

## Seek Not to Know High Things faith and reason in the middle ages

Philip Ball

Western religious art is an accurate reflection of mankind's changing attitude to the spiritual world.  
—Hans Jantzen, *High Gothic* (1984)

One of the most singular phenomena of the literary history of the Middle Ages is the vigour of the intellectual commerce, and the rapidity with which books were spread from one end of Europe to the other.  
— Ernest Renan (c.1852)

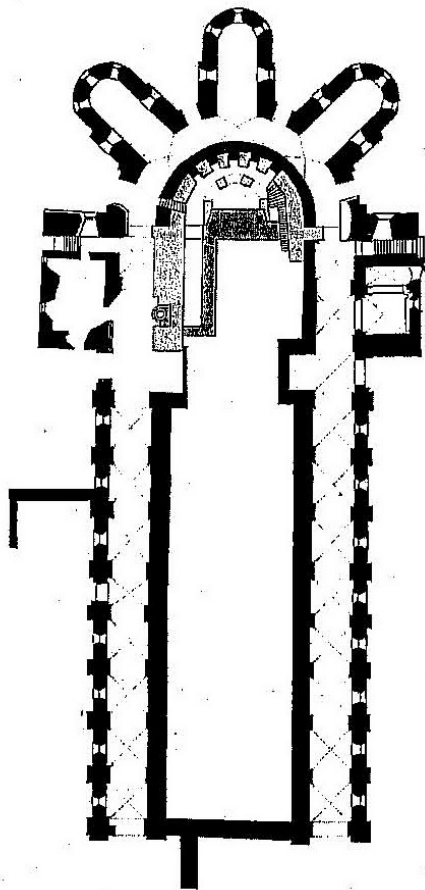
*From: Philip Ball, Universe of Stone: A Biography of the Chartres Cathedral (HarperCollins, 2008).*

### The Crypt and Plan

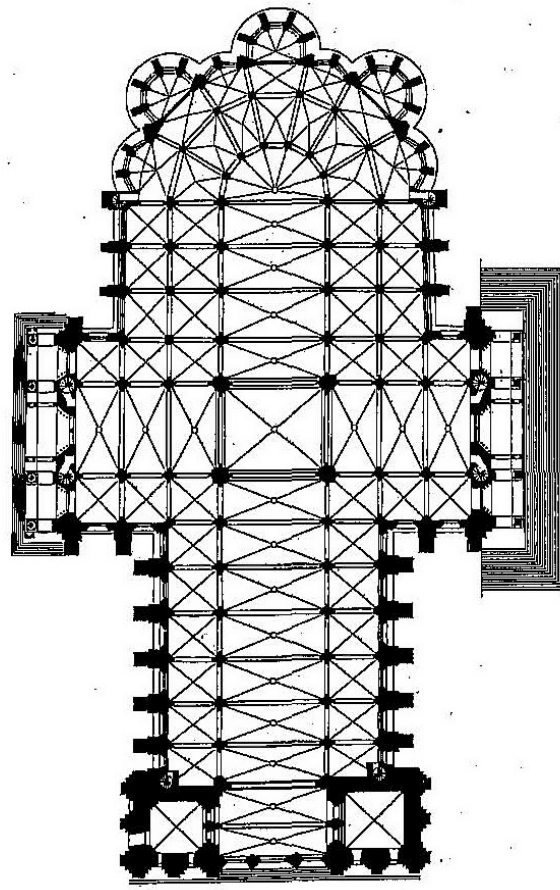
The eleventh-century crypt of Chartres, built by Bishop Fulbert's architect Beranger, was nothing less than a second church situated beneath the main edifice. Beranger constructed two long passageways that ran from the west end under the nave aisles, so that pilgrims could gain access to the relics without trailing through the church above. He built a semicircular passage around the central sanctuary — in essence an early ambulatory, a structure that eventually became a standard feature of Romanesque churches. The first

ambulatory may have been constructed in the Carolingian abbey church of Saint-Denis around the mid-eighth century, with the aim of easing the flow of pilgrims wishing to see the shrine of St Denis. The visitors could enter on one side, walk around the sanctuary to view the reliquaries, and exit down the other passage.

