Heaven in the Rafters

A Historical Consideration of Angel Roofs

What Are Angel Roofs?

By the late 1300s, English structural and decorative woodworking had attained an outstanding level of skill and sophistication. The angel roof is one of the most impressive and complex examples of this skill. The hammer beam roof is another. In East Anglia, the two structures often combine, but rarely anywhere else in the country.

Between 1395 and the beginning of the Reformation in the 1530s, several hundred angel roofs were built in England, most of them during the 1400s, a century of usurpation, conquest and loss in France, the Wars of the Roses and the birth of the Tudor dynasty. Of these medieval angel roofs, over 170 survive (this total includes some that have been defaced or where the angels have been removed). They occur almost exclusively in churches, and predominantly in East Anglia, particularly in the counties of Norfolk and Suffolk.

Angel roofs are found in a range of structural patterns, but whatever their form, they are all, by definition, adorned with carved images of angels. In some churches, the angel figures are over 6 feet tall; in others, the carvings are half-body figures or smaller low-relief carved plaques. In some roofs, only a handful of angels remain, elsewhere dozens, while a few contain over 100 winged carvings.

Because they are inaccessible, often literally obscure, immovable and challenging to photograph, angel roofs have been almost completely neglected by academics and art historians. This book is a first attempt to redress that neglect, and to bring the beauty and craftsmanship of these remote medieval creations – which are often masterpieces of both medieval sculpture and timber engineering – to a wider audience.

Why Do Angel Roofs Matter?

There are an estimated 9000 medieval churches in England.[1] Today, most are largely devoid of medieval images. The walls are generally whitewashed or stripped back to bare stone. Most of the glass will be clear, or, if stained, predominantly Victorian. There will be little statuary, and such statues as there are will be post-medieval. There will often be no altar screen dividing the nave from the chancel, and the chancel arch itself will be empty.

So sparse and monochrome an interior would be unrecognizable to the medieval worshipper. Until the Reformation swept such things away, England's churches blazed with colour and were filled with didactic and devotional images. Medieval religion was intensely visual – it had to be; many of the faithful could not read, and even for those who could, manuscript books were rare and expensive objects. The first *printed* Bible in English, Tyndale's version of the New Testament, was not published until 1526, less than twenty years before Henry VIII's break from Rome.

As a result, visual imagery played a huge part in conveying the messages of religion. Wall paintings told the stories of saints, depicted the Saviour and warned against the vices. Graphic "Dooms" – paintings of Judgment Day – illustrated the rewards of piety and the

hellish penalties of sin.[2] Stained glass blazed with angels, saints and the Holy Family; niches and altars held polychromed devotional statues; and painted altar screens glowed with images of saints, angels and apostles.

There were chantry chapels, where Masses were given for the souls of the wealthy departed; guild altars, at which medieval trade bodies honoured their patron saints; and Easter sepulchres – carved representations of Christ's tomb – which became a focal point for vigils and dramatic re-enactments in Holy Week. Above all, in every church in the land, set high in the chancel arch, the rood – a sculptural depiction of Christ crucified, flanked by the Virgin Mary and St John – towered above the congregation as a constant reminder of Christ's sacrifice and the coming Judgment.

In 1534, England changed forever. Henry VIII broke with Rome and established a new state religion with the king, not the Pope, at its head. A religious revolution was underway, and over the decades that followed, it unleashed a tidal wave of iconoclasm, as the new religion obliterated the visual images of the old – now seen as discredited, idolatrous distractions – and replaced them with a new emphasis on scripture.

The Dissolution of the Monasteries, themselves treasure houses of medieval religious art, and the destruction of venerated pilgrimage statues under Henry VIII in the 1530s was merely the beginning. Henry's successor, Edward VI (1547-53), raised in the Protestant religion and surrounded by radical Protestant counsellors, widened and intensified the attack on religious images. Wall paintings were whitewashed over, statues smashed and rood sculptures torn down, and even stained glass became a target for the reformers. The process continued under Elizabeth I (1558-1603) and then resurfaced in a vicious second wave during the English Civil War (1642-51) as Puritan radicals (targeting glass, bench ends, inscriptions and remaining sculptures) renewed the attack.

It has been estimated that by the late 1640s, more than 90 per cent of English medieval religious imagery had been destroyed. Such medieval figurative art as remains today in English churches is the minutest tip of a lost iceberg of sculpture, painting and stained glass.[3] The English Reformation was not just a religious revolution. It was an artistic holocaust.

In the words of Professor Phillip Lindley, "Iconoclasm . . . reduced the brightly-painted, image-encrusted churches of medieval Britain to white or grey boxes in which a purified religion could be safely preached and read. And it . . . resulted in the destruction of almost the entire output of medieval religious sculpture in Britain."[4]

But amidst this destruction, one category of medieval religious sculpture suffered much less harshly. Roof angels were far above the ground, inaccessible and sometimes actually supporting the church roof. Many still succumbed to the iconoclasts, but to tear roof angels down required determination, time and the co-operation of locals, and these were not always available. (By contrast, most stained glass was a sitting duck, which is why so many medieval churches today have only clear glass or Victorian replacements.)

