

BOXLEY ABBEY, KENT

Some notes by David Stocker following site visits on 11 July 2021

1) Introduction

In the period between 2000 and 2004 Paul Everson and I became very interested in the chapel of St Andrew at Boxley, as a surviving peripheral chapel within the outer perimeter of a Cistercian abbey. Our interest arose because we were then progressing our study of the Witham Valley monasteries in Lincolnshire (a study that began in the 1970s) and which was then building-up to the publication of our major monograph on the 'Landscape of Ritual'.¹ At that stage we knew that such out-lying chapels were of great interest and importance to the study of the origins of Cistercian monastic sites, and our work at Kirkstead (in the Witham Valley) had focussed on the surviving chapel there, now dedicated to St Leonard. As a contribution to the major 2005 celebratory conference, marking the centenary of W G Hoskins, we contributed a paper on such peripheral Cistercian chapels, which was eventually published in the conference proceedings.²

From the literature, St Andrew's Chapel, Boxley, represented an obvious case study for us twenty years ago, and we made unsuccessful efforts to obtain access to the building. Fortunately, our understanding of the building by the notes made, and by conversations with Dr Sarah Pearson (formerly of RCHME & EH), who had visited the building much earlier, in connection with her monumental study of the vernacular houses of Kent. We presume that some, at least of Sarah's notes are still available for consultation in NMRC, though we have not checked. It should be said, however, that our interest in Boxley was largely for what it might tell us about Kirkstead chapel in particular and, as we were unable to make a proper study of it, we published a minimum account – and a plan based on Dr Pearson's notes. We were really just pointing towards it as a potential parallel for the cases at Kirkstead (and at Meaux, Yorkshire East Riding) about which we had much more to say.

Paul Everson and I have continued to explore our interests in the Witham Valley monasteries, including in the Kirkstead chapel, and in 2018 we were invited to take part in a major AHRC-funded research project investigating and comparing the sacred landscapes of monasticism across Britain - led by Prof. David Austin at UWTSO (the 'Sacred Landscapes of Monasticism Project' – SLM). Field work for that project has been drastically affected by Covid, so we have been focussing on those aspects of our study that can be undertaken remotely. Fortunately, the SLM project's work at Kirkstead was always centred on the transcription and analysis of the important Kirkstead Cartulary, by project team member Dr Katy Dutton (University of Leeds), and more of our time has been devoted to Kirkstead than

¹ Paul Everson and David Stocker, *Custodians of Continuity. The Premonstratensian Abbey at Barlings and the landscape of ritual*, English Heritage/HTL, London and Heckington, 2011.

² Paul Everson and David Stocker, 'St Leonard's Chapel Kirkstead, Lincolnshire: The Landscape of the Cistercian Monastic Precinct', *Medieval Landscapes. Landscape History after Hoskins Volume 2* (eds. M Gardiner and S Rippon), Windgather Press, Macclesfield, 2007. 215-230.

was originally envisaged. Several publications are envisaged arising from the SLM project, including a piece focussing on the relevance of chapels to the Sacred Landscapes of Monasticism. The project is due to complete in 2023, but the ensuing publications will (no doubt) not appear until well after that date.

As a result of SLM, then, both Paul Everson and I were very interested indeed to follow SPAB's pioneering rehabilitation project at St Andrew's Chapel, Boxley, and both of us visited the annual field schools separately, on 10 July 2021 and 11 July 2021 respectively. We have subsequently discussed our reactions and thoughts, both to St Andrew's Chapel itself, to the 'Hospitium' and to the site more generally, and we are both keen to help SPAB with their important work at Boxley. This note has been written as a preliminary reaction by one of us (David Stocker) to his visit, in response to a request from Graham Keevill (SPAB's consultant archaeologist). It has not been adequately researched, and represents no more than my reactions to two hours at the chapel and hour at the 'Hospitium'. I have done none of the essential documentary work that will be necessary here, and where I refer to historical facts, they are merely repetitions of ones mentioned to me during my visit. I have may have misunderstood any or all of them, and all will need to be checked.