The Chartres legend has it that this kind of arrangement was necessary to accommodate the hordes of pilgrims who came to the cathedral to see the relics, especially the *camisa*, and who would have disrupted church services if they had to pass through the main building to reach the crypt below the apse. But legend may be all it is. According to historian Nicola Coldstream, Chartres was not a major site of pilgrimage either in the twelfth or early thirteenth centuries,



The plan of the eleventh-century crypt at Chartres.



The plan of Chartres cathedral.

and there is no reason to believe things were any different in Fulbert's time. Rather, the design of the crypt may have been more an expression of intent — evidence of a concerted effort to swell the number of visitors, rather than a response to it. Thus it is possible that the attempts to manipulate the Marian cult of Chartres began with Fulbert. In any event, when Pope Alexander IV referred in 1260 to the 'innumerable multitudes of the faithful' that the town attracted, he may have been simply accepting what the Chartrains asserted about the situation.

Beranger constructed three deep chapels at the eastern end of the apse. Such chambers, emanating like incipient branches from the ambulatory, had previously been included in the apse of Rouen Cathedral in the 990s, and were built at Auxerre at much the same time as Chartres.

The lower church at Chartres was more than a walk-through display of relics. Pilgrims could lodge under the vaults — it has been suggested that the carelessness of those sleeping within the church on the eve of the Festival of the Nativity might have been responsible for the fire of 1020. There was even a hospital attached to the northern aisle of the crypt to treat the sick. The legendary sacred well was still maintained on the north side of the apse: it was known as Saints-Forts, since several martyred saints had been thrown into it by Viking raiders. That, at least, was what was alleged by monks in the early twelfth century, and no doubt the idea encouraged belief in the healing powers of the well waters — another attraction for pilgrims. Next to the well is an inner sanctuary, the *confessio*, probably dating from the ninth century and dedicated to St Lubin. The original wooden statue of the Virgin was placed here in the eleventh century, perhaps by Fulbert himself. In this way, the crypt contained the focal elements of the local folk cult of the Virgin, emphasizing that these belonged to and operated through the church alone.

The architect of the Gothic church was constrained by the fact that he was building on top of Fulbert's crypt. Furthermore, the mid-twelfth-century west end of the cathedral was still standing, though it needed modifying considerably to blend with the new construction and the Gothic style. So before we start to weave elaborate schemes that 'explain' the fundamental geometric concept of the cathedral, we need to recognize just what the architect could and could not do in the first place.

It is easy to forget this when we look at the plan of the existing church, which appears so coherent and orderly that it is hard to believe it was not imagined from scratch. The truth is that the architect wrought wonders under considera-

ble constraints, integrating the old and the new so seamlessly that we barely notice the joins at first glance. Only on closer inspection do we see the compromises: for example, the uneven west bays of the nave (see page 274), the asymmetries of the remodeled west front (page 275), and the discrepancy between a single-aisled nave and the double ambulatory (both were double at the Bourges Cathedral, begun at much the same time). All the same, the plan is a good deal more regular and unified than several of its near-contemporaries, such as Soissons, and it is easy to see how it served as the prototype for Reims and Amiens.

Gothic churches are rightly celebrated for their use of proportion, geometry and symmetry. But it is all too easy to overstate the case. It seems likely that the careful plans of the architects may have sometimes been undermined by limitations in the accuracy of laying-out procedures on site, or by shifts in a building's fabric caused by irregular settling of (often inadequate) foundations — not to mention budgetary compromises or changes of heart by the church patrons. There is probably no intention in the fact that the nave width at Laon tapers by 3 per cent, or at Bourges by twice as much. Suger's proto-Gothic choir at Saint-Denis is rather irregular, while the ground plan of Notre-Dame de Paris is frankly something of a disaster from a geometric point of view. When faced with claims like those of Australian architect John James that an apparent twist in the key axes of the plan of Chartres is purposefully intended to 'inject asymmetry' into the design, we have to wonder whether the building practices of the Middle Ages really allowed for that kind of finesse. Isn't it more likely that this simply reveals their technical limitations?

