Church of St Nicholas, Fundenhall, Norfolk

Record and Analysis Report into the

Tower, Tower Roof and the South Nave Roof

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Summary

The Saxon church probably had a central tower separating the nave and the chancel, and in about 1120 the new Norman regime rebuilt at least the tower on the same lines as before, while the nave and chancel received so much attention in the late 13th and 14th centuries that they are effectively all of that date. There are two distinct connections between the church and Norwich cathedral: the use of Caen stone alternating with Barnack in the nook shafts of the tower corner piers and the volute capitals of the rather fine south nave doorway. The advowson of the church, and most of its revenues, were passed to the prioress of Flixton priory in the 1250s following the foundation of that house, and partially resulted in a distinct lack of maintenance to the fabric at Fundenhall between then and the Reformation. One of the problems is the lack of documentary evidence in this long period, although there are three dates of significance – 1273 when the chancel, nave and tower were repaired at the expense of the rector, 1370 when the chancel was repaired and very likely altered for the prioress of Flixton, and most importantly for this report, 1418, when the belfry stage was built and the bell frame constructed. One bell survives from this period and is an important piece by Richard Baxter of Norwich.

After the Reformation the advowson passed through various hands and the church became the responsibility of an impropriator by the 1570s, firstly Sir John Clere and latterly his successors. This is quite rare, and it is clear enough that the lay impropriators did not take their responsibilities seriously, to the extent that the incumbents (perpetual curates since the mid 14th century) came and went very frequently owing to the lack of a decent stipend. Parliament had to step in to rectify that situation in 1640, but it appears that the church continued to decline throughout the 18th century and the first half of the 19th century. There are unfortunately no surviving churchwardens' accounts or vestry minute books until 1916, but it is evident from the fabric that regular maintenance, never mind alteration and modernisation, was a stranger to the parish. This is often beneficial to the survival of ancient fabric, but the building must have deteriorated so much that the restoration of 1869 was radical, as it in all probability had to be to save the structure. R.M. Phipson was called in and gave us one of his usual total makeovers which leaves none of the nave roof any earlier than that date, and a virtually new belfry stage save for the core of the flint masonry. He also raised the belfry in height and provided a new parapet, and in the remainder of the church all new windows (not following the pattern revealed by Ladbroke's 1823 drawing), floors, seating, font, chancel furnishings and a new north porch which replaced an Early English one. The body of the tower was patched up in a competent manner, the internal winder staircase reformed and the whole left clean and new with a coat of plaster and limewash. However if some feature could have been replaced then Phipson did it, with the memorable and important exception of the *c.* 1418 bell frame and belfry floor.

It was always intended that the frame and probably the floor was to be replaced as well, but it may be that the contractor (who is unknown) or the architect, or both, felt that it was too specialised a task for a general builder, so Phipson did not include the work in his specification. Instead it went out to separate tender after the remainder of the restoration was finished, but George Day's tender of £80 made on 25 January 1872 was not taken up, and the frame survived. There had been earlier work done to it in 1754 to hang five bells instead of the original three, with four new bells cast by Lester and Pack of London, and also in 1754 is evidence of reconstruction of the belfry roof, which only required minor intervention in 1869, although all of the boarding and most of the rafters were replaced.

Since 1869 there have been few alterations to the fabric, but again information is so scanty that it is not even certain when electricity was laid on, but the church remains substantially the way that Phipson left it. The south slope of the nave roof is

then entirely of 1869 right down to the wall plates and so is the parapet of the tower, plus large parts of the belfry roof structure and all of the ringing chamber floor. The belfry walls have seen considerable intervention, especially to the north side, and all of the windows in that stage are an invention of Phipson's while the facing of the remainder of the tower is more High Victorian than early 12th century. Of the 12th century however are the two lower Norman windows filled with Cathedral rough plate glass in 1869, and both the ringing chamber lancets are of the middle of the 13th century, even if the east window has been blocked.

Statement of Significance

There are eleven parish churches in Norfolk with central towers, and all are of either Saxon or Norman origins with Fundenhall figuring in the middle order of importance – nowhere near as good or important as the South Lopham or Attleborough examples, but nevertheless a rare and substantial structure. Had the Early English belfry stage been allowed to remain at the restoration then the tower would have assumed a far greater significance than it does notwithstanding that large proportions of the core of the wall must be of that period. Phipson's intervention has, on the whole, detracted from the tower. The more significant details are the two nook-shafts to the western tower piers, the fact that Caen stone is used in combination with Barnack stone, and the pattern of the volute capitals to the good south nave doorway, all of which confirm a direct association with slightly earlier work being undertaken at Norwich Cathedral. These are of *c.* 1120 and are probably the work of masons who had earlier worked in Norwich, and together they promote the church from the important to the very important.

This is confirmed by the one outstanding feature in the church, the belfry floor and the bell frame. Although not as important as, say, the contemporary bell frame in nearby Ashwellthorpe, or the earlier ones at Snettisham or Shimpling, the square, three-pit frame at Fundenhall is an excellent intact example from *c.* 1418 with one original bell *in situ*. The bell itself is by Richard Baxter (working between 1416 and 1457) and is an important early dated work by him, the third is attributed to Robert Brasyer (active 1377-1435), but moved here from another church as late as 1981, and the remaining three bells (the first, second and fourth) are by Lester and Pack of London and are dated 1754. The alterations made to the frame in that year to house five instead of the original three bells does not detract and in fact rather enhances the structure.

The nave roof is precisely as it appears – a competent, workmanlike and attractive structure which sits very well over the nave, but nevertheless breaks no new ground and does not contribute to the advance in techniques in any way. Even the combination of various timbers from various countries was by the late 1860s very common.

The conclusion is that the church may be declared to be of great architectural and historic significance, and that in a county which has no shortage of first-rate medieval churches.

Dr. W.D. Wilson
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8 June 2007

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Note: all comments in square brackets embedded in quotations are the author's

History and Description of the Church

Of the church mentioned in the Domesday Book of 1086 nothing is now visible although its holdings of twenty-four acres of free land (i.e. capable of cultivation), woodland and thirteen pigs suggests it was of a reasonable size, but even so the Normans early in the following century undertook a complete rebuild[1]. This left a church with a central tower and an aisleless nave and chancel and a south doorway into the nave, the whole constructed of coursed whole and cut flints dressed with limestone quoins, some of which is from the Barnack quarry just to the south-east of Stamford. Barnack stone is also used inside in combination with Caen stone in the nook-shafts of the jambs of the west tower arch, exactly like Norwich Cathedral, which was the building, along with Norwich Castle, which introduced the French stone to the region. There are other stylistic connections with the Cathedral in that the south doorway at Fundenhall has volute capitals derived

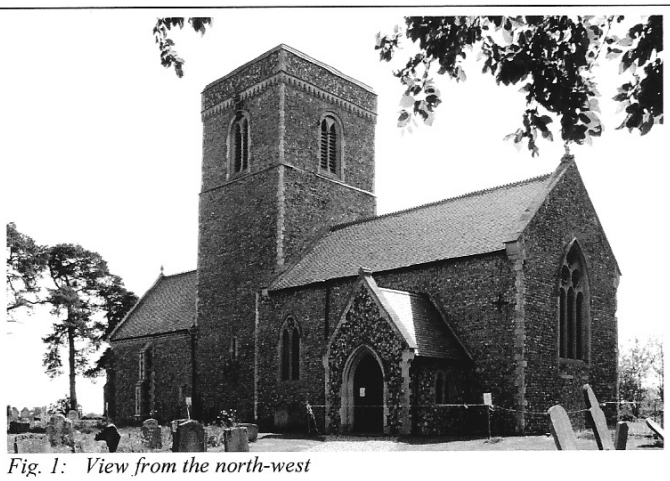

Fig. 1: View from the north-west

from those used in the Romanesque work at Norwich, specifically in the north transept and the nave aisle west doorways, and several other parish churches in the county have details taken from the same source[2].

