

In retrospect

## The completion of Cologne Cathedral in the nineteenth century

ARNOLD WOLFF

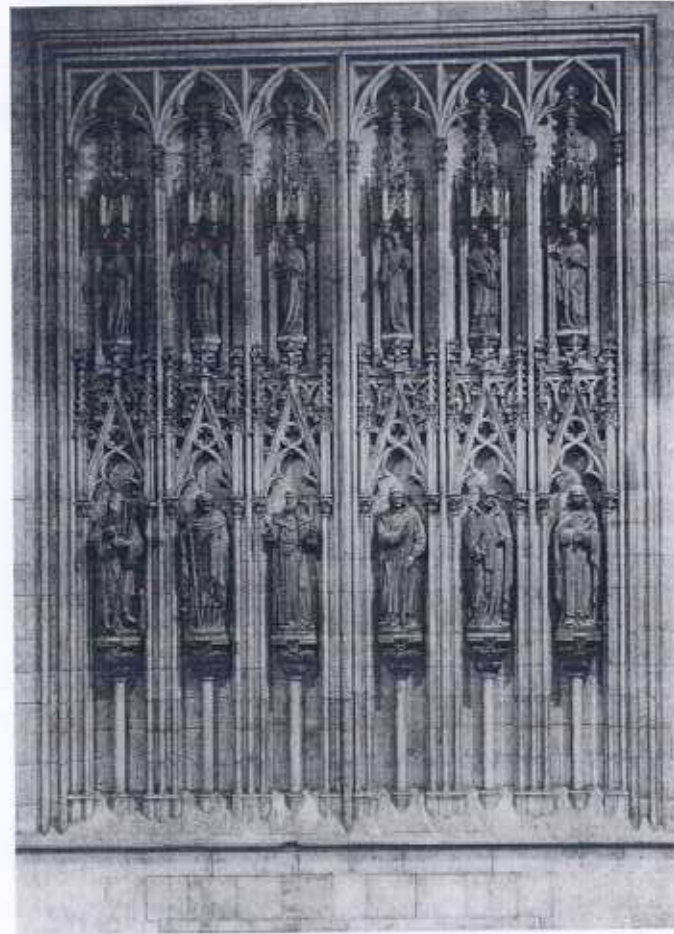


FIG. 1. A detail of the inner facade of the south transept as designed by Ernst Friedrich Zwirner. The sculptors are by Peter Fuchs (1870) (photograph 1968 by Georg Germann).

In order to appreciate fully the nineteenth-century achievement, it must first of all be made clear which parts of the vast cathedral had already been completed before the building programme began officially on 4 September 1842. Even before its completion, the cathedral was one of the largest examples of ecclesiastical architecture in Europe;<sup>1</sup> and yet only slightly more than half of what had been planned had been built. The clerestory of the nave and transepts, the vaulting over twenty-four of the thirty aisle bays, and above all the soaring west end with its towers over 150 metres high (long considered impracticable) were missing.

Only the choir was complete in terms of a medieval church (*Fig. 2*). Work had begun on this in April 1248, and almost immediately a fire broke out and claimed the old cathedral. The western half was hastily reconstructed so that the foundation stone of the new Gothic building could be laid on the following 15 August, the Feast of the Assumption. The first section to be built was the apse; by 1260 it had progressed as far as the vaulting and, by 1265, the remaining part of the lower stage of the choir had followed. The inner choir aisles were joined by steps to the west end of the old cathedral and so, for about sixty years, the two parts formed a liturgical whole. Around 1300 the choir clerestory, with its elaborate system of buttresses, would have been complete. The provision of windows, choir stalls and the high altar took longer, and only on 27 September 1322 did the final consecration take place.

At that time, work was going ahead on the west end. Undoubtedly this monumental section, incorporating all the latest architectural ideas, was part of the original concept; but the design was revised in 1300 to accord with the current style; the evidence for this may be seen on the parchment drawing, four metres long, on which it is recorded. The south tower was begun in about 1300, without any connection with the choir. The upper parts of the twenty-metre high lower stage of the tower already showed deviations from the design, and these were more pronounced on the second stage, which merely followed the general outline. In about 1400 the lower ten metres of the third stage were erected, and about 1410 the south tower was completed. It had been built to the exact height needed for the nave to be added, and the large crane was left standing on top as evidence that further building was planned.

The St. Peter Portal in the west front of the tower, the only one of the cathedral's nine entrances to be completed in the Middle Ages, was first left rough finished, a successful method of protecting expensive decorative work from building operations. It was only towards 1375 that it was given its famous figure decoration.

The fifteenth-century architects, Nikolaus von Buren and Konrad Kuhn, were primarily concerned with the north aisles which were advanced enough by 1507–09 to allow the windows to be glazed. Only then were the six western bays vaulted over and the buttresses built up to a height of twenty-three metres.<sup>2</sup> Finally came the piers of the west wall of

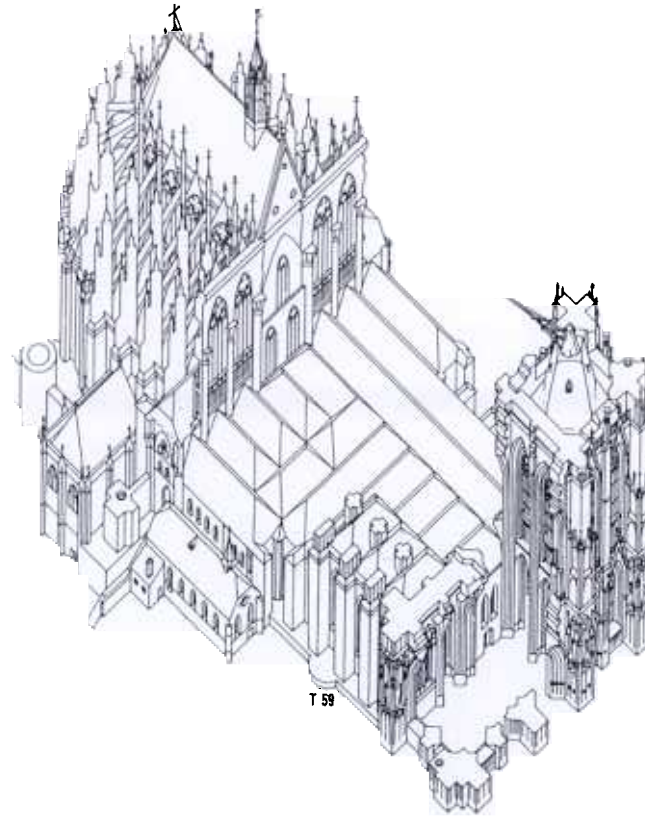


FIG. 2. The cathedral at the time when work was discontinued (1560). A. Wolff 1974 (*Cologne Cathedral Building Archive*).

the north tower, which cannot have been started before 1523, and on which they were still working when building operations were discontinued in 1560. By that time the whole of the nave, the crossing and two bays in each of the two transepts were roofed in at the level of the column capitals (13.4 metres), so that over ninety per cent of the area was serviceable. All the partition walls in the area of the aisles were removed, and only the large temporary choir wall between the two eastern crossing piers remained; it was to do so until 1863.

