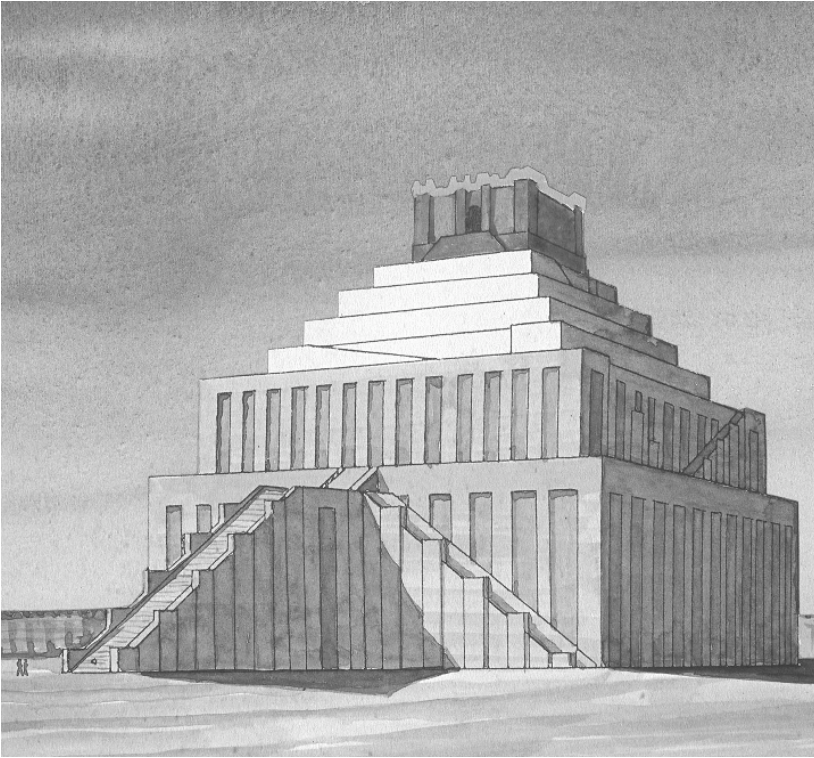




1-1 Babylon, Tower of Babel (reconstruction).

PART I: SPIRE GENESIS

Chapter 1: Prologue – Precursors of Great Spires

Although great spires burst onto the architectural scene for the first time in the twelfth century, in the very decades when the Gothic style itself was emerging, many aspects of their form and their symbolism derived from long-standing traditions. Gothic builders, patrons, and spectators would have appreciated many of the formal and iconographical resonances linking great spires to related tower and canopy types, even if they were unable to trace every step connecting great spires to their ancient and early medieval antecedents. Consideration of this pre-Gothic background, therefore, proves crucial in understanding not only the architectural origins of the great spire phenomenon, but also its social meaning and religious significance.

At a very basic typological level, great spires share in a broad symbolic tradition that links the “most high” with the sacred.¹ This linkage makes sense, because height confers visual power, in two senses: high structures can be easily seen, and watchers in high places can easily see. Given the tremendous importance of vision in human affairs, it is not surprising that many early societies associated height with divine power. The Greeks, for example, believed that their gods lived on Mount Olympus, the highest mountain in Greece. The ancient Mesopotamian civilizations raised their temples atop tall ziggurats which the priestly class would ascend to communicate with the gods, as at Babylon (fig. 1-1). Similar ideas manifest themselves in the architecture



1-2 Strasbourg Cathedral, north tower and spire with stair turrets.

and religion of many other cultures as well. In Roman and Byzantine art, large domed interiors were often used to represent the vault of the heavens.² The spherical dome form, however, implicitly treats all directions in space as equivalent. By contrast, the tapering axial form of the church spire, like that of the ziggurat, clearly establishes the vertical direction as privileged. From this perspective great spires resemble vertical bridges, hyphens between heaven and earth.

¹ As Mircea Eliade has written, “The ‘most high’ is a dimension inaccessible to man as man; it belongs to superhuman forces and beings. He who ascends by mounting the steps of the sanctuary or ritual ladder that leads to the sky ceases to be a man; in one form or another he shares in the divine condition.” See *The Sacred and the Profane: The Nature of Religion*, trans. Willard R. Trask (New York, 1987), 118.

² The classic study of this symbolism remains E. B. Smith, *The Dome* (Princeton, 1950).

