower Farm was owned by William Mount and that the area to the south of the large barn was a

stack yard. This would have been an area where large bundles of corn were stored prior to their transfer into the barn for threshing.

1.4.4 The first edition 25" Ordnance Survey map of 1877 shows both the small projections to the south face of the main barn together with a third small projection to this face in the bay immediately to the west of the wheel house. The small brick projection to the north face of the main barn had not been constructed by this date but the cart shed was first shown. The stream passing to the west of Wasing Lower Farm towards the River Enbourne, was clearly shown on this map, along with a surviving simple brick arched bridge over the stream, to the south-west of the barn. There was no pond shown at this date to the south-west of the main barn.

2 BARN

2.1 General description

2.1.1 The barn was constructed in the late-eighteenth/early-nineteenth century to form the southern section of the farmyard and appears to have formed part of a substantial expansion to Wasing Lower Farm. The main body of the barn appeared to be of a single date although there have been a number of alterations to the fabric and small additions to the building.

2.1.2 The barn was long (c.46 m) and was symmetrical in plan with two three-bayed sections either side of a central section of five bays. The innermost bay of each of the flanking sections had hip-roofed projecting porches to the south, with large wagon doors to the north suggesting that they were probably originally threshing floors. A third probably similar projection also previously existed to the south face of the central bay suggesting that the barn originally had three threshing floors each one flanked by two storage bays.

2.1.3 Each of the ten trusses was of consistent design consisting of pegged tie-beam, raking struts, collar, two main posts with braces (some arched) to tie-beam. Each roof slope was supported by a single non-clasped purlin located beneath the collar and within a double-width slot to the underside of the principal rafter. The roof was additionally strengthened in Areas 2 and 3 by intermediate, cambered collars bracing the purlins at the central point of each bay. The southern slope of the roof enclosed a narrow aisle c.1 m wide to the south side of the barn and was supported by an arcade plate which was itself supported by each post and arched braces between post and arcade plate.

2.1.4 The entire roof was secondary with the purlins, rafters, struts and collars (almost entirely softwood) no earlier than late-nineteenth century and possibly twentieth century. The east end of the roof was half hipped unlike the west end which was gabled. The roof was slate-covered.

2.1.5 The walls were formed of a combination of softwood and reused oak studs clad with weatherboarding, set on a red brick base (60 cm high, English bond

and headed by a soldier course). Much of the base appeared to be two-phased with a clear distinction in the mortar. That to the lower two-thirds of the plinth was very grainy, fairly soft, light cream coloured while that to the upper section was a dark grey mortar of a similar texture to that below. This may suggest that the original building was taken down and rebuilt on a heightened brick plinth although the similar textures suggest that the mortars are of a broadly similar date.

2.1.6 The floor of each of the three sections was covered with a concrete surface laid in several phases.

2.1.7 Two secondary brick structures also projected from the north and south facades. That to the south containing a water wheel which powered farm machinery such as a threshing machine which would have rendered the three threshing floors (along with the traditional concept and use of the barn) obsolete. Confusingly however while the wheel house is shown on the 1849 Tithe Map the porches to the south of the three suspected threshing floors are not and were later added (by the 1877 OS map). Assuming there were originally three threshing floors the liklihood is that each of these had a dormer to the south façade, flush with the building, rather than a projecting porch and that the porches were added later when the threshing floors were already no longer used.

2.2 Area 1

2.2.1 The easternmost three bays were divided from the central area by an apparently primary timber-framed partition of largely reused oak and softwood studs boarded to the east. This was set on a brick plinth apparently contemporary with the external walls constructed with the same light-coloured grainy mortar. Two former openings above ground level, one above the other, had been boarded over within this wall. There was a further small secondary opening within the brick base of this wall located within the narrow aisle to the south of the building. The cement-lined hole (c.40 cm x 40 cm) appeared to relate to a modern concrete strip in the floor of Area 2 (see more below).

2.2.2 The projecting porch to the south face of Bay 3 had been enclosed with a twentieth century stud partition on a modern brick plinth and the primary wagon doors in the north face of the bay had been replaced by modern aluminium (?) sliding doors.

2.2.3 Area 1 was illuminated by three secondary roof lights to the two easternmost bays and trimming within the roof structure confirmed that there was originally a fourth roof light within this area towards the south-eastern corner of the building. The area was also lit by a single iron-framed window at the eastern end of the southern façade.

2.2.4 From the extra light within this area it appears likely that it was used in the twentieth century as a work shop after machine threshing rendered the

threshing floor obsolete.

2.3 Area 2

2.3.1 The central section of the barn was five bays wide and of similar construction to Area 1 although the three westernmost bays of the north face were open-faced.

2.3.2 The three rear posts furthest west were set on 1 m tall secondary brick piers. The bricks were probably reused of nineteenth century date with hard cement-based twentieth century mortar. Imprints on the south wall show that previously low narrower piers projected from the brick plinth along the southern wall to support the base of the posts, similarly to those within Area 3. It appears likely that the part of the primary pier which was directly beneath the post was retained in-situ and the new pier was constructed around it. Thus the necessary stabilisation of the structure during the works would have been minimised. The two posts to the north of the building within the open-faced section (Trusses 6 and 7) also appeared to be set on modern concrete piers although it may have been a concrete casing surrounding a primary brick pier.

2.3.3 It is possible that rather than constructing modern shells around the existing piers the entire frame of the central section of the barn (Trusses 5, 6, 7) was taken down at some time in the twentieth century and the piers rebuilt. Possibly supporting this theory is that the main rear post of the easternmost truss (No 7) was in a much better condition than the other main posts and was jowled, again unlike the others. It could be that the previous post at this point had deteriorated beyond repair and that when the roof was rebuilt the post was replaced. Alternatively it may be that when the barn was originally built this post was the only one not made from reused timber.

2.3.4 The framing of the rear wall is set on a brick plinth similar to that in the rest of the barn except for that to Bay 6, which the 1877 Tithe Map shows had a projecting porch which had been removed and replaced by a modern stud partition set on a concrete block plinth flush with the rest of the wall. The former wagon opening in this bay was further suggested by the absence of arched braces between post and arcade plate.

2.3.5 There was further phasing evidence in the south face of the two bays to the west of this (Bays 7 and 8) where the 1849 map shows a three-bay wide projection. Within the brick plinth of this wall there was a soldier course at two-thirds height suggesting that the plinth had been heightened.

2.3.6 The floor contained a slightly raised modern concrete band c.0.5 m wide, located beneath the aisle, extending from the internal east wall to Truss 7. Several short sections of the band become dislodged and could be raised to reveal the main concrete floor slab beneath. At the eastern end of the band was a small hole in the partition with Area 1 (referred to previously) and directly above the band was one of the 6 belt wheels on the overhead power

shaft. It is possible that this concrete band formed a base for several machines powered by the belting.

2.3.7 For detail on the overhead power shaft, which extends into the eastern section of Area 2, see section 2.5 on the waterwheel.

2.4 Area 3

2.4.1 In plan Area 3 was the mirror image of Area 1. It was three bays wide with the eastern bay (Bay 9) formerly a threshing floor with an opening to each face. The porch which projected this bay by c.1m to the south and which on the 1849 Tithe Map was shown as part of a three-bay wide projection, had been infilled in the mid- to late-twentieth century with softwood studs above a concrete block plinth. Softwood double doors of some age remained to the northern opening.

2.4.2 The partition beneath Truss 8, dividing Areas 2 and 3 was formed of modern softwood studs on a concrete block plinth although empty mortices to the underside of the tie-beam of Truss 8 suggest that there may have been a previous, primary partition here.

2.4.3 Each of the three main rear posts (including that supporting Truss 8) was supported by a timber sole plate set on an apparently primary brick plinth projecting from the rear (south) wall. This was almost certainly the detail which was removed from within Area 2 and replaced by modern freestanding brick piers.

2.4.4 When the survey was undertaken the area was being used for storage and parts of the internal faces of the walls and much of the western end of the building were partially obscured.

2.5 Area 4 and the waterwheel

Building

2.5.1 A hip-roofed brick structure projected from the south side of the main barn adjacent to Bays 4 and 5 housing a waterwheel, gearing and an overhead shaft which powered farm machinery within the barn.

2.5.2 As detailed earlier the plan of the main barn suggests that it was originally non-powered which would suggest that Area 4, which has the strong appearance of either a horse gin house or wheel house, must have been a secondary addition. The brickwork of the wheel house however was laid with a light-coloured grainy mortar very similar to that within the base of the primary barn and it was presumably constructed relatively soon after the barn. The Tithe Map appears to confirm that it had been built by 1849.

2.5.3 The building was rectangular in plan with doors to east and west faces and two unglazed windows with top-hung hatches to the south. The roof was slate-covered and was supported by two queen post trusses with clasped purlins and an additional king post had been nailed to the side of each truss. The softwood king posts had not been morticed into their truss but at their head they appeared to be integral with the roof, thus suggesting that the roof was secondary.