2) St Andrew's Chapel

Our original information about the chapel – derived from Sarah Pearson's verbal comments and notes – suggested that it is a building of several phases, at least two of which were late medieval. This basic fact was amply confirmed during my site visit, and apparently also by dendrochronological survey. It seemed to me that there were essentially three early phases, two of which were certainly late medieval in date, whilst the date of a third – whilst relatively early - was much less clear and which might belong to a generation or two – or more - after the Dissolution.

Phase 1

This phase is represented by the eastern three-quarters of the chapel fabric. It is a well-constructed building, in what appears to be Kentish Ragstone ashlar, about 7m by about 4m internally. The west wall is apparently entirely missing. I noted that there is no evidence on the north wall ground floor interior for the scar of the return of the Phase 1 west wall, but as this wall is adjacent to the 'post-office' extension of c.1900, it might, perhaps, have been entirely rebuilt. The evidence for the original east wall of the Phase 1 building seems absolutely clear within the roof structure, nevertheless, where the return of the moulded cornice, decorating the inner of the two wall-plates returns very clearly on both north and south walls. This return includes a width for both paired wall-plates.

The Phase 1 roof itself is a simple structure, set over the paired wall-plates, without principals or end-frames. Each rafter has a high, braced, collar, and a wall-strut to the inner wall-plate, giving the roof the form of a simple 'wagon roof'. The roof structure is prevented from 'spreading' by the single centrally placed tie-beam (of greater scantling than the other timbers in the roof), which is deeply moulded below, but left rough above. This tie-beam extends across both inner and outer wall-plates, binding the whole building together. It has

a strut rising from either end on the inside, and the associated rafter behind is almost certainly morticed into its back as well. It is very noticeable, however, that the mouldings on the tie-beam do not match those on the inner wall-plates. Indeed there are unexplained and supernumerary facets at the north end. These details might suggest that the tie-beam itself was originally intended for a different building, and has been adapted for use in this one. The same explanation might also explain the deeply puzzling features at the (present) south end of the tie-beam, consisting of a series of small pegholes. At this end, the beam also appears to be 'reverse jointed' to the inner wall-plate, and the mouldings don't appear to match the other wall-plate mouldings satisfactorily. Taken together, these features may perhaps suggest, both that the tie-beam was not originally destined for this roof, and that it has been quite radically altered at its south end – presumably when the roof was adapted to permit access to the inserted upper floor, although it could have been related to changes made necessary by the roof added over the south corridor in Phase 2 (below). It would be wrong to say that I entirely understood these relationships from my rapid inspection – but it does seem likely to me that the tie-beam was not part of the Phase 1 roof. Presumably such a beam was felt necessary to counteract the roof 'spreading'? This would suggest, then, that the Phase 1 building originally had no tie-beam at all. The original space was neither long nor wide enough to require a tie-beam – and indeed the form of 'wagon roof' used would look more impressive without one, and it could easily be held upright by the two masonry gables at either end.

So, the Phase 1 building appears to have been a high-quality ashlar stone 'box' with a 'wagon-roof'. It was evidently lit by a large window of several lights in the east gable (now blocked in brick), and we might speculate that there was an equivalent window in the missing west gable, both of which would have been able to rise high into the void created by the roof design, without tie-beams. Graham pointed out a disturbance in the coursing towards the centre of the north wall that might indicate a lateral window (of much smaller scale) and one might speculate that there was an equivalent window in the original south wall (now rendered and invisible).

