Trench 1 Sector C

Summary

The Eastern wall of the earlier Chapel showed under the existing east wall of the Chapel. There also seemed to be the remains of an eastern annex, linked with that earlier structure, extending to the east. Just south of these structural remains a burial was discovered lying west-east with its head close to the Chapel wall. This stone-lined grave had been disturbed by a second west-east burial whose skull was found over the feet and lower legs of the earlier burial.

Sector C: The Contexts

Upper layers, including mortar floor

Excavation of a trench c 1m wide around the exterior wall of the chapel (Trench 1), begun with machine removal of surface topsoil, was extended by hand along a 6m length of the trench in Sector C, along the east wall of the chapel.

At the northern end of the resulting layer (1000) (areas A to E), topsoil removal was only about 0.10m in places. Here a stony surface was suggestive of a path trending SW-NE, bounded by stiff clay on the north (area B), and on the south by rubble associated with the buttress footings, plus limestone and mortar rubble in area C. A damp area of dark brown/black, more clayey soil against the chapel appeared similar to an area against the chapel footings at the eastern end of Sector B (i.e. in the corresponding angle between the chapel wall and the NE buttress). Finds were slight, but included a fragment of dressed limestone (possibly from a corbel table), 0.20m x 0.08m.

In the southern part of the sector (areas E to J), topsoil removal was taken to a depth of up to approximately 0.30m. Here a rubbly area was revealed in the centre of the sector (areas H and G), with a mortar floor to the north and an exterior area to the south which remained largely unexcavated. Area F had the feel of more loosely deposited material. Area G was darker and so was Area H III. The darker soil, the contamination, and the presence of a fragment of human skull, and other pieces of bone, were suggestive of burial(s).



Figure 38 Upper layers of Sector C: looking WSW

Overall, about 40% to 50% of the gritty, silty, sandy material removed in the southern part of the sector was accounted for by limestone rubble and another 20% in roughly equal amounts by stones 0.2-0.05m in size and mortar fragments up to 0.05m. Fragments of human bone were consistently found in the centre of the sector together with the concentrated rubble. Other finds included clay pipe stems, glazed post-medieval pottery, slate, and a single medieval sherd.



Figure 39 Excavation of slot underway: looking west

Trowelling of context (1000) revealed an underlying layer in the centre of Sector C (1001) composed of limestone rubble (principally six larger pieces of limestone fragments of up to 0.20m across) which totalled about a third of the whole, building material

including red floor tile, gritty sandy silt, and some fragments of human bone (Sections 110, 111; Plans 1.1, 1.12). In the uneven base of the slot, together with stone fragments and disturbance, e.g. bones and roots, were medium to large pieces of limestone, the largest appearing to be worked, aligned slabs with mortar accretions (see Sketch Plan 1001·01). This layer is interpreted therefore as an area of disturbed building material, gravel fill and surfaces contaminated with drainage grit, over and disturbing remains of a structure on the north and a grave to the south (for both see below), with the edge of an exterior surface to the far south of the slot. The layer was evident across most of this area of the trench except for a band approximately 0.90m wide, north of the mid-point of the east wall. Here a rather different layer (1002) was exposed, characterised as a possible mortar floor (Sections and Plans as (1001)). This floor, 80% pebbles and 20% limestone/mortar, extended north to the NE buttress and may be related to an earlier structure or perhaps represents make-up over the footprint of an earlier structure, much disturbed by later work. See comments on layer (1029) below.

A slot was opened in (1001) immediately south of the mortar floor, which revealed a very disturbed layer of brownish grey material (1010), 60% silt plus coarse sand and clay and sand lenses (Plan 1.12). Within this layer were a number of other smaller limestone fragments, a little floor-tile, some pieces of gryphea, and human bone fragments amounting to about 3% of the whole.

West of two large pieces of limestone (?rubble), 0.23m and 0.28m across respectively was a dark brownish-green deposit of thick, sticky clay (1009) which looks likely to be the fill of a posthole socket [1011] cutting into (1010) (Plan 1.12) and part-lined with gryphea. The latter possibly represent packing around the edge of a posthole for a central scaffolding post relating to the construction of the existing, or an earlier east wall of the chapel.



