

A sublime botch

*Chapel of King's College,
Cambridge*

As the university prepares to celebrate its 800th anniversary, John Goodall takes another look at the masterpiece that popularly symbolises Cambridge
Photographs by John Crook

THERE is no sound more evocative of an English Christmas than the voice of a lone chorister opening the service of Nine Lessons and Carols at King's College, Cambridge. Part of the music's power derives from the extraordinary setting in which the service is performed. With its soaring interior and walls of glass, the college chapel is justly celebrated as one of the crowning masterpieces of late-medieval architecture in Europe (Fig 1).

Written into the fabric of the chapel—perfect and ordered as it appears to be—is a fascinating and surprising history. This was not a building designed by one individual and raised in a year or so, as many major works of architecture are today. It was erected over a period of nearly 80 years by no fewer than four master masons, each of



↑ Fig 1: The gigantic outline of King's College, Cambridge, presides over the skyscape of the city. The chapel was originally intended to form one range of a quadrangle

The stained glass

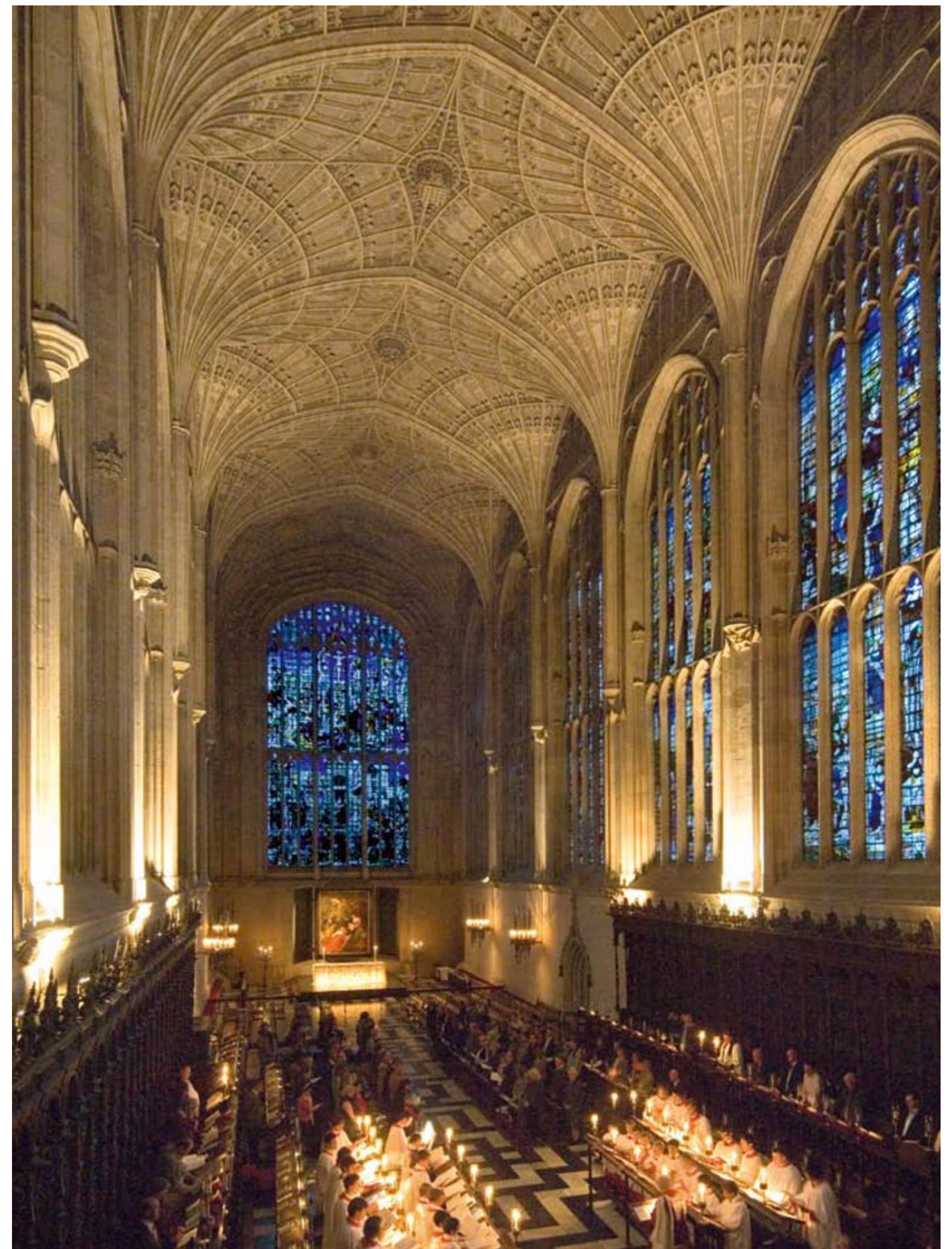
The nativity scene from the outstanding 16th-century stained-glass cycle in the chapel, is one of the finest and most complete of its date in Europe. Work was initiated by the king's glazier, Barnard Flower, in 1515. At his death in 1517, work was suspended until 1526, and then dragged on into the late 1540s. The designs largely ignore the divisions of the windows, and make use of a varied palette of colours. The scenes in the glass are ordered with corresponding New and Old Testament scenes. It is a mark of the admiration in which these windows have been held that they escaped the hands of iconoclasts during the Reformation and the Civil War.