The disposition of a central tower sandwiched between the nave and chancel was a typical late Saxon and Norman format, although subsequent rebuilds, particularly in the 14th and 15th centuries, means that there are only eleven of them in Norfolk: Great Dunham, Newton-by-Castleacre (both possibly Saxon), Weybourne, Guestwick, Bawsey, Attleborough, Burnham Overy, Castle Rising, Gillingham, South Lopham and Fundenhall[3]. None of them were designed to be lantern towers but all were to hang bells[4], and one of the five at Fundenhall is of great importance, being the work of Richard Baxter of Norwich (known to have worked between 1416 and 1457)[5]. The tower has two Norman round-arched windows towards the south and north, set in the single-stage structure which rises to a basically early 15th century belfry stage and separated from it by a horizontal string course. Other than these two Norman windows and the limestone quoins to the corners, the Norman tower has no other features externally, and the later belfry stage has two pointed lancets to each face set under a single round arch, which is definitely an Early English feature but here is entirely a fiction of the Norfolk County Architect R. M. Phipson, as we shall shortly notice[6]. The same goes for all of the windows apart from the two Norman lancets already mentioned, and externally the only other detail that survives from earlier than the 19th century is perhaps the limestone quoins and the Early English north doorway, which is a particularly good example of undercut mouldings.

Fig. 2: Tower from the south-east

Internally the tower reveals itself as being not strictly square but 4.52 metres east-west by 4.3 metres north-south at ground level with a rectangular Caen stone impost as big as piers at each of the four corners. These have splayed inner corners finished at the top with big tongue stops, but the western imposts each have in addition a nook shaft with scalloped cushion capitals, the shafts being constructed of a mixture of Caen and Barnack stones. The south-west pier is much larger than the others as it accommodates the tower

Fig. 3: North-west tower impost

Fig. 4: Staircase and roodloft doorways

staircase, entered through a single-chamfered arched doorway with, high above it, a round-headed splayed doorway to the former roodloft, while in the recessed north and south walls are the splayed round-headed Norman windows. The ceiling (and the ringing chamber floor) is of 1869, of red pine and divided by three moulded beams in each direction into fifteen rectangular panels (the sixteenth is taken up by the projection of the tower staircase) and covered with tongue and groove boards. Below the ceiling is a criss-cross of circular-section iron rods with eyed spurs to take the five ropes to the bells.

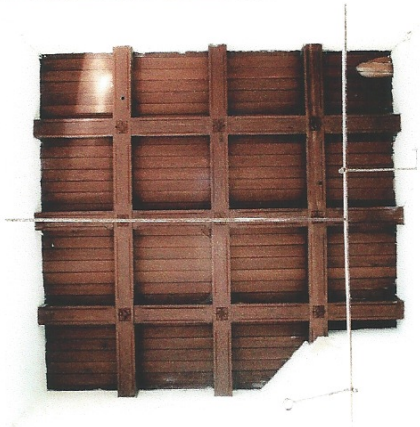

Fig. 5: Ceiling of the crossing

History of the Patronage

In 1200 the manor of Fundenhall came to Sir Robert de Creke, in turn to be inherited by his second wife's son Sir Bartholomew de Creke in 1233, and it was he who married Margery de Hames, a lady of strong religious character who in 1256 obtained from Robert de Tatesale permission to found a priory for nuns at Flixton in north Suffolk 'whersoever she would in that town'[7]. It was therefore natural that the advowson and appropriation of Fundenhall, together with that of Dunston just to the south of Norwich and of Flixton itself, should be transferred to the Flixton priory[8]. These three churches were not going to make Flixton a rich priory, as subsequent events were to demonstrate, and as early as 1273 the bishop held at an Inquisition in Norwich that the rector of Fundenhall, Robert de Boys, should repair the church (i.e. the chancel, for which the rector would normally be responsible if the appropriation had not been taken by another foundation) 'and if it should happen, to rebuild it'. Fortunately for de Boys one Bertha de Fundenhale donated fifteen acres, the revenues from which were to be used to repair and rebuild the church (chancel), but this piece of fortune was perhaps diluted by the bishop also requiring the rector to repair the nave and tower, which ought to have fallen to the purses of the churchwardens[9]. The rector at least retained the parish tithes for his own use.

The date of 1273 is one of only a few firm dates before the restoration of 1869, but it fits neatly enough with the style and character of the nave and chancel and possibly the original belfry stage of the tower, which in the 19th century must have been in such a state as to be incapable of simple repair. The chancel was further repaired in 1370, but so far as the tower is concerned we therefore have a ground and second stage (not distinguished on the exterior) dating from *c.* 1120 and a belfry stage of the 1270s (the latter subsequently rebuilt), all of which was heavily restored in 1869 by Phipson.

In 1321 the nuns at Flixton were so poor that they had to disregard an Episcopal charter to repair Flixton parish church, and by 1347 could not afford to pay their diocesan taxes. Allowing the chancel at Flixton to

deteriorate was one thing but Bishop Bateman could hardly tolerate financial loss so he ordered that those scant revenues which were still allowed to the rector of Fundenhall be appropriated by the nuns so that his taxes could be paid[10]. No record of the attitude of the then rector, Henry Becke, has survived, but he was the last rector as the position of incumbent was subsequently given to a salaried perpetual curate. Things however picked up in Suffolk, so in 1370 they were able to repair the chancel at Fundenhall at their own expense, though what was actually done is unknown[11]. In 1418 John Daniel left 20 marks (£13 4s 4d) for the steeple, almost certainly associated with the construction of the belfry stage and the bells[12], and in 1500 five marks was left in the will of Thomas Knyght for the repairing and leading of a roof, which must have been that over the nave or chancel as the sum was too great for the tower roof[13].

