

Cluttons

LEEDS PRIORY DOVECOTE ABBAY FARM, LEEDS, KENT

ARCHAEOLOGICAL BUILDING RECORDING AND
WATCHING BRIEF DURING CLEARANCE WORKS

NGR: TQ 82225290



Oxford Archaeological Unit
December 2000

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NB: Figs 3-9 represent photocopies of primary record drawings within the site archive.

LEEDS PRIORY DOVECOTE, ABBEY FARM, LEEDS, KENT

ARCHAEOLOGICAL BUILDING RECORDING AND WATCHING BRIEF

Summary

The dovecote which belonged to the former Leeds Priory in Kent remains standing as a roofless ruin whose condition has deteriorated seriously in the last 25 years. It forms part of the Scheduled Ancient Monument of the Priory and its condition has prompted a programme of emergency stabilisation and consolidation works. The interior of the dovecote contained important structural remains of the collapsed building, particularly its roof timbers, and the stabilisation works offered the opportunity of archaeologically recording and, where appropriate, retaining those remains. The Oxford Archaeological Unit oversaw the clearance of the interior of the dovecote, labelling each fallen timber and recording within which part of the building it was located. An assessment of was then made of the nature and function of each timber and whether it offered any potential for reuse. The internal and external walls of the dovecote were cleared of vegetation and were recorded using rectified photography. The principal finding of the work was to confirm that the basic form of the roof would have been as that shown in a survey and article written in 1973 by J Caiger (see Bibliography).

1 INTRODUCTION

1.1 Background

- 1.1.1 The Oxford Archaeological Unit (OAU) was commissioned by Cluttons (Chartered Surveyors and Property Consultants) of Canterbury acting on behalf of the Rochester Bridge Trust to undertake a programme of building recording and archaeological watching brief during clearance works at the former dovecote at Leeds priory, near Maidstone in Kent (NGR: TQ 82225290). The clearance forms part of a long term management strategy for the dovecote and was carried out in advance of consolidation works to stabilise the building in its present condition and prevent further deterioration to the structure. There are no immediate plans to restore or rebuild the dovecote.
- 1.1.2 The dovecote is one of a group of buildings within the grounds of Abbey Farm in Leeds and forms part of the historic site of Leeds Priory, a Scheduled Ancient Monument (Kent SAM No 24346)

1.2 Aims and objectives

- 1.2.1 The principal aim of the current recording programme is to make as full an archaeological record as possible of the fallen timbers and other building materials before and during the works to clear them from the dovecote.
- 1.2.2 The recording is intended to enhance the understanding of the original form of the dovecote and its development over time. The recording was specifically targeted at the structural timbers and other features of the structure which were to be removed during the clearance. Only limited recording was undertaken of the walls and other elements of the building which were to remain intact and the archaeological programme was not intended to gain a complete understanding or record of the structure. It is anticipated that further recording of the dovecote will be undertaken as and when further construction or consolidation works to the structure are undertaken.

1.3 Methodology

1.3.1 The recording programme consisted of two main elements:

- the recording of the fallen timbers during their clearance from within the dovecote;
- rectified photographic recording of the walls of the dovecote.

1.3.2 The dovecote has clearly been derelict for many decades and prior to the start of the programme the external and internal walls were almost entirely obscured by thick ivy and other vegetation. The first stage of the programme was to remove the ivy from the walls and other upstanding vegetation within c.5 m of the building to allow a clear view of the walls for the photographic recording. This was undertaken by a non-specialist contractor and in some isolated areas where the structural integrity of the walls was particularly poor it was necessary to leave some ivy in place for reasons of safety.

1.3.3 The next stage was the clearance of the fallen timbers from within the dovecote and this was undertaken under archaeological supervision. The interior was divided into five sections (the five structural bays) to allow the position of each fallen timber to be recorded. A label with an identifying reference was stapled to each timber and it was then stored in an adjacent covered shed. Each timber was measured, photographed and a rapid assessment made of its function, condition and potential for reuse (see Appendix 1). An example of each of the main types of structural member was drawn. A cautious approach was used during the initial retention and labelling of the timbers so that upon the subsequent analysis many timber fragments had been retained which were of such poor condition that it was impossible to tell which part of the structure they formed. It is anticipated that many of these timbers may be discarded while all the principal members will be retained to allow their possible reuse in the future.

1.3.4 After the clearance of the interior of the dovecote, numbered surveying targets were fixed to the walls at regular intervals and the walls were recorded using rectified photography.

1.4 Historical background

1.4.1 Extensive historical and documentary research has not been undertaken as part of the current project. The summary history included here is based largely upon evidence within the Victoria County History and a article in *Archaeologia Cantiana* 89 (*Two Kent Pigeon Houses*, Caiger, J 1974). Caiger's article is reproduced here as Appendix B

1.4.2 Caiger asserts that the smaller square building at the south end of the current building was the original dovecote and that it pre-dated the dissolution of the monastery in 1539. After its suppression the priory passed into the possession of Warham St Leger of Ulcombe and then to Francis Colepepper before being purchased around the turn of the 17th century by William Covert. By 1610 it was in the ownership of William Meredith and Caiger believes that by this stage the small dovecote would have been inadequate for the large household and that this would have necessitated the construction of the large northern extension to the dovecote.

1.4.3 Caiger acknowledges that his is merely a 'possible chronology' rather than the establishment of a fixed date for the construction of the dovecote and that the evidence on which it is based is not fully conclusive. It is not the purpose of the current study to determine the exact chronology of the building and it may be that

Caiger's is accurate but the two surviving buildings are of similar construction and it would be surprising if the larger one was constructed a century after the smaller. More likely is that the original dovecote was on the site of the existing small square building but that it was demolished (possibly only partially) and rebuilt at a similar time on a larger scale.

- 1.4.4 The earliest conclusive evidence of the existence of the dovecote is a view of Leeds Abbey drawn by J Badslade in 1720 which has not been seen as part of this study but which is known to show a long pigeon house in the same location and of the same general dimensions as the current building but with no windows or floor-ventilation openings in the east wall. At this time the estate was still owned by the Meredith family but in 1765 it was sold to John Calcraft who proceeded to undertake a number of improvements to the estate which included some to the dovecote. Lancelot 'Capability' Brown is reported to have been commissioned to enhance the grounds and among his works is believed to have been the addition of two windows into the east wall of the building in order to give the dovecote the appearance of a chapel when viewed from a distance.
- 1.4.5 In 1790 the large mansion was demolished and shortly afterwards the more modestly-sized Abbey Farmhouse was built. The farmhouse would not have required such a large dovecote and it appears likely that at sometime in the early 19th century the major internal alterations were undertaken which included the insertion of a ground and first floor. Caiger's article reports that an elderly resident of Leeds recalls that in the early 20th century hop-pickers were accommodated in the converted dovecote during the picking season.
- 1.4.6 Caiger's article was written in 1974 and it appears that at that date the dovecote was disused and derelict but at least the northern building was in a much better condition than it is currently in. Both buildings are described as 'roofless and in a ruinous condition' but a detailed description of the roof structure of the northern building is provided together with the staircase, the crowstep gable and the first floor. Presumably the roof was no longer water-tight, having lost many of its roof tiles but the trusses were still basically intact. Drawings of the building are also provided although it is likely that they include a certain element of reconstruction.

2 DESCRIPTION

2.1 Introduction: present condition

- 2.1.1 Prior to the start of the current works Leeds Dovecote was in a very poor condition. None of the roof timbers remained in-situ and little of the first floor structure survived. One first floor principal joist remained in-situ (although one end of the three other joists remained in their sockets) but none of the first floor boards or common joists remained intact. Each of the four ground floor principal joists remained in-situ, together with several common joists, although even many of these had largely disintegrated. Only tiny fragments of ground floor board remained. Each of the gables had been lost so that there was no indication of the crow-stepping to the north and the uppermost brick courses of the side walls had also collapsed or were so heavily covered in ivy that to remove all the vegetation would have destabilised the structure.
- 2.1.2 A large number of hand-made, pegged, clay roof tiles were found within the large dovecote and on the ground immediately surrounding it. Each of these was 24 cm x 15 cm with two diagonally set square peg holes towards one end. Some 20th-century machine made clay roof tiles were also found. Many of the hand-made tiles had

broken but several hundred intact tiles were retained and stored on site. Many bricks from the collapsed structure were also removed during the clearance and these were also stored within an adjacent building for possible future reuse in the dovecote. The bricks remaining in the building, and those from the collapsed structure were of fairly consistent size and measured c.26 cm by 12 cm by 6 cm.

- 2.1.3 A full archaeological survey and description of the building does not form part of the current commission but a brief description would be appropriate and Caiger's article provides a further description (Appendix 2).

2.2 General description

- 2.2.1 Leeds Dovecote consists of two sections: a small building to the south and a larger rectangular building to the north (See Fig. 2). The two buildings are of the same width and previously adjoined each other but a cross passage has been formed between them at the north end of the smaller structure. The north wall of this passage, which was formerly the division between the two buildings has now largely collapsed although it partially survives at low level, buried before the start of the current works. The later wall of the cross passage, within the smaller dovecote, remains.

2.3 Smaller building

- 2.3.1 The smaller dovecote is c.5.2 m wide by c.3.6 m long. It is constructed in red brick (English bond with rough diaper work) set on an uncoursed stone plinth and has a soft chalky lime mortar. There is a dressed stone quoin at the south-west corner and the south-east corner has been rebuilt in brick to suggest that the south wall may originally have continued further to the east. This may have merely been a buttress similar to those on the east face of the larger building. The three external elevations are all plain (other than a four-centred plain chamfered arched doorway with stone quoins in the east wall) while the inner faces of each of these walls is lined with nesting boxes and alighting ledges (11 rows each to E, W and S totalling c.360). The red brick north wall does not contain nesting boxes and is a secondary (19th century?) insertion. The roof does not survive but it is reported to have been a simple hipped structure (Caiger 1974,37).

2.4 Larger building

- 2.4.1 The larger dovecote is of similar construction to the smaller with red brick English bond brickwork set on a stone plinth. The *east elevation* is articulated by three partially collapsed brick buttresses, two at each end of the larger building and one towards the centre and it is ornamented by fragmentary diaper brickwork. The elevation has two low arched openings within the plinth and above them two secondary windows each of which has had a white render applied to the moulded brick jambs to simulate an ashlar Gibbs surround. The *north elevation* has a central doorway with stone arched lintel and it used to be ornamented by a crows step gable but this has been lost together with a window within the gable.
- 2.4.2 The interior of the larger building has been substantially altered due to a probably early 19th-century conversion of the building which involved the insertion of conventional ground and first floors. There are four ground and first floor principal joists in contrast to the five roof trusses. At the same time as the insertion of the floors the walls beneath the first floor principal joists were rebuilt to form piers capable of supporting the joists and many of the nesting boxes elsewhere in the walls were in-filled with brick and plastered over.