Simply because they were hard for Reformation image destroyers to reach, roof angels are now the largest surviving body of major English medieval wood sculpture. High up in darkness or extremes of light and shade, they are often overlooked by visitors, but these remarkable and beautiful structures testify to the skill and vision of medieval carvers and carpenters, and they have much to tell us about the beliefs, economics and power structures of medieval England.

Where Are Angel Roofs Found?

Over 170 medieval angel roofs survive in England and Wales (including those that have been defaced or where the angels have been removed). All but a handful are in parish churches.[5]

70 per cent of the surviving total is in East Anglia, which is traditionally defined as the three counties of Norfolk (27 per cent), Suffolk (29 per cent) and Cambridgeshire (14 per cent). A further 13 per cent are in counties that border the region (Lincolnshire: 7 per cent, Bedfordshire: 4 per cent, Essex: 2 per cent, Hertfordshire: 1 per cent). Angel roofs are thus an overwhelmingly East Anglian and eastern counties phenomenon.

Figure 1: Medieval Angel Roof Locations

Appendix 1 provides detailed location maps for Norfolk, Suffolk and Cambridgeshire, and a gazetteer.

There are small pockets of angel roofs elsewhere, notably in Wales, Somerset and Devon, but these are very different in design to the angel roofs of the eastern counties, and would seem to have developed separately.[6]

The above map raises the following question: Why are angel roofs so curiously specific to East Anglia? Academics and art historians have advanced a range of theories, none of them entirely convincing. We will return to this question shortly.

The First Angel Roof

The earliest known angel roof is not in East Anglia, but in London, at Westminster Hall, now part of the Houses of Parliament.

Built mainly between 1393 and 1398, this colossal oak roof is the crowning achievement of Hugh Herland, master carpenter to Richard II. It was installed as part of the enlargement and restoration of the Hall for this most image-conscious king.[7]

Westminster Hall's is both the first known angel roof and the earliest surviving major hammer beam roof.[8] The architectural historian John Harvey described it as "the single greatest work of art of the whole of the European Middle Ages. No such combined achievement in the fields of mechanics and aesthetics remains elsewhere, nor is there any evidence for such a feat having ever existed."[9]

68 feet wide, 240 feet long and 92 feet high, bridging a span previously unprecedented in England, Herland's roof features thirteen pairs of hammer beams carved into the form of angels, each of which bears the royal arms of Richard II. The angels project horizontally from the wall plates, intersecting huge arch ribs and stretching beyond to support vertical hammer posts which again connect with the curved ribs higher up.

A staggering masterpiece of art and engineering, Herland's roof uses this interlocking combination of colossal timber arches and gargantuan hammer beams to provide rigidity

without the need for columns, thus leaving the floor space in the Hall entirely open. It has been estimated that the roof timbers alone weigh 660 tons, while the lead with which the exterior of the roof was originally covered weighed a further 176 tons.[10]

In an age without constructional physics or the ability to perform complex mathematical calculation, medieval roof engineering was an empirical and risky business, and one that often entailed a high degree of redundancy as carpenters erred on the side of caution. This is true at Westminster, where the beauty of Herland's design conceals enormous robustness. By 1914, when the roof was restored, over 70 per cent of its timbers were found to be rotten due to attack from deathwatch beetles. Cavities large enough to hold a full grown man had been eaten into some of the beams. That the roof still functioned is testament to the strength of Herland's "belt and braces" approach.[11]

> The medieval carpenter did what today's engineer might call "overbuilding." The carpenter called it sound, sensible, right, proper. The carpenter's knowledge came from what he put his hands on, and from materials that he knew both in the woodland and in his yard. . . . He had a deep visual imagination of the way forces act. . . . For the carpenter, prudence, not economy, was the first virtue. He made redundant systems intentionally, much as the oak tree does with its dormant buds and its hundreds of miles of roots. A failure of one piece will not bring the whole thing down.[12]

Even today, with the benefit of computer modelling and pressure sensors, architectural experts disagree on exactly *how* Herland's roof works, but its strength is clearly based on the combination of arches (arch ribs) and braced right-angles (hammer posts and hammer beams), with point load further dispersed through vertical tracery (spandrels). These and related structural techniques were subsequently deployed in many of the angel roofs of East Anglia.

Though we marvel at the expertise of craftsmen whose buildings still stand 600 years or more after their completion, it is worth remembering that we do, of course, only see the buildings that have succeeded. Medieval records are full of references to structures that collapsed. As Salzman observes in his great work *Building in England* (1952), jerry-building is not exclusive to the modern era. Inevitably we view the buildings of the Middle Ages through the lens of survivorship bias.