There had been no shortage of attempts between 1560 and 1808 to start building again; but the only activity during this time was repair and embellishment carried out in the eighteenth century, and that hindered rather than helped preserve the medieval state of the building. In 1794 French revolutionary troops moved into Cologne. They closed the cathedral for worship and used it as a corn and forage warehouse, but this

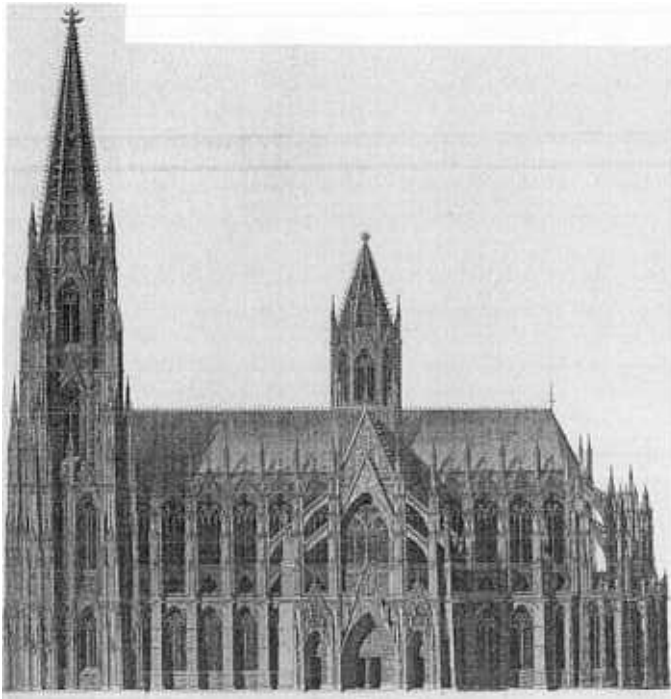
Its volume, about 220,000 cubic metres, exceeded that of Amiens Cathedral, which was complete. The south tower alone, at 58.25 metres high, was of about the same volume as Altenberg Cathedral (39,900 cubic metres) or the Liebfrauenkirche in Trier (38,100 cubic metres without the roof); the amount of stone used amounted to more than for other buildings, and the cost was considerably more fabulous.

This is on the assumption that the north wall of the tower had previously been built up to its full medieval height of 22 metres. This cutaway drawing of the building shows the Gothic style more clearly.

time of greatest humiliation coincided with the awakening of interest in the Middle Ages and its characteristic achievements. In 1790 Georg Forster had extolled Cologne cathedral as a unique work of art, and in 1804 Friedrich von Schlegel attempted to prove this scientifically.

Four years later the cathedral found its keenest protagonist in the young Cologne merchant, Sulpiz Boisserée, who was not satisfied simply to talk of his enthusiasm; he began to make a graphic representation of the building which enabled its current and complete state to be illustrated to a wider public by means of a series of engravings. When the first part of his published work on the cathedral appeared,<sup>3</sup> he had already achieved outstanding success with the help of his attractive illustrations (Fig. 3). Members of intellectual circles and ruling families joined him in his campaigning, and in 1811 he had won over Goethe, interested only in classical antiquity until meeting Boisserée, to 'old German art'. In 1813 he met the Prussian Crown Prince Friedrich Wilhelm who, following his first visit to the cathedral in the following year, immediately became an enthusiastic supporter of the building project.

In November 1814 Josef Görres made his famous appeal in the



Boisserée, S., *Ansichten, und einzelne Theile des von Köln, mit Ergänzungen nach dem Entwurf des Görres nebst Untersuchungen die alte Kirchen-Baukunst vergleichenden Tafeln der vorzüglichsten Denkmale*, Stuttgart 1811. New edition by F. A., Cologne 1979 (int.).

3. Boisserée's view of completed south facade (Fig. IV).

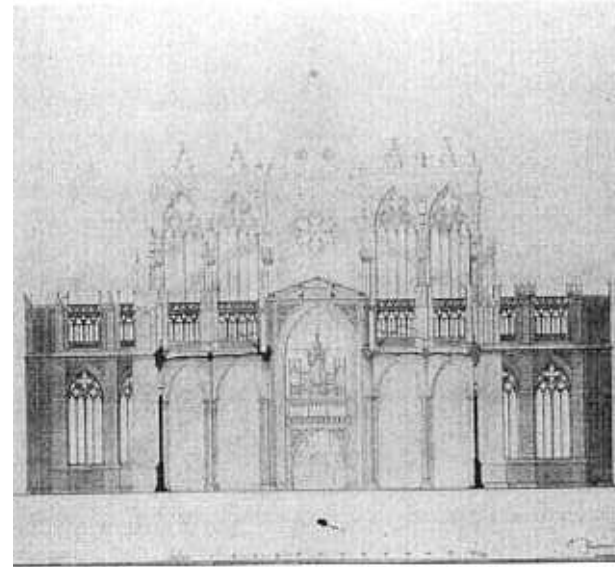


FIG. 4. Zwirner's 1833 proposal. Section through the nave, with a view of the transepts and choir (Cologne Stadtmuseum, photograph from *Rheinisches Bildarchiv, Cologne*).

*Rheinische Merkur* for the completion of the cathedral as a German national monument. He relied for his facts on Boisserée, who also convinced the Baron von Stein, Hardenberg and Karl Friedrich Schinkel. The idea of completing the cathedral was spreading.

Something else happened in 1814 which was of great importance. Georg Moller discovered in Darmstadt a half of the almost legendary design for the facade, which was thought to have been lost in the confusion of the Revolution. A short time later, Boisserée obtained the other half of this very important medieval architectural drawing. Once this document had been found, the idea of completion no longer seemed Utopian: it was within reasonable grasp.

By agreement between Prussia and the Holy See, the state was now responsible for supporting the church; but funds came in slowly under the thrifty and prudent Friedrich Wilhelm III. In 1823, when the text of Boisserée's work on the cathedral appeared, the building inspector, Friedrich Ahlert, was able to put up a new site workshop in which forty-five craftsmen worked and go ahead with urgently needed repairs.<sup>4</sup> The choir received a new roof, and the flying buttresses on the south side, which were on the verge of collapse, were renovated.

In 1833 Schinkel sent the talented young Silesian, Ernst Friedrich Zwirner, to Cologne. He continued the restoration of the choir and quickly began to make plans for the extension. The first draft, which was presented with an estimated cost, provided for vaulting all the aisles: the

<sup>4</sup> Ahlert had about 20,000 florins a year at his disposal, of which 12,000 came from the State coffers. The remainder was made up of the unpopular cathedral taxes levied on all baptisms, weddings and funerals, and of the still customary diocesan collections.



Berlin about this was not forthcoming. There was a diversity of opinion over the best way of completing the cathedral. While Zwirner wanted to build slowly but in complete detail, Schinkel wanted to complete the outline as quickly as possible and to remove the temporary choir wall which had been in position since the fourteenth century; according to him, the details could be inserted at some time in the future. Zwirner considered this unrealistic, and in 1838, on the 590th anniversary of the laying of the foundation stone, he appeared with a new proposal which was known later as the Second Schinkel Plan. According to this, the nave and transepts would be built complete with all the details and vaulted; the only concession to speed would be the temporary replacement of the expensive buttress system by tie rods. The transept facades would be built and enriched, though somewhat simplified compared with Boisserée's suggestions and without decorative figures.<sup>5</sup>

The city now had another group of supporters of the completion project. These were from a different background from those who had encouraged Boisserée; merchants, bankers and manufacturers who were trying to revive Cologne as an important business centre joined with members of the old Cologne families, clergymen, lawyers and officials to promote the idea. Their representatives tried from 1838 to form a cathedral building association, but Friedrich Wilhelm III declined to take part.

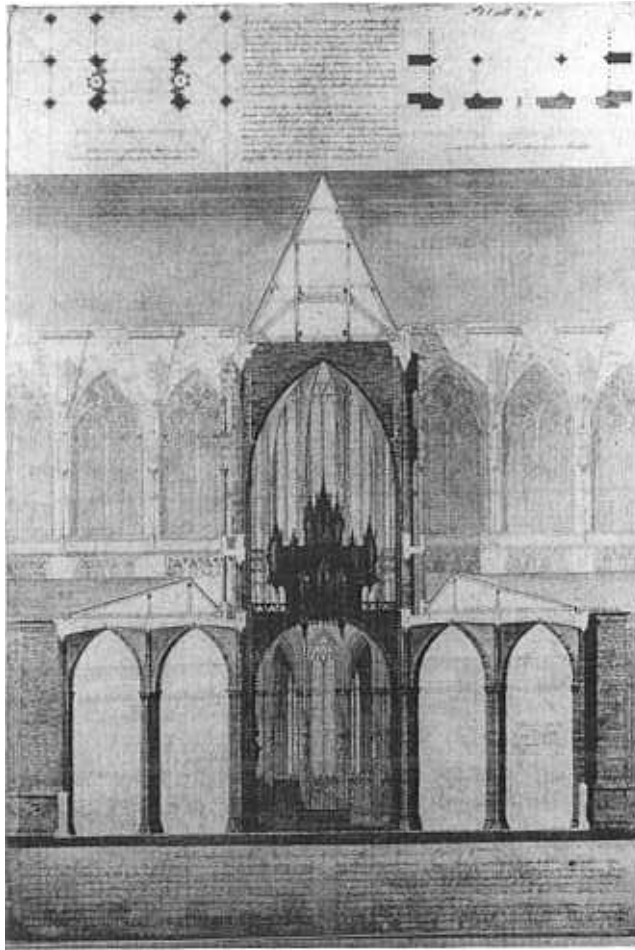
Then, after 7 June 1840, the whole question suddenly seemed to take on new life. On the same day that the King died and Friedrich Wilhelm IV came to the throne, August Reichensperger published an article in Coblenz calling for the formation of a building committee. The artistic and romantically inclined King came forward as sponsor of the cathedral project, and things began to move. The founding of the association (*Zentral-Dombau Verein*) was approved on 23 November, and the king declared the building of the south door should begin as soon as possible. Zwirner took this as an order for the continuation of the cathedral building and made appropriate preparations. Boisserée and the King both gave back the halves of the famous drawing of the facade in their possession, symbolically underlining that the time had come to continue. At the same time the relationship between the Church and the State eased; Johannes von Geissel, Bishop of Speyer, was named as successor to the banished Archbishop of Cologne, and without conceding the rights of the Church he sought and found a working and balanced relationship with the monarchy. Without that a peaceful building programme would have been unthinkable.<sup>6</sup>