In the Christian tradition, this notion of height iconography evoked several disparate readings. On the one hand, attempts to build high might be tainted by the reputation of the tower project at Babel, a symbol of misguided human vanity in the face of the divine.³ On the other hand, God himself established the connection between heaven and earth in Jacob's dream of the ladder, from which Jacob awoke saying "How awesome is this place! It is none other than the house of God, and this is the gate of heaven."⁴ References to Jacob's dream may help to explain the particular delight some late medieval spire-builders took in the elaboration of the staircase theme. Ulrich von Ensingen, for example, constructed soaring openwork stair turrets alongside the slender core of the cathedral tower at Strasbourg, and his successor Johannes Hultz covered the entire surface of the spire cone above with smaller staircase modules (fig. 1-2). Even if no explicit reference to Jacob's ladder was intended here, the general idea of the spire as the vertical marker of heaven's gate surely ranked among the most important aspects of great spire iconography. One of the most valuable medieval sources on architectural iconography, the thirteenth-century manual of church symbolism written by William Durandus, bishop of Mende, affirms that spires symbolized the striving of the human mind toward heaven.⁵

The symbolism of great spires involved not only their height, but also their role as Christian belltowers. The visibility of towers and the audibility of belfries work together to lend prominence to the institutions that commissioned them, an advantageous arrangement that northern European builders exploited from a surprisingly early date. Descriptions of the fifth-century church of Saint Martin in Tours, for example, "exhort the observer to lift up his gaze to the tower, whence the voice of Saint Martin calls."⁶ Such anthropomorphic readings of belltower symbolism enjoyed long-standing popularity. William Durandus, for example, saw belltowers as preachers, spreading the word of God far and wide.⁷ Bells also

³ For a discussion of the contrasting Biblical workshops of Babel and Noah's Ark, see Christian Vandekerchove, "L'Iconographie médiévale de la construction," in Roland Recht, *Les Bâisseurs des cathédrales gothiques*, exh. cat. (Strasbourg, 1989), 61-80. References to Saint Barbara and her tower generally played little role in the development of great spires and their symbolism, although Jan van Eyck's famous drawing of the saint and her tower, reproduced by Vandekerchove, displays some influence from great spire architecture.

⁴ Gen 28:17 RSV.

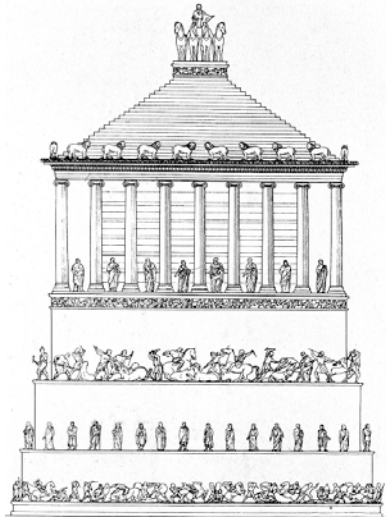
⁵ Quoted in Wilson, *Gothic Cathedral*, 69.

⁶ Quoted in George H. Forsyth, Jr., *The Church of St. Martin at Angers: The Architectural History of the Site from the Roman Empire to the French Revolution* (Princeton, 1953), 213. Forsyth's study of Angers includes a valuable appendix on early medieval tower design throughout northern Europe.

⁷ Joseph Sauer, *Symbolik des Kirchengebäudes und seiner Ausstattung in der Auffassung des Mittelalters*, 2nd. ed. (Münster, 1964; orig. publ. 1902), 141-42.

announced markets, curfews, alarms, and other major secular events, while towers could prove useful for the posting of city watchmen.⁸ These functions might be served by either a church belfry or a separate civic belfry. With their religious affiliation and civic impact, great spires often played both roles.

The immediate antecedents of the first great spires were free-standing bell-towers, but most subsequent great spires were closely associated with church facades and entrance blocks, and most displayed complex geometries similar to those of micro-architectural canopies. They thus came to embody two distinct but related iconographies of

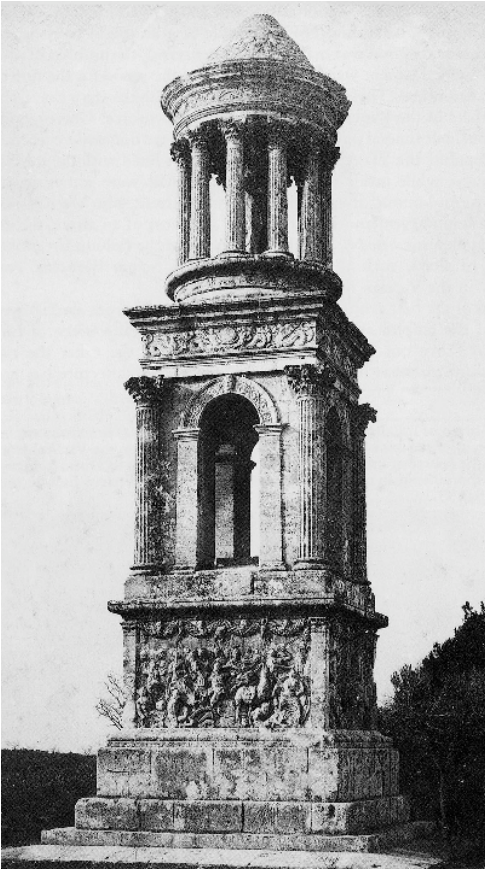


1-3 Halicarnassus, Mausoleum (reconstruction).