In 1535 the Valor Ecclesiasticus assessed Flixton priory together with the three churches associated with it at £23 4s 0½d, but the less sympathetic Parliamentary Commissioners in the following year reckoned Flixton alone to be worth £20 9s 5d and so on 4 February 1537 the prioress surrendered the house to the King, who in turn granted it to Richard Warton[14]. He passed the advowson of Fundenhall to Richard Stephen and George Buck in 1546 and they in turn sold it to Sir John Clere in 1547, but whether he took his responsibilities seriously is debatable[15], as the next reference to the building is contained in Francis Blomefield's 1759 description and account (revised and reprinted in 1808):

> 'Here was a gild of St Nicholas, and lights before his image, and that of the Virgin in the church, which is built in the colegiate form, with a square tower, under which William Petifer, parish chaplain, was buried in 1374; and in 1460 William Norman, parish chaplain here, was interred in the chancel, and Master Vergeant, D.D. a friar-minor [i.e. a Franciscan friar] was to pray for him in his convent at Norwich; he was a benefactor, as was John Daniel who was buried in 1418 in Magdalen-chapel in St Stephen's church in Norwich, and gave 20 marks to repair this steeple...There are three bells...The rood-loft is whole and painted; in the middle of it is a shield with the East-Angles arms...'

How exactly Dr Vergeant of the Norwich Greyfriars benefited the church is not recorded by Blomefield, but what is clear is that the number of benefactors Fundenhall attracted was lower than usual, so that between Thomas Knyght's gift in 1500 and the middle of the 19th century nothing at all is mentioned in any source apart from the bells, and it is probable that nothing was done to the fabric. The reason in the early days was the poverty of the Flixton nuns, which meant that no rector could be found after Henry Becke at about the time of the Black Death in 1349, and the situation was barely rectified after the Dissolution. Stephen and Buck paid the stipend of a curate and late in the 16th century Sir John Clere's descendants faced a parliamentary petition that they might 'be called to show, why they should not pay a competent stipend out of the profits, sufficient to find a serving minister, that might serve it regularly, and continue with them, instead of such poor stipends as 12 or 16 pounds a year at most, by reason of which, no minister would stay at any time on the cure, there having been 40 returns of curates in the memory of one man'[16]. The situation was only resolved when the impropriator was obliged by the House of Commons on 19 December 1640 to appoint Edward Voice, the then curate and a 'godly, conscionable, and painful preacher of God's word', as minister 'and a competent stipend assigned to him out of the profits'[17].

The Restoration of 1869

This does not sound like the fabric of the church was the recipient of systematic care and attention, a situation which was only exacerbated during the 18th and early 19th centuries, when many, if not the majority, of parish churches were in such a desperate state of repair that collapse was a real possibility[18]. Revival in the Church of England from 1840 in the face of Non-Conformist advances and Roman Catholic emancipation resulted in 357 church restorations in the Diocese of Norwich between 1840 and 1874, not all of which sought to restore what was there but instead to reaffirm the modernism of the Church with effectively a new building[19]. Such an architect was Richard Makilwaine Phipson. White's *Directory* of 1864 gives a further account of the church before restoration, although it is necessarily brief:

> ' The church comprising nave, chancel, porch and tower with five bells. The tower stands at the junction of the nave and chancel, and is of the Norman period, as also is the porch. The rood loft remains, and is handsomly carved and painted, and bears a Latin inscription. The font has figures of angels bearing shields, upon the shaft; and in the chancel is a good piscina'

Richard Makilwaine Phipson (1827-84) was the Norfolk County Surveyor in the 1860s and the Diosesan Surveyor from 1871 until 1881, when he retired in favour of Herbert Green. He had been a pupil of John Medland Clark and holds the record for the number of East Anglian churches he restored or built from scratch, nearly a hundred, twenty-six in Norfolk alone. Although he never aspired to the major league of Victorian architects he was extremely competent and meticulous even if he was less than historically accurate or sympathetic in his choice of building stones and styles and was not a fan of 18th century furnishings. He is buried in Kirby Bedon churchyard.

While Kelly's *Directory of Norfolk*, 1911, tells us that:

> The church was restored in 1869 at a cost of £1,500, 'when a pulpit was given by the Rev. Sedger, then curate, and oak benches put in the nave: the chancel was restored by George Duckett Berney Esq. of Morton Hall, patron and lay impropriator (d. 1887): there are 160 sittings.'

Of much more use is Robert Ladbroke's drawing of 1823 (published in 1843) showing the church from the north-west and clearly indicating that the restoration of 1869 was so thorough that no external details were allowed to remain unchanged. A photograph (burnt in the 1994 Norwich Library fire) showed the flint belfry to have limestone quoins and windows constructed of brick, the latter fact being confirmed by Phipson's specification.

In 1868 it must have been clear to the churchwardens that only radical restoration was a serious option and the obvious candidate was called in - the then County Architect R.M. Phipson[20]. Phipson's drawings and particularly his specification of November 1868 in the tender to contractors is both eloquent and ruthless, and reveals that virtually all that is to be the subject of the proposed restoration of the tower and south nave roof is in fact work of 1869. He even persisted in using types of timber and stone which were never used in medieval East Anglia[21].

The first tender (of three) refers specifically to the nave roof and the tower, although all that was first specified need not actually have been carried through. For example, Phipson specified that the entirely new