The disputes about the building plans did not remain hidden from the new association. Suspicious of the thrifty Prussians, the members of the directorate (to whom Boisserée's drawings were obviously known) were afraid that the cathedral might have to be completed in a drastically simplified form; but as they refused to accept such an expedient they

<sup>5</sup> This so-called Second Schinkel Plan, which remained in force until 1843, was later represented as an architectural product of the German romantic period. However, this is a gross misrepresentation. Only financial considerations caused the consideration of a building without a buttress system, and it was designed in such a way that the system could be added later.

<sup>6</sup> At this time Germany was going through a period of activity in supporting Cologne Cathedral. In many cities, cathedral building associations had been formed; in 1845 there were as many as 144, but many disappeared almost as soon as they had been formed. Supporters from Stuttgart sent a ship with stone for building; and countless poems, mostly urging on the development, appeared in newspapers.

FIG. 5. Schinkel's 1834 proposal. Section through the nave, without buttresses (Cologne Stadtmuseum, photograph from Rheinisches Bildarchiv, Cologne).



nave was to be built up to the upper level of the triforium (twenty-seven metres high) and covered with a low-pitched roof over an open frame (Fig. 4). It included the formation of elaborate facades to the transepts, and then a second plan made in 1834 extended the first proposal to make possible a complete building.

Making use of Zwirner's suggestions, Schinkel produced a new plan in September 1834 (Fig. 5). According to this, the nave was to be built up to the full height and receive a steeply pitched roof, but there was to be no vaulting, gable, galleries or superstructure. However, a decision from

farsightedly incorporated into the first paragraph of their articles the clause that the association should work together 'for the worthy preservation and continuation of building of the catholic cathedral-minster church of Cologne according to the original plan'. Once the king had accepted the articles on 8 December 1841, this clause determined the future course of the discussion. In the following month the King ordered that the building should be constructed according to the Second Schinkel Plan, i.e. without the buttress system; but the association stood by its articles and would agree to no concessions.<sup>7</sup> However, the fact that the King had signed the paper effectively made it a cabinet order with the force of law. The hastily formed association, working very effectively on private business lines, proved to have not become the tool of the government; as long as the cathedral was to be built, the association opposed all change to the 'original plan', and with a single exception always succeeded.

Undoubtedly the King favoured the complete development, even if he could not openly admit it; so he gave Zwirner confidential instructions to proceed strictly according to the original plan, which the latter gladly did. He had already taken appropriate action by beginning in February 1842 to build the foundations of the western half of the south facade, which had been forgotten in the Middle Ages. In the following May the King ordered that not only the south facade, but also the west and north, should be begun at the same time. This raised the question as to whether the association should confine its activities to the towers, the most spectacular part of the building. Clause 9 of its articles dictated that the association's achievements should be visible. The fear was expressed that since the King was having the nave built, he might try to exercise some kind of rights over it. So the association agreed to finance the part which lay to the north of the longitudinal axis, leaving to the King the more expensive south side.<sup>8</sup>

4 September 1842, the day on which the construction began officially, was a memorable one for Cologne and for Gothic architecture. Friedrich Wilhelm IV laid the foundation-stone, and Archbishop-Coadjutor von Geissel consecrated it. Great attention was paid to the King's speech, in which he said that on that site, i.e. at the south entrance, would stand the most beautiful doors in the world. Behind the scenes, however, the dispute continued as to what exactly was the 'original plan'. During site clearance around the north facade, a portal footing was found which had been started in the Middle Ages; but this did not fit in with either the corresponding part of the west facade or with Boisserée's or Zwirner's drawings of the transepts. Immediately, the central cathedral building association demanded that Zwirner's plan should be amended in accordance with the remains that had been found. In vain the architect tried to make it clear that the portal foundation could in no way belong to the original plan, but rather represented a later amendment; in this he was

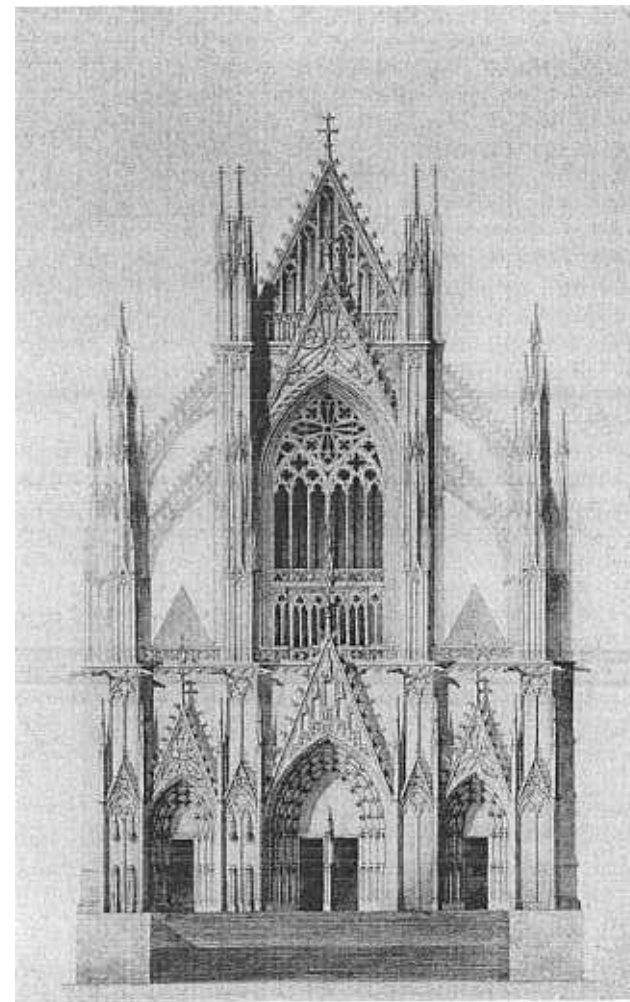


FIG. 6. Zwirner's 1843 design for the north transept facade (*Cologne Stadtmuseum, photograph from Rheinisches Bildarchiv, Cologne*).

undoubtedly correct, but the association (in agreement with Boisserée that everything built in the cathedral should comply with 'the design of the first architect') would not yield. In addition, an opposing faction in its own ranks brought the dispute into the open, so that finally the archbishop had to intervene as mediator.

Meanwhile, Zwirner had made a drawing of the north facade with off-set buttresses on the abutment piers, projecting from the remains of

<sup>7</sup> The association already numbered 4832 members when its first general meeting was held on 14 February 1842.