2.5.4 The roof trusses were structurally separate from the similar trusses which supported the power shaft (see below).

2.5.5 The existing openings all appeared to be primary and the only phasing within the external walls was a blocked doorway at the north end of the east wall and two straight joints suggesting a former window in the west wall in line with the waterwheel.

2.5.6 The floor was obscured by deep piles of straw.

Waterwheel

2.5.7 Within the northern quarter of Area 4 there were two sunken brick-lined pits the southern of which contained a breastshot waterwheel powered by a culverted leat from the west. The pit was c.2.3 m deep at its lowest point and 97 cm deep at the level at which the water enters the wheel. In the quadrant between these two points the bottom of the wheel pit curved to follow the adjacent wheel as closely as possible to reduce the inefficiency of water passing through the pit without entering the wheel. Also following the curve were c.5 cm deep recesses within each wall of the pit of a slightly smaller diameter than that of the wheel.

2.5.8 The waterwheel consisted of two cast-iron wheels 98 cm apart, each one with six spokes and formed of two separate castings bolted together. Each wheel was 2.68 m in diameter and this was extended to 3.28 m by 30 cast iron projecting brackets to which were bolted L-shaped sheet-iron buckets. Each of the brackets passed through holes within the rim of the wheel and was secured by a cotter to the opposite side. Each bucket was 1.18 m wide.

2.5.9 The two wheels were supported by a cast-iron axle set in recesses within each pit wall and the central point of this was 54 cm below the top of the pit wall. The southern recess was filled with straw and could not be closely inspected but the northern recess had been reformed with hard mortar and secondary brickwork. This suggests that the wheel may have been a secondary replacement of an earlier wheel.

2.5.10 The waterwheel was surrounded to north, south and east by a simple softwood frame covered with boards while the west side would have originally been similarly enclosed, above the entrance to the wheel, although when the survey was undertaken the boarding to this side had been removed. (See below for detail on the sluice).

2.5.11 When the survey was undertaken the condition of the wheel was relatively good although about half the buckets (those to the west) had been lost. It had clearly been a long time since the wheel had rotated and the lowest fifth of the wheel was obscured by silt within the pit and tailrace but the main elements were intact.

gearing

2.5.12 Immediately to the north of the main wheel pit was a second, smaller pit, c.1.3 m deep which contained the geared pinion, spur wheel and belt wheel to transfer power to the overhead shaft.

2.5.13 The axle supporting the waterwheel projected slightly through the central pit wall, set on a cast iron bearing, and supported the cast iron spur wheel. This was 1.23 m in diameter, was formed from a single casting and had six S-shaped spokes. The fixed iron teeth of the spur wheel meshed with a smaller (24 cm diameter) cogged pinion to the west which was supported by an axle which spanned the pit and was bolted to a timber bearer within the northern face of the central pit wall. To the opposite end of the axle, adjacent to the north wall of the pit, was bolted a belt wheel, 88 cm in diameter which would have transferred power by a belt (no longer in-situ) to the overhead shaft.

2.5.14 A linear recess had been crudely knocked out of the brick wall to insert the secondary timber bearer and the recess housing the northern end of the smaller axle had also been reformed.

overhead shaft

2.5.15 The overhead power shaft consisted of three sections bolted together and in total extended c.13 m from the north wall of the main barn to c.1m from the south wall of the wheel house (Area 4). Within the wheel house it was supported by two queen post trusses (without principal rafter) either side of the two separate roof trusses. The northern half of the shaft, within the barn, was supported by four beams each one c. 4 m long. The southern beam was set on the wall plate of the barn, the northern beam was bolted to the frame of the barn and the two inner beams were suspended by large iron straps bolted to Trusses 4 and 5. The shaft was secured to each of the six oil-stained supporting beams by a cast-iron bearing bolted to the beam.

2.5.16 The shaft supported five iron belt wheels of various sizes, each one with six spokes. The two furthest north were the largest with 75 cm diameters while the central wheel, at the southern edge of the large barn, had a diameter of 65 cm. Immediately to the south of this was the transmission wheel (45 cm diameter) which connected with the wheel pit and within Area 4 there was a single belt wheel (45 cm diameter) immediately to the north of the southernmost roof truss.

2.5.7 These wheels would have been connected by belts to various items of farm

machinery located largely within the barn. The main piece of machinery would probably have been the threshing machine but other machines may also have undertaken cleaning, grinding, cutting and slicing.

Culvert, pond and sluice

2.5.17 The wheel was powered by water via a 1.3 m wide brick arched culvert which linked the wheel to a pond c.19 m from the west adjacent to the west end of the building. A stream flowing northwards towards the River Enbourne passes to the west of Wasing Lower Farm and a semi-circular pond c.10 m x c.20 m had been dug adjacent to the west end of the barn to capture and utilise this watercourse. When the survey was undertaken a brick retaining wall (c.80 cm tall x 36 cm wide) survived to the northern third of the former pond and a clear bank up to 75 cm high strongly suggested the outline of the remaining two-thirds of the pond. Between these two sections a part of the wall had collapsed and directly behind this it was possible to see the largely buried western end of the brick arched culvert. A large fish grate formed of vertical iron bars remained close to the former entrance to the culvert although not in-situ. The stream would presumably have been damned immediately to the north of the pond but no trace of this survived. The leat was presumably constructed in the form of a culvert to allow carts to pass easily into the barn from the stack yard to the south.

2.5.18 At its eastern end the culvert terminated at the inner face of the wheel house c.0.5 m to the west of the sluice which would have controlled the flow of water into the buckets of the immediately adjacent wheel. The sluice consisted of a pair of toothed vertical cast-iron attached to each face of the pit. Between these bars a timber gate would have been attached, spanning the pit, which would have been raised by a ratchet mechanism and four-spoked wheel attached to the top of the northern wall of the pit. Immediately behind (to the east) the gate was a partially surviving softwood board, bolted to the bottom of the pit, which would have secured the bottom of the gate from the pressure of the retained water.

2.5.19 It was not possible to trace the route of the tailrace due to it being underground and nor to examine its entrance from the wheel pit due to it being obscured by the wheel.

2.6 Area 5

2.6.1 A small lean-to was constructed against the north face of the barn either side of Truss 4 in the late-nineteenth or early twentieth century. The roof was slate-covered and the walls were of brick (Flemish bond) laid with a hard mortar. There were two openings, a door and window, both in the north façade and the jambs of each of these, together with the sill and arched lintel of the window were formed from bullnose bricks. The window was iron-framed with 12-lights and the upper two-thirds were hinged and the bottom to open inwards.

3 CART SHED AND GRANARY

3.1 Description

3.1.1 A cart shed with storage loft (probably granary) was located to the north of the barn and is known from map evidence to have been constructed between 1849 and 1877. It was seven bays wide and two bays deep with a primary partition along the spine of the building dividing the ground floor in two. This was largely of reused softwood, boarded to the south, set on a brick plinth. The roof was half-hipped and covered with hand-made clay tiles secured with modern nails to apparently modern softwood battens and softwood rafters.

3.1.2 Each of the seven bays were open to either facade (except those furthest east to the north face which were boarded) with arched braces nailed between post and wall plate providing an arched entrance to each bay. There were further arched braces extending into the building between post and tie-beam with chiselled carpenters marks. The posts were set on brick bases surrounded by decorative softwood buttresses to each face although when the survey was undertaken many of these buttresses had been lost and replaced by concrete surrounds. At first glance the posts and arched braces appeared be substantially older than the trusses but this was probably due to the black paint covering them. They may have been reused although the jowled heads were regular and appeared to have been machine cut.

3.1.3 Six queen post trusses supported the roof thus allowing a granary/storage loft within the roof space although when the survey was undertaken the loft floor did not appear to be strong enough to allow a detailed inspection. Each truss was of machine-cut softwood with detailing strongly suggestive of a nineteenth century date such as the underside of the queen posts bolted to tie-beam. Two softwood purlins were carried on the back of each of the principal rafters and supported common rafters c.15 cm outside the line of the principals. A slightly unusual feature was that the principal rafters did not extend above the collar terminating immediately above the upper purlin. Vertical ashlar posts and boards were set immediately below the lower purlin forming low walls to either side of the loft.

3.1.4 The functions of a cart shed and granary complemented each other well with the open ground floor ensuring good ventilation and reducing the risk of rats or other vermin being able to reach the valuable grain. Hatches within the granary floor also allowed the easy transfer of sacks of grain to wagons beneath and their were three pairs of such hatches within the floor of the granary at Wasing. The hatches were located along the spine of the building, at each end and at the centre, to allow access to carts within either half of the building. Grain or other materials could also be loaded or unloaded to either end of the loft through a central door.

3.1.5 The large size of the cart shed with the potential for housing 14 carts provides

a further indication of the large scale and productivity of the farmstead. Whether the waterwheel (or possibly an earlier power source) was already operating farm machinery in the barn when the cart shed was constructed is not known for certain but the large cart shed and granary would suggest that it probably was.

