

**BUILDING RECORDING  
AT 9A CATHEDRAL CLOSE,  
EXETER, IN MAY 2010**

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## SUMMARY

*Building repairs at 9A Cathedral Close in May 2010 exposed a previously unrecorded medieval arch-braced roof of high quality; this exciting find is described and recorded. New observations in the range allow its building history to be understood more fully. Following the partial demolition of a preceding medieval wing, it underwent a major reconstruction in the late 15th century or soon afterwards. This provided a room with a high-quality roof at the front of the range, separated by a closed truss from a lower-status room with a simpler roof at the back. Around 1700 the range was set up as a private house, separate from the rest of the medieval property. This entailed providing a new staircase and the conversion of the roofspace at the rear to attic accommodation.*

## INTRODUCTION

No. 9A The Close, Exeter (SX 92176 92590) is one range of a group of historic structures, formerly a medieval courtyard house of a canon of Exeter Cathedral, now forming Nos 8, 9 and 9A Cathedral Close. It runs back from the front block of the house, forming one side of its small courtyard, its other side being one wall of Choristers Lane (Fig. 1).

In May 2010 this range was subject to redecoration and minor repairs. A condition of planning consent for these works was that any ancient fabric which was newly exposed should be the subject of archaeological recording. Most of the works entailed no intervention in the old fabric but the removal of asbestos panels from the box room above the stairs exposed previously unknown features of the greatest interest, and repairs were undertaken on a damaged 17th-century partition on the ground floor (for locations see Figs 1, 9a). The present report describes these features.

### *Protection*

The property is part of one of the finest and most complex historic urban buildings in south-west England. Its great importance is reflected in its status as a Grade I Listed Building. Other designations are described elsewhere (Parker 2009, 1).

### *Previous recording works*

The various previous episodes of building recording at 8, 9 and 9A have been described in Parker *et al.* 2007 and Parker 2009.

## SITE RECORD

### THE ROOFS

#### *Roof 1: the primary late medieval roof*

The existence of this fine roof was first known to architectural historians when it was glimpsed through a small hole from the roofspace of the front range (No. 9) in 1979 (Thorp and Brown 1979) but it has not been examined or recorded previously. Its location, with the positions of observations and the numbering of the trusses used below, will be seen in Fig. 1.

The roof (Figs 2–7) consists of four bays with three open trusses, an end truss at to the rear (i.e. to the NE) and a section of roof bridging the space between No. 9A and the range on the Cathedral Close frontage. It is entirely of oak. A measured drawing of one open truss is shown in Fig. 2a and a long section of one slope (the one towards the courtyard) in Fig. 2b. Each of the open frames has slightly tapering principals, held together by mortice-and tenon joints at the apex, where there is a diagonally set ridge purlin of square section. Each has a collar (cranked at the NE end, the others straight), with a pair of pegs at its junctions with the principal. This is supported by a pair of chamfered arch braces, tenoned into the collar and principals. In every open truss the lower timbers of the arch brace on each side were removed when ceilings were installed *c.* 1700 (see below); vacant pegs and mortice holes confirm their former presence. Upper and middle butt-purlins survive throughout the roof; the lower purlins are visible on the Choristers Lane slope but on the yard side they are partly obscured or lost. The mortice holes in which the middle and lower purlins sat can be seen in the end truss (Fig. 5). The roof has splendid large projecting pegs (Fig. 6a). It preserves at

least three carpenters' marks – long scribed strokes typical of medieval work, two with circular brace marks (Figs 2a, 6b–d; a thorough search was not carried out). Examination of the faces of the principals shows that each has one sawn face (with diagonal saw-marks whose angle changes in places – characteristic signs of the use of a see-saw) and one axe-trimmed face (scooped axe-marks, visible in very oblique light). They are positioned so that the sawn face – the superior finish – is at the rear (NE) of the room. Elsewhere (e.g. in the magnificent roof of the refectory of Cleeve Abbey, Somerset) it has been shown that medieval carpenters arranged the trusses so that the better face was seen from the high table. The rear of the room may therefore have been its high end. The roof is very clean.