2.5 Roof description and principal structural members

- 2.5.1 As previously noted, neither of the roofs survived in-situ when the current survey was undertaken. The fallen timbers from the smaller dovecote had been removed from the site before the start of the current project but most of the fallen roof timbers from the larger dovecote remained within the building. From these, together with the survey drawings produced when the roof was at least partially intact (see Appendix 1) it is possible to gain a good impression of what form the roof from this building formerly took.
- 2.5.2 The roof had five arched-brace trusses, each one consisting of collar, principal rafters and pairs of arched braces resting on jack-corbels on top of the brick walls. The principal timbers were all of oak. Caiger reports that the trusses were unevenly spaced to allow for roof dormers in each of the penultimate bays towards each end (Caiger 1974, 38). The two wider bays are reported to have had four common rafters while the others had three common rafters. Each bay had a tier of curved wind braces beneath the single purlin which was clasped between collar and principal rafter. The principal rafter was supported by jack-corbels above the inner face of the walls and on a small wall plate resting immediately on the outer edge of the wall. There was no ridge piece.
- 2.5.3 The survival of the roof timbers was uneven; the larger ones (collars and arched braces) surviving relatively well while the smaller ones (rafters, wind braces) less so.
- 2.5.4 Four oak **arched braces** were identified with one in Bay B (B36) being in the best condition (Fig. 3). It was 2.65 m long by 12.5 cm thick with arched (by 22 cm at mid-point) and chamfered soffit. There were long tenons (3.5 cm thick with two peg holes) in the two sloped ends and there was a mortice in the upper face, towards the central point of the brace with the end of a 4 cm thick tenon which remained in-situ. This tenon would have secured the principal rafter to the brace.
- 2.5.5 Four oak **collars** were identified and again one in Bay B (B58) was in the best condition (Fig.4). The collar was 2.71 m long, 25 cm high at its mid point and 21 cm deep. It was slightly cambered and there were two mortices (60 cm long x 12 cm deep x 5 cm wide) towards each end of the underside. There were two peg holes to either side of each mortice and there was an iron loop projecting from the underside of each of the collars.
- 2.5.6 The **principal rafters** were of relatively small scantling tapering towards the head, and they have survived less well than the collars and arched braces. The best preserved example of principal rafter (F1) was leaning against the east wall, apparently having slid down from the roof structure, and was probably from the fourth truss from the north. It was 5.15 m long and its base was 14 cm wide by 9 cm deep. There was a 25 cm long rectangular through-mortice, 1.10 m from the base, which would probably have secured the rafter to the jack-corbel. There was also a small oval through-mortice 3.30 m from the base which would probably have secured the rafter to the purlin. Each end had two projections which suggest that the rafter pairs were secured together at their heads with a bridle joint.
- 2.5.7 No **common rafters** survived intact but several long fragments survive which do not have the longer mortice present on the principal rafters but do have the small oval through-mortice which secured the rafters to the purlin.

- 2.5.8 Only the most fragmentary remains of sections of **wind brace** survived, the largest of which (B24) was 47 cm long by 3.5 cm deep by 21 cm wide and had an arched shape suggestive of a wind brace. It had a 2 cm diameter peg hole.
- 2.5.9 Two further roof timbers of interest were identified. One of these (C2) was of similar dimensions as the collars and with the same cambered form but there were no mortices to its underside. Also of interest was a beam 3.59 m long by 17 cm x 15 cm (E6). It had a mortice in its underside (13 cm long x 9 cm deep) and there appears to have been a mortice and peg hole in each of its two angled, upper corners.
- 2.5.10 No sections of purlin, wall plate or jack-corbel survived which could be positively identified.
- 2.5.11 Each of the **ground floor principal joists** remained at least partially in-situ although in parts some had largely disintegrated (Fig.6). The principal joist furthest north (between Bays A and B) was the best preserved and had mortices for 12 common joists (at 44 cm centres) within each side face with circular peg holes above each. The principal joist was 27 cm high by 28 cm wide. The **ground floor common joists** were 14 cm high by 11 cm wide by c.2.50 m long and they had soffit tenons with diminished shoulder to each end (Fig.7).
- 2.5.12 The only **first floor principal joist** to remain fully in-situ was that between Bays C and D, although one end of each of the others remained in place with the other end fallen to the ground. They were 31 cm by 31 cm and had mortices and peg holes for 13 common joists at 39.5 cm centres. The lower edges of each principal joist were chamfered and had moulded stops (scroll stops with bar; see Fig. 5). The first floor common joists were 13.5 cm high by 11 cm wide and also had chamfered lower edge with plain stops (Fig.7).
- 2.5.13 Other than the structural timbers relatively few architectural fragments were recovered from the building. One exception was a pair of iron door hinges, c.70 cm long and with four evenly spaced nail holes.

4 CONCLUSION

- 3.1.1 Leeds dovecote forms part of a Scheduled Ancient Monument and it is therefore by definition of national importance. Its condition has deteriorated seriously in recent decades and the current stabilisation and clearance works have provided a good opportunity to undertake a initial phase of archaeological recording and salvage before important evidence relating particularly to the building's roof form was lost. It is anticipated that further recording will be undertaken on the dovecote if and when substantial works are carried out on the building.
- 3.1.2 The primary conclusion of the archaeological programme was to confirm the general form of the roof shown on the illustrations in Caiger's article. Examples of most of the main roof timbers were identified among the fallen debris within the dovecote and these timbers were both recorded (informing any possible future reconstruction) and retained for possible reuse within the building.
- 3.1.3 The site archive will be deposited with the Rochester Bridge Trust.

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Server1/oaadata1/pers/jong/projects/leeds dovecote/text.doc

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Hansell P & J (1988) *Doves and Dovecotes*
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APPENDIX 1: Register of timbers

The larger dovecote was divided into five bays, with Bay A furthest north, to allow the general location of each fallen timber to be recorded. Each timber was given a reference number prefixed by the letter of the bay in which it was found. The principal structural timbers which it was possible to identify have been emboldened in the table.

Condition rating

The condition of most of the individual timbers found (and all of the principal structural members) have been given a rating out of ten. The purpose of this was to highlight which timbers are considered to have the potential for reuse and to identify the many timbers which were retained, because they had clearly once been significant elements of the dovecote's structure, but whose condition had deteriorated so badly that their nature could not be identified. In some instances one part of a timber survived in a much better condition than the other. In such cases two condition ratings have been given. A rating has not always been given where the timber retained is clearly a secondary member of lesser significance but which is in a good condition. Generally ratings were only given where the significance of the timber may have warranted its reuse if it was in a sufficiently good condition. With irregularly shaped objects the maximum dimensions in each direction has been given.

- 1/10: Very fragmentary rump. No edges at all, impossible to tell the original size, or type or function.
 2/10: Again very fragmentary. Possibly small sections of edge survive but at no point do all 4 edges survive. Thus again impossible to tell original size and type.
 3/10: Fragmentary. Can probably tell sectional size of member but not length or function.
 4/10: Condition generally poor and no potential for reuse.
 5/10: Basically intact but condition probably not good enough to allow any of it to be reused.
 6/10: Generally good condition and elements could probably be reused, scarfed or spliced onto modern sections.
 7/10: Good condition. Some parts could almost certainly be reused but not whole timber.
 8/10: Member fully (or almost fully) intact and in generally good condition. Much of it could be reused, possibly with some parts re-formed or spliced on.
 9/10: Good potential for reuse of whole member.
 10/10: Almost perfect condition. Ideal for reuse.

Bay A

Ref No.	Description	Condition rating
A1	First floor joist with chamfered underside. Not in-situ. Aligned NW-SE. 215 x 16 x 13. Edges all worn but joist basically intact although neither tenon.	6/10
A2	First floor joist . Not in-situ. Aligned NW-SE. 235 x 14 x 11. One tenon intact.	5/10
A3	Softwood, not in-situ. 75 x 5 x 10	
A4	Newel post (?). Not in-situ, leaning vertically against E wall. 340 x 14 x 14.	4/10
A5	Rafter (?). Two projections at both ends. Not in-situ, aligned E-W. 389 x 14 x 8.	3/10
A6	First floor joist ; not in-situ. Aligned E-W on top of ground floor joists. 225 x 13 x 11. Tenons lost at both end.	5/10
A7	Loose fragment. 122 x 13 x 7.	2/10
A8	Loose non-structural board, not in-situ towards centre of bay. 153 x 10 x 3.	
A9	Loose non-structural board, not in-situ towards centre of bay. 149 x 10 x 3.	
A10	Ground floor joist (6 th from E). 214 x 13 x 13.	6/10 - 2/10
A11	Loose fragment aligned E-W. 147 x 24 (max) x 14	
A12	Ground floor joist (3 rd from E). 235 x 13 x 13. In-situ. 235 x 13 x 11. Notch towards N end similar to that in A21	3/10
A13	Arched brace lying over ground floor principal joist between Bays A and B. 212 x 10 x 13.	5/10
A14	Ground floor joist (2 nd from E), in-situ. 230 x 12 x 12. S end tenon partly intact.	4/10
A15	Softwood plank, loose against the E wall lying over ground floor beam between A + B. 248 x 12 x 5	
A16	Loose fragment against E wall. 83 x 24 x 10.	2/10
A17	Softwood secondary member. Possibly window mullion. 105 x 7 x 5.	
A18	Ground floor joist (8 th from E). Not in-situ. 230 x 13 x 10. S end partly intact.	4/10
A19	Ground floor joist (9 th from E). Not in-situ. 226 x 13 x 10. Neither tenon intact.	4/10

A20	First floor joist stuck vertically in ground/debris. 195 x 13 x 10.	3/10
A21	Ground floor joist (No 1 from E). In-situ. 241 x 12 x 14. Notch 27 cm long x 2.5 cm deep, 21 cm from N end.	3/10
A22	Loose towards centre of bay, aligned N-S. 163 long.	2/10
A23	Loose towards centre of bay. 194 x 12 x 10.	2/10
A24	Post; probably staircase newel with through mortice at one end for handrail (?). 91 x 10 x 10. Not in-situ.	5/10
A25	Loose member probably relates to former staircase. 108 x 11 x 8. 4 mortices regularly spaced 5 cm deep x 9 x 3 cm.	5/10
A26	First floor joist , not in-situ towards W end. 213 x 11 x 14.	6/10
A27	First floor joist , not in-situ towards W end. 215 x 11 x 14.	6/10
A28	Ground floor joist (10 th from E) 236 x 13 x 12. S tenon partly in-situ.	6/10
A29	Loose softwood block. 50 x 12 x 9	
A30	Loose softwood block. 51 x 15 x 6	
A31	Minor post/bearer not in-situ. 140 x 7 x 7.	4/10
A32	Ground floor joist (11 th from E). S tenon almost complete.	1/10 - 7/10
A33	Section of floor board from SW corner of bay. 22 x 2.5 cm.	3/10
A34	Loose fragment at W end. 59 x 19 x 11.	3/10
A35	Loose fragment. 81 x 8 x 8. Circular peg hole 2.5 cm dia. 9 cm long through mortice.	
A36	Loose fragment 110 x 12 x 6.	2/10
A37	Ground floor joist (12 th from E, ie furthest W) 247 x 14 x 11.	8/10 - 4/10
A38	Loose fragment at E end. 54 x 8 x 7.	3/10
A39	70 cm long fragment, possibly from arched brace.	
A40	8 x 9 x 48 fragment with circular peg hole	
A41	35 x 12 x 12 fragment.	
A42	62 x 12 x 12 fragment.	