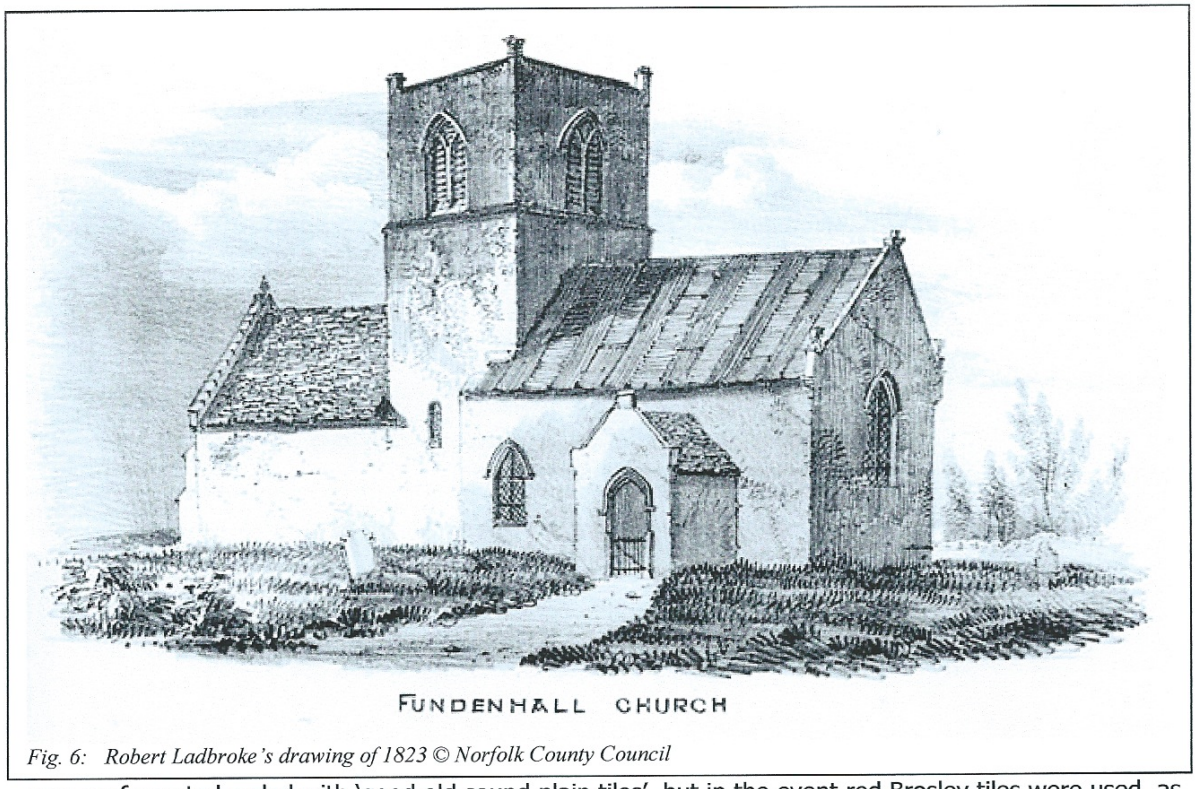

Fig. 6: Robert Ladbroke's drawing of 1823 © Norfolk County Council

nave roof was to be clad with 'good old sound plain tiles', but in the event red Brosley tiles were used, as they were for the chancel. Similarly a new vestry on the north side of the chancel had always been planned, but it was never built, presumably because George Berney of Morton Hall balked at the cost. Another complication is that Phipson refers to the whole of the inside of the tower as 'the belfry' without distinguishing between the ringing chamber and the bell chamber.

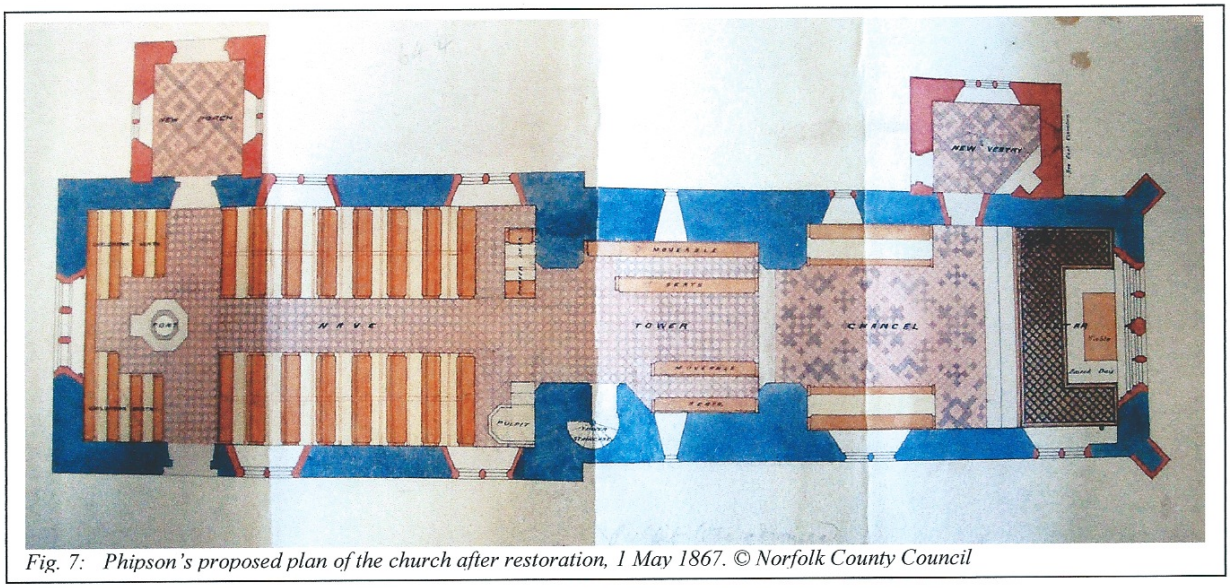

Fig. 7: Phipson's proposed plan of the church after restoration, 1 May 1867. © Norfolk County Council

Nave Roof

The first job was to remove the lead from the nave and tower roofs, then the nave roof structure and the ringing chamber floor, plus all of the fittings in the nave right down to the tiles on the floor; the materials being sold as salvage for the best possible price. Once the medieval roof was removed the tops of the nave walls were made good and four new wall plates provided, two to each side on the inside and outside faces of the walls, each 9" by 4" and linked by 4" by 4" cross ties on top of the walls. Then the new roof was constructed of 'the best and cleanest well seasoned red pine' consisting of six coupled principal rafters (9" by 9") forming five bays, each one of which has five coupled common rafters (4½" by 3½") rising to a ridge piece at the top (9" by 4") and connected by two tiers of butt purlins (7" by 6"). In addition arched braces to the principals drop to wall posts on Caen stone corbels, each of which was to be of a different

Fig. 8: Nave roof, looking east

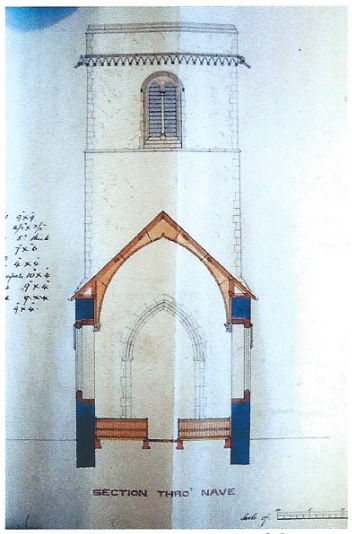

Fig. 9: Phipson's section of the nave roof to be built. © Norfolk County Council

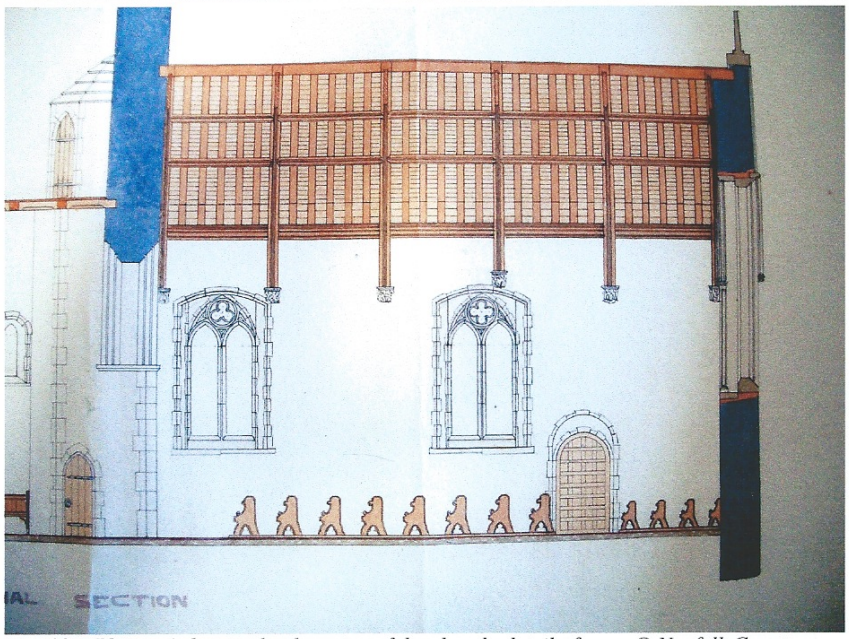

Fig. 10: Phipson's longitudinal section of the church, detail of nave. © Norfolk County Council