Figure 40 Skeleton 1 emerging: looking west

Grave of young male

Revealed during the removal of layer (1010), and found to be cutting into it, was the cut for the grave of a young male, Skeleton <1> [1017] (Sections 110, 111; Plans 1.4, 1.12, 1.14, 1.16) – which also cut into the clay of the foundation trench of the chapel wall (1018) (see below). The cut for the burial was rectangular with a rounded head on the west. There was evidence of stone lining on the south and the north of the grave was bounded by mortared limestone courses associated with an earlier structure. The grave fill (1016) was characterised by silty clay with pebbles and mortar/plaster fragments. The lower half of the grave, including the lower arm bones and the pelvis, was excavated in Stage 2. Here the remainder of the grave fill (1049), including the lower arm bones but not those of the hands and fingers, and only the upper leg bones, cut into by the evident fill of a further, superimposed grave for Skeleton <12> whose assumed recut [1052] was not seen but appeared to have caused the destruction of much of the eastern end of the structured sides of the grave of Skeleton <1>. Skeleton <1> was represented by its skull and some other bone fragments.



Figure 41 Skeleton 1: looking west

Lower layers and structure

Beneath, and extending north of the mortar floor (1002), and perhaps associated with it, was a layer about 0.10m deep composed of ~60% yellowish grey, gritty, sandy silt, and ~30% limestone rubble and mortar in about equal parts (1029) (Sections 110, 111; Plans 1.4, 1.12, 1.14, 1.16). It is interpreted as the remains of a mortar floor to the east of the existing chapel – possibly the make-up for a floor cut into on the west to build up the east wall of the fourteenth-century chapel.

Removal of the material immediately north of the postulated floor in the angle of the NE buttress revealed a layer of gritty silt with clay lenses and flecks of grit and limestone (1041). It appears either to have lain beneath the floor (1002)-(1029) or to have been a continuation of it. If the former, it may represent old topsoil outside the original building and/or below a stone structure, possibly the one represented by (1042) below.

On a line roughly parallel to, and \sim 0.15m east of the east wall of the chapel, (1038) below, this gritty layer (1041) was truncated by a cut [1040] which may be taken as further evidence of the probable foundation trench for the fourteenth-century chapel represented by (1018) (see below). The dark brownish green to dark brown fill (1034) of slightly gritty or clayey silt (with the silt representing 80%) included large structural stones as well as the matrix for an assemblage of human limb bones deposited north-south against the lowest courses of the structure immediately under the east wall of the existing chapel.



Figure 42 East wall of the Chapel with phases of rebuild: looking west

Further south along the eastern wall of the chapel beneath layer (1010) and the grave cut [1017], a band of mid-greyish green, slightly gritty clay (1018) appears to be a continuation of (1034) and seems very likely to represent the redeposited natural used to fill the foundation trench for the east wall of the chapel.

Found intruding into this foundation trench and below (1010) were three regularly laid courses of mortared limestone up to 0.75m in length, roughly faced but well worked. The masonry structure of which they were part

(1042) was evidently disturbed by the construction of the fourteenth-century chapel. It appears to represent the south wall (possibly sub-rectangular or curvilinear) of a structure built to the east of the chapel, or attached to an earlier phase of the chapel. Traces of what is probably the same structure were caught in the pipe trench, while remnants of its north wall were visible within layer (1041).

The east wall of the chapel

The existing east wall of the chapel (1038) (Elevation 120; Plan 1.12) is of mostly roughly-mortared limestone and rubble, with one or two blocks of darker stone (one possibly of sandstone and another apparently igneous). The stones are of varying size, up to ~0.30m. The bonding is generally in poor conditions, intermixed with soil, grit, and small stones and pebbles.



Figure 43 East wall of the Chapel: looking NW

Possibly up to four phases or elements of construction appear to be visible. The observation begins with a line of moulding around the north-east buttress which continues south for a few centimetres from the buttress's south-west angle before ending in a break. This suggests that the buttress and its underpinning belong to an earlier structure than the existing east wall of the chapel. This seems more likely than relocation from another site, followed by reconstruction and incorporation into the existing structure of the chapel.

The rough nature of the buttress foundations seems to match that of the rubbly segment of [1038] as it meets the angle of the buttress. This segment may be bounded on the south by a stone observed to have an un-bonded face running away west under the existing chapel wall.



