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**AMBULATORIES IN FOURTEENTH-CENTURY CENTRAL
EUROPEAN CATHEDRALS**

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by

Anna Kinde

(Hungary)

Thesis submitted to the Department of Medieval Studies,
Central European University, Budapest, in partial fulfillment of the requirements
of the Master of Arts degree in Medieval Studies.

Accepted in conformance with the standards of the CEU.

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Abstract

While the ambulatory with polygonal radiating chapels was very popular in French cathedral architecture in the eleventh-twelfth centuries, it became less popular by 1300. However, it has seen a resurgence in Central Europe in six cathedrals: Kraków, Gniezno and Poznań in the Polish Kingdom, Eger and Várad in the Hungarian Kingdom and in Prague in the Kingdom of Bohemia.

The aim of this research is to assess the reasons why the builders chose this choir type for the cathedrals. The monuments, along with the most important written and visual sources are examined to reconstruct their fourteenth-century building history, and then the possible reasons are considered. The traditional association of the ambulatories with pilgrimage seems less fitting for the more complicated political and liturgical settings of the fourteenth century.

I argue that cathedral ambulatories could and did fulfill multiple roles. In the case of Kraków and Prague, the two most important centers, royal prestige, honoring the patron saint, liturgical considerations and creating a place for high-profile burials were all reasons that probably contributed to the choice. In all the cathedrals, ambulatories provided an ideal solution for wealthy patrons and bishops who wished to be buried close to the main altar. In addition, in the archcathedral of Gniezno and the cathedral of Várad, the development of the cults of Saints Adalbert and Ladislaus probably influenced the architecture.

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Introduction

The thesis focuses on cathedrals in Central Europe from the thirteenth-fourteenth centuries that have ambulatories. The ambulatory in the context of medieval Christian architecture (Latin: *ambulatorium*, French: *(dé-)ambulatoire*, German: *Chorumgang* or (De-) *Ambulatorium*) refers to a hallway around the main apse of medieval churches (see fig. 1). It may be either semicircular, polygonal or rectangular, conforming to the shape of the apse, and may have chapels around it.

While the ambulatory with polygonal radiating chapels was very popular in French cathedral architecture in the eleventh-twelfth centuries, it became less popular by 1300. However, it saw a resurgence in Central Europe in six places: Kraków, Gniezno and Poznań in the Polish Kingdom, Eger and Várada in the Hungarian Kingdom and in Prague in the Kingdom of Bohemia.¹

The aim of the thesis is the examination of the constructions' circumstances and determining the reasons why designs incorporating ambulatories were used. The traditional association of the ambulatories with pilgrimage seems less fitting for the more complicated political and liturgical setting of the fourteenth century.

The role of the ambulatory in medieval architecture is not a widely studied research problem. Perhaps the most focus it has received so far was in Pierre Martin's PHD thesis, where he examined four churches of the tenth-eleventh century in the Middle Loire Region, and has analyzed the eastern parts with ambulatory and radiating chapels. In his thesis, he claims that

¹ Regarding Kraków, I have decided to not use the anglicized form because the original name is well known and widely used in the literature. The situation is similar in the case of Várada, present-day Oradea, Romania (currently used names include Nagyvárad in Hungarian and Grosswardein in German) because in the Hungarian literature and in English language publications, Várada is used when referring to the medieval city.

although in these early churches the ambulatory and radiating chapels arrangement was only associated with pilgrimage, the structural role of the ambulatory, supporting the main apse seems to be a more valid reason, as there is no evidence that the corridor was indeed designed for pilgrims.²

Claude Andrault-Schmitt examines the role of ambulatories in early Cistercian architecture of the twelfth-thirteenth centuries, situating them in the development of architecture related to the cult of saints. She argues that the ambulatory could be used to assist in the process of canonization, signaling that a cult has already developed around the deceased.³

The research situation is better when we look at fourteenth-century cathedral constructions in Central Europe. The cathedrals of Kraków and Prague are the ones with the most sources and they have received the most interest, however, there is active debate concerning the building phases of Poznań and Gniezno cathedrals too. The fourteenth-century cathedrals of Eger and Várad have received considerably less attention in the previous years.

Poland's most prominent cathedral, situated at the Wawel Hill in Kraków is very well researched, and the list of examples presented here is far from complete. The first important survey that compared the cathedral's forms to both Polish and international architectural developments is Paul Crossley's book from 1985, dealing with architecture in Lesser Poland during the reign of Casimir the Great.⁴ He has also compared patronage and liturgy in Kraków

² Pierre Martin, *Les Premiers Chevets à Déambulatoire et Chapelles Rayonnantes de La Loire Moyenne (Xe-XIe Siècles): Saint-Aignan d'Orléans, Saint-Martin de Tours, Notre Dame de Mehun-Sur-Yèvre, La Madeleine de Châteaudun* ([Université de Poitiers], 2010). , for the part specifically about ambulatories and radiating chapels in the eleventh century see pp. 62-69

³ Claude Andrault-Schmitt, "Édifier: les enjeux de la création architecturale dans les stratégies de promotion de la sainteté (XIe-XIIIe siècle)," in *Hagiographie, idéologie et politique au Moyen Âge en Occident*, ed. Edina Bozóky, *Hagiologia* 8 (Turnhout: Brepols Publishers, 2012), 325–32.

⁴ Paul Crossley, *Gothic Architecture in the Reign of Kasimir the Great* (Kraków: Ministerstwo Kultury i Sztuki, 1985). See the chapter about Kraków and its influence at pp. 18-84.

and Prague cathedrals.⁵ Among those who published about Kraków Cathedral, the work of Tomasz Węclawowicz must be mentioned. Among the most important publications are his 2005 book, his 2007 article about the 1295-1305 construction of Bishop Jan Muskata, and his 2014 book, which has a Polish and an English part, that sums up the recent research findings.⁶ The topography of Kraków Cathedral's royal necropolis has been examined by Marek Walczak in 2015, where he compares the arrangement of the royal tombs, especially that of Władysław the Short (1320-1333) to the royal tombs of the Plantagenet kings in Westminster Abbey.⁷

In Gniezno, archaeological research within the choir, among these five excavations in the ambulatory, were carried out in the years 1957-1958 by the Archaeological Workshop IHKM PAN in Gniezno under the direction of Kazimierz Żurowski, together with Gabriele Mikołajczyk.⁸ In addition, some further observations were made in 1973 during installation excavations. The most important recent articles are those of Tomasz Janiak and Jakub Adamski. Janiak examines the construction history of the Gothic choir of Gniezno Cathedral, arguing that originally, the choir was built only with an ambulatory and radiating chapels were only added later, and that the construction of the choir might have started earlier than the documented date of 1342, at the end of the thirteenth century.⁹ Adamski in turn examines the decorations and architectural forms of the choir and the nave of Gniezno Cathedral, arriving to

⁵ Paul Crossley, "'Bohemia Sacra' and 'Polonia Sacra': Liturgy and History in Prague and Cracow Cathedrals," *Folia Historiae Artium*, 2002, 9.

⁶ Tomasz Węclawowicz, *Krakowski Kościół Katedralny w Wiekach Średnich. Funkcje i Możliwości Interpretacji* [The cathedral church of Kraków in the Middle Ages. Functions and possibilities of interpretation] (Kraków: Publisher of the Jagiellonian University, 2005)., Tomasz Węclawowicz, "The Bohemian King, the Polish Bishop, and Their Church: Wenceslas II's Cathedral in Kraków (1295-1305)," in *The Year 1300 and the Creation of a New European Architecture*, ed. Alexandra Gajewski and Zoë Opačić (Turnhout: Brepols Publishers, 2007), 177–84., and Tomasz Węclawowicz, *Królewski kościół katedralny na Wawelu: w rocznicę konsekracji 1364-2014* [Royal Cathedral Church on Wawel Hill in Krakow: jubilee of the consecration 1364-2014] (Oficyna Wydawnicza AFM, 2014)., where the second half of the book is in English.

⁷ Marek Walczak, "Topography of the Royal Necropolis at the Cracow Cathedral in the Middle Ages," in *Epigraphica & Sepultura*, ed. Jiří Roháček, 6 (Prague: Artefactum, 2015), 67–91.

⁸ Gabriela Mikołajczyk, "Sprawozdanie z prac wykopaliskowych prowadzonych w Gnieźnie" [Report on excavations carried out in Gniezno], *Sprawozdania Archeologiczne* 14 (1962): 184–93.

⁹ Tomasz Janiak, "Początek gotyckiej przebudowy prezbiterium katedry w Gnieźnie w świetle danych archeologicznych" [The beginning of the Gothic conversion of the chancel in the cathedral in Gniezno based on archaeological findings], *Czasopismo Techniczne. Architektura* R. 108, z. 7-A (2011): 381–403.

the conclusion that it was probably influenced by the structure and details of the parish church of St. Elizabeth in Wrocław.¹⁰

In the case of Poznań, there is also an active interest. The early building in Poznań was recently thoroughly re-evaluated by Aneta Bukowska.¹¹ The main question concerning this thesis and regarding Poznań is the reconstruction of the thirteenth century choir. The archaeological investigations of 1951-56, led by Krystyna Józefowiczówna were not very conclusive, while the maintenance work for the walls carried out in 1988, 1999 and 2000 was not well documented.¹² Along with Józefowiczówna, Marian Kutzner, Witold Gałka and Andrzej Kuszczalski argue for the existence of an ambulatory and three chapels at this phase of the construction.¹³ Recently, Olga Antowska-Gorączniak has also adopted this view, in an article in which she re-examined all the available archaeological documentation.¹⁴ Szczesny Skibiński, who wrote one of the most exhaustive monographies so far, and Jacek Kowalski argued for a smaller expansion, excluding the presence of an ambulatory and chapels.¹⁵

¹⁰ Jakub Adamski, “Śląska geneza gotyckiej katedry gnieźnieńskiej” [Silesian origin of the Gothic cathedral of Gniezno], *Rocznik Historii Sztuki* 39 (2014): 157–75.

¹¹ Aneta Bukowska, “Forma i geneza pierwszej katedry w Poznaniu” [Form and genesis of the first cathedral in Poznań], in *Architektura romańska w Polsce. Nowe odkrycia i interpretacje*, ed. Tomasz Janiak (Gniezno: Muzeum początków państwa polskiego w gnieźnie, 2009), 175–209.

¹² For a summary of the archeologist’s observations, see Krystyna Józefowiczówna, *Z badań nad architekturą przedromańską i romańską w Poznaniu* [From research on pre-Romanesque and Romanesque architecture in Poznań] (Wrocław-Warsaw-Krakow: Zakład Narodowy im. Ossolińskich, 1963).

¹³ Marian Kutzner, “Sztuka gotycka” [Gothic art], in *Dzieje Wielkopolski*, ed. Aleksandra Świechowska, vol. 1, 1969; Witold Gałka, *O architekturze i plastyce dawnego Poznania do końca epoki baroku* (Wydawn. Miejskie, 2001); Andrzej Kuszczalski, “Prezbiterium katedry poznańskiej. Rekonstrukcja faz, układ, związki i wpływy” [Choir of the Poznań Cathedral. Reconstruction of phases, layout, relationships and influences], *Kronika Miasta Poznania*, no. 1 (2003): 157–78.

¹⁴ Olga Antowska-Gorączniak, “Wczesnogotycka katedra w Poznaniu” [The Early Gothic cathedral in Poznań], *Archaeologia Historica Polona* 22 (December 15, 2014): 89–112.

¹⁵ Szczesny Skibiński, *Katedra poznańska* [The cathedral of Poznań] (Księg. Św. Wojciecha, 2001), 32–35; Jacek Kowalski, *Gotyck Wielkopolski. Architektura sakralna XIII–XVI wieku* [Gothic of Greater Poland. Religious architecture of the thirteenth-fourteenth centuries] (Poznań: Fundacja Świętego Benedykta, 2010), 19–22.

Szczęsny Skibiński must also be mentioned for his book *Polskie katedry gotyckie* (Polish Gothic cathedrals), published in 1996, in which he analyzed the cathedrals of Wrocław, Gniezno, Poznań, Kraków and Włocławek.¹⁶

The Cathedral of St. Vitus in Prague is perhaps the best researched out of these monuments, and the examples listed here only constitute a fraction of all the available research. The first and most exhaustive collection of sources related to Prague Cathedral was published by Václav Vladivoj Tomek in *Základy starého místopisu pražského* (Foundations of the Topography of Old Prague) in 1872.¹⁷ The newest findings, along with the description of previous archaeological investigations were summarized in the first volume of the archaeological atlas of Prague Castle in 2009.¹⁸ Prague Cathedral is also fortunate enough to have been the subject of many recent articles regarding its decoration, liturgy, royal character and patronage: Paul Crossley, in addition to the abovementioned comparison of the liturgy of Kraków and Prague Cathedrals, also previously focused on the liturgy of Prague.¹⁹ Milena Bartlová examined the inscriptions on the busts situated at the triforium level of Prague Cathedral, and also made remarks regarding the interpretation of the written sources, especially regarding the patronage of the church.²⁰ Petr Uličný produced a thoroughly researched

¹⁶ Szczęsny Skibiński, *Polskie katedry gotyckie* [Polish Gothic cathedrals] (Poznań: Gaudentinum, 1996).

¹⁷ Václav Vladivoj Tomek, *Základy starého místopisu Praského* [Foundations of the old topography of Prague], vol. 4 (Prague: Nákl. Spolenosti, 1872).

¹⁸ Iva Herichová and Jana Maříková-Kubková, *Archeologický atlas Pražského hradu. Díl I. Katedrála sv. Víta – Vikařská ulice* [The archaeological atlas of Prague Castle I., Saint Vitus Cathedral - Vikářská street], *Castrum Pragense* 10 (Prague: Archeologický ústav AV ČR, 2009).

¹⁹ Paul Crossley, “Bohemia Sacra: Liturgy and History in Prague Cathedral,” in *Pierre, Lumière, Couleur. Études d’histoire de l’art Du Moyen Âge En l’honneur d’Anne Prache*, ed. Fabienne Joubert and Dany Sandron (Paris: Presses de l’Université de Paris-Sorbonne, 1999), 341–365.

²⁰ Milena Bartlová, “The Choir Triforium of the Prague Cathedral Revisited: The Inscriptions and Beyond,” in *Prague and Bohemia: Medieval Art, Architecture and Cultural Exchange in Central Europe*, The British Archaeological Association Conference Transactions (Leeds: British Archeological Association, 2009).

reconstruction of what the choirs (in the more strict meaning) of St. Vitus Cathedral might have been arranged like in the late medieval period.²¹

In the case of Eger and Várad cathedrals, the situation is less fortunate. A complete monography of the medieval Eger Cathedral does not yet exist. The fact that the cathedral had a fourteenth century building phase in which a choir and ambulatory chapels were added, was discovered at the last phase of the 1966 excavations led by Károly Kozák.²² Gergely Buzás attempted to link architectural fragments from the castle's lapidary to the thirteenth and fourteenth century building periods.²³ His reconstruction was criticized by Krisztina Havasi in her dissertation, which focused on Eger Cathedral at the beginning of the 1200s.²⁴

The Cathedral of Várad is probably the least well researched out of these medieval cathedrals. It has seen archaeological investigations in 1881, 1883 and 1912.²⁵ Most of the textual and visual sources were published in 1943 by Jolán Balogh in her monography of the castle, and she was the first to compile the medieval building periods and account for the fourteenth-century expansion of the cathedral.²⁶ The next publication came more than forty years later, in 1989, when the stone fragments at the local museum were catalogued and Imre Takács wrote an updated version of the cathedral's medieval building history.²⁷ Until 1991,

²¹ Petr Uličný, "The Choirs of St Vitus's Cathedral in Prague: A Marriage of Liturgy, Coronation, Royal Necropolis and Piety," *Journal of the British Archaeological Association* 168, no. 1 (November 1, 2015): 186–233, <https://doi.org/10.1179/0068128815Z.00000000050>.

²² Károly Kozák, "Az egri várszékesegyház feltárása II." [The Excavation of the Castle Cathedral of Eger II.], *Agria. Annales Musei Agriensis* 11/12 (1973–1974): 148–51.

²³ Gergely Buzás, "Az egri székesegyház XIII-XIV. századi gótikus épülete" [The thirteenth-fourteenth century Gothic building of Eger Cathedral], *Az Egri Vár Híradója* 38 (2006): 21–65.

²⁴ Havasi Krisztina, "A középkori egri székesegyház az 1200-as évek elején I." [The medieval cathedral of Eger at the beginning of the 1200s I.] (Eötvös Lóránd Tudományegyetem, 2011).

²⁵ For the earlier campaign see Flóris Rómer, "Előzetes jelentés a nagyváradi várban 1883-ban folytatott ásatról" [Preliminary report on the excavation carried out at Oradea Castle in 1883], *Archaeológiai Értesítő* 3 (1883): 16–24.

²⁶ Jolán Balogh, *Varadinum: Várad vára*. [Varadinum: castle of Várad], vol. 1, 2 vols., Művészettörténeti Füzetek 13 (Budapest: Akadémiai Kiadó, 1982).

²⁷ Imre Takács, "Bátori András 'második temploma'" [The "second church" of András Bátori], in *Várad i kőtüredékek*, ed. Terézia Kerny (Budapest: Magyar Tudományos Akadémia Művészettörténeti Kutatócsoport, 1989), 39–53.

military was stationed in the castle and it could not be excavated and studied, but then in 1991-1998 there were excavations led by Adrian Andrei Rusu every summer, however, only the first year's results, the zone of the medieval episcopal palace was published.²⁸ The recent, 2010-2015 restoration of the castle made some archaeological surveys possible, however, the eastern end of the cathedral was not examined.²⁹

In addition to dealing with the problem of the ambulatories, the thesis will address the problem of connecting and comparing the constructions of Eger and Várád with the international architectural developments of fourteenth century Central Europe. The problem will be approached mainly from an art historical perspective, comparing the ground plans and, when possible, decorations and architectural solutions of the churches, while also considering the written and visual sources for the building history.

For the eastern part of the churches, in this thesis the word *choir* will be used. Strictly speaking, the *choir* in a medieval church only refers to the place where the clergy and church choir sit during mass (see fig.#). Despite this, it is one of the most widely used terms for denoting the whole eastern end of churches, i.e. everything that is east to the transept, if there is one. Other terms like *sanctuary*, *chancel* or *chevet* all struggle with the same kind of ambiguity. For the single space containing the main altar, the word *apse* will be used (see fig.#). This is the most important part of the church, and the ambulatory surrounds it.

The present study will first overview the relevant literature and offer a general introduction about the history of ambulatories and some possibly influential examples from the thirteenth

²⁸ Adrian Andrei Rusu, *Cetatea Oradea. Monografie Arheologică. Zona Palatului Episcopal* [Oradea Castle. Archaeological monography. The zone of the episcopal palace] (Oradea: Editura Muzeului „Țării Crișurilor”, 2002).

²⁹ Regarding the latest phase of Várád Castle, see Olivér Kovács, “Nagyvárád: új világ a vár alatt” [Nagyvárád: new world under the castle], *műemlékem.hu*, 03.07.2016., http://www.muemlekem.hu/magazin/nagyvarad_var_szekesegyhaz_feltaras_bemutatas. Last accessed: 17.05.2018.

century. The second chapter will focus on the building history of fourteenth century choirs with ambulatories, creating the hypothetical sources that will be used for the analysis in the last chapter. In the last chapter, I will summarize the possible historical, prestige-related, liturgical, architectural or other reasons why the ambulatories might have been the choice of the builders.

Ambulatories throughout the Years

In late Antique and Byzantine architecture ambulatories were hallways, encircling courtyards or central spaces. They were called ambulatories, because it is believed they were designed for walking. This functional interpretation seems prevalent throughout the Middle Ages as well, although the persons doing the walking seem to change.

An early example is Santo Stefano Rotondo (fig. 2), which features an ambulatory around a central area. The arcades of the ambulatory were, with a few exceptions, walled in sometime in the medieval period.³⁰ A similar ground plan, provided we accept that S. Stefano Rotondo originally had small chapels on all four sides, can be seen in the basilica and Anastasis Rotunda on the Golgotha, in Jerusalem (fig. 3). It's nice to observe the original structure with the twelfth century addition of an Eastern apse with ambulatory and radiating chapels.³¹

Early Christian funerary basilicas were also constructed with ambulatories. The fourth century church of Santa Agnese in Rome (fig. 4) is made of a nave of three aisles and a circular

³⁰ Richard Krautheimer, "Success and Failure in Late Antique Church Planning," in *Age of Spirituality: A Symposium*, ed. Kurt Weitzmann (New York: Metropolitan Museum of Art, 1979), 121–41.

³¹ Richard Krautheimer, "Constantinian Church Building," in *Early Christian and Byzantine Architecture*, The Pelican History of Art (Yale University Press, 1984), 64.

apse and ambulatory around it. Next to the Santa Agnese, the church of Santa Constanza was constructed, a central building with ambulatory, also believed to be a funerary church.³²

The origin of the idea that ambulatory and pilgrimage were associated can be traced back to the Old Saint Peter's Basilica in Rome, where, due to the huge number of pilgrims, a solution had to be found to provide easy access to St. Peter's tomb. The tomb was moved under the main altar in the crypt, and a hallway was created that allowed pilgrims to move freely and not affect the liturgy upstairs (see fig. 5).

In the following period, we see ambulatories, mainly ambulatory crypts spread throughout Europe. During the early medieval period, ambulatory crypts can be found in the ninth century in Saxony, such as Hildesheim, Halberstadt and Corvey, but also in the All Saints' church in Brixworth.

Of interest is the one at Mosaburg (Zalavár), an example of Carolingian architecture that seems to have no connection to either the Saxon or the later French developments. There is also the case of the church and monastery of St. John the Evangelist at Rab, Croatia, of which the building date is not clear.

The earliest examples in France are two crypts, one at St. Pierre-le-Vif in Sens (920-940) and Thérouanne Cathedral (middle of tenth century). The earliest medieval ambulatory that stood at the ground level as well as below was at Clermont-Ferrand Cathedral (946). Tournus, St. Philibert (fig. 6) is also an early example (c. 960-970), and so is Orléans, St. Aignan (989-

³² Gillian Mackie, "A New Look at the Patronage of Santa Constanza, Rome," *Byzantion* 67 (1997): 381–406.

1029). This type was adopted in the “pilgrimage churches” due to the influence of the Capetian Kings, who resided in Orléans.³³

The ambulatory seems to have been a defining factor when the category of *pilgrimage churches* was conceived, in 1959 by Kenneth John Conant. This category was applied to five churches, namely Saint-Martin in Tours, Saint-Marcial in Limoges, Sainte-Foy in Conques, Saint-Sernin in Toulouse and Saint James Cathedral in Santiago de Compostela (see fig. 7).³⁴

The arrangement with ambulatory and radiating chapels was then taken up by first Abbot Suger in rebuilding the monastery church of Saint-Denis, as seen in fig. 8, and then by many French cathedrals, where it became popular. Chartres (fig. 9) and Amiens (fig. 10) were particularly important, considered to be the epitomes of French gothic architecture. At the same time, Cistercian churches have adopted this form, an early example being Clairvaux III, built shortly after Bernard’s death (1153-1158, see fig. 11). In Cîteaux, the choir was rebuilt in 1188-1193.³⁵

Although it took some time, some cathedrals in The Holy Roman Empire also adopted this form. Conventional long choirs with apses had often been erected on a number of contemporary German cathedrals, as far as is known today, but there were also more modern solutions. For example, in Lausanne (started in 1160, see fig. 12), a French choir type with ambulatory and radiating chapels was used for the first time in the Holy Roman Empire, as well as later in

³³ Colum Hourihane, ed., *The Grove Encyclopedia of Medieval Art and Architecture* (New York: Oxford University Press, 2012), 53.

³⁴ Kenneth J. Conant, *Carolingian and Romanesque Architecture 800–1200* (Harmondsworth: Penguin Books, 1959).

³⁵ Peter Fergusson, “Cistercian Architecture,” in *A Companion to Medieval Art: Romanesque and Gothic in Northern Europe*, ed. Conrad Rudolph, Blackwell Companions to Art History (Blackwell Publishing, 2006), 599–619.

Basel, this time without radiating chapels (started in the last third of the twelfth century, see fig. 13).³⁶

The „traditional” Cistercian church had a straight-ended apse without ambulatory (this was the type that spread through Europe and appeared in Hungary, in Pilis, Cikádor, Bélapátfalva and Zirc), but some churches like Salem in Germany have developed this type to have an ambulatory around the apse.

Towards the end of the thirteenth century, apart from some examples like Narbonne Cathedral, interest in choirs with ambulatories and radiating chapels seemed to wane in French cathedrals. Not so in Cistercian monasteries: in Île-de-France, four new Cistercian churches emerged: Royaumont (fig. 14.), Longpont, Maubisson and Dammarie-lès-Lys, all supported by members of the Royal Family.³⁷

The only Czech Cistercian church with the French choir structure was Sedlec abbey (see fig. 15).³⁸ It was founded in 1142, but rebuilt at the end of the thirteenth century, probably because of the new deposits of silver discovered on the monastery lands. Its shape can be traced back to Soissons cathedral, where the choir was completed by 1220.³⁹

A newly founded abbey, populated by monks from Sedlec, was the Cistercian abbey of Aula Regia at Zbraslav (see fig. 16). Founded by Wenceslas II in 1292, it had a straight east end with ambulatory, and chapels at the north, east and south side of the walls (see fig. #). It was used as a royal funeral mausoleum for the Přemysl house from Wenceslas II onwards. It is suggested by Klára Benešová that he took the idea from Royaumont, the funerary basilica

³⁶ *Ibidem*, p. 182

³⁷ Klára Benešová, “Architecture at the Crossroads: Three Examples from Bohemia circa 1300,” in *The Year 1300 and the Creation of a New European Architecture*, ed. Alexandra Gajewski and Zoë Opačić, 1 (Turnhout: Brepols Publishers, 2007), 153.

³⁸ Węclawowicz, *Królewski kościół katedralny na Wawelu*, 170.

³⁹ Benešová, “Architecture at the Crossroads,” 152–53.

of Louis IX. Benešovská also claims that the apse and ambulatory were the same height, making it a *hall choir*, which was also the shape used in the choir Cistercian church of Heiligenkreuz (1288-1294).⁴⁰

Besides the fourteenth-century examples discussed in this thesis, there were other late medieval ambulatory and radiating chapel structures in Hungary: during the reign of Matthias Corvinus (1458-1490), both the eastern part of the royal church in Székesfehérvár and of the cathedral in Eger were rebuilt.

A very late example seems to be the “New Building” of Peterborough cathedral, where a rectangular building was built around the eastern apse of the Cathedral, with fan vaulting. According to the ground plan, it could be accessed from the aisles, like all ambulatories (see fig. 17).

Thirteenth-Century Central European Cathedrals

After briefly surveying the history of ambulatories in Europe, three prominent cathedrals’ building histories will be briefly considered. These are the only known cathedrals with ambulatories in the region from the thirteenth century.

Cathedral of the Assumption of Mary, Kalocsa

The construction of the Gothic archcathedral of Kalocsa was most probably started by archbishop Berthold (1207-1218), the brother-in-law of king Andrew II. On the autumn of

⁴⁰ Benešovská, 156–58.