Bay B

B1	Rafter (?). Resting partly on first floor beam at W side of building. 365 x 11 x 6. 17 cm through mortice at centre, 187 from one end.	3/10
B2	Rafter (?). 260 x 8 x 11. Through mortice 75 cm from one end.	4/10
B3	Rafter (?). loose, slightly submerged at W end of bay. 193 x 12 x 6. Apparently half a through mortice at point of break.	3/10
B4	Loose, found on surface towards centre of bay. 190 x 15 x 10. Through mortice 5 cm wide.	
B5	Loose towards centre of bay. 190 x 15 x 10. 4 peg holes towards centre.	4/10
B6	Loose fragment towards west end. 90 x 10 x 5.	2/10
B7	Loose fragment towards W end of bay. 120 x 15 x 10. Golden colour, similar to B4.	3/10
B8	Fragment to W. 210 x 10 x 5.	3/10
B9	Ground floor joist (furthest W) N end + tenon intact. 72 x 15 x 10.	3/10
B10	First floor joist towards W end of bay. 219 x 14 x 11.	1/10-5/10
B11	Ground floor joist (furthest W). S end of B9. 120 x 15 x 12. Tenons don't survive.	4/10 - 1/10
B12	First floor joist (probably) towards W end of bay. Resting on top of ground floor principal joist. 212 x 12 x 9.	3/10
B13	First floor joist at W end. 232 x 13 x 10 S end tenon partly in-situ.	5/10-3/10
B14	Probably stair newel post found on surface towards centre of bay. 150 x 20 x 20. Rounded top. 4 rectangular slots in one face, 4 diagonally-set square slots in other face.	7/10
B15	Rafter (?) 390 x 12 x 7. 1 small slot at centre.	4/10
B16	First floor joist at E end of bay 230 x 14 x 11.	4/10
B17	Loose towards E end of bay. 120 x 13 x 8. Softwood	
B18	Loose fragment towards E end of bay. 100 x 8 x 18.	4/10
B19	Loose fragment towards E. 81 x 22 x 5.	
B20	Loose fragment towards E. 130 x 15 x 10.	4/10
B21	Loose fragment towards E. 46 x 41 x 5. Trap door formed of several pieces of softwood board. Iron hinges	
B22	Loose fragment towards E. 70 x 13 x 8 block with bridled end.	4/10
B23	Loose fragment towards E. 10 cm thick irregularly shaped block. c. 45 x 33 cm.	
B24	Loose fragment towards E. Possibly small section of wind brace. 47 x 3.5 cm x 21 with peg hole (2 cm diam)	

B25	Loose fragment towards E. 38 x 6.5 x 9, softwood with both upper edges chamfered (at one end).	
B26	Loose fragment towards E. two small softwood cross members fixed together at the centre with iron bolt.	
B27	Loose fragment towards E. Non structural softwood plank. 30 x 8 x 5.	
B28	Loose fragment towards E. softwood trap door (?). 51 x 31.	
B29	Loose fragment towards E. Plank, 144 x 16 x 4.	
B30	Loose fragment towards E. Triangular section softwood member. 118 x 14 x 5 cm.	
B31	Loose fragment towards E. Possibly small section of wind brace 110 x 20 x 4, curved.	2/10
B32	Loose fragment towards E. Trap door (?) similar to B21.	
B33	Loose fragment towards E. Softwood, non structural. 1 m x 10 x 7.	
B34	Loose fragment towards E. 90 cm long softwood plank. 8 x 5.s	
B35	Loose fragment towards E. Similar to B34.	
B36	Arched brace at E end of bay. Condition good. 262 cm long x 12.5 cm thick. Tenons at each end at right angles to each other. Mortice at centre of upper face.	8/10
B37	Loose fragment. 87 x 10 x 8. 2 peg holes.	2/10
B38	Fragment. 140 x 12 x 6.	1/10
B39	Newel post with pyramid head. 3 slot mortices on one side.	
B40	Fragment. 158 x 13 cm.	
B41	Softwood fragment with iron hinge fixed to it. 35 x 10 x 7.	
B42	10 x 53 x 7 softwood.	
B43	195 x 23 x 14 fragment. 18 cm through mortice at centre.	3/10
B44	Loose fragment. 58 x 17 x 18 block.	3/10
B45	First floor joist fragment. 110 long. 2/10.	2/10
B46	Collar fragment towards centre of bay. 122 x 14 x 17.	3/10
B47	Small fragment of floor board lying in-situ on ground floor joist (B48).	
B48	Ground floor joist in-situ. (3 rd joist from W). Almost intact but neither tenon. 235 long.	3/10-7/10
B49	Loose fragment. W of centre of bay 214 x 14 x 9. 3 small circular holes towards centre.	3/10
B50	Loose fragment towards centre of bay. 96 cm x 10 x 5.	2/10
B51	Ground floor joist (7 th from E) 237 long. Part of N tenon intact.	5/10
B52	Loose fragment found at E end of bay. 150 x 24 x 19. Possibly section of collar, 4 cm wide mortice.	3/10
B53	Loose fragment. 144 x 14 x 11. Probably first floor joist.	4/10
B54	Loose fragment. 123 x 16 x 12.	
B55	Loose fragment 120 x 10 x 10.	1/10
B56	Loose fragment from collar (?) with iron loop/hook. 1 m long 17 x 12.	1/10
B57	Ground floor joist (5 th from E) 150 long.	7/10-2/10
B58	Collar found on surface to E side of bay, lying over ground floor beam between bays B and C. 271 x 25 x 21 cm.	6/10
B59	Loose block to E side of bay. 120 x 27 x 12. Possibly beam for staircase. Condition good. 5 cm ² through mortice at centre.	
B60	Loose piece. Probably relates to staircase. Two pieces softwood fixed together at right angles to each other.	
B61	Similar to B60	
B62	Loose fragment. 140 x 12 x 9. 2/10.	
B63	Loose fragment.	
B64	Ground floor joist (5 th from W) S end in-situ. 235 cm long.	7/10-3/10
B65	Ground floor joist (not in-situ) 235 cm long.	7/10-3/10
B66	Ground floor joist (6 th from E) 230cm long.	7/10-3/10
B67	Ground floor joist (2 nd from E). 239 cm long. Only one tenon survives.	6/10
B68	Ground floor joist (3 rd from E) 230 cm long.	2/10-5/10
B69	Ground floor joist (furthest E) 230 cm long.	5/10

Bay C

C1	Loose fragment on surface, close to W wall. 120 x 10 x 10.	3/10
C2	Roof member . N-S close to W wall. 262 x 22 x 14. Similar to collars but no mortices to underside and no hook. Slightly cambered underside.	6/10
C3	Loose fragment to W of centre of bay. 140 x 3 x 10.	2/10

C4	Loose fragment to W of centre of bay. 60 x 5 x 5.	1/10
C5	Loose fragment to W of centre of bay. 120 x 8 x 5.	1/10
C6	Loose fragment to W of centre of bay. 222 x 15 x 6.	2/10
C7	Loose fragment to W of centre of bay. 150 x 5 x 10.	
C8	Loose fragment to W of centre of bay. 110 x 7 x 7	
C9	Collar. E-W towards centre of bay. 2 mortices in underside, c.48 cm long. Iron loop towards centre. 267 x 24 x 16	6/10
C10	Loose fragment.	
C11	Ground floor joist (4 th from W) 223 cm long. 0.5 m furthest N.	2/10-6/10
C12	Ground floor joist (3 rd from W). Only 40 cm furthest N survives.	2/10
C13	Fragment towards centre of bay 218 x 13 x 5.	2/10
C14	Rafter towards centre of bay. 295 x 12 x 8. 10 cm central mortice	2/10
C15	Arched brace fragment at E end of bay. 128 cm long.	3/10
C16	Loose fragment at E end of bay. 75 x 18 x 20. Possibly post which sat on top of wall and held arched braces.	2/10
C17	Rafter at E end of bay. Oval slot at centre. 372 x 13 x 6.	2/10
C18	Loose fragment at E end of bay. 160 x 10 x 13 with 2 oval through mortices.	1/10
C19	Loose fragment at E end of bay. 115 x 12 x 12.	2/10
C20	Ground floor joist (No 1 from E). 215 long.	5/10-2/10
C21	Loose fragment at E end with 8 x 3.5 tenon at one end. 70 x 15 x 15.	2/10
C22	Ground floor joist (not in situ but probably No 2 from E). 153 x 17 x 11.	4/10
C23	Ground floor joist not in-situ. 200 x 12 x 10.	4/10
C24	Fragment towards centre of bay. 160 x 14 x 11.	3/10
C25	Fragment towards centre of bay. 162 x 12 x 12.	2/10
C26	Fragment towards centre of bay. 194 x 12 x 12.	2/10

Bay D

D1	Arched brace , against W wall on surface. 244 cm long. Intact but neither tenon. Condition.	4/10
D2	Rafter (?). Towards centre of bay, orientated E-W. 275 x 11 x 6. Small (4 cm) oval through mortice towards centre.	4/10
D3	Rafter on surface to W of centre, orientated N-S. 396 x 13 x 6. Condition relatively good for rafter.	5/10
D4	First floor joist (probably), orientated E-W lying on ground floor principal joist between Bays D and E. 206 x 13 x 10.	4/10
D5	First floor joist (probably). 215 long.	4/10
D6	Loose fragment. 120 cm long.	1/10
D7	Loose fragment. 125 x 17 x 10. Condition v poor but possibly post which held base of arch brace (?). Two projections at one end and one projection at other although it may just be how the piece has broken from a large member.	1/10
D8	Rafter . Loose on surface N-S towards centre of bay. 317 x 10 x 6.	5/10
D9	Loose fragment on surface, N-S towards centre. 250 x 13 x 8.	
D10	Collar . Both mortices intact with 2 holes each end. 267 long.	5/10
D11	Rafter . Standing vertically against E wall at S end of bay. 506 cm long. Maximum existing depth 8 cm long although one face largely disintegrated. Large mortice (25 cm long) to house end of wind brace with partly surviving peg hole. Small oval through mortice towards other end to house purlin (?).	5/10
D12	Rafter . Standing vertically against E wall at S end of bay. 370 x 12 x 6. Oval slot (12 cm long) 160 from one end.	
D13	Loose towards centre of bay. 193 x 11 x 8 fragment. Bit of rafter (?).	1/10
D14	Loose towards centre of bay. 180 x 13 x 5 fragment bit of rafter (?).	1/10
D15	First floor joist , N-S towards E side of bay. Half in Bay C, resting on ground floor joist. 215 cm long.	3/10
D16	Loose on surface close to centre. 80 x 11 x 8.	
D17	Loose on surface close to centre of bay. 115 x 10 x 12.	
D18	Ground floor joist (5 th from E). In-situ. 210 cm fragment.	4/10
D19	Loose fragment along spine of bay. 220 x 17 x 6.	2/10
D20	Loose on surface. 100 cm fragment.	1/10
D21	Loose on surface in E half of bay 110 x 7 x 7. Minor post.	4/10
D22	Minor softwood post. 160 x 7 x 7.	

D23	Loose against E wall. 130 x 15 x 7 fragment. Long projections at each end.	2/10
D24	Softwood, non structural. Loose next to E wall. 119 x 12 x 6. Notch cut towards centre.	
D25	Loose next to E wall. 200 x 10 x 5. Fragment	
D26	Loose member lying over ground floor joist between bays C and D, N-S. 109 x 11 x 9.	2/10
D27	220 cm long tree trunk, possibly used as secondary structural addition 10 cm diam with cut off branch nodules intact.	

Bay E

E1	First floor joist. Stuck vertically in ground, just W of centre. 200 x 17 x 12.	4/10
E1	First floor joist. Stuck vertically in ground, just W of centre. 200 x 17 x 12.	4/10
E2	First floor joist. Vertically lying against W wall. 185 long.	4/10
E3	Arched brace. Aligned SW-NE. Main body fully intact and 1 end tenon. Mortice at centre of upper face with fragment of tenon remaining in-situ. Probably reusable.	7/10
E4	Loose fragment of board 50 cm long.	
E5	Loose fragment, possibly joist. 50 cm long. 2/10	2/10
E6	Roof member (?) Lying over first floor principal joist between bays D and E. Apparently unique structural member. 360 x 17 x 15 with mortice at centre of underside (mortice 13 cm long x 9 cm deep).	
E7	Rafter. Loose, lying over E6. 343 x 11 x 12. 12 cm mortice towards centre. 11 x 12 cm.	3/10
E8	First floor joist. Towards centre of bay. 190 cm long.	4/10
E9	First floor joist. 200 cm long. Towards centre of bay.	3/10
E10	Fragment. 150 x 10 x 7	
E11	First floor joist. 200 long.	4/10
E12	First floor joist lying on surface. 160 x 14 x 14.	4/10
E13	Wind brace (?). E of centre, Small fragment - 120 cm x 4 cm thick.	
E14	Fragment (possibly rafter ?). 140 cm long. Stuck vertically in ground towards E.	
E15	Rafter (?) Orientated E-W. 310 x 10 x 5. 20 cm mortice at centre.	2/10
E16	Loose fragment towards centre. 138 x 15 x 10.	3/10
E17	Loose on surface. 100 x 9 x 6.	
E18	Arched brace. On surface against E wall. Intact (withough tenons) but condition poor.	4/10

Area F (area outside dovecote to E)

F1	Rafter in relatively good condition. 515 cm long x 8 cm deep at deepest.	6/10
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de the f. Tl lder, its l... and resting on a small platform near the top of the longer ladder gives access to a pair of trap-doors, normally left open, just below the four external flight openings at the base of the lantern. At certain times of the year, however, it was necessary to prevent some of the birds from leaving the house; at these periods the two trap-doors would be shut. The structural arrangements for supporting the heavy canopy and roof-lantern are sturdy and straightforward; the entire load imposed by both the roof and canopy is taken by four stout vertical posts on to two 10 in. (0.25 m.) square-section horizontal beams, which span the north-west and south-east walls. The lower ends of these posts are tenoned and pegged into the two beams. To add further stability, two additional half sets of horizontal beams are tenoned and pegged to the full pair at right angles. Their ends rest on the north-east and south-west walls. Two side struts are fitted to each of the vertical members at right angles, their lower ends being set into the horizontal beams to resist any side movement. Whilst the principal members supporting the roof and canopy loading were being examined, it was noted that their respective mortice and tenon joints all bore carpenters' marks. These were in the usual form of shallow cuts made in the timber close to each joint. Single and multiple strokes, up to four in number, had been used, the numeral 5 being indicated by an inverted Roman V. Larger numerals were made up of ligatured forms of X and inverted V with oblique strokes through them.