The building may have been entered by at least two doorways. That to the south survives. It is a very nicely cut piece, evidently it remains in its original location, with a simple hollow chamfer moulding with simple 'half-moon' stops set above a complex sub-octagonal subbase. The arch-head is segmental (and may be monolithic?). An equally important detail is the manner in which the very nicely carved hollow-chamfered plinth course, dives downwards to either side of the aperture, terminating in two elongated broach stops. Sarah Pearson thought that access to the phase 1 building included a second doorway in the north wall, opposite that surviving in the south wall. It is not clear what her evidence for that opinion might have been. There may also have been an access doorway in the (missing) west wall. Such a doorway could even be represented by the present west doorway, potentially just shifted two metres westwards, but this feature takes a quite different form from the surviving south doorway, and is more similar to the Phase 2 south doorway within the south wall of the 'corridor'.

But much the most significant apertures in the Phase 1 fabric – which reveal the chapel's primary function and enhance its rarity and level of importance considerably – are the two rectangular Phase 1 'squints' in the eastern parts of the north and south walls. They are

located at about 1.5m above original ground level (i.e. head-height) and have carefully cut stone architraves with simple chamfered reveals. As Graham pointed out to me, the internal reveals of both these squints are canted to the east, making it clear that they were aimed both at casting light on an altar below the east window, and also at allowing the faithful to peer-in to see activity at the altar. Although it is possible that these 'squints' were intended to permit a view of the elevation of the host by the faithful outside the chapel, most recent thinking about such apertures has stressed that parochial examples were more related to synchronising, or sequencing, such elevations between the various altars within a single church building.³ More likely, I suggest, is that the 'squints' at Boxley were intended to give a view (or rather two views) of a reliquary standing on the altar below the east window, and indeed to cast side-light on such a reliquary.⁴ No doubt any such reliquary would be attended by monk/priests, but there would have been a liturgical requirement for them to have been separated from the laity in this manner. As there is no sign of any aumbries in the Phase 1 fabric, presumably the relic itself would originally have been housed in the abbey treasury, or on an abbey altar, for much of the time, where lay access was not permitted; it would perhaps have been brought to the Phase 1 chapel for exhibition on advertised dates – much as the relic of the miraculous statue of the Virgin was brought from the church to the *capella-ante-portas* at Merevale Abbey for display to the laity, before being returned to the safety of the church.⁵

If this is a correct understanding of the liturgical function of these squints, then we should ask what sort of accommodation was offered to the viewing laity on the outside of the chapel? Such people would no doubt have paid handsomely for sight of a reliquary in this setting, and we might legitimately ask whether they were expected to stand in the rain to do so. There is no sign of any masonry structures against the Phase 1 chapel north wall, but it might be worth asking if timber shelters were provided? Given the presence of the squints, and indeed the small scale of the south doorway, it may be that lay access to the interior of the chapel in its first phase was intended to be very rare, or perhaps excluded altogether.

Phase 2

There is abundant evidence that the Phase 1 chapel underwent major alteration during the later medieval period. It seems clear that the liturgical space within the chapel itself was enlarged, apparently by moving the original west wall about two meters further to the west. Again, the fabric of the new west wall is of Kentish ragstone ashlar, and the coursing of the ashlar appears to show that it was extended southwards beyond the line of the Phase 1 south wall, and then returned eastwards around the south-west angle, creating a new south-west quoin and a new south wall to the structure about 2m south-west and south of the Phase 1 south wall.

³ See for example S. Roffey, *The Medieval Chantry Chapel – an Archaeology*, Boydell, Woodbridge 2007, esp Chapter 6.

⁴ Graham told me that the abbey held a relic of the finger of St Andrew, for example.

⁵ John D Austin, *Merevale Church and Abbey*, Brewin, Studley, 1998, 12

This stretch of new south wall included a new west doorway, under a four-centred arch-head (in two stones), and decorated with a continuous simple chamfer, stopped close to modern ground level by a simple triangular fillet. This new west doorway does not have the quality of the simple doorway in the south wall of the Phase 1 chapel. Opening more-or-less directly opposite the latter doorway, however, the new south wall is a second Phase 2 doorway, which led into the long narrow 'corridor' that had been created by the extension. This doorway is narrower than its contemporary in the west wall, but is decorated in identical fashion. The square opening half-way between this south door and the south-west quoin has a recent wooden frame, and it is not clear whether it belongs to Phase 2. The opening does course-in with the original fabric, so might just be missing its stone architrave. The two square windows in the west wall to either side of the Phase 2 west door appear to be later insertions.

