

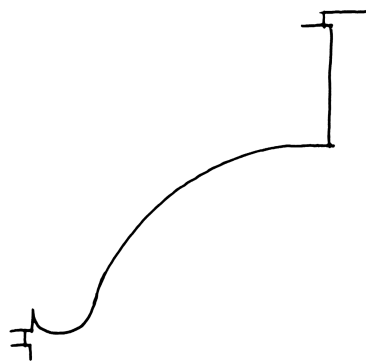
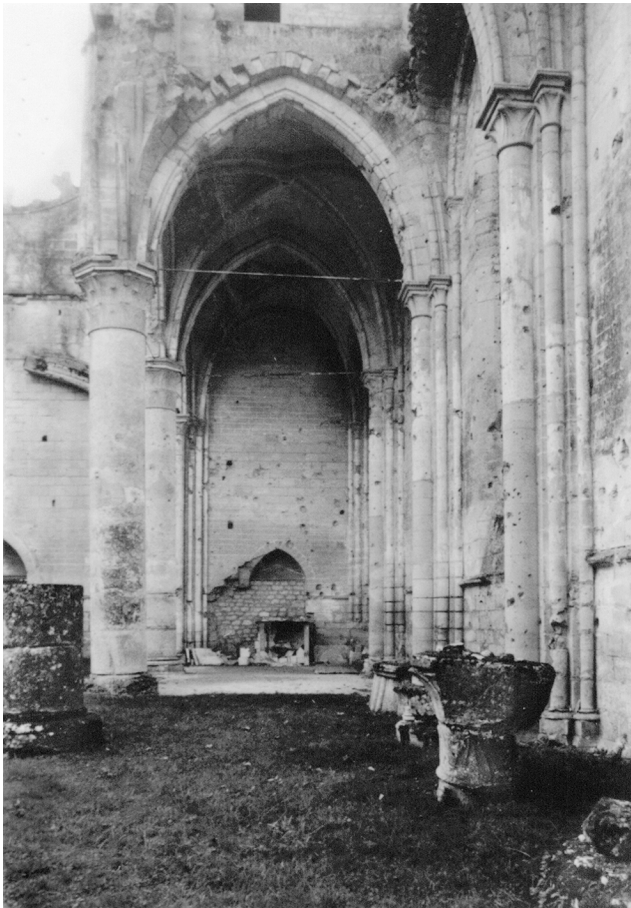
The Canopy of Paradise

Written in Longpont, May 1983, and adapted from *Studies in Cistercian art and architecture*, lxix 1984, 115-129.

As Robert Branner wrote, Longpont was the first High Gothic church built by the Cistercians.¹ It was their first to be built with cathedral-like flying buttresses, radiating chapels and three-story elevation. The reasons for breaking with tradition may have had a lot to do with the man they appointed to be their first architect.

Little is left of the abbey [below, left].² In the choir a few courses remain around the chapels, with most of the plinths and torii, and some of the terminal wall still stands in the south transept. On the south side a passage passes through the buttresses, and enters the church alongside the wall shafts [below right]. Just to the west of this opening there is a vertical joint in the wall. The heights of the coursing change here, as does the colour of the stone, which is grey to the east and beige to the west. Above the stringcourse the continuation of the beige stones helps to show that the grey was earlier.

The terminal wall of the north transept is concealed in the undergrowth, but there is a matching joint on this side too, also with smaller blocks of stone on the west, and with the joints between them so arranged that the east-to-west order of construction is clearly displayed. These vertical joints are little more than two meters high and, as the upper parts of the terminal walls were demolished, may not necessarily have extended right through the building.



On the southern side of the south terminal wall where the beige coursing lies over the grey there are further indications of this joint: the buttresses were reduced in size, and so was the south face of the wall itself which is set back just above the drip mould.