4 CONCLUSION

4.1.1 The structures which form the subject of this study are of local interest representing a period of considerable change in farming practices and in the scale of productivity.

4.1.2 By far the feature of greatest interest is the waterwheel together with the gearing, the power shaft, the culvert and other associated features. The number of farmsteads in the nineteenth century which were large enough to invest in powered farm machinery was relatively small and on those that did the most common power source was a horse gin. That the machinery at Lower Farm was water powered is therefore of interest and the fact that all of the main elements of the power source survive relatively intact is particularly rare and significant.

4.1.3 When the survey was undertaken the exact proposals for the wheel and associated features had not been conclusively finalised but it appeared likely that while the wheel would remain in-situ the gearing, shaft and other elements would be removed. It also appears likely that the wheel may be temporarily removed to allow its conservation and restoration. When all of this work is undertaken there may be an opportunity for further recording not possible with the wheel in-situ. For example a closer examination of the wheel, its bearings the wheel pit and the tail race would be possible after its removal

4.1.4 In comparison with the waterwheel the buildings themselves are of moderate interest and are not listed. The barn is impressive largely due to its size and construction but it is relatively young, having been constructed in the late-eighteenth or early-nineteenth century, and it appears to have undergone considerable rebuilding since its original construction. The cart shed/granary is also not of great age, dating to the mid-nineteenth century, but it is a distinctive and attractive structure with its low sweeping roof and arched braces to each of the open-faced bays.

Jonathan Gill
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October 1999

SERVER1/JONG/REPORTS/WALFBBS

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Maps

c.1750 Manor of Wasing
1763 Plan of Manor of Wasing
1849 Wasing Tithe Map
1877 1st edition 25″ Ordnance Survey Map

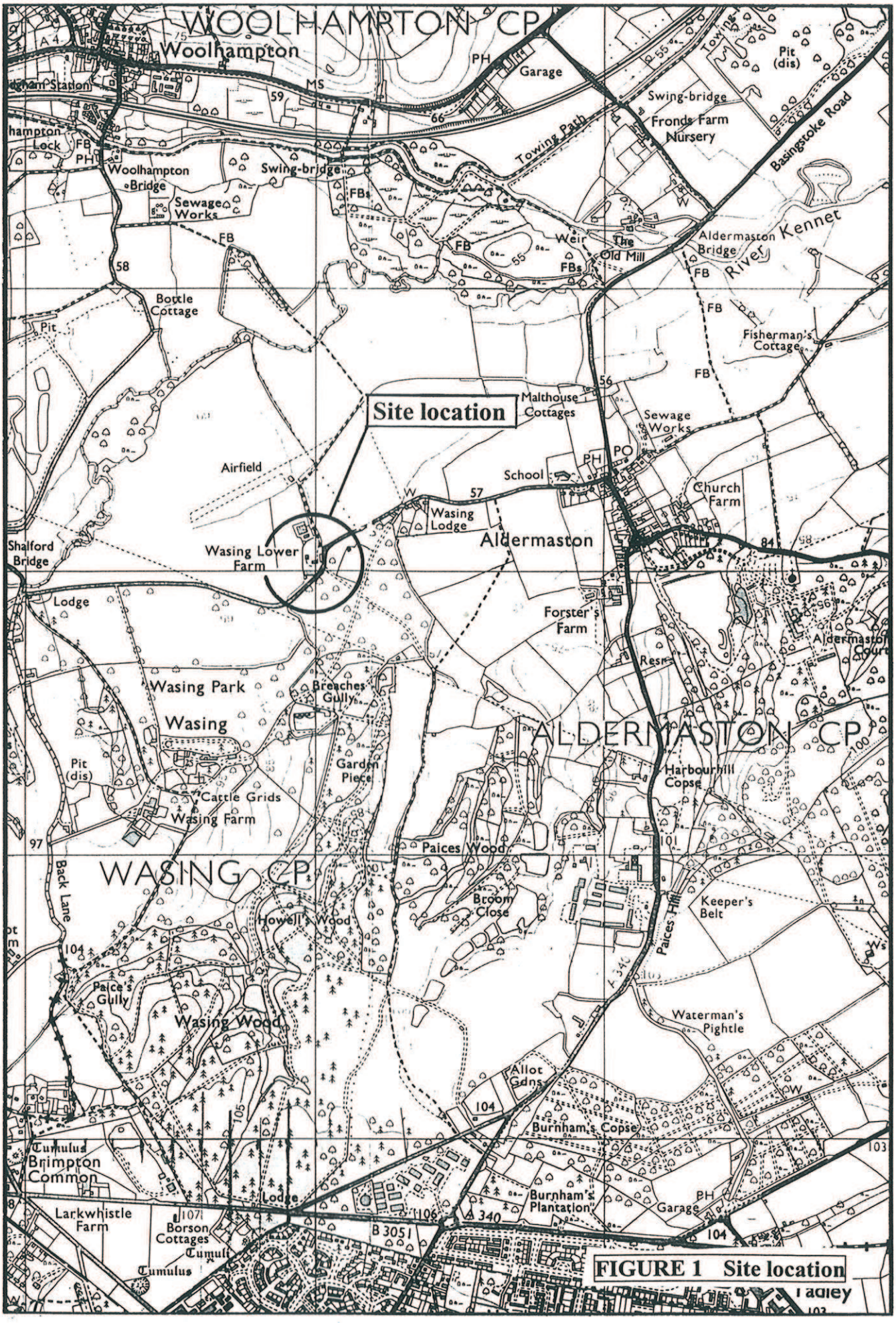


FIGURE 1 Site location

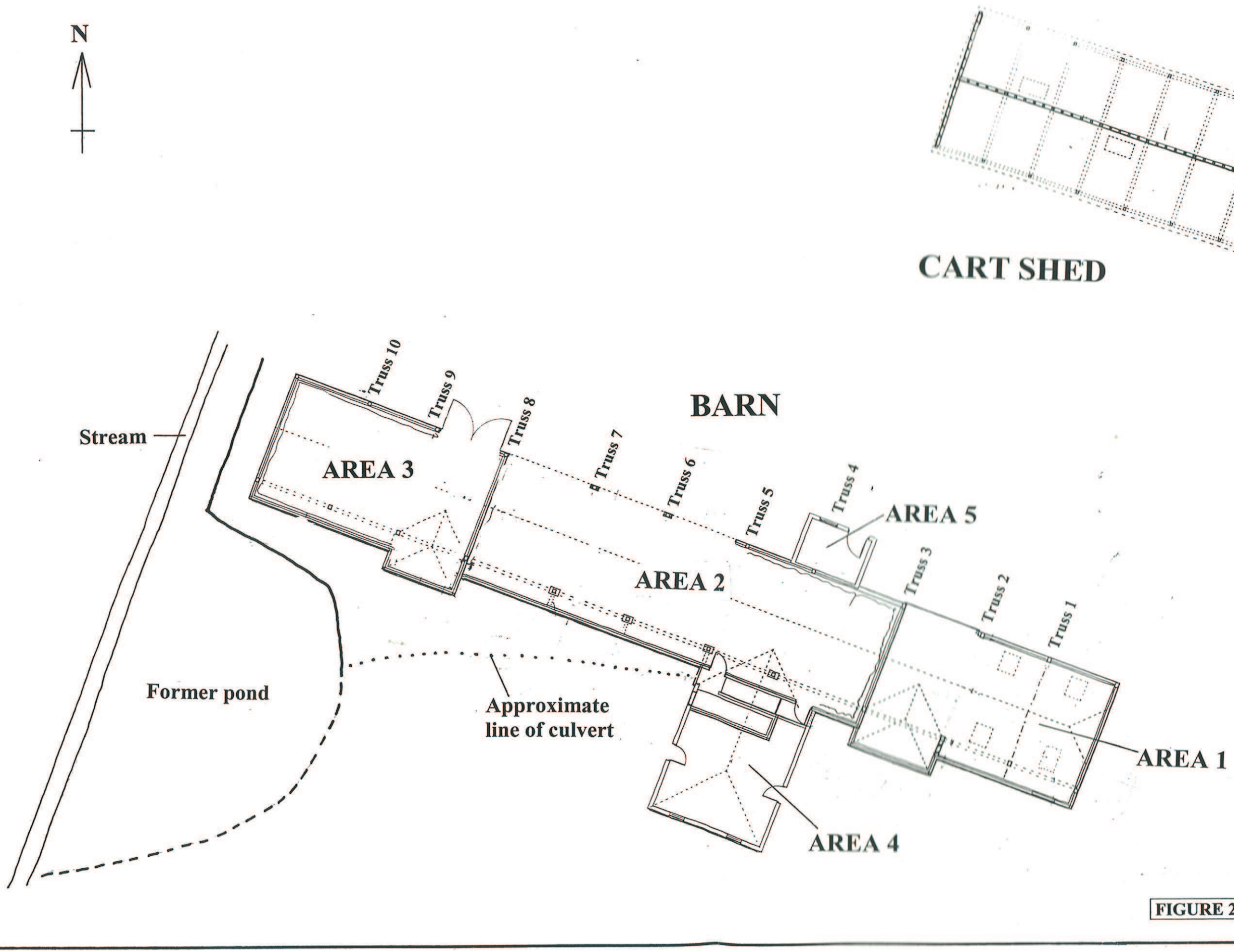
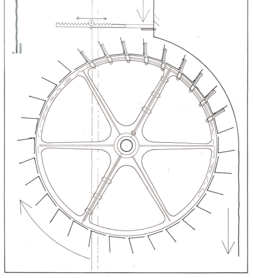
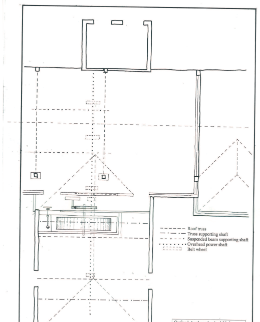


FIGURE 2 Ground plan (1:200).