<sup>8</sup> The cathedral building administration now had to run three accounts, something of which Zwirner often complained. Only in 1863 was this ruling relaxed. Zwirner had estimated the cost of building the nave without buttressing and towers at 1.2M guineas, and the time required at twelve years. Of the 100,000 guineas required annually, the King had promised 50,000 on condition that the association should raise at least an equivalent amount. The fact that buttressing was now to be included, at a cost of a further 0.2M guineas, gave rise to quite different financial considerations, and finally to serious financial problems, as the association was able to raise the required funds only for a few years.



the north portal (*Fig. 6*). Together with the earlier design, he presented his amended proposal to the King for a decision. The royal order was that both facade designs should be built; on the south according to the first drawing, and on the north according to the second. This can be interpreted not only as a diplomatic decision, but also an artistic one showing clearly that the construction of the cathedral should be considered not simply as a continuation of the medieval design, but also as an independent cultural achievement, even though it followed in general an older idea.

Zwirner was also concerned about the design problem posed by the inner facades of the transepts. Because of the great height occupied by the archivolt and gable of the portal, there was an area of about fifteen metres below the window sill of the triforium. In the Middle Ages, such a wall would have been covered with superimposed carved decoration; but Zwirner was against this being cut into the wall surface. His solution was to continue the division of the six-light window downwards, so forming six tall niches in which figures were placed in pairs, one above the other. As with the figures on the choir columns, the upper was in contact with the canopy of the lower. Thus no individual panel projected over the wall surface. This unique idea, which gives the inner facade of the transept an unmistakably neo-Gothic character, counts as Zwirner's most impressive artistic achievement (*Fig. 1*). However, at the time the public, so passionately excited about the exterior, took hardly any notice of what was happening internally.

Thanks to Zwirner's extensive planning and organizational preparatory work, the building of the transept facade progressed rapidly. In the nine years from 1833 to 1842, engaging 188 craftsmen, he had created himself an instrument which seemed to surmount even the most difficult problems easily. Most of the stonemasons who were working at that time had learnt their craft in the cathedral workshop, and it was clear that Zwirner had striven systematically for the completion of the cathedral. By 1844 the number of craftsmen had risen to over 400, and this had important consequences; in time they moved away to other building sites, where they were prized for their abilities, or they opened their own workshops. Others progressed to the rank of master craftsman and some, like Vincenz Statz and Friedrich von Schmidt, even became famous architects.

Zwirner adapted his resources to suit the availability of funds. Thanks to the work of the cathedral building association in the years 1844 to 1848, far more than the anticipated 100,000 guineas—in total 651,755 guineas up to the end of 1847—could be spent. Suddenly, during 1846, a change occurred. The association had achieved only a third of the income of 1843 with 24,000 guineas. Unfortunately that was not a temporary lapse; the income fell even further, amounting to only 18,000 guineas in 1849. As a further 40,000 guineas and more were contributed annually for the

cathedral building programme, the association's resources were exhausted faster than anticipated. The cathedral building programme, which had begun so vigorously, now seemed in serious danger. All hopes were pinned on the cathedral building festival planned for 1848, the 600th anniversary of the laying of the foundation stone. This was to be one of the most exciting festivals in Germany in the nineteenth century. It was the year of the revolution, but representatives of the national assembly in Frankfurt, together with the King of Prussia and the German Vice-Regent, Archduke Johann, for whom an expensive torchlight procession was staged at the association's expense, appeared just the same. On the night before the festival, 14 August, the five stained-glass windows given by the Bavarian King Ludwig I were ceremonially unveiled. Enthusiasm over the splendour and beauty of these hitherto unseen works knew no bounds, and the city gave thanks to the King in the shape of one of the only two then known Roman Diatret glasses, which had been found in Cologne shortly before. The other was given to Friedrich Wilhelm IV, who was celebrated as never before or after.

The cathedral building had reached the stage of the first Zwirner plan of 1833 (*Fig. 7*). Nave and transept were covered with a temporary open frame roof above the level of the triforium, i.e. twenty-seven metres above the floor and almost twice as high as they were before 1842. As a festive gesture, Archbishop von Geissel put back this section into use for

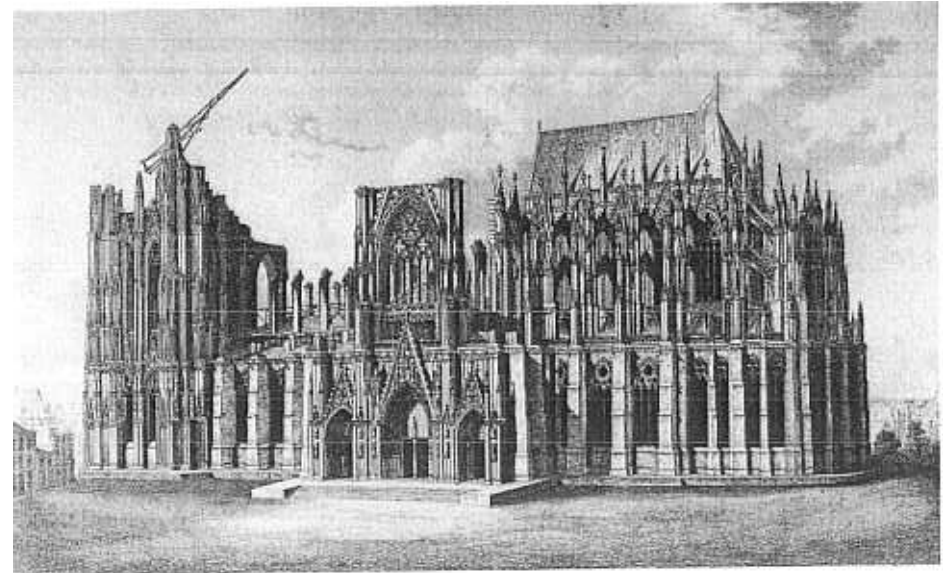


FIG. 7. The south front in 1851 (from the *Cathedral Building Association Memorandum*, after Zwirner).

worship, a move that was desperately needed because of the growth in population in the inner city. When the festival was over the true situation became obvious. The temporary roofing had taken the association's last guineas, and their funds were exhausted. Zwirner now worked only for the King's account and prepared to suspend building on 1 November 1848. Only with the help of an extraordinary contribution from the state funds, which was granted mainly to prevent the dismissal of the stonemasons, could work continue. In despair, the association busied itself to raise revenue, but the idea of the cathedral's completion had faded into the background because of political events and a sharp economic recession. Zwirner tried to weather the storm with a considerably reduced establishment, and he was able to complete the transverse arch between the two eastern piers of the towers in November 1849.

One of the few high points of these years, the most difficult of the whole construction period, was the completion of the south transept facade. Almost seventy metres high, this towered above all other buildings in Cologne, and belatedly this achievement was celebrated with a festival on 3 October 1855.<sup>9</sup> In the same year a decision was taken that was of great importance in the building's final appearance. Boisserée, who had died in 1854, had provided for a large stone octagon over the crossing and insisted on his plan right to the end. Zwirner, who could find no evidence in the medieval building for such a structure, gradually reduced Boisserée's overambitious plan to a slender turret and spire which he constructed of iron after taking into consideration the bearing capacity of the crossing piers.

The association accepted this change without protest, but an apparently much less drastic alteration aroused their indignation. In accordance with his idea of architectural perfection, Zwirner had moved the medieval spiral staircase in the north tower, which would have covered half a window on two stages as in the south tower today, into the core of the north-west pier. He had succeeded in hiding this fact from the association, but August Reichensperger, the editor of the *Kölner Domblatt*, sounded the alarm when the pier had hardly risen above the suspiciously high five-metre fencing. After hours of argument, Zwirner was able to convince the principals of the association that he was right and Reichensperger's effort to have the work redone was rejected by twenty-three votes to ten. It was the first and last time the association allowed itself to be involved with matters relating to the original plan. They were very soon reconciled with the architect, and in 1858 his twenty-five years of service was marked with a large torchlight procession. With tears in his eyes, Zwirner set the gilded star on the 109 metre high turret on 15 October 1860, the birthday of the seriously ill King. Neither of them would see any further completion of the interior; the King died on 2 January and Zwirner on 22 September 1861. Richard Voigtel, assistant cathedral architect since 1855, succeeded him and ran

the building programme until his death in 1902. Less talented than Zwirner, and less ambitious artistically, he was nevertheless the right man for the last building phase—a brilliant organizer and a conscientious, above all knowledgeable and argumentative, guardian of monuments.