LEEDS ABBEY PIGEON HOUSE

Set amongst the present outbuildings of Leeds Abbey Farm, Leeds, near Maidstone, are the standing remains of a small pigeon house which is separated by an alley 4 ft. (1.22 m.) wide from another longer building. This too, had once served as a pigeon house. (N.G.R. TQ 82225290.) The larger building is known locally as *The Chapel* or *The Mill*; both of these buildings are now roofless and in ruinous condition and, by some curious oversight, neither building appears to have any protection order on it. An examination by the writer clearly showed that during the past three centuries structural modifications have been made to them from time to time, and the purpose of this paper is an attempt to trace these alterations in a chronological order.

The land on which the two buildings stand once belonged to the Augustinian Priory of Leeds, founded c. 1119 A.D., the site of which lies 460 ft. (140 m.) north-eastwards. The priory was suppressed in 1539 and afterwards passed into the possession of Warham St. Leger, of Ulcombe, and then to Francis Colepepper. By 1598, or a little later, the property had passed to William Covert, who may have added the north front. In 1610, the building was sold to William Meredith and it continued in his family until 1765, when the house and estate were again

sold, this time to John Calcraft, a wealthy native of Dorset. Finally, in 1790, the house was pulled down and the present farmhouse, known as Leeds Abbey Farm, was built on the hill to the west of the site of the house.

Description of the two existing Pigeon Houses

The smaller building measures 17 ft. × 12 ft. (5.18 × 3.65 m.) internally, with three of its walls 3 ft. 6 in. (1.07 m.) thick; the building is constructed of red brickwork laid in English Bond. The footings are of stone rubble and the lower level of the building is stone-faced. Approximately 105 nesting-boxes are arranged in eleven rows on the east wall whilst the south and west walls contain 143 and 110 boxes, respectively. Alighting ledges, formed by a projecting brickwork course are provided for the pigeons below the box openings. The north wall is not original and has been inserted at a much later date. It is only 1 ft. 3 in. (0.38 m.) thick and does not contain nesting-boxes. The stile of a wooden ladder and its wood anchorages are still visible on this wall. The entrance to the building is through a narrow four-centred stone doorway, the mouldings and stops of which indicate an early sixteenth-century date. Four flight openings were formerly provided at eaves' level for the pigeons. The roof timbering and tiling have disappeared but, fortunately, its form, of a simple tile-hipped roof is preserved in photographs taken in 1942.⁴ The adjacent and larger building is in alignment with the small pigeon house and was once joined to it. This building shows evidence of several structural changes over the last two centuries. Its present-day appearance, however, both externally and internally, bears little resemblance to the conventional pigeon house, though this is what it undoubtedly was. Its northern end is gabled in a distinctive form known as *Corbie Steps* or *Crowsteps*. The building is constructed in red brickwork to match the smaller building, and is also laid in English Bond. A moulded four-centred stone doorway, the step of which is 3 ft. (0.91 m.) above ground level, provides the only access to this building. A flight of five stone-steps was once set below this entrance. Above the doorway there is a double-light window formed in rubbed brickwork. At a later date, this window was embellished by plastering a thin mortar-coating on top of the brickwork simulating the ashlar *Gibbs Surround* much favoured in buildings of the eighteenth century. The eastern elevation of this building is most striking. Two hipped dormer windows were set at a low level on the roof; they were of plain construction and nothing remains today to indicate if they were once glazed. Two single-light windows are set into the east wall and, in common with the double-light on the northern face, have also

⁴ National Monuments Records (R.C.H.M.) Photographs B42/852 and B42/853.

been decorated with a mortared surround, giving them a distinctly ecclesiastical appearance. These windows are a later insertion and have been made to match the original northern window. The lower level of the brickwork is decorated with diaper work of simple lozenge form. It will be noted from the north elevation on the drawing, Fig. 2, that the ground slopes away considerably towards the east and, accordingly, this eastern wall has been strengthened with buttresses to resist any building movement. Today, there only remains the upper part of one of the buttresses, the others having collapsed; scars in the brickwork, however, remain to indicate their former position. The lower portion of the building is faced with uncoursed random rubble, set in mortar, the junction between brickwork and stone rubble being finished with moulded plinth-stones. Beneath the windows and near ground level two brick arched openings in the wall are to be noted. These, too, are late insertions and serve to ventilate the space beneath the ground floor (to be noted later) inside the building. One of the ventilation openings has been sealed off with stone blocks and the other one is now partly sealed. The inside of this building presents a surprising appearance and, as has been previously remarked, does not on first examination appear to have ever been used as a pigeon house. This impression is entirely due to the insertion of two floors which have transformed its internal appearance. At threshold level, a wooden floor has been inserted, which is partly supported on four centrally-disposed brickwork piers. At 8 ft. 6 in. (2.59 m.) above this floor, an upper floor has been constructed on four massive oak-beams set transversely across the eastern and western walls. A wooden stairway on the left-hand side of the entrance gives access to this upper floor. The balustrade posts at the top of this stairway are surmounted by three carved wood finials of seventeenth-century date. They are much worn and give the appearance of having been in use elsewhere. The oak-timbering of the roof is unusual and not the type of construction associated with a pigeon house. It is a replacement, and the timbers used may have been recovered from the old mansion after its demolition at the end of the eighteenth century. The roof-timbering consists of six bays of unequal width. It is of the butt-purlin, arch-brace collar truss type. Each principal rafter and its arch-brace are supported by a wooden jack-corbel, the rafter ends resting on wall-plates at their extremities. The principal rafters are toothed into the purlins, after which point their section is reduced to that of the common rafters up to the ridge. The collars are in turn notched to the purlins. Curved wind-braces are fitted to the principals and secured in position with oak-pegs. Details of the roof construction are shown on the drawing in Sections A—A and B—B, Fig. 2.

From the available historical evidence, together with a close inspection of the two buildings, the following possible chronology is suggested.

At the dissolution of the monastery, in 1539, the number of monks and lay brothers living there were very few, so the small pigeon house, at that time measuring about 24 ft. (7.31 m.) square and probably dating from the early part of the sixteenth century, was adequate for the community. As has been noted earlier, the monastic house known as Leeds Abbey had been partly rebuilt by William Covert at the end of the sixteenth century⁵ and, presumably, had a large number of people in residence. By the time the estate had become the property of the Meredith family the produce from this small pigeon house was totally inadequate for the needs of this new household. Therefore, it was greatly extended lengthwise. The large pigeon house was built with its southern end butted on to the northern wall of the smaller house, making one long continuous building. This assumption is completely justified in a view of Leeds Abbey drawn by J. Badslade, c. 1720,⁶ which depicts the long pigeon house in its correct position and complete with buttresses, dormer windows and the northern doorway. This old engraving also shows a louvre or Glover over the pigeon house at its southern end. Significantly, no windows or floor-ventilation openings are shown on the eastern wall. At this period the mansion and estate were owned by Roger Meredith. John Calcraft purchased the property in 1765 and soon began enlarging the residence and making improvements to the grounds, which at that time were laid out in the conventional formal style of the seventeenth century. Lancelot 'Capability' Brown, the landscape gardener, was commissioned by Calcraft to transform the existing gardens and he began the work early in 1771.⁷ It is believed that amongst Brown's improvements were the making of the large lake, still to be seen today, and what is more pertinent to this paper, the alterations to the exterior of the pigeon house to convey the impression, when viewed from a distance, that it was a chapel. It was quite common practice for landscape gardeners of the eighteenth century to disguise utilitarian buildings with a sham façade. Capability Brown was fond of providing his patrons with a skyline view of a church or chapel, such as the one he created at Danson Park, Bexley, still known as the Chapel House. It is likely that Brown was responsible for inserting the two windows in the eastern wall of the pigeon house and framing these and the existing northern window with a mortar coating to simulate stone quoins. There is no doubt that the two eastern wall windows are a later insertion; this can be clearly seen inside the house by the mutilated brickwork courses and the destruction of the nesting-boxes near the windows. A small recess, about 3 ft. × 4 ft. (0.91 × 1.22 m.) wide was made 18 ft. (5.48 m.) from the southern end

⁵ Rev. C. H. Fielding, *Invicta Magazine*, ii (1911), Dartford, 251.

⁶ J. Harris, *The History of Kent*, i, London, 170.

⁷ D. Stroud, *Capability Brown*, London, 1966, 140.

of the building; this, presumably, broke the line of the long building and strengthened the illusion of a church or chapel. Brown received over £2,000 for his share in the work of re-designing the garden.⁸ The creation of a large lake was a typical improvement favoured by Brown and the Leeds Abbey lake is a fine example of his work. The drawing by J. Badslade, referred to earlier, shows a complex series of water-basins, fountains and a sunken water-garden on the right-hand side of the mansion, fed by distant springs. Capability Brown's lake covers much of the area formerly occupied by the water-gardens and has obviously been contrived by widening and linking the water-courses back to their source at these springheads. Today, there are still four active springs feeding the lake at its south-western end. Capability Brown might have been commissioned to make further improvements to the grounds of Leeds Abbey had not John Calcraft been seized by an illness in 1772 from which he died at his home at Ingress Abbey, Greenhithe, at the comparatively early age of forty-six.⁹ After John Calcraft's death the estate passed to his son John, who appears to have neglected the property. In 1790, the imposing mansion was pulled down and, at about this time or a little later, Leeds Abbey farmhouse was built. The ensuing period between 1790 and 1840 is a difficult one to evaluate with any certainty, as most of the evidence is circumstantial. It may be assumed that the needs of the farmhouse would not require the produce of such a large pigeon house, and it is suggested that it was about this time that the extensive internal structural changes were made to the building.

A close examination of the internal walls revealed that they had been rendered with clay daub containing a large amount of chopped straw. The surface of the walls had been lime-washed, many coats having been applied over the years. Beneath the clay rendering, the earlier pigeon nesting-boxes were found. All the boxes, with the exception of those out of view beneath the ground-floor, had been deliberately sealed off by wedging two bricks into the openings and packing them securely with a piece of broken tile. Beneath the holes were the remains of the alighting ledges. Each of the ledges had been roughly hacked off, leaving rows of jagged brickwork across the wall-faces. Roofing-tiles, laid face downwards on to the walls under the daub, had been used to level out these surface irregularities. Nesting-boxes had been set into the eastern and western walls, arranged in ten rows per wall; a few nesting-boxes were also discovered under the clay rendering on the northern wall. By estimate, the total number of boxes on the three walls would have been about 620, which when added to those in the small pigeon house, would have provided accommodation

⁸ *Ibid.*, 146.

⁹ *The Dictionary of National Biography*, iii, London, 1968, 689.

for some 1,120 pairs of birds. The lower and upper floors were inserted and the two arched underfloor ventilation openings cut through the brickwork of the eastern wall. The oak-timbered replacement roof was installed together with the stairway between the two floor-levels.