1213, after the murder of Queen Gertrudis, Berthold fled the country with the queen's treasures, only coming home after receiving orders to do so from the pope. In 1217, he left with Andrew II to the crusade, and then became the patriarch of Aquilea and left Hungary for good.⁴¹

Berthold probably started building the new cathedral around 1210. The fragments and the ground plan of the church mean a quick, uniform construction without any changes of plans or any interruptions.⁴² Gergely Buzás supports this dating, based on the drawing he published (fig. 18.), showing the eastern apse of Kalocsa cathedral with an ambulatory and radiating chapels dated to the thirteenth century.⁴³

Based on the drawing of Henszlmann, the foundations that were interpreted as a transept, could have been two two-story chapels, as seen in the architecture south of Paris, between the Seine and the Loire (Chartres, Sens, St. Pére).⁴⁴ The stone fragments of the Cistercian abbey at Pilis, where Queen Gertrudis was buried, show close connection to the group of fragments of which the cathedral of Kalocsa is the most prominent example.⁴⁵

Kalocsa was interpreted by László Koszta as portraying the political ambitions of the archbishops (who were at the time Berthold, the brother of King Andrew II's wife Gertrudis and later Ugrin of Csák, who may have been related to the royal family), who wanted to get closer to the royal court both physically (since the archdiocese actually had a double seat, and

⁴¹ Imre Takács, "Egy eltűnt katedrális nyomában - Újabb töredékek a 13. századi kalocsai székesegyházból" [Searching for a lost cathedral - New fragments from the thirteenth century cathedral of Kalocsa], in *A középkori Dél-Alföld és Szer* (Szeged: Kollár Tibor, 2000), 308.

⁴² Takács, 308.

⁴³ Buzás Gergely and Tóth Endre, *Magyar építészet 1. - A rómaiaktól Buda elfoglalásáig* [Hungarian architecture 1. - From the Romans until the conquering of Buda] (Budapest: Kossuth Kiadó, 2016). p. 58.

⁴⁴ Takács, "Egy eltűnt katedrális nyomában," 309.

⁴⁵ Takács, 307.

the previous archbishops ruled from the southern Bács) and stylistically (choosing to adopt a building style that traditionally belonged to royal cathedrals).⁴⁶

Cathedral of Saint Maurice and Saint Catherine, Magdeburg

Even though Magdeburg is, by the definition used in this thesis, not in Central Europe, it still is important to mention it, as it is suspected it might have had a profound impact on the region. It was the easternmost archbishopric of the Holy Roman Empire, founded specifically to help Christianize the nations to the east.

The first cathedral of Magdeburg was destroyed in 1207 by a city fire, save for the southern wing of the cloister. The construction of the new cathedral started with the choir in 1209. The choir, finished in 1250, has some features of the Romanesque style, while its spatial arrangement resembles the modern French Gothic cathedrals, as seen in fig. 19.

Bruno Klein argues that the choir with ambulatory and radiating chapels (or chapel wreath, as it is called in German and Hungarian literature) would have provided much greater liturgical functionality than the traditional closed elongated apse. To prove his argument, he points to the fact that liturgical practice would shift from focusing on a single area at the center of the choir, at the main altar and the tombs, to having multiple centers.⁴⁷ Perhaps the change in Magdeburg cathedral did indeed take place during this time.

The Magdeburg choir also bears resemblance to Worms Cathedral, not in its groundplan but regarding other details, where from 1171 to 1192 a magnificent Western choir was begun,

⁴⁶ László Koszta: A kalocsai érseki tartomány kialakulása [The Developement of the Archdiocese of Kalocsa]. Pécs: 2013. pp.115-117

⁴⁷ *Ibidem*, p. 184

the consecration of which was in 1181 in the presence of Emperor Frederick I. In the Western choir of Worms Cathedral there are numerous elements that appear decades later on the lower floors of the Magdeburg Cathedral, such as the repeatedly stepped plinth or the multi-layered wall relief with painted details.⁴⁸ Worms Cathedral, along with Mainz Cathedral and Speyer Cathedral is one of the three *Kaiserdome*, The Emperor's Cathedrals in the Holy Roman Empire. Although Magdeburg does not traditionally belong in this group, the association with Otto I does put it in a similar place.

After enumerating the factors that might have influenced how Magdeburg Cathedral was built, it is worth to consider what other, later buildings it might have affected. One of the obvious choices is Cologne Cathedral, where the construction was started after 1250. Although this was built in a more coherent Gothic style, resembling the actual French cathedrals more. Still, it is worth to remember that Cologne, like Magdeburg, was also affected by an important historical tomb.⁴⁹

Cathedral of Saint John the Baptist, Wrocław

In 1244-1272, the cathedral of Wrocław received a new choir with a straight-ended apse, ambulatory and two eastern towers (see figs 20-21). The new choir's stylistic precedent was presumed to come from Cistercian architecture, the type of Cîteaux III and Morimond. It was Szczesny Skibiński who first pointed to English cathedrals (for example, Salisbury, Lincoln and York) and to Laon Cathedral (fig. 22.) in France as possible examples for the Wrocław choir.⁵⁰

⁴⁸ *Ibidem*, p. 182

⁴⁹ *Ibidem*, p. 186

⁵⁰ Skibiński, *Polskie katedry gotyckie*, 180.

Stone elements from the decoration of the Wrocław choir indicate a French workshop who might have worked on the construction. It is presumed that they might have emigrated from France because of the financial crisis caused by expenses of the crusades in 1248 and 1270. According to Skibiński, the French style and architectural model came to Wrocław directly, and the same workshop might have worked on the keystones of the Dominican church choir in Poznań.⁵¹

The church of Wrocław was also used as a necropolis by the bishops, with fifteen burial chambers of Wrocław and Lubusz bishops identified during the excavations of 1950-1951. Most of the burials are from the fourteenth and fifteenth centuries, marked by appropriate grave slabs. The tomb of the founder, Bishop Tomasz I (1232-1268) was probably a free-standing sarcophagus.⁵²

As we have seen in this chapter, ambulatories around the main apse of a church were present since the Early Christian times and were used until the end of the Middle Ages. Although their shape and presumed function changed, they have evolved along with the architectural styles from Pre-Romanesque to Late Gothic.

Fourteenth-Century Central European Cathedrals with Ambulatories

⁵¹ Szczęsny Skibiński, “Chór Katedry Wrocławskiej (1244-1272). Wybrane Problemy Kwalifikacji Stylistycznej i Warsztatowej” [Choir of the Wrocław Cathedral (1244-1272). Selected problems of stylistic and workshop qualifications], in *Katedra Wrocławska Na Przestrzeni Tysiąclecia: Studia z Historii Architektury i Sztuki*, ed. Romuald Kaczmarek and Dariusz Galewski (Wrocław: Instytut Historii Sztuki Uniwersytetu Wrocławskiego, 2016), 31.

⁵² Tomasz Mikołajczak, “Katedralna Nekropolia Biskupów Wrocławskich w Czasach Średniowiecza” [The cathedral necropolis of Wrocław bishops in the Middle Ages], in *Katedra Wrocławska Na Przestrzeni Tysiąclecia: Studia z Historii Architektury i Sztuki*, ed. Romuald Kaczmarek and Dariusz Galewski (Wrocław: Instytut Historii Sztuki Uniwersytetu Wrocławskiego, 2016), 112.

This chapter will focus on the main subject of the thesis, the six cathedrals that had fourteenth-century modifications where their eastern part was enlarged to encompass an ambulatory. As we have seen in the previous chapter, the building type was not unknown in the area – the cathedrals of Kalocsa, Magdeburg, and Wrocław already had ambulatories built in the thirteenth century.

Because the building history of these cathedrals is little known, and there are several different interpretations based on the visible walls, textual and sometimes visual sources and archaeological investigations, it is necessary to examine what is known about these constructions. This way, a hypothetical medieval building and its construction history are created, which will be the source for the analysis that will follow in the last chapter, where the builders, design influences and possible practical reasons will be discussed.

Kingdom of Poland

Kraków, Cathedral of Saint Stanislaus and Wenceslaus

The Wawel Cathedral has a prominent place in medieval Central European Architecture. Although the present shape (see figs. 23-25.) derives from the fourteenth century, significant alterations were made in the sixteenth and seventeenth centuries, when the walls of the ambulatory were raised to add another floor to the ambulatory.⁵³

⁵³ Węclawowicz, *Królewski kościół katedralny na Wawelu*, 178.

1295-1305: The Construction of Bishop Jan Muskata

Until about thirty years ago, it was presumed that the Romanesque cathedral was standing until 1320, when bishop Nanker and Duke Władysław Łokietek (Władysław the Short) started building the new, present-day cathedral at Wawel Hill.⁵⁴ However, in the 1980s archaeologists Zbigniew Pianowski and Janusz Firlet have found foundations under the northern side of the present cathedral choir that they presume belonged to a polygonal choir with radiating chapels (see fig. 26). The structure was later than the Romanesque remains but earlier than the present cathedral begun in 1320.⁵⁵

Tomasz Węclawowicz attributes this construction to Jan Muskata, bishop of Kraków (1295-1320) and King Wenceslas II Přemyslid (King of Bohemia: 1278-1305, Duke of Kraków: 1291-1305, King of Poland 1300-1305). Although previously Muskata was known only for destroying and tearing down walls, now it seems that he was only making way for the new construction, the details of which were not recorded by the textual sources, whose aim was to paint him in an unfavorable light.⁵⁶

It seems like the construction was influenced by the Czech Cistercian abbey church of Sedlec (fig. 15). There was a connection between Jan Muskata, who was the personal priest of King Wenceslas II and the abbot of Sedlec, Heidenreich, who was also close to the King. Muskata was buried in a Cistercian abbey church in Mogiła, which means he must have been close to the order.⁵⁷

⁵⁴ Crossley, *Gothic Architecture in the Reign of Kasimir the Great*, 27–39. and Skibiński, *Polskie katedry gotyckie*, 53–74.

⁵⁵ Janusz Firlet and Zbigniew Pianowski, “Przemiany architektury rezydencji monarszej oraz katedry na Wawelu w świetle nowych badań” [Transformation of the architecture of the royal residence and the Wawel Cathedral in the light of new research], *Kwartalnik* 44, no. 4 (1999): 207–37.

⁵⁶ Węclawowicz, *Królewski kościół katedralny na Wawelu*, 165–66.

⁵⁷ Węclawowicz, 167.

The construction didn't proceed far beyond laying the foundations because of the death of Wenceslas II in 1305 and the murder of his son a year later. Soon after, the Polish duke Władysław the Short withdrew the privileges of the Kraków bishops, cutting off a large source of income that made it impossible to continue with the construction.⁵⁸

1320-1326: The Construction of Bishop Nanker

The next construction campaign began with the foundation in 1320 of Bishop Nanker (1320-1326).⁵⁹ Zbigniew Pianowski and Janusz Firlet, the archaeologists conducting research at the Wawel Cathedral, observed that the foundations of the present cathedral do not exactly fit the walls above the ground (see fig. 27).⁶⁰ The thick foundations under the piers of the apse extend under the present-day ambulatory, and the corners of these foundation walls have huge buttresses at an angle. The foundation of the ambulatory walls is thinner.

This discrepancy between the foundations indicates a change of plans. It seems like Bishop Nanker had a somewhat different idea for the spatial organization of the cathedral than what was eventually built.⁶¹ Thicker foundations usually mean higher walls, and the theory put forward by Tomasz Węclawowicz that the Wawel Cathedral was intended to have an additional chapel above the center two bays of the ambulatory, opening towards the nave, seems

⁵⁸ Węclawowicz, "The Bohemian King, the Polish Bishop, and Their Church," 183.

⁵⁹ Bishop Nanker "having observed the poor condition of the old cathedral that was built a long time ago and with the modest means then available, and seeing this small building further damaged by the recent fire, dismantled the old cathedral and started a new church, sparing no expense on square blocks of stone to make it as long and wide as the location permitted." Jan Długosz, *Roczniki Czyli Kroniki Sławnego Królestwa Polskiego*, ed. Jan Dąbrowski, vol. 5 (Kraków, 1975). book 9, 136

⁶⁰ Firlet and Pianowski, "Przemiany architektury rezydencji monarszej oraz katedry na Wawelu w świetle nowych badań."

⁶¹ Węclawowicz, *Królewski kościół katedralny na Wawelu*, 174.

acceptable (see reconstruction drawing at fig. 28). This seems to be inspired by a proposed reconstruction of the German Cistercian abbey church of Salem (see fig. 29).⁶²

There is, a question when considering the provenance of the model for the two-story eastern end with the first-floor chapel. According to Węclawowicz, French churches like Mâcon Cathedral (first suggested by Szczesny Skibiński) and the Cistercian Church in La Bussière (both located in Burgundy) could have been design influences; he claims that the origins of this arrangement can be traced back to Anjou (West of France), and could have been transmitted to Kraków via Hungary, facilitated by the marriage of King Charles Robert (1301-1342) to Elisabeth Piast. This claim might need further evidence, as it is known that the branch of Anjou that King Charles Robert comes from is the one in Naples, founded by Charles I King of Naples and Sicily, and by the fourteenth century they had no significant ties to French lands. During the reign of the Angevin kings in Hungary (1301-1382), there are no observable French influences in Hungarian architecture. It does seem more likely that the idea came directly from the Cistercian builders, if they were indeed present, as they would have been in touch with other abbeys.⁶³

Although during the reign of Władysław the Short, Czech-Polish relations were not ideal for masons and artistic ideas to travel easily, it is imaginable that the architectural ideas were there since the time of bishop Jan Muskata, who died in 1320, by which time the design of Nanker's construction would have been decided.⁶⁴ Based on a few closely related architectural decorations, Węclawowicz suggests that masons who worked on the Sedlec abbey church could have been employed at the Wawel Cathedral starting from 1320.⁶⁵

⁶² Jürgen Michler, "Die ursprüngliche Chorform der Zisterzienserkirche in Salem," *Zeitschrift für Kunstgeschichte* 47 (1984): 6–46.

⁶³ Crossley, *Gothic Architecture in the Reign of Kasimir the Great*, 23.

⁶⁴ Węclawowicz, *Królewski kościół katedralny na Wawelu*, 177–78.

⁶⁵ Węclawowicz, 180.

1327-1364: The Construction continued by Bishop Grot

After Nanker moved on to become bishop of Wrocław, Bishop Grot (1327-1347) took over the construction. At this point, the foundations for the choir have been laid, maybe some of the walls were already standing. Bishop Grot simplified the design and finished the choir: the high altar was consecrated in 1346. The east end was finished with a straight end in a basilical structure. The need for remodeling the existing choir walls from Nanker's construction might explain why the chapel of St Mary, and maybe also the chapel of St Thomas Beckett were built about fifty years later than the other chapels next to the chancel.⁶⁶

Władysław the Short was buried "in the chancel, on the right-hand side, opposite the high altar", which may mean that the eastern part of the choir was finished by 1333.⁶⁷ On March 29, 1364 the new cathedral was consecrated in the presence of Władysław's son, King Casimir the Great (1333-1370), but construction might have extended beyond this date.

The function of the Wawel Cathedral changed, as it became a place for coronations and burials of the rulers. Royal coronations from this time on took place in the center of the cathedral. Both Władysław the Short and Casimir the Great were buried in the eastern part of the ambulatory, while both Władysław II Jagiełło (1386-1434) and his son Casimir (1447-1492) were buried in the western part (see fig. 30).⁶⁸

⁶⁶ Węclawowicz, 182.

⁶⁷ Węclawowicz, 173.

⁶⁸ Tomasz Węclawowicz, "Medieval Krakow and Its Churches: Structure and Meanings," *Urban People* 7, no. 1 (2007): 67.

Gniezno, Cathedral of the Assumption of the Blessed Virgin Mary and St. Adalbert

The Gothic rebuilding of Gniezno (figs. 31-34) started in 1342, according to the chronicle of Janko of Czarńków. The construction seems to have started immediately after archbishop Jarosław Bogoria Skotnicki returned from Avignon after having been consecrated by Pope Clement VI.⁶⁹

There is a theory by Tomasz Janiak, supported by archaeological evidence, that the rebuilding might have started earlier than 1342: during 1293-96, starting with the outer wall of the ambulatory, but was abandoned after the death of King Przemysław II. After Skotnicki became the archbishop, he took over the construction (for the illustration of the building phases, see fig. 35).⁷⁰

The design of the fourteenth century choir, especially its ambulatory and radiating chapels, is debated by the scholars. In the opinion of Jan Zachwatowicz, the gothic choir was an elongated polygonal choir, closing with seven sides of a decagon, with a basilical ambulatory (meaning the choir walls were higher and had direct lighting from the windows). The floorplan of the radiating chapels is virtually unknown. The hypothesis of Marian Kutzner and Jan Zachwatowicz is that there were polygonal radiating chapels, closing with three sides of an octagon, for which there are traces in the attics of the chapels.⁷¹

Another hypothesis concerning the Gothic choir was proposed by Szczesny Skibiński, who suggested that only the ambulatory was built at the same time as the apse, and the chapels are

⁶⁹ Janiak, "Początek gotyckiej przebudowy prezbiterium katedry w Gnieźnie," 382.

⁷⁰ Janiak, 396–400.

⁷¹ Kutzner, "Sztuka gotycka," 379–81; Jan Zachwatowicz, "Architektura katedry gotyckiej" [The architecture of the Gothic cathedral], in *Katedra gnieźnieńska*, ed. Aleksandra Świechowska (Poznań-Warsaw-Lublin, 1970), 50.

a later addition. To support his idea, he mentioned that above the vaults of the chapels, there are visible bricked-up window openings in the outer wall of the ambulatory that must have been built before the chapels. In addition, there are traces of the original buttresses on the outer walls on the ambulatory, which would have no reason to exist if it was built at the same time as the chapels. He also stressed how narrow the openings of the chapels were, arguing that this must be so because the openings were created after the construction of the ambulatory wall.⁷²

In March 1343, the pope issued a bull, establishing indulgences and encouraging generosity for the construction. In 1350 Archbishop Jarosław himself funded a chapel dedicated to the Blessed Virgin Mary and St. Stanisława, where he was buried after his death.⁷³

Throughout the 1350s, other donations mark the continuation of construction: in 1357, the synod in Kalisz allocated half the annual income for the construction, until the choir walls would be built up entirely; in 1358, the archbishop sold a permanent rent from mills in Kwieciszewo to Jan, the dean of Gniezno to obtain cash for the construction, and in 1359 and 1360 abbot Jan donated further funds to support the construction. King Casimir the Great himself also joined the construction of the royal cathedral, allocating funds for the royal chapel in 1359.⁷⁴

From 1358-1363 we have information about four erected chapels and one that was founded. Until the death of Archbishop Bogoria Skotnicki in 1376, the entire choir was built and the walls of the nave part were erected without vaults. The origin for the style of the choir and ambulatory seems to be Rayonnant Gothic, or even more precisely the so-called

⁷² Szczęsny Skibiński, "O niektórych aspektach gotyckiej przebudowy katedry gnieźnieńskiej" [On some aspects of the Gothic reconstruction of the cathedral in Gniezno], *Gniezno. Studia i materiały historyczne* 3 (1990); Skibiński, *Polskie katedry gotyckie*, 187–89.

⁷³ Janiak, "Początek gotyckiej przebudowy prezbiterium katedry w Gnieźnie," 382.

⁷⁴ Janiak, 382.

Reduktionsgotik, presenting features that were widely used in Cistercian monastic architecture.⁷⁵

The question of builders is not as self-evident as it may seem. The construction of the fourteenth century was certainly at least in part the work of Archbishop Jarosław Bogoria Skotnicki. He contributed funds to the construction, including capitalizing fixed income from customs duties from a payment, carried out with the Cistercian monastery in Koronowo.⁷⁶ King Casimir III the Great may also have been involved – he has contributed money to the royal chapel.

Poznań, Cathedral of Peter and Paul

The cathedral of Poznań (figs. 36-39) is located on an island on the Warta River, most often called Cathedral Island or Ostrów Tumski. The island first housed a stronghold, established in the ninth century, that was expanded in the second half of the tenth century and made a princely seat by the Piast family.⁷⁷

Probably during bishop Unger's reign, around 1000, a Pre-Romanesque church was built, which might have been inspired by contemporary Ottonian models, it had three naves, a hall or westwerk in the west as well as a transept and a semicircular apse.⁷⁸ In the Romanesque

⁷⁵ Zygmunt Świechowski, "Gotycka katedra gnieźnieńska na tle współczesnej architektury europejskiej" [The Gothic cathedral of Gniezno in the background of European architecture], in *Katedra gnieźnieńska*, ed. Aleksandra Świechowska (Poznań-Warsaw-Lublin, 1970), 66–67. and Skibiński, *Polskie katedry gotyckie*, 115.

⁷⁶ Janiak, "Początek gotyckiej przebudowy prezbiterium katedry w Gnieźnie," 382.

⁷⁷ Hanna Kóčka-Krenz, "Najstarszy Poznań" [The oldest Poznań], in *Civitas posnaniensis: studia z dziejów średniowiecznego Poznania*, ed. Zofia Kurnatowska and Tomasz Jurek (Poznań: Wyd. Poznańskiego Towarzystwa Przyjaciół Nauk, 2005), 31–32.

⁷⁸ For a really thorough discussion on the new findings see: Bukowska, "Forma i geneza pierwszej katedry w Poznaniu." For a critique of Bukowska's interpretation see

phase, which was probably constructed at the beginning of the twelfth century, the cathedral had a nave with two aisles, two western towers and a transept.⁷⁹

By the 1240s, the city of Poznań outgrew the island, and the stronghold lost its previous importance. Duke Przemysł I relocated the city to the left bank of the Warta River, while the island was given to the bishops. This process was interpreted by some, among others Hanna Kóčka-Krenz, to be a sign that Przemysł I wished to establish a new capital of Greater Poland.⁸⁰

After receiving the island, Bishop Boguchwała II (1242-1253) set out to transform it into a bishop's seat of power, starting with the rebuilding of the choir. In both the Chronicle of Greater Poland and the annals of the chapter of Poznań, he is presented as the one who demolished the old choir in 1243.⁸¹ The choir was finished under the next bishop, Boguchwała III (1254-1264) in 1262.⁸²

There is an ongoing debate regarding the shape of this early cathedral and the exact constructions that took place. It is generally accepted by Polish researchers that the choir was probably polygonal (which would make it the first polygonal choir in Poland).⁸³ This assumption is based on a stone capital decorated with naturalistic oak leaves, the back side of which is angular in a way that would fit in a polygonal closure (see fig. 40). This stone fragment

⁷⁹ Skibiński, *Katedra poznańska*, 30.

⁸⁰ Hanna Kóčka-Krenz, "Poznań – miejsce centralne w średniowieczu" [Poznań – central place in the Middle Ages], *Archaeologia Historica Polona* 24 (2016): 32, <https://doi.org/10.12775/AHP.2016.002>.

⁸¹ The Chronicle of greater Poland says: "he ordered the choir of the Poznań church to land, for a reason, that is, to completely destroy and rebuild", see Brygida Kurbisowna, ed., *Kronika Wielkopolska*, trans. Kazimierz Abgarowicz (Warszawa: Państwowe Wydawn. Nauk, 1965), 239. and the Annals say: "In the second year of his ministry, the bishop and the presbytery of the Poznań cathedral, due to some wall fractures, ordered to demolish completely and decided to build a new foundation and continue" see Jacek Wiesiołowski, ed., "Roczniki Wielkopolskie" [Annals of Greater Poland], in *Kronika Miasta Poznania*, vol. 2 (Poznań: Wydawnictwo Miejskie, 1995), 75.

⁸² Wiesiołowski, "Roczniki Wielkopolskie," 91.

⁸³ Janusz Tomala excludes this possibility in *Architektura Sakralna* [Sacred architecture], ed. Sławomir Woźniak, vol. 1, *Murowana architektura romańska i gotycka w Wielkopolsce* (Kalisz: Wydaw, 2007), 82.

was discovered in the fifteenth-century foundation of the expansion beneath the chancel arch, where it was used as secondary building material.⁸⁴

A Gothic rebuilding started in 1356. During this phase, a new nave was built and an ambulatory was added around the cathedral apse, containing the sarcophagus of Boleslaw Chrobry, founded with the participation of king Casimir the Great. This construction was not without its problems: after the crash of the construction in 1379, the construction of a new choir started with „relatively full choir character”.⁸⁵

The new choir, consisted of a polygonal choir with an ambulatory, and three towers were raised above the three rectangular ambulatory tracts surrounding the apse from North, East and South respectively (see fig. 41). According to Szczesny Skibiński, this construction most likely took place between 1380 and 1399 under bishop Mikołaj Kurowski.

According to Szczesny Skibiński, these towers originally contained the chapels of patrons on the second level. Based on the reconstruction drawing, these chapels were accessible from the corridor at the triforium level. Later, the chapels were demolished and the towers were hollowed out to form lantern towers to make them lighter, and the triforium was interrupted to open these spaces towards the interior of the church.⁸⁶

After 1403, bishop Wojciech Jastrzębiec (1399-1412) erected three polygonal chapels next to the above mentioned eastern towers, which are not exactly aligned with the rest of the building (see fig. 42).⁸⁷ The easternmost chapel was the chapel of Mary, now called Golden or Royal Chapel. These may have been constructed to house the chapels destroyed when the towers were hollowed out. During the 15th century, the three chapels were connected by walls

⁸⁴ Antowska-Gorączniak, „Wczesnogotycka katedra w Poznaniu,” 95.

⁸⁵ Skibiński, *Katedra poznańska*, 147.

⁸⁶ Skibiński, 148.

⁸⁷ Skibiński, 59.

outside the ambulatory, and additional chapels were made in these spaces that were funerary chapels.⁸⁸

Not every researcher agrees with this reconstruction of the building phases. Whether the Early Gothic choir in the thirteenth century was built with an ambulatory and radiating chapels is one of the main questions current research faces. Szczesny Skibiński and Jacek Kowalski argue for a smaller expansion, excluding the presence of an ambulatory and added chapels.⁸⁹ Krystyna Józefowiczówna was the first to propose that the construction included an ambulatory and additional chapels too, arguing that in the description of the construction in the annals of the chapter of Poznań, the Latin term *chorum* did not only mean the sanctuary but also the transept, ambulatory and chapels.⁹⁰ Marian Kutzner, Witold Gałka and Andrzej Kuszczalski argue for the existence of an ambulatory and three chapels, (the current sacristy on the northern side of the choir, the current Golden Chapel to the east and the Capitular Chapel to the south) at this phase of the construction.⁹¹ Olga Antowska-Gorączniak also supports this view, saying that the deviation of the three main chapels, especially the deviation of the Golden Chapel to the south, is due to the fact that the Early Gothic choir, which was built to match the Romanesque nave, had a different axis, tilting much more to the south (see fig. 43) She argues that the reconstruction of the nave in the fourteenth century changed the axis, and that the choir and the ambulatory was rebuilt at the end of the fourteenth century, as well as the chapels.

At this point, it is impossible to tell which theory is right, especially because the choir is a brick structure that is easy to modify. Archaeological and building research tools could help decipher the relationship between walls - if the theory of Skibiński is correct, there should be

⁸⁸ Skibiński, 148.

⁸⁹ Skibiński, 32–35; Kowalski, *Gotyk Wielkopolski. Architektura sakralna XIII–XVI wieku*, 19–22.

⁹⁰ Józefowiczówna, *Z badań nad architekturą przedromańską i romańską w Poznaniu*, 16.

⁹¹ Kutzner, “Sztuka gotycka”; Gałka, *O architekturze i plastyce dawnego Poznania do końca epoki baroku*; Kuszczalski, “Prezbiterium katedry poznańskiej. Rekonstrukcja faz, układ, związki i wpływy.”

some marks of joining the chapels to the existing ambulatory walls. The irregularities in the floorplan do not necessarily derive from the change in the axis, rather, the northern and southern chapel walls suggest the start of a wreath of radiating chapels (or, based on the usual order of construction, the end), and the Golden chapel and the spaces next to it seem like victims of a Baroque reconstruction. This irregular design would seem out of place in the thirteenth century (maybe that is why Antowska-Gorączniak does not bring any analogies), but not so much for the fourteenth.

Kingdom of Bohemia: Prague, Cathedral of Saint Vitus

The Gothic part of St Vitus cathedral (see fig. 44-45, 48) was constructed between 1344-1419, and has been mostly preserved in its original state. It is unclear how much of the previous Romanesque building survived and when exactly its parts were demolished. We know that after the death of Peter Parler in 1399, work on the nave and the Great Tower progressed until the Hussite Revolution in 1419.⁹² The western side of the Gothic choir was probably walled up temporarily in the lifetime of Peter Parler (d. 1399) to be able to serve its liturgical functions.⁹³

The construction of the Gothic St. Vitus Cathedral was part of a larger scale city development undertaken by Charles IV, Holy Roman Emperor (1346-1378), when he sought to make Prague the new political, cultural and religious capital of Europe. Having been raised and educated at the Valois court, Charles returned from France in 1333, with his new wife Blanche de Valois. Thanks to the negotiations between Pope Clement VI, Charles, then

⁹² Jiří Kuthan, "The Construction of the Gothic Cathedral under Mathias of Arras, Peter Parler and His Successors," in *The Cathedral of St. Vitus at Prague Castle*, ed. Jiří Kuthan and Jan Royt (Prague: Karolinum Press, 2016), 143.