WATER FLOW
Oxford Archaeological Unit
Lower Farm Barn, Wasing, West Berkshire
FIGURE 3: Section through waterwheel
Survey: October 1999. Scale: 1:10 at A2



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Lower Farm Barn, Wasing, West Berkshire

FIGURE 4: Plan of wheel house and part of barn showing power shaft

Survey: October 1999. Scale: 1:50 at A3

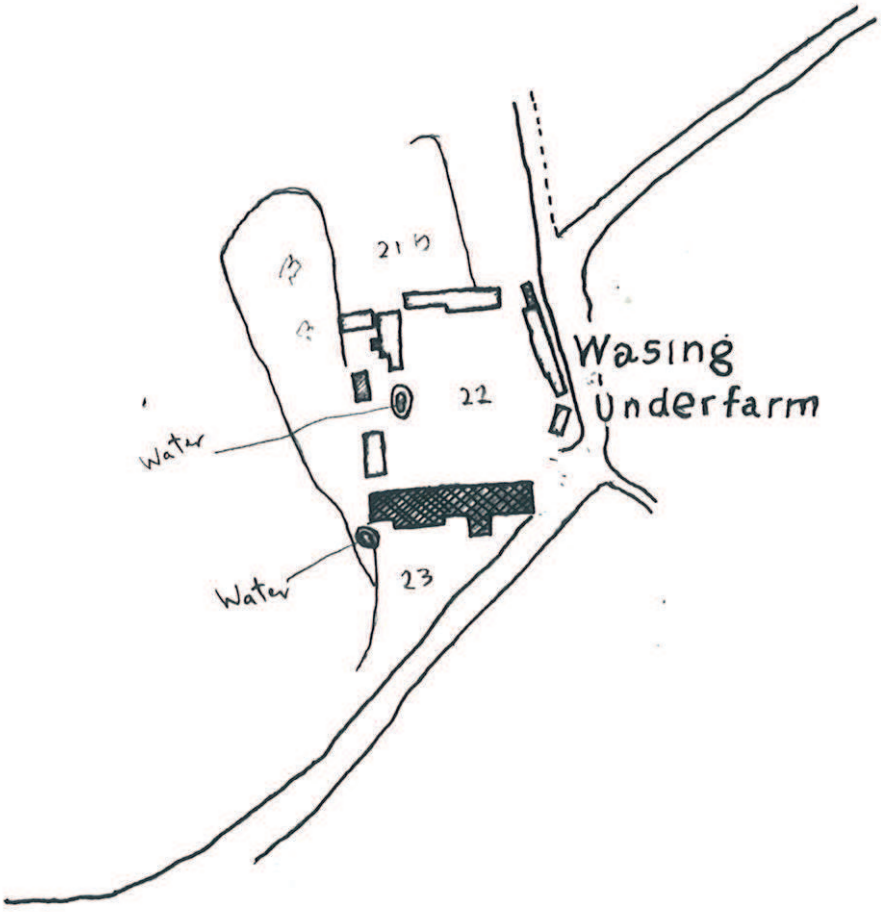


FIGURE 5 From 1849 Tithe map.
(Barn shown hatched)

Plate 1: View of barn from north-east

Plate 2: View of barn from south. Note outline of former projecting porch to central bay and partially visible outline of mill pond to left.