> . . . it is refreshingly clear that if the medieval craftsman-architect could create masterpieces, he could make as bad blunders as any of his desk-bound successors; and that if the British workman of the present day is not as good as he used to be, he probably never was.[13]

Why Angels at Westminster?

Who made the decision to adorn Westminster roof with angels, and in doing so apparently gave birth to an entire genre of medieval roof design, is not known. It may have been Richard II himself. There is certainly much evidence that angels played a prominent part in the iconography of his regime, as the king sought to establish a more absolutist, non-consultative form of monarchy than had previously been seen in England.

The *Wilton Diptych*, a portable altar screen made in the 1390s for the king's private devotions (now in the National Gallery, London), shows Richard being presented by saints to the Virgin and Child, who are flanked by eleven angels wearing his livery badge of a chained white hart.

Angels also featured in public ceremonial surrounding the king. At Richard's coronation procession in July 1377, the Great Conduit in Cheapside was transformed into the Heavenly City, and a mechanical angel bowed down and offered him a golden crown.[14] An eyewitness account of Richard's reconciliation with the city of London in August 1392 records that "At his entry into Cheapside . . . came two angels down from a cloud, the one bearing a crown for the king . . . and the other another crown, which was presented to the queen. . . . [T]he conduits of the city . . . ran with wine . . . and angels made great melody and minstrelsy."

Elsewhere during the pageant, a throne was set up, surrounded by three circles of angels to symbolize the angelic orders attendant on God, while on the canopy of Richard II's tomb in Westminster Abbey, angels bear the arms of the king and of his first wife, Anne of Bohemia.

Angels were evidently part of the imagery used by Richard II to project his divinely ordained status. Westminster Hall, with its twenty-six angels bearing the king's arms on high, is the most monumental example of his attempts to assert absolute royal authority through art. But despite the heavenly images, Richard's earthly power was always precarious. His hauteur (he was the first king to insist on the title "Royal Majesty" and to require courtiers to bend the knee) and authoritarianism were not accompanied by political astuteness, and for most of his reign, power see-sawed between the king and a faction of nobles alienated by his absolutist style and unwarlike favourites.

Ironically, the first major event to take place under the newly constructed angel roof at Westminster was not a demonstration of Richard II's power, but the confirmation by Parliament of his deposition and replacement as king by Henry Bolingbroke, Henry IV, on 30 September 1399.

Why Are Most Angel Roofs in East Anglia?

If Richard II's preoccupation with the projection of royal power explains the first angel roof at Westminster, what is the reason for the subsequent concentration of angel roofs in East Anglian churches and their sparse occurrence elsewhere in England and Wales?

It has been suggested that the wide, bird-filled skies of the eastern counties inspired medieval East Anglians to adorn their church roofs with angels, as divine feathered intermediaries. This notion follows the art-historical theory of neuro-plasticity – the idea that the images and shapes that societies adopt in their art are subconsciously a product of environment and surrounding sensory influence.

Alternatively, Sandy Heslop, Professor of Visual Arts at the University of East Anglia, has argued that what is probably the first angel roof in the region (at St Nicholas, King's Lynn, likely to date from c. 1405-15) was built as a counterblast against the Lollard Heresy.

Lollardy was a kind of proto-Reformation movement of the 1400s, particularly strong in East Anglia. Its adherents rejected the authority of Church hierarchy, did not believe in transubstantiation and deplored the role of images in worship, viewing them as an idolatrous distraction. Crucially, the first Lollard martyr, William Sawtrey, was a priest at St Margaret in King's Lynn and at Tilney in Norfolk. He was burnt at the stake in London in 1401, and amongst the (many) charges against him was that he had said he would "rather worship a man . . . than an angel of God".

Professor Heslop has suggested that the construction of the angel roof at King's Lynn was a local repudiation of Sawtrey's statement and a reassertion of Roman Catholic orthodoxy through art, a fashion that then spread across East Anglia. (A similar anti-Lollard motivation has been advanced for the much later prevalence of Seven Sacrament fonts in East Anglia by Professor Ann Nichols in her book *Seeable Signs: The Iconography of the Seven Sacraments, 1350–1544*.)

However, many parts of the country have bird-filled skies, but not angel roofs, and the idea that the earliest East Anglian angel roof was motivated by a desire to repudiate one of the less prominent heresies voiced by William Sawtrey, at least four or five years after he had been executed in London, seems rather acrobatic.

Let us instead strip the problem back to first principles, and address some basic questions: What elements were essential to enable the widespread construction of angel roofs in East Anglia, or indeed, anywhere else? Furthermore, which of these elements was peculiar to, or disproportionately present in, East Anglia compared with other regions?

It seems to me that there are three preconditions for any ambitious construction project, medieval or modern: the money to pay for it, the will to do it and the technical expertise to execute it.