whom materially contributed to the design. Even by the standards of the Middle Ages, when great buildings commonly evolved as they were being constructed, the chapel had an unusually confused history.

King's College was founded by Henry VI in 1441 (Fig 5). Attracting the patronage of the king to Cambridge marked an architectural watershed in the development of the town. Hitherto, the university had had nothing to compare with the great medieval foundations of Oxford, such as Merton or New College. From 1441, it had no difficulty in attracting patronage for grand collegiate foundations on the same scale as its rival. ➤

→ Fig 2, facing page: The dying light of the day filters through the splendid 16th-century stained-glass windows of the choir during Evensong





← Facing page, Fig 3: Such is the apparent harmony of the chapel interior that it is hard to believe that the fan vault was an afterthought to the main design

Founded in 1441 and dedicated to Mary and St Nicholas (Fig 4), the college was to be housed in a splendidly appointed quadrangle with a freestanding chapel to one side. Work to the buildings was carried out from 1443 under the direction of master mason Reginald of Ely. In the same year, Henry VI formally linked the college with his other great foundation—which he had established in 1440—at Eton. His intention was that boys schooled at Eton, in the shadow of his seat and birthplace at Windsor, could pass to Cambridge for their university education.

Henry VI became obsessed by these two sister foundations, and his ambitions for them grew as the 1440s progressed. Their endowments in particular—which largely comprised lands seized from the Church by his father, Henry V—promised to transform them into the greatest religious foundations ever established by an English king.

Eton particularly absorbed his attention, and the college buildings there were to prove hugely influential. Among its architectural followers was a second royal Cambridge college—St Bernard's or Queens'—founded as a counterpart to King's by Henry VI's queen, Margaret of Anjou, in 1446. It is from Eton and Queens' that the principles of late-medieval Cambridge collegiate design derive.

The second phase of works

In 1448, with work to both Eton and King's well advanced, Henry VI took an astonishing decision. He proposed to start both colleges again and create buildings for them on a heroic scale. In each case, the college chapel was to be huge and vaulted throughout in stone, one of the marks of a great church.

New operations at both sites were begun

The fan vault

In the 1350s, a new and distinctively English form of vaulting was invented in the cloister at Gloucester Abbey, now Gloucester Cathedral (right). The fan vault was usually reserved for small and exquisitely decorated interiors, and takes its name from the semi-circles or fans of decoration that it characteristically incorporates. These are applied to the springs of the vault, each of which is in the shape of a split ice-cream cone. As they employ circles, fan vaults sit most tidily over square spaces. To erect a fan vault over a rectangular bay involves either distorting the geometry of the design or using diminished segments of the constituent cones.



↑ Fig 4: The vandalised figure of the Virgin Mary, supported by angels, above the south choir door. King's College is dedicated both to her and St Nicholas



↑ Fig 5: The great brass lectern in the choir was donated by Robert Hacumben, provost 1509–28. It is surmounted by the figure of Henry VI, the founder of the college

accordingly, although with many subsequent and confusing changes of detail. At King's, Reginald of Ely retained oversight of the new project, although he presumably worked to a brief agreed both with the king and the royal master mason (and the probable designer of Eton), Robert Westerley.

The essential form of the chapel as it now exists can be attributed to Reginald: a tall central space with a series of low chapels or closets on either side (Fig 6). This vast structure was originally intended to form one range of a college quadrangle, but none of the associated buildings was ever completed.

Soon after work began, Henry VI temporarily lost his mental faculties, and the slide into the civil war familiar as the Wars of the

Roses began. Without the impetus of royal enthusiasm, work at Cambridge and Eton languished. All that was actually completed of the chapel at King's was the lower section of the choir and two—or perhaps three—of the side closets or chapels (Fig 7).

Following the accession of the Yorkist Edward IV in 1461, the two colleges began to be stripped of their endowments. King's was forced to rethink its entire architectural programme, and, in the 1470s, under the direction of a new master mason, John Wolryche, work progressed slowly to the upper level of the choir. It is possible that, for reasons of economy, he reduced the proposed height of the building from 90ft to 70ft. Technical changes he made to the components of the elevation further prove that he either simplified the plans for the vault or—more probably—abandoned it altogether in favour of a timber roof.