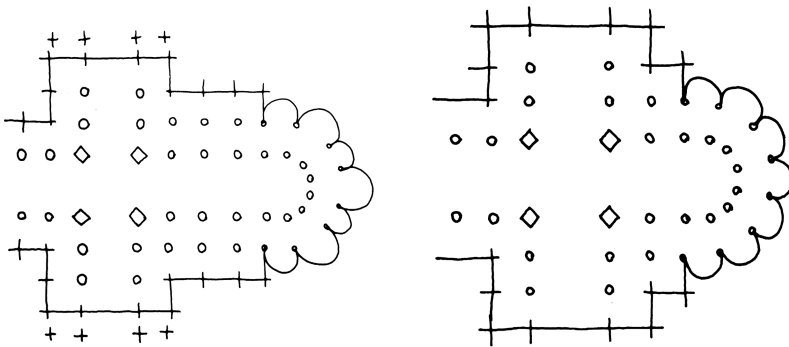
Thus the eastern end of the abbey and parts of the adjoining transepts were begun first, and the western walls were laid down a little later.

The grey stonework is finely cut, with coursing forty percent larger than the west, and many of the stones were edged with a chisel before being finished. Within the passage there are huge corbels supporting the lintels, with large roll-moulds on the underside [above right].

Corbels are interesting devices. They reduce the width of the opening at head height, giving the silhouette of wearing a tight hat while passing through the passage. There are many different shapes, but ones like these, which are massive in scale and have large roll-moulds, are not particularly common. There is a band of similarly well-cut stones with pre-chiselled edges that include big corbels in the Chartres triforium. The same foot unit was used to set them out using a similar geometric procedure.³

At Chartres this master is Scarlet. He worked in the triforium in 1206, but earlier in 1200 had designed the plinths of the apsidal chapels and before that had been the first architect on the site, after the fire of 1194.⁴ The initial plan for the cathedral was Scarlet's. Chartres is one of the few buildings to have unequal chapels, only because the new work was set over and supported by the eleventh century crypt, and the spaces between the older chapels had left too little room for equally large chapels to be inserted between them.

Today Chartres has a double ambulatory, but in Scarlet's initial scheme there was only a single ambulatory with seven deep radiating chapels and two additional chapels in the double-aisled sanctuary [below, left]. It was during construction, in about 1199, that the pressure of pilgrims trying to get to the altars may have persuaded the client to alter the plan (as they did at Saint-Denis sixty years earlier)⁵ to create double aisles all round the ambulatory.



But if the original Chartres plan were redrawn with equal chapels, it would be almost interchangeable with the plan for the choir at Longpont [above, middle]. The only difference between the two would be the number of bays in the sanctuary. Otherwise the walls of the chapels are curved in plan, with the single shafts supporting their ribs, no provision for formerets, and with a simple splayed plinth which extends continuously around the walls.

The bay of Longpont measures twenty Roman feet, and the span forty-five,⁶ using a foot of 294.5 mm. Exact multiples of the same Roman foot were used to set out Chartres, but with a span-to-bay ratio of 7:3, while the ratio at Longpont was 4:9. Both are harmonic ratios using whole numbers rather than squares or circles, but where the seven and three at Chartres were part of a complex symbolism of numbers and forms, the ratios at Longpont may be no more pleasing than the sequence of 2²:3². One would need to measure the building with care to determine the whole system.

At Chartres Scarlet appears as a thinking man, concerned with philosophical issues, and seems to have incorporated many sacred ideas into the design.⁷ It would be fascinating to discover if he had done the same at Longpont.

One final item of evidence which is, I think, conclusive, lies in the bases of the piers [above, right]. The Longpont bases are identical to those under the drum piers Scarlet set up in the Chartres apse, after the ambulatory had been doubled. The circular drums turn into octagonal bases under the tori. In the next course the splay follows the octagon, but under it a curved moulding transforms the octagon into a square. Seen from the side this moulding is not unlike Scarlet's corbel, with a crease down the centre. These mouldings begin under the splay, and not above it, and finish in a small chamfer rather than a sharp corner.⁸

The same geometric system was used to determine the diameter of the drums. The drum of Longpont is formed by drawing a square equal to one fourteenth of the span, and transforming that into a circle of equal area through the ratio of 9:8. The same arrangement at Chartres.⁹

In all these things the Longpont bases are identical to those at Chartres. There are no other bases like them in the Paris Basin from this period, save Villeneuve-la-Grande which are taller and less open, and slightly similar ones at Itteville and in two *spolia* bases now in the nave at Ourscamp. Combining all these observations, it is hard to believe that the same master was not involved in both places.