About half of one side of the closed truss was exposed in the box room above the stairs, and the apex could be reached above the ceiling of the staircase (Fig. 7a). Its principals, ridge piece and purlins correspond precisely in position and dimensions to those of the open trusses, but it lacks the arch-bracing. Vacant mortice holes for lower and middle purlins were visible in the face of the exposed principal, indicating the positions of timbers removed *c.* 1700 (see below); the two upper purlins survive, since they provided the support for the ceiling inserted at that time. The lower purlin mortice had not been cut through the thickness of the entire timber, confirming that the roof did not extend beyond this point; had the roof continued, this would have run through the principal. The truss formerly had a collar, indicated by a pair of vacant peg holes in the principal (Fig. 7, below 'purlin (roof 1)', but this has been removed. The principal is jointed and pegged into a tie beam, most of which was exposed at floor level. Surprisingly, this is made in two lengths, joined with a tenon close to the SE end of the truss.

Around middle of its length, around the central purlin, the visible principal had suffered distortion – generally about 20mm of bowing, increasing to 40mm immediately around the purlin. This had certainly taken place before the 17th century (when studs were packed below to support it) and very probably soon after the timbers were installed and still green. This almost certainly reflects distortion arising from the great weight of the medieval roof slates, the mortice hole for the purlin providing a particularly weak point in the principal.

Dendrochronological sampling of this roof, undertaken by Robert Howard of the Nottingham Tree-ring Laboratory on 13 May 2010, will be the subject separate of an English Heritage Lab. Report.

#### *Roof 2: second medieval roof, rear of range*

The room over the rear of the range has a simpler medieval roof, now somewhat mutilated. Its principal trusses and purlins survive; blocked mortice holes indicating former collars can be seen in each truss (visible within loft room). On this occasion it was possible to examine the relationship between this roof and Roof 1, which showed that the latter had already been erected when Roof 2 was installed (Fig. 8a). The upper purlins of Roof 2 were neatly cut into the principals of Roof 1, Truss 1, a little above those of the adjacent roof.

#### *Plaster ceiling in roofspace of Roof 1*

On the SW side of Truss 2 a small area of lath-and-plaster is preserved in the roofspace above present ceiling level (Fig. 2b, 'earlier ceiling fragment'). This shows that before the present ceilings were inserted, probably *c.* 1700, an earlier ceiling had been installed about 0.3m above the present one. Corresponding evidence is not visible elsewhere in the roof but this appears to show that there was an upper-floor room here before *c.* 1700. The feet of the adjacent common rafters had been cut away precisely at the height of this ceiling (Fig. 2b); this was perhaps a crude way of removing it before installing a new ceiling.

#### *Changes c. 1700*

The range was remodelled *c.* 1700. At that stage a new front doorway and staircase were inserted beside the closed truss at the centre of the range, and a new room was squashed into the roofspace of Roof 2.

To create sufficient headroom in the new first-floor room below Roof 1, the lower sections of the arch bracing, which would have projected from the wall below, were taken down. This evidently created a serious problem on the courtyard side of Truss 3, which cracked and came close to breaking

before being supported with an iron strap (Fig. 5). A new series of purlins and common rafters (not shown) was laid over the medieval roof slope towards the courtyard.

A new stairwell was inserted into the end bay of the medieval roof. The timbers of the top of its SW wall could be recorded from within Roof 1 (Fig. 6). Since they were concealed from the stairs behind plaster, a motley collection of reused pieces was employed, some of them moulded, others with mortice holes for joints and socket holes for framing. The creation of the box room above the stairs is also attributable to this period. Its creation entailed cutting away the slope of the medieval roof. A new partition wall was built within the end bay of Roof 1; here the unsupported ends of the purlins were propped in V-shaped notches cut into new studs (Fig. 7b, sloping stud on right side). Above *c.* 0.7m the upper parts of the *c.* 1700 frame; they must formerly have risen to the full height of the existing room but have been destroyed and replaced a late 20th-century stud wall of sawn deal (Fig. 7a). In the opposing wall studs were nailed into the underside of the medieval truss (Fig. 7a, right side, below principal); above the principal the new projecting dormer has been replaced entirely.

### GROUND-FLOOR PARTITION

Small parts of a ground-floor partition were exposed during repairs. Its position is shown in Fig. 9a; the extent of exposed fabric will be seen in Figs 9b–c. Although only a limited area was exposed, exploration from within the panels allowed much of its structure to be established.