⁹³ Kuthan, 138.

margrave of Moravia, and his father, King John of Luxemburg (1310-1346), Prague was raised to the rank of archbishopric and was thus freed from the ties to the archbishopric of Mainz. A papal bull from April 30, 1334 attests to this, while another bull from May 5 confirms that the archbishop of Prague obtained the rights to crown the future kings of Bohemia.⁹⁴

The building of a new cathedral was already planned before 1344: in 1341, King John dedicated the tithe of all silver mines for the preparation and decoration of new tombstones for the saints Wenceslas and Adalbert.⁹⁵ The foundation act for the cathedral was prepared by Charles on the October 5, 1343, this was confirmed by the chapter and the (then) bishop Ernest of Pardubice on the January 5, 1344, and subsequently by the pope on April 30.⁹⁶

The cornerstone of the cathedral was laid down on November 21, 1344.⁹⁷ Matthias of Arras, a French master builder hired by Charles designed the new building and oversaw the construction. (For the parts designed and built by Matthias, see fig. 46 and 47) Construction started on the eastern side with the main choir and the radiating chapels. These chapels were finished, roofed and vaulted, except for the five-sided chapel on the northern side of the choir and the two eastern five-sided chapels on the south side. This is in line with the plan presently held in the collection of the Viennese Academy (fig. 49), which is a sixteenth-century drawing copied from an earlier plan from the time of Matthias of Arras.⁹⁸

⁹⁴ MVB 1, no 363, 209-14; Hermansky, *Ctení o Karlu iv a jeho době*, 135-39

⁹⁵ Jiří Kuthan and Jan Royt, eds., *The Cathedral of St. Vitus at Prague Castle* (Prague: Karolinum Press, 2016), 45.

⁹⁶ Jan Kapistrán Vyskočil, *Arnošt z Pardubic a jeho doba* [Ernest of Pardubice and his time] (Prague: Vyšehrad, 1947), 132–33.

⁹⁷ Two chronicles narrate the event: Book 4 in *The Chronicle of Beneš Krabice of Weitmile* and Book 3, chapter 17 in *The Chronicle of Francis of Prague*: FRB 4:411 and 4:437-438, in Bláhová et al., ed., *Kroniky doby Karla IV.*, 136, 222. The deed is also recorded on the commemorative stone panel, originally placed on the south pillar of the Great Tower, next to the Golden Gate.

⁹⁸ Jiří Kuthan, “Prague Cathedral in Gothic Architectural Drawing,” in *The Cathedral of St. Vitus at Prague Castle*, ed. Jiří Kuthan and Jan Royt (Prague: Karolinum Press, 2016), 147.

Previous art history scholarship, from Georg Dehio onwards, sought the inspiration behind Matthias's design in cathedrals from the south of France, especially Narbonne Cathedral (choir: 1272-1312, fig. 50-51).⁹⁹ Similar constructions from before the 1340s include Rodez Cathedral (choir: 1318-1334, fig. 52), St. Étienne at Toulouse (fig. 53) and others.¹⁰⁰ A definitive trait characteristic of Matthias was the absence of capitals: the vaulting ribs run down almost uninterrupted to form the sides of the pillars. This is a feature that evolved at the end of the thirteenth century and was an important step in moving from High Gothic to Rayonnant style, and could also be observed in, among others, Narbonne Cathedral.¹⁰¹

In 1352, Archbishop Ernest consecrated a chapel in the choir dedicated to St. Anthony, which means that construction work was advancing at that part of the cathedral. In the same year, Matthias of Arras died, and for a while the construction was left without a master builder.

In 1355, Peter Parler, a 23-year-old master builder came at the invitation of Charles IV. He was raised in the diocese of Augsburg, in Schwäbisch Gmünd, where he worked alongside his father on the town's parish church, the Holy Cross Minster, where construction begun in 1351.¹⁰² Speculation abounds on where exactly he spent his "wandering years" and how these have influenced his personal style.¹⁰³

Peter Parler built the Old Sacristy, the chapel of St. Sigismund next to it, the three five-sided chapels on the southern side as well as the chapel of St. Wenceslas (for the parts that

⁹⁹ Georg Dehio and Gustav von Bezold, *Die kirchliche Baukunst des Abendlandes* (Stuttgart, J. G. Cotta, 1901), 350.

¹⁰⁰ For cathedral choirs that end in five sides of a decagon, see Lisa Schürenberg, *Die kirchliche Baukunst in Frankreich zwischen 1270 und 1380* (Berlin: Klinkhardt & Biermann, 1934), 31–58.

¹⁰¹ Christian Freigang, "Changes in Vaulting, Changes in Drawing. On the Visual Appearance of Gothic Architecture around the Year 1300," in *The Year 1300 and the Creation of a New European Architecture*, ed. Zoë Opačić and Alexandra Gajewski (Brepols Publishers, 2007), 67–78.

¹⁰² Kuthan, "The Construction of the Gothic Cathedral," 87.

¹⁰³ He might have worked in Cologne and Nuremberg, and some think he even visited England. For the connection to Nuremberg, see Günther Bräutigam, "Die Nürnberger Frauenkirche und der Prager Parlerstil vor 1360," *Jahrbuch der Berliner Museen* 3 (1961): 38–75. Regarding England, see, for example: Paul Crossley, "Peter Parler and England: A Problem Revisited," *Wallraf-Richart—Jahrbuch* 64 (2003): 53–82.

Peter Parler designed, see fig. 46 and 56). After this, he proceeded to the southern vestibule and the so-called “Golden Gate”, then the choir wall from the triforium level up, the vaulting of the high choir with net vaulting, which he invented and is famous for (fig. 55).

The difference between forms designed by Matthias of Arras and Peter Parler is conspicuous between the western and eastern side of the north and south parts of the ambulatory (fig. 54). The row of busts in the choir triforium, portraying famous persons, among themselves Peter Parler himself, is also generally attributed to him, although Milena Bartlová argues that only the general idea and some of the busts are Parler’s work, while the rest were made by a larger group of sculptors.¹⁰⁴

On July 12, 1385, the vaulting of the choir was completed, according to an inscription on a stone panel on the southern gate of the cathedral.¹⁰⁵ In the same year, on October 1, the feast of St. Remigius, the choir was consecrated by the third archbishop of Prague, Jan of Jenštejn (1379-1396).¹⁰⁶ The inscription above Peter Parler’s bust states that he finished the choir in 1386 and went on to work on the choir benches in the same year.¹⁰⁷

There is a scholarly debate about whose ideas shaped the cathedral the most, especially at the very beginning. Charles IV tends to be the preferred person, because a French-type, modern cathedral would have served his representational needs, although some argue that Ernest of Pardubice, the first archbishop of Prague may have been more involved.

¹⁰⁴ Bartlová, “The Choir Triforium of the Prague Cathedral Revisited: The Inscriptions and Beyond,” 74. References cited by her: R. Suckale, “Über die Schwierigkeiten, Peter Parler Skulpturen zuzuschreiben,” in *Parlerbauten: Architektur — Skulptur — Restaurierung: Internationales Parler-Symposium, Schwäbisch-Gmünd, 17. - 19. Juli 2001*, ed. Richard Stobel (Stuttgart: Konrad Thiess, 2004), 197–206; Jiří Fajt, ed., *Karl IV. Kaiser von Gottes Gnaden* (Munich: Deutscher Kunstverlag, 2006).

¹⁰⁵ The fact is attested by the Chronicle of Benesch the Minorite, mentioned in: Tomek, *Základy starého místopisu Praského*, 4:110.

¹⁰⁶ Kuthan and Royt, *The Cathedral of St. Vitus at Prague Castle*, 69.

¹⁰⁷ Bartlová, “The Choir Triforium of the Prague Cathedral Revisited: The Inscriptions and Beyond.”, 88.

We do know that Ernest has invested a lot of his own money in the furnishings and building of the cathedral. In 1359, he donated money to help maintain the altar priest at the new chapel dedicated to the Virgin Mary, St. Adalbert and St. Dorothy, where Rudolf, duke of Saxony already decided he was to be buried.¹⁰⁸ Archbishop Ernest died in 1364. Upon his death, the chronicler Beneš Krabice of Weitmille wrote, among others, that “he had a chapel built from its base to its completion at his own cost, which is at the head of the new choir and decorated with glass windows. He also consecrated the chapel himself.”¹⁰⁹

Milena Bartlová, however, argues that the actual builder of the cathedral was the chapter.¹¹⁰ The chapter would certainly have played an important role, especially as they could focus continuously on the building process. During Ernest’s life, the directors of the work were local canons: Leonard Bušek until 1350, Mikuláš Holubec between 1350-1355 and Beneš Krabice between 1355-1364 or even until later.¹¹¹

Hungarian Kingdom

Eger, Cathedral of Saint John

Eger Cathedral has a significant place in Hungarian history. It is also important among the medieval Hungarian cathedrals, because its foundations remained relatively intact, but were

¹⁰⁸ Kuthan and Royt, *The Cathedral of St. Vitus at Prague Castle*, 48.

¹⁰⁹ Beneš Krabice Z Weitmille, *Kronika Pražského Kostela* [Chronicle of the Prague Church], ed. Marie Bláhová, vol. 4 (Prague: Svoboda, 1987), 235.

¹¹⁰ Bartlová, “The Choir Triforium of the Prague Cathedral Revisited: The Inscriptions and Beyond,” 81. She acknowledges that she is not the only one to propose this: the idea had already appeared in the article of Jaroslav Bureš, “Peter Parlers Chor in Kolin und seine Beziehung zur Prager Bauhütte im Lichte der schriftlichen Quellen,” *Gesta* 28 (1989): 136–46. She also notes that Pavel Kalina had arrived at the same conclusion in *Praha 1310–1419: Kapitoly o vrcholné gotice* (Prague: Libri, 2004), 167–98 and in “Architecture and Memory: St Vitus’s Cathedral in Prague and the Problem of the Presence of History,” in *Kunst als Herrschaftsinstrument: Böhmen und das Heilige Römische Reich*, ed. Jiří Fajt (Berlin: Deutscher Kunstverlag, 2009), 150-56.

¹¹¹ Vyskočil, *Arnošt z Pardubic a jeho doba*, 127.

not modified later (for the building periods, see fig. 59). The fact that there was a fourteenth-century building period on the eastern side of Eger Cathedral with an ambulatory and radiating chapels (see fig. 57) was not discovered until the last phase of the 1966 excavations led by Károly Kozák (see fig. 58).¹¹²

There have been three, seemingly distinct building campaigns in the fourteenth century. The first was that of the western side of the nave, which was probably finished by the 1330s, with pillars somewhat different from the earlier, French-inspired ones.¹¹³ The second one involved the western entrance hall, where the grave of Bishop Nicholas of Dörög, was once located. Nicholas studied at Bologna in the 1310s and almost became archbishop of Esztergom in 1328, but abdicated in 1330. Pope John XXII made him bishop of Eger in 1330, where he served until his death in 1361. It is generally presumed that he was the builder of this extension, and that it was either ready or almost complete by the time of his death.¹¹⁴ An intricate, massive western portal and two huge western towers—probably erected to represent his prestige—were constructed at the same time, which coincides with the constructions carried out under Andrew of Bátor, bishop of Várad (1329-1345).¹¹⁵

The third construction phase, of unclear dating, involved the construction of a massive eastern choir with an ambulatory and radiating chapels. Based on the description and drawings published by Károly Kozák, two five-sided chapels with buttresses have been found on the northern and southern side of the choir, the western ones being larger than the eastern ones (fig.

¹¹² For the details of the discovery of the polygonal chapels and ambulatory wall, see Kozák, “Az egri várszékesegyház feltárása II.,” 148–51.

¹¹³ Buzás, “Az egri székesegyház XIII-XIV. századi gótikus épülete,” 32–36.

¹¹⁴ Havasi Krisztina, “A középkori egri székesegyház az 1200-as évek elején I” [The medieval cathedral of Eger at the beginning of the 1200s], Ph.D. diss. (Budapest: Eötvös Lóránd Tudományegyetem, 2011), 65-66.

¹¹⁵ Havasi, 67.; Buzás, “Az egri székesegyház XIII-XIV. századi gótikus épülete,” 36–38.

15).¹¹⁶ On the northern side, what seems to be the south-western corner of an additional chapel has also been found.

The new construction was wider than the original nave of the church, and its main angle seems to have been a bit tilted. A later drawing by Kozák (fig. 57) shows that the choir foundations have also been found, as well as the support for a smaller construction in the middle of the choir, probably an altar. Unfortunately, one of the most important parts, the eastern end, was destroyed by later constructions and thus cannot be reconstructed. At least one papal bull, given to Eger in 1347 can be linked to altars that can be related to this choir, and another one granting indulgence from 1372, given to the successor of Bishop Nicholas, Michael of Szécsény.¹¹⁷

The reconstruction of this choir is a problematic issue. Gergely Buzás's reconstruction drawing of this phase (fig. 60) suggests that the western radiating chapels are slightly larger than the rest because the number of the chapels did not match the sides of the polygonal apse and evoke the design to the Cistercian churches of Sedlec in Bohemia (1275-1300, fig. 15) and Kaisheim in Bavaria (1352-1378, fig. 61). In these examples the westernmost radiating chapels are not proportionally larger than the others, as is the case in Eger. Buzás's reconstruction drawing is based on the periodized drawing published by Kozák, but he took some liberties in interpreting the remains on the eastern side (the two drawings are shown overlaid in fig. 62). This was also noticed by Krisztina Havasi, who has criticized Buzás extensively for this approach, pointing out that he may have ignored the actual remaining walls deliberately to make his theory seem more plausible.¹¹⁸ Buzás also interpreted fourteenth-century pear-shaped pillar profiles from Eger to suggest that this building period was inspired by the St. Vitus

¹¹⁶ Kozák, "Az egri várszékesegyház feltárása II.," 148.

¹¹⁷ István Sugár, *Az Egri Püspökök Története* [The history of the bishops of Eger] (Budapest: Szent István társulat, 1984), 118.

¹¹⁸ Havasi, "A középkori egri székesegyház az 1200-as évek elején I.," 68.

construction (see fig. 63-64).¹¹⁹ However, I would agree with Havasi who points out that these pear-shaped forms were very widely used in the fourteenth century in Central Europe and are thus not reliable evidence for a Prague influence.¹²⁰

In addition, the relationship seems problematic between this construction, the earlier main apse, and the even larger Late Gothic choir built around the end of the fifteenth-century. It is certain from the archaeological excavations that the fourteenth-century choir was raised higher than the earlier apse, even incorporating the eastern walls of the Romanesque side apses. However, the Late Gothic choir was raised much higher, some 2-2.5 m above the walking level of the Romanesque church. Havasi suggests that the Romanesque main apse was given a role in planning the Late Gothic choir, and thus it must not have been demolished earlier.¹²¹

The later developments of the church, aside from the late medieval choir construction and some chapels on the southern side, are rather bleak. During the sixteenth century, Eger Castle was a fortress in active use, and a wall was built over the eastern side of the choir, with many of the remains destroyed by or buried under the groundwork required to support the wall.

Várad, Cathedral of the Assumption of Mary

The medieval cathedral of Várad (present day Oradea, Romania), especially the eastern side, poses many problems for the researcher. Although there have been excavations on the site (see fig. 65 for the earlier excavation campaigns, and fig. 66 for the more recent, 2014-2015 excavations), what is left of the easternmost side of the cathedral probably extends under part

¹¹⁹ Buzás, “Az egri székesegyház XIII-XIV. századi gótikus épülete,” 40–45.

¹²⁰ Havasi, “A középkori egri székesegyház az 1200-as évek elején I.,” 68–69.

¹²¹ Havasi, 27.

D of the present palace, the walls of which are not very sturdy, and thus it is unclear whether it can ever be excavated properly.

The cathedral of Várad was probably founded at the same time as the diocese by King Ladislaus I of Hungary. According to a collection the medieval documents of the Várad diocese, the *Statutes*, he founded the main altar dedicated to the Assumption of Mary, as well as two other altars dedicated to Saint Stephen and Saint Emeric.¹²² Since Stephen and Emeric were canonized in 1083, the foundation must have taken place between this date and the date of Ladislaus's death in 1095. Ladislaus was buried at Várad cathedral, which means that at least part of the cathedral had been finished by that time.¹²³

The building of the new cathedral choir seems to have started in 1342, when, according to the *Statutes*, Bishop Andrew of Bátor (1329-1345) has “made the church longer”, and then built “a new church that has surrounded the earlier one with its magnitude and surpassed it in beauty, and has finished the cells that surround the apse except for their vaulting.”¹²⁴ This makes it clear that a choir with an ambulatory and radiating chapels did exist, however, there are no indications about the number of chapels and the general arrangement.

¹²² The collection known as the *Statutumok* (Statutes) is the most important written source concerning Várad Cathedral. It was assembled in 1375 by a Várad canon called Emeric, and was preserved in an early sixteenth-century copy in Lőcse. Presently it is *probably* in the collection of the Batthyáneum in Alba Iulia, Romania. This copy was later published by Ignác Batthány, in *Leges ecclesiasticae regni Hungariae III* (Kolozsvár: Typis episcopalis, 1827), 218-59, and Vince Bunyitay, in *A váradi káptalan legrégebbi statútumai* (Nagyvárad: Franklin-Társulat, 1886). However, Bunyitay notes that the manuscript should have been called *Chartularium*, as it is a collection of charters issued by the Várad diocese. In *A váradi püspökség története alapításától a jelenkorig* (Nagyvárad: Franklin-társulat, 1883). Emulating the title of *Chronicon Zagrabense* (1344), the part concerning the Várad cathedral was also published as “Chronicon Waradiense,” in *Scriptores rerum Hungaricarum tempore ducum regumque stirpis Arpadianae gestarum*, ed. Imre Szentpétery (Budapest: Typ. Reg. Univ. Litter. Hungariae, 1937)

¹²³ Balogh, *Varadinum*, 1982, 1:10.

¹²⁴ “fecit eam ampliore in longitudine” and “inchoavit aliam Ecclesiam que priorem sua magnitudine circumiunxit et pulchritudine superat, et consummavit omnes cellas circa chorum preter testudines”. I have taken the citations from Balogh, 1:16., but she has probably used Bunyitay's 1886 publication of the Statutes, mentioned above.

The construction of the choir lasted throughout the fourteenth century and even maybe continued into the beginning of the fifteenth. Pope Boniface IX issued bulls in 1400 and 1401, giving indulgence to those who visit Várad cathedral.¹²⁵ Another papal bull from 1402 mentions the finished choir in 1402.¹²⁶ In 1406, King Sigismund of Luxemburg made known his will to be buried in Várad cathedral, and in 1407 made a very large donation for the new main altar and the liturgy to consecrate it.¹²⁷

After the first excavation and Imre Henszlmann's reconstruction drawing (fig. 69), it is generally presumed that the choir was in the French style with polygonal chapels, however, there is no concrete evidence for this. For all we know, it could have looked like the choir of Gniezno cathedral (fig. 31), especially if the walls on either side of the nave, visible in the drawing summarizing the most recent excavations (fig 66), are interpreted as the foundations of the towers, rather than a transept.

To undergird the idea of polygonal radiating chapels, Imre Takács links architectural fragments to the choir construction. One of them is an octagonal basis of a wall column (fig. 71), which can possibly be linked to two other octagonal fragments discovered in the recent excavations (figs. 72 and 73). The two bases must have belonged in octagonal spaces, and although their size indicates that they would fit into one of the ambulatory chapels, this remains speculative. Other fragments linked to this construction include pear-shaped sections similar to the ones in Eger (fig. 74). Based on two fragments of baldachins, it is also justifiable to assume that the choir had sculptural decoration. Imre Takács published one of them (fig. 75), while the other one (fig. 76) was found only recently. Both of their stylistic connections point

¹²⁵ *Bullae Bonifacii IX. P. M. 1396-1404*, vol. 4, Monumenta Vaticana Historiam Regni Hungariae Illustrantia 1 (Budapest, 1889). 214, 347-348, 367

¹²⁶ *Bullae Bonifacii IX. P. M. 1396-1404*, 4:477.

¹²⁷ Vince Bunyitay, *A váradi püspökség története alapításától a jelenkorig* [The history of Várad Diocese from its founding until the present day], vol. 1 (Nagyvárad, 1883), 227.

to the period between 1350 and 1375.¹²⁸ Imre Takács also links a sculpture fragment, a boy's head, to the choir construction.¹²⁹

The later fate of Várad cathedral, if possible, was even worse than that of Eger. The drawings of Várad castle by Cesare Porta and Georgius Hufnagel from around 1596-98 (fig 77 and 78) show that the apse is missing entirely, along with the southeastern tower. It is known that in 1581 Stephen Báthory commanded that the apse be demolished and turned into an artillery stand, and the western part used as a warehouse for ammunition.¹³⁰ The rest of the cathedral fell in subsequent wars, and, even worse, at one point, the German soldiers stationed in the castle tore up stone fragments of the cathedral to use as a pavement around the palace, thus making it almost impossible to find anything buried in the courtyard *in situ*.

As it is visible from the examples, the fourteenth-century building histories are heavily disputed and sometimes contradictory interpretations emerge. Despite these problems, it is apparent that there was a cathedral-reconstruction wave in Central Europe at important bishopric and archbishopric seats where the builders chose to expand the eastern side of the churches. Only in the case of Kraków and Gniezno were these reconstructions prompted by the destruction of the already existing cathedrals.

Based on the building dates established in this chapter, an attempt can be made to outline a chronology of the fourteenth century choir constructions. It may have started in 1293-1296 at Gniezno, although this construction seems to have been abandoned early on. The attempt under Wenceslas II at Kraków came next (1295-1305), which didn't proceed much beyond

¹²⁸ The first baldachin is related to, among others, the heraldic baldachin of the palace of bishop Coloman of Győr (1337-75), a relief dated to the 1360s from the cathedral of Pécs, and small architectural fragments from Visegrád from the time of King Louis I (1342-82) in Takács, "Bátori András 'második temploma,'" 45.

¹²⁹ First published by Balogh, *Varadinum*, 1982, 1:26. , fig. 67 and 2:296; discussed by Takács, "Bátori András 'második temploma,'" 46.

¹³⁰ Jolán Balogh, *Varadinum: Várad vára*. [Varadinum: castle of Várad], vol. 2, Művészettörténeti Füzetek 13 (Budapest: Akadémiai Kiadó, 1982), 86.

laying the foundations, and was then followed by laying new foundations by Bishop Nanker (1320-1326), and finally the present cathedral being built under Bishop Grot (1327-1364). The next constructions were probably Gniezno (1342-1376, possibly started a few years earlier), Várad (1342-1402) and Prague (1344-1385). Eger Cathedral's new choir was probably started after bishop Nicholas of Dörögöd came to power in 1330, and was probably not finished by the time of his death in 1361. In Poznań, the choir constructions were started in 1380 and the apse and ambulatory probably finished by 1399, with the three additional chapels probably added between 1403-1412.

Why Were Ambulatories Built?

After reviewing the building history of the six Central European cathedrals that had ambulatories built in the fourteenth century, it is time to look upon the different reasons why an ambulatory (and adjacent or radiating chapels) would have been beneficial. These reasons do not exclude each other: on the contrary, at any one site more than one reason might seem appropriate. What this chapter aims to do is establish which ones might have been more important than others in the case of certain cathedrals, or eliminate others.

The Cult of Saints

The classic reason that ambulatories are associated with is pilgrimage, which partly comes from the fact that ground-level ambulatories have first appeared in the region where most of the “pilgrimage churches” are. The notion that there is a distinct type of churches, located along

the pilgrimage routes, was first suggested in 1959 by Kenneth John Conant. This category was applied to five churches, namely Saint-Martin de Tours, Saint-Marcial de Limoges, Sainte-Foy de Conques, Saint-Sernin de Toulouse and Santiago de Compostela (see fig. 7).¹³¹ Although they share many common features, the assumption that the ambulatory behind the main apse was accessible for visitors is not a self-evident one. Paula Gerson describes the “ideal” way the pilgrims would move in the church:

A pilgrim visiting such a church might enter in the west, then proceed through the north aisle to the transept, where it would be possible to visit any transept chapels. It would then be possible to continue around the ambulatory, again visiting any ambulatory chapels, or perhaps descend to a crypt to venerate relics kept there. The pilgrim could then continue around the south transept to the south aisle and return to the western entrance of the building to exit. In traversing this path, the pilgrim would not disturb the processions or the liturgical activities taking place in the main spaces of the church.¹³²

There has been criticism of this functionalist explanation for the ambulatories. Pierre Martin in his doctoral dissertation on four collegiate churches, Saint Aignan of Orléans, Saint Martin of Tours, Notre-Dame of Mehun-sur-Yèvre and the Madeleine church of Châteaudun, – of which Saint Martin of Tours is a “pilgrimage church” - argues that there is no material evidence for this theory. Instead, he proposes that the ambulatory was needed for the structural support of the apse, and it provided better lighting and made use of the newly invented, spreading practice of vaulting.¹³³

Another concern arises when we look to the later developments of the association of ambulatories with pilgrimage. Although the ambulatory may have been developed in the context of a response to the pilgrimage problem, it can be reused in a very different context later. In Limoges, St. Martial (1028), for example, the grave and the sarcophagus-reliquary of

¹³¹ Conant, *Carolingian and Romanesque Architecture 800–1200*.

¹³² Paula Gerson, “Art and Pilgrimage: Mapping the Way,” in *A Companion to Medieval Art*, ed. Conrad Rudolph (Blackwell Publishing Ltd, 2006), 603–4.

¹³³ Martin, *Les Premiers Chevets à Déambulatoire et Chapelles Rayonnantes de La Loire Moyenne (Xe-XIe Siècles)*.

the presumed evangelist are kept separate, in the lateral sanctuaries, which does not help the problem of the use of the ambulatory.¹³⁴

It seems that there was a competition among pilgrimage sites on who could provide the richest experience for the pilgrims and incorporate more and more sanctuaries, and the ambulatories could serve well in this regard by making more chapels accessible and streamlining the ambulatory experience.¹³⁵ In the twelfth century, it can be observed that some churches may have been built with an ambulatory specifically to “mimic” the pilgrimage churches, and thus emphasize the importance of their saint. In the twelfth century, many churches attempted to emphasize the importance of the relics they possessed: narratives were produced, describing miracles performed by the saints resting in the churches. Claude Andrault-Schmitt argues that the idea that the “pilgrimage churches” had a common model or workshop is over-interpretation of the available evidence. Rather, she claims, the image of the church with ambulatory was so widespread by this time that any lost pilgrim could easily recognize the shape of the building.¹³⁶ There are more examples for this “advertising” value of the apse with an ambulatory.¹³⁷

An important case to consider is that of Clairvaux itself (fig. 11), where the enlarging of the choir with ambulatory and radiating chapels shortly after Bernard’s death, at the same time his *vitas* were written, responds to both the concept of the saint’s dignity and the need of attracting and retaining pilgrims. This way, the church itself becomes an architectural reliquary, and later on also a part of the identity of the Cistercian branch, where the choice of structure and the illumination become the focus points. This does not only apply to churches – in

¹³⁴ Andrault-Schmitt, “Les enjeux de la création architectural,” 322.

¹³⁵ Emma Wells, “Making ‘Sense’ of the Pilgrimage Experience of the Medieval Church,” *Peregrinations: Journal of Medieval Art and Architecture* 3, no. 2 (January 1, 2011): 122–46.

¹³⁶ Andrault-Schmitt, “Les enjeux de la création architectural,” 325.