Figure 44 Selections 1 and 12: looking west

Three regular courses seem more likely to represent walling above ground than a foundation structure, which might be expected to be less regular in construction and plan. Likewise, a series of vertical stones around the mid-point of the east wall suggest a relieving arch, dispersing a weight of masonry above it which is no longer present because of the size of the existing east window.

The east-west depth of the structure from the vertical stones northward, ~ 0.30 m out from the existing chapel wall, is pronounced in comparison with the depth of the masonry visible to the south of the vertical stone, ~ 0.10 m. The overall impression, therefore, is of a building earlier than, and less than half the width of the existing chapel. Its relationship to the eastward structure [1042] remains to be determined, though it is possible that this structure, conceivably apsidal but not necessarily serving the purpose of a sanctuary, represents an extension to that earlier building, if not to a building earlier still. One or other of those earlier phases may represent the original hospital chapel of circa 1128.

Trench 1 Sector D

Summary

Sector D between the SE buttress and the south central buttress contained a great deal of structural rubble, some of it finely worked. The excavated area revealed one of the relieving arches in the foundations of the 14^{th} century Chapel. Pottery retrieved from the back-fill of the construction trench included $12^{th}-13^{th}$ century roof-tile and earlier Brill ware, while a Nuremberg jetton was found at the change between the more disturbed upper layer and the construction trench back-fill.

Sector D: the Contexts

During the watching brief sherds of thin window glass and fragments of window leading were noticed, along with considerable limestone rubble.

(1000)D and (1004)

These contexts were excavated in a metre square slot in the middle of the sector. (1000), excavated for a depth of c 0.25m below the 'digger' layer, began with a layer of limestone rubble, mostly rough cobbles but interspersed with dressed blocks, and roof tile. This context seemed to reflect the repeated repairing and rebuilding of the Chapel, in particular after the Civil War, and also contained clay pipe and a tiny metal bell.

The much less disturbed layer (1004) below was 0.5m deep and appeared to be the backfill of the original construction trench for the 14th century Chapel. The south-facing section of the slot showed the slope of the backfill. No evidence was found of the southern limit of the construction ditch, implying the ditch was originally wider than the trench. A Nuremburg jetton was found at the interface between (1004) and the (1000) layer above.



Figure 45 Sector D: looking NNE

(1023) and natural clay

A thin layer c 0.03m deep of much grittier silty clay (1023), perhaps a bedding layer in the construction trench, lay above firm greenish grey natural silty clay.



Figure 46 Relieving arch: looking north

Excavation against eastern side of the central buttress demonstrated the complexity of the history of the Chapel's fabric. Although there were no pre-14th century foundations/ wall courses on this southern side the lower stones of the foundations ran <u>behind</u> the buttress indicating that the buttress structure had been largely re-built; the lower courses of the buttress itself were also of a different style and build to the first visible courses.



Figure 47 Central buttress: looking west

Trench 1 Sector E

Summary

Excavation against the western side of the central buttress confirmed the story of repeated rebuilding. The focus of work, however, between the SW and central buttress was on a charnel pit which had been dug into an earlier east-west aligned stone-lined grave close to the Chapel wall.

Sector E: the Contexts

For Trench 1 Sector E, an original burial will be discussed and the charnel pit including the likely cut of the pit, the skeletal remains, their groupings and a brief discussion of non-human bone and its relation to the grave. The collapse of the original grave structure at the western visible end of the stone-lined grave will be discussed, along with another group of skeletal finds to the east, and what could be lying beneath the surface in the unexcavated area around the charnel pit. Many of the bones found were fragile. Finally, the wall of the Chapel near sector E will be discussed. The above mentioned will also be compared to other areas of the site. We are currently waiting for dates relating to the burials.



Figure 48 Sector E under excavation: looking NE

The stone-lined grave [1024]

There can be no human bones certainly identified with the original burial. However, there was a stone-lined grave giving an idea of who might have been buried there. Stone-lined grave [1024] lay in an E-W alignment: the original burial will probably have been head in the east end; feet at the west end. Thus if undisturbed the skull may still lie



beneath the ground east of the exposed side of the grave, however modern drainage works cut across this area. The original grave was designed and given a designated area with care and respect: close proximity to the chapel denotes an important person. The original occupant may have been one of the hospital administrators or a chaplain/warden. The chosen place of the grave itself is an important position: in the eaves' drip and on the south side of the chapel (see Plan 1.11).