The frame has a base rail, sitting on an earlier thin grey (?ash or lime-and-ashes) floor; both were visible near the centre of the room. To the SE, collapse of lath-and-plaster at chest level exposed a series of thin straight studs, nailed to a steeply sloping diagonal brace. At least one of the uprights is reused; it shows a redundant mortice hole for a joint. Most of the panels between the studs are voids with lath-and-plaster covering (including fine animal hair in the plaster); the exception is the panel beside the outer wall, which is infilled with nogging, some at least of it brick. At shoulder height this panel is heavily soot-stained, confirming the presence of an adjacent fireplace.

This form of partition is typical of the late 17th and early 18th centuries; there are many similar examples of *c.* 1660–1720 in Exeter and Topsham.

### INTERPRETATION

A number of important points have arisen from this small piece of work. It now appears that Roof 1 is contemporary with or later than the front range (No. 9), since its ridge extends into the roofspace over that range. Two points suggest that the two were probably built together. First, the ragged nature of the wall-top at the back of the front block would not be expected if it originally formed the outside wall of the front block but it would be explicable if it was not intended to be visible. Second, the rear slope of the front range might have survived had it been built separately.

The rear roof of No. 9A (Roof 2) has now been shown to have been built onto Roof 1, but the use of a frame separating the two, without any signs of any primary studwork, suggests that they probably marked different rooms of a single range and were built together.

Around 1700 No. 9A was remodelled as an independent property, separate from the rest of the former courtyard house. A new front door from Choristers Lane led into its newly built staircase. The newly exposed evidence shows that this was achieved by building against one end of a medieval room, reusing and reinforcing the end truss to form one side of the stairs and building anew on the other side. At this stage the first-floor room below Roof 1 was provided with quite high ceilings. The removal of the lower arch-braces of Roof 1 proved almost disastrous: the collapse of the courtyard roofslope of Truss 3 was prevented only by heavy iron strapping.

By the time that the remodelling was carried out, the end bay's Truss 1 had settled alarmingly, opening up a gap of *c.* 100mm in its tie-beam, with corresponding settlement of a similar extent in the ridge. The absence of the collar is likely to reflect the fact that it had probably broken. This slumping was counteracted by the insertion of some stocky studs into the frame, with a horizontal iron strap at tie-beam level. At the same time, a skylight was inserted to light the top of the stairwell.

The remodelling of *c.* 1700 also entailed the provision of small rooms (?for servants) in the roofspace of Roof 2. To create more headroom, the collars of its trusses were removed and the

principals tied back to the adjacent purlins with substantial iron straps, similar to those in the stairwell. The observations of 2010 support the conclusion that the provision of new rooms below Roof 1, the formation of attic rooms within Roof 2, and the provision of a small room (?a closet) at the top of the stairwell are all contemporary with the new stairs of *c.* 1700.