Reference to the Tithe Award Map revealed several interesting points. From the Apportionments it was noted that certain parcels of land around the farm were exempt from tithes. The surveyor, J. Tootell, has endorsed the map with a note stating that the buildings shown within the exempted parcels, one of which includes the pigeon house, were not the result of his field measurements but were extracted and copied from 'old surveys'. The long pigeon house is shown in its correct position and bears a shallow recess at the exact position where the present alleyway separating the two buildings has been cut. The small pigeon house was detached from the larger building by extending the recess along and out through the western wall. This necessitated removing nearly all of the northern wall of the small early pigeon house, destroying the nesting-boxes and leaving the header brick-courses roughly cut through on the right-hand side of the alleyway. On the left-hand side a new wall, only 1 ft. 3 in. (0.38 m.) in thickness was built to the small pigeon house and fitted with its near pyramidal roof as shown on the drawing. The southern buttress was removed completely and the two corners on the eastern wall repaired to match the existing brickwork.

It has not been possible to ascertain for what purpose the larger pigeon house was converted into a two-storied building, complete with elegant staircase and finely-made roof-structure. In 1910, the building was known as the *Chapel*, and the Rev. C. H. Fielding briefly refers to it in an article on Leeds Abbey.¹⁰ The alternative name, the *Mill*, could be based on a misinterpretation of an old photograph of the building which shows a white flour-like deposit adhering to the external walls in and around the two window-openings.¹¹ An elderly resident of Leeds village recalls that during this time, the building was used to accommodate families of hop-pickers. Each season before their arrival, it was the practice of the farmer to have the inside walls sprayed with lime wash, some of which escaped through the window-openings and became coated on the external walls, as seen in the photograph.

¹⁰ Rev. C. H. Fielding, *Invicta Magazine*, ii (1911), Dartford, 250.

¹¹ *Ibid.*, 245.

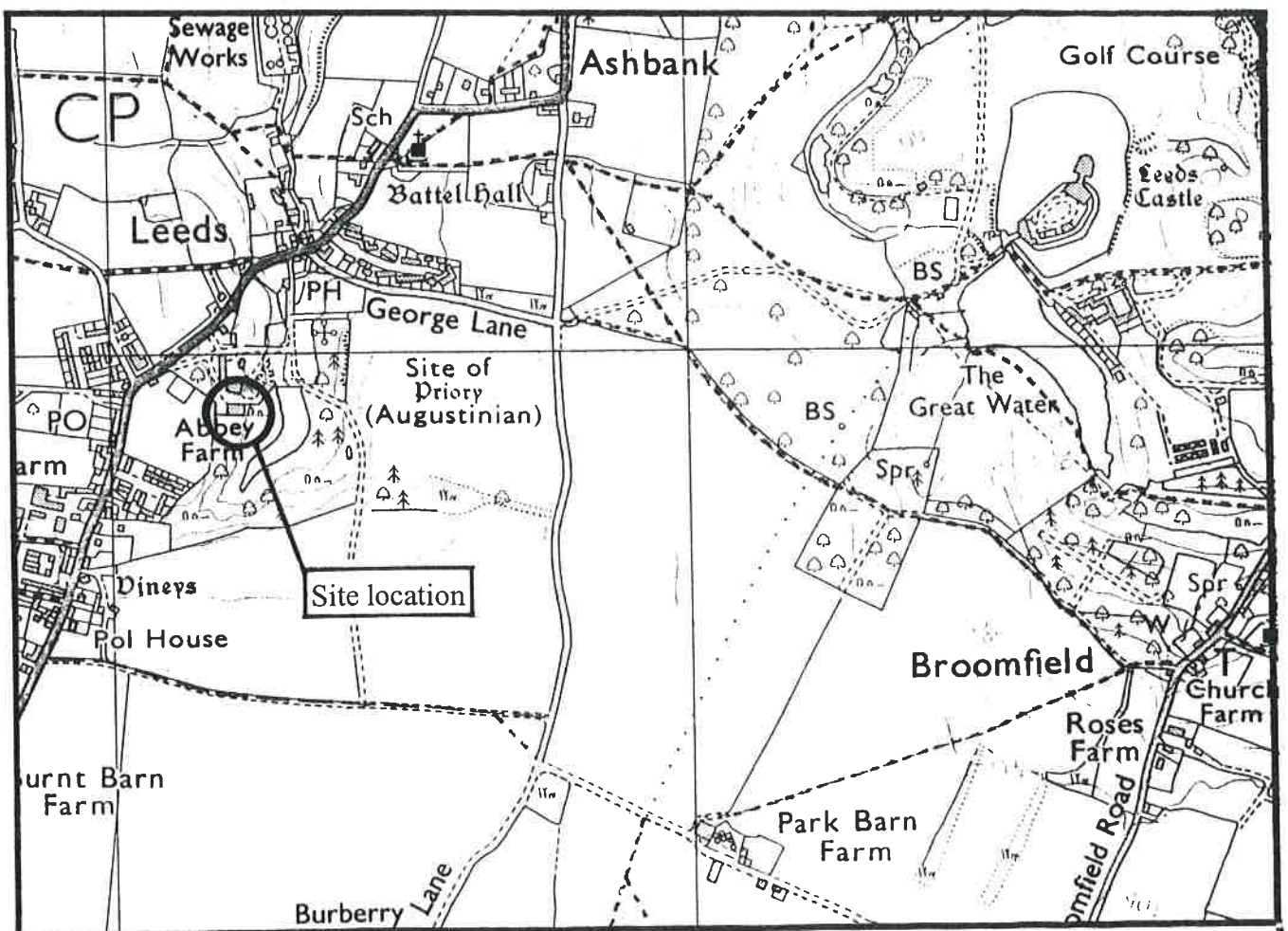
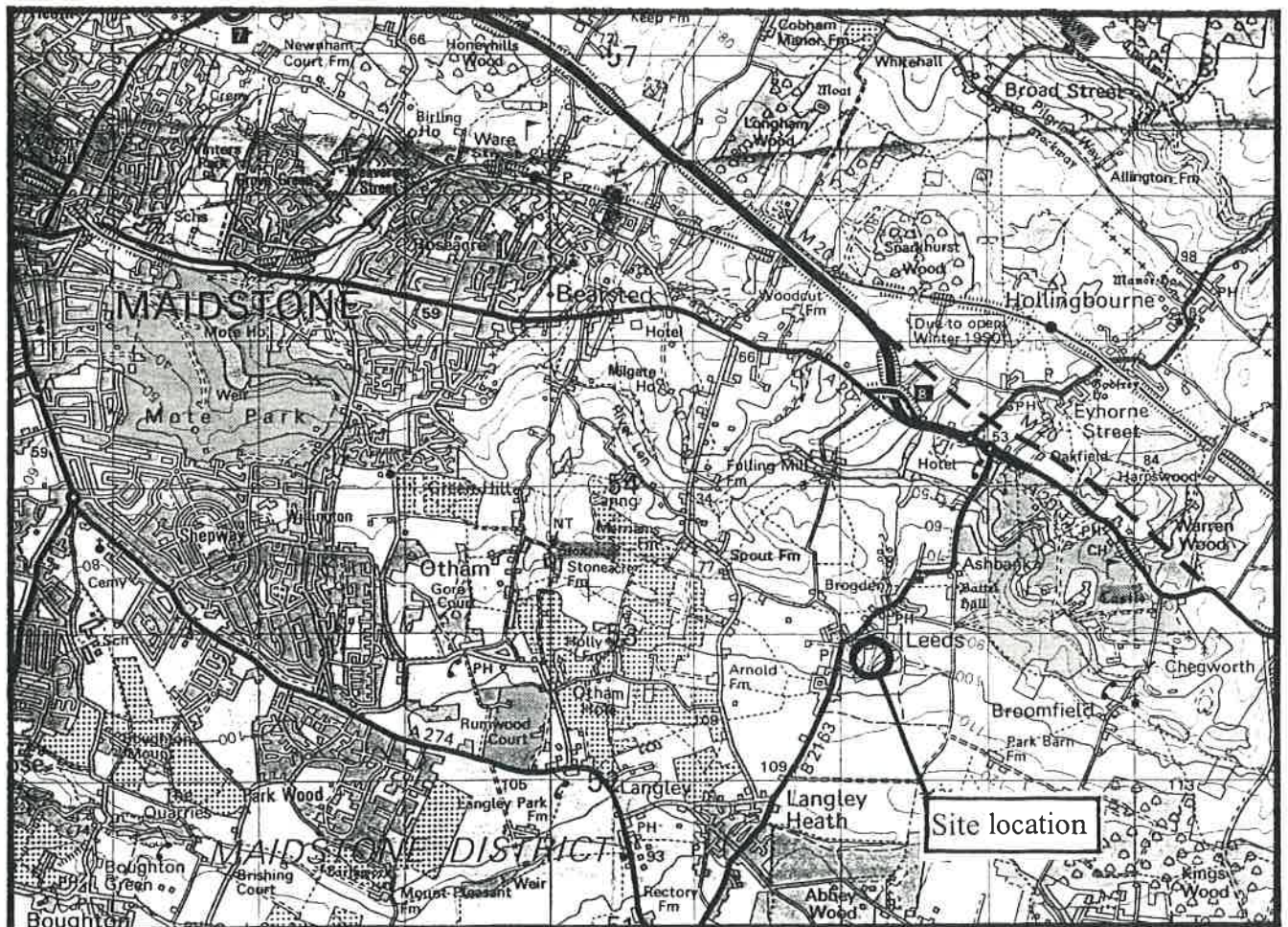


Figure 1: Site location

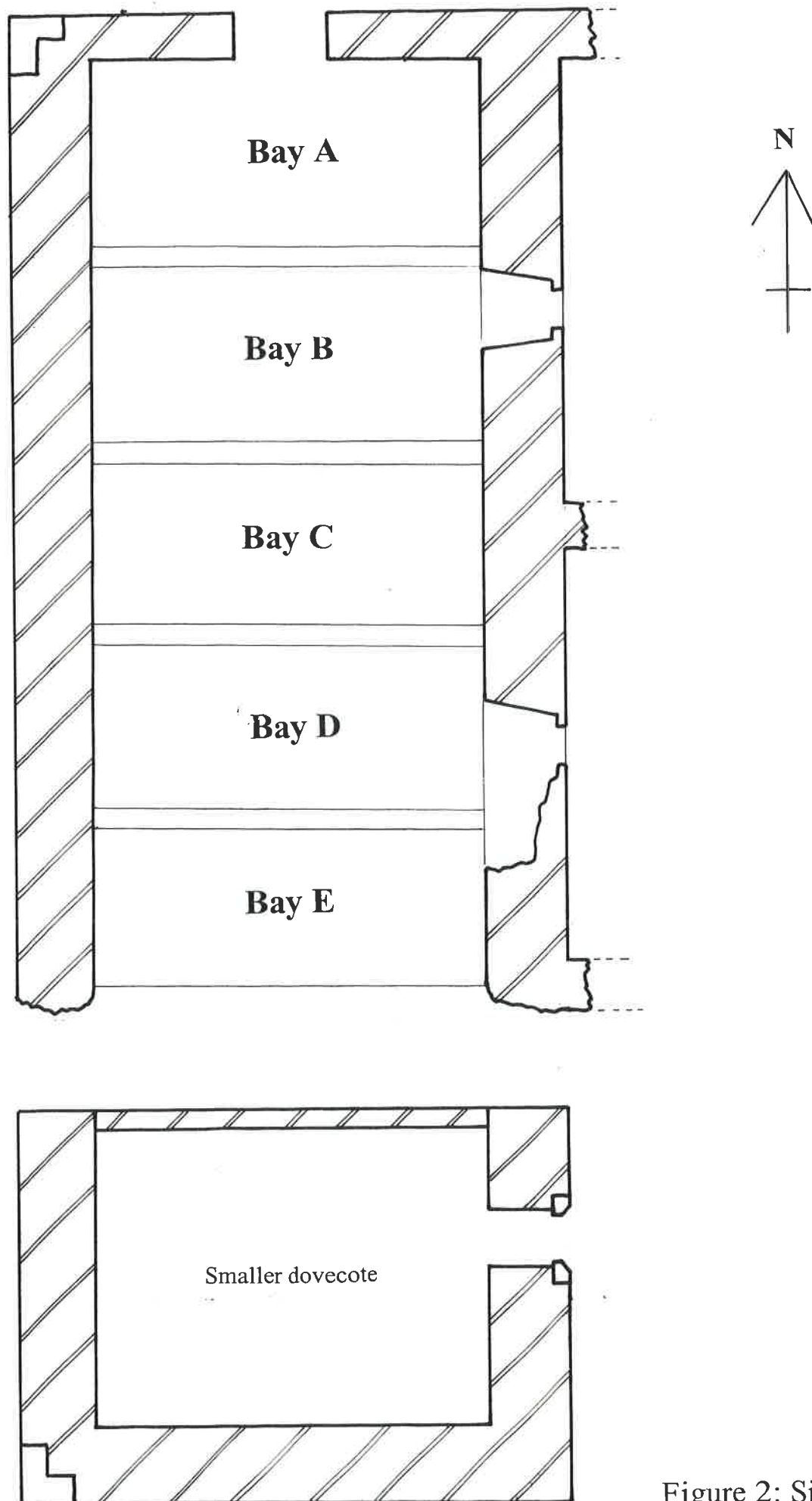
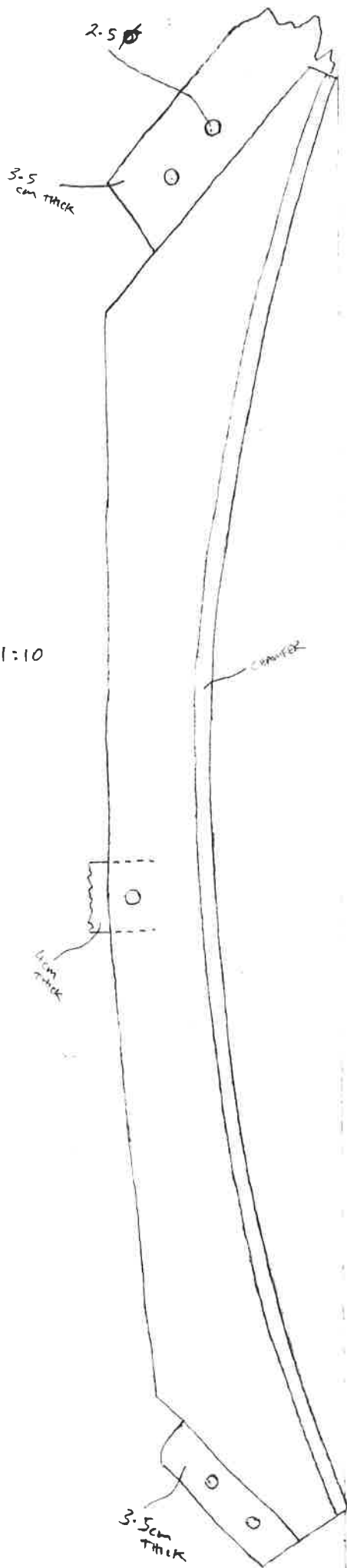