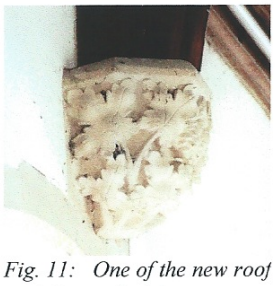

Fig. 11: One of the new roof corbels, south side

carved design. Each member was to be moulded and the mortise and tenon joints were to be secured using oak pegs and bolted. Memel deal was specified by Phipson for the cross ties, but the V-jointed sarking boards over the rafters were to be of New Zealand pine boarding 6" wide, and over that was to be 2" by 1½" splines plus fir battens (fixed with galvanised iron nails) to take what had been anticipated would be reused plaintiles.

Memel deal is a white deal imported from the Baltic port of Memel, renamed Klaipeda in 1924 when it was recognised as a Lithuanian possession. With Memel oak or Memel deal the two types of wood are virtually indistinguishable from English oak but the Yellow Christiana deal variety is superior. The use of both was extremely common – indeed far exceeded the use of English oak in this country – from the Napoleonic Wars to the First World War. In 1810 the Admiralty's timber store (Board of Ordnance Depot at the Tower of London) contained no English oak, just Memel deals. Indigenous oak supplies had become exhausted.

The most difficult carpentry in all this was to be the arched braces, and Phipson specified in his drawings that they were to be constructed in three pieces each side plus a common ridge, which in addition to the simple moulding pattern was to have an ogee flip at the top, and this is exactly the roof we see today, without a splinter of older timber[22]. This new roof might appear to be considerably higher in pitch than the old one had been because the east ringing-chamber window in the tower has been blocked, but if anything Ladbroke's drawing indicates a roof of steeper pitch, even if Phipson raised the height of the belfry stage as well. The blocked window therefore looked into the nave under the ridge of the roof, which was quite a common arrangement.

Tower Interior

Contrary to his usual practice Phipson was content for the **belfry roof** to be restored rather than replaced outright: 'Properly restore as far as required the timbers of the Tower roof and boarding', but the trapdoor was to be left perfect, and in fact direct replacements were made in the case of the majority of the rafters. The architect had anticipated in his drawings of eighteen months earlier that

Fig 12: Detail of belfry ceiling

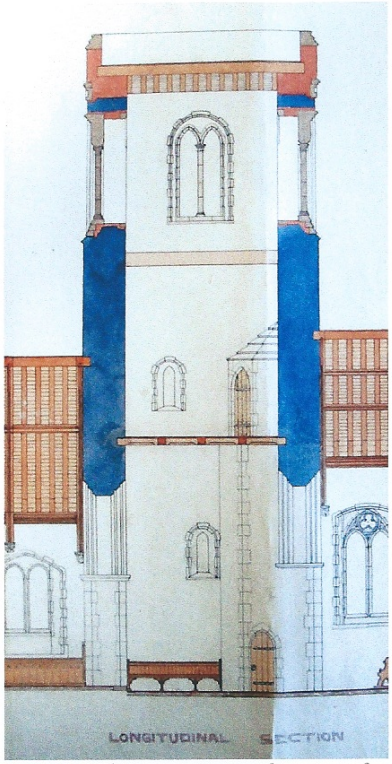

Fig. 13: Phipson's proposed section of the tower. © Norfolk County Council

Fig. 14: Belfry east internal wall

twelve new paired rafters would be necessary, but in the event this was not done. There is an east-west square chamfered raised beam with run-out stops from the mid 18th century, almost certainly inserted when the work to the bell frame was done in 1754 (see below), and there is an area of repair towards the west end of the early 19th century[23]. Nine rafters either side are laid flat, the centre and outer ones with 18th century arched braces bedded directly into the masonry, and of these rafters the western two on the north side and No. 3 (from the west) on the south side are of *c.* 1754, while the remainder are of Phipson's time. Over these is boarding of 1869 and over that lead sheets of the same date: 'cover the whole with 7lb milled lead 2½" rolls not more than 3 ft 6 inches apart and lead flashing 10" wide all round parapet let into walls'. The contractor used seven sheets of lead, although the work does not lend the roof any particular architectural merit.

Fig. 15: Ringing chamber ceiling. West is at the bottom

The belfry walls are of mixed flint and random brick, and the segmental rere-arches over the four two-light windows have brick voussoirs of the early 15th century apart from the north window, which has two tiers of 1869 brick in the arches which goes with a large area of rebuilt brick wall on this side.

The **ringing chamber** floor was however all renewed as we have already noticed, but the architect is entirely silent on the subject of the **ringing chamber ceiling** and the bell frame, which together are the most significant of all the timberwork in the church. The ceiling consists of two heavy north-south beams with side braces reinforced by iron straps where the timbers meet the walls, and over them are nine plain joists running east-west, and over these is a mixture of boards of various dates from the 15th to the 19th centuries. Beneath all this structure are two east-west beams embedded into the east and west walls of smaller section than the

principals, and in the centre is the hatch for bell-lowering, while the ladder access is by means of an opening at the west end of the centre bay. Various wedges have been driven between the boards and the cross beams in an effort to stabilise the structure, but it remains decidedly unsafe[24].

There are two known dates for work to the tower - 1273, when the then rector was obliged to carry out repairs at his own expense, and in 1418, when it is highly likely that the pre-1869 belfry stage was built and three bells installed, complete with their **bell frame** which sits on the belfry floor of the same date (the belfry floor and the ringing chamber ceiling are of course the same structure). The bells themselves contribute to this chronology, and it is an interesting story. In 1552 there were still three bells, weighing 8 cwt., 10 cwt. and 12 cwt., but their weight was causing concern to the extent that in 1754 the churchwardens sought a Faculty to melt down the two heaviest to make four smaller bells, retaining the treble bell as a tenor[25]. Bell No. 3 is attributed to Robert Brasyer who was active between 1377 and 1435, but it was only brought to Fundenhall in 1981 from Forncett St Mary. The tenor bell however (No. 5) which survived the 1754 recasting is signed by Richard Baxter (active from 1416 to 1457) and is an important early example of his work. As it happens the heaviest bells were not actually melted down at all, but moved to Kenninghall and four entirely new bells commissioned for the Fundenhall tower, all of them signed and dated 1754 by Thomas Lester and Thomas Pack of London[26]. The upshot of this is that the 1418 bell frame was made for a ring of three (one of which is still *in situ)* and had to be altered in 1754 to provide more space by means of narrowing the central pit from the south to take two small bells with another two hung in the south pit. Nevertheless the frame is very much in an intact early 15th century condition with the addition of good mid 18th century fittings[27], made all the better by the survival of the contemporary floor. The frame is square, of oak, and consists of three east-west king-post trusses supported by curved braces and with long frame-heads, plus 18th century spurs for the extra smaller bells. The 18th century truss which narrows the centre pit is basically the same but with straight braces to the central king post.