#### ACKNOWLEDGEMENTS

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#### SOURCES CONSULTED

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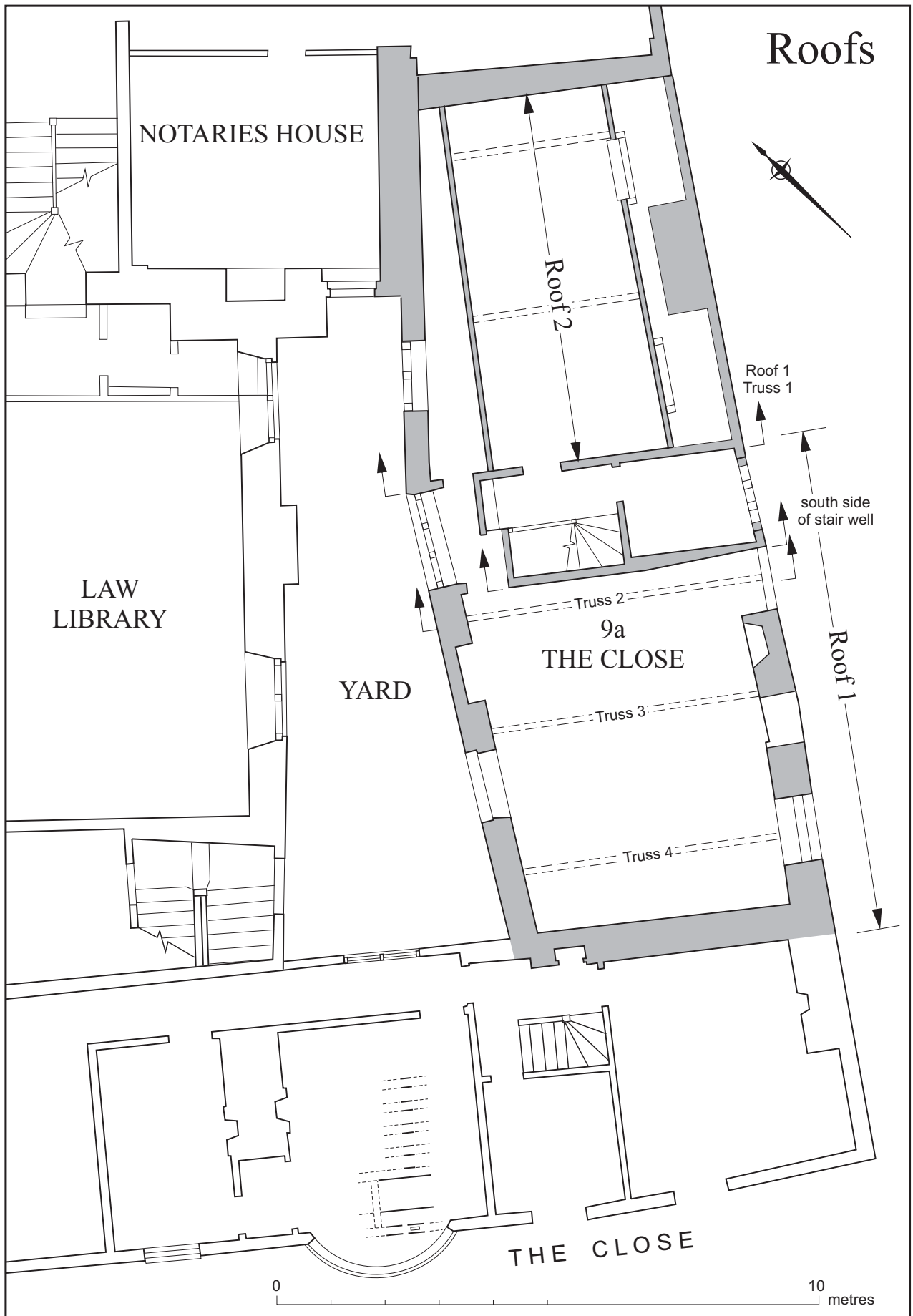


Fig. 1 Location of observations in roof , May 2010.

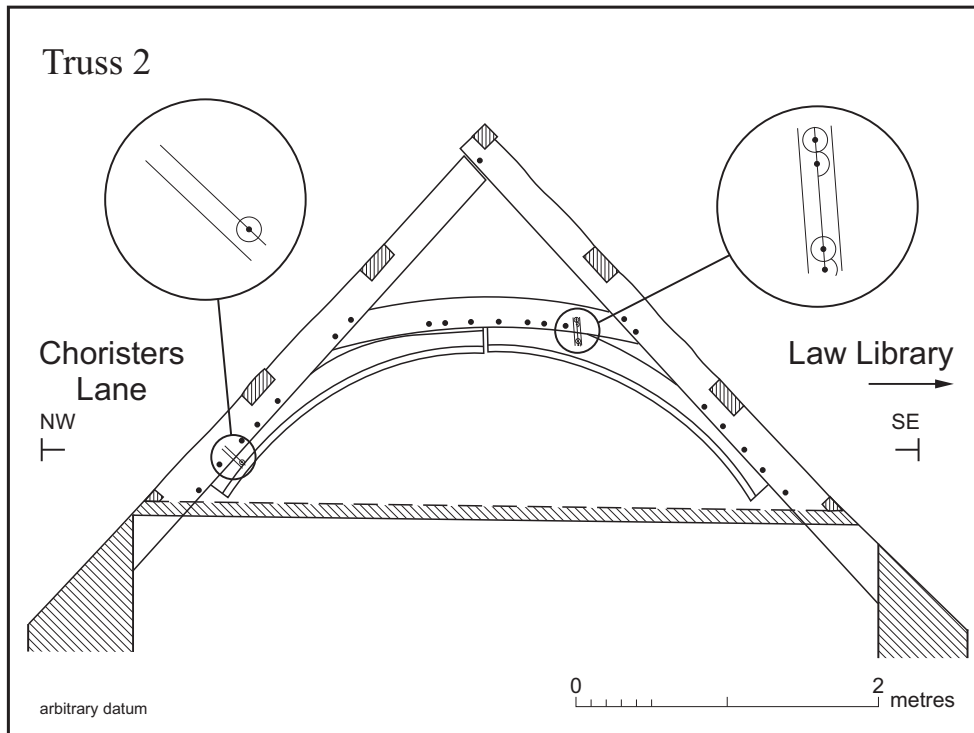


Fig. 2a Roof 1: measured elevation of Truss 2 from the NE.