The critical question for this Phase 2 extension, however, is its relationship with the two storey rectangular stone-built structure, extending southwards from the east end of the south wall of the Phase 1 Chapel. Graham investigated the critical junction between the new Phase 2 south wall and the west wall of the extension and was impressed how the foundations appeared to be contemporary. He also points out that the coursing of the Phase 2 south wall appears to follow around the return and be maintained on the external area of the west wall. These are both indications that the new south wall was contemporary with the construction of the rectangular stone extension. A good case can be made, then, for understanding this extension as also belonging to Phase 2, although there may be some issue with the dendro-dates? Without seeing detail of the dendrochronology report I can't really comment on such discrepancies, but I do note that the roof of the stone-built extension does not lie north-south - as it surely must have done when first constructed - but it lies east-west, and is structurally an extension of the timber and brick-built building adjacent to its east wall (Phase 3 below). The timber and brick building is known to include a number of re-used materials, and any timbers in the roof of the stone-built extension returning early dendro-dates might therefore perhaps be considered re-used in this location?

The stone-built extension south of the Phase 1 chapel is a remarkable building in its own right. With an interior space on both floors of approximately 3.5m by 1.5m, it was small. It was probably accessed from the eastern end of the Phase 2 southern corridor, though that junction is not currently visible, and it certainly had a doorway leading out from the ground floor of the extension into the eastern bay of the chapel, presumably alongside the altar under the east window. This doorway – under a four-centred arched head (like the two other Phase 2 doorways) - seems to sit in an area of disturbed masonry, confirming the supposition that it belongs to Phase 2 and not Phase 1. Accordingly it is moulded on the side facing the chapel with a continuous hollow chamfer moulding, with simple 'half-moon' stops. The rerearch is not really visible, as it has been converted into a cupboard when the doorway was blocked. To the immediate west of this doorway from the extension into the chapel, the extension has 'enclosed' the southern of the two Phase 1 squints, that gave a direct view of the chapel altar. Whereas in Phase 1, this 'squint' presumably gave a view from the exterior into the Chapel (like its fellow in the north wall), in Phase 2 it offered an occupant of the lower chamber of the stone-built extension the same view. The first floor of

the extension was also given a 'squint', also with a canted eastern splay, from which the chapel altar could also be viewed from that chamber.

Clearly, then, the stone-built extension was intended to function, in part, as a 'watching place' from which the chapel altar could be observed. It is very tempting to see this exceptional extension as accommodation for a monk/priest, whose duties included supervising the proposed 'shrine', postulated in Phase 1 as standing on the altar. Further evidence for such a function is provided by the southern window in the first floor of the stone-built extension, which also has a canted eastern jamb, presumably to offer light towards the focus of a small altar, perhaps forming part of an oratory against the east wall. Presumably the ground-floor chamber was accessed from exterior via the eastern end of the corridor along the south wall, whilst the first floor was accessed by a small staircase, or perhaps a ladder. Whether the recent timber-framed window in the west wall at ground-floor level replaced an original window in this location is unknown, but there is no sign of any opening in the south wall at ground-floor level. The first floor was lit both by the rectangular window with the canted eastern jamb in the south wall and a similar window in the west wall. The latter window has a metal grille of some antiquity, which might represent a security measure – or perhaps a gesture towards denying exchange between the monk/priest and the laity outside.