Moreover, the flat stone lying near the foot of the grave suggests a significant grave (stone level 49 on plans 1.3 and 1.5). Perhaps, it suggests a place for someone to rest their feet who may have toiled caring for others during the physical life. A stone-lined grave also identifies a significant place of rest. The limestone and mortar materials chosen were built to last possibly giving the person a safe resting place before the return of Christ and the rising of the dead.

Figure 49 Stone lined grave [1024] on the right: looking east

The Charnel Pit (1015)

The original grave was later by the creation of a charnel pit. It is not entirely known whether the disturbance to the grave was wilful, but seems unlikely. It is also not known whether the stone-lined grave was known about during the entire process of reburial. It is perhaps most likely the grave was discovered during the digging process as the charnel pit spreads unevenly beyond the stone-lined grave structure, cutting a broader hole than the structure in the western end, but found within the structure at the eastern end (disturbance meant the cut of the pit was impossible to discern. For

instance, in Plan 1.3 there are stones falling south-easterly inwards toward the bone finds. In plan 1.5, after the two previous stones have been removed, there was a collection of bones underneath where the stones would have been. It is clear that these go outside of the structure in reference to the stone making up the grave structure, in the east, with level 46 and the stone to the east (also moved inwardly on the western edge towards the south) and the foot end structure (just perpendicular to stone levelled 46). With the further removal of the stones there were yet more stones under the bones just mentioned. This can be seen in Plan 1.6 in which there is a stone with level 76. These had also fallen southerly. Additional stones can be seen in this plan and in Plan 1.8 on either side of the stone mentioned above, and more bones found under these. Perhaps, the diggers for the charnel pit came across the stone-lined grave and disturbed it at this time and/or disturbance was caused during the refilling.

Nonetheless, this was clearly a charnel pit designed to bury more than one skeleton together. One may want to know where these skeletons came from. It is likely that they were found on the chapel site either during building works to the ground or in the attempt to clear some space for new burials. Both are possible, as there have been many changes to the site (note of the difference in chapel structure and wall phases, the structure found in Trench 3, and the structures found in Trench 1 near the infant burial). It was common, at least on the European continent, to rebury skeletons in a charnel pit with a greater organisation of bones than has been found here. It was thought a possibility that this charnel pit was also organised by keeping the skulls separated until part of a lower jaw, one or two metacarpals, and one phalange were found (22.10.2011) on the eastern end of the grave next to the north stone structures wall.





Figures50 and 51 Charnel pit under excavation looking south and excavated human bone on the right. There were at least three skeletons in the pit, as three separate pelvises were removed. One pelvis can be seen in Plan 1.6 at the level of 75 and can also be seen by matching above layers with Plans 1.3 and 1.5. Another piece of pelvis can be seen in context record sheet sketch. It is lodged in the west wall whilst the other pieces were lifted. However, there was perhaps a patterning to the grouping of the long and other bones. A mixture of ribs, radiuses, some tibia, and several femurs were grouped together lying, mostly, in an east-west fashion. This can be seen clearly in Plans 1.3, 1.5, 1.6 some vertebrae were also found in this area.

Interestingly there was one cow bone found amongst these clearly human bones. There are several questions and inferences one can make about this. Since there were many pieces of animal bones found on the site, it could easily have been mixed in with the human bones. However, mixing in an animal bone with human bones would have seemed a sign of disrespect; it was perhaps an accidental placement and may or may not be relevant to the animal bones found in the charnel pit on the north side of the chapel.

Other skeletal remains

In addition to this burial, there were other human skeletal remains just to the east of structure [1024]. Firstly some animal bones were discovered and, subsequently, some human bones; possibly a smaller and even more disturbed charnel pit. Other human bones remain within the excavated charnel pit beyond the trench edge. It is clear that the charnel pit exceeded the size of the area excavated to the west and south and that the stone-lined grave had been considerably damaged and disturbed. As mentioned before, one can see the layers of destruction throughout the drawings: the stones and bones were quite mixed together, meaning that it was difficult to release one item without disturbing another item. They were interlocked in a sort of way that seems to go against any idea that the stones fell in at one time, rather they were first collapsed during the digging up of the charnel pit. There were many subsequent changes to the chapel and the grounds, specifically with incorporating and possibly the repairing of drainage systems which may also have disturbed the grave/pit.