As the first master Scarlet may have produced the model for Longpont, though this does not necessarily mean that every later master would have repeated the same details, proportions, or even the same elements.

The joint discussed earlier shows that, as at Chartres, more than one contractor was employed, and though each may have been instructed to follow the model, the actual sizes, heights and templates would have been determined personally by whichever master was on the job. Each master would have interpreted the model in his own way, subtly modifying the original concept as work proceeded. Looked at in this way the many differences between the choirs of Chartres and Longpont are not so significant.

Also, the original design may have been altered by the client as work proceeded. A large building took many decades to construct, and as architectural ideas were changing fairly rapidly, one might expect the model to have been updated from time to time. At Chartres there is evidence for a competition in 1211,¹⁰ resulting in changes to the design of the clerestory. After sixteen years the ideas proposed in 1194 may have seemed out of date, and the double lancet with its large surmounting rose may have been the result.

Drawings made of the choir at Longpont before it was entirely demolished show that a similar ongoing design process was at work there as construction moved westwards.¹¹ The vertical proportions in the choir were modified in the nave, the structural details were altered by raising the springing of the vaults, and the tall single-light clerestory was turned into a smaller version of Chartres.¹² The nave as we see it today, in the two bays which remain to us, is a greatly modified version of what had been earlier built in the choir, Fig. 35-1.

It is usually considered that "no part of the church we now see (at Longpont) is stylistically earlier than 1205-1210".¹³ Whereas this may be true for the uppermost parts of the nave, for the choir this is seriously open to doubt.¹⁴ The nave aisle capitals are in the mode of the 1190s, from which the lowest courses in the nave would have been begun five or more years earlier, say between 1185 and 1190. The start of the choir, which was begun before the nave, would therefore have to be dated to the early '80s. After all, at Chartres it took eight years from the start of the nave to the aisle capitals, and another ten to the clerestory sills.

If the last work in the nave clerestory and its capitals are stylistically consistent with other work around 1200, then the start of the choir at the other end of the church could be placed about two decades earlier. That would place Longpont before Chartres, not afterwards. In which case the small clerestory windows, the springing placed below the sill level, and the drum piers would have been natural solutions for the time, and not a "highly *retardataire* feature".¹⁵

Bruzelius argues that Pierre le Chantre, who had written a tract against over-elaborate churches, would not have retired to Longpont in 1197 if the present enormous abbey had been started.¹⁶ Its not a valid argument to use Pierre's retirement to date the commencement of the building. However, we might use the translation in 1192 of Bishop Jocelin's relics to Longpont from Soissons cathedral to indicate that the Longpont choir was complete.¹⁷

Thus Scarlet's scheme for Longpont was a forerunner of the great work he was to design a dozen years later on the other side of Paris.

The nearby Premonstratensian abbey of Braine is lighter in its elements, lower and somewhat smaller, Fig. 1-8.¹⁸ It and Longpont would seem to have been the two most revolutionary buildings in the area. Both were well under way before the middle of the 1180s in a region which was almost totally devoid of three-storey elevations.¹⁹ The four-storey Soissons south transept was of course a replica of St-Remi, and Laon cathedral probably the progenitor of both. Otherwise every building in the region built before 1190 had either one storey or two, even in parish churches like Oulchy or Nouvion.

The effect of the continuous triforium was twofold. As it wove through the slender vaulting shafts it created a horizontal movement which bound the bays together. This permitted the masters to further increase the height without seeming to be too extreme. As the vaults were raised, so the new triforium anchored the building by holding it in the air, so to speak. It raised the centre of gravity above the aisles, setting it into the darkness of the triforium. All loads now appeared to flow past or through it. The impact on the whole space was momentous. The interior now appeared to hover rather than being anchored to the ground.