Figure 2: Site plan



B36

ARCHED BRACE

12.5 cm THICK OAK

CONDITION GOOD - 8/10

OTHER ARCHED BRACES - A13, E3, E18,

FIGURE 3: ARCHED BRACE

SCALE 1:10 (AT A4)

B36

B58

COLLAR

SCALE 1:10

21 cm DEEP

CONDITION - 6/10

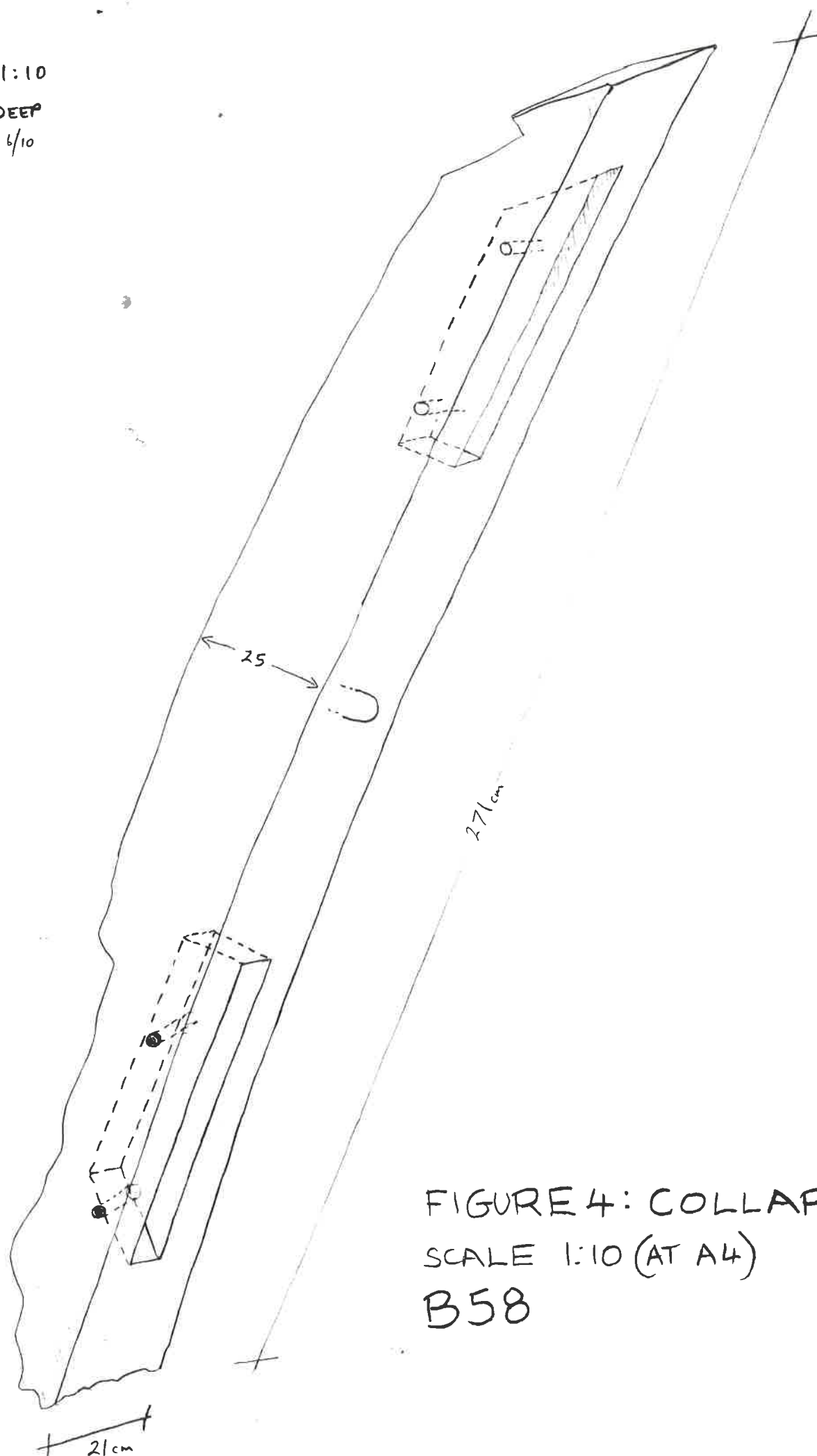
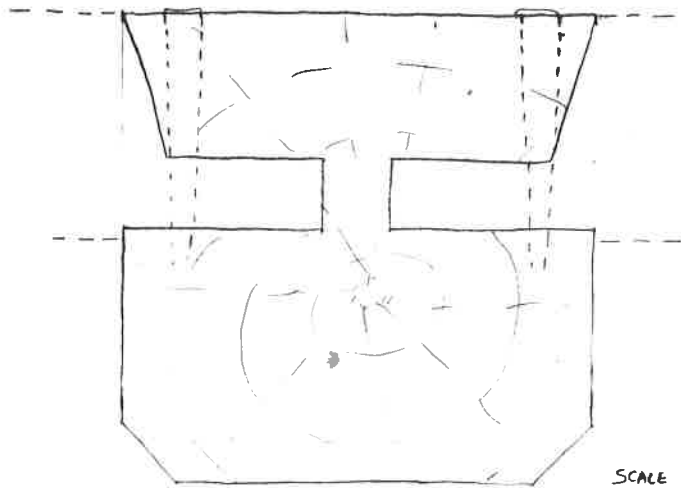


FIGURE 4: COLLAR

SCALE 1:10 (AT A4)

B58



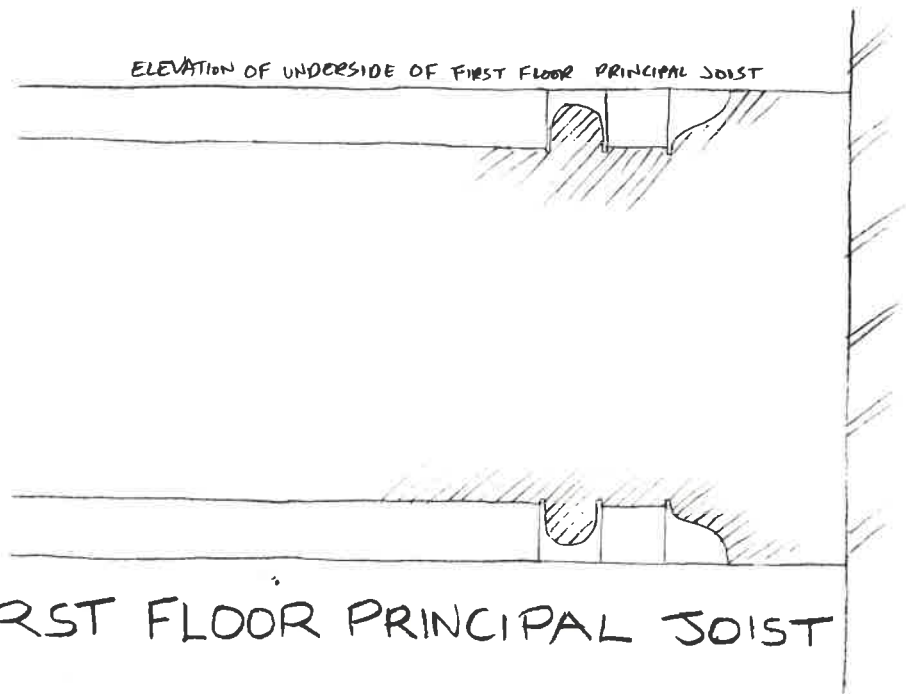
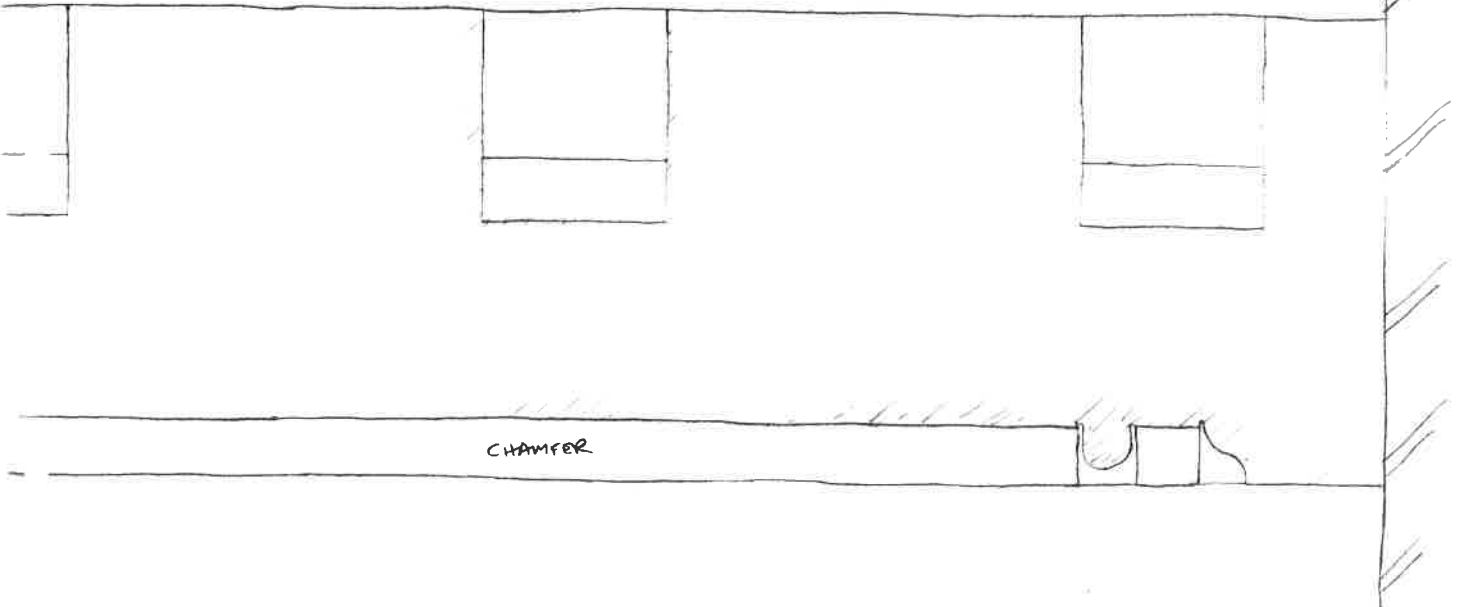
FIRST FLOOR PRINCIPAL JOIST
OAK, PEGGED

COMMON JOISTS AT 39.5 CTR

EACH PRINCIPAL JOIST SIMILAR TO EACH OTHER BUT ONLY
THAT BETWEEN BAYS C+D INSITU + INTACT - THAT
ONE HAS 13 MORTICES FOR COMMON JOISTS
WALL REBUILT BENEATH EACH JOIST FORMIN BRICK
PIER FLUSH WITH PRIMARY BRICK WALL.