Edward IV was, however, eventually persuaded to relent his persecution. The crucial figure in the salvation of King's was an early scholar of the college and a notable patron of the university, the Lord Chancellor and Bishop of Lincoln, Thomas Rotherham.

Basking once more in the warmth of royal favour, the ambitions for the college chapel revived. A third mason, Simon Clerk, now stepped in to direct the work in 1477. Clerk came to Cambridge from Eton, where he had been overseeing building operations, probably since 1453. At first, he appears to have completed much of the chapel choir to the height established by his predecessor. At some point, however, the decision was





↑ Fig 6: The side chapels in the nave are separated from the main space by elaborate screens of tracery. Within the panelling are suspended massive heraldic sculptures, including the arms of England with supporters and the crowned emblems of the Tudor dynasty: roses, fleurs-de-lis and portcullises. Wastell's rich detailing is brilliantly integrated within the constraints imposed by the fabric he inherited

taken once more to vault the chapel in stone, and this presented a technical problem.

As completed so far, the heads of the walls were structurally insufficient to support a stone vault. What Clerk did, therefore, was build an extra blind storey above the level of the windows with a gallery inside the thickness of the walls to absorb the additional load. This solution was probably inspired by one of his earlier undertakings: the insertion of a vault within the great Romanesque abbey church at Bury St Edmunds in Suffolk (now lost).

Confusingly, Clerk's proposed vault was completely different from that in place today. However, its outline is legible in the form and surrounds of the east window, which he completed. From this evidence, it appears that he intended to build a so-called penetrated barrel vault. This type of construction, long popular in England and found over the choirs of churches such as Wells Cathedral, Sherbourne and Tewkesbury Abbeys, was perfectly suited for the creation of fantastically rich surface decoration.

Under Edward IV and Richard III—also

'In technical terms, the vault is an extraordinary achievement. Its panelled surfaces are, in places, only 2in thick'

an enthusiastic patron of the project—Clerk pushed forward the work to the chapel at an impressive rate. By 1485, the six bays of the choir stood structurally complete, although without a vault. Some of the windows had also been filled with glass.

Then the death of Richard III at the battle of Bosworth once more threw the future of the chapel into doubt. Work lapsed and, for more than 20 years, nothing substantial happened. The partially completed structure must have towered over Cambridge like a vast and unsightly tower block.

Henry VII was probably inspired to complete the chapel through the influence of his

formidable mother, Lady Margaret Beaufort. She was involved in the foundation of her own college at St John's and the resumption of works at King's can clearly be connected to a visit he paid her at Cambridge for the St George's Day festivities in 1506. To oversee the operation, the fourth and final master mason, John Wastell, was appointed.

Wastell was already well known in Cambridge, having almost certainly designed the nave of Great St Mary's Church immediately opposite King's. He had also been employed by the archbishop of Canterbury in constructing Bell Harry, the tower over the crossing of Canterbury Cathedral. This latter project involved complex engineering. It must have been a valuable experience for the task he was about to take on at King's.

Vaulting the chapel

Under Wastell's direction, the nave or antechapel was completed. In so far as its proportions and forms were concerned, Wastell's hands were tied by what his predecessors had created, although he did alter some details and add a wealth of superb heraldic sculpture

celebrating the Tudor dynasty. Completely his own, however, was the culminating creation of the interior: the high vault (Fig 3).