Externally the flying buttresses seem to repeat the same idea. Their structural function is to support the thrusts from the interior cage; but the Braine and Longpont flyers, like those at Chartres, are not arranged in the most efficient way. The steep arches at Bourges used much less material than the more upstanding and horizontal ones found in the Basin.²⁰ While the Bourges flyers look like struts bracing the building against the ground, the more horizontal arching of the northern flyers appear to suspend the interior from above. In this they perform a similar role to the triforium, in gently lifting the building off the ground, like a canopy supported from the fingers of a puppeteer.

Though the first flyers were possibly those at Sens and Voulton in the early '60s,²¹ major buildings like Senlis cathedral were being designed for them by 1155 at the latest. The flyer therefore predated the continuous triforium.

The use of both at Braine and Longpont at this time, and in the area of the Soissonais, is most significant.

The Premonstratensians were reforming their order on the Cistercian model²² and there would probably have been considerable personal links between the two abbeys of Braine and Longpont. For ideological reasons the monks at Braine may have deliberately decided to employ the triforium with the flying buttress to give this feeling of floating.

As Meredith Lillich wrote in a letter, "If the Cistercians could have built their churches floating a meter off the ground, they would have done so – and in fact, at Fontfroide they actually tried to get that effect, by placing an entire, complete wall elevation, down to the plinths, bases, etc., on top of great unarticulated blocks, so the 'wall' actually 'begins' above the ground. The monk enters his church, *stands in* his transitory world, and *looks at* the habitation of God above him."

As one ponders how this idea came to their attention, few earlier sources seem pertinent. In the Paris Basin the triforium, built as an arcade set into the wall, was used at Juzières, Voulton and Montmartre for example, but was never extended across the entire bay without some walling being left between the arcade shafts and the main piers supporting the vaults. There are earlier continuous triforiums beyond the Basin, but they do not have the same spatial richness as the Braine solution.

The more common type, especially in the Royal Domain, was for a gallery to be enclosed within an arched frame. This does not impart any horizontal movement, but is part of the compartmentalized vertical articulation of each bay. Such a traditional gallery is not unlike the elevation of a miniature church where the arcade represents the aisles and the encasing arch the main vaults. Placed between the upper windows and the aisles it is not unlike a reliquary, or a model church held in the hands of some saint.

Within the Paris Basin, Laon may be the first example of a continuous triforium in the mid '60s, followed by the first arches of the Noyon transept triforium which were built with the adjoining piers of the choir gallery around 1170. But their size, and relative insignificance in relation to the other elements pressing hard around them, diminished their importance. They are more like a frieze, and so closer to their eleventh century prototypes than to Braine or Longpont.

The way it was used at Braine, and this may have been its particular contribution to the history of medieval architecture, the triforium was transformed into a centralizing motif in its own right. In doing so it created a new canon which, within a few years, was to influence every major architectural undertaking for the next century. Over fifty buildings with continuous triforiums were to be started in the region in the half century following Braine.

In following this solution, the masters at Longpont made some subtle changes. The first was that the aisle arcade was pushed upwards to increase the openness of the lower spaces. In the second the impact of the triforium was increased by the darkness that came from enclosing the back with a wall. This changed the balance between the lower voids and the solidity above. The implications are deeper than this, for it formed an articulated hollow threading through the verticals of the bay structure, annihilating the old compartmentalized interior, and replacing it with a more unified and rhythmic arrangement.

Where the vaulting capitals were placed close to the triforium and the clerestory windows were small, the triforium tended to share the upper space with the vaults. It was as if the walls of a smaller single-storied church had been raised into the air, complete with windows and dado arcade, and supported on the thin columns in the aisles. It was the Church of Paradise in the sky, or the "independence of the baldachin" as François Bucher suggested.²³

With the invention of the full-width double-windowed clerestory in the next decade, the Braine solution came into its own. The weightier solutions of the cathedrals, like Chartres and Reims, could be seen as "mundane" interpretations of the spiritual transcendental qualities of the abbeys.