¹³⁷ See the example of Saint-Pierre Le Dorat (c. 1130) in the fifth chapter of the thesis of Eric Sparhubert, “Les commandes artistiques des chapitres de chanoines séculiers et leurs enjeux : édifier et célébrer à Saint-Junien (XIe-XIIIe siècles)” (Poitiers, 2008), <http://www.theses.fr/2008POIT5002>.

Rievaulx, the first Cistercian abbey in England, one of the daughter houses of Clairvaux, where the abbot Guillaume was buried in the chapter house, built with a semicircular shape and an ambulatory. Excavations indicate many burials around his tomb, and Mathieu de Rievaulx's poems attest to the veneration of the abbot. Thus, the chapter room evokes the memory of Early Christian funerary basilicas.¹³⁸

Although the cathedrals along the road to Santiago de Compostela are very important when we look at how pilgrimage might have influenced architecture, so is the Cathedral of Canterbury, where the eastern part was rebuilt significantly following a fire in 1174. In 1180, during the rebuilding, the regular ambulatory was closed from the east when the community, "exiled into the nave", demanded to occupy the place in the choir. Then a second ambulatory was built, which wrapped around the old chapel where Thomas used to pray, and the crypt was built under it (see fig. 76). An eastern chapel was added to this ambulatory, aptly called the Crown, which has connotations not only with the life of the saint but also recalls the episcopal dignity.¹³⁹

The ambulatory windows had a richly detailed decoration program of Thomas Becket's life and the miracles following his death, and there was also a small chapel that had the most valuable relic in a head reliquary. The traditional interpretation is that the ambulatory did indeed serve for the pilgrims, who came from the crypts into the ambulatory, saw the miraculous healings of the saint and could pray for their own health at the chapel.

At the end of the twelfth century and during the thirteenth, in France and England, Claude Andrault-Schmitt argues that many other monastic communities rebuilt the apses of their churches in the shape of an apse, ambulatory and radiating chapels, to make the east end of the

¹³⁸ Andrault-Schmitt, "Les enjeux de la création architecturale," 329–30.

¹³⁹ Andrault-Schmitt, 331–32.

church monumental enough for the saint. At the same time, magnificent reliquaries (often in the shape of buildings) were produced, and the east end of the churches could be envisioned as a “box” to hold the reliquary housing the relics, which reminds of the Sainte-Chapelle in Paris, commonly interpreted as a huge reliquary of the Capetian kings.¹⁴⁰

It can be argued that, when it comes to pilgrimage and the cult of saints, by the thirteenth the apse with ambulatory has lost its original function, instead serving as a visual symbol of the saint buried inside. If we look at the constructions in the fourteenth century in Central Europe, we can argue that in some cases, this interpretation can be applied, as will be seen in the rest of this sub-chapter.

In Kraków, there has been a continuous struggle to rise in ecclesiastical status and compete with the archdiocese in Gniezno. At the end of the twelfth century, bishop Gedeon endeavored to raise the status of the cathedral and obtained relics of St. Stanislaus, which were placed in the center of the nave. In 1254 the body of St. Stanislaus was placed in the same place.¹⁴¹

The canonization of St. Stanislaus in 1253 and the flourishing of his cult would have provided a good reason for expanding the cathedral.¹⁴² This did not happen, probably for political reasons: mainly the bad relationship between the bishops and the rulers of Kraków, until Wenceslaus II made peace with bishop Prokop in 1294, and granted some of the income from the royal salt mines to the bishopric. Bishop Prokop died in 1295 and bishop Jan Muskata took office and set out to demolish the Romanesque choir and begin laying the foundations for his new one.¹⁴³

¹⁴⁰ Andrault-Schmitt, 335–37.

¹⁴¹ Węclawowicz, *Królewski kościół katedralny na Wawelu*, 142.

¹⁴² Węclawowicz, “The Bohemian King, the Polish Bishop, and Their Church,” 178.

¹⁴³ Węclawowicz, *Królewski kościół katedralny na Wawelu*, 163–64.

The 1295-1305 construction in Kraków, if it would indeed take the shape of a polygonal apse with ambulatory and radiating chapels, seems to have been influenced by Sedlec Abbey, which in turn derives from French cathedrals, particularly Soissons. Instead of focusing on St. Stanislaus, the new construction drew on the patronage of St. Wenceslaus, the ancestor of the House of Přemyslid, who had ties to both the Czech and the Polish people, and would become the patron saint of the new Polish-Czech Kingdom of Wenceslaus II.¹⁴⁴

The 1320 construction, however, focused on St. Stanislaus, as the church was planned around his tomb, situated *in medio ecclesie*, and he became the patron saint of the Piasts and the renewed Polish Kingdom, especially after the coronation of Władysław the Short at his tomb. Although the cult of St. Stanislaus began to develop after his canonization at the end of the thirteenth century, it really flourished in the fifteenth.¹⁴⁵

Paul Crossley has demonstrated that the arrangement at Prague Cathedral was influenced by Kraków, especially the placement of the shrine of St. Stanislaus in the middle of the church, and connecting the cathedral to the royal palace through the south transept. Not only this, but the whole concept of the royal cathedral as mausoleum, coronation church and place of veneration for the national saint first appeared in Central Europe in Kraków.¹⁴⁶

In Prague Cathedral, it is well known that the relics of saints played an important part of the concept, as well as in the overall liturgical programme of Charles IV. Whether the builder was indeed Charles IV, Archbishop Ernest, the chapter or all of them together, a huge part of the complicated meaning unfolding in Prague cathedral was centered around the saints Adalbert, Wenceslas, Vitus and later St. Sigismund. Petr Uličný has analyzed the choirs of St.

¹⁴⁴ Węclawowicz, 197.

¹⁴⁵ Węclawowicz, 207–8.

¹⁴⁶ Crossley, “‘Bohemia Sacra’ and ‘Polonia Sacra.’”

Vitus in detail, reconstructing the complicated liturgical setting of the cathedral.¹⁴⁷ The relics of St. Wenceslas were given a prominent place in the new chapel near the south transept in a lavish tomb, while Adalbert's more modest tomb was placed in the nave.¹⁴⁸ The tomb of St. Sigismund was in a chapel opposite from the Wenceslas chapel, on the North side.¹⁴⁹ The tomb of Saint Vitus was located at the apse in the east, and protruded into the ambulatory, where lay people could have direct contact with him. Most people would have walked around here, as suggested by a source from 1412.¹⁵⁰

Although the cathedrals of Kraków and Prague have been thoroughly analyzed in this respect, much less data is available from the other four cathedrals, and thus they have evaded thorough evaluation. The places where the cult of a saint would have influenced the appearance of a cathedral are probably the cathedrals of Várad and Gniezno.

In the thirteenth century, Archbishop Jakub Świnka (1218-1314) is known for his actions aimed at increasing the role of Gniezno by developing the cult of Saint Adalbert as the patron of Poland.¹⁵¹ The developments in Gniezno – if he did indeed start rebuilding the choir in 1293 – and the fact that a polygonal apse with an ambulatory was chosen as a fitting form for the new eastern end, could reflect the associations laid out in this chapter.

In the case of Várad, the new form seems even more fitting, as King Ladislaus I, the knight-saint was buried there. His cult was also undergoing development, mostly by the Angevin kings Charles I and his son, Louis I, to cement their political status.¹⁵² Both Andrew of Báthor (1329-1345) and Demetrius of Meszes (1345-1372) were in good terms with the king, and the fact

¹⁴⁷ Uličný, "The Choirs of St Vitus's Cathedral in Prague."

¹⁴⁸ Uličný, 222.

¹⁴⁹ Uličný, 193.

¹⁵⁰ Uličný, 195.

¹⁵¹ Janiak, "Początek gotyckiej przebudowy prezbiterium katedry w Gnieźnie," 401.

¹⁵² For the role of the cult of Saint Ladislaus and other dynastic saints in the representation of the Angevin Kings of Hungary see Gábor Klaniczay, *Holy Rulers and Blessed Princesses: Dynastic Cults in Medieval Central Europe* (Cambridge University Press, 2002), 295–367.

that Charles I's third wife, Beatrix of Luxemburg was buried at Várad (d. 1319) and later Queen Maria of Anjou (d. 1395) and emperor Sigismund of Luxemburg (d. 1437, but already announced his will to be buried at Várad in 1406) were also buried there resonates well with the previous examples, where a royal necropolis was established at the site of the veneration of a dynastic saint.

To emphasize the dynastic sanctity, in 1319, when Queen Beatrix was buried in the cathedral, King Charles I founded an altar dedicated to an Anjou saint, Louis of Toulouse (1274-1297), who was canonized in 1317. St. Ladislaus also prominently featured in Bishop Andrew's sigil, where he can be seen in a *maiestas* position reserved for kings, towering over the small kneeling figure of Bishop Andrew.¹⁵³ The cult also flourished under Sigismund of Luxemburg, as both Sigismund and Queen Mary's coins had the knight king's portrait, and a new equestrian statue, produced by prominent sculptors Márton and György of Kolozsvár was set up at the cathedral in 1390. Although it was commissioned by John Zudar, bishop of Várad, it can be seen as a manifestation of the court's preferences.¹⁵⁴

Prestige – Bishops and the “Royal Cathedral”

Considering everything we related above, it is evident that the design of the cathedrals was a part of royal or episcopal presentation. As bishops often came from influential families, oversaw huge properties and were among the most powerful lords of the kingdom, they had the necessary income and power to shape their public image and leave a mark in their diocese. It is widely accepted that cathedral constructions often served to raise the status of the diocese,

¹⁵³ Balogh, *Varadinum*, 1982, 1:17–18.

¹⁵⁴ Klaniczay, *Holy Rulers and Blessed Princesses*, 390.

and thus the influence of the ruling bishop. This is probably the most powerful motivator of any cathedral extension in the Late Middle Ages.

Regarding episcopal prestige-building, the question then is whether a cathedral with an ambulatory and adjoining chapels would have been more prestigious than other constructions, or, whether this rise in prestige would have been enough to motivate a bishop to start this enterprise. This, at least in the case of the Kingdom of Hungary in the fourteenth century, at least when it comes to the second part of the question, does not seem likely.

The modification of the eastern end was troublesome in the sense that it disturbed liturgical activity much more than construction at the western end. In the fourteenth century, the dominant type of church modification that can be much more directly linked to prestige seems to be that of the western end, the main façade and the main gate. Bishop Nicholas of Dörög worked on the western side at Eger, Andrew of Bátor at Várad, Andrew of Szécs (1320-1356) at Gyulafehérvár, archbishop Csanád of Telegd (1330-1349) at Esztergom and Paul of Horvát (1379-1386) at Zagreb. Bishop John of Hédervár (1386-1415) completely rebuilt the cathedral at Győr, but nothing remains. The only place where we know the eastern end was rebuilt in the fourteenth century, besides Eger and Várad, is Veszprém, a new, elongated polygonal apse was built around 1380-1400.

The other question that must be examined is the idea of the “royal cathedral” or *Königskirche* as formulated by Hands Sedlmayr in 1950, and whether it applies to the fourteenth century developments in Central Europe. Sedlmayr claims that wherever a cathedral is built outside of France but with the High Gothic form of polygonal apse, ambulatory and radiating chapels, it means that is related to either the royal family or another person closely

related to the court.¹⁵⁵ The concept of the royal cathedral has been discussed in relation with the design choice for most of the cathedrals discussed above.

Regarding Gniezno, Zygmunt Świechowski argued for the reconstruction with polygonal radiating chapels. According to him, the borrowing in a reduced form of the classical pattern of the northern French royal cathedral expressed the ideological aspirations of the Gniezno milieu to restore the Gniezno cathedral function of the place of coronation of Polish kings and was an answer to the fact that coronations in Krakow were held in the first half of the fourteenth century.¹⁵⁶

Szczęśny Skibiński proposed a different theory, a polygonal ambulatory without radiating chapels, which would have derived from the Polish cathedral form and Cistercian models. He proposed that this was an answer to the rectangular choirs of the cathedrals of Wrocław and Kraków, and was supposed to emphasize that in the religious hierarchy, the archbishopric of Gniezno stood above the two dioceses. The Gniezno cathedral would have achieved this without directly invoking the French royal cathedral type.¹⁵⁷ Of course, if we accept Tomasz Janiak's theory instead, and propose that the construction started and the form was chosen at the end of the thirteenth century, the construction can be tied instead to Jakub Świnka, and through him, to Przemysław II.

According to Szczęśny Skibiński in Poznań, the inspection of the new choir and the sarcophagus of Bolesław Chrobry indicate that the intention was to build a new royal cathedral

¹⁵⁵ "Wherever the Northern French Gothic cathedral outside France appears, it is closely related to the kingship of the single European kingdoms. Not every royal church in Europe since about 1200 is a 'cathedral', but every cathedral outside France following the Münster of the French royal cathedrals is a royal church, or more precisely a royal bishop church. This sentence sets the historical rule. Exceptions are possible, but each time they require a special justification, while the sentence itself can generally be justified (...)." translated from German. From: Hans Sedlmayr, "Die Kathedrale als europäische Königskirche," in *Die Entstehung der Kathedrale* (Zurich: Atlantis Verlag, 1950), 467.

¹⁵⁶ Świechowski, "Gotycka katedra gnieźnieńska na tle współczesnej architektury europejskiej," 62.

¹⁵⁷ Skibiński, *Polskie katedry gotyckie*, 115.

like Krakow and Gniezno.¹⁵⁸ He also links this construction to the one at the Church of the Blessed Virgin Mary in Stargard, Pomerania, where a new choir was built starting from 1380. He says that the choir, especially the triforium level of Poznań was inspired by the choir of Prague cathedral, but that could only be achieved in brick construction by a Pomeranian architect. According to Skibiński, both the Stargard church and Poznań cathedral were answers to the Prague developments, but not necessarily one copying from the other, or even related to each other.¹⁵⁹

In Kraków, the association has been suggested by Tomasz Węclawowicz.¹⁶⁰ If the choir of Jan Muskata would have been built in Kraków, it would have been the first High Gothic ambulatory and radiating chapels structure in Poland. Possible antecedents include Kalocsa in the thirteenth century, and Magdeburg (1220-40, vaulting finished in 1266), which both have royal associations, as does the more probable precedent of the Cistercian abbey of Sedlec, also described as a *Königskirche*.¹⁶¹ Prague Cathedral has also been interpreted as the royal, or rather imperial church of Charles IV.¹⁶²

The associations of the *Königskirche*, however, seem to wane as we approach Hungary. In the case of Várad, it seems that Bishop Andrew's ties with the royal court were most active between 1330-1335, when it is presumed that the modernization of the western side took place. If we believe the written sources, the eastern side was started in 1342, the year in which Charles I died and his son, Louis ascended to the throne. In the Hungarian Kingdom, there already was a royal basilica, although it was not a cathedral: the church of Székesfehérvár, where the coronations were held and where most of the kings since Stephen I were buried. Charles I. had

¹⁵⁸ Skibiński, *Katedra poznańska*, 148.

¹⁵⁹ Skibiński, 69–70.

¹⁶⁰ Węclawowicz, "The Bohemian King, the Polish Bishop, and Their Church," 182. and later in Węclawowicz, *Królewski kościół katedralny na Wawelu*, 169.

¹⁶¹ Jiří Kuthan, *Počátky a Rozmach Gotické Architektury v Čechách* (Prague: Akademie, 1983), 201.

¹⁶² Bartlová, "The Choir Triforium of the Prague Cathedral Revisited: The Inscriptions and Beyond," 81.

decided by 1327 that he wanted to be buried there, and started revaulting the church, which was probably not completed by 1342. The idea that Várad would become a royal church or that Andrew of Bátor would want to appeal to the royalty by creating this association does not seem probable, the memory of St. Ladislaus would have been more than enough to guarantee its prestige.

In the case of Eger, the association seems even less likely. Although Nicholas of Dörög was close to the royal family before almost becoming the archbishop of Esztergom, after the fiasco of 1330 the relationship seems rather neutral.¹⁶³

It seems the *Königsbischofskirche* or *Königskirche* is an idea that cannot be applied to the above cathedrals not located in royal castles. The two churches that (in the case of Várad, presumably) seem inspired by French cathedrals do not have convincing royal connections, while in Gniezno and Poznań, we only see a reduction of this form, and the political motives are not much stronger than in the Hungarian examples.

The idea of linking the French cathedral choir type with royalty is one that we retroactively apply to churches where the builders might not have had these intentions. Architectural representation and politics often go hand in hand, but in more centralized kingdoms like Poland and Hungary, the bishops under whom the new choir were constructed were in contact with the royal court anyway, since they were learned men and had to participate in the Kingdom's politics. Choosing this form outside of royal centers seems to have no royalty-related political meaning in Central Europe in the fourteenth century.

Instead, it seems possible that the form might have played a part in religious politics. Especially in the case of Eger, it seems possible that bishop Nicholas, having been denied the

¹⁶³ Szende László, "Piast Erzsébet és udvara (1320-1380)" [Elisabeth Piast and her court (1320-1380)] (Eötvös Lóránd Tudományegyetem, 2007), 118–26, <http://doktori.btk.elte.hu/hist/szende/diss.pdf>.

seat of the archbishopric of Esztergom, choose the form of the archcathedral of the other archdiocese, Kalocsa. Várad was a suffragan of Kalocsa, so for them, it would make sense to adopt this form.

Poznań was the place of royal burials and the de facto secular center of the kingdom, while Gniezno was the place where kings were crowned: both lost some prestige after these functions were moved to Kraków. If the ambulatory was seen as prestigious, it could mean that the dioceses of Poznań and Gniezno could try and win back some of their prestige this way.

Burials

The eastern ends of churches consisting of an apse, ambulatory and adjacent chapels, have strong associations with funerary practices. This was demonstrated especially in the Cistercian tradition and in the cases where a particular saint was honored. We must remember the practices of Early Christian funerary basilicas, for example, the fourth century church of Santa Agnese in Rome, the ground plan of which is eerily similar to Gniezno (compare figs. 4 and 35).¹⁶⁴ Closer in time and space, it is also worth to consider the monasteries which were founded precisely with the intent of honoring the patron's memory.

Before the fourteenth century, in the Cistercian monasteries, it was the monks who were interred in the churches, especially at the eastern ends. Emilia Jamroziak demonstrates how in

¹⁶⁴ See Mackie, "A New Look at the Patronage of Santa Constanza, Rome."

the fourteenth century, patrons were increasingly allowed to be buried in the eastern parts of the churches, a part which was closed to the lay burials before.¹⁶⁵

There is evidence that, for example, in the mendicant churches, the funerary practices changed to incorporate wealthy families. In an analysis of the cemetery at Santa Maria Novella in Florence, Frithjof Schwartz found that the construction of the nave started in 1279-1280 and was financed by donations associated with burials. These donations would last for a long time, providing a steady source of income for the monastery. By the end of the thirteenth century, Schwartz argues, tombs and floor slabs in the interior were important when planning the architectural spaces.¹⁶⁶

The case of the Franciscan church of San Lorenzo Maggiore in Naples, the eastern end of which was rebuilt to the classic French cathedral choir shape at the end of the thirteenth century, is also worth to consider here (see fig. 77). Caroline Bruzelius thinks the construction was inspired by Franciscan models in Italy, rather than Cistercian architecture, and also considers the need for lay burials as a reason for expanding the church.¹⁶⁷

We have seen that the spatial arrangements of these Central European cathedrals might have been inspired by Cistercian abbey churches, so it is possible that by association, the practice of lay burials in the eastern part would increase too, especially because cathedrals were more open to the laity.

¹⁶⁵ Emilia Jamroziak, "Spaces of Lay-Religious Interaction in Cistercian Houses of Northern Europe," *Parergon: Journal of the Australian and New Zealand Association for Medieval and Early Modern Studies* 27 (2010): 52.

¹⁶⁶ Frithjof Schwartz, *Il bel cimitero. Santa Maria Novella in Florenz 1279-1348: Grabmäler, Architektur und Gesellschaft* (Berlin: Deutscher Kunstverlag, 2009).

¹⁶⁷ For the constructions see Caroline Astrid Bruzelius, *The Stones of Naples: Church Building in Angevin Italy, 1266-1343* (Yale University Press, 2004), 57–63. It might also be interesting to mention that Ernő Marosi considered this as a possible antecedent for Várad Cathedral, in Ernő Marosi, *Művészet I. Lajos király korában: 1342-1382* [Art in the era of Louis I.: 1342-1382] (Budapest: MTA Művészettörténeti Kutató Csoport, 1983), 56.

By the fourteenth century, the eschatological value of the burials became more linked to the visibility and grandeur of the tomb.¹⁶⁸ The possibility to have the tombs on display, either in the ambulatory chapels or in the ambulatory itself, lined up next to the wall or placed between pillars, would have been seen as desirable.

The idea of a cathedral as a necropolis is not new, and throughout the years there were inventive ways of arranging the tombstones within the east end of the church. There was a tradition of placing the tombstone into the wall near the main altar, starting with Archbishop Hugo of Amiens, whose tomb was embedded into the external wall of the ambulatory at Rouen Cathedral at the beginning of the thirteenth century. This practice continued with taking the tombstone off the wall and placing it into the church space, as in the case of the tomb of Bishop Ulger placed within the arcades in the southern wall of Angers Cathedral.¹⁶⁹ In the Cistercian abbeys of Royaumont and Longpont at the end of the thirteenth century, tombstones of the royal family were also placed in the arcades between the main apse and the ambulatory.¹⁷⁰

In the cases of Kraków and Prague, this aspect of the new churches is well-analyzed.¹⁷¹ As you can see in fig. 30, in Kraków, four tombs are in the eastern end, of which three in the ambulatory, and the tomb of Elisabeth of Pilcza Granowska (d. 1420) is in the chapel of St. Mary, which was a later addition. In Prague, the tombs were either near the main altar in the apse, or in the ambulatory chapels.

In the other four cathedrals, the need for space for burials near the main altar should be considered. As Poznań was a royal necropolis, it would have made sense to try and uphold the

¹⁶⁸ Jamroziak, "Spaces of Lay-Religious Interaction in Cistercian Houses of Northern Europe," 58.

¹⁶⁹ Anne McGee Morganstern, "Liturgical and Honorific Implications of the Placement of Gothic Wall Tombs," *Hortus Artium Medievalium* 10 (January 1, 2004): 81–82, <https://doi.org/10.1484/J.HAM.2.305298>.

¹⁷⁰ Hans Körner, *Grabmonumente Des Mittelalters* (Darmstadt: Primus / Wissenschaftliche Buchgesellschaft, 1997), 85–86. and Pierre-Yves Le Pogam, "Le tombeau de Philippe-Dagobert: un monument royal chez les moines blancs," *Bulletin Monumental* 168, no. 2 (2010): 133–48.

¹⁷¹ For Prague cathedral, see Uličný, "The Choirs of St Vitus's Cathedral in Prague.", for Kraków Cathedral, see Walczak, "Topography of the Royal Necropolis at the Cracow Cathedral."

tradition and give the chance to influential people willing to be interred there - as they were later, if we consider the addition of the chapels during the fifteenth century. In Gniezno, we know that the tomb of Boleslaw Chobry was placed in the ambulatory after the renovations, and it might have shared the fate of other, less important tombs.

In Várad, we know that Bishop Andrew of Báthor built a chapel and founded an altar dedicated to St. Brice, in memory of his father, in which he was probably buried. Bishop Demetrius of Meszes did the same and founded the altar of St. Demetrius, and Bishop Dominic Bebek (1372-1374) also built a chapel and founded one to St. Dominic. We know that the chapel of St. Demetrius and an unnamed new chapel, where the wife of Palatinus Ladislaus of Oppeln was buried, were in the new choir (*in novo sanctuario*). We also know about the chapels of St. John the Evangelist and St. John the Baptist from before 1375, and the chapel of St. Catherine and the *capella* Corporis Christi before 1418. The first three of these were founded specifically as funerary chapels, and the others were also used for this purpose.¹⁷²

Another factor to remember is that archaeological excavations have not been exhaustively conducted at these sites, and thus there might be very practical reasons for deciding for or against a particular ground plan. In the case of Várad, because the Sebes Körös river is very close and the castle is barely elevated, it would have been very risky to build an elaborate crypt for fear of flooding, thus another solution had to be found to accommodate the many different people who wished to be buried close to St. Ladislaus.

There is another aspect of burials of wealthy patrons, be it a layperson or a member of the clergy: the finances. It is important to remember that not all of these buildings had the same status, and that however influential a diocese was, hard times could come for the chapter. The construction of cathedrals required an enormous amount of money, and there are numerous

¹⁷² Balogh, *Varadinum*, 1982, 1:16–17.

cases throughout the Middle Ages when work would stop due to uneven cash flow.¹⁷³ The cathedrals of Prague and Kraków were privileged in the sense that they were next to the royal residence, and were (partly) financed by the monarch. However, in the case of other cathedrals, the steady income left for funding the masses said for the deceased would have been important for the chapter.

Liturgy and Other Possible Considerations

When listing the possible reasons for reconstructing a church, the main activity that the church is used for – performing liturgical activities – must be considered. Any change to the architectural space would affect the way the chapter celebrates masses in the church. As Milena Bartlová argues in the case of Prague Cathedral, the chapter and the already established liturgy might have played a great role when deciding about the shape of the cathedral.¹⁷⁴

The main liturgical activity that the ambulatory would presumably be used for, is the procession – walking in and around the church, or even around the city in a highly ceremonial walk. The most important and probably best-analyzed change that would affect the way churches were built was the introduction of the feast of Corpus Christi, starting from the thirteenth century, but only really spreading throughout the fourteenth.

When considering the effect of liturgical changes, we must consider that there were many contemporaneous cathedrals without ambulatories that had many processions throughout the

¹⁷³ Robert A. Scott, *The Gothic Enterprise: A Guide to Understanding the Medieval Cathedral* (University of California Press, 2003), 137.

¹⁷⁴ Bartlová, “The Choir Triforium of the Prague Cathedral Revisited: The Inscriptions and Beyond,” 81–83.

liturgical year. In the article of Tamás Fedeles, compiled about late medieval processions, there is no mention of differences between processional activities based on the shape of the churches' choirs.¹⁷⁵

The history of liturgical processions and the physical aspects of liturgical performances in the different dioceses across Central Europe is a subject that needs research. This research would be needed to begin studying the relationship between late medieval liturgical practices and cathedral spaces. Without this background, it is not possible to convincingly argue for or against general trends - the evidence so far is inconclusive.

Partly related to liturgy, and moving on to the elusive subject of mystery plays, an ambulatory could have also presented an ideal solution when one wanted to have a long series of depictions, for example a narrative, which could be displayed in the nave and continued in the ambulatory. Arguably, an example for this can be found in Chartres cathedral, where Anne F. Harris claims that the thirteenth-century stained glass windows of the nave and the ambulatory have been designed to evoke the medieval *Iconia* play.¹⁷⁶ Although we cannot say the ambulatory was built for this purpose, it still highlights an important possible function. In the case of Chartres, taking into consideration its relatively fast completion, we cannot exclude the possibility that a complex narrative program at least partly influenced the architectural design.

It may be concluded that there was no circumstance or reason giving an exclusive explanation for the presence of ambulatories, given the complex nature of the cathedrals. Most

¹⁷⁵ Tamás Fedeles, "Vallásos Áhítat, Közösségtudat, Reprezentáció: A Középkori Körmenetek Főbb Jellemzői" [Religious devotion, sense of community, presentation: The main aspects of medieval processions], *Aetas* 22, no. 3 (2007): 59–82.

¹⁷⁶ Anne F. Harris, "Narrative," *Studies in Iconography* 33 (2012): 47–60.

spaces in a cathedral could serve multiple functions, which probably applied to the ambulatories.

The strongest influence seems to be the practical considerations regarding burials, and the association of the shape of the church with the cult of saints. Whether the shape of a choir with ambulatory was regarded as more prestigious than other available choices is not clear, however, in some cases, it could be seen as an attempt to regain previously lost status. The choir with ambulatory offered many liturgical possibilities, and could even serve as an ideal solution for processions wishing to circle the whole church at once.