On 15 October 1863 the completion of the interior could finally be celebrated. '*Gefallen ist die böse Wand, gefallen, die Chor und Schiff zu lange hielt geschieden*' (The wicked wall is fallen, fallen, which kept the choir and nave apart so long), wrote Karl Simrock. However, the enthusiasm of 1842 and 1848 did not reappear. The King was not present and the festival was more religious in nature, the first of its kind in the more recent history of the cathedral building programme and a sign of the revival of the Catholic Church in Germany. But the building management found itself beset with new problems, in no way inferior to those already overcome, as the question now was the completion of the towers. The continuation

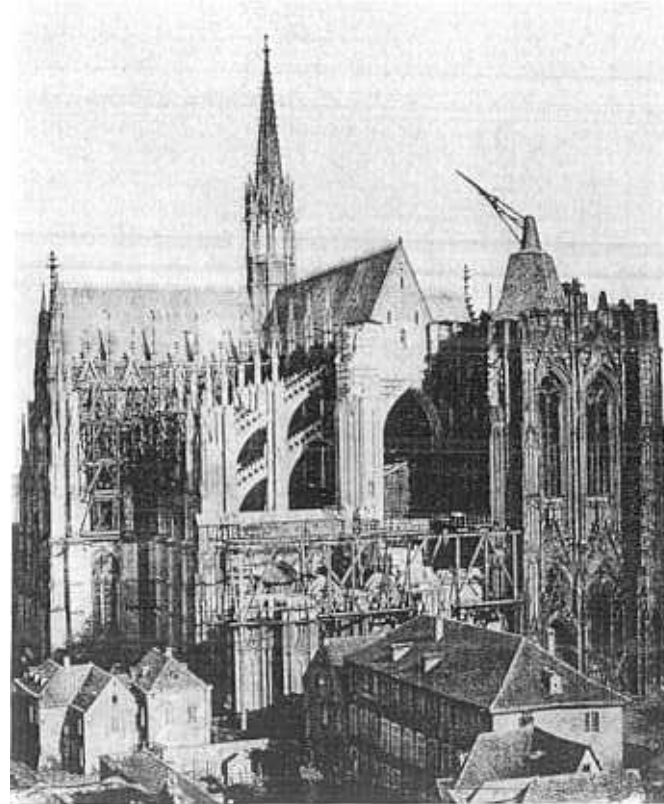


FIG. 8. The west front in 1861 (*Gebr. Schonscheidt, Cologne Cathedral Building Archive*).

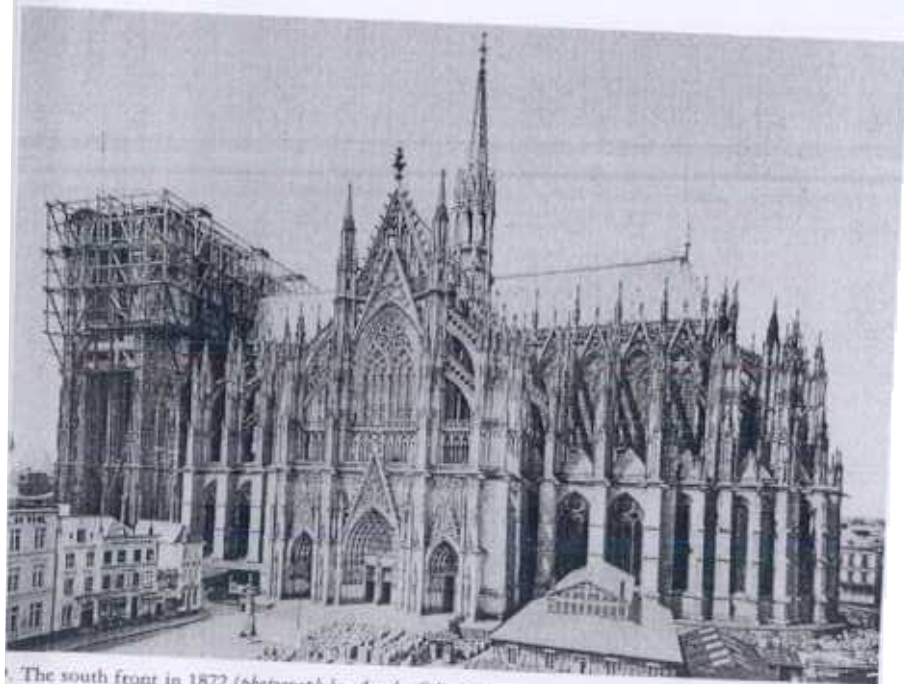
<sup>9</sup>Friedrich Wilhelm IV, had laid the foundation in the morning for the permanent bridge over Rhine, took part in the rations. It was his last to Cologne.



of the north tower had already begun in 1845, but only so far as was necessary in order to be able to complete the interior, on which the ever dwindling funds were concentrated. The most elaborate structure of the tower walls and the sheer size demanded considerably greater expenditure, and the Obenkirchen sandstone chosen for the ornamental work on the west front was much more expensive than Schlaiddorf stone, which had been used previously. Voigtel calculated that, with the annual funds available in 1863, the cathedral might be finished in 1914 at the earliest.

The old but previously rejected idea of a lottery was once again revived. Reichensperger in particular had always declined making use of such an ignoble motive as speculation on winning a large amount of money towards the building of a House of God; but now that the consecrated areas were in use for worship and only the towers were left, this argument was considered invalid. With the Government's approval, the first Premium Collection was announced in 1864,<sup>10</sup> and the result was 177,000 guineas—two and a half times more than the association had taken in its best years. Thereafter, a lottery was run every year; but as many who regarded themselves as the real friends of the cathedral disapproved of this, they continued to give money as before and the

<sup>10</sup> Of the 500,000 lottery tickets at one guinea each, 100,000 were sold. A major prize of 100,000 guineas and many smaller prizes were paid out.



The south front in 1872 (photograph by Anselm Schmitz).

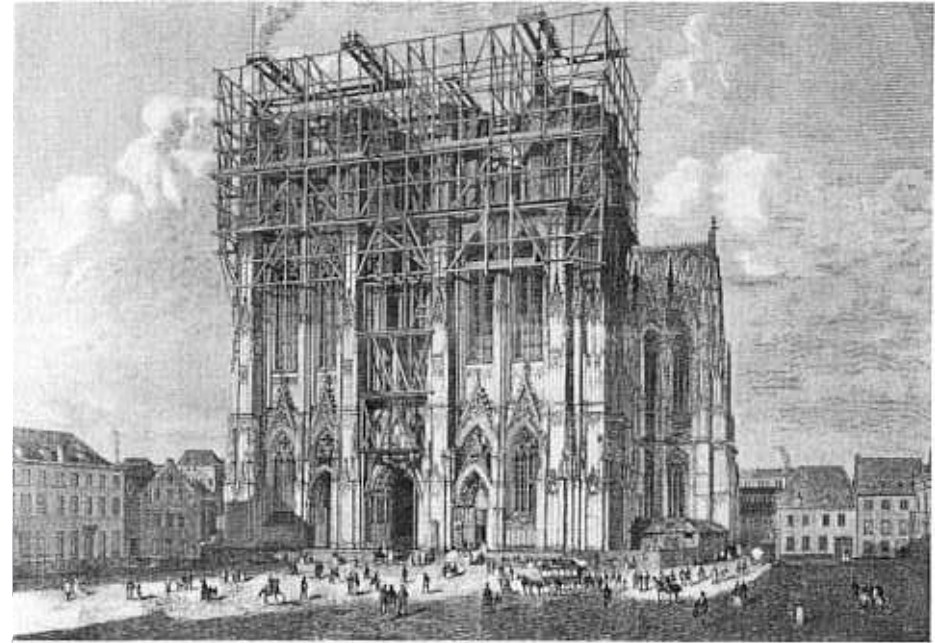


FIG. 10. Wood engraving of the west front after drawing by J. Scheiner (photograph from *Rheinisches Bildarchiv, Cologne*).

association raised another 30,000 to 55,000 guineas a year by the traditional method.<sup>11</sup>