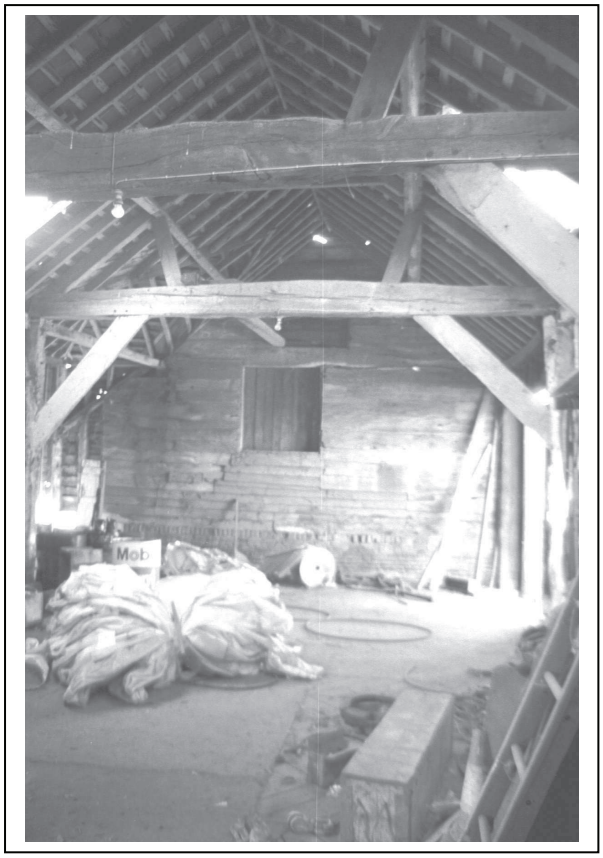


Plate 3: Area 1 viewed from east

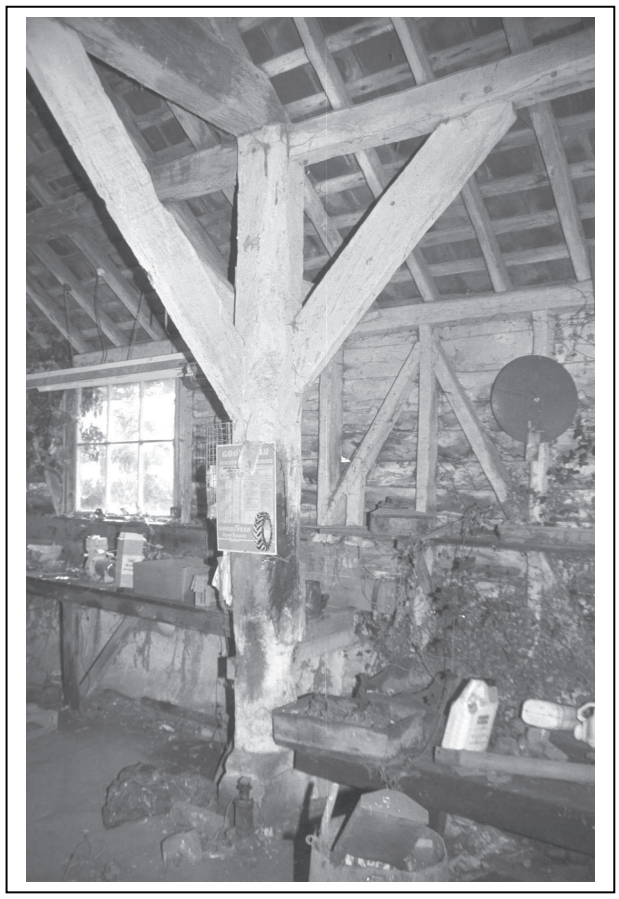


Plate 4: Southern post of Truss 1

Plate 5: Truss 7 post detail

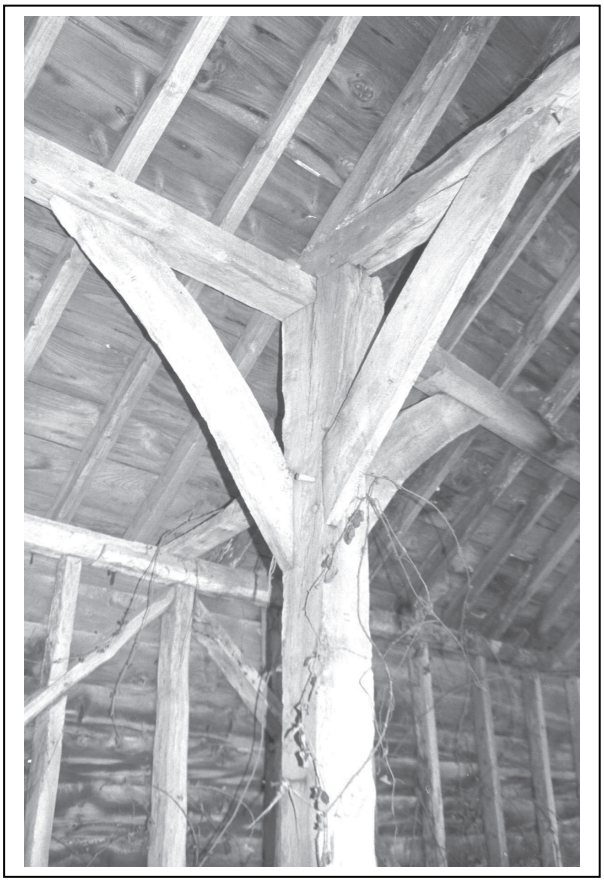
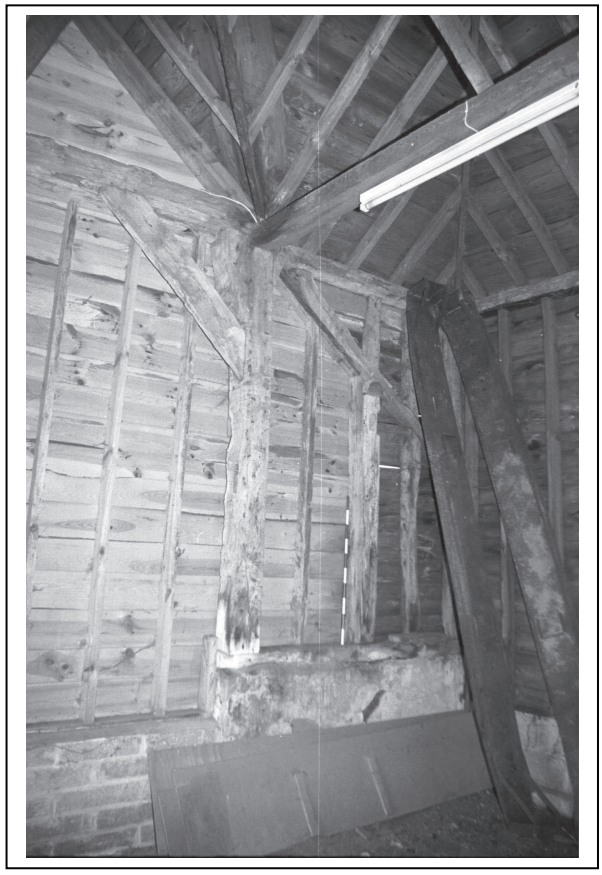


Plate 6: East side of porch in Area 3



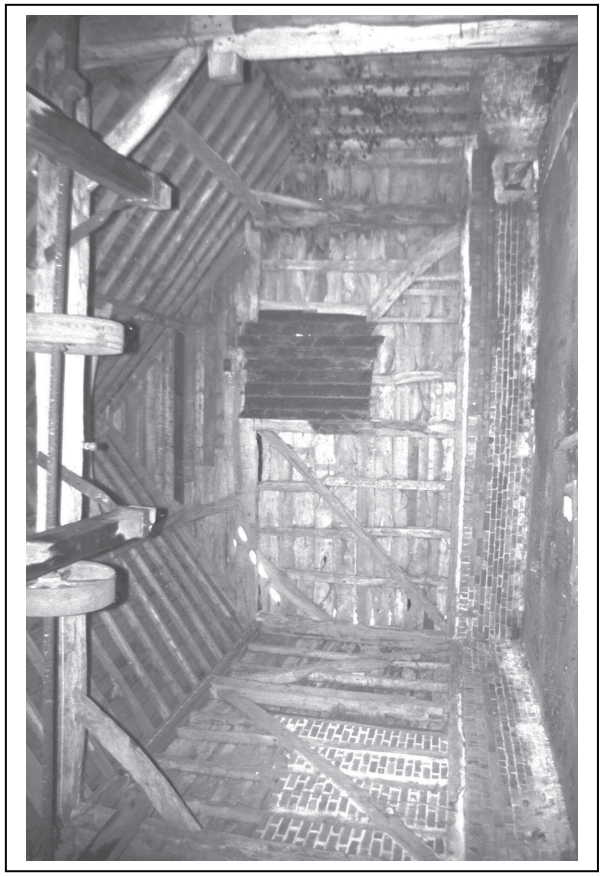


Plate 7: East end of Area 2

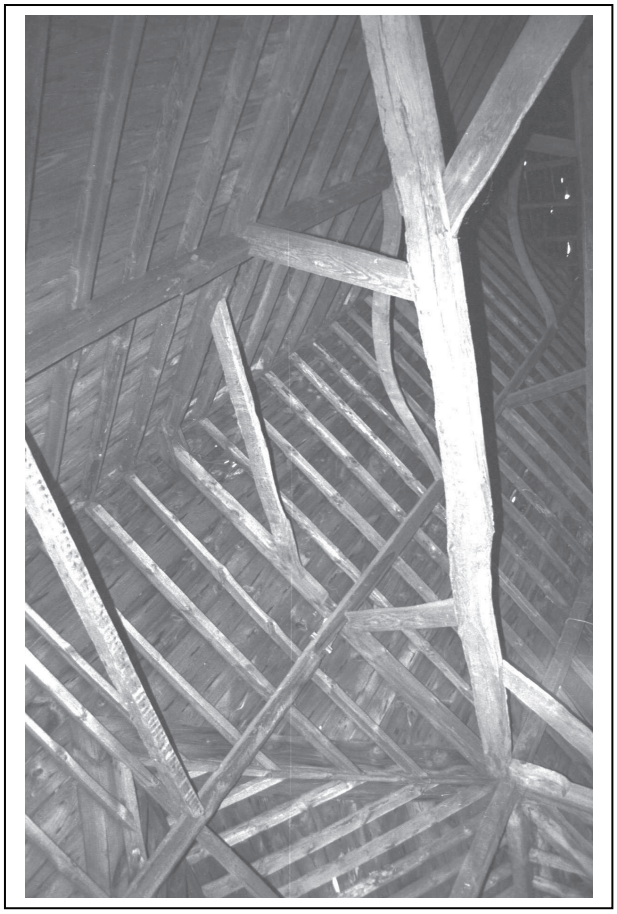
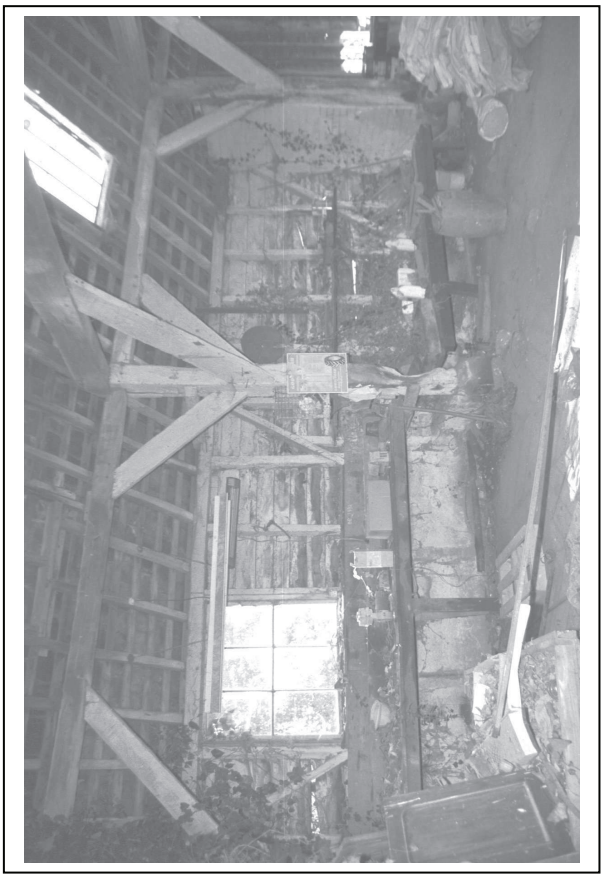
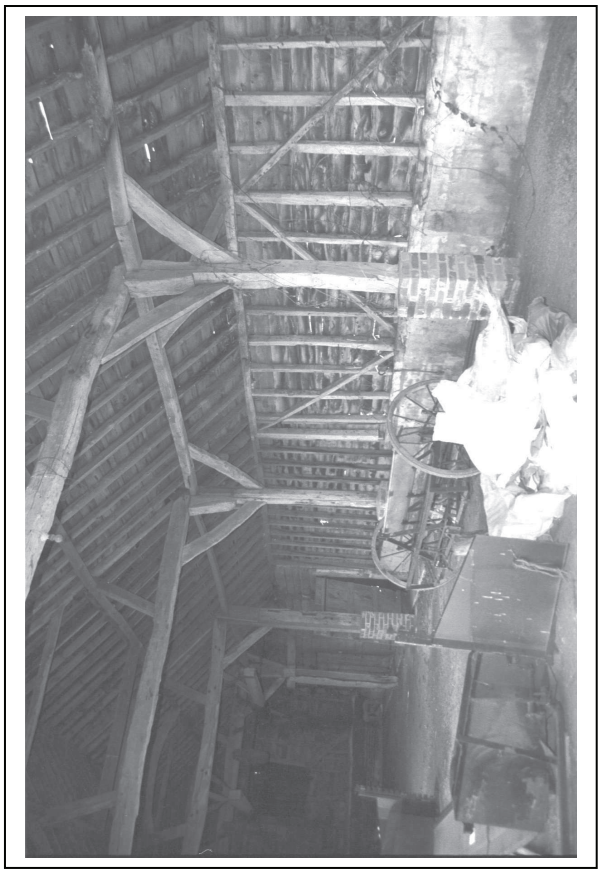