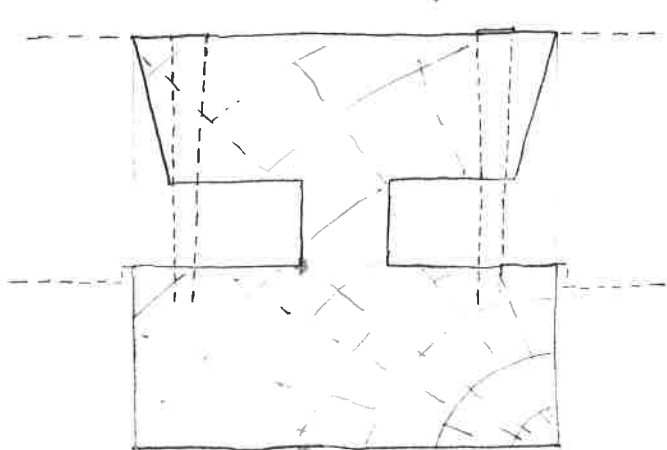
SCALE 1:5 SECTION

SCALE 1:5 ELEVATION



SCALE 1:5

FIGURE 5: FIRST FLOOR PRINCIPAL JOIST



SCALE 1:5. SECTION

SCALE 1:5 ELEVATION

GROUND FLOOR PRINCIPAL JOIST BETWEEN BAYS B+C

COMMON JOISTS AT 44cm CENTRES
OAK PEGGED

ALL GROUND FLOOR JOISTS V. SIMILAR BUT ONLY THAT BETWEEN BAYS A+B INTACT, INSITU + FULLY VISIBLE - THIS ONE HAS 12 MORTICES EACH SIDE FOR COMMON JOISTS

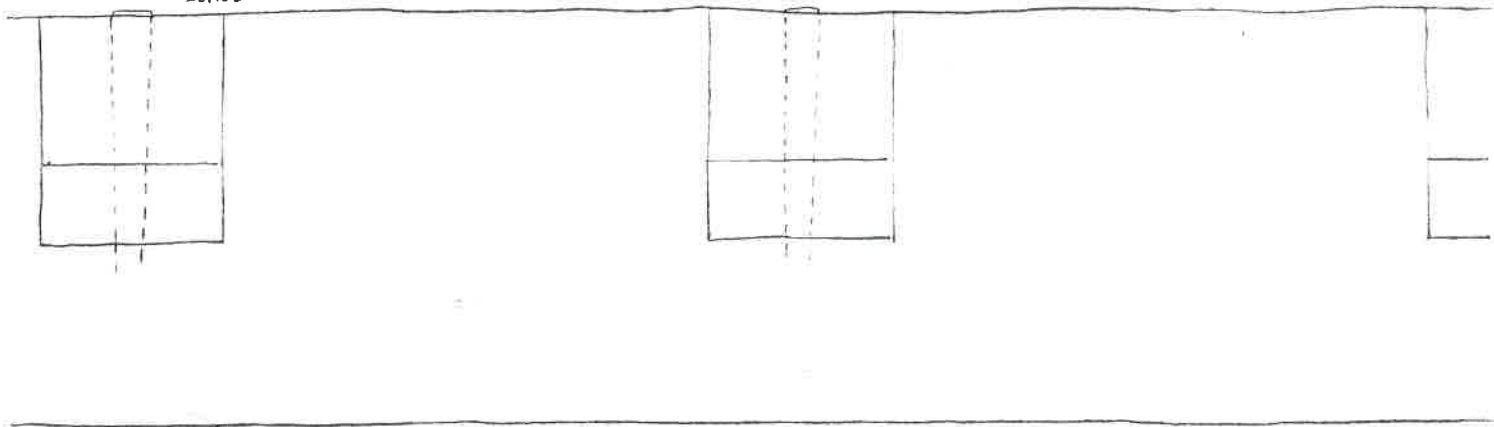
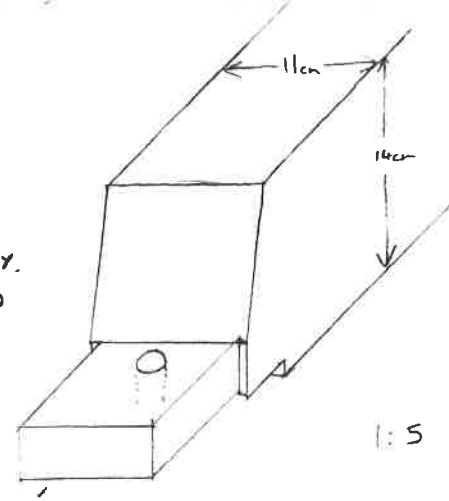
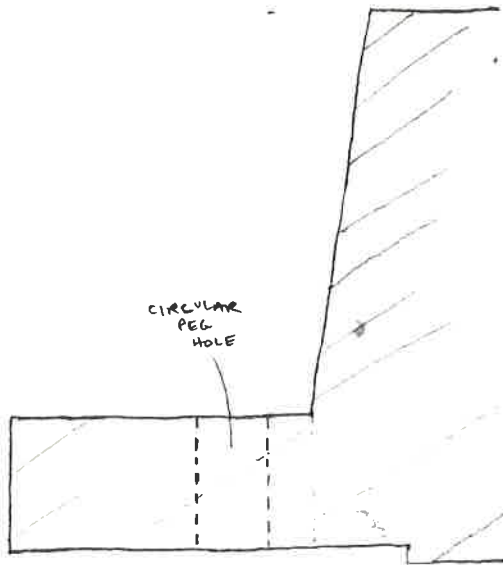


FIGURE 6: GROUND FLOOR PRINCIPAL JOIST

A37.

GROUND FLOOR JOIST AT WEST END OF BAY.
WESTERNMOST JOIST IN BAY. SOUTH END
INSITU, WITHIN MORTICE.
12TH JOIST FROM EAST.
OAK
N. END OF JOIST BROKEN BUT PIECE
247 cm LONG.



B13

1:2

FIRST FLOOR JOIST
NO TENONS FULLY INTACT FOR FFS.
11cm THICK

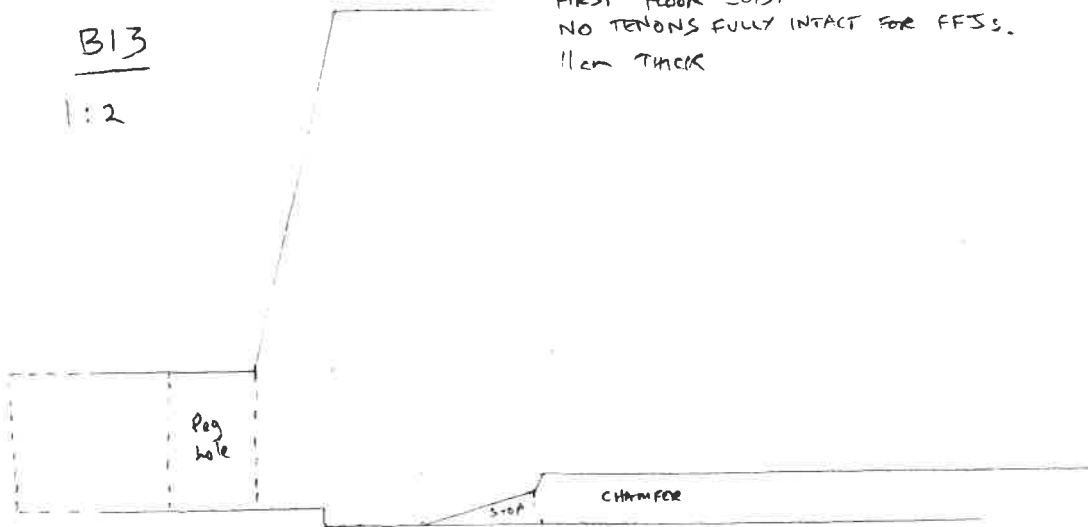


FIGURE 7: COMMON JOISTS

D11

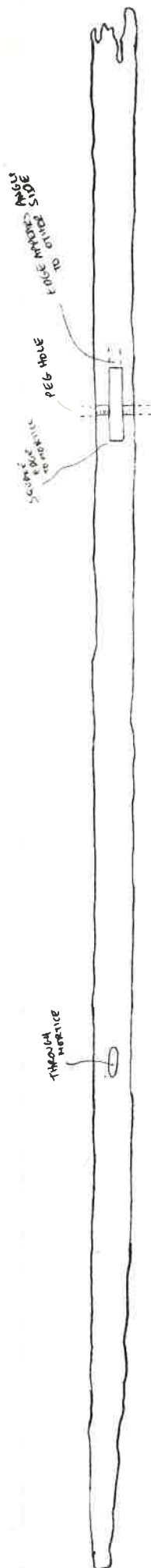
SCALE 1:20

ROOF MEMBER

506 cm LONG

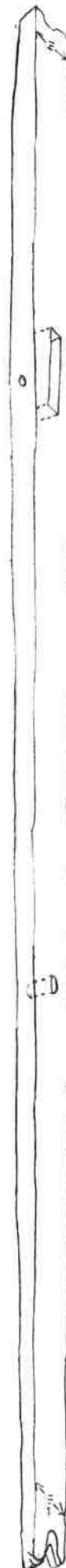
BOTH FACE (KERN) LARGELY
DISINTEGRATED BUT MAXIMUM
EMSTING DEPTH 8cm

① PROB PRINCIPAL RAFTER WITH
MORTISES FOR WIND BRACE + PURLIN?



F1

FOUND OUTSIDE DOVEJOINT, TO E.
515 LONG
RAFTER(?)