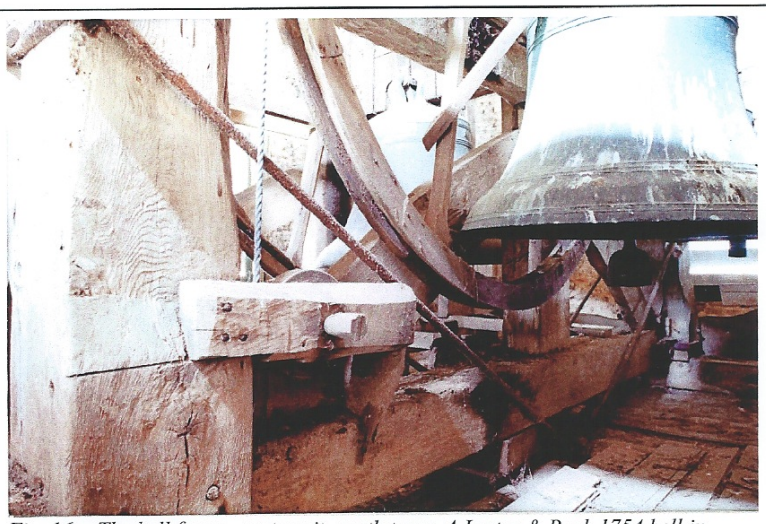

Fig. 16: The bell frame, centre pit, north truss. A Lester & Pack 1754 bell in foreground

Fig. 17: Blocked east ringing chamber window

The ringing chamber walls are of similar flint and random brick construction as the floor above, and the room was originally lit through a lancet to the south and

another to the east which in fact looked into the nave, but has been blocked from the outside. Access to the tower floor is by means of a clockwise winder internal staircase which opens into the chamber through a very good, if plain, early 15th century rectangular oak door set in front of an arched frame. The door has three lower panels and two upper ones, all bound together by vertical and horizontal iron straps and three internal battens. There are 28 treads to the winder steps and reformed risers done as part of the restoration.

Tower Exterior

The plastered brick **parapet** with the four corner pinnacle bases shown in Ladbroke's 1820s drawing was obviously in a parlous state in 1868, and Phipson was in his element here:

> 'Take down the brick parapet and build a new one as shewn in rubble work and Heydon lime mortar (2 to 1). The quoins, the lower moldings, the corbel tables and gargoyles are to be out of Corsham Down, and the coping box ground, all of the best quality and on their natural beds.'

He does not mention iron staples or other reinforcement, and the only metalwork visible is the remains of an iron cramp in the west parapet wall which is the third part of a flagpole runner. In all of the walls is plenty of random 15th century brick reused in the flintwork, of which the contractor had plenty at his disposal as the **belfry windows** were of that material and they were all taken out and renewed as well. Their replacements are again of Corsham Down stone with Box Ground sills and hoodmoulds, again cemented with Heydon lime mortar. Of the remainder of the exterior of the tower Phipson reverted to the usual formula, that the contractor should 'carefully restore all the rubble facing making same good as required and pointing in grey Heydon lime mortar', while the lower two Norman windows were to be glazed in Cathedral rough plate glass.

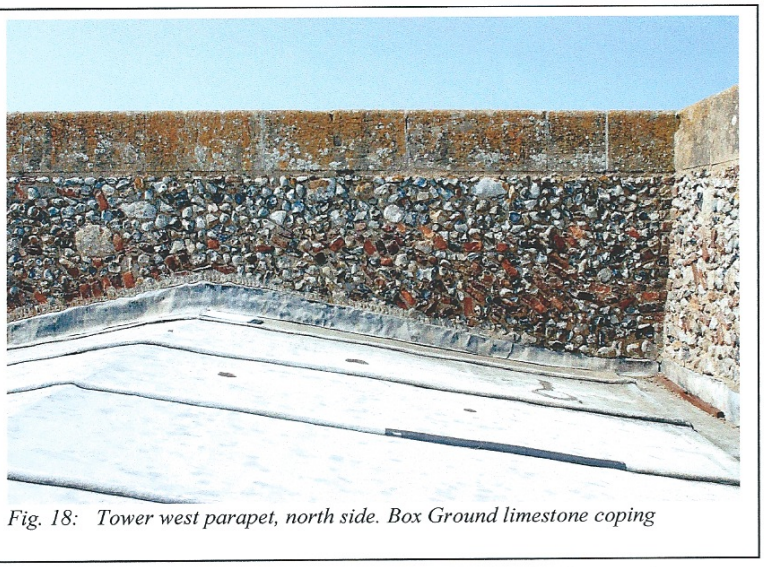

Fig. 18: Tower west parapet, north side. Box Ground limestone coping

Corsham Down and Box Ground are both Bath stones from West Wiltshire, neither of which were ever used in medieval East Anglian churches. Phipson however specified them so often that one wonders if he owned shares. **Corsham Down** is a fine-grained cream or pale buff limestone which is not suitable for exposed parts of a building, and the only major structure in East Anglia to use it extensively is the RC church of Our Lady in Cambridge of 1887-90 by *Dunn & Hansom*. The quarry has closed. The **Box Ground** mine was 6 Km north-west of Bath (and 4 Km south-east of Corsham) and the stone is an even-grained, poorly fossiliferous, light brown or cream coloured oolitic limestone. It attracts lichen when in exposed areas but resists weathering reasonably well. The most prolific stone mine in England in the 19th century, and used until 1968, when the mine closed, for the restorations at Canterbury Cathedral. **Caen stone** is a very fine limestone from Normandy, now with very limited reserves, which are of poorer quality than stone from the exhausted medieval beds. The French government releases it only for restoration projects.

This work left a belfry stage which was considerably taller than the one the architect found, with taller windows and a far more pronounced parapet, but it is to Phipson's credit that he opted for Heydon mortar instead of the first formulation of Portland cement (patented in 1824). Heydon mortar refers to the process of slaking lime with sand, Phipson's specification calling for two parts of clean sand to one of grey lime. These are mixed and sprinkled with water so that the ensuing chemical reaction generates heat, sometimes great heat, and the muck is allowed to slake over a period of several days. To this is added any number of types of separated and washed chopped animal hair – bullock's hair for mortar but horse's hair for plaster – so it is about as close to the medieval masons' formula as it was possible to get in the second half of the 19th century. The case against Phipson's restoration is perhaps that it is not a restoration in the modern sense but an alteration, and in the remaining parts of the church not discussed here he was just as radical. All windows were changed using stones unknown in 15th century East Anglia (apart from Caen stone, which is a real surprise) and not to the same design either, and the roofs are just completely different to the originals, so far as we are aware, using the wrong types of timber.