Conclusion

Cathedrals are the most complex ecclesiastical buildings of Medieval Christianity, and cathedral spaces lend themselves to a vast number of possible uses. This applies to the subject of this thesis, the ambulatory too: it seems that ambulatories could serve many different purposes.

In the first chapter a general introduction and overview of ambulatories was provided. It could be seen that ambulatories were first associated with burials, since the Early Christian times, through the Early Medieval ambulatory crypts. The Early Romanesque churches in France and Spain also featured ambulatories, this time with radiating chapels, which probably already had a double function: signaling to the passing pilgrims that the church is worth to enter but also supporting the walls of the apse.

After that, the ambulatories became a prominent feature of French cathedrals and Cistercian monasteries. In the latter case, it can be argued that they took inspiration from the choir of Clairvaux, where, in order to promote Bernard's canonization, a new choir featuring ambulatory and radiating chapels was constructed in 1153-1158.

From the thirteenth century, mendicant orders also adopted this form, and the first Central European cathedrals with ambulatories were also built in Wrocław, Kalocsa and the easternmost archdiocese of the Holy Roman Empire, Magdeburg. In Wrocław and Kalocsa it can be presumed that French masons worked on the constructions, while Magdeburg integrates into the building-wave of the thirteenth century where many cathedrals were modernized throughout the Empire.

Arriving to the fourteenth century in the second chapter, we can see that the cathedral of Kraków receives a new choir and eventually a new nave. There are two failed attempts at

constructing the choir, and each time the spatial arrangement is changed, showing that the eventual appearance of the choir was very much influenced by the bishop under whom the construction began.

After Kraków, three choir constructions start at roughly the same time, in the first half of the 1340s: Prague, Gniezno and Várad. The starting date seems to be coincidental, however, it shows that there was an increased interest for rebuilding, and probably a time of financial stability that could make builders invest in such a long-term project. The construction at Eger could probably start this time or later, as it is probably the foundation of Bishop Nicholas (1330-1361). Lastly, the cathedral of Prague was reconstructed at the second half of the fourteenth century, stretching into the fifteenth.

Examining the possible reasons why an ambulatory was the choice of the builders, it seems like multiple reasons are likely. In the Case of Kraków and Prague, the royal centers, it has previously been suggested that an arrangement with an ambulatory could benefit the cult of the local patron saint(s). In the case of Kraków, this was St. Stanislaus, whose role as a patron saint of Poland was emphasized by the construction, overshadowing the previous attempts to do the same with St. Wenceslaus. In the case of Prague, in addition to evoking the image of the “pilgrimage church”, the construction with the ambulatory enabled the tomb of St. Vítus to be accessible for the pilgrims, while the new side chapel of St Wenceslaus and eventually that of St. Sigismund, with the tomb of St. Adalbert in the nave, raised the newly raised archdiocese’s status.

Similarly, in this thesis it was concluded that using an ambulatory, with or without radiating chapels, could benefit the cult of St. Adalbert at Gniezno and the dynastic cult of St. Ladislaus in Várad, the latter construction possibly being influenced by ties to the royal court.

The fact that a new and larger church would provide prestige to the diocese is evident: however, a choir with ambulatory and possibly radiating chapels could be used to convey a political message. The suggestion by Hans Sedlmayr that the French type choir with polygonal apse, ambulatory and radiating chapels is necessarily somehow connected to the royal court, or to a bishop who wants to get into the court's good graces, does not seem convincing in Central European Cathedrals. Only in the case of Prague, where an actual Frenchman was invited to construct the choir, does the association seem valid.

Instead, the form might have played a part in religious politics. Especially in the case of Eger, it seems possible that bishop Nicholas, having been denied the seat of the archbishopric of Esztergom, choose the form of the archcathedral of the other archdiocese, Kalocsa. Várád was a suffragan of Kalocsa, so for them, it would make sense to adopt this form.

Poznań was the place of royal burials and the de facto secular center of the kingdom, while Gniezno was the place where kings were crowned: both lost some prestige after these functions were moved to Kraków. If the ambulatory was seen as prestigious, it could mean that the dioceses of Poznań and Gniezno could try and win back some of their prestige this way.

Then thesis examined the relationship between ambulatories and burials. It seems that the ambulatories always had this association, as they were highly useful when someone wanted to be buried close to the main altar. In the case of Kraków and Prague, as demonstrated before, the intention of creating a royal necropolis was clear. In Várád, there were also royal internments, although only before and towards the end of the construction. In the other cases, the possibilities provided by the ambulatory regarding burials seems at least one of the strong reasons, especially if it could provide the cathedral with a steady course of income through the founts left by the patrons.

Lastly, in the case of liturgical practices and other possible considerations, the results seem inconclusive. It seems obvious that a choir with ambulatory could provide a wider range of liturgical possibilities. However, at the moment it cannot be determined whether there were any liturgical changes so profound that they would influence the choice of the church builders. This last part needs further research, and it could greatly benefit from increased research results from historians of late medieval liturgy throughout Central Europe.

The present thesis was but a brief overview of what might have influenced a fourteenth-century cathedral builder to choose a particular form, the choir with ambulatory. The ideas presented here could and hopefully will be elaborated further, as they connect into a wider area of research, one located at the edge of art history, liturgical studies and medievalism. Through considering these factors, we might catch a glimpse into the past, and see how medieval people interacted with their surroundings, how they used their most beautiful and majestic buildings, the cathedrals, not only for the mass, but to express themselves, honor their dead and engage in other devotional activities.

Bibliography

Primary Sources

- Bullae Bonifacii IX. P. M. 1396-1404.* Vol. 4. Monumenta Vaticana Historiam Regni Hungariae Illustrantia 1. Budapest, 1889.
- Bunyitay, Vince. *A váradi káptalan legrégibb statutumai* (Nagyvárad: Franklin-Társulat, 1886)
- Długosz, Jan. *Roczniki Czyli Kroniki Sławnego Królestwa Polskiego* [Annals, or Chronicles of the Famous Polish Kingdom]. Edited by Jan Dąbrowski. Vol. 5. Kraków, 1975.
- Krabice Z Weitmile, Beneš. *Kronika Pražského Kostela* [Chronicle of the Prague Church]. Edited by Marie Bláhová. Vol. 4. Prague: Svoboda, 1987.
- Kurbisowna, Brygida, ed. *Kronika Wielkopolska*. Translated by Kazimierz Abgarowicz. Warszawa: Państwowe Wydawn. Nauk, 1965.
- Wiesiołowski, Jacek, ed. “Roczniki Wielkopolskie” [Annals of Greater Poland]. In *Kronika Miasta Poznania*, 2:67–122. Poznań: Wydawnictwo Miejskie, 1995.

Secondary Sources

- Adamski, Jakub. “Śląska geneza gotyckiej katedry gnieźnieńskiej” [Silesian origin of the Gothic cathedral of Gniezno]. *Rocznik Historii Sztuki* 39 (2014): 157–75.
- Andrault-Schmitt, Claude. “Édifier: les enjeux de la création architecturale dans les stratégies de promotion de la sainteté (XIe-XIIIe siècle).” In *Hagiographie, idéologie et politique au Moyen Âge en Occident*, edited by Edina Bozóky, 315–46. Hagiologia 8. Turnhout: Brepols Publishers, 2012.
- Antowska-Gorączniak, Olga. “Wczesnogotycka katedra w Poznaniu” [The Early Gothic cathedral in Poznań]. *Archaeologia Historica Polona* 22 (December 15, 2014): 89–112.
- Balogh, Jolán. *Varadinum: Várad vára*. [Varadinum: castle of Várad]. 2 vols. Művészettörténeti Füzetek 13. Budapest: Akadémiai Kiadó, 1982.
- Bartlová, Milena. “The Choir Triforium of the Prague Cathedral Revisited: The Inscriptions and Beyond.” In *Prague and Bohemia: Medieval Art, Architecture and Cultural Exchange in Central Europe*. The British Archaeological Association Conference Transactions. Leeds: British Archeological Association, 2009.

- Benešovská, Klára. "Architecture at the Crossroads: Three Examples from Bohemia circa 1300." In *The Year 1300 and the Creation of a New European Architecture*, edited by Alexandra Gajewski and Zoë Opačić, 151–62. 1. Turnhout: Brepols Publishers, 2007.
- Bräutigam, Günther. "Die Nürnberger Frauenkirche und der Prager Parlerstil vor 1360." *Jahrbuch der Berliner Museen* 3 (1961): 38–75.
- Bruzelius, Caroline Astrid. *The Stones of Naples: Church Building in Angevin Italy, 1266-1343*. Yale University Press, 2004.
- Bukowska, Aneta. "Forma i geneza pierwszej katedry w Poznaniu" [Form and genesis of the first cathedral in Poznań]. In *Architektura romańska w Polsce. Nowe odkrycia i interpretacje*, edited by Tomasz Janiak, 175–209. Gniezno: Muzeum początków państwa polskiego w gnieźnie, 2009.
- Bunyitay, Vince. *A váradi püspökség története alapításától a jelenkorig* [The history of Váradi Diocese from its founding until the present day]. Vol. 1. 3 vols. Nagyváradi, 1883.
- Buzás, Gergely. "Az egri székesegyház XIII-XIV. századi gótikus épülete" [The thirteenth-fourteenth century Gothic building of Eger Cathedral]. *Az Egri Vár Híradója* 38 (2006): 21-65.
- Buzás Gergely, and Tóth Endre. *Magyar építészet 1. - A rómaiaktól Buda elfoglalásáig* [Hungarian architecture 1. - From the Romans until the conquering of Buda]. Budapest: Kossuth Kiadó, 2016.
- Conan, Kenneth J. *Carolingian and Romanesque Architecture 800–1200*. Harmondsworth: Penguin Books, 1959.
- Crossley, Paul. "'Bohemia Sacra' and 'Polonia Sacra': Liturgy and History in Prague and Cracow Cathedrals." *Folia Historiae Artium*, 2002, 9.
- . "Bohemia Sacra: Liturgy and History in Prague Cathedral." In *Pierre, Lumière, Couleur. Études d'histoire de l'art Du Moyen Âge En l'honneur d'Anne Prache*, edited by Fabienne Joubert and Dany Sandron, 341–365. Paris: Presses de l'Université de Paris-Sorbonne, 1999.
- . *Gothic Architecture in the Reign of Kasimir the Great*. Kraków: Ministerstwo Kultury i Sztuki, 1985.
- Dehio, Georg, and Gustav von Bezold. *Die kirchliche Baukunst des Abendlandes*. Stuttgart, J. G. Cotta, 1901.
- Fedele, Tamás. "Vallásos Áhítat, Közösségtudat, Reprezentáció: A Középkori Körmenetek Főbb Jellemzői" [Religious devotion, sense of community, presentation: The main aspects of medieval processions]. *Aetas* 22, no. 3 (2007): 59–82.
- Fergusson, Peter. "Cistercian Architecture." In *A Companion to Medieval Art: Romanesque and Gothic in Northern Europe*, edited by Conrad Rudolph, 599–619. Blackwell Companions to Art History. Blackwell Publishing, 2006.

- Firlet, Janusz, and Zbigniew Pianowski. "Przemiany architektury rezydencji monarszej oraz katedry na Wawelu w świetle nowych badań" [Transformation of the architecture of the royal residence and the Wawel Cathedral in the light of new research]. *Kwartalnik* 44, no. 4 (1999): 207–37.
- Freigang, Christian. "Changes in Vaulting, Changes in Drawing. On the Visual Appearance of Gothic Architecture around the Year 1300." In *The Year 1300 and the Creation of a New European Architecture*, edited by Zoë Opačić and Alexandra Gajewski, 67–78. Brepols Publishers, 2007.
- Gałka, Witold. *O architekturze i plastyce dawnego Poznania do końca epoki baroku*. Wydawn. Miejskie, 2001.
- Gerson, Paula. "Art and Pilgrimage: Mapping the Way." In *A Companion to Medieval Art*, edited by Conrad Rudolph, 599–618. Blackwell Publishing Ltd, 2006.
- Harris, Anne F. "Narrative." *Studies in Iconography* 33 (2012): 47–60.
- Havasi Krisztina. "A középkori egri székesegyház az 1200-as évek elején I." [The medieval cathedral of Eger at the beginning of the 1200s I.]. PhD, Eötvös Lóránd Tudományegyetem, 2011.
- Herichová, Iva, and Jana Maříková-Kubková. *Archeologický atlas Pražského hradu. Díl I. Katedrála sv. Víta – Vikařská ulice* [The archaeological atlas of Prague Castle I., Saint Vitus Cathedral - Vikářská street]. Castrum Pragense 10. Prague: Archeologický ústav AV ČR, 2009.
- Hourihane, Colum, ed. *The Grove Encyclopedia of Medieval Art and Architecture*. New York: Oxford University Press, 2012.
- Jamroziak, Emilia. "Spaces of Lay-Religious Interaction in Cistercian Houses of Northern Europe." *Parergon: Journal of the Australian and New Zealand Association for Medieval and Early Modern Studies* 27 (2010): 37–58.
- Janiak, Tomasz. "Początek gotyckiej przebudowy prezbiterium katedry w Gnieźnie w świetle danych archeologicznych" [The beginning of the Gothic conversion of the chancel in the cathedral in Gniezno based on archaeological findings]. *Czasopismo Techniczne. Architektura* R. 108, z. 7-A (2011): 381–403.
- Józefowiczówna, Krystyna. *Z badań nad architekturą przedromańską i romańską w Poznaniu* [From research on pre-Romanesque and Romanesque architecture in Poznań]. Wrocław-Warsaw-Krakow: Zakład Narodowy im. Ossolińskich, 1963.
- Klaniczay, Gábor. *Holy Rulers and Blessed Princesses: Dynastic Cults in Medieval Central Europe*. Cambridge University Press, 2002.
- Kóčka-Krenz, Hanna. "Najstarszy Poznań" [The oldest Poznań]. In *Civitas posnaniensis: studia z dziejów średniowiecznego Poznania*, edited by Zofia Kurnatowska and Tomasz Jurek, 27–42. Poznań: Wyd. Poznańskiego Towarzystwa Przyjaciół Nauk, 2005.

- . “Poznań – miejsce centralne w średniowieczu” [Poznań – central place in the Middle Ages]. *Archaeologia Historica Polona* 24 (2016): 27–40. <https://doi.org/10.12775/AHP.2016.002>.
- Körner, Hans. *Grabmonumente Des Mittelalters*. Darmstad: Primus / Wissenschaftliche Buchgesellschaft, 1997.
- Kovács, Olivér. “Nagyvárad: új világ a vár alatt” [Nagyvárad: new world under the castle]. *műemlékem.hu*, 03.07.2016. http://www.muemlekem.hu/magazin/nagyvarad_var_szekesegyhaz_feltaras_bemutatas. Last accessed: 17.05.2018.
- Kowalski, Jacek. *Gotyk Wielkopolski. Architektura sakralna XIII–XVI wieku* [Gothic of Greater Poland. Religious architecture of the thirteenth-fourteenth centuries]. Poznań: Fundacja Świątego Benedykta, 2010.
- Kozák, Károly. “Az egri várszékesegyház feltárása II.” [The Excavation of the Castle Cathedral of Eger II.]. *Agria. Annales Musei Agriensis* 11/12 (1973–1974): 131–54.
- Krautheimer, Richard. “Constantinian Church Building.” In *Early Christian and Byzantine Architecture*. The Pelican History of Art. Yale University Press, 1984.
- . “Success and Failure in Late Antique Church Planning.” In *Age of Spirituality: A Symposium*, edited by Kurt Weitzmann, 121–41. New York: Metropolitan Museum of Art, 1979.
- Kusztelski, Andrzej. “Prezbiterium katedry poznańskiej. Rekonstrukcja faz, układ, związki i wpływy” [Choir of the Poznań Cathedral. Reconstruction of phases, layout, relationships and influences]. *Kronika Miasta Poznania*, no. 1 (2003): 157–78.
- Kuthan, Jiří. *Počátky a Rozmach Gotické Architektury v Čechách* [Origins and expansion of Gothic architecture in Bohemia]. Prague: Akademie, 1983.
- . “Prague Cathedral in Gothic Architectural Drawing.” In *The Cathedral of St. Vitus at Prague Castle*, edited by Jiří Kuthan and Jan Royt, 147–60. Prague: Karolinum Press, 2016.
- . “The Construction of the Gothic Cathedral under Mathias of Arras, Peter Parler and His Successors.” In *The Cathedral of St. Vitus at Prague Castle*, edited by Jiří Kuthan and Jan Royt, 75–146. Prague: Karolinum Press, 2016.
- Kuthan, Jiří, and Jan Royt, eds. *The Cathedral of St. Vitus at Prague Castle*. Prague: Karolinum Press, 2016.
- Kutzner, Marian. “Sztuka gotycka” [Gothic art]. In *Dzieje Wielkopolski*, edited by Aleksandra Świechowska, Vol. 1, 1969.
- Le Pogam, Pierre-Yves. “Le tombeau de Philippe-Dagobert: un monument royal chez les moines blancs.” *Bulletin Monumental* 168, no. 2 (2010): 133–48.
- Mackie, Gillian. “A New Look at the Patronage of Santa Constanza, Rome.” *Byzantion* 67 (1997): 381–406.

- Marosi, Ernő. *Művészet I. Lajos király korában: 1342-1382* [Art in the era of Louis I.: 1342-1382]. Budapest: MTA Művészettörténeti Kutató Csoport, 1983.
- Martin, Pierre. *Les Premiers Chevets à Déambulatoire et Chapelles Rayonnantes de La Loire Moyenne (Xe-XIe Siècles): Saint-Aignan d'Orléans, Saint-Martin de Tours, Notre Dame de Mehun-Sur-Yèvre, La Madeleine de Châteaudun*. [Université de Poitiers], 2010.
- Mcgee Morganstern, Anne. "Liturgical and Honorific Implications of the Placement of Gothic Wall Tombs." *Hortus Artium Medievalium* 10 (January 1, 2004): 81–96.
- Michler, Jürgen. "Die ursprüngliche Chorform der Zisterzienserkirche in Salem." *Zeitschrift für Kunstgeschichte* 47 (1984): 6–46.
- Mikołajczak, Tomasz. "Katedralna Nekropolia Biskupów Wrocławskich w Czasach Średniowiecza" [The cathedral necropolis of Wrocław bishops in the Middle Ages]. In *Katedra Wrocławska Na Przestrzeni Tysiąclecia: Studia z Historii Architektury i Sztuki*, edited by Romuald Kaczmarek and Dariusz Galewski, 103–12. Wrocław: Instytut Historii Sztuki Uniwersytetu Wrocławskiego, 2016.
- Mikołajczyk, Gabriela. "Sprawozdanie z prac wykopaliskowych prowadzonych w Gnieźnie" [Report on excavations carried out in Gniezno]. *Sprawozdania Archeologiczne* 14 (1962): 184–93.
- Rómer, Flóris. "Előzetes jelentés a nagyváradi várban 1883-ban folytatott ásatásról" [Preliminary report on the excavation carried out at Oradea Castle in 1883]. *Archaeológiai Értesítő* 3 (1883): 16–24.
- Rusu, Adrian Andrei. *Cetatea Oradea. Monografie Arheologică. Zona Palatului Episcopal* [Oradea Castle. Archaeological monography. The zone of the episcopal palace]. Oradea: Editura Muzeului „Țării Crișurilor”, 2002.
- Schürenberg, Lisa. *Die kirchliche Baukunst in Frankreich zwischen 1270 und 1380*. Berlin: Klinkhardt & Biermann, 1934.
- Schwartz, Frithjof. *Il bel cimitero. Santa Maria Novella in Florenz 1279-1348: Grabmäler, Architektur und Gesellschaft*. Berlin: Deutscher Kunstverlag, 2009.
- Scott, Robert A. *The Gothic Enterprise: A Guide to Understanding the Medieval Cathedral*. University of California Press, 2003.
- Sedlmayr, Hans. "Die Kathedrale als europäische Königskirche." In *Die Entstehung der Kathedrale*, 466–75. Zurich: Atlantis Verlag, 1950.
- Skibiński, Szczesny. "Chór Katedry Wrocławskiej (1244-1272). Wybrane Problemy Kwalifikacji Stylistycznej i Warsztatowej" [Choir of the Wrocław Cathedral (1244-1272). Selected problems of stylistic and workshop qualifications]. In *Katedra Wrocławska Na Przestrzeni Tysiąclecia: Studia z Historii Architektury i Sztuki*, edited by Romuald Kaczmarek and Dariusz Galewski, 21–31. Wrocław: Instytut Historii Sztuki Uniwersytetu Wrocławskiego, 2016.
- . *Katedra poznańska* [The cathedral of Poznań]. Księg. Św. Wojciecha, 2001.

- . “O niektórych aspektach gotyckiej przebudowy katedry gnieźnieńskiej” [On some aspects of the Gothic reconstruction of the cathedral in Gniezno]. *Gniezno. Studia i materiały historyczne* 3 (1990).
- . *Polskie katedry gotyckie* [Polish Gothic cathedrals]. Poznań: Gaudentinum, 1996.
- Sparhubert, Eric. “Les commandes artistiques des chapitres de chanoines séculiers et leurs enjeux : édifier et célébrer à Saint-Junien (XIe-XIIIe siècles).” Poitiers, 2008. <http://www.theses.fr/2008POIT5002>.
- Sugár, István. *Az Egri Püspökök Története* [The history of the bishops of Eger]. Budapest: Szent István társulat, 1984.
- Świechowski, Zygmunt. “Gotycka katedra gnieźnieńska na tle współczesnej architektury europejskiej” [The Gothic cathedral of Gniezno in the background of European architecture]. In *Katedra gnieźnieńska*, edited by Aleksandra Świechowska. Poznań-Warsaw-Lublin, 1970.
- Szende László. “Piast Erzsébet és udvara (1320-1380)” [Elisabeth Piast and her court (1320-1380)]. Doctoral dissertation, Eötvös Lóránd Tudományegyetem, 2007. <http://doktori.btk.elte.hu/hist/szende/diss.pdf>.
- Takács, Imre. “Bátori András ‘második temploma’” [The “second church” of András Bátori]. In *Váradi kőtöredékek*, edited by Terézia Kerny, 39-53. Budapest: Magyar Tudományos Akadémia Művészettörténeti Kutatócsoport, 1989.
- . “Egy eltűnt katedrális nyomában - Újabb töredékek a 13. századi kalocsai székesegyházból” [Searching for a lost cathedral - New fragments from the thirteenth century cathedral of Kalocsa]. In *A középkori Dél-Alföld és Szer*, 305–36. Szeged: Kollár Tibor, 2000.
- Tomala, Janusz. *Architektura Sakralna* [Sacred architecture]. Edited by Sławomir Woźniak. Vol. 1. Murowana architektura romańska i gotycka w Wielkopolsce. Kalisz: Wydaw, 2007.
- Tomek, Václav Vladivoj. *Základy starého místopisu Praského* [Foundations of the old topography of Prague]. Vol. 4. Prague: Nákl. Spolenosti, 1872.
- Uličný, Petr. “The Choirs of St Vitus’s Cathedral in Prague: A Marriage of Liturgy, Coronation, Royal Necropolis and Piety.” *Journal of the British Archaeological Association* 168, no. 1 (November 1, 2015): 186–233. <https://doi.org/10.1179/0068128815Z.00000000050>.
- Vyskočil, Jan Kapištrán. *Arnošt z Pardubic a jeho doba* [Ernest of Pardubice and his time]. Prague: Vyšehrad, 1947.
- Walczak, Marek. “Topography of the Royal Necropolis at the Cracow Cathedral in the Middle Ages.” In *Epigraphica & Sepultura*, edited by Jiří Roháček, 67–91. 6. Prague: Artefactum, 2015.
- Węclawowicz, Tomasz. *Krakowski Kościół Katedralny w Wiekach Średnich. Funkcje i Możliwości Interpretacji* [The cathedral church of Kraków in the Middle Ages.

Functions and possibilities of interpretation]. Kraków: Publisher of the Jagiellonian University, 2005.

———. *Królewski kościół katedralny na Wawelu: w rocznicę konsekracji 1364-2014* [Royal Cathedral Church on Wawel Hill in Krakow: jubilee of the consecration 1364-2014]. Oficyna Wydawnicza AFM, 2014.

———. “Medieval Krakow and Its Churches: Structure and Meanings.” *Urban People* 7, no. 1 (2007): 54–69.

———. “The Bohemian King, the Polish Bishop, and Their Church: Wenceslas II’s Cathedral in Kraków (1295-1305).” In *The Year 1300 and the Creation of a New European Architecture*, edited by Alexandra Gajewski and Zoë Opačić, 177–84. Turnhout: Brepols Publishers, 2007.

Wells, Emma. “Making ‘Sense’ of the Pilgrimage Experience of the Medieval Church.” *Peregrinations: Journal of Medieval Art and Architecture* 3, no. 2 (January 1, 2011): 122–46.

Zachwatowicz, Jan. “Architektura katedry gotyckiej” [The architecture of the Gothic cathedral]. In *Katedra gnieźnieńska*, edited by Aleksandra Świechowska. Poznań-Warsaw-Lublin, 1970.