MORTISE 8cm
DEEP

Oval HOLE
THROUGH TIMBER

D11

F1

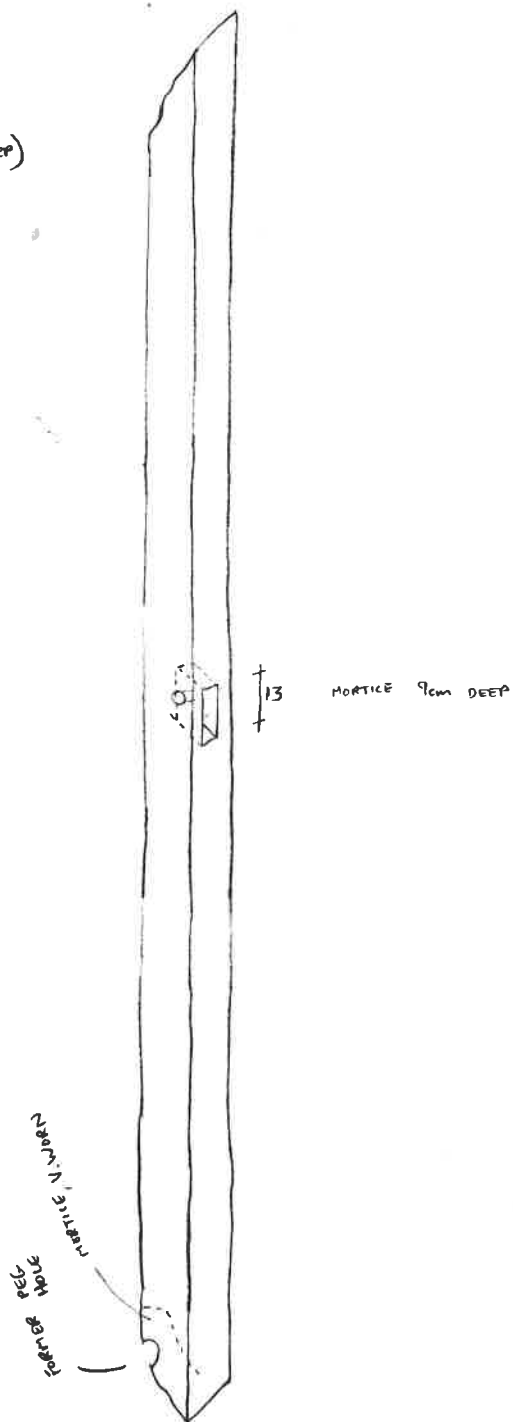
FIGURE 8: PRINCIPAL RAFTERS

SCALE 1:20

E6

1:20

359 x 17 x 15 (DEEP)



C2

14 CM DEEP
SAME CAMBOR
AS COLLAR
NO MORTICES

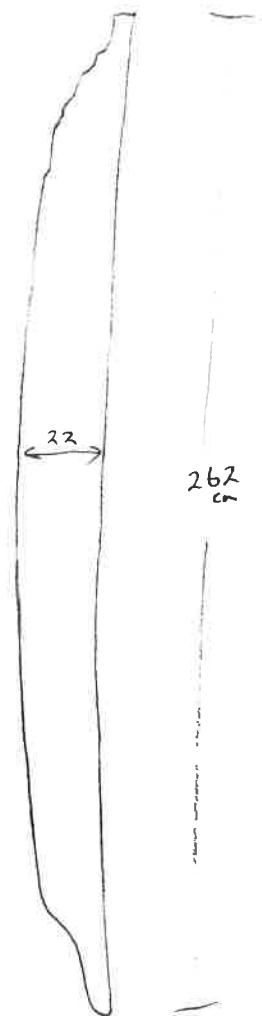


FIGURE 9: OTHER ROOF MEMBERS
SCALE 1:20

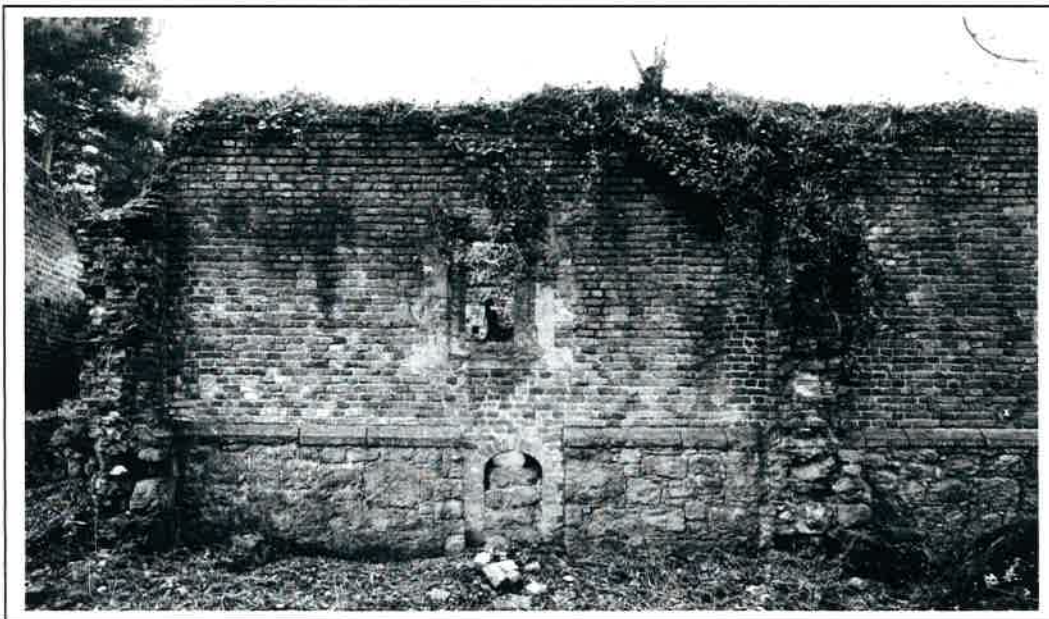


Plate 1: East elevation of larger dovecote showing buttresses and secondary openings
Plate 3: North elevation of larger dovecote



Plate 2: East elevation of smaller dovecote. Note rebuilt corner to left.
Plate 4: Interior of smaller dovecote. Secondary wall to left





Plate 5: Interior of large dovecote before clearance



Plate 6: Interior of large dovecote after clearance



Plate 7: N face of surviving section of wall between Dovecotes exposed by current works



Plate 8: Chamfered underside of first floor principal joist

Plate 9: Underside of collar with mortices for arched brace



Plate 10: Detail of ground and first floor joists

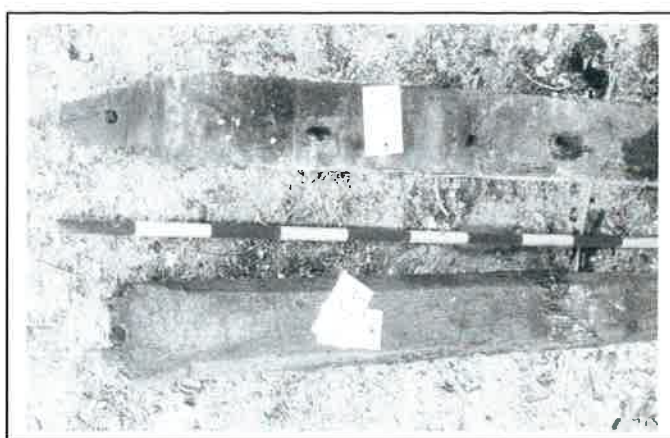


Plate 11: Three collars

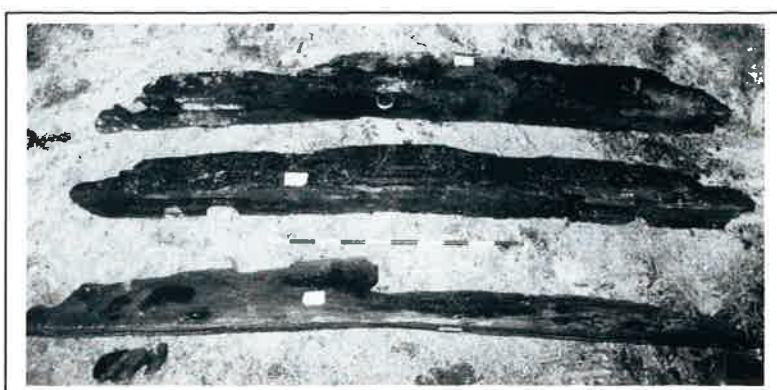
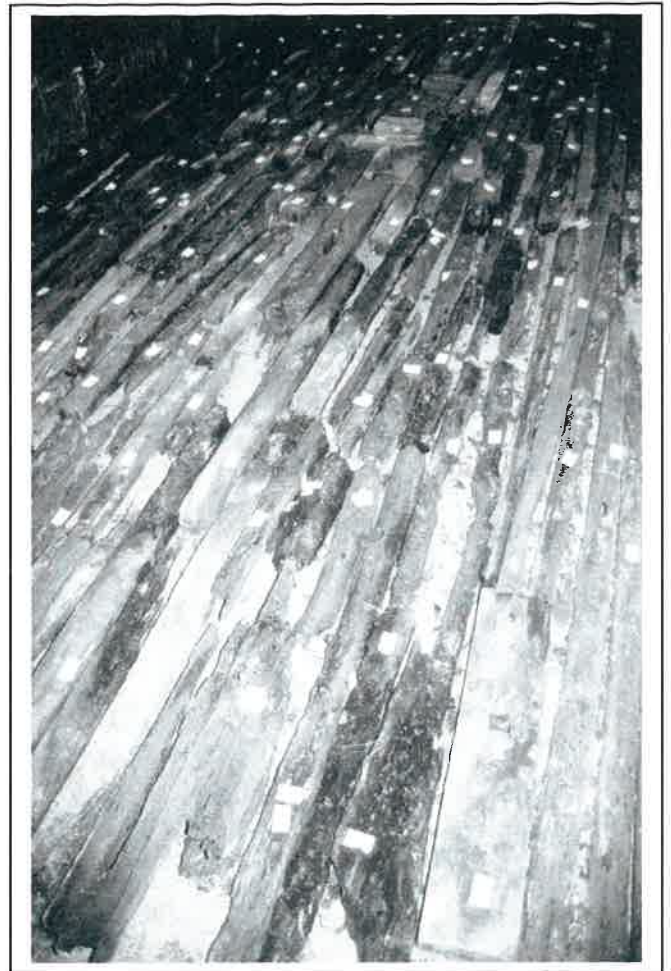


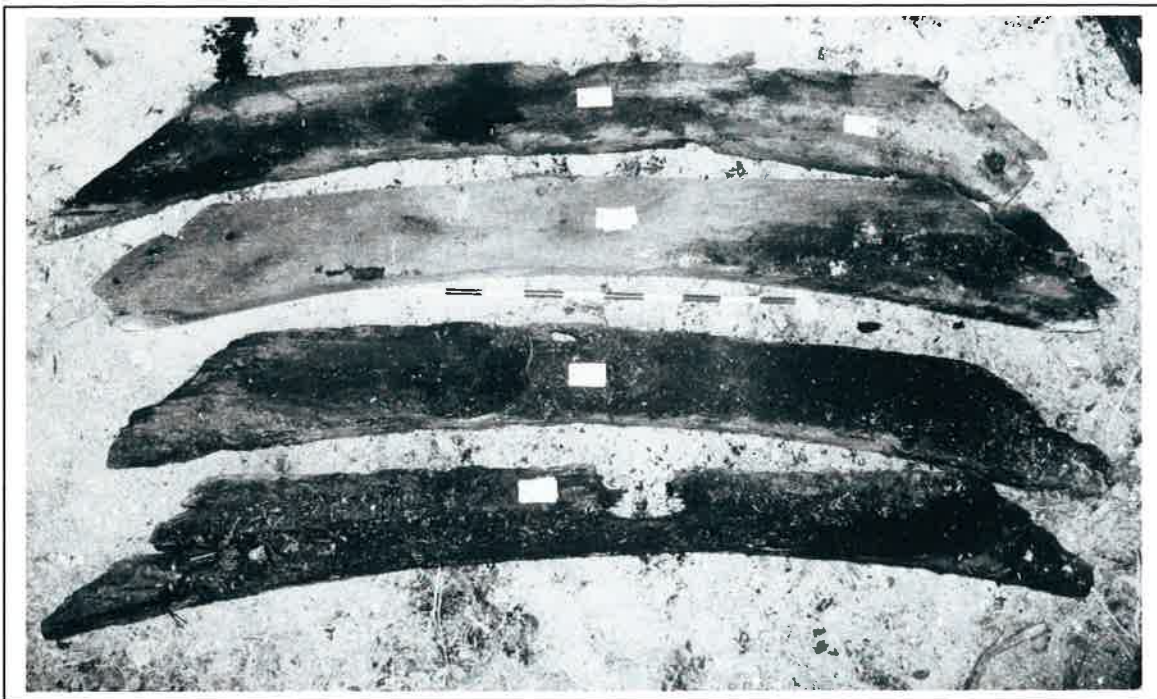


Plate 12: Tenoned ends of arched braces



Plat 13: General view of labelled timbers

Plate 14: Four arched braces





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