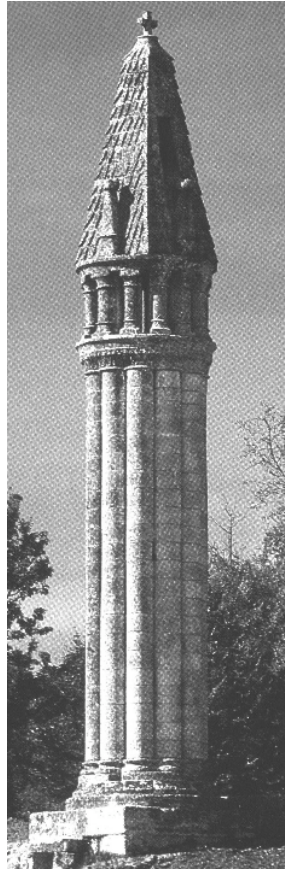
enshrinement that most other belfry and campanile types do not: one based around the image of the tomb canopy; another based on the image of the fortified gatehouse. This layering of significations strongly influenced the formal development of great spires as well as their meaning.

The close kinship between great spires and micro-architectural canopies becomes comprehensible in light of their shared origins in the funerary architecture of the ancient world. The tapering form of the Gothic spire, from this perspective, may be seen as a distant echo of the pyramidal form adopted by the Egyptians for the tombs of their pharaohs. The "missing links" between these two seemingly disparate traditions include the funerary monuments of the Greco-Roman world. The Mausoleum of Halicarnassus, for example, included a stepped pyramidal story between the blocky tomb base and the statue group at its summit (fig. 1-3). The proportions of the Mausoleum were far more vertical than those of Greek temples like the Parthenon, and many humbler Greco-Roman grave markers were even more towerlike. Some small Roman tomb shrines had pyramidal terminations, while others, including the Mausoleum of the Julii in southern France, ended in narrow domed drums (fig. 1-4). These

⁸ See, for example, Wim Swaan, *Art and Architecture of the Late Middle Ages* (Hertfordshire, Eng., 1982), 121; and A. J. L. van de Walle, *Gothic Art in Belgium: Architecture, Monumental Art*, trans. J. A. Kennedy (Brussels, 1971), 46-48.



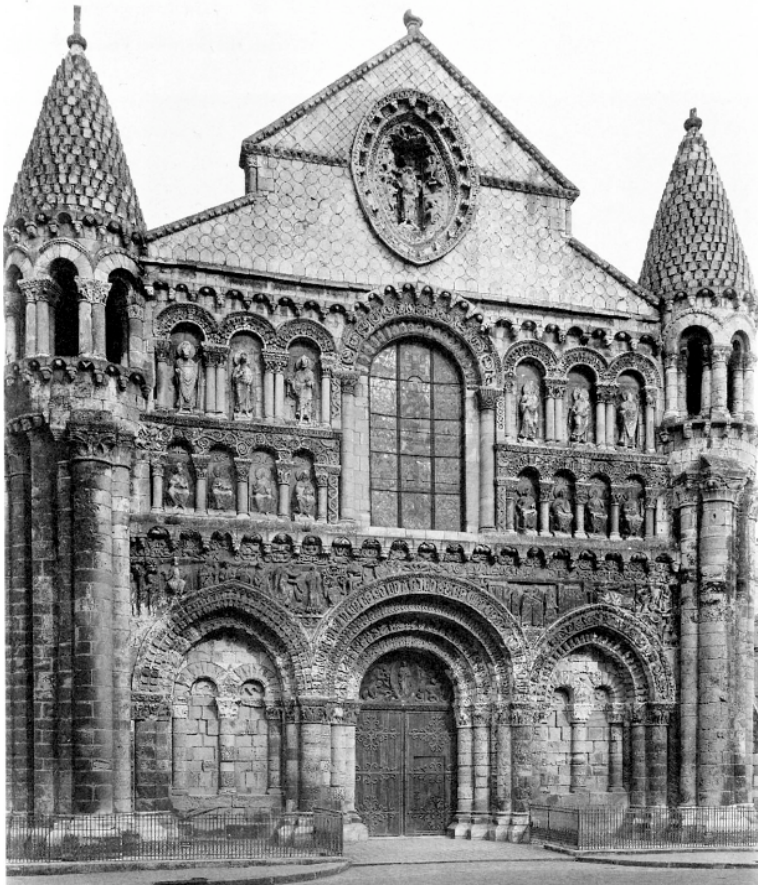
1-4 Saint-Remy, Mausoleum of Julii.