Appendices – Figures

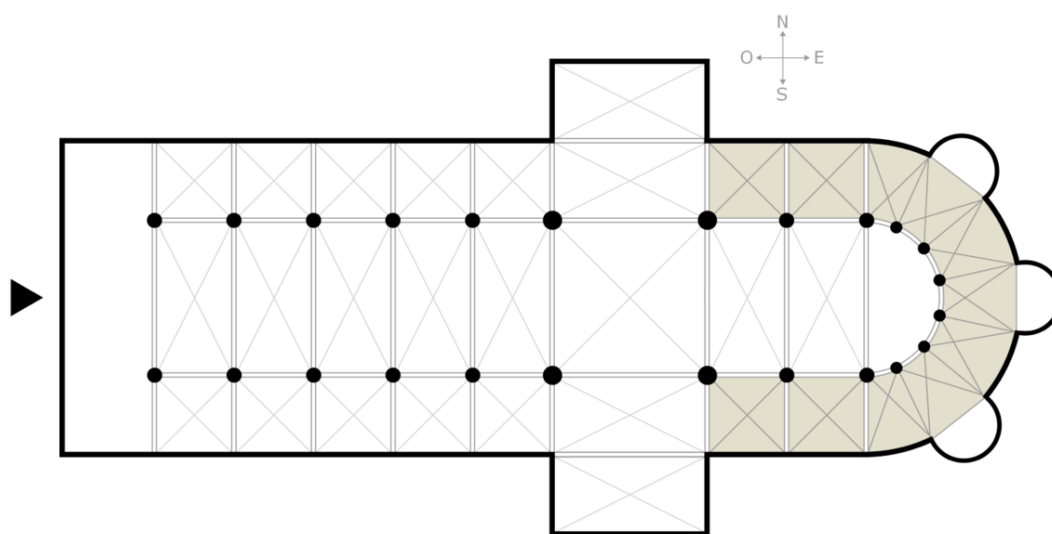


Figure 1. Ambulatory in a general cathedral floorplan

Source: Susana Morais, Wikimedia Commons, 2005. Last accessed: 16.05.2018.
<https://commons.wikimedia.org/wiki/File:Ambulatory.png>

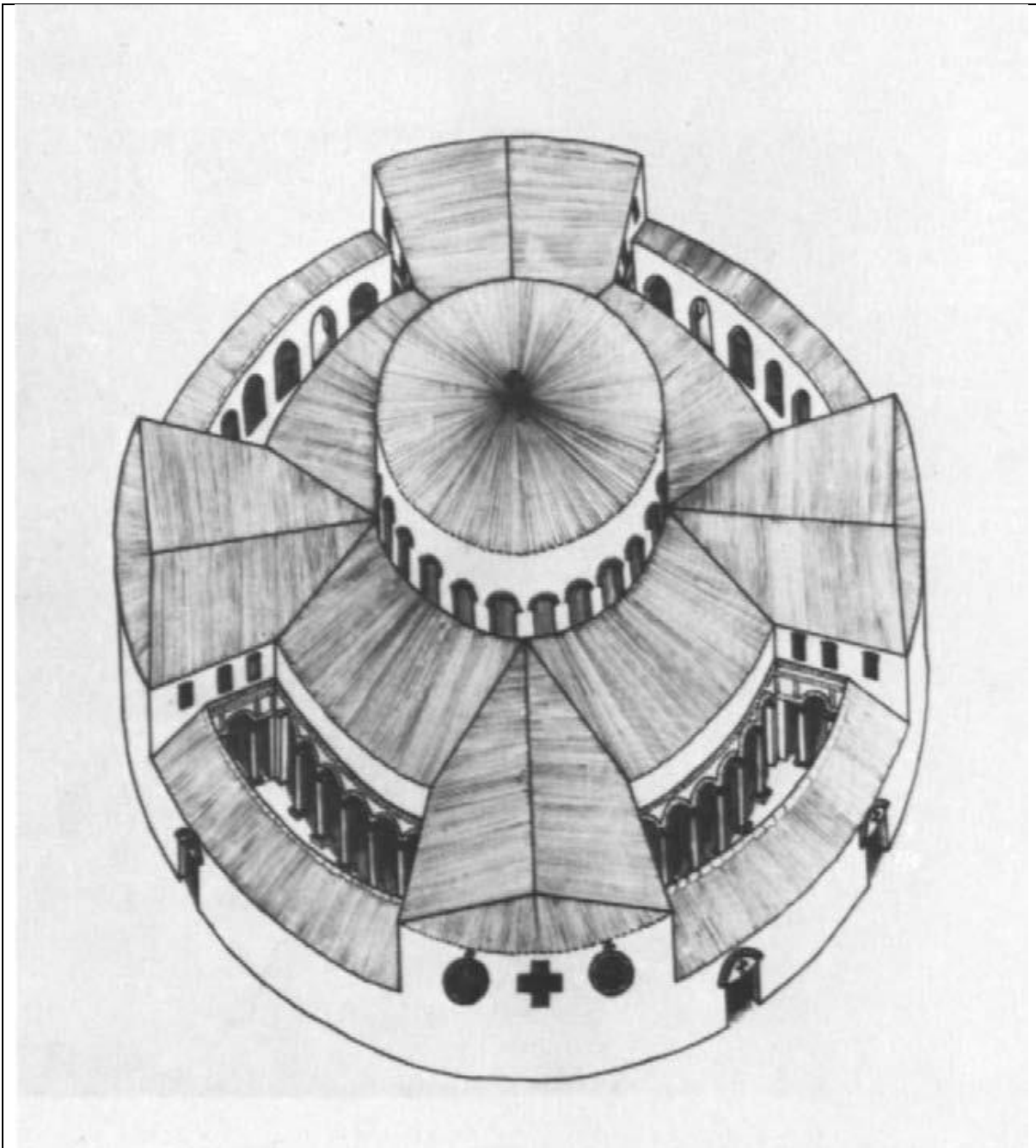


Figure 2. Santo Stefano Rotondo, Rome. Reconstruction of exterior

Drawing by S. Corbett. From: Richard Krautheimer, "Success and Failure in Late Antique Church Planning," in *Age of Spirituality: A Symposium.*, ed. Kurt Weitzmann (New York: Metropolitan Museum of Art, 1979), 121–41., 123

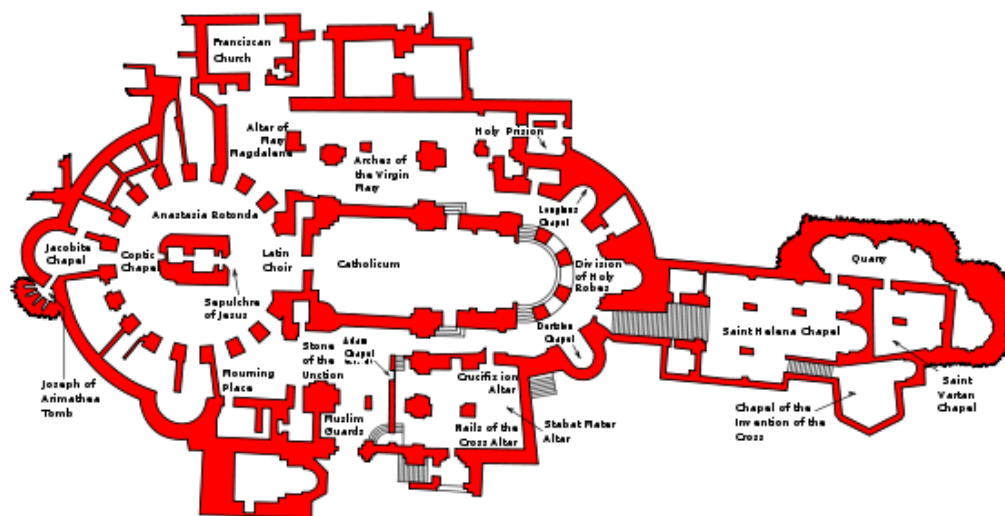


Figure 3. Anastasis Rotunda and the Church of the Holy Sepulchre.

Source: Wikimedia Commons. Last accessed: 16.05.2018.

https://commons.wikimedia.org/wiki/File:Anastasia_Rotonda_sketch_1.svg

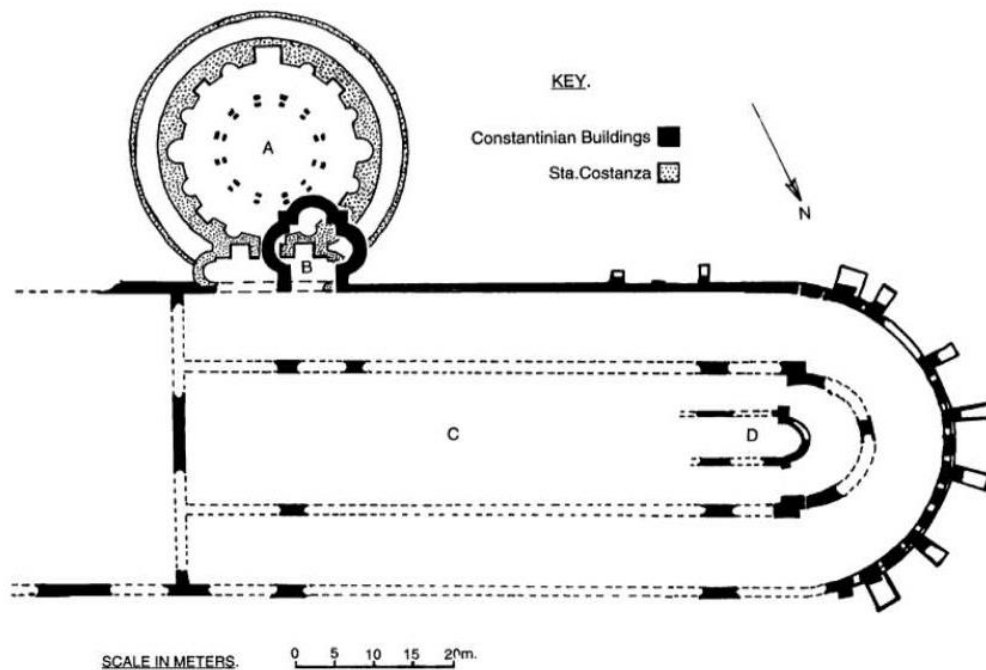


Figure 4. Sant Agnese and Santa Costanza in Rome.

Source: Gillian Mackie, "A New Look at the Patronage of Santa Costanza, Rome," *Byzantion* 67 (1997): 381–406, p. 385

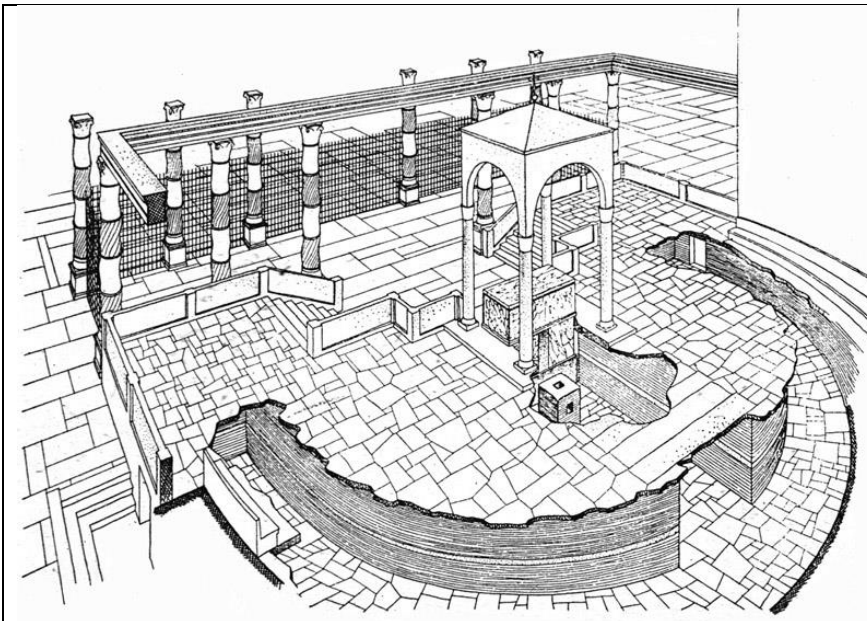


Figure 5. Reconstruction of the ambulatory at Old St. Peter's Cathedral, Rome

Source: Traditio Liturgica. Last accessed: 16.05.2018.

<http://traditioliturgica.blogspot.hu/2011/08/ricostruzione-tridimensionale-della.html>

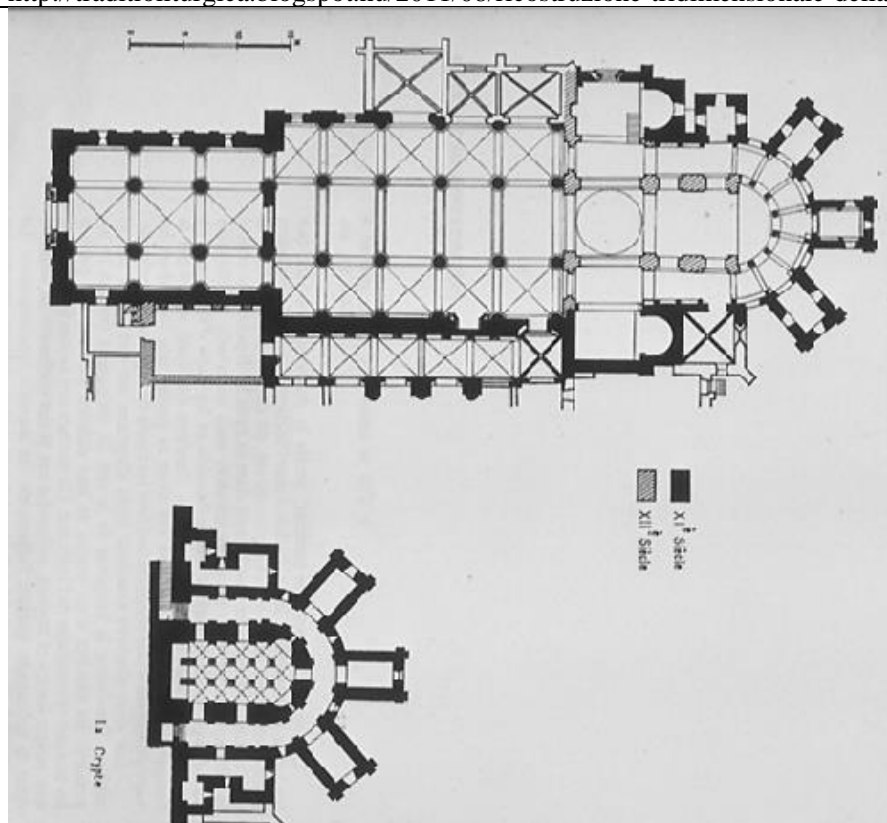


Figure 6. Tournus, St. Philibert (c. 960-970)

Source: Arte Internacional.

<https://arteinternacional.blogspot.hu/2009/08/arte-romanico-frances-arquitectura-de.html>

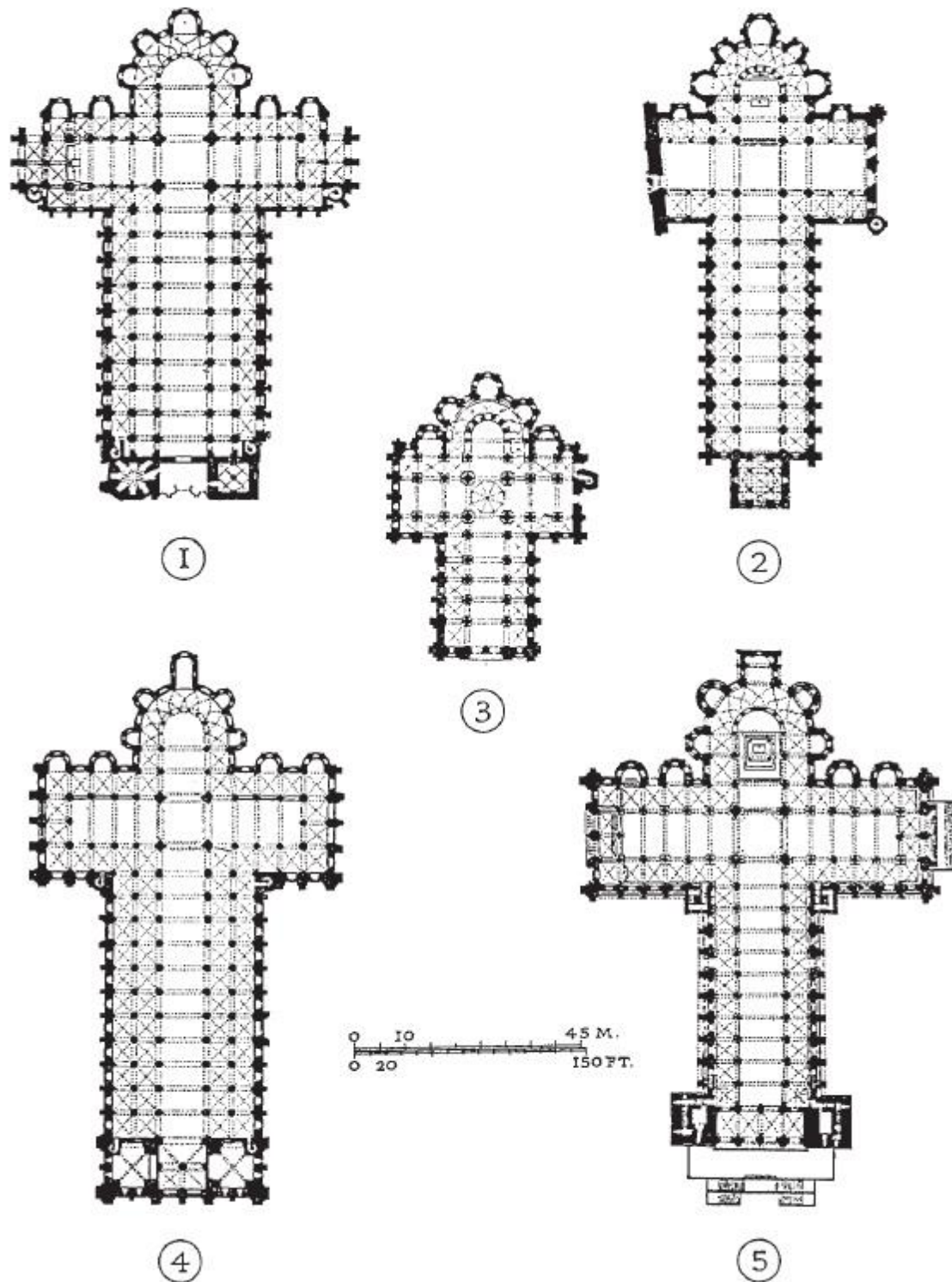


Figure 7. "Pilgrimage churches": St Martin, Tours (1); St Martial, Limoges (2); St Foi, Conques (3); St Sernin, Toulouse (4); Santiago de Compostela (5).

Source: Gerson, Paula. "Art and Pilgrimage: Mapping the Way." In *A Companion to Medieval Art*, edited by Conrad Rudolph, 599–618. Blackwell Publishing Ltd, 2006. 604

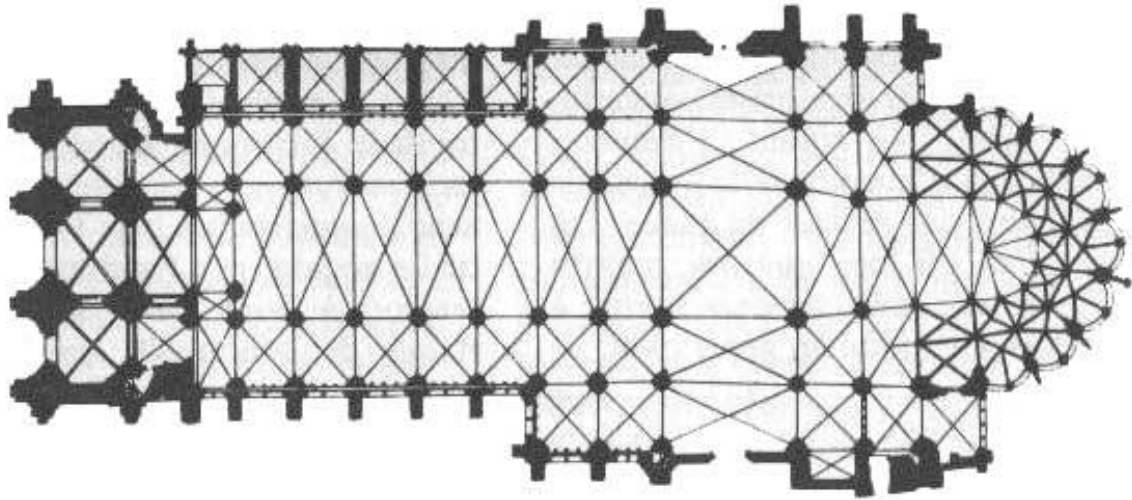


Figure 8. Ground plan of the abbey church of St. Denis

Source: *Architecture religieuse en occident*. Last accessed: 16.05.2018.
<http://architecture.relig.free.fr/denis.htm>

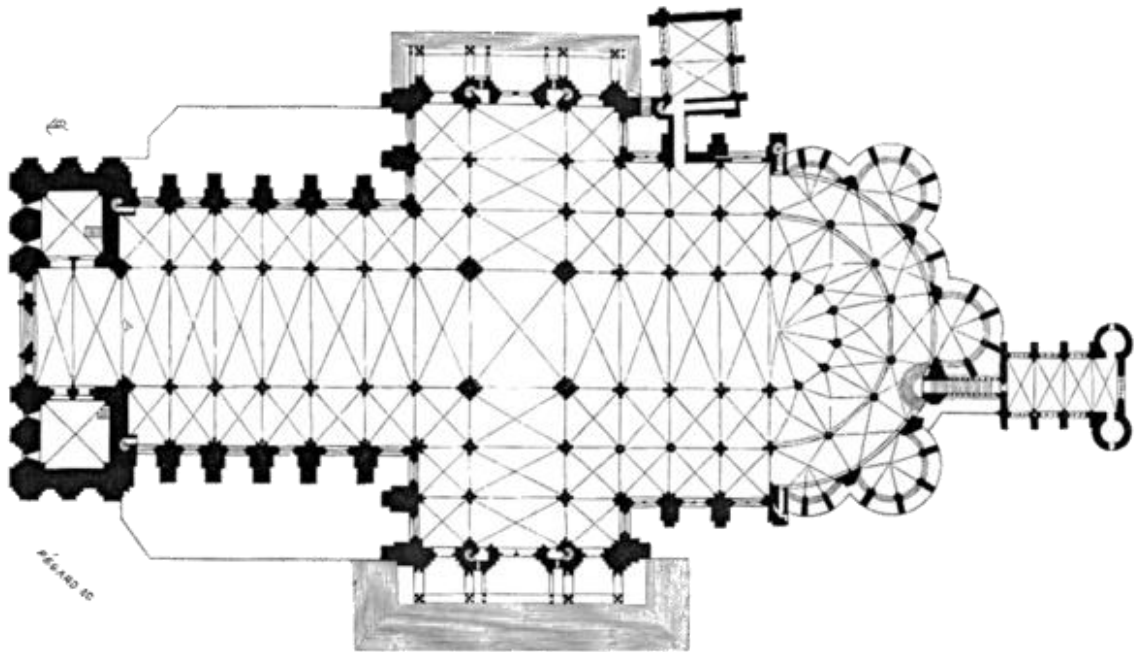


Figure 9. Ground plan of Chartres Cathedral

Source: Eugène-Emmanuel Viollet-le-Duc: *Dictionnaire raisonné de l'architecture française du XIe au XVIe siècle*, 1854-1868. Book 2., 315

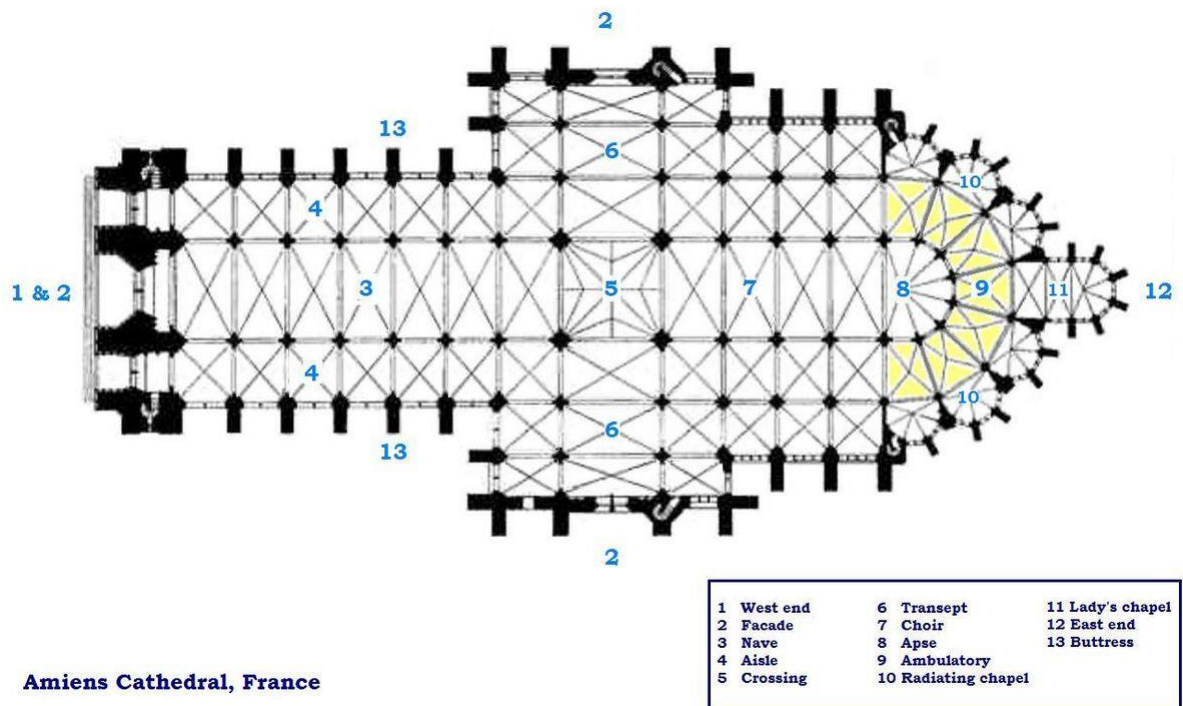


Figure 10. Ground plan of Amiens Cathedral

Source: Georg Dehio and Gustav von Bezold, *Die Kirchliche Baukunst des Abendlandes*, Stuttgart, 1887-1902, plate 363

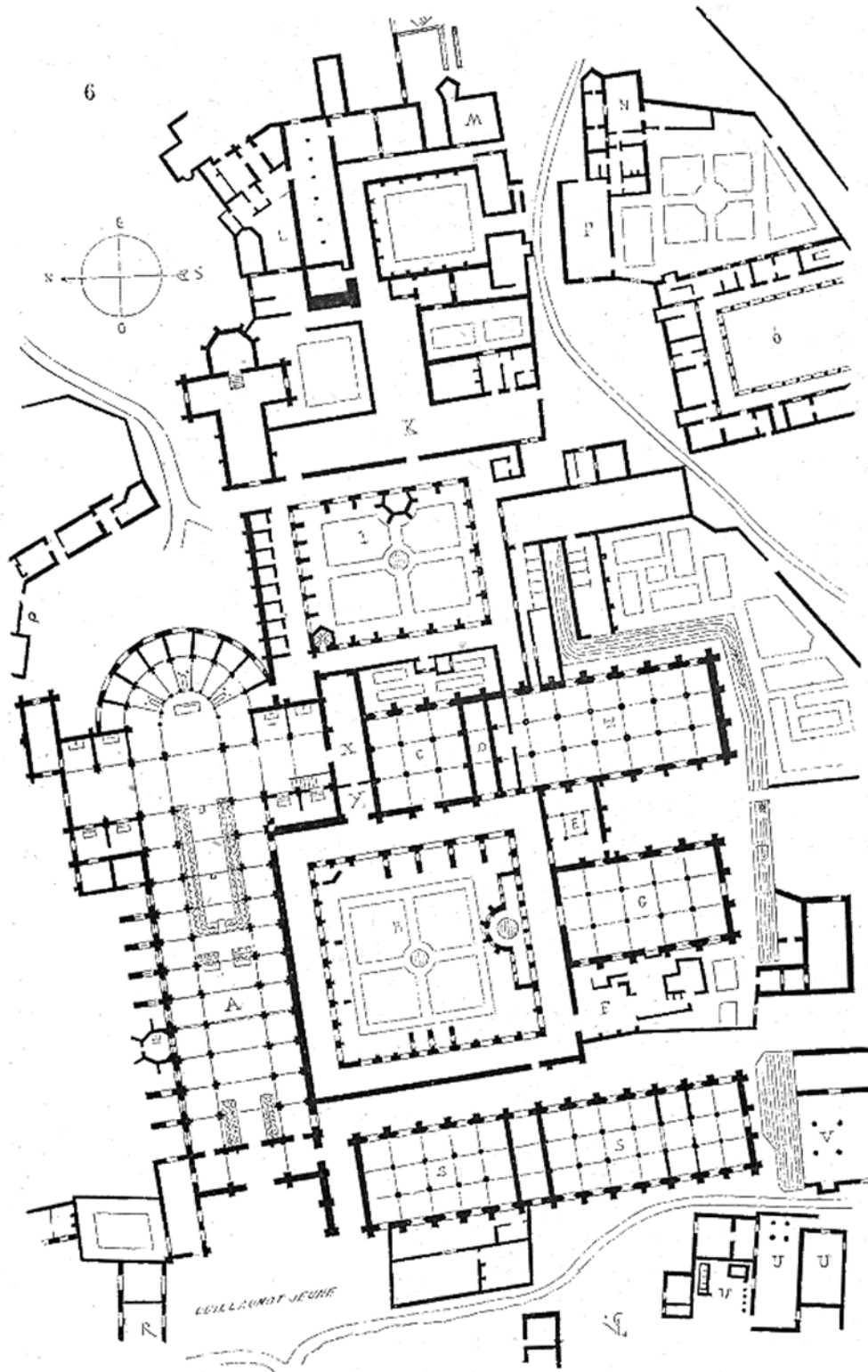


Figure 11. Ground plan of Clairvaux Abbey

Source: Eugène-Emmanuel Viollet-le-Duc: Dictionnaire raisonné de l'architecture française du XIe au XVIe siècle, 1854-1868. Book 1, 286