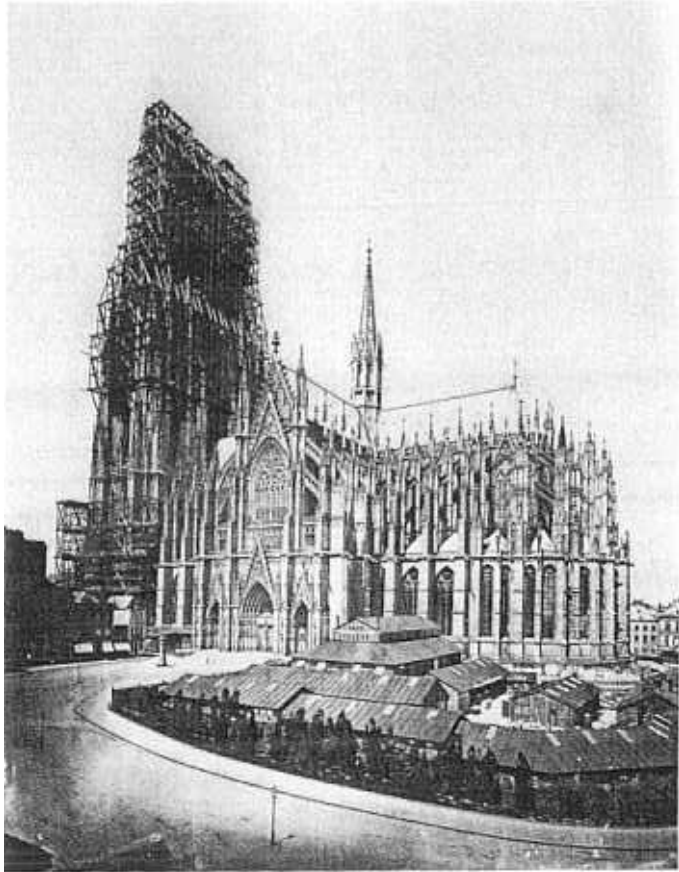
Voigtel could now pay out twice as much each year as his predecessor, and he soon increased the workforce to 500 men. In 1868 the north tower, faced with the costly sandstone, reached the height of the south. The old crane, which for over 400 years had been a Cologne landmark and a reminder that the cathedral building plan was not abandoned, but only interrupted, was taken away to the accompaniment of sad looks. Finally, modern technology moved in when a steam engine was provided in 1869 to lift the stones; the reason for this was the lack of space inside the towers to erect more hand winches. Nevertheless the stonemasons shaped and moved each stone by hand without any mechanical help, just as in the Middle Ages.

Once the medieval facade drawing was available, the building of the towers seemed a simple technical-financial problem (*Fig. 8*). But disillusion soon set in. The medieval builders had not kept rigidly to the old plan, to which only the lower ten metres of the south-west pier had been built. On the first stage level, arcading in which equestrian statues

<sup>11</sup> It contributed on average 185,000 guineas (825,000 Marks) in the best year (1875), while the state contribution remained unchanged at 50,000 guineas until 1879, when it ceased.



FIG. 11. The cathedral in the year of its completion, 880 (Th. Creifelds, Cologne)



were to have stood had been omitted; at that level too the buttresses had not been off-set, which meant that the tower reduced only by 1.03 metres instead of 2.45. On the stage above the buttresses had been splayed out from the angles and so deviated from the right-angled concept. Voigtel found himself faced here with almost insoluble difficulties. He had to complete the facade which, through countless reproductions of the parchment design, was known worldwide over the stump of a tower which had long deviated from this. The association, which was now raising four-fifths of the cost, refused to allow any changes and insisted on the inclusion of every discernible detail. By slightly raising the height of the towers, from 148 metres to 157, and by making a compromise transition from second to third level at the corner, Voigtel succeeded in

following the original design as closely as possible. The west window was the next problem; the parchment plan envisaged only one order or layer of tracery, but in the building itself this had been doubled so that the glazing was set in the inner order. Voigtel preferred the original idea, which he called the better one; but the association now considered the evidence of the fabric more binding than the parchment, although the building committee in Berlin had already favoured Voigtel's proposal and the latter had threatened to resign. Again the association succeeded in winning over the archbishop, the metropolitan chapter and the Cologne press to their point of view.

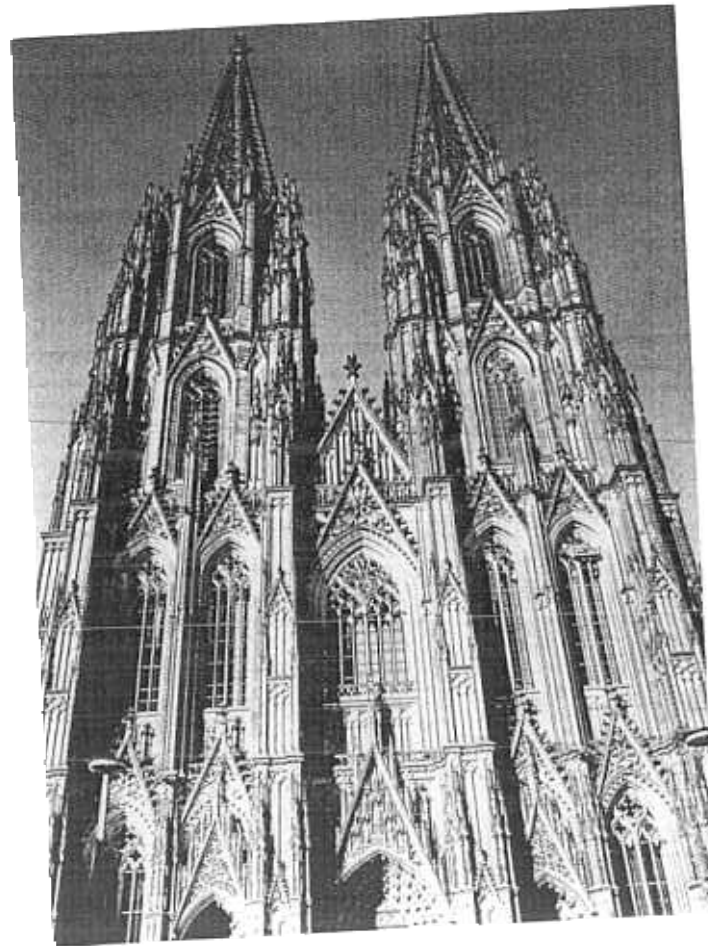
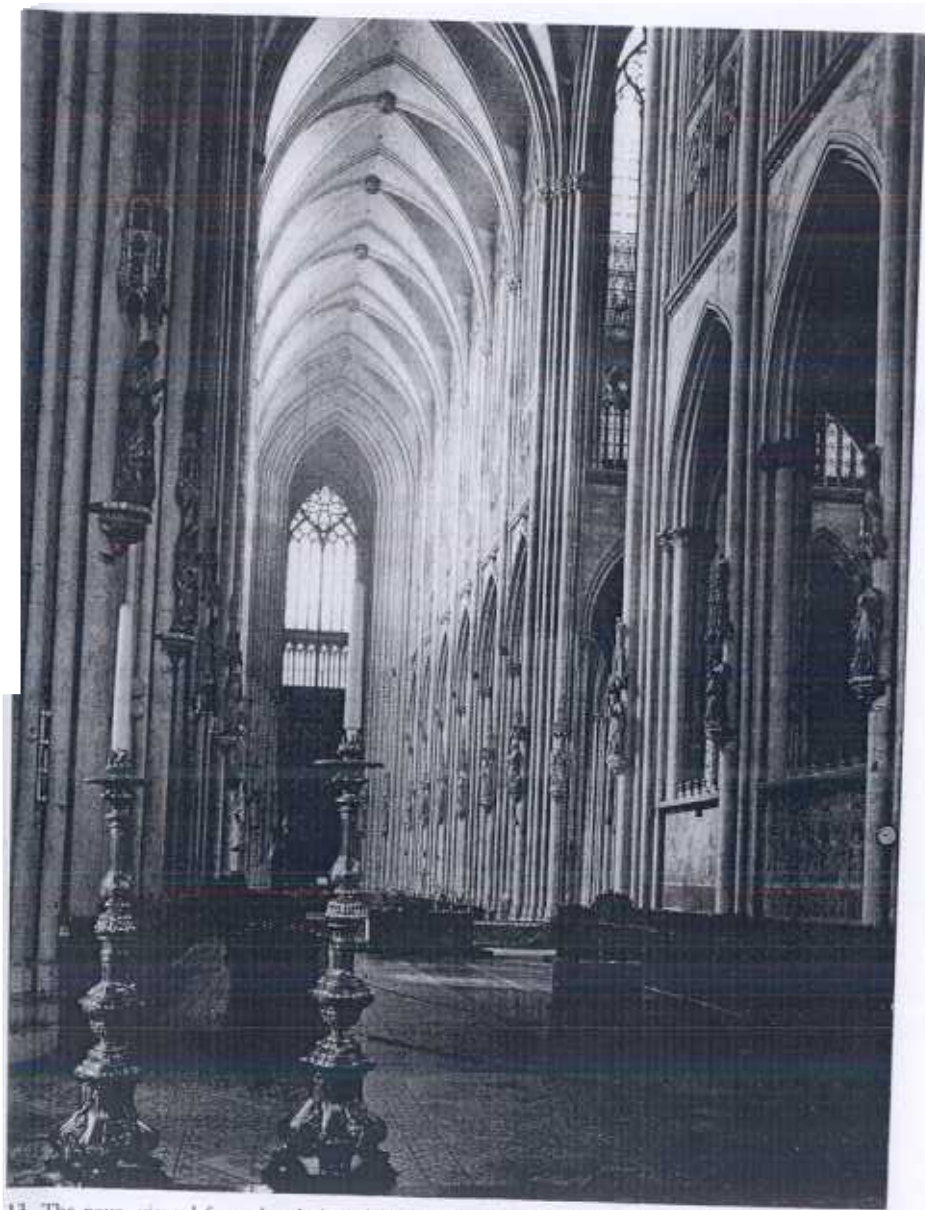