1-5 Fenieux lantern tower.

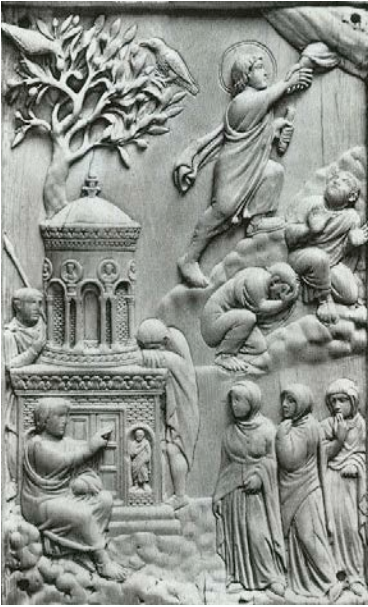
slender tomb towers resemble miniaturized cousins of the great Mausoleum of Helicarnassus, but they may be understood more generally as distilled embodiments of the concept of architecture as a sheltering marker. They synechdochally include all the elements of a larger building, but these elements cluster tight about the central axis locating the body of the deceased.

The basic form and symbolism of Roman tomb towers like the Mausoleum of the Julii was echoed with almost uncanny accuracy a full millennium later in the Romanesque monuments of south-central France known as lanterns of the dead. Some of these stood free in cemeteries, as at



1-6 Poitiers, Notre-Dame la Grande, west facade.

Fenioux (fig. 1-5), but other examples of the same basic type were appended to church facades, as at Poitiers (fig. 1-6). This situation begins to hint at the close connection between medieval church tower design and the funerary architecture of the ancient world. In the Gothic era, moreover, cemetery lanterns were built in the shape of slender spirelike pinnacles on columns. For medieval spectators, therefore, the symbolism of great spires would have included a mortuary component. Crucially, however, the main significance of death in a Christian context was as a passage to the afterlife. Great spires thus served as monumental beacons directing the viewer's attention past the transient things of the world, and to God.



1-7 Early Christian ivory plaque showing the ascension of Christ.

The linkage between ancient tomb towers, with their funerary symbolism, and great spires, with their symbolism of salvation and spiritual rebirth, was established largely through the intervening tradition of veneration for the bodies of Christ and the saints. The body of Christ himself was thought to have risen to heaven, but the presence of his tomb shrine in Jerusalem helped to make that city, the site of the Passion, into the spiritual center of the Christian world. In the early Christian period a series of increasingly elaborate tomb towers was erected at the site, as depicted in many early medieval ivories showing the resurrection and ascension of Christ, including one well-known fifth-century example now preserved in Munich (fig. 1-7).

The tomb site itself, meanwhile, became the focus of the great church of the Holy Sepulchre following Emperor Constantine's dramatic acceptance of Christianity in the early fourth century. With its large rotunda centered on the tomb tower, the Holy Sepulchre complex incorporated reference to the Roman imperial tradition of domed mausolea, a tradition that would influence the planning of many early Christian shrines.

Appropriations of mortuary architecture provided the bases for later developments in the design of reliquaries, baldachins, and church towers. The close formal resemblance between domed Roman mausolea and bathhouses, for example, facilitated the development of the Christian baptistery as a hybrid centralized structure, in which bathing represented a death from which the faithful would emerge cleansed and prepared for entry into the kingdom of heaven. Because it was easier to construct flat rather than curving walls, and because Christ's resurrection eight days after his entry into Jerusalem linked the number eight with the idea of resurrection and rebirth, many of these centralized baptisteries were octagonal in plan, like the great spires built a millennium later.



1-8 Ivory Plaque, now in cover
of Pericopes of Henry II (detail).

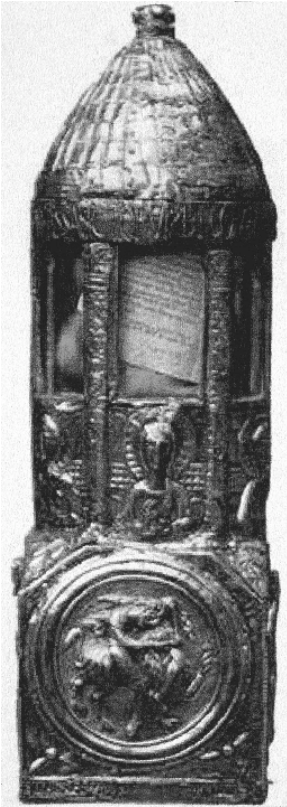


1-9 Centula, Saint Riquier (engraving,
detail).