Chapel Structures in Sector E [1051]

The changes to the chapel could have affected the grave. The relationship to the grave will not be entirely known until the changes to the chapel can be verified and dating of the pit (if possible) compared. However, it is worth noting the changes to the chapel visible in Sector E. There are two phases of wall and one archway. One of the phases to the wall is certainly from an earlier time and lies at a south-east-east angle. The angle can be seen in Plan 1.11 where the wall stones, to the east, at levels 168, 170, and 172 are at an angle distinctive from the above phase at 171 and the arch at levels 164 and 165. It is also worth noting that there is a rubbly area of the wall just above the charnel pit (near the middle of the stone-lined grave if it had been found intact) (Plan 1.11 and sketch from 1051 context record). Perhaps, there is a relationship between the two, but it is not known at this time.



Figure 52 Central buttress: looking east

Changes to the chapel and its grounds must have affected the original stone-lined grave and the charnel pit. In this Sector was found a stone-lined grave for someone of importance that had been subsequently used as a charnel pit for more than three skeletons and one animal bone. It is unclear when the damage to the eastern section of the grave happened, but it could have been related to the creation of the charnel pit or later changes to the drainage system. The Chapel wall itself demonstrates changes and these could also have affected the stone-lined grave.



Figure 53 Sector E under excavation the top stops of a relieving arch are visible in centre right: looking north

Trench 1 Sector F

Summary

The slot excavated in the trench on the western side of the Chapel revealed the lower courses and foundations of the standing Chapel below the west door.

Sector F: the Contexts

Sector F, centred on (10.7, 15.43), extended from the north-west buttress to the south-west buttress (c. 6m). Its width extended 1m out from the west chapel wall (with its solid oak door and stone threshold) and its two angled buttresses. It was compromised by two large yew trees positioned either side of the west door entrance. The area comprises grassed/pebbled firm, compacted topsoil.

Layer (1000) Digger

Between 0.1- 0.2m below topsoil was removed from the whole 6m x 1m west gable end sector with the small mechanical digger. The context was friable, dark greyish brown slightly sandy silt - somewhat gritty, becoming increasingly stony and tightly-packed with depth. Inclusions were mainly limestone rubble (max size 0.1m) with occasional CBM. Towards the SW corner the content of large pieces of limestone rubble was 50%, occasionally worked; at the NW corner there was much more disturbance due to yew roots and drainpipes with more worked stone. Finds included pieces of pottery, glass and clay pipes.

The context is interpreted as the deep make-up layers/construction trench back-fill building up from the foundations of possibly an earlier chapel build, to the current level of the W door.



Figure 54 The central section of Sector F at the threshold of the W door. (1000) Digger context extends to N (left) round NW chapel buttress and to S (right) round SW buttress; note the substantial stone step to W door and stone coursework revealed on removal of (1000)



Figure 55 Rounding NW buttress in Sector F – (1000) Digger removed; note Yew tree

Laver (1019)

Under (1000), set slightly off centre in Sector F centred on (10.75, 15.25), (1019) was dug in a 1m square slot set to S of chapel W door. (1019), c. 0.1m deep, consisted of a firm mid darkish brown mix of 70% sandy gritty silt and 30% pebbles. In the upper layers of this sequence were inclusions of 50% tightly packed poorly sorted limestone rubble (0.03-0.1m) and 3% floor tile, finds included some pieces of bones, nails and clay pipe and bowl. A strip close to the chapel was less stony.

This was interpreted as backfill/make-up of demolition W of the chapel door. There was not the large proportion of pea-grit found N of the chapel: it was a different backfill in composition.



Figure 56 After (1019) removed, showing make-up of lower layer (1028); note the large stone threshold step to chapel W door (top left of photo). Also the cut stone courses of structure [1048] being revealed as layers of compacted rubble removed in metre square slot.

Laver (1028)

Directly under similar to (1019), this 0.1m layer was of a similar limestone rubble composition with 60% limestone and 5% tile. However its upper level was even more tightly packed (although it thinned out towards the bottom), so a pick was often needed to remove it. It contained a less stony, more organic strip (c.0.2-0.3m) directly adjacent to chapel and produced small fragments of human and animal bone, burnt clay pipe, two pieces of pottery handle (from jug or mug) and some tile with a fine glaze.