FIG. 12. The west front after completion, showing the nineteenth-century completion and integration of the fourteenth-century fabric (photograph by Schmölz, 1938).



13. The nave, viewed from the choir and looking towards the west (photograph 1930, from *Rheinisches Archiv, Cologne*).

The further building of the towers went according to plan (*Figs 9 and 10*). In 1873 the west window was completed; in 1875, the third storey of the towers. In February 1877 the first blocks were laid for the bases of the spires. The gigantic timber scaffolding was raised higher and higher above the city, the highest it had been so far (*Fig. 11*). When the north tower was finished on 23 July 1880, it was the highest building in the world. It had taken more than half a millenium to reach the target set as long ago as 1300, but still nothing had been built to surpass that original ambition (*Fig. 12*). The completion was festively celebrated on 15 October 1880 in the presence of the imperial couple but without the banished archbishop, Paulus Melchers; and the next day there was a memorable procession organized by the people of Cologne.

However, the completion of the shell was not the end of the story, since finishings formed an integral part of the concept. Great efforts were made to design, finance and produce stained glass, mosaic floors, murals, groups of statues and bronze doors. Even music was included. The already world-famous chimes were augmented by the largest swinging bell in the world, and the choir reverted to the medieval style of performance. New liturgical vestments, made to resemble the rich textiles of the later Gothic period, complemented all these effects. And so was achieved a 'Work of all the Arts', the like of which had not been attempted elsewhere on such a scale; it was a true achievement of the nineteenth century (*Fig. 13*). Whether it had attained the artistic concentration of other works of this kind is no longer arguable. Even after 1880 much remained at the planning stage, and Voigtel himself reacted against an all too perfect new installation. Also, much of what was built with such care and sympathy for the original concept has been destroyed.

If one looks for a criticism of the work of completion, one comes up against the conventional versions of the history of art of the early twentieth century. Even important authorities, like Paul Clemen and Georg Dehio, were apparently reluctant to criticize the achievements of the older generation. Again, though they acknowledged Boisserée might have some artistic originality, neither of Zwirner nor of Voigtel did they say so. Yet a simple comparison of Boisserée's Diagram IV of the south front (*Figs 3 and 9*) and its troublesome completion by Zwirner over twenty-two hard years shows there is an infinite difference between a clever assemblage of elements and a real architectural achievement. It is not an exaggeration to claim that the south front, as it was before the Second World War, was one of the most important and perfect examples of neo-Gothic architecture. An assessment of the west front is less unequivocal, as two artistic objectives are mixed here. While the author of the great parchment design had wanted in some way to preserve the separation of the towers and make them to some extent independent of the central section, the architect of the first stage of the south tower had



<sup>12</sup> Clemen, P., 'Der Kölner Dom', *Die Kunstdenkmäler der Rheinprovinz* (1938), 6/III. See also Wolff, A., *The Cathedral of Cologne* (English edition), Stuttgart 1980, 110.

## Résumé

Déjà avant son achèvement, la cathédrale était l'un des plus grands monuments de l'architecture ecclésiastique en Europe; et pourtant à peine plus de la moitié du projet avait été réalisée. Sa fondation date de 1248 et le chœur fut consacré en 1322. Le dessin de la façade ouest avait été réalisé en 1300, année du début de l'érection de la tour sud qui fut arrêtée 110 ans plus tard. La grande grue de l'époque fut laissée en place, signe de la reprise prévue des travaux. Au XV<sup>ème</sup> siècle les architectes s'intéressèrent surtout aux bas-côtés nord et ils avaient aussi commencé à travailler à la tour nord lorsque les travaux furent interrompus en 1560. A cette date, les transepts et la nef centrale avaient été recouverts jusqu'à hauteur des chapiteaux de colonnes ce qui permettait d'utiliser plus de quatre-vingt dix pour cent de la superficie de l'édifice.

En 1794 les troupes françaises révolutionnaires pénétrèrent dans Cologne et utilisèrent la cathédrale comme dépôt de grains et de fourrage; or cette période de la plus grande humiliation coïncida avec le réveil de l'intérêt pour le Moyen Age. Au début du XIX<sup>ème</sup> siècle, un jeune marchand de Cologne, Sulpiz Boisserée, se fit le défenseur acharné de la cathédrale; ce fut lui qui, plus tard, publia une étude du monument avec de belles illustrations montrant l'aspect qu'aurait l'édifice une fois terminé. Parmi ceux qui partageaient son enthousiasme se trouvait le prince héritier de la couronne de Prusse, Frédéric-Guillaume. En 1814, Josef Görres lança son fameux appel en faveur de l'achèvement de la cathédrale en tant que monument national allemand; or c'est justement cette année que fut découverte la moitié du célèbre dessin médiéval de la façade ouest de la cathédrale dont l'autre moitié fut découverte à Paris un peu plus tard. On savait ainsi ce qu'avait été le projet original.

En 1833, Karl Friedrich Schinkel envoya à Cologne un jeune et talentueux architecte, Ernst Friedrich Zwirner qui continua la restauration du chœur qui avait été commencée dix ans auparavant et fit des plans

aimed for a continuous wall plane, from which the upper part was to emerge, at first almost imperceptibly. The only course open to Voigtel was to compromise. Pressed by the association, he built the wall but gave back to the central section some of its individuality by introducing the parapet over the triforium in front of the great west window and allowing the towers to ascend freely, even higher than in the design. Here Paul Clemen must be regarded as correct when he pronounces the result as an artistic achievement on the grand scale that was without parallel.<sup>12</sup>

pour son achèvement. Schinkel présenta un projet d'après les idées de Zwirner mais il y eut une controverse quant à la meilleure façon de terminer l'édifice: fallait-il achever la coquille rapidement et prendre son temps plus tard pour les détails ou construire plus lentement en ajoutant immédiatement tous les détails. D'autre part le système compliqué des contreforts fut également un sujet de discussion.

Lorsque Frédéric Guillaume monta sur le trône le 7 juin 1840, le débat reprit de plus belle. Une association pour la construction de la cathédrale fut créée sous le patronage du nouveau roi. Dans les statuts figurait une clause qui précisait que les travaux en vue de la conservation et de l'achèvement de la cathédrale devaient 'respecter le projet original', clause qui prit en fait valeur de testament. Le roi choisit l'alternative de la construction complète et il ordonna secrètement à Zwirner de respecter scrupuleusement le plan original. En mai 1842 il décida que les travaux commenceraient non seulement pour la façade sud mais aussi pour les deux autres. Aussi, l'association décida-t-elle de financer la construction de la partie au nord de l'axe longitudinal. Le début des travaux fut solennellement marqué par le roi le 4 septembre 1842. Mais, en coulisse, les débats continuèrent sur la nature véritable du projet original. La découverte d'une base de portail qui ne trouvait sa place ni dans la construction ni dans les documents fut l'une des raisons de la dispute; l'autre fut le dessin précis des contreforts de la façade du transept. Zwirner avait aussi des problèmes pour le plan des faces internes des transepts mais il trouva là une solution qui est peut-être la réalisation la plus remarquable de sa carrière.