The transformation of the tomb shrine into the church tower took place both in the eastern Mediterranean and in northern Europe, the eastern examples being slightly earlier. At the shrine of Saint John in Ephesus, for example, the saint's tomb was crowned by a small protective tabernacle and then a series of successively larger canopies, the outermost resting on four piers. Basilican arms to shelter the faithful were then appended to this baldachin core, so that a cross-shaped structure organized around a central tower resulted by the end of the fourth century. At the shrine of Saint Balbas near Antioch, begun in 379, a square core described as a "towering baldachino" anchored the arms of the cruciform plan.⁹

Western European builders developed similar tower structures beginning in the fifth and sixth centuries. Most Merovingian belfries were probably no more than humble roof-turrets or bell-cotes, but a variety of contemporary citations together attest not only to the widespread liturgical use of bells, but also to an impressive degree of monumentality in early European tower schemes. The bishop and historian Gregory of Tours, for example, noted the collapse of a large tower at the church of Saint Anatolian in Clermont, and his contemporary Venantius Fortunatus commented on the "towered summit . . . above steep roofs" of the church of Saints Peter and Paul in Nantes, which he described as a "three-fold structure . . . amazing to behold" that conveyed "the effect of a mountain." This "three-fold structure" may have been an early example of the three-

⁹ Richard Krautheimer, *Early Christian and Byzantine Architecture*, Pelican History of Art (Harmondsworth, Eng., 1965), 51.



1-10 Conques, Reliquary of Saint Vincent.

story type of canopy tower later seen at the Carolingian abbey of Saint Riquier in Centula (fig. 1-9).¹⁰

The formal and symbolic resonances between timber canopies of the Saint Riquier type and ancient Roman traditions of tomb tower design become clearer when contemporary ivories and documents are also considered. The famous ninth-century ivory now incorporated into the jeweled cover of the Pericopes of Henry II, for example, shows the tomb of Christ as a towering three-story structure (fig. 1-8). While clearly based on Roman tomb tower prototypes and early Christian depictions of Christ's tomb like the one seen in the fifth-century Munich ivory cited previously, the tower seen in the Carolingian ivory also closely resembles the contemporary wooden tower canopies of Saint Riquier. This suggests that the Saint Riquier towers may have been seen as updated versions of the Roman tomb tower type. This reading receives further support from Carolingian documents, which use the term "turris" to refer both to full-scale tower canopies and to microarchitectural tower reliquaries like the somewhat later tower reliquary of Saint Vincent from Conques (fig.

1-10).¹¹ By the ninth century, therefore, the symbolic duality that would later motivate the formal dialog between Gothic microarchitectural tabernacles and great spires was already in place.

The relationship between large scale towers and micro-architectural canopies, which comes through powerfully in both Carolingian and in Gothic design, proves somewhat harder to trace in the hugely diverse architectural output of the intervening Ottonian and Romanesque periods. Ottonian crossing towers were often fairly low and boxy, lacking the fragile canopies of the Saint Riquier type, and the large rectilinear crossing

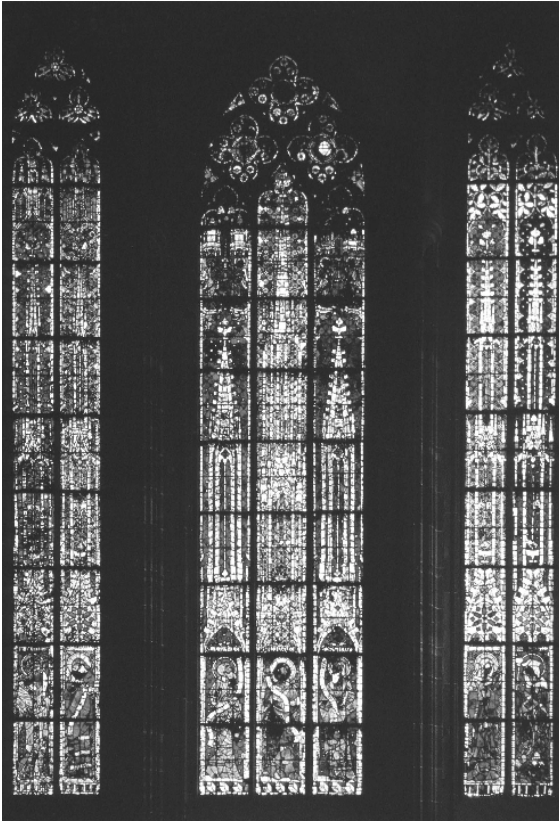
¹⁰ Forsyth, *St. Martin*, 216-17.