In his defence we may say, as we may with many church restorations throughout the country, that if he did not do what he did then the church might not stand today.

Fig. 19: Tower roof guttering, north side

Appendix One

R.M. Phipson's Specification for the Restoration
Part One

'Specification of Sundry Artificers work required to be done in the Restoration of the nave, tower and porch of S. Nicholas Fundenhall in the County of Norfolk, and Diocese of Norwich, according to the accompanying plans prepared by Richard Makilwaine Phipson FSA Architect, Norwich and Ipswich. Nov^{b} 1868.

The tenders are to be in three separate amounts namely

1st Tender
Nave roof. Tower. Plastering, Benching and Flooring Nave and Tower Pulpit and Desk etc.

Take off the lead on nave and tower roofs, and allow a full price for the same to be named in the tender. The Churchwardens however reserve to themselves the right of selling it independently should the sum offered for it not appear to them adequate –
Remove the nave roof, Belfry lower floor, seats, flooring, paving, pulpit etc and allow a price for these and all other old materials arising from the restoration. Properly level out , and make good the tops of the walls if unsound or irregular, to receive plates – Beam fill between rafters –
The new nave roof is to be out of the best and cleanest well seasoned red pine all carefully wrought, cut, molded, morticed and tenoned and pinned with oak compressed pins, bolted (sunk nuts) and otherwise framed together as shewn or directed hereafter by the Architect, the various pieces finishing the full scantlings figured after they are planed up –
The plates and cross ties to them (every 3 feet) being out of good Memel
The cornice pine –
The whole is to be covered with 5/8^{ths} v jointed matched New Zealand pine boarding 6 inches wide. Over the boarding are to be securely nailed 2" x 1½"rough splines in the centre of each rafter.
The roof is to be covered with good old sound plain tiles laid on stout fir double lath to a 3½" gauge with a galvanised iron plain tile pin to each –
Plain tile ridge set in cement and hair mortar –
5 lb milled lead flashing to gable and tower, 10 inches wide turned into work. M^{ac}Fairlanes Iron Troughing N^{o}. 38. 6" x 4" [guttering] and square fall pipes 4" x 3". Square nozzles (no heads) and pipes carried into 6" syphons (no brick eyes) with diminishing sockets to 4" –
Lay 25^{ft} in the whole, of 4" drain unglazed common socket pipe to same, and sink two cesspools in the positions hereafter directed steined dry in ½ brick 2 ft 6 in diameter, 4 ft deep domed over.
Give the inside of the troughing four coats of good red lead, and the outside and fall pipes four coats of colour finished a tint to be given hereafter by the Architect –
Stain and size and once varnish roof –
Make and fix out of Caen stone carved corbels to the feet of each of the principals as shewn, and according to details to be given hereafter by the Architect. All to vary in design.
Put to the west gable, Box ground coping, corbels etc as shewn making up rubble work of gable the necessary width height and rake to match old work and in Heydon mortar –
Refix the old apex stone (restored if necessary) and new cross to drawing –

Tower roof

Properly restore as far as required the timbers of the Tower roof and boarding, after the lead is removed forming proper gutters and cesspools with 1¼" rough stuff on the north and south sides with cesspools for outlets through gargoyles. Leave perfect the trap door. Cover the whole with 7lb milled lead 2½" rolls not more than 3ft 6 inches apart and 5lb flashing 10" wide all round parapet let into walls building in splines and drawing them afterwards. Form in 7lb lead sheets through the gargoyles 2ft 6in clear of the walls and 4" in diameter.

Belfry floor

Put in an entirely new framed beam floor in belfry out of clean red pine, wrought and molded as shewn and of the scantlings figured – 6in bearings into walls. Lay over it 1¾" tongued pine boarding wrought on the underside. Make good walls.

Parapet

Take down the brick parapet and build a new one as shewn in rubble work and Heydon lime mortar (2 to 1). The quoins, the lower moldings, the corbel tables and gargoyles are to be out of Corsham Down, and the coping box ground, all of the best quality and on their natural beds.

Belfry windows

Take out the present brick windows in belfry and insert new as shewn. Corsham stone with box ground sills and labels, the inside jambs and arches being finished in red brick all in Heydon lime mortar. Cut in 5/8" slate courses as shewn well run in with cement and regulated to exact equal widths, the tracery being filled in with the same of slates with holes cut to pattern. On the inside fix galvanized iron netting of sufficiently small mesh to prevent small birds entering –

Tower generally

Carefully restore all the rubble facing making same good as required and pointing in grey Heydon lime mortar.

Carefully and properly restore and leave perfect all the moldings, quoins, set offs and other stonework on the outside of the tower, and restore clean down and leave perfect all the inside stonework of same including east and west arches, piers, door and steps to the belfry and all other stonework.

Glaze the lower small windows with Cathedral rough plate quarry lead lights with ½" white margins, both to have iron frame casements and hinges and fastenings the entire size of the lights being on pivots with cords to complete –

The upper single lights are to be crown glass quarry glazing fixed.

Plastering

Knock off all the old plastering on the inside of nave and Tower walls pick up 5ft high from the floor in Portland cement, and the rest in the usual mortar and finish the whole rough stucco. Caen stone tint. Clean down walls of belfry and staircase to it, and repair loose places, if any.'

The remainder of the first tender deals with benching and flooring, the prayer desk, the pulpit and the font, which are not strictly relevant for the purpose of this report, but will be referred to in the main text. The second tender is headed 'North and South Windows of Nave, West Window, North and South Doors, Buttresses. Repair of outside walls etc.', and the third tender 'Porch'.

Appendix Two

Church of St Nicholas, Fundenhall, Norfolk

Chronology of all known work to the fabric of the church and other relevant events

