

HOW THE MINSTER WAS BUILT

A fascinating tour looking in depth at how this great church was built by the mediaeval masons, with a glimpse at the modern stoneyard. While it may appear that the Minster has many errors in its construction these actually give valuable clues as to how the Masons built and in which order and how they built around existing buildings. The order of the tour is the order in which the building was built.

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SOUTH TRANSEPT (c.1220-1250)

We start the tour here, as it is the oldest part of the Minster above ground. Under the Minster is the Roman Headquarters building, which is at roughly 45 degrees to the present building; this Roman building, which may have been the basis of Edwin's wooden church and palace in 627 AD and is on the alignment of Petergate and St Michael-le-Belfrey church, has given the Minster problems over the centuries. The Norman cathedral built by Archbishop Thomas of Bayeux in 1080 was askew across the hard Roman foundations and has been unstable round the Tower crossing ever since. The stone Anglo-Saxon cathedral destroyed by the Normans was probably North of the Minster in Dean's Park.

In c.1220 Archbishop Walter de Grey started the rebuilding of the South Transept, which started a process by which the Norman cathedral was progressively rebuilt over the next 252 years. It is doubtful he realized this is what was going to happen, as much of the Minster was relatively new in 1220.

The **SOUTH TRANSEPT** was built about 3' off-centre due to the presence of earlier buildings; this is clearly visible in the windows of the South Wall which, including the Rose window, are off centre. The Transept also does not meet the Tower arch centrally but about 3' off-centre. Oops!

NORTH TRANSEPT (c.1230-1260)

But it would appear that the North Transept was built to the designs of one Master Mason, who designed it from top to bottom with the superb Five Sisters Window as a centrepiece inside and out. The North Transept is off-centre like the South but this is concealed far more skilfully.

CHAPTER HOUSE (c. 1270-1290)

The present Chapter House was built slightly askew to the rest of the Minster – this is most obvious in the doorway into the Chapter House which is at a slightly different angle to the **Vestibule**; this is most obvious in the floor. The Minster was painted with bright colours inside in the Middle Ages-traces of red, blue and gold paint and heraldic designs are clearly visible in the Chapter House Vestibule. The exterior of the Minster was also painted with a sort of buff stone paint, which protected the stone from weathering. It is the lack of such protection since the Middle Ages and pollution that has led to the decay of the stonework. The upper storey of the Vestibule was used as a **Mason's Drawing Office**-they probably realized there was a good bit of work in York so they might as well make themselves comfortable! The drawing office was provided with a fireplace and garderobe flushed by water from a gargoyle! Modern Minster employees complain that there is no toilet up the Tower, where they have to sit on duty for hours on end, yet the 13th C masons had got it sorted! The Masons used to do their designs for the stonework full size on wet plaster on the Drawing Office floor, then make wooden templates from the designs from which to carve the stones. The floor was used over and over again and the templates of centuries still hang in the room. The Chapter House is a remarkable piece of engineering as the walls are almost all window-the weight of the vault is taken *upwards* by great vertical timbers in the roof; the weight is then transferred *sideways* by huge beams and then downwards clear of the walls by the Flying Buttresses. The model of the roof illustrates this well. The huge roof and vault was prefabricated, as the timbers in the roof still have markings on indicating which timber was to join which. The great roof trusses etc were probably fabricated on the ground, marked up, dismantled, hoisted up and then re-assembled.

The Chapter House carvings-all once painted-are very amusing, and are mainly original; Victorian replacements stand out easily. Some are undoubtedly caricatures and some are very wicked. Scenes include a Man sticking his tongue out, a Loving Couple cuddling, the Green Man (the pagan fertility god of the woods so beloved of the Masons), an Eagle pecking a man's eyes out, a Cat chasing a Mouse- 'Tom & Jerry', a Talkative Woman with her mouth tied up, a Man having his tongue bitten by Lizards, a Peeping Tom with his eyes blindfolded, a man doing something very strange to a sheep, a Madman grimacing and a Man with Toothache! What these represent is not certain, but in the Middle Ages the high ceilings were painted with scenes of Heaven and the Saints, as were the Stained Glass windows; so perhaps these carvings represent the sin and wickedness of earth while above was sinless Heaven.

NAVE (1291-c1360)

This was designed initially by 'Simon le Mason' – the first Master Mason whose name we know. He seems to have conceived the idea of building a completely new Nave to replace the Norman one; in the event his designs were changed as the building rose due to the inordinate time it took to finish the Nave – about 70 years. Work was held up by the Black Death, war with Scotland and shortage of money. Sources of income were from pilgrims to the shrine of the newly canonized (1227) St William of York, part of whose relics were in the nave-the rest in the Choir and Noble families. One Peter Mauley, relative of the donor of the Mauley window in the S Aisle had to pay 100 marks (about £33) as a penance for adultery-one hopes it was worth it. One of the last jobs done on the Nave was the junctions with the two Transepts, where a new aisle had to be cut through a solid wall and a chapel-these junctions are very awkward with higgledy-piggledy vaulting!

One of the problems of building in the Middle Ages was getting a level building. It was relatively easy to build a straight wall, using a plumb bob, and a level wall using a level with a dangling string. But how did you ensure the two outside walls were rising from the same starting height and at the same level? The answer is a trough of water, which acted a giant spirit level. But in the new Nave of York Simon the Mason could not use the trough as the old Norman nave was in the way. So the two outside walls rose up about one foot different in height, with the north wall lower than the south. This is visible in the Wall Benches, put for the old to sit on, hence "the weakest go to the wall". In the 18th C the Nave was re-floored level, whereas before it had sloped downwards south to north. This covered the bottom foot or so of the wall benches and also the bases of the aisle columns, which had therefore to be provided with false bases.