¹¹ Forsyth, *St. Martin*, 216-17. See also Peter Lasko, *Ars Sacra 800-1200*, Pelican History of Art (Harmondsworth, Eng., and Baltimore, 1972), 65.

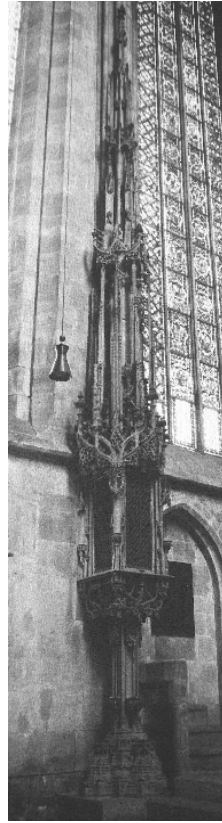


1-11 Saint-Nectaire, Notre-Dame du Mont Cornadore.

towers of Romanesque England and Normandy, similarly, had left the Roman tomb-tower form far behind. The facade turrets and free-standing lanterns of the dead seen in Romanesque Poitou clearly derive from the Roman funerary tradition, but these Potevin monuments appear to have had little direct impact on the invention of the great spire type. As explained in the following chapter, the most direct ancestors of Gothic spires were the gabled belfry towers of the Limousin and Auvergne, but the larger pyramidal terminations of Rhenish and Auvergnat crossing towers like those of Saint Nectaire played an important role in the invention of the great spire type as well (fig. 1-11). These pyramidal tower terminations, most of which were octagonally symmetric, were in effect the stone successors of Saint Riquier's timber crossing canopies, whose emphatic



1-12 Strasbourg Cathedral, stained glass canopies from Saint Catherine's Chapel.



1-13 Esslingen, St. Dionys, sacrament house.

verticality they largely preserved. Despite the complexity of these successive formal transformations, the iconography of enshrinement inherited from Roman funerary architecture was never forgotten, as the growing popularity of spirelike shrine canopies in the Gothic era demonstrates.

By the early fourteenth century spirelike canopies had become a common termination for micro-architectural shrines of many sorts. Reliquaries often acquired this form, as at Aachen (fig. I-12), and so did statue niches and aediculae in both sculpture and in stained glass, as at Strasbourg (fig. 1-12). In these contexts, the spirelike tabernacle served as a frame for the

sacred body. With the growth of eucharistic devotion in the later Middle Ages, this symbolism was applied to consecrated communion wafers that represented the body of Christ himself, resulting in the development of elaborate sacramental tabernacles for these wafers. These shrines were, in a profound theological sense, descendants both of the Holy Sepulchre and of the Virgin Mary herself, whose body was compared in the Middle Ages to a tabernacle sheltering the infant Jesus. In Germany and the Low Countries especially, spirelike sacrament houses of this specific type were often among the most prominent elements of a church's interior

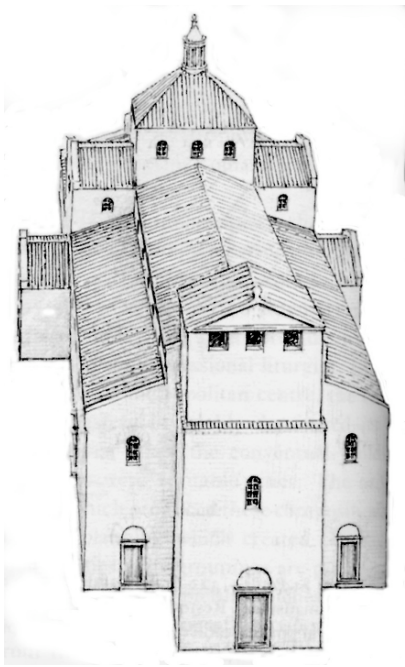


1-14 Rome, Porta Appia.

furnishing, as the fifteenth-century example from St. Dionys in Esslingen suggests (fig. 1-13). All such classes of micro-architectural canopy, however, perform similarly as sheltering markers designed to call attention to an object deemed holy or worthy of enshrinement.

Great spires were designed to fulfill much the same symbolic function as the tabernacles that they so closely resembled. The holy object to which the spire called attention, however, was the church itself. Jacob's observation that the ladder in his dream located both the house of God and the gate of heaven could be applied equally in the case of great spires. In medieval eyes, however, the church building was not only the house of God but also a representation of His city, the Heavenly Jerusalem. The gate of heaven that the great spire located was therefore a city gate. For this reason gatehouses as well as tomb towers became relevant prototypes for great spire symbolism.