Plate 8: Roof within Area 3

Plate 9: South wall of Area 1

Plate 10: South wall of Area 2





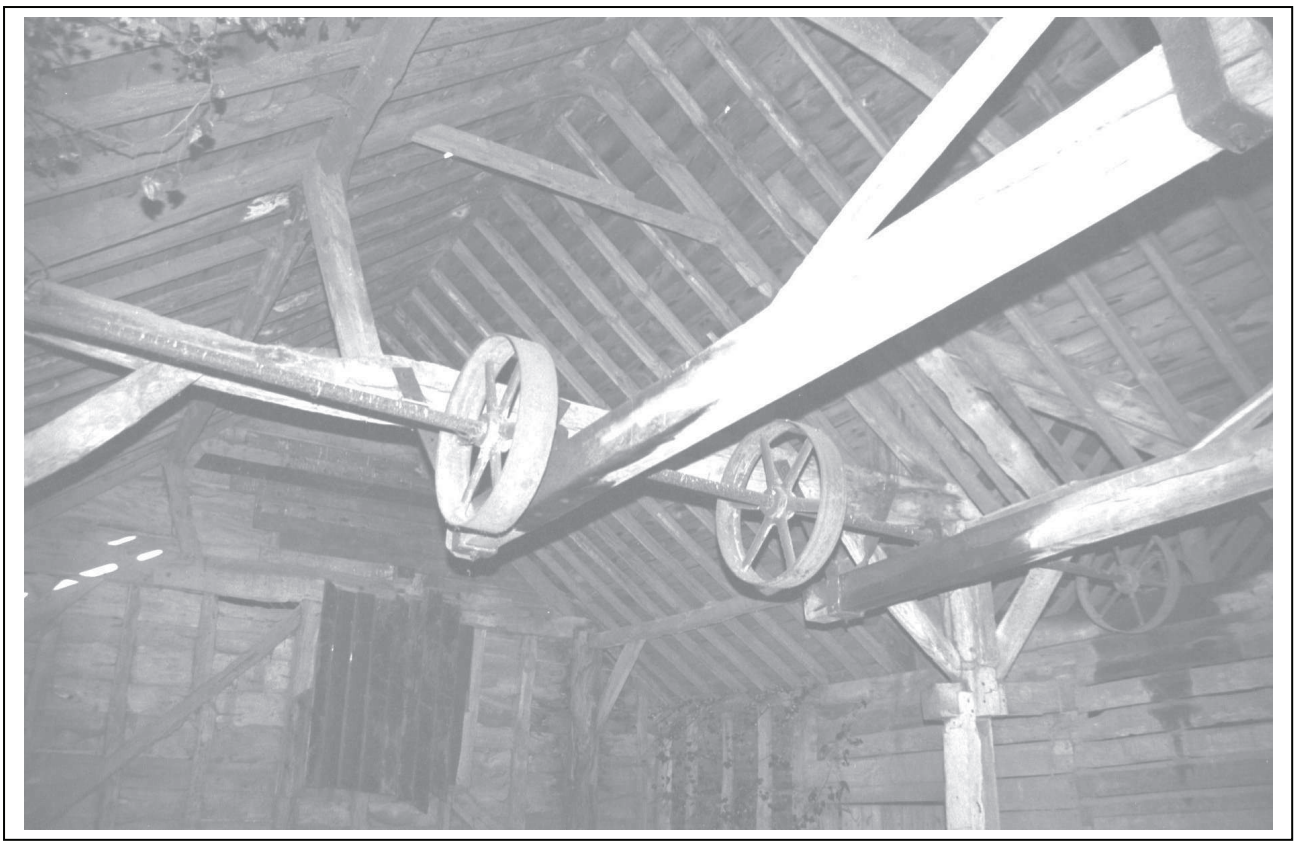


Plate 11: Overhead power shaft within barn. Wheel house to right.

Plate 12: Power shaft and roof structure within wheel house. Looking towards south-east.

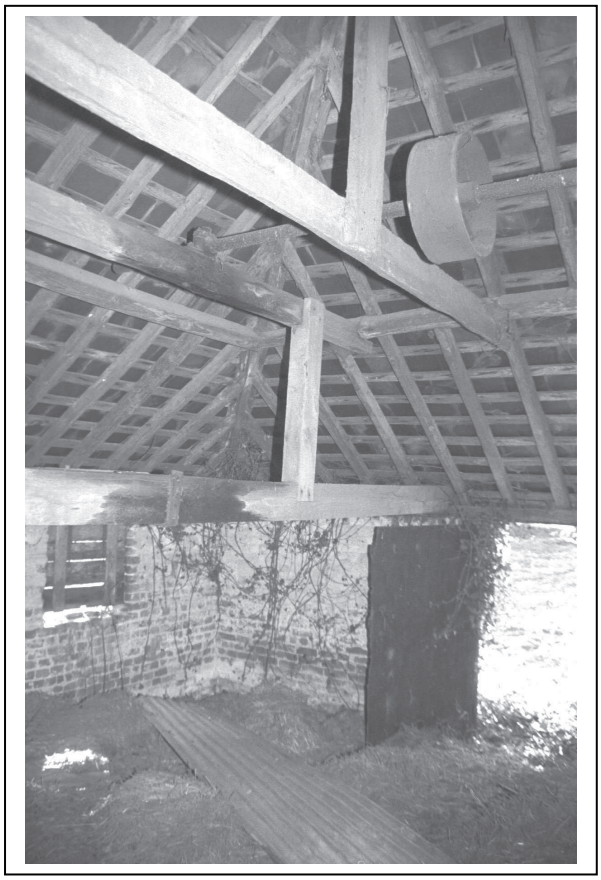


Plate 13: Wheel house looking south-west

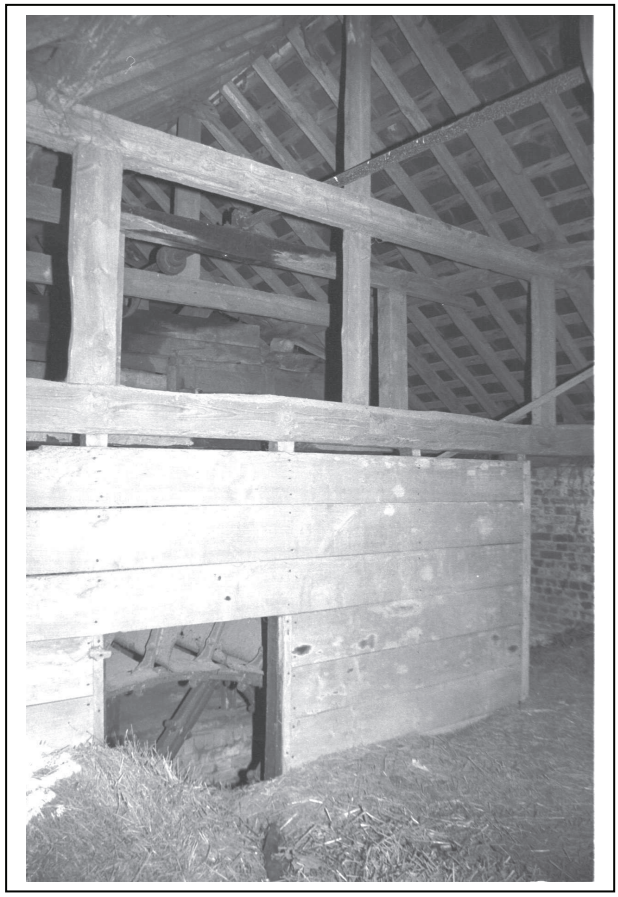
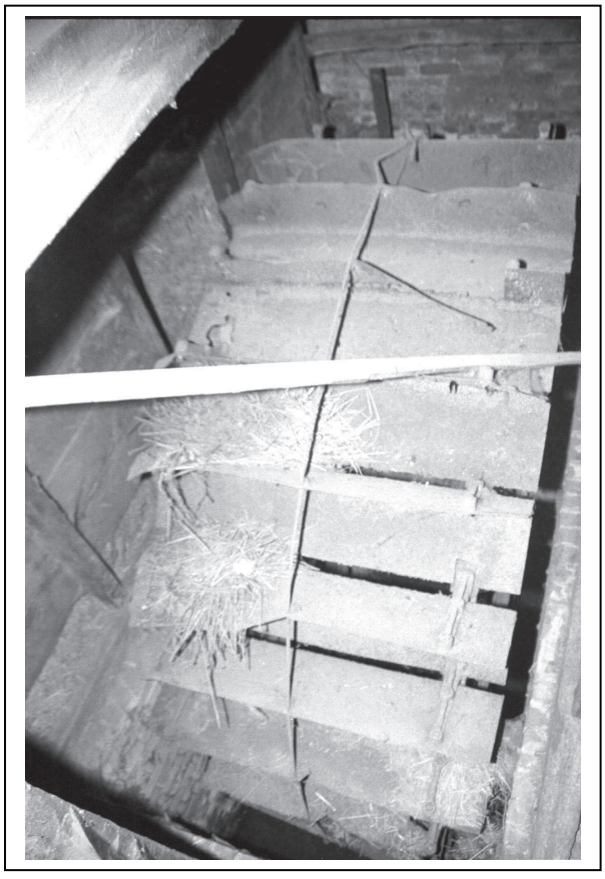