Now stand in the centre of the Nave and look east to the **Choir**, which is clearly off-centre; the Choir Screen is also off-centre with 8 Kings to the right but only 7 to the left; and the Organ is central to neither Nave or Choir. The reason is that the Master Mason responsible for laying out the Choir, William de Hoton, had a 'bad peg day' in 1361!

CHOIR (1361-c. 1420)

By the mid 14th C the early Gothic 1160 Choir was old fashioned and it was decided in 1361 to rebuild it.

William de Hoton's 'bad peg day':- when he started laying out the new Choir from the East, the old Norman Choir was still standing and in the way of a sight line to the Tower. So when William de Hoton put his pegs in the ground in 1361, he got them in slightly askew so that as over the next 60 years the Choir advanced westwards, finally being completed about 1420, it got more and more out of true, to the north. By the time in the early 15th C the new Choir met the Tower Arch it was about 3 feet too far north, hence the misalignment visible from the Nave. This is also very visible on the west wall of the Choir where it meets the Tower Arch, with more columns on the left than the right. What is more the East End foundation was laid on sand and much of the rest of the Choir on hard Roman buildings, so it began to lean out. They just carried on building with the result that the top is overhanging *four feet*, but is tied back into the building; it was all underpinned 1967-72. Also the eastern bay of the Lady Chapel is wedge shaped being about 4 feet wider at the east than the west!

Work also seems to have started on heightening the **Central Tower** in about 1400. There were 37 Master Masons and 7 Carpenters, plus Labourers, working in 1419, in two teams, one on finishing the Choir and the other on the Central Tower. It was during the rebuilding of the Central Tower that disaster struck in 1407.

CENTRAL TOWER AND CROSSING (c.1400-20)

From about 1400 work seems to have been going on to rebuild the **Central Bell Tower**, which had a wooden lead sheathed spire. Its **collapse** came in 1407, in on itself rather than toppling sideways, causing the pillars round the Crossing to lean; this is clearly visible in all the pillars near the Tower, while the North Transept west Clerestory is buckled and bent from the collapse. The collapse was blamed on the carelessness of the Masons. What had happened is that over the previous century the old Norman tower, which had been buttressed at each corner pillar by solid walls, had had these walls removed to make openings to the new Nave and Choir Aisles. The collapse was inevitable.

King Henry IV sent his Master Mason William of Colchester to superintend **reconstruction** of the Tower, but he did not stay many years, as he was unpopular with the York Masons. He made the four great Tower pillars wider and stronger hopefully to raise the tallest Tower in all England with Bell Stage and Spire, perhaps 5-600 feet high (compared with 200 feet now) to rival Old St Paul's in London. The enormous strains imposed by the 10,000 tons of the Central Tower are clearly visible in the buckling of the screens from the Transept to the Choir aisles. The Central Tower showed alarming signs of collapse in the 1960's. This was due to a fall in the Water Table due to improved modern drainage, thus causing the ground to shrink and leave the foundations unsupported. The Central Tower, and much of the Minster

In about 1460 it was decided to add a Lantern Stage to the incomplete Central Tower. It may have been intended to make it higher still, but in 1472 the Minster authorities said something like "Right lads, you've been at it 252 years; you've had long enough now – pack it in". So the Central Tower was left incomplete, hence its cut-off straight appearance, and the Minster was Consecrated on St Peter's Day 3rd July 1472. But the Master Mason William Hyndeley was still carving crockets and pinnacles until the mid 1480's!

The **Stoneyard** is visible through its main doors. In the Middle Ages the stone, Magnesian Limestone from Stutton near Tadcaster, was brought in rough blocks by water and dragged up Stonegate-hence its name. In more recent years the Tadcaster quarries were exhausted and the stone came from Cadeby near Doncaster from the same geological bed of limestone. But just recently the quarries at Stutton near the original one have been re-opened on a small scale and now provide the stone. The stone is now cut into blocks on the big circular stone saw, profiled on another saw, taken through the red doors to be carved with power tools. Finally it is carved into Gargoyles etc in the Carvers shop overlooking Deangate; you must not look through the window or else they will put YOUR face on the next gargoyle. There are some very fine rude gargoyles on the South East corner of the Choir. They depict Men with their legs crossed in agony for the loo, which in the Middle Ages would have piddled all over you when it rained, as they had water spouts! There is a joke in York that if the Minster is ever seen free from scaffolding, the Roman Catholic Church will have it back. But they never will as there are about 40 people employed in the stoneyard and there is an indefinite programme of restoration and repair.

The carvings around the Great West Door were designed by Rory Young of Cirencester and executed by the Minster Masons in 1988. The carvings depict the Genesis Cycle from Adam and Eve on the left to the sacrifice of Isaac by Abraham on the right. My favourite is the 4th up on the left, which shows the Fall of the Tower of Babel-reminding of the collapse of the Central Tower in 1407. Also on the right of the carving of Abraham and the three Angels is a carving of a man tipping slops out of a chamber pot on a Scottish bagpiper! The man who carved this used to live opposite and hated the droning of the Bagpipes of a Scottish busker who used to play outside his window. So he has got his own back by showing him being perpetually showered in sewage!