The image of the fortified city gate emerged into iconographical prominence in Late Antiquity. With the breakdown of the Pax Romana, genuinely defensible city walls became a necessity even in the heart of the Roman Empire. Emperor Aurelian had even walled Rome itself in the late third century, and Aurelian's successor Diocletian embarked on an ambitious fortification program in which castles with strong towered



1-15 Tours, Saint-Martin
(reconstruction).

gatehouses were important components.¹² Such towered gatehouses played an important role in city fortifications as well. These gateways were impressive structures, as surviving examples like the Porta Appia in Rome (fig. 1-14) and the Porta Nigra in Trier attest. They thus became dramatic symbols of social order and imperial authority, even though the need for their construction bore witness to the increasingly insecure tenor of the age.

The image of the towered city gate was, in principle, readily transferable from the imperial to the Christian sphere. Christ's reference to himself as the door to salvation, as in John 10:9, opened the way to a rich iconography of portal-related symbolism. The towered gatehouse served as a useful graphic shorthand for the representation of earthly cities, as many early medieval

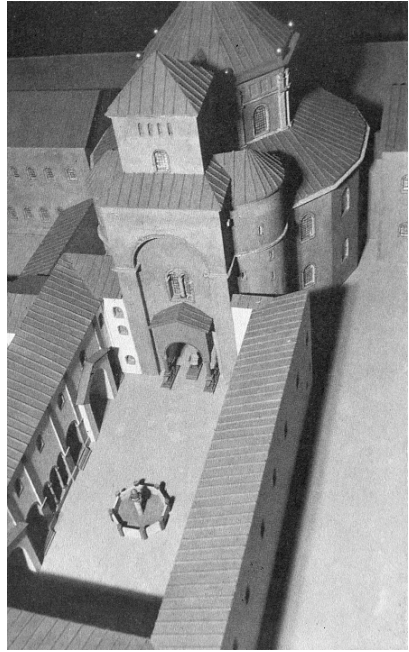
manuscripts reveal, and it could stand in equally well as an image of the Heavenly Jerusalem.¹³ The emergence of the twin-towered facade as a popular motif in church design, therefore, represented the Christianization of the fortified city gatehouse form popularized in Late Antiquity. The great spires that were planned for many facades of this format could be read, on this level, as the gatehouse towers of the heavenly city.

In practice, the pattern of formal and symbolic influence between these points was extremely complex. Twin-towered church facades existed in fifth-century Syria, but the type did not come to prominence in western

¹² Stephen Williams, *Diocletian and the Roman Recovery* (London, 1985); James Lander, *Roman Stone Fortifications: Variation and Change from the First Century A.D. to the Fourth*, B.A.R. International Series 206 (Oxford, 1984).

¹³ See E. Baldwin Smith, *Architectural Symbolism of Imperial Rome and the Middle Ages* (Princeton, 1956), 10-48.

European architecture until the eleventh century.¹⁴ In the meantime, the motif remained in circulation in the graphic arts, but other related types of gatehouse dominated actual church design. The fifth-century church of Saint Martin in Tours, for example, appears to have had a single axial tower over its main entrance (fig. 1-15).¹⁵ More elaborate tower complexes became popular in the Carolingian era. Some Carolingian towers, as discussed above, were timber canopies related in their symbolism to Roman tomb towers. Others, such as the turreted entrance block of the Palatine Chapel at Aachen, were more closely affiliated with the fortified gatehouse type (fig. 1-16). These so-called westwork blocks could be elaborate structures. Westworks could incorporate nartheces, belfries, western apses, and ceremonial galleries. Despite this impressive diversity, Carolingian builders made little use of the two-tower facade in the context of church architecture.



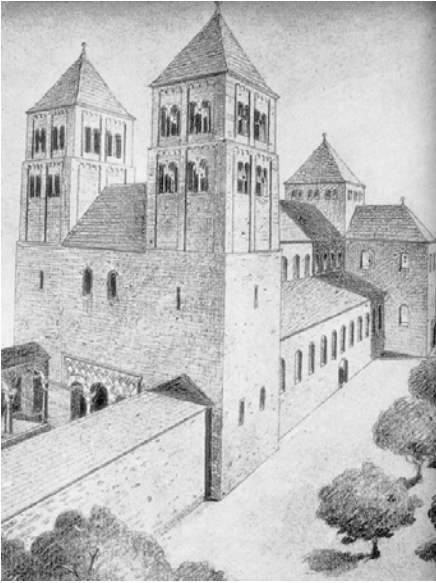
1-16 Aachen, Palatine Chapel (model).