Phase 3

It is a great misfortune that the structure of the east wall of the stone-built extension of Phase 2 is not (yet) available for inspection and recording. There might have been a Phase 2 window at first-floor level, related to the putative oratory in the stone-built extension. But eventually, study of the fabric of this wall will surely address the most puzzling components of the present structure – the timber-framed building that has been placed against the east wall of the Phase 2 stone-built extension. The western gable of the stone-built extension shows clear signs that the east-west roof, that now encompasses both the Phase 2 stone-built extension, and the timber-framed building to its east, is rebuilt. Stratigraphically, this would suggest that the stone-built extension is earlier in date than the timber-framed structure, but fortunately there are other clues for such a sequence also. For example, the west-facing gable of the stone-built extension has clearly been raised in an inferior rubble-built technique that evidently represents a second phase in its life, and, furthermore, this gable is the only part of the earlier phases of the chapel that includes any brick. The brick used in the new gable seems to be of similar type to that used - quite liberally - in the timber-framed structure itself.

The timber-framed building is literally leant against the east wall of the stone-built extension, in a manner that also must surely suggest that it is secondary. There are no corbels to support the first-floor rail, as one might expect, had the timber-framed building been intended from the start. But more conclusively, the nicely shaped chamfered off-set to the plinth along the east wall of the stone-built extension, for example, has been crudely hacked-off. On the south wall, the damaged area below the plinth has been crudely packed, in order to achieve a flush joint between the timber-framed structure and the earlier stone-built extension. Additionally I've already mentioned the crude addition of the rough rubble and brick gable to the fine ashlar of the west wall of the Phase 2 stone-built extension,

specifically to accommodate the east-west roof over the timber framed structure. This appears to indicate that the entire roof of both the stone-built and the timber-framed extensions is later. The original roof of the stone-built extension in Phase 2 would surely have been oriented north-south?

The timber-framed structure represents a building with a jetty along its south wall, the bressumer of which has been very crudely underbuilt in rubble and brick - the brickwork being confined to the western end of the wall, where a precise fit with the stone-built extension was required (another feature suggesting that the timber-framed building is secondary). This underbuilding in rubble and brick along the south wall contains a fine, large, three-light stone window, below a rectangular hood-moulding; each light having a two-centred arched head, above double-chamfered mullions. This window also shows some signs of having been re-used in its current location. It is certainly rather difficult to reconcile the high-quality stone-work of the window itself with the very poor quality of the masonry that surrounds it in the underbuilding.

The upper floor of the south wall of the timber-framed structure, between the externally expressed corner posts, and above the bressumer of the jetty, appears to have similar regular brick noggin to that on the ground floor of the north wall. The bricks are hand-made and early in date. Centrally placed within the noggin is a substantial stone-framed window with a square head and a simple chamfered reveal.

To the north of the underbuilding, the east wall of the timber-framed structure is entirely rendered. A more recent brick-built chimney stack has been constructed against this rendered east wall, servicing small fireplaces on each internal floor. Whether the modern stack replaced an earlier one is not known.

The north wall of the timber-framed structure has no jetty and the frame is clearly visible, consisting of substantial corner posts rising from a cill-beam to a wall-plate, with an intermediate rail supporting the first-floor, and intermediate posts at the midpoint. I did not see the roof of the timber-framed structure. The brick noggin in the north wall of the frame survives in good condition. There is a row of diagonally-placed bricks towards the west end of the north wall which indicates an aperture or other feature at this point, but the wall above is rendered, making the purpose of this feature obscure. It does not appear to represent a lintel, and the feature which it accommodated was evidently at first-floor, not ground-floor, level. Could it possibly represent something like the threshold of an upper doorway, accessed by an external timber stair? The upper part of the north wall remains rendered, so no detail was visible.