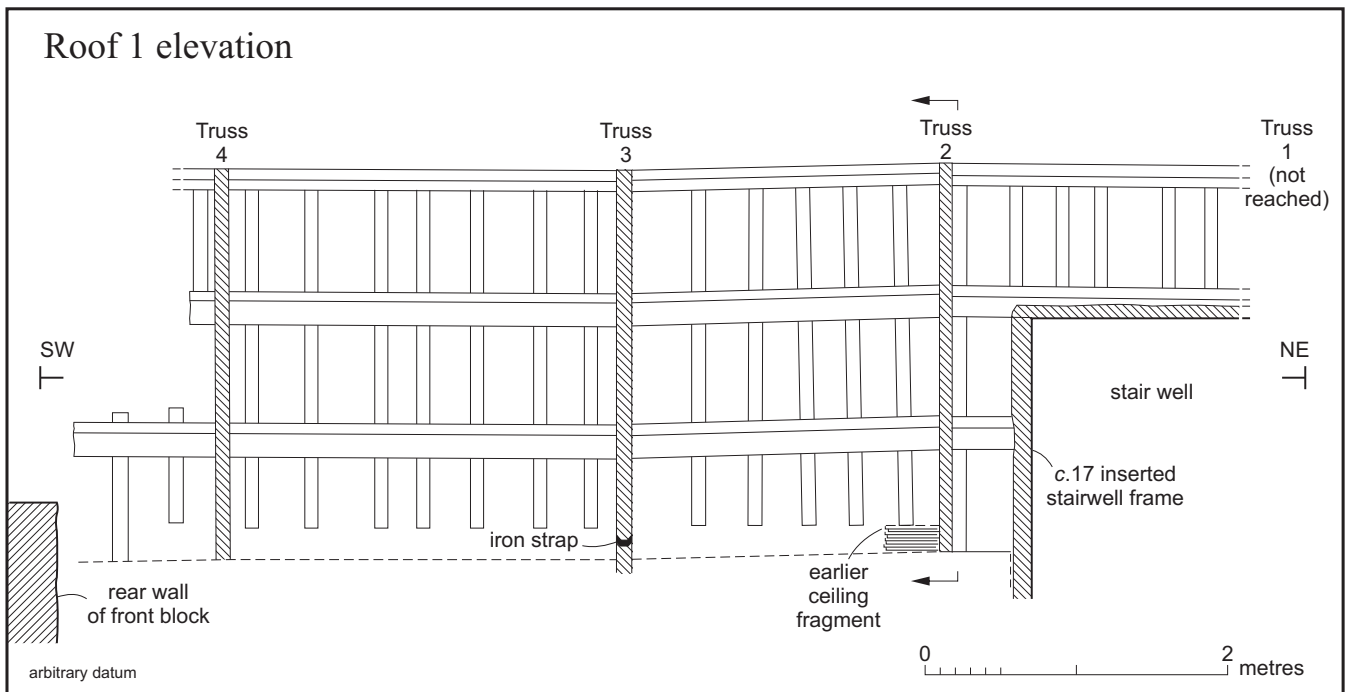


Fig. 2b Measured elevation of SW slope of Roof 1 (minor flaws and distortions of timbers not shown).



Fig. 3a Roof 1 looking SW, with Truss 3 in the foreground and the wall-top of the front range visible below insulating material in the background.



Fig. 3b Roof 1, Truss 3 from the NE, showing upper and middle purlins and arch bracing.





Fig. 4a-c Roof 1, Truss 2 with 17th-century partition beyond, from SW.



Fig. 5a-c Roof 1, Truss 3 from the NE and NW, the latter showing later strapping of the principal.



Fig. 6 Roof 1 carpentry details. (a) Projecting pegs. (b) Carpentry mark, Truss 2, NW slope. (c) Truss 2, SW slope. (d) Truss 3, SW slope.