Date	Details	Source
1066	Burghard, a thane, held Fundenhall before Conquest with 2 carucates of land. Manor granted to Roger Bigod 1066. Church in 1066 had 24 acres of free land, woodland, 13 pigs. Holdings rose by 1086	Domesday Book 6.6, fol. 152b
1200	About 1200 the manor came to Sir Robert de Creke whose second wife's son, Sir Bartholomew, inherited the estates	Blomefield (1808), p. 171
1233	Sir Bartholomew de Creke inherited the manor of Fundenhall and married Margery de Harnes	Blomefield (1808), p. 171
1256	Robert de Tatesale granted to Margery de Harnes permission to found a religious house in Flixton, Suffolk, 'wheresoever she would in that town'	Suckling (1846), Vol. 1, p. 190
1258	Margery de Harnes founded a priory for nuns following the Augustinian rule at Flixton 5 km, SW of Bungay and subsequently endowed it with the advowson and appropriation of Dunston and Fundenhall, both in Norfolk.	Suckling (1846), Vol. 1, p. 190 Norwich Episcopal Register, viiii, fol. 125
1273	Inquisition held at Norwich held that the rector of Fundenhall should repair the church 'and if it should happen, to rebuild it.' Bertha de Fundenhale gave 15 acres on condition that the revenues be used to repair and rebuild the church. The Bishop of Norwich required the rector, Robert de Boys, to repair the nave and tower rather than the parishioners	Blomefield (1808), p. 173
1292	18 nuns and a prioress in residence at Flixton	Suckling (1846), Vol. 1, p. 190
1321	The nuns of Flixton could not afford to repair Flixton parish church as a charter of this year obliged them to	Suckling (1846), Vol. 1, p. 193-4
1347	The tithes and revenues of Fundenhall which had not already been given to Flixton Priory were now appropriated by the Prioress on the grounds that they were so poor that they could not afford the diocesan taxes. Bishop Bateman made the grant so that taxes *could* be paid	Suckling (1846), p. 194
1370	The Priory at Flixton undertook repairs to Fundenhall church [i.e. the chancel]	Bodleian Library, Suffolk Rolls, 13
1374	William Pettifer, parish chaplain, was buried under the tower	Blomefield (1808), p. 174
1418	20 marks left for the steeple in the will of John Daniel	NRO NCC Hyrnyng 32
1500	5 marks left in the will of Thomas Knyght for the reparation and leading of a roof	NRO NCC Cage 37
1527	Flixton Priory suppressed by Pope Clement VIII to fund the new colleges at Ipswich and Oxford by Cardinal Wolsey. Wolsey fell from power before this could happen and the suppression left in abeyance	*Suffolk Archaeology, Vol. 8, p. 89-90*
1535	The total value of the priory of Flixton, including the churches of Flixton, Dunston and Fundenhall assessed at £23 4s 0½d	*Valor Ecclesiasticus*, iii, 446
1536	1 August. Parliamentary Commissioners visit and assess the value of Flixton Priory at £20 9s 5d	*Suffolk Archaeology, Vol. 8, p. 89-90*
1537	4 February. Flixton Priory surrendered to the Crown and the buildings and possessions granted to Richard Warton	VCH, Suffolk (1975), Vol. 2, p. 115-7
1546	Advowson and rectory of Fundenhall church transferred to Richard Stephen and George Buck	NRO BER 44 685X6
1547	Stephens and Buck sell the advowson and rectory to Sir John Clere	Blomefield (1808), p. 173
1754	Two bells recast into three smaller ones	L'Estrange (1874), p. 135
1808	The tower contains only 3 bells at this point, and the rood screen was intact	Blomefield (1808), p. 174
1823	Thomas Trench Berney's title to the rectory of Fundenhall disputed owing to missing documents	NRO BER 45 685X6
1846	The screen retained the Coat of Arms of Flixton Priory	Suckling (1846), Vol. 1, p. 195
1868	R.M. Phipson makes drawings in advance of restoration	NRO PD30/10
1869	Restoration of the church by R.M. Phipson	Cox (1911), p. 83
1872	George Day of Eye tenders to replace the bell frame, which was not done	NRO PC88/14

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NRO PC88/14	Estimate for a new bell frame and a peal of five bells, 25 January 1872, from George Day of Eye
NRO BER44, 685x6	Letters Patent from Henry VIII transferring the rectory and church at Fundenhall to Richard Stephen and George Buck
NRO FCB/3, fol. 19	Faculty of 1754 to recast the bells
NRO PC88/14	Estimate from George Day, bellhanger of Eye, to replace the bell frame, 25 January 1872
NRO PD30/10	Drawings and specifications for complete restoration of the church, 1868 and 1869, by R.M. Phipson, County and Diocesan Surveyor
NRO PD30/13	Vestry Minute Book, November 1916 – January 1948

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ENDNOTES

[1] Domesday Book, 6.6
[2] Atherton *et al* (1996), p. 156. The obvious other churches are Quidenham, Old Buckenham, Marham, South Lopham (north doorways), and Gillingham (west doorway)
[3] This is the list for parish churches. Mendicant churches such as the Blackfriars in Norwich and the Greyfriars at King's Lynn or Walsingham also had central towers from the 13th century as part of their particular liturgical requirements, and these *were* lantern towers
[4] Cattermole (1990), p. 49
[5] Cattermole (1990), p. 150. The other two similar bells by Baxter are at Ketteringham and Trimingham
[6] The existing List Description is mistaken about these belfry windows, as was the author of this report in 1999. See Pevsner & Wilson (1999), p. 347
[7] Blomefield (1808), p. 171 and Suckling (1846), p. 190
[8] Norwich Episcopal Register, viii, fol. 125
[9] Blomefield (1808), p. 173
[10] Suckling (1846), p. 193-4. They were indirect taxes, first going to Wymondham Abbey
[11] Bodleian Library, Suffolk Rolls, 13
[12] NRO Wills NCC Hymyng, 32. See also Cattermole (2000), p. 17
[13] NRO Wills NCC Cage, 37. Ladbroke's 1823 drawing of the church shows a lead roof
[14] Victoria County History (1975), p. 115-7
[15] NRO BER 44 685x6 and Blomefield (1808), p. 173
[16] Blomefield (1808), p. 173
[17] Blomefield (1808), p. 173. The impropriator was a lay person in whose hands was placed the benefice or the revenues of a parish church, or both
[18] Soros & Arbuthnott (2003), p. 136
[19] Parliamentary Accounts (1876)
[20] It is a pity that no churchwardens' accounts from the 19th century survive, as it is highly probably (as is the case in other churches) that it would have catalogued an endless series of piecemeal repairs and patching up
[21] The specification would have been sent out to those contractor's willing to tender, and is dated 18 months later than the drawings referred to. There are ten pages of which pages 1-5 are standard terms and conditions, which basically make the contractor responsible for any mistakes, even those of the architect. A £5 penalty charge is to be levied for every week the work is late. Pages 6-10 carry the detailed specification
[22] It may be that the medieval roof was in such a state that nothing was capable of reuse, but Phipson was a robust believer in total renewal irrespective of the architectural value of the subject of his 'restoration', unless what he was working on was accepted as nationally important, such as the nave roof at Gissing in Norfolk, which he restored in 1876-7. J. Charles Cox in his *Norfolk Churche*s, Vol. 2, 1911, p. 83 makes the comment about the celebrated screen at Fundenhall that 'the rood screen…was most disastrously cleared away in 1869'
[23] Curiously the central ridge is not level but drops from west to east by about 100 mm to assist water run-off, so that the east tower parapet appears higher than the west when one stands on the roof
[24] This is an historic decay, as the last time the bells could be swung full-circle was in the 1940s, although repair in 1988 meant that swing-chiming was possible. As early as 1872 it was felt that replacement of the bell frame was necessary and George Day of Eye tendered for the work (£80), but fortunately it was not done
[25] NRO FCB/3, fol. 19, and L'Estrange (1874), p. 135
[26] The fourth was the one that was found to be cracked in 1981
[27] Cattermole (2000), p. 19