It appears to me that the entire timber frame structure, probably along with the impressive, three light window (and possibly also the single light square-headed window above it) have been brought here from somewhere else to be added to the east side of the stone-built extension, in order to more than double the size of the accommodation in the building to the south of the chapel proper. I understand that the dendrochronology dates from the timbers in the roof of this structure indicate a felling date in the fifteenth century, somewhat earlier than the timbers of the timbers of Phases 1 and 2? I would suggest that is not a problem for this understanding, as the frame (and presumably the roof as well) seem

to be re-used in this location. I would be interested to know whether any of the timbers dated somewhat later, possibly indicating repairs/insertions into the original roof and frame at the time it was re-erected here?

Phase 4

The building obviously underwent many alterations from the sixteenth century to the twentieth, which I'm afraid, I have not really thought about. The most significant was the insertion of the brick stack within the former chapel itself, which presumably went along with the flooring-over of the chapel space to create a first floor. In order to access this new first floor, a staircase was presumably created on the line of the existing one within the southern corridor. Frankly I did not understand how this related to the apparently re-used tie beam. The tie-beam might have been re-used in an earlier phase of the building than the insertion of the stair-access to the inserted first floor, but further observation would be required to confirm that. A rather attractive A&C extension was provided to the north of the north wall, towards the west end, apparently to accommodate the Post Office around 1900.

Conclusion and Context

Simply from my detailed inspection of the fabric, and from my conversations with Graham about his observations and results, this appears to be a four-phase structure.

The first phase represents an intriguing freestanding chapel, perhaps with a rather specific function of displaying one of the abbey's prized relics to the laity (no doubt in return for offerings). The will of St Thomas Bourchier (1512 – see below) probably suggests that the chapel was already associated with St Andrew by his time – and I was told that the abbey had a relic of St Andrew, that could have been brought to the chapel for showing at pre-arranged times. I was also told that the broader street to the west of the chapel was a market space in the late-medieval period, and so would have provided a substantial reservoir of potential visitors to the chapel.

But, in concept, the chapel might be thought similar to the so-called 'Slipper Chapel' at Walsingham, where relics are also thought to have been displayed. But the fabric of that building has been so restored it contains few if any comparable features to the Boxley building. That comparison reminds us, however, that it might not have been merely visitors to the street-market who visited relics here, but it might also have provided a station on the pilgrimage route to the miraculous rood within the abbey church itself, as was the case with the Slipper Chapel on the pilgrimage to Walsingham. At all events, St Andrew's is a rare building type, and of very great interest (not least to the SLM project).

I did not make a note of any of the dendro-dates for the chapel rafters, but I would suggest that they might offer a date for the first construction of this Phase 1 chapel. (NB not the tie-beam, which shows signs of having been re-used from somewhere else – see above)

The Phase 1 chapel evidently functioned successfully, and it seems likely that the Phase 2 alterations had two aims: to expand the size of the chapel building to the west, and to add accommodation for a resident monk/priest to the south. This accommodation also represents a structure of great rarity, though there are a number of similar structures

attached to parochial chancels in the Midlands, which were erected to serve the accommodation needs of resident chantry priests.⁶

At Boxley, it is extremely tempting to associate these Phase 2 alterations, and the provision of the on-site accommodation, with the establishment of a chantry at St Andrew's chapel by Sir Thomas Bouchier under his will of 1512.⁷

Unfortunately, I'm not sure which timbers could be tested by dendrochronology to establish any such connection, or otherwise. It might be that the re-used tie-beam represented an insertion of this date, but – as it was re-used – it will not return a helpful date. The architectural details of the doorways in the west and south walls would be perfectly acceptable for a date around 1512, but they are too simple to make very precise dating possible.

I believe that all indications suggest that the timber-framed structure east of the Phase 2 stone-built extension represents a subsequent phase of construction – a Phase 3. I suggest that the entire frame was brought here from somewhere else locally, along with other spolia, including the three-light window. What had been a jetty on its original site was underbuilt when it was re-erected here, and the re-used three-light window was inserted in the south wall. In contrast to the work of Phases 1 and 2, the quality of workmanship on this Phase 3 extension is poor. But it does appear to be the first time that brick was introduced into the site.