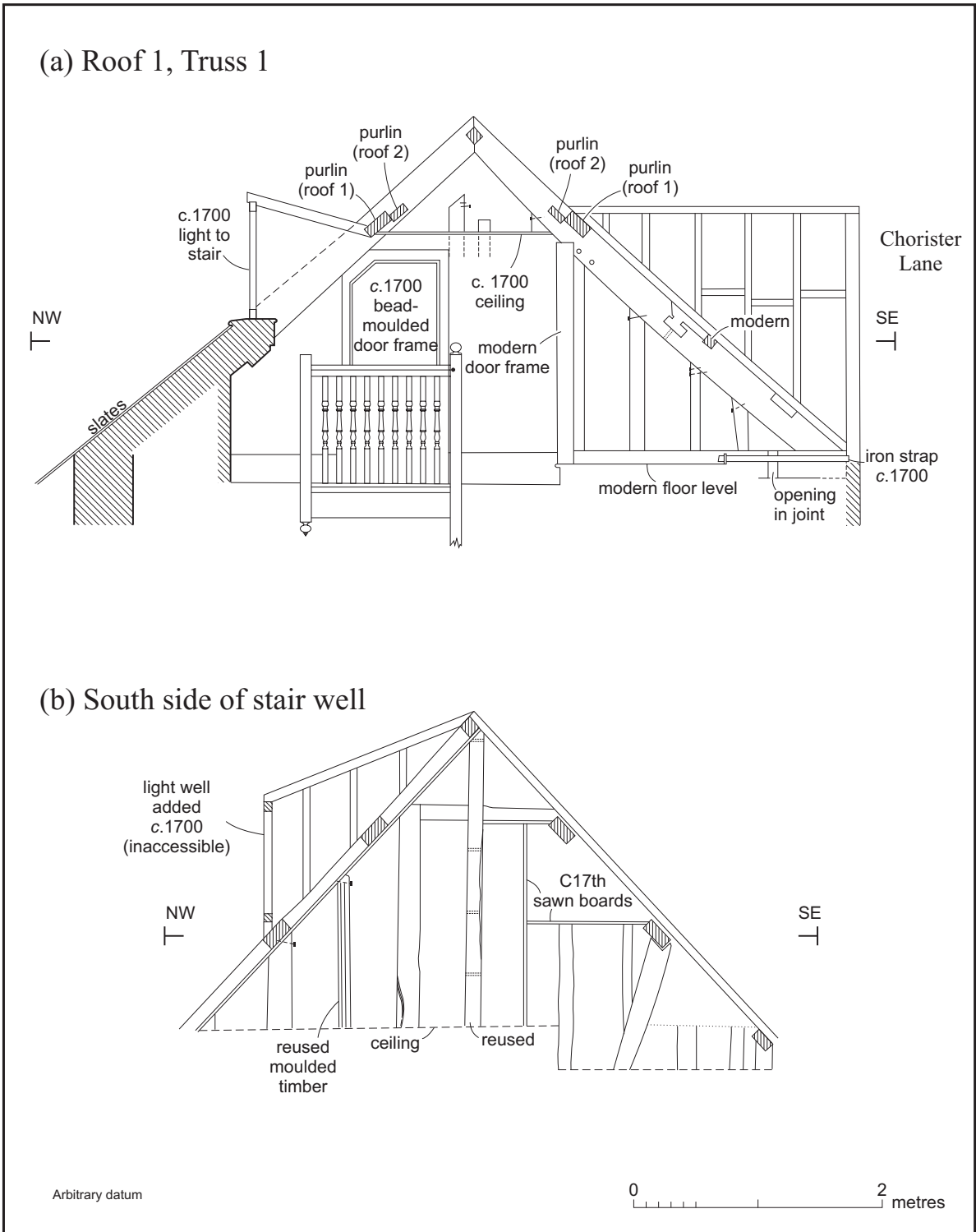


Fig. 7 Roof 1. (a). Measured elevation of the closed Truss 1 from SW, with 17th-century and later additions on each roof-slope. (b). Measured elevation of 17th-century framing.



Fig. 8a The top of Truss 1 from the SW, showing principal and purlin of Roof 1, inserted tenon for purlin of Roof 2, distorted purlin of Roof 2 and later replacement roof-slope of Roof 2. The vertical timbers at the front are the top of the 17th-century studs added into Truss 1.



Fig. 8b The top of Roof 2, seen in the roofspace above its ceiling.