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In 1834 the twenty-year-old Eugene Viollet-le-Duc, a budding architect and artist without any social position to speak of, went travelling with his friend Leon Gaucherel to look at France's ancient buildings. They stopped at Chartres, where they passed their days inside the cathedral making sketches and water-colours. 'I have never seen anything as beautiful in my life', Viollet-le-Duc wrote to his wife. 'We live in the cathedral and we only leave when night has fallen ... I am continually torn between the joy of reproducing such beautiful things for myself and the sadness of never being able to produce anything associating such great beauty.'

He speaks for countless visitors who pass through the Royal Portal every day. But as should now be clear, we cannot assume that what the beauty of Chartres means to us,

and what it meant to Viollet-le-Duc, is the same as what it meant for worshippers in the thirteenth century. If historians are right to regard medieval art as an attempt to reveal the ‘intelligible beauty’ of creation, then we cannot hope to understand Gothic buildings unless we appreciate something

about what this notion of beauty means and where it came from. In what sense was God’s Creation beautiful? And what, in a world still emerging from centuries of turmoil and barbarism, could have given rise to the idea that God’s work was pervaded by such magnificence?

## Building by Numbers

### Science and Geometry at the school of Chartres

We are amazed at certain things because they fit together in a clever and harmonious way, so that the very planning of this work seems to a certain extent to indicate the particular attention and care of the founder.

— Hugh of St Victor (twelfth century)

#### The West Front and the Royal Portal

One of the joys of Chartres is that the square or *parvis* in front of the west end of the church has been kept free and uncluttered, so that you can appreciate this main entrance from a distance. As we have seen, this western mass escaped the great fire of 1194: it dates from the 1140s, when the Gothic style was still barely imagined, its earliest experiments being conducted at that moment at Saint-Denis. The west porch is flanked by two towers, built at more or less the same time but rather different in design. They are square in cross-section, but the uppermost tier of the south tower modulates cunningly into an octagonal form in preparation for its spire. Two great bells, weighing 13 and 10 tonnes, once hung up here; but they were melted down in 1793 to make cannons for the Revolutionaries. The north tower, which was begun immediately after the fire of 1134, was given a wooden steeple that was set ablaze by lightning in the fifteenth century. The stone spire that crowns the tower today was built at the end of the Gothic period, between 1507 and 1513, by Jean Texier, known as Jehan de Beauce, and in consequence it is encrusted with elaborate flourishes, crockets and curlicues that are quite out of keeping with the simplicity of the twelfth-century church. Jehan also added the little clock pavilion at the foot of the north tower around 1520.

The north tower has windows on all sides, even that facing east into the church, indicating that it was initially free-standing to the west of the entrance to Fulbert’s church. It seems the plan was to link the western mass to the main church via a covered courtyard or portico. The fine sculptural work that now adorns the western entrance (The Royal Portal) was originally intended for a new entrance into Fulbert’s church from the east side of this portico. But Geoffrey of Lèves seems to have altered this plan while the

south-west tower was still being built, deciding instead to extend Fulbert’s nave to meet the new towers. Work was in progress on both towers by 1145. Just the lower section of the wall that bridges them, with its three lancet windows, dates from this mid-twelfth century rebuilding; the west rose window was added when the Gothic church was constructed. In fact this west front was initially set back between the two towers — only in 1150 was it advanced to become flush with the western faces of the towers.

While in most cathedrals with a triple west portal the flanking doors open *through* the towers onto the aisles of the nave (they do so at Notre-Dame de Paris, for instance), the initial lack of connection between the west towers and the old church of Chartres means that its three portals are squeezed *between* the towers so that they all open onto the nave. This curious history is also revealed by the fact that the builders did not quite get the towers aligned properly with the centre-line of the nave — when they were joined up, it was found that this line passed slightly to the south of the midpoint between the towers. As a result, the southernmost portal, which was designated to take some of the sculptures already prepared for the more easterly entrance that was originally planned, had to be made slightly narrower than intended. On the lintel above this door, the lying figure of the Virgin was clearly intended to be central, but is displaced slightly to the right, while one of the three shepherds has suffered the indignity of being sawn in half. It is worth noting too, lest we be inclined to enter into raptures about the perfect proportions of Chartres, that the difference in size between the two towers has created a difference in the proportions of the first bay of each aisle. Even with the best of intentions, sometimes the builder’s job had to be a little makeshift.