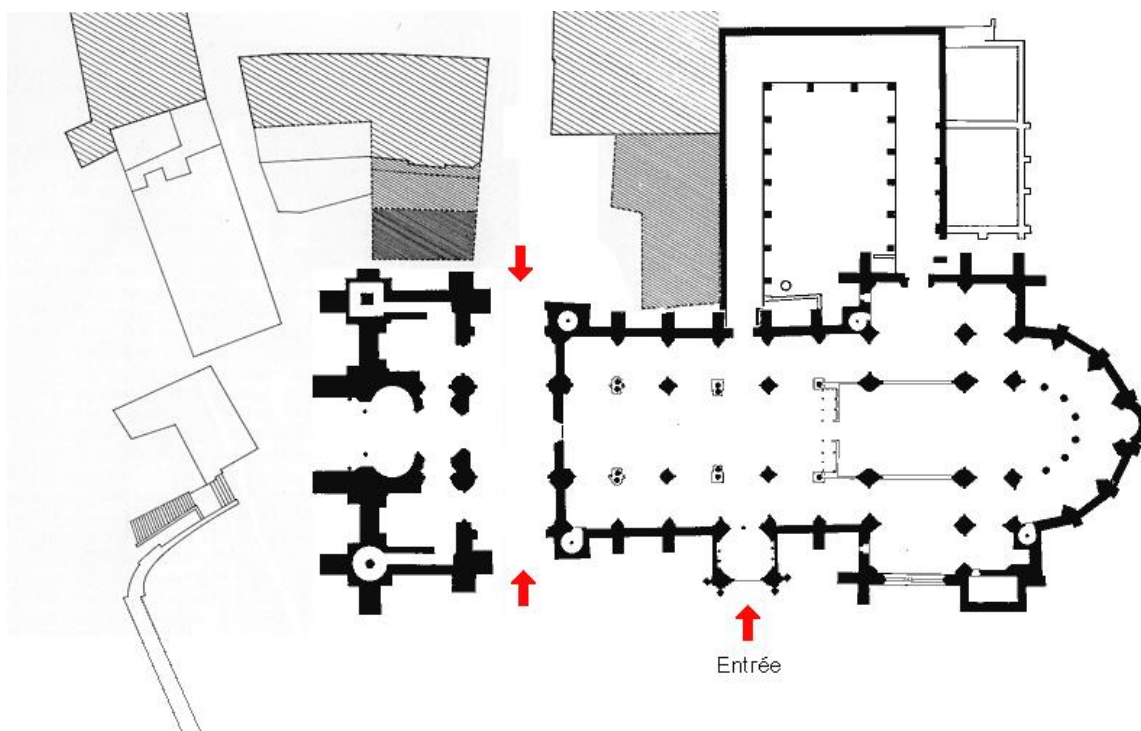


Figure 12. Lausanne Cathedral

Source: Patrimoine, Cathédral de Lausanne. Last accessed: 16.05.2018.
<http://www.patrimoine.vd.ch/fr/cathedrale-de-lausanne/le-monument/histoire/le-passage/?print=1>

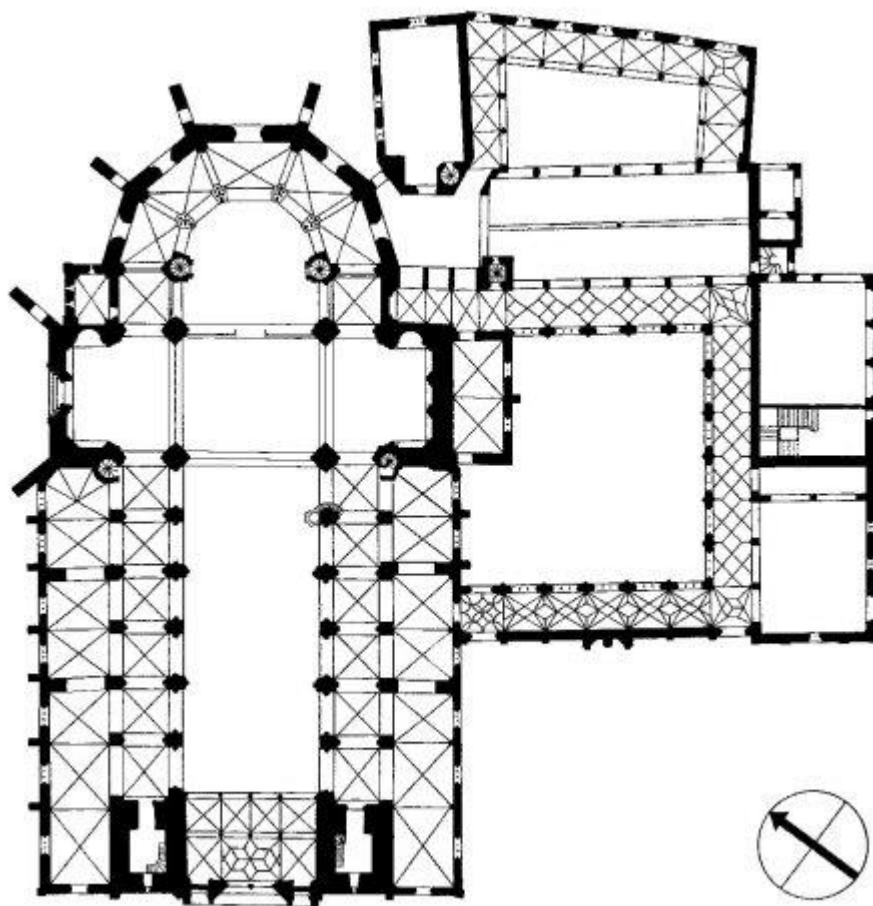


Figure 13. Ground plan of Basel Cathedral

Source: Dombaumeister E.V. Last accessed: 16.05.2018.
<http://dombaumeisterev.de/?dom=basler-muenster>

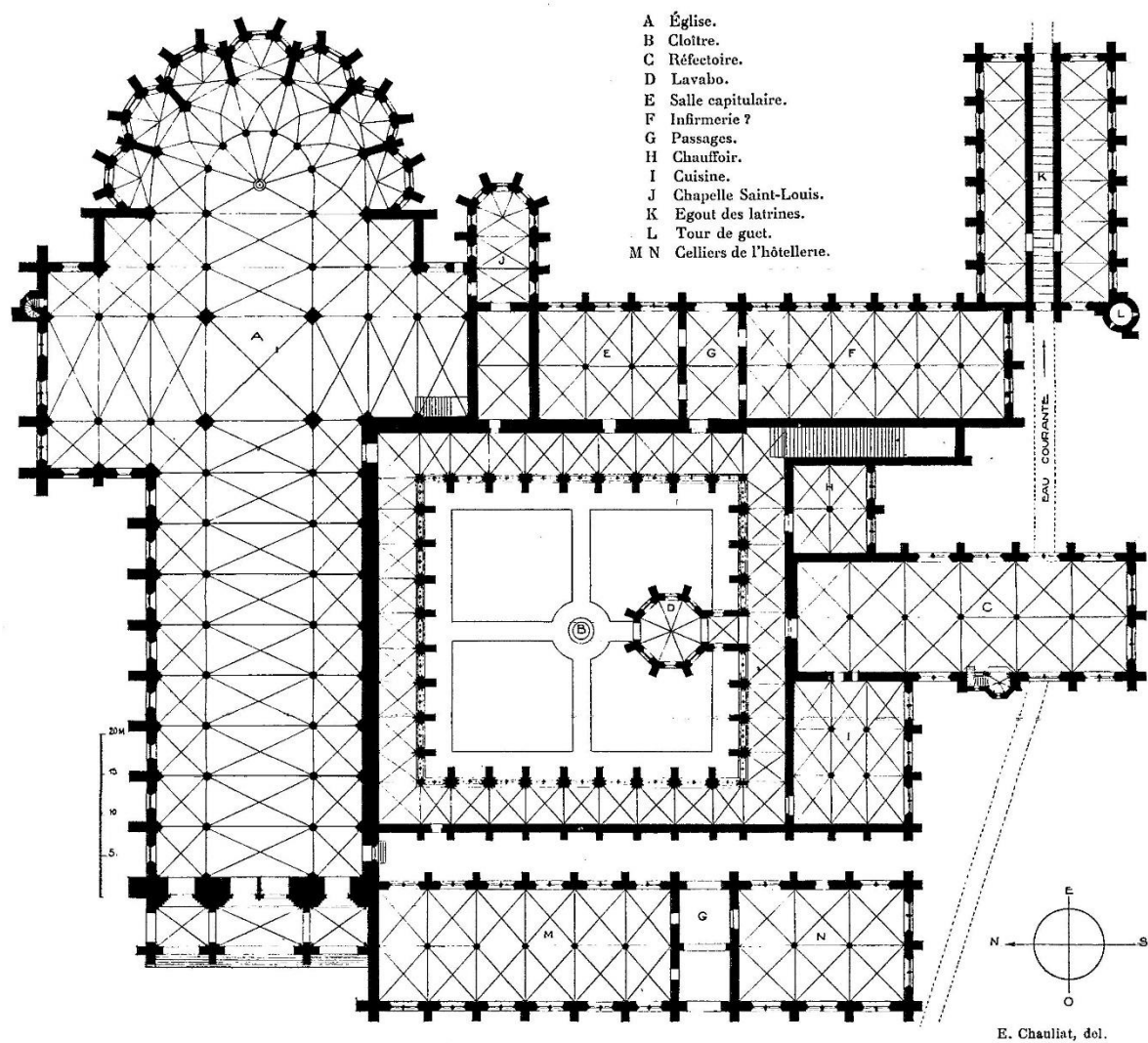


Figure 14. Ground plan of Royaumont Abbey

Source: E. Chauliat, Bulletin Monumental, Book 72e, 1908, 232-233

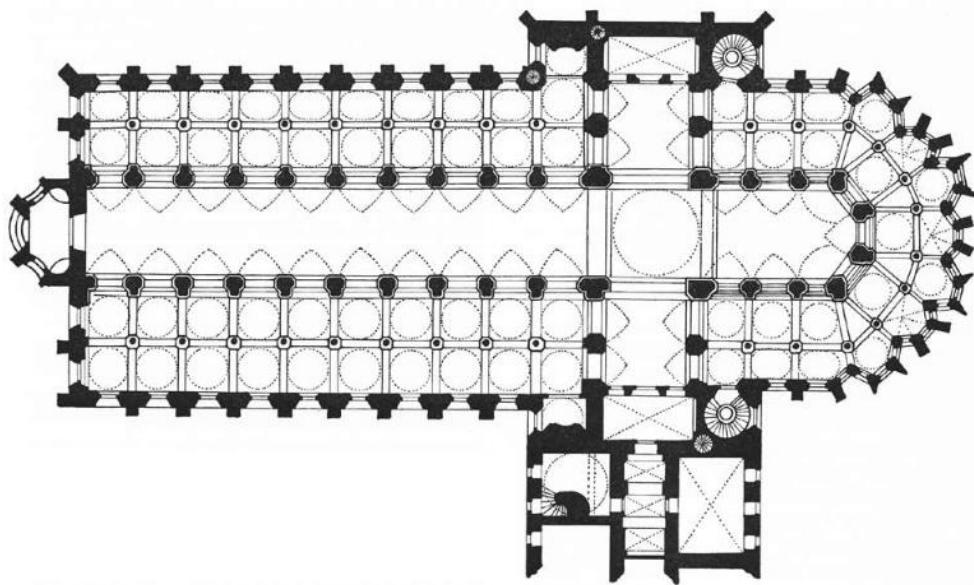


Figure 15. Ground plan of the abbey church of Sedlec

Source: Drawing by Gergely Buzás. Published in: Gergely Buzás. "Az egri székesegyház XIII-XIV. századi gótikus épülete [The XIII-XIV. Century Gothic building of Eger Cathedral]." *Az Egri Vár Híradója* 38 (2006): 21–65. p. 46

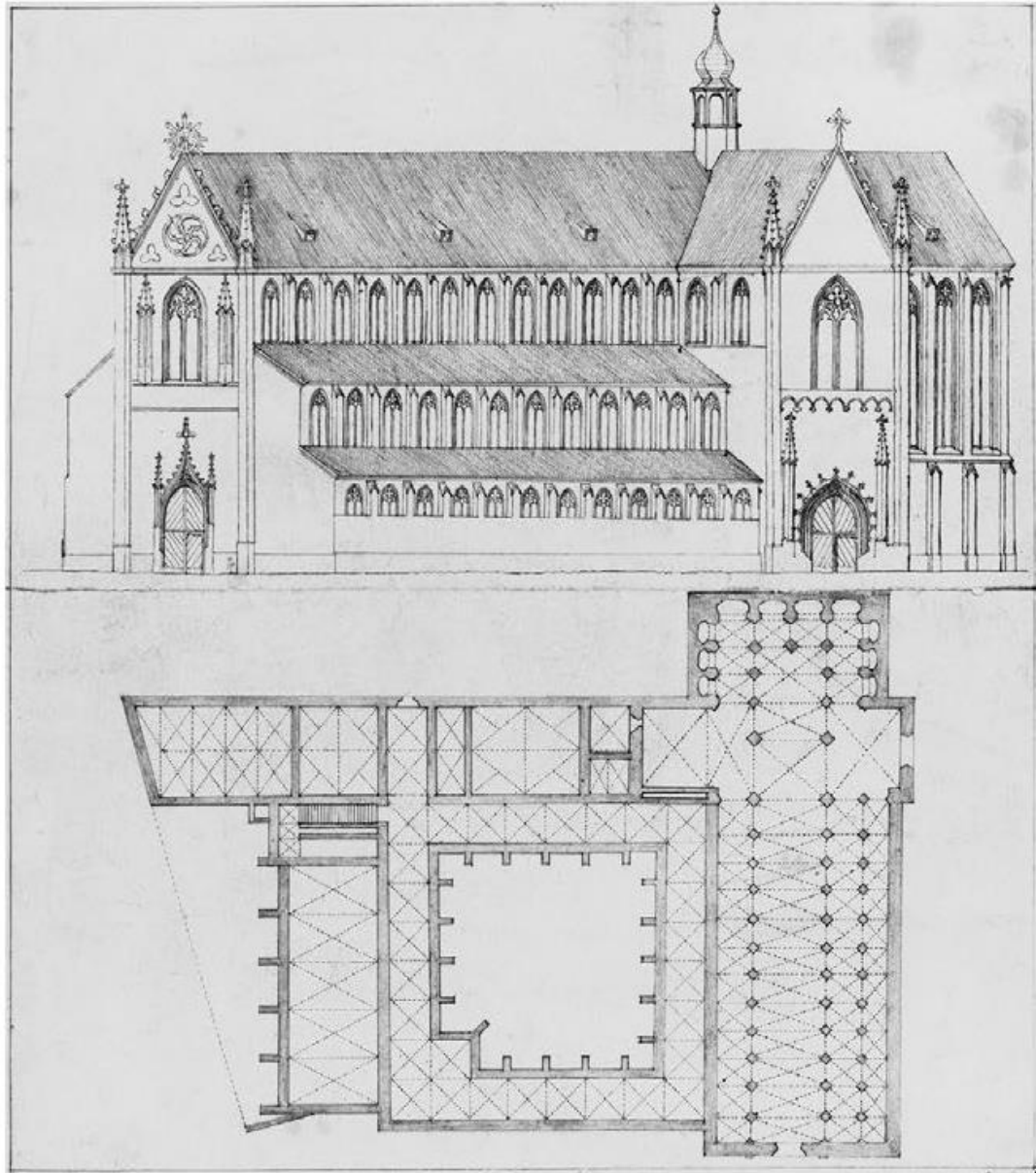


Figure 16. Zbraslav, copy of the old drawings found in the tower of the Horní Mokropsy parish church in 1850

Source: Klára Benešová. "Architecture at the Crossroads: Three Examples from Bohemia circa 1300." In *The Year 1300 and the Creation of a New European Architecture*, edited by Alexandra Gajewski and Zoë Opačić, 151–62. 156. Originally from F. Lorenz, *Ustav dejin umění*, Akademie věd České republiky, Prague

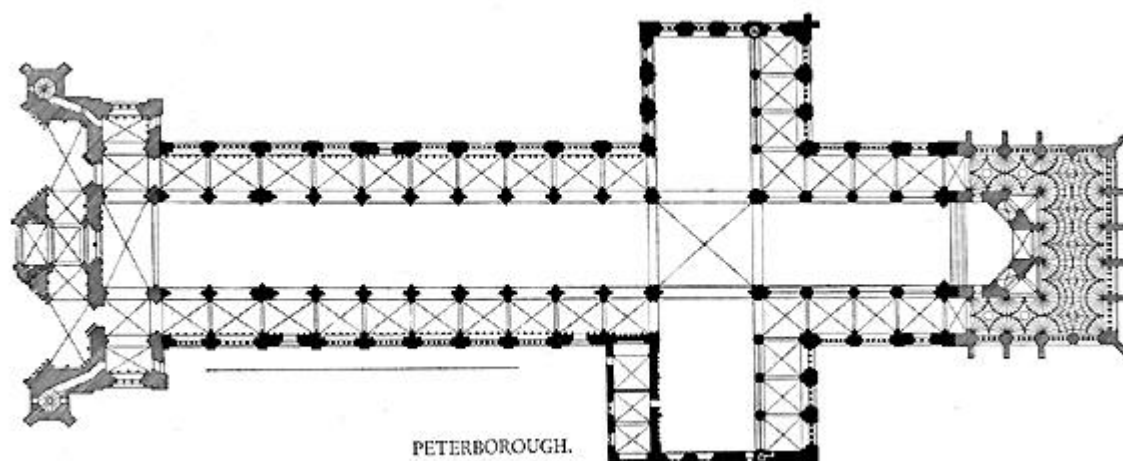


Figure 17. Ground plan of Peterborough Cathedral

Source: Source: Georg Dehio and Gustav von Bezold, *Die Kirchliche Baukunst des Abendlandes*, Stuttgart, 1887-1902. plate 81

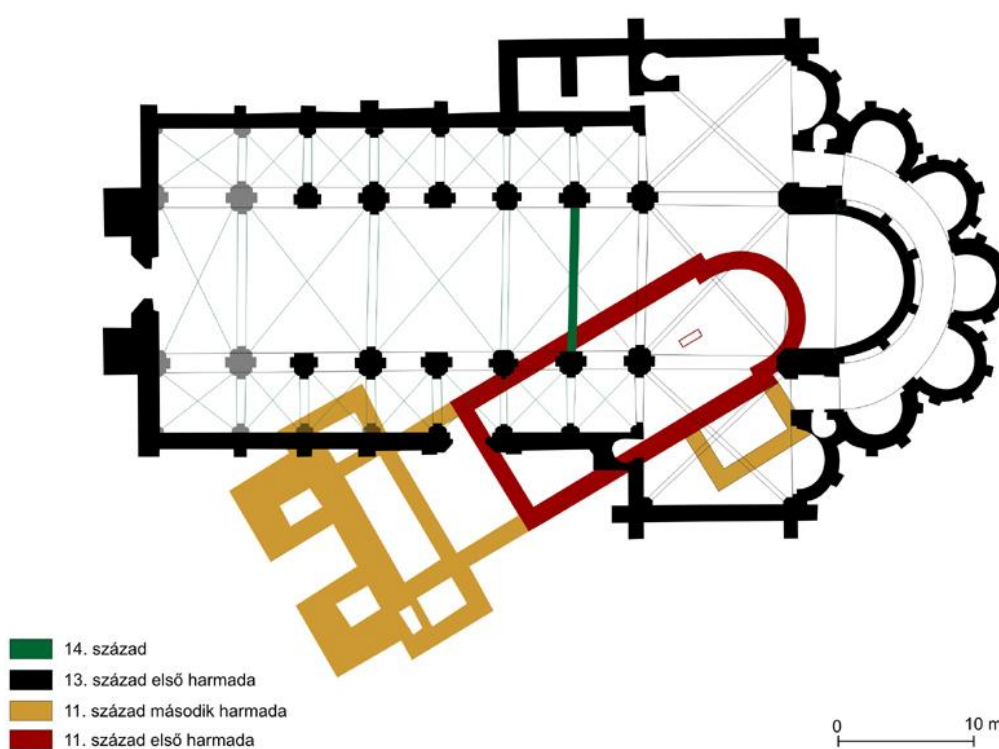


Figure 18. Ground plan of the Archcathedral of Kalocsa

Source: Gergely Buzás – Olivér Kovács. Meg sem talált kövek: az első székesegyházak. *Archaeologica* – Altum Castrum Online Magazin. Last accessed 16.05.2018.
<http://archeologia.hu/meg-sem-talalt-kovek-az-elso-szekesegyhazak>

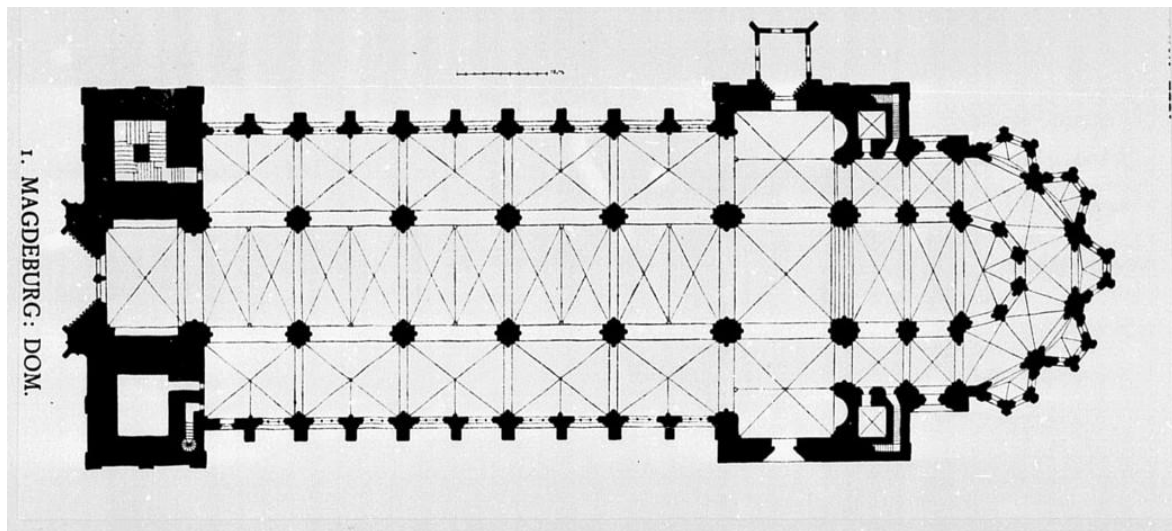


Figure 19. Ground plan of Magdeburg Cathedral

Source: Georg Dehio and Gustav von Bezold: *Kirchliche Baukunst des Abendlandes*. Stuttgart: Verlag der Cotta'schen Buchhandlung 1887-1901, Plate No. 5.

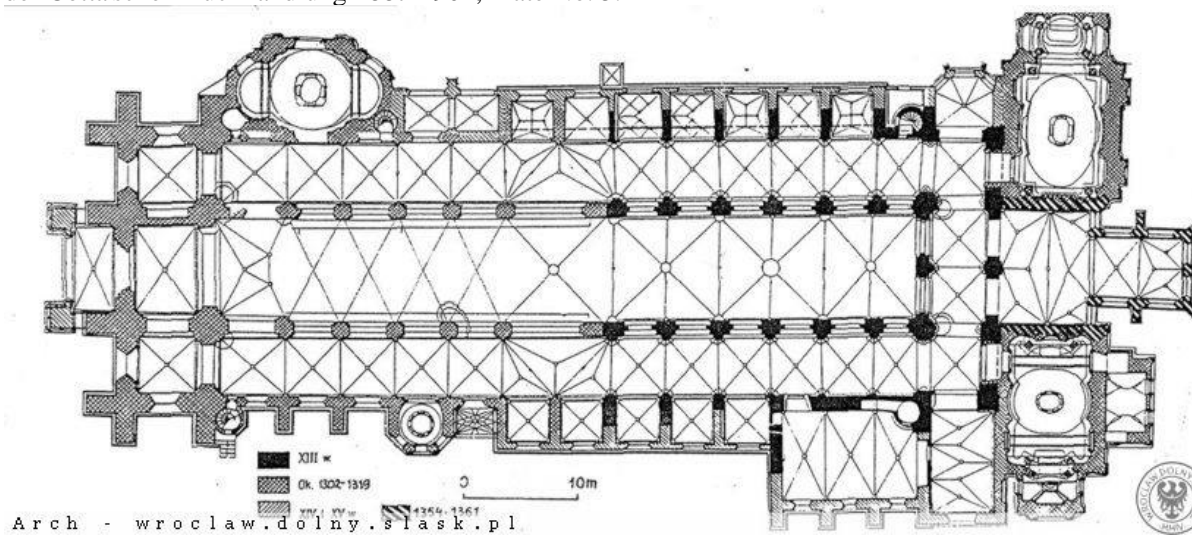


Figure 20. Ground plan of Wrocław Cathedral

Source: Edmund Małachowicz: *Wrocław na wyspach*, Wrocław: Zakład Narodowy im. Ossolińskich - Wydawnictwo 1992

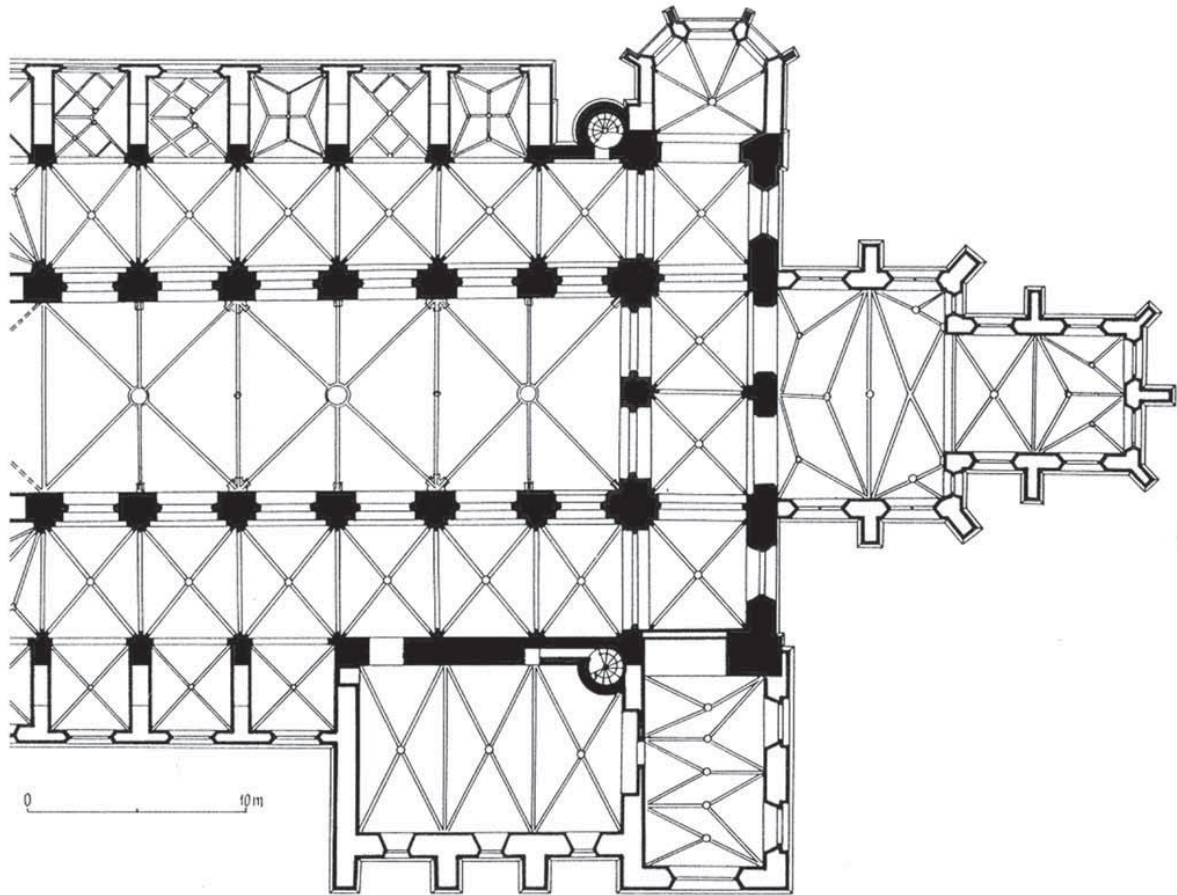
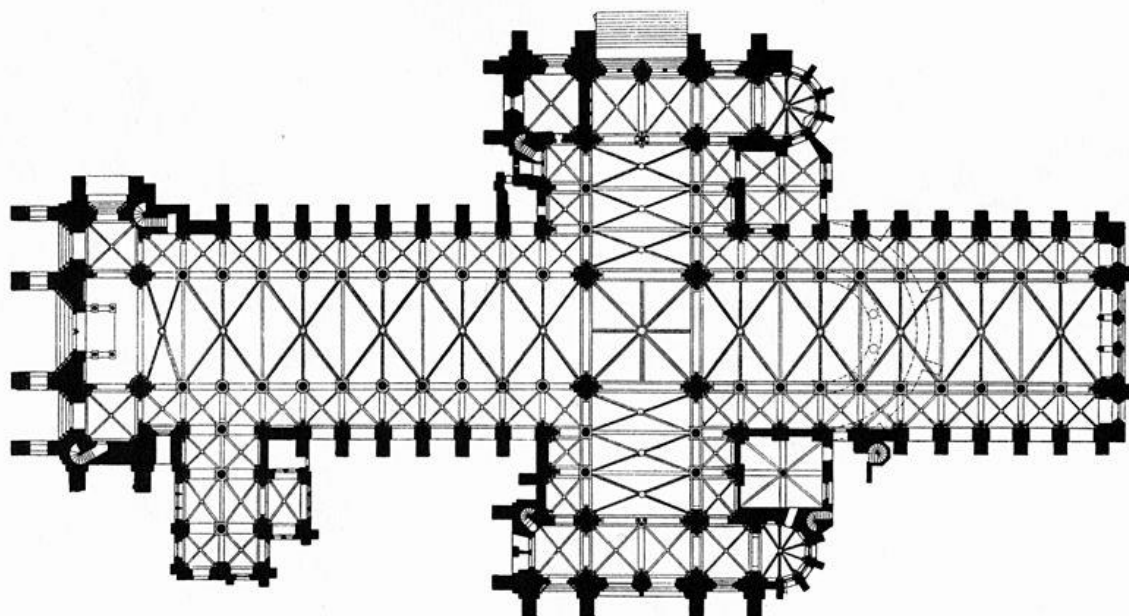


Figure 21. Wrocław Cathedral. Ground plan of presumed thirteenth-century state.