The very fact that the end-result of the timber-framed extension was to expand the domestic accommodation south of the chapel by two thirds (something which would be unexpected in a monastic context) might suggest that Phase 3 belongs to the post-Dissolution period. It may be that the timber frame itself, and perhaps the three-light window also, were former monastic buildings that have been re-purposed here. We should also note that the brickwork used as noggin within the timber frame appears to be of a similar character to that used to block the former chapel east window – also implying a post-Dissolution date for the timber-framed structure.

A more major structural question is whether the timber-framed extension to the former stone-built domestic accommodation was contemporary with the flooring-over of the chapel itself and the insertion of the central stack. In the absence of any timbers that are obviously shared between the two structures, the only clues might be revealed in a detailed comparison between the brick sizes and petrology in the noggin and in the stack. Obviously, the flooring-over of the chapel should imply that it was undertaken after the Dissolution of the Chantries in 1546, though it could have been undertaken a decade earlier. But equally such a major conversion of the late-medieval chapel could represent work from almost any time during the following century.

3) The 'Hospitium'

⁶ Paul Everson and David Stocker, 'The Rector's Gift. Integrating church development and village landscape at Car Colston (Nottinghamshire) and elsewhere', *Church Archaeology* 18, 2014, 67-84.

⁷ Everson and Stocker 2007, note 2 above, 226-7, with refs. There.

I was shown around the magnificent building known as 'The Hospitium' on 11/7/21 by Graham Keevill, Nick Hill and Matthew Slocombe. It was a much less detailed inspection of the building than had been possible at St Andrew's chapel and, whilst it was not possible to reach firm conclusions on the basis of a mere visual inspection, it seems abundantly clear to me that the building is not a monastic 'hospitium' of any sort.

Observations

- This is an impressive long range, oriented east-west and built in a soft yellow stone in a coursed rubble technique. Architraves are all cut in a grey stone, which might be Kentish ragstone.
- The facades are quite different from each other. The south façade presents a regular display of square-headed windows, on two floors, along its entire length, but there no sign of original access from this side.
- The western façade is also impressive, with pairs of broad lancets (at three levels?), and a string course marking first-floor level.
- The north façade is the most altered, and betrays many phases of insertions and alterations. But, even so, it appears to have been set out originally with a regular arrangement of doors, and windows on two storeys. Occasional windows are broad lancets (comparable with those in the western façade), but most are square-headed, like those in the south façade.
- We did not inspect the east façade, but internally it seems to retain only two open windows with square heads. Given the extensive modifications to the roof at this end, this façade might have been substantially altered from its original medieval form.
- The magnificent roof survives over the western and central parts of the structure. It is of similar 'wagon' design to that over St Andrew's Chapel in Phase 1, but it is enormously larger, of course, and it includes very substantial tie-beams, which are likely to be original to the design in this case (unlike at St Andrew's). The eastern part of the roof has been entirely replaced by a strange alternative design that dispenses with the high, braced, collars of the original in favour of massive 'crown-posts' that rise from the tie-beams to the ridge, and support two unfeasibly long diagonal braces that themselves support principles and trapped purlins. A third trapped purlin is supported by diagonal braces rising directly from the tie-beam itself.
- The three surviving original doorways in the north façade are set below two-centred masonry arches of considerable width. They are decorated with a simple chamfered reveal, but apparently without a formal 'stop' (?). The approximate symmetry of the building might suggest that a fourth such doorway was replaced one of the large barn doors, to the east of centre? These original doors are of greater width than would be necessary for pedestrian access alone, and would have accommodated small carts – possibly hand-carts. Superficially, they might appear to be of C14 or C15 date, but they are so simple and functional that an accurate dating on such grounds is not really possible.
- A critical feature when considering the function of the western part of the building is the clear evidence for an original aperture at ground level in the western-most bay, now blocked, which may have accommodated a 'launder' – a wooden water channel