It seems right that both Braine and Longpont should have experimented with ways of suspending the building on lighter posts, like a Canopy of Paradise. The fact that the bulk of innovative architecture came from the major Benedictine and Cistercian abbeys of the northeast – the Soissonais, the Reimois and the Laonnais – and not from the cathedrals, suggests that the concept of the Canopy of Paradise was consciously evolved in the intellectual atmosphere found in many of the abbeys.²⁴

Thus Longpont should be seen in context, as an abbey and not a cathedral, in which ideas were tried which were appropriate to the abbey but which led directly to the great classic churches of the next decade. It was an innovative design, and not a backward or reactionary copy. Its originality lay not only in being the first Cistercian building to be conceived in the grand manner, but in the consequences of entrusting it to a master whose contracting organization was not exclusively devoted to monastic work. This is not the place to demonstrate Scarlet's other projects, but he can be readily identified in the western upper ends of Mantes-la-Jolie and Laon cathedral, the apse walls of Lagny.

That a commercial contractor should have been employed by the Cistercians, and that he should have designed such a church for them in that area, suggest that these monks were looking beyond the isolationist policies of their order to the world around them. As Caroline Bruzelius remarked, it led "to a new prominence and grandness of scale that ultimately left the Cistercians vulnerable to the accusation that they constructed churches inspiring not reverence but envy".²⁵ It is one of the contradictions of history that in attempting to bring something of Paradise down to earth the Cistercians may have endangered the very spirituality which produced the new architecture.

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- 1 Branner, *St. Louis*, 14.
 - 2 Bruzelius, "Longpont", with extensive bibliography. The abbey was pulled down between 1791 and 1830 for its stone.
 - 3 James, *Contractors*, 28. The Longpont corbel is designed from modules of a quarter Roman foot and a similar use of the compass.
 - 4 James, *Contractors*, ch. 8, 181.
 - 5 "8 Saint-Denis chevet"; and James, *Contractors*, 166-72.
 - 6 13,420 mm by 5,920 mm measured at the western end, and checked at the crossing. Many of the other piers were inaccurately replaced. The bays flanking the crossing are larger than the others, being 22½ Roman feet instead of 20, making the overall distance between these flanking piers 90 feet, or twice the square of the crossing. The first Chartrain piers are also further apart than the rest.
 - 7 James, *Contractors*, 148-60; and James, *Master masons*, 83-112. For the depressed griffe: Barnes, "Architect of Soissons".
 - 8 Bruzelius, "Longpont", 63-65.
 - 9 James, *Contractors*, 118-19.
 - 10 James, *Contractors*, 438.
 - 11 Illustrated in Bruzelius, "Longpont", 1 and 9.
 - 12 Bruzelius, "Longpont", 74-76.
 - 13 Bruzelius, "Longpont", 36.
 - 14 James, *Ark of God*, 647-52.
 - 15 Bruzelius, "Longpont", 65.
 - 16 Bruzelius, "Longpont", 29 and 41.
 - 17 *Gallia christiana*, 10, preuves col. 114. Date given by Muldrac, *Compendiosum*, 36.
 - 18 James, *Ark of God*, 62 *et seq.*
 - 19 Arcy-Sainte-Restitue has an intermediate floor, but the arcade is encased. The Couvelles west front, erected on its own before any of the adjoining work, may be the first continuous triforium in the Soissonais, being closer to 1175 than 1185 – James, *Template-makers*. It is interesting that this master combined the triforium with a more traditional west front with paired windows over a gabled doorway, thus "inventing" the first glazed triforium. St-Vincent in Laon is regularly quoted as being the first three-story elevation, but the documents do not clearly date it, and without the capitals there is no way of knowing. The "Resistance to Chartres" may turn out to be a combination of stylistic evolution and regionalism after all: Bony, "Resistance to Chartres, 19-20.
 - 20 Mark, *Gothic structure*, 34-49.
 - 21 James, "Flying buttresses"; and Prache, "Arc-boutants".
 - 22 Lekaioesco, *Cistercians*, 30 and 277; Aubert and de Maillé, *Architecture cistercienne*, 143; and Brooke, *Monastic world*, 181-84, and 258.
 - 23 Bucher, "Architectural Purism", 102.
 - 24 "1 Revised chronology".
 - 25 Bruzelius, "Longpont", 138.