The interpretation (same as (1019)) was of poorly sorted limestone rubble and roof/floor tile that had been used as make-up or back fill.



Figure 57 (1028) having been removed, the worked stone courses of masonry [1048] onto which the W elevation of the present-day chapel sits is seen to be of different stone: substantial dressed cut slabs.

Layer (1032)

A further 0.1m layer removed under (1028) clearly revealed three dressed stone courses of masonry at a depth of c 0.4m beneath the chapel W door step. The context, similar to (1019) and (1028), was made up of tightly packed limestone rubble (60%), pebbles (20%) and gritty mid brown sandy silt (particularly adjacent to wall), but also, at this lower level, 2% clay. The loose friable strip 0.1-0.9m by W door was still evident and a small amount of (animal) bone fragments (3%) was found.

For interpretation see (1019) and (1028) above. It is thought that the fine stone coursework under the W door threshold might well be an earlier chapel wall.



Figure 58 (1032) having been removed

Layer (1035)

The composition of this c.0.2m deep context altered with depth. Under the upper level of limestone rubble (70%) and gritty sandy silt there was increasingly more clay (10%). Finds also increased to include numerous pieces of high quality dark to lighter shades of green glazed pottery, numerous fragments of glass and charcoal in the clay base. This change in context coincided with the appearance of a course(s) of large rough stones on the clay base, jutting 0.1+m proud from under the 3 revealed courses of dressed stonework of [1048].

Layers (1019), (1028) and (1032) produced only small amounts of finds in comparison to (1035), leading to the suggestion that the level of this course of large rough stones under (providing a foundation for) [1048], might be an original external ground level. The finds of pottery could be linked to the Civil War occupation by Cromwell's troops – perhaps pieces from drinking vessels from the alehouse opposite? (The present-day Farmhouse was rented out as an alehouse to a Mr George Prince in 1645 and would have presumably provided for the troops).



Figure 59 The line of large rough stones revealed (bottom of photo) over the clay base of 1m slot seems to indicate an earlier phase under the previously revealed three courses of dressed stonework beneath the existing chapel W door.

Structure [1048]

Centred on (11.2, 15.25), lying N-S between the existing NW and SW buttresses, the whole revealed structure [1048] measures 1m long x 0.6+m deep, and is situated beneath the chapel W door step, slightly offset to S. The door step is bedded into cement/lime mortar onto its top course. It is probable that a similar pattern of coursework continues E and W under the length of the chapel west gable wall between its two buttresses. The upper 4/5 courses of [1048], up to the W door step, are of regular (but uneven) courses of cut and dressed stonework (possibly 2 different types of limestone) bonded in lime mortar. The lower 1+ courses, 0.2+m in height, revealed by removal of (1035), are of random rough cut stone sitting on the clay base 0.6m below existing ground level.



Figure 60 1m length of Structure [1048] off set to S (right) of Chapel W door. Upper 4+ dressed stone courses visible beneath the stone door step. The lower 2+ rough cut courses are set into clay.

The lower rough cut courses could be interpreted as earlier chapel foundations onto which a later model has been built. The existing chapel W wall, which is built into what appear to be courses (perhaps the 14th century Oriel College built chapel) rather than foundations, suggests a reconfiguration or rebuilding, perhaps in the 17th century after the substantial damage caused during the Civil War, of the W entrance, as do remains of what appears to be evidence of an earlier segmental arch above the existing chapel door. Most of the finds were discovered at the level (approx 0.4m below the existing ground level) where the rough and dressed cut stone courses meet. Perhaps this marked an earlier ground surface.

However the W doorway is widely held to be 14th century: there is a similar 14th century doorway in Magdalen College which is at odds with the clear evidence of an earlier segmental arch above it. Also there is clear evidence above the small W window of the raising of the gable end to 60 degrees above the original 35 degree parapet, in order to hang Cotswold tiles; the original shallow pitched roof having been stripped of its lead by Cromwell's troop for the manufacture of lead shot.



Figure 61 W wall of existing chapel showing W doorway with moulded jambs and segmental pointed head thought to be late 14th century? But why is there clear evidence above its head (to N/left) of half the remains of an earlier segmental arch?



Figure 62 W gable end of chapel; the change in stonework showing clearly the raising of the chapel roof after the Civil War to give a 60 degree pitch to accommodate the hanging of a Cotswold tile roof