- that conducted a substantial flow of water through the building. We did not check the south wall to observe any evidence for an exit from the building on the south side. Nick Hill reported that there was a strong spring in the field just to the north-west, which presumably indicates the original source of the water.
- Inside the westernmost chamber, Matthew noted what seemed to be a 'stance' for a large cask or vat outlined in the stonework of the floor, immediately to the east of the line of the putative 'laundry'. This chamber evidently had a substantial floor at first floor level, that might have been divided from the first floor in the next chamber to the east.
- The next chamber to the east has a remarkable over-engineered floor, with thick close-set posts carrying braces in north-south directions. The upper floor within this chamber required a substantial weight-bearing capacity.
- The two western chambers appear to be divided from the large eastern chamber by a stack of internal spaces from floor to roof-ridge. Whether these are original or not remains to be established.
- Unlike the two western chambers, the large space to the east of the stack of internal spaces appears to have been 'cleared-out' for agricultural service and is open from floor to roof-ridge. The easternmost part of the roof has been replaced (above) and, apart from original doorway and windows, the only obvious historic features are the external chimney stack applied to the north wall towards the east end. This feature appears to be integral with the fabric from the exterior, but internally, at ground-floor level, a brick relieving-arch above a lintel, might suggest that it was an inserted feature.

Understanding

- 1) saw absolutely no reason to think this magnificent building played any part in Cistercian hospitality. It has none of the domestic features that might be expected in such a structure – it appears to be some way from the inner gate, from where the Rule demanded that hospitality was organised.
- 2) To the contrary I saw some good evidence for an industrial function or functions. First, the building appears to form the southern boundary of the monastic outer court – where such functions as malting, brewing, baking and fulling typically occur. Milling might also be a function worth considering, but the water-supply from the spring to the north-west may not have been great enough to make this practical, and it is more likely that the abbey mills were located on streams further south.
- 3) In particular, I was impressed with some fugitive evidence that might suggest that the western part of the building had been a maltings complex. The western two bays appear to have the following features:
 - a) A fresh water supply running through the building in a laundry
 - b) A 'stance' for a large vat or tank
 - c) A greatly over-engineered first floor designed to take great weight
 - d) Broad access doorways, which would allow cart-access
 - e) Several (all?) the windows in this part of the building have rebates for shutters, and (external to the shutters) metal grilles.

Taken together, these features indicate to me that this end of the building might have been used for malting. A good supply of fresh water is required to steep the

grain, in large wooden vats, standing on the floor. The grain might have been stored on the floor above and 'dropped' into the vats through trap doors (requiring a strong floor at the western end, as well as over the next bay to the east). Having been steeped, the grain then needed 'couching' – i.e. spreading thinly across impermeable floors, usually lined with clay, so that they could be raked and turned. During this whole process light has to be carefully controlled (hence the need for shuttered windows). The couching is most likely to have been done, or at least started, on the ground floor, but the enormously over-engineered first floor in the second chamber to the east might suggest that couching also took place at first floor level.

If this is a correct understanding of the building, the next chamber to the east again should have contained the kiln for arresting germination. This would have been a low-temperature kiln, and it would have been fed from the 'top' – i.e. from the over-engineered floor. The site of the putative kiln might be marked by the 'stack' of floor-to-roof-ridge spaces between the two major subdivisions in the building.

Nick Hill mentioned that there were monastic records indicating the sale of enormous quantities of malt in the C15 – perhaps in the street-market to the west? Tax has been paid on malt since 1644, and thus maltings are usually provided with grilled windows. If the grilles on the windows in this part of the building do date from so late in the post-medieval period, this would suggest that malting continued here long after the Dissolution. But it was not unusual for such monastic industrial functions to continue in secular ownership long after the monastery had been dissolved.

- 4) I was unable to see any details that might indicate the function of the eastern part of the building. But if it's true that the western part was devoted to malting, then the eastern part might have included the monastic brewhouse.