A visitor to Chartres could easily stand arrested on this threshold for an hour or more, browsing through the library

of warm, tawny stone that is the Royal Portal. This grand entrance represents many points of transition: from the sunlight of Beauce to the mysterious gloom of the great church, of course, and thus from the secular to the divine world; but also from the Romanesque to the Gothic, and from the age when God was feared to a time when it was believed that his works could be understood.

Although the three portals have pointed arches, their form is rooted in the Romanesque tradition, as are the statues that grace them in such profusion. But the wild vitality of the sculpture at Vézelay and Autun is replaced here by something calmer, less fantastic and more ordered and majestic.

There is almost too much to take in. Figures crowd across the frieze below the capitals of the jambs, and they fill the archivolt arrayed three deep over the central portal. But let's focus our attention on the southernmost door, and in particular on the figures around its two archivolt. Nearly all of the images shown on the portals are biblical, but the characters depicted here do not appear in any books of the Scriptures. These men are, for the most part, pagans: philosophers and writers from ancient Greece and Rome, and here they represent the seven liberal arts that constituted the intellectual syllabus of the Middle Ages. Each of these scholars is accompanied by a female figure personifying the respective academic discipline.

Geometry is denoted by Euclid, rhetoric by the Roman writer Cicero, while Aristotle stands for dialectics. Boethius represents arithmetic, and Ptolemy astronomy. Bent over a writing desk on his knees, Pythagoras is accompanied by a woman playing an array of bells, depicting music, while grammar is embodied by a figure who is either Donatus or Priscian, both renowned Roman grammarians.

These savants were, where necessary, welcomed as honorary Christians because of the light that their learning had shed on the world. Erected while the cathedral school was led by the progressive humanist Thierry of Chartres, the Royal Portal reveals how the Chartrain scholars were intent on mining the ancient world for new, rational understanding of the physical world. Their blend of Platonic philosophy and logical inquiry created an intellectual tradition that led to the growth of early science in the following century, and to the notion of a universe governed by order.

mote, shadowy galleries. They were chiseled with great care and sensitivity by a skilled mason, and then carried to some location where the artist could not expect them to be seen again by human eyes.

This apparent perversity tells us everything about the philosophy with which Chartres was constructed, and it could hardly be more different from 'modern' ideas about the uses and functions of art. When Titian painted an altarpiece three hundred years later, he would have thought as much about his wish to impress the onlooker as about the picture's function as an offering to God. But for many of the sculptors of Chartres, God was the only audience they thought they would ever have, and he was the only one they needed. It really did not matter to these men whether any mere mortals saw, appreciated, or understood what they had done. The building was a sacred symbol, and every part had the primary function of expressing piety and encoding a belief in divine order.

We no longer know how to read this code. It unites the physical with the metaphysical: according to Abbot Suger, building a church involved the transportation of the material into the spiritual. Artists of later ages, even until the present, have tried to achieve something analogous, but they have had no rules to guide them. Their attempts to forge materials into an expression of the ineffable therefore become highly personal visions, reflections of one individual's spiritual world.

The theoretical principles governing the construction of the Gothic cathedrals were geometry and clarity. The structure of these buildings is dictated by proportion, by simple numerical relationships between the key dimensions. These mathematical relations were deemed to be expressions of perfection, a belief that stemmed from ancient Greek thought and for which some found endorsement in the Bible. So when we experience unity and order in Chartres Cathedral, it is the result of careful and rational planning, motivated not by aesthetics but by morality. The building expresses a conviction that the glory of God's universe is expressed as a system of eternal order. This was a belief fostered in the early twelfth century at the cathedral school of Chartres itself.

The cathedral schools were not merely centres of religious education but academies where students acquired a general education in the arts, literature, sciences and philosophies, both Christian and pagan. As at the monasteries, one learnt of course to be devout, to study the Scriptures, and to love God; but the schools were also places where one could learn about the world.

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There are around 1,800 images and scenes carved into the stones of Chartres. But most of them are out of view — or would have been to a worshipper of the twelfth century, lacking powerful binoculars to spy out high nooks and re-