Plate 14: Frame surrounding waterwheel from south-west

Plate 15: Waterwheel from above

Plate 16: Axle and southern wall of wheel pit



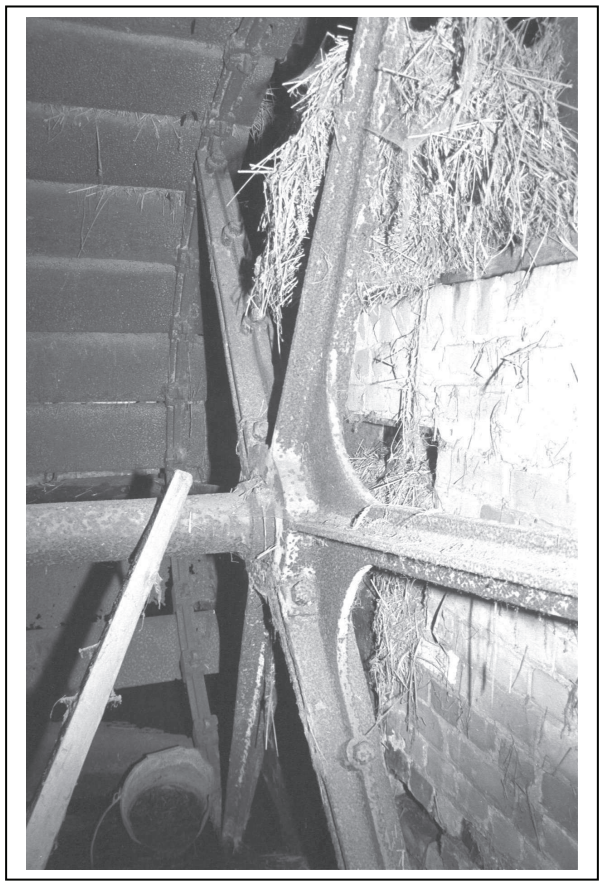


Plate 16. Pinion and spur wheel

Plate 17. Remains of chaise mechanism

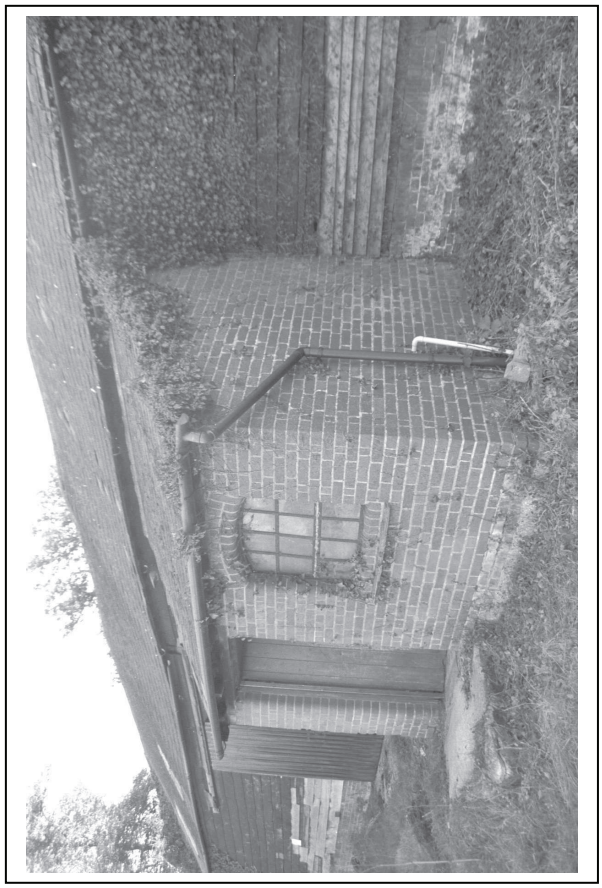


Plate 19: Projection to north of barn

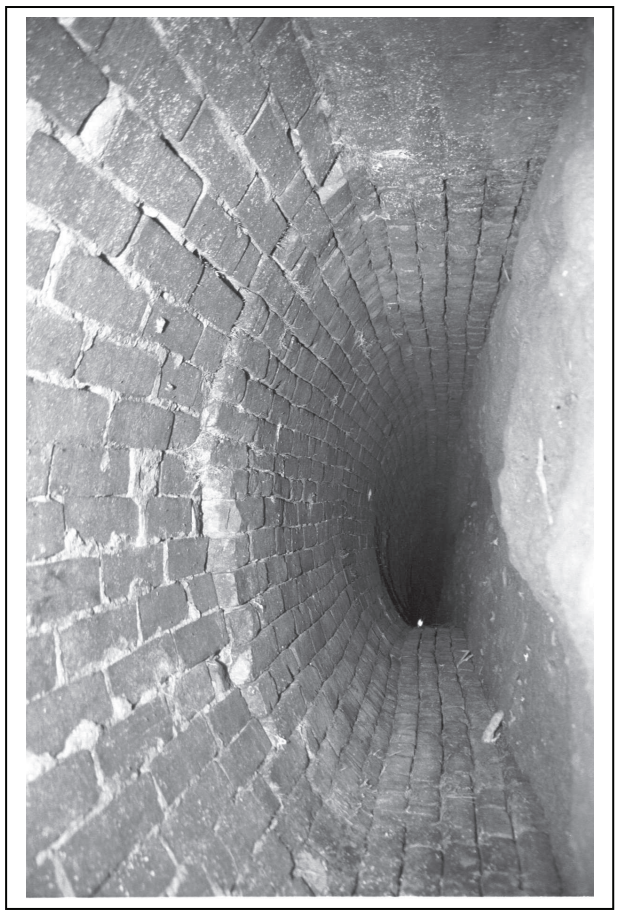
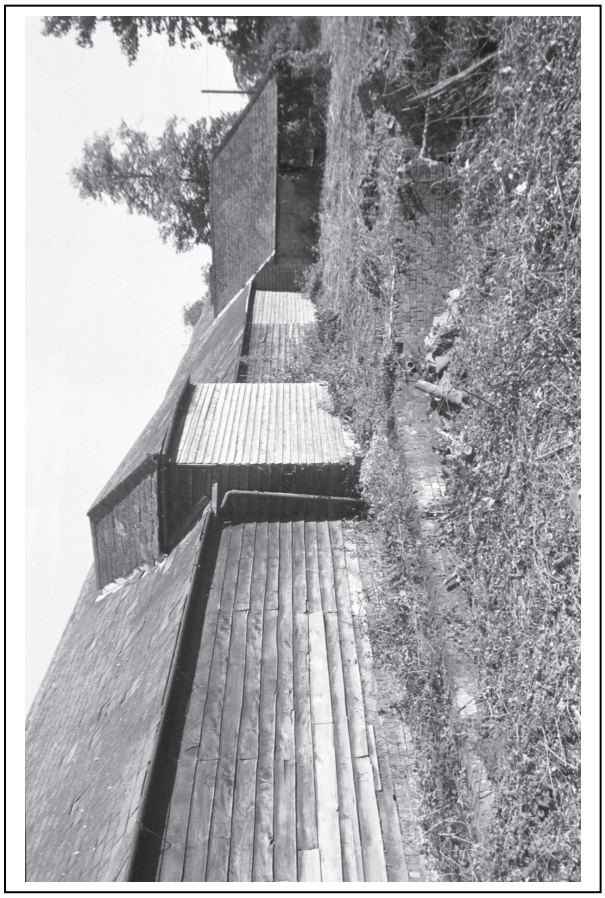
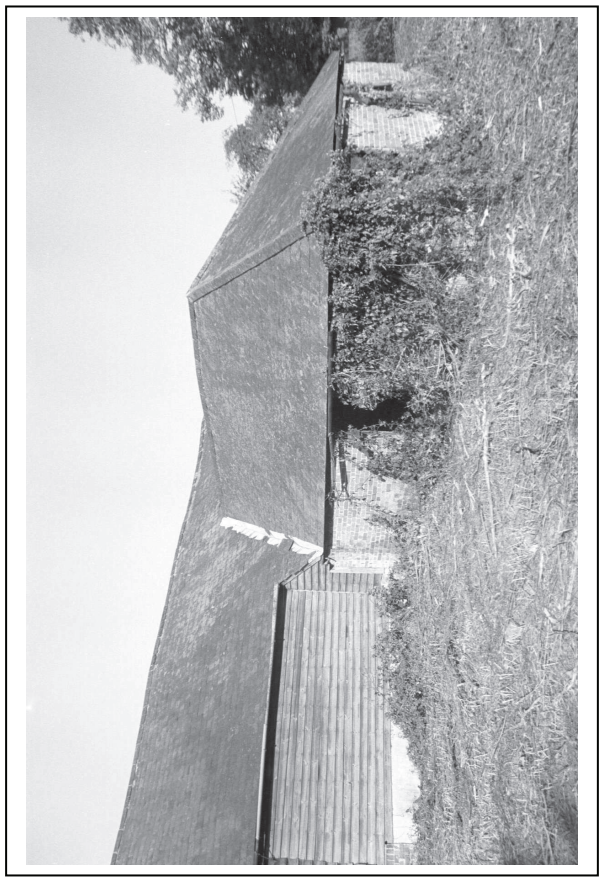