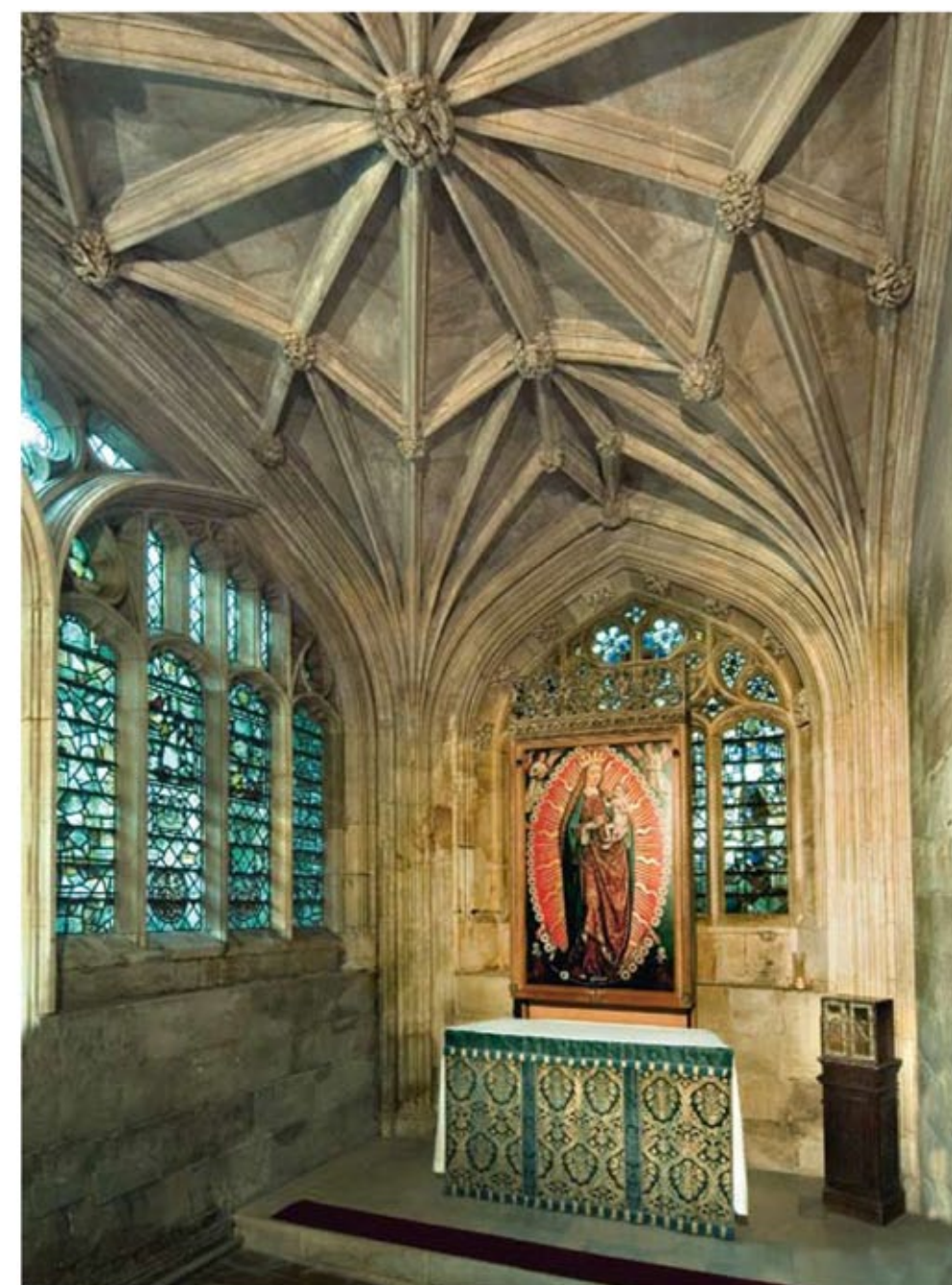
At King's, Wastell determined to create a fan vault across the full 41ft span of the chapel; the largest surviving structure of this kind, and probably the largest ever erected. Setting aside the formidable engineering problems this scheme posed, the existing fabric of the chapel made it aesthetically complex, too.

The bays of the chapel were rectangular in plan, not square, as is most convenient for a fan vault. To compound this awkwardness, the wall shafts on which the fan vault were to be supported projected too deeply from the face of the walls and were moulded to suit a different kind of structure.

Wastell brilliantly played the two problems off against each other. The wall shafts were made to support a series of arches that span the interior. These punctuate the surface of the vault at regular intervals and help order what might otherwise appear to be awkwardly shaped vault cones adapted for the rectangular bays. In the central panel of each bay is a huge carved boss.

In technical terms, the vault is an extraordinary achievement. Its panelled surfaces are, in places, only 2in thick. Each stone is precisely cut for its location like a piece in a gigantic jigsaw puzzle. This exquisite masonry eggshell sits within the storey added to the building by Clerk. The one infelicity of the design is that the line of the vault clips some of the ornament in the upper register of the building.

By 1515, the fabric of the chapel was complete and attention turned to the glass (Fig 2) and furnishings, including the magnificent pulpitum screen and choir fittings (Fig 8). It is testimony to the admiration in which



↑ Fig 7 above: The north-east chapel was completed in the first phase of works between 1448 and 1461. It is covered by a lierne vault with a star-shaped pattern of ribs. Vaults of this kind were probably intended originally to cover the main body of the church. ← Fig 8 left: The superb series of choir stalls was completed in the 1530s. Behind the seats is a repeated series of royal arms supported by lions, dragons, yales and greyhounds



the chapel has consistently been held that these features survive almost intact to the present day. The most significant change to the interior in recent years has been the controversial lowering of the altar to accommodate the gift of Rubens' *Adoration of the Magi* in 1968. Considering the context of its creation, the chapel can surely claim to be the most sublime botch in the history of architecture. 🐉