The two-tower facade historically associated with city gates and palaces became popular among western European church designers only in the Ottonian era. The eleventh-century cathedral of Strasbourg and other related monuments in the upper Rhine, in particular, appear to have been important early exemplars of the type (fig. 1-17).¹⁶ One advantage of the

¹⁴ V.I. Atroshenko and Judith Collins, *The Origins of the Romanesque: Near Eastern Influences on European Art from the 4th to the 12th Centuries* (London, 1985), 51.

¹⁵ Kenneth John Conant, *Carolingian and Romanesque Architecture, 800 to 1200*, Pelican History of Art, 2nd integrated ed., rev. and corr. (New York, 1979), 40.

¹⁶ Herwin Schaefer, "The Origin of the Two-Tower Facade in Romanesque Architecture," *Art Bulletin* 27, no. 2 (June 1945): 85-108. Günter Bandmann discussed the symbolism of the two-tower facade, and the supposed iconography of tower number more generally, in works such as *Mittelalterliche Architektur als Bedeutungsträger* (Berlin, 1951); and *Die Bauformen des Mittelalters* (Bonn, 1949), esp. 158ff. As the present book makes clear, however, the



1-17 Strasbourg, Ottonian Cathedral (reconstruction).

two-tower facade may have been its defensibility. Viollet-le-Duc, among others, argued in the nineteenth century that strong western towers became increasingly necessary during the disastrous Viking raids of the ninth and tenth centuries. The massive two-towered facades of the eleventh century might thus be seen as genuinely functional fortified gatehouses. In the cases of great cathedrals like Strasbourg's, however, the appearance of defensibility was probably as important as the thing itself. As Viollet-le-Duc also pointed out, bishops and abbots by the eleventh century possessed many feudal privileges, and they may have

wished to announce their power with monumental towers that would rival the castle donjons raised by secular magnates in response to the Viking incursions.¹⁷ In a curious way, therefore, the appropriation of the two-tower facade as a symbol of ecclesiastical authority in the Ottonian era may have paralleled its appropriation as a symbol of imperial authority in Late Antiquity, another period in which the relative importance and prestige of defensible architecture had increased in the wake of military threats. From the perspective of great spire design, the principal importance of these developments was the establishment of a morphological paradigm for tower arrangement that would enjoy popularity in the Romanesque and Gothic periods. The two-towered facades of the Ottonian Rhineland were important artistic and symbolic intermediaries between the city gates of Late Antiquity and the twin-spired facades designed by Gothic builders as representations of the gates of Heaven.

distinction between two-towered cathedrals and single-towered parish churches was far less strict than Bandmann had implied.

¹⁷ Viollet-le-Duc, "Clocher," 3: 288.

The two-tower facade, however, was not the only variant on the towered gatehouse theme to exert an influence on great spire design. Many of the most ambitious great spire projects of the later Middle Ages involved single axial towers. They thus belonged to a broad tradition reaching back to the fifth-century church of Saint Martin in Tours, and embracing numerous Carolingian and Ottonian westworks, Romanesque entrance porches, and fortified belfries. The axial tower format was especially common among Rhenish Romanesque parish churches, which appear to have provided the immediate precedents for axially-planned great spire schemes of Gothic parish churches such as those of Freiburg im Breisgau and Ulm (figs. I-6 and I-11). The two-tower facade format has generally been seen as more typical of cathedrals, but the architectural distinction between these two classes of church was by no means strict.

Most great spires of the thirteenth century and beyond were closely associated with church entrance complexes, and most displayed intricate geometries comparable to those of contemporary tabernacles. These two aspects of typical great spire design, drawn respectively from the military and mortuary architecture of the ancient world, worked together to create a complex iconography of protection, enshrinement, and transcendence. The great spired tower symbolically protected the entrance to the church, the representation of the heavenly city, just as a fortified gatehouse would guard an earthly city. The tower was a bastion of faith, symbolically defending and enshrining the community of the faithful much as a tabernacle would protect a holy object. Both spires and sacramental tabernacles may be understood as Christianized versions of the Roman tomb tower, in which the eternal life of the spirit transcends the death of the body.¹⁸ These long-standing iconographical traditions cannot by themselves explain the relatively rapid emergence of the great spire type in the twelfth century, the topic explored in the following chapter. Ultimately, however, these symbolic associations would prove important in shaping not only the religious signification of great spires but also their formal development.

¹⁸ Yrjö Hirn, *The Sacred Shrine: A Study of the Poetry and Art of the Catholic Church* (Boston, 1957; orig. publ. 1909), 158-63.