Plate 20: Culverted leat viewed from wheel

Plate 21: Southern face of barn. Remains of brick-walled pond in foreground

Plate 22: Wheel house viewed from SW





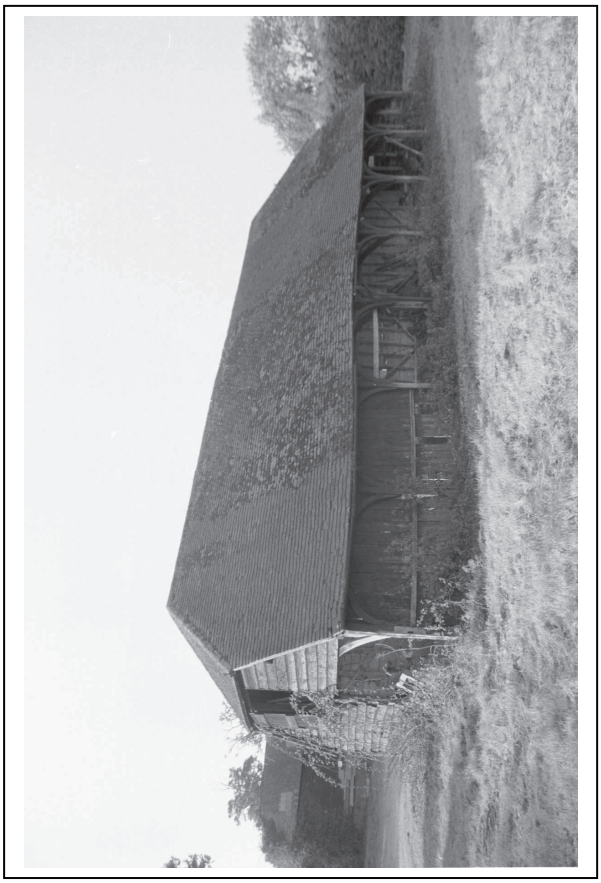


Plate 23: Cart shed viewed from south-west

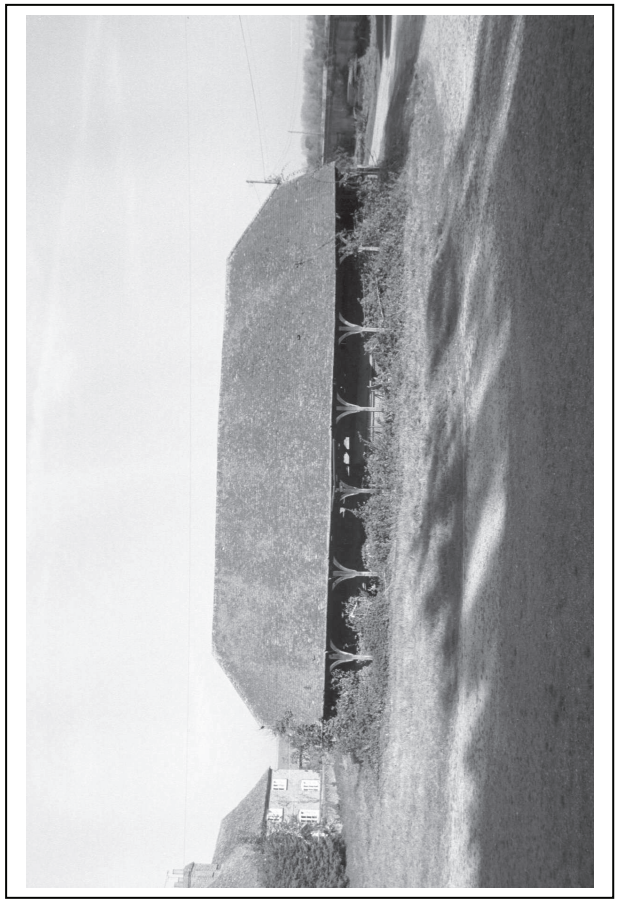


Plate 24: Southern face of cart shed

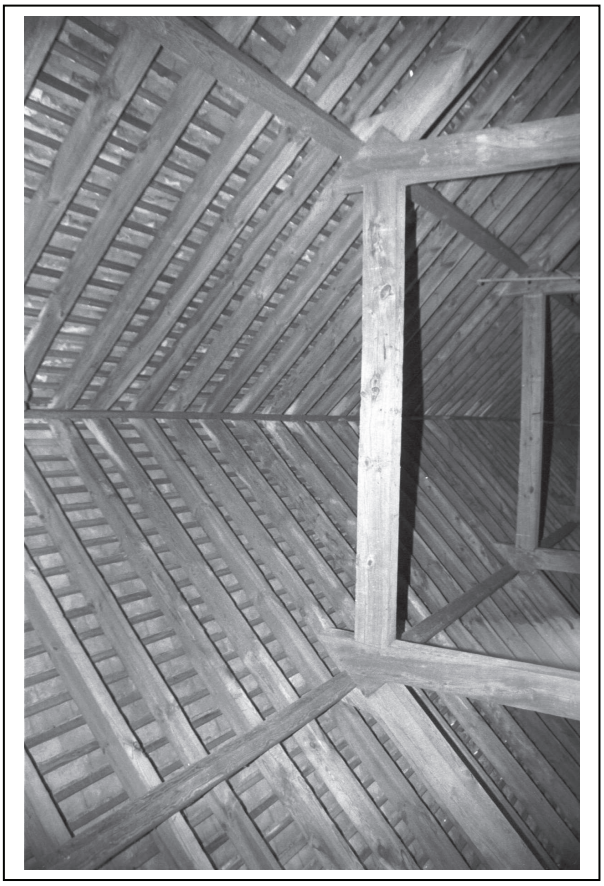


Plate 25: Roof of cart shed from west

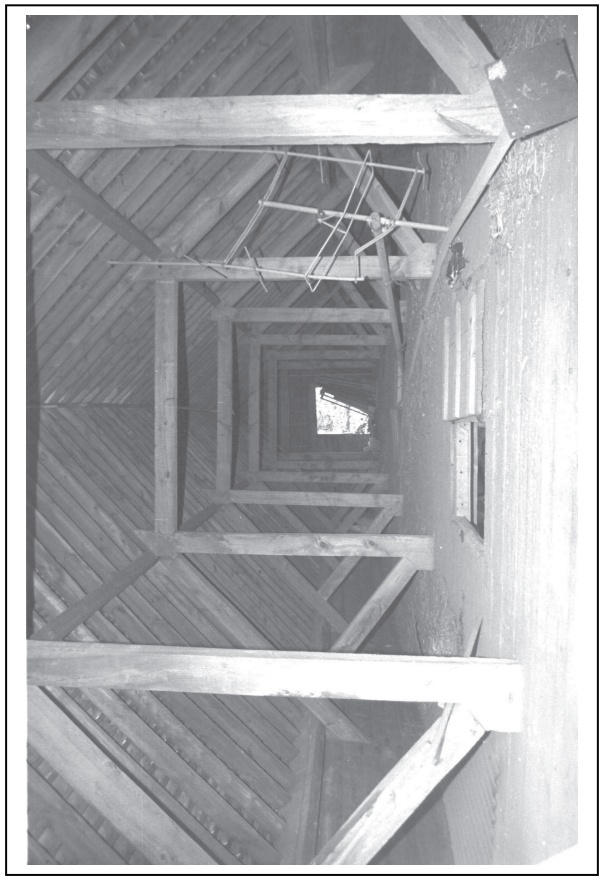


Plate 26: Interior of cart shed from west

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