En 1844, le nombre des artisans affectés à la construction de la cathédrale s'éleva à plus de 400; mais, à partir de 1846, l'association eut des problèmes financiers qui furent bien près de provoquer l'arrêt de la construction. La nef et les transepts avaient déjà été couverts d'une toiture provisoire qui permettait leur

usage pour le culte. Mais, seule, une contribution extraordinaire de l'Etat—accordée essentiellement pour éviter le renvoi des maçons—permit la continuation des travaux. La façade du transept sud fut finie en 1855 et cette année il fut décidé de renoncer au grand octogone de pierre qui avait été proposé par Boisserée pour couvrir le croisement des transepts car il n'y avait aucun document permettant de croire que ce plan était conforme à l'original; aussi c'est une mince tourelle de fonte coiffée d'une flèche qui fut élevée à sa place selon des dessins de Zwirner. Celui-ci fut en mesure, le 15 octobre 1860, de poser une étoile d'or au sommet de la flèche en un dernier geste symbolique. Car il mourut l'année suivante et fut remplacé par Richard Voigtel qui dirigea les travaux jusqu'à sa mort en 1902.

Après l'achèvement de l'intérieur, le jubé entre la nef et la chœur qui datait du XIV<sup>ème</sup> siècle fut supprimé. La façade ouest et les grandes tours posèrent des problèmes car il fut découvert que les bâtisseurs médiévaux s'étaient écartés du plan original décrit par le fameux dessin. De plus, le coût de la construction était de plus en plus élevé; mais les fonds nécessaires furent trouvés grâce à une loterie annuelle. En 1868, la tour nord atteignit la hauteur de la tour sud et la vieille grue, qui avait fait partie de l'horizon de Cologne depuis plus de quatre cents ans, fut démantelée. En 1873 la baie ouest fut achevée, en 1875 le troisième étage des tours, en 1877 les pierres de la base des flèches furent posées et, enfin, en 1880, on put célébrer la fin des gros travaux; seuls restaient à compléter les détails intérieurs de la décoration afin de parachever une oeuvre d'art totale qui n'a jamais eu son pareil ailleurs sur une telle échelle. Ce fut là une grande réussite du XIX<sup>ème</sup> siècle.

## Resumen

Incluso antes de ser terminada, la catedral era uno de los mayores ejemplos de arquitectura eclesiástica en Europa, a pesar de que se hubiese construido poco más de la mitad de lo que se había planeado. La primera piedra se había puesto en 1248, y la consagración del altar tuvo efecto en 1322. El diseño de la fachada occidental había sido revisado en 1300, año en que se inició la construcción de la torre sur, que se terminó 110 años después. La gran grúa permaneció en la parte superior como prueba de que se planeaba seguir construyendo. Los arquitectos del siglo XV se interesaban básicamente en las naves septentrionales, pero se suspendió la construcción en 1560 cuando habían empezado las obras de la torre norte. En aquel momento, toda la nave central, los dos transeptos y

estaban techados a nivel de los capiteles, de modo que podía utilizarse más del noventa por ciento del área.

En 1794 entraron en Colonia tropas revolucionarias francesas. Cerraron al culto la catedral y la destinaron a almacén de granos y forraje, pero esta época de mayor humillación coincidió con el despertar del interés en la Edad Media. A principios del siglo XIX, la catedral halló su más ferviente adalid en el joven comerciante de Colonia Sulpiz Boisserée, quien más tarde publicó una relación bellamente ilustrada del edificio que mostraba el aspecto que tendría si se terminaba. Entre los que compartían su entusiasmo se hallaba el Príncipe heredero de Prusia Federico Guillermo. En 1814, Josef Görres lanzó su famoso llamamiento en pro de la terminación de la catedral como monumento nacional alemán, y durante el mismo año se descubrió la mitad de un dibujo medieval casi legendario del diseño de la fachada occidental; poco después se descubría la otra mitad en París, y juntas documentaron los propósitos originales.

En 1833, Karl Friedrich Schinkel envió a Colonia un joven arquitecto de talento, Ernst Friedrich Zwirner. Prosiguió la restauración del coro, que había sido empezada diez años antes, y trazó planos para la acalimienta. Schinkel hizo los planos de acuerdo con las sugerencias de Zwirner, pero existía conflicto de opiniones sobre la mejor manera de completar el edificio: tratar de completar la fábrica rápidamente y añadir los detalles sin prisas, o construir despacio pero con todo detalle. El complicado sistema de contra-fuerzas era otro motivo de divergencias.

Después del fallecimiento del Rey el 7 de junio de 1840 y la accesión de Federico Guillermo, la cuestión adquirió nueva vida. El nuevo rey se convirtió en patrocinador del proyecto catedralicio, y se constituyó una asociación para la construcción de la catedral. En los artículos de esta asociación, se incorporó una cláusula según la cual su esfuerzo se dirigiría a la conservación y continuación 'de acuerdo con el proyecto original', y esto se convirtió en su testamento. De entre las alternativas, el Rey se inclinó por la realización total y dio instrucciones confidenciales a Zwirner para que procediese estrictamente de acuerdo con el proyecto original. En mayo de 1842, ordenó que se comenzasen no sólo la fachada sur, sino también las dos otras. Como resultado, la asociación acordó financiar la parte que quedaba al norte del eje longitudinal.

Con la real instalación de la primera piedra, empezó oficialmente la construcción el 4 de septiembre de 1842; pero entre bastidores continuaba el desacuerdo con respecto al proyecto original. Al revelarse la base de un portal que no cuadraba ni con la fábrica ni con datos documentales, surgió una disputa; otra resultó

de los detalles de los contrafuertes de la fachada del transepto. Zwirner se preocupó también del problema del diseño que planteaba la fachada interior del transepto y lo resolvió de manera que forma su triunfo artístico más impresionante.

En 1844 el número de artesanos pasaba ya de 400, pero después de 1846 la asociación empezó a tener dificultades financieras y el programa de construcción se vio en peligro. Por esta fecha, la nave y los transeptos estaban cubiertos con un techo provisional que permitía devolver al culto esta parte. Pero la obras sólo pudieron continuar gracias a una contribución extraordinaria de fondos estatales, otorgada principalmente para evitar la despedida de los albañiles. En 1855 se terminó la fachada del crucero sur, y aquel mismo año se decidió no construir el gran octágono de piedra sobre el crucero que había sido la solución de Boisserée para este lugar; parecía no haber pruebas históricas para ello y, en su lugar, Zwirner diseñó una esbelta torrecilla y aguja de hierro. El 15 de octubre de 1860, como último, gesto simbólico, pudo colocar una estrella dorada encima de la aguja. Murió al año siguiente, y su lugar fue ocupado por Richard Voigtel,

quien dirigió el programa de construcción hasta su muerte en 1902.

Después de haber terminado el interior, se demolió la pared que desde el siglo XIV existía entre la nave y el coro. Sin embargo, la construcción de la fachada occidental y las grandes torres planteaba problemas. Surgió la polémica del diseño, ya que se descubrió que los arquitectos medievales habían empezado a apartarse del diseño original que se conservaba en el famoso dibujo. También surgieron problemas respecto al coste, pero se resolvieron mediante una lotería anual que proporcionó el dinero necesario. En 1868 la torre septentrional llegó a la altura de la meridional y se quitó la vieja grúa que durante cuatrocientos años había sido parte característica de Colonia. En 1873 se finalizó la ventana occidental; en 1875 el tercer piso de las torres; en 1877 se pusieron las primeras piedras de la base de las agujas; y en 1880 se celebró el fin de la construcción. Sólo faltaban los toques interiores y decorativos para dar fin a una obra de arte total cuyo igual no se había intentado en ningún otro sitio en la misma escala. Era un verdadero logro del siglo XIX.