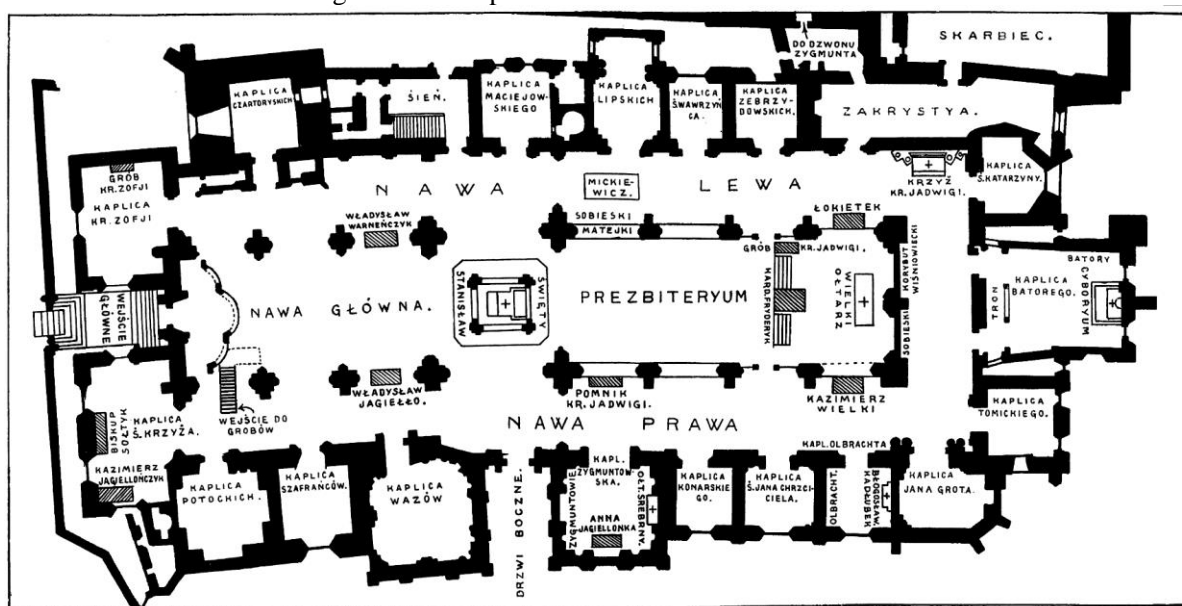
Source: Tomasz Węclawowicz, *Królewski kościół katedralny na Wawelu: w rocznicę konsekracji 1364-2014* [Royal Cathedral Church on Wawel Hill in Krakow: jubilee of the consecration 1364-2014] (Oficyna Wydawnicza AFM, 2014), fig. 12



1. LAON: KATHEDRALE.

Figure 22. Ground plan of Laon Cathedral

Source: Georg Dehio and Gustav von Bezold: *Kirchliche Baukunst des Abendlandes*. Stuttgart: Verlag der Cotta'schen Buchhandlung 1887-1901. plate 362



PLAN KATEDRY.

Figure 23. Kraków Cathedral, present day ground plan

Source: Wikimedia Commons. Lucjan Rydel: *Katedra na Wawelu - Przewodnik ludowy*. 1913 Last accessed: 16.05.2018.
https://commons.wikimedia.org/wiki/File:Katedra_na_Wawelu-wg_przewodnika_Lucjana_Rydla.jpg

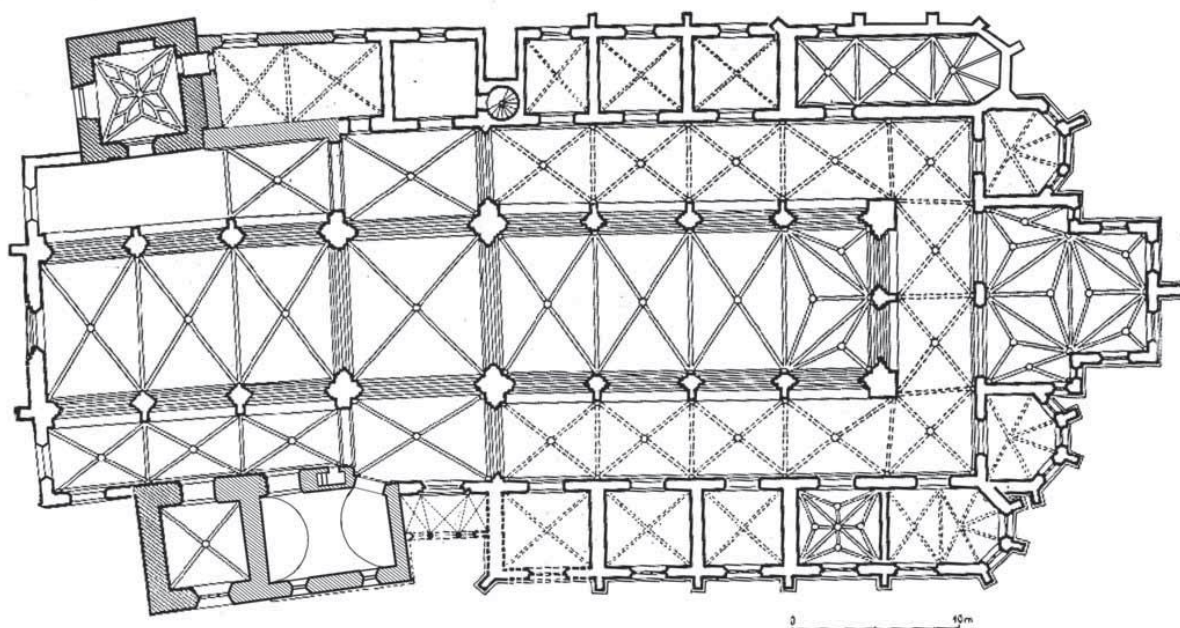


Figure 24. Kraków Cathedral, reconstruction plan of the church in 1364

Source: Tomasz Węclawowicz, *Królewski kościół katedralny na Wawelu: w rocznicę konsekracji 1364-2014* [Royal Cathedral Church on Wawel Hill in Krakow: jubilee of the consecration 1364-2014] (Oficyna Wydawnicza AFM, 2014), fig. 14



Figure 25. South aisle of the Kraków Cathedral - Nawa boczna katedry na Wawelu z pomnikiem Stanisława Ankwicza by Saturnin Swierzynski, 1873

Source: Wikimedia Commons. Last accessed: 16.05.2018.

https://commons.wikimedia.org/wiki/File:C5%9Awierzy%C5%84ski_Aisle_of_the_Wawel_Cathedral.jpg

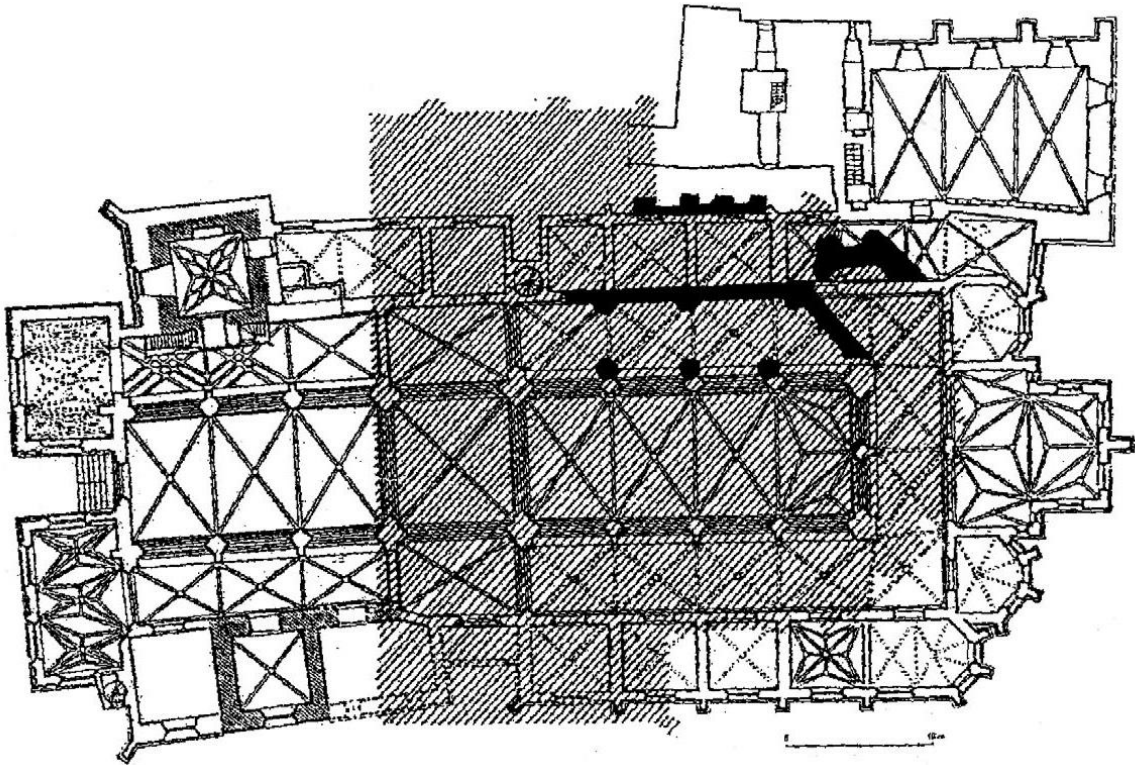


Figure 26. Kraków, remains of the foundation walls of the choir started around 1300.

Source: Tomasz Węclawowicz, "The Bohemian King, the Polish Bishop, and Their Church: Wenceslas II's Cathedral in Kraków (1295-1305)," in *The Year 1300 and the Creation of a New European Architecture*, ed. Alexandra Gajewski and Zoë Opačić (Turnhout: Brepols Publishers, 2007), 177–84. Fig. 1.

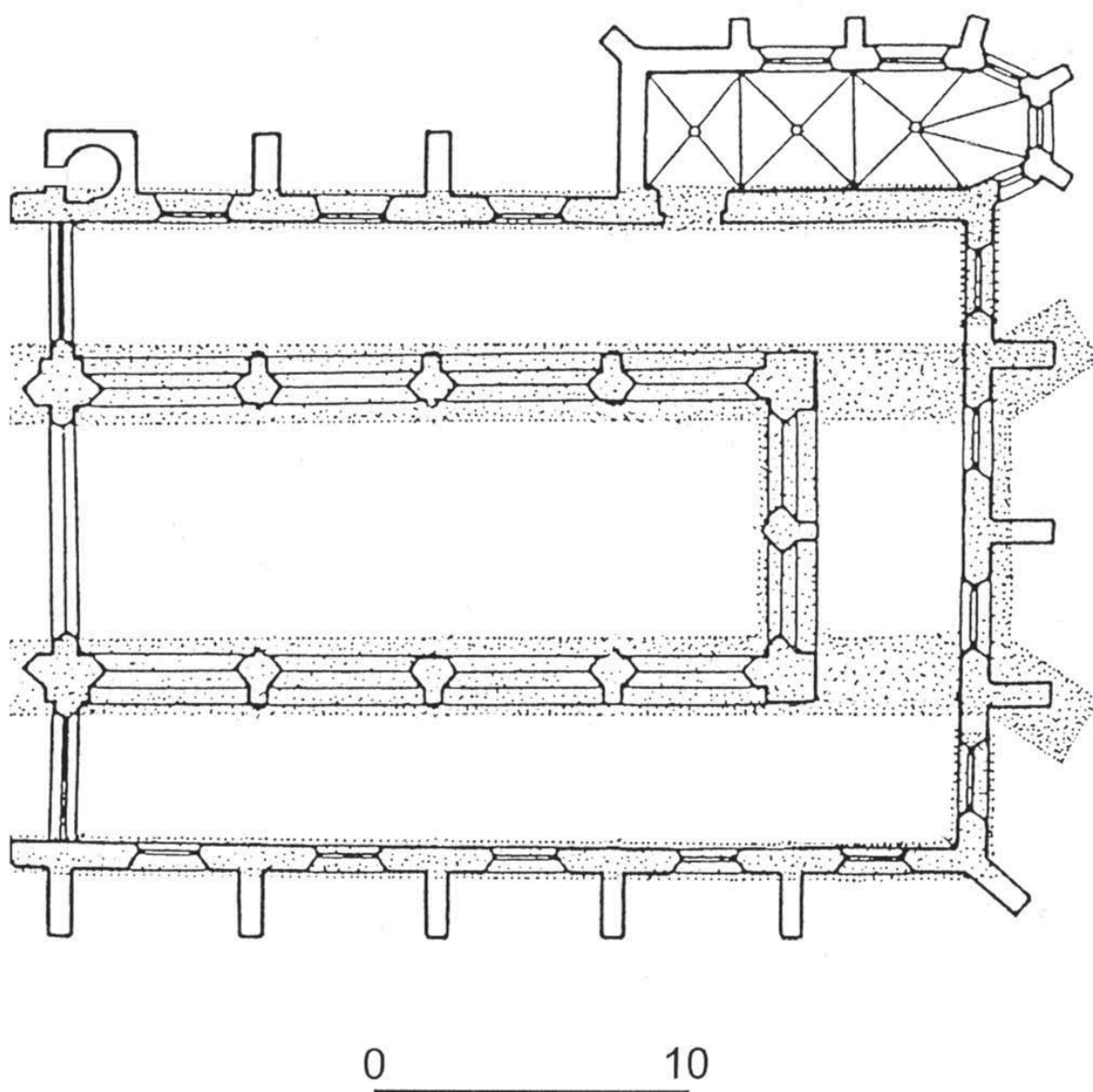


Figure 27. Kraków Cathedral, the foundations from c. 132-1325 marked with dots

Source: Tomasz Węclawowicz, *Królewski kościół katedralny na Wawelu: w rocznicę konsekracji 1364-2014* [Royal Cathedral Church on Wawel Hill in Krakow: jubilee of the consecration 1364-2014] (Oficyna Wydawnicza AFM, 2014), fig. 16

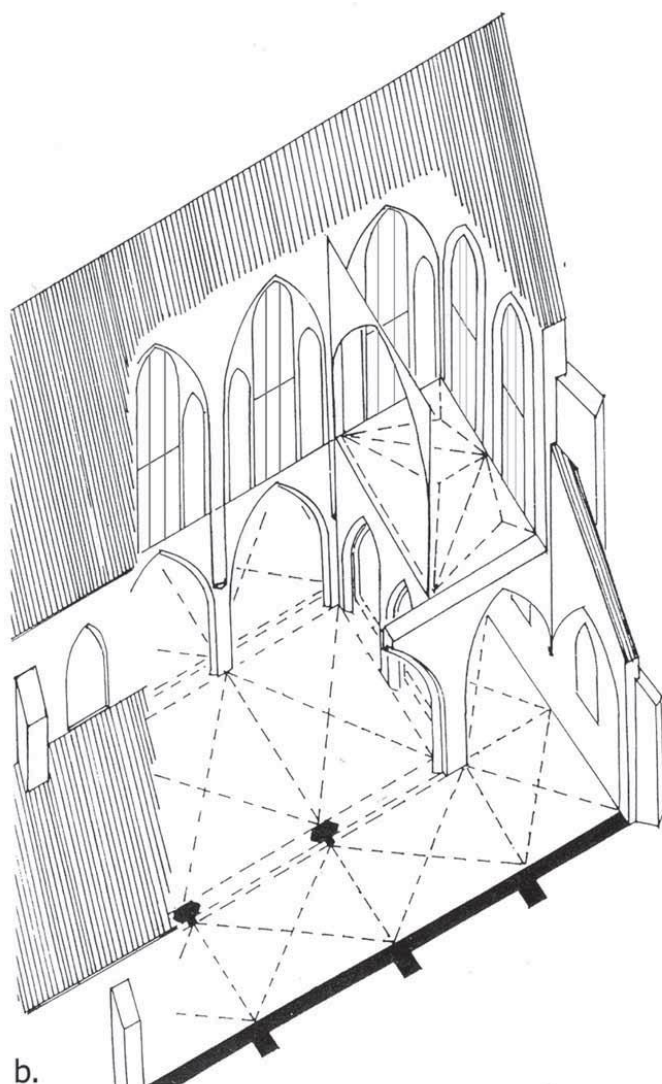


Figure 28. Kraków Cathedral, reconstruction of the east chapel planned above the ambulatory

Source: Tomasz Węclawowicz, *Królewski kościół katedralny na Wawelu: w rocznicę konsekracji 1364-2014* [Royal Cathedral Church on Wawel Hill in Krakow: jubilee of the consecration 1364-2014] (Oficyna Wydawnicza AFM, 2014), fig. 22b

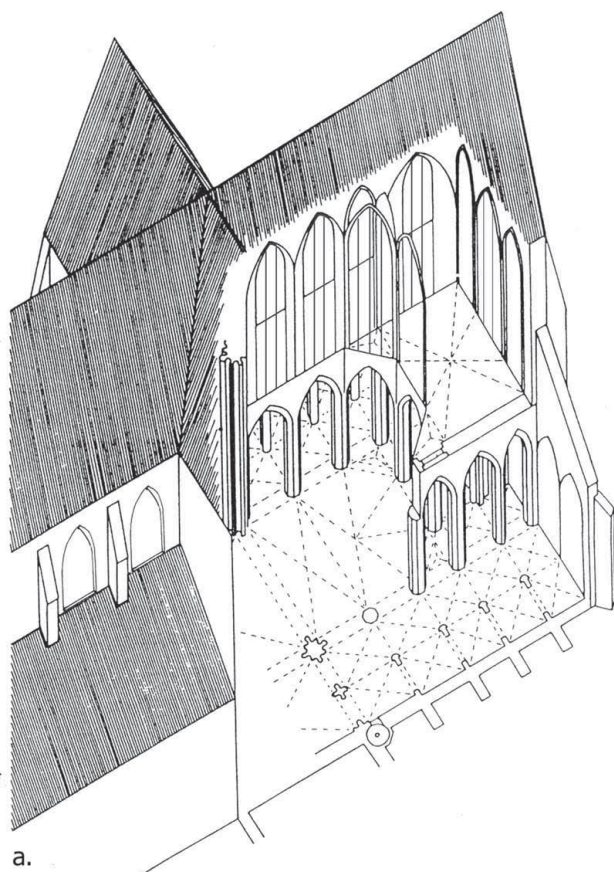


Figure 29. Salem Abbey church. Reconstruction of the east chapel above the ambulatory

Source: Tomasz Węclawowicz, *Królewski kościół katedralny na Wawelu: w rocznicę konsekracji 1364-2014* [Royal Cathedral Church on Wawel Hill in Krakow: jubilee of the consecration 1364-2014] (Oficyna Wydawnicza AFM, 2014), fig. 22a

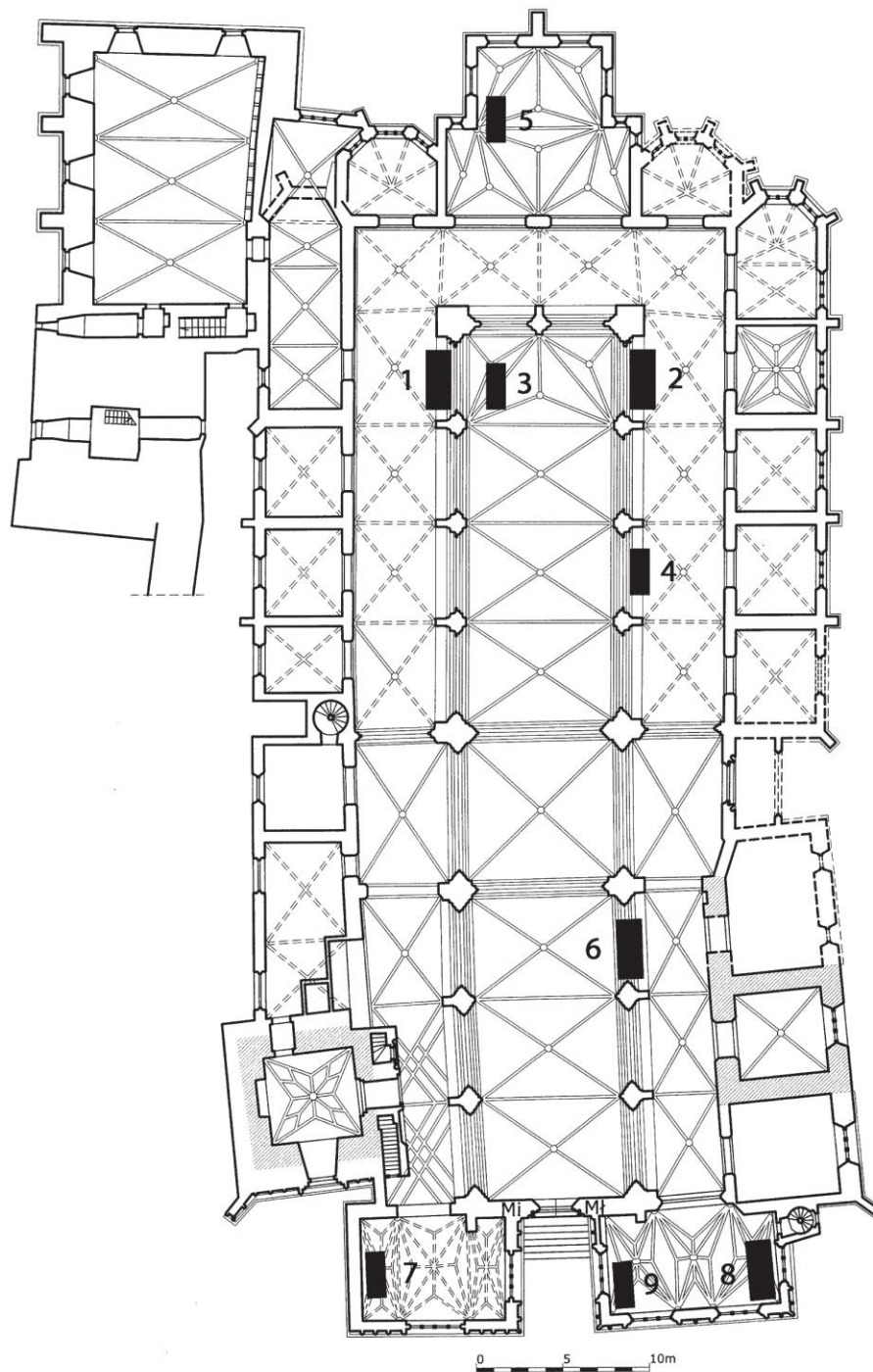


Figure 30. Location of royal tombs in Kraków Cathedral in the Middle Ages

1. Władysław the Short (died 1333); 2. Casimir III the Great (died 1370); 3. Hedwig of Anjou (died 1399); 4. Anne of Cilli (died 1416); 5. Elisabeth of Pilcza Granowska (died 1420); 6. Władysław Jagiełło (died 1343); 7. Sophia of Halshany (died 1461); 8. casimir IV Jagiellon (died 1492); 9. Elisabeth of Habsburg (died 1505).

Source: Marek Walczak, "Topography of the Royal Necropolis at the Cracow Cathedral in the Middle Ages," in *Epigraphica & Sepultura*, ed. Jiří Roháček, 6 (Prague: Artefactum, 2015), 67–91. Fig. 1.

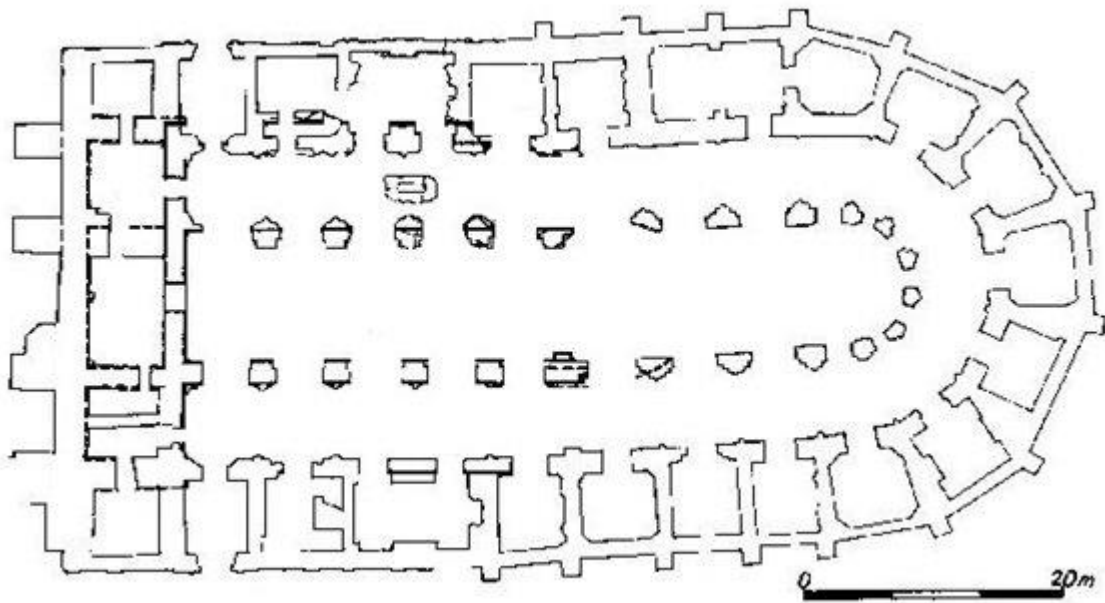


Figure 31. Ground plan of Gniezno Cathedral

Source: <http://docs11.chomikuj.pl/4263460107,PL,0,0,ARCHITEKTURA-GOTYCKA-CZ-2.docx> last accessed: 16.05.2018.



Figure 32. The eastern part of Gniezno Cathedral



Figure 33. Gniezno Cathedral. View towards the apse



Figure 34. Gniezno Cathedral. South aisle, view towards the ambulatory that was being renovated at the time