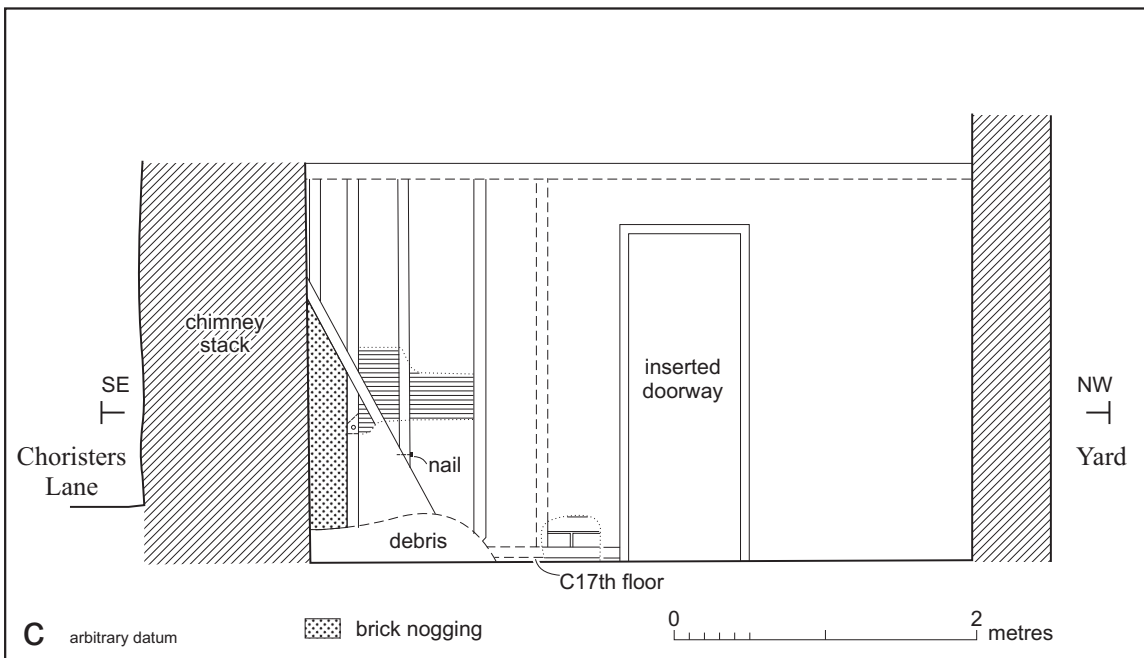
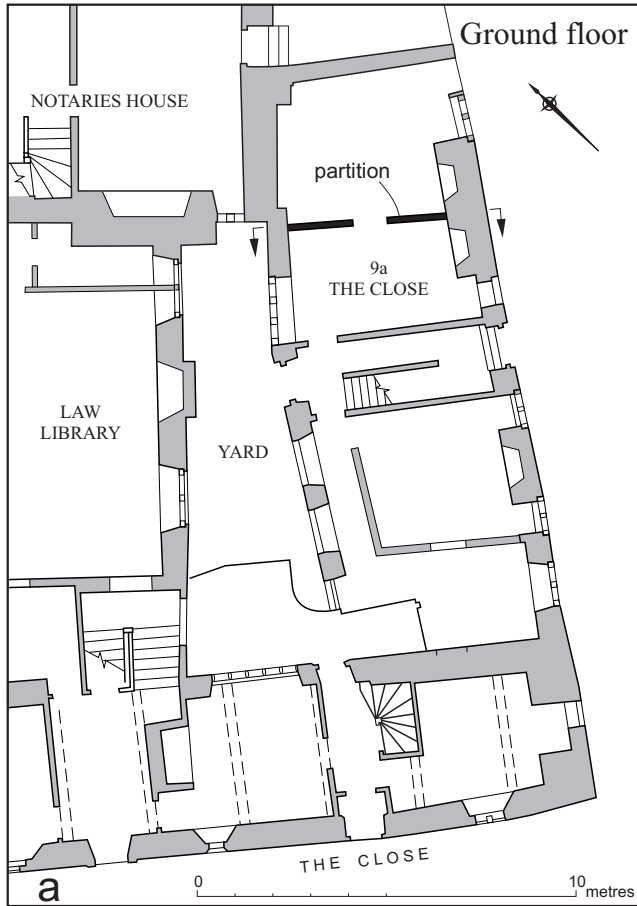


Fig. 9 Ground-floor partition, c. 1700. (a). Location. (b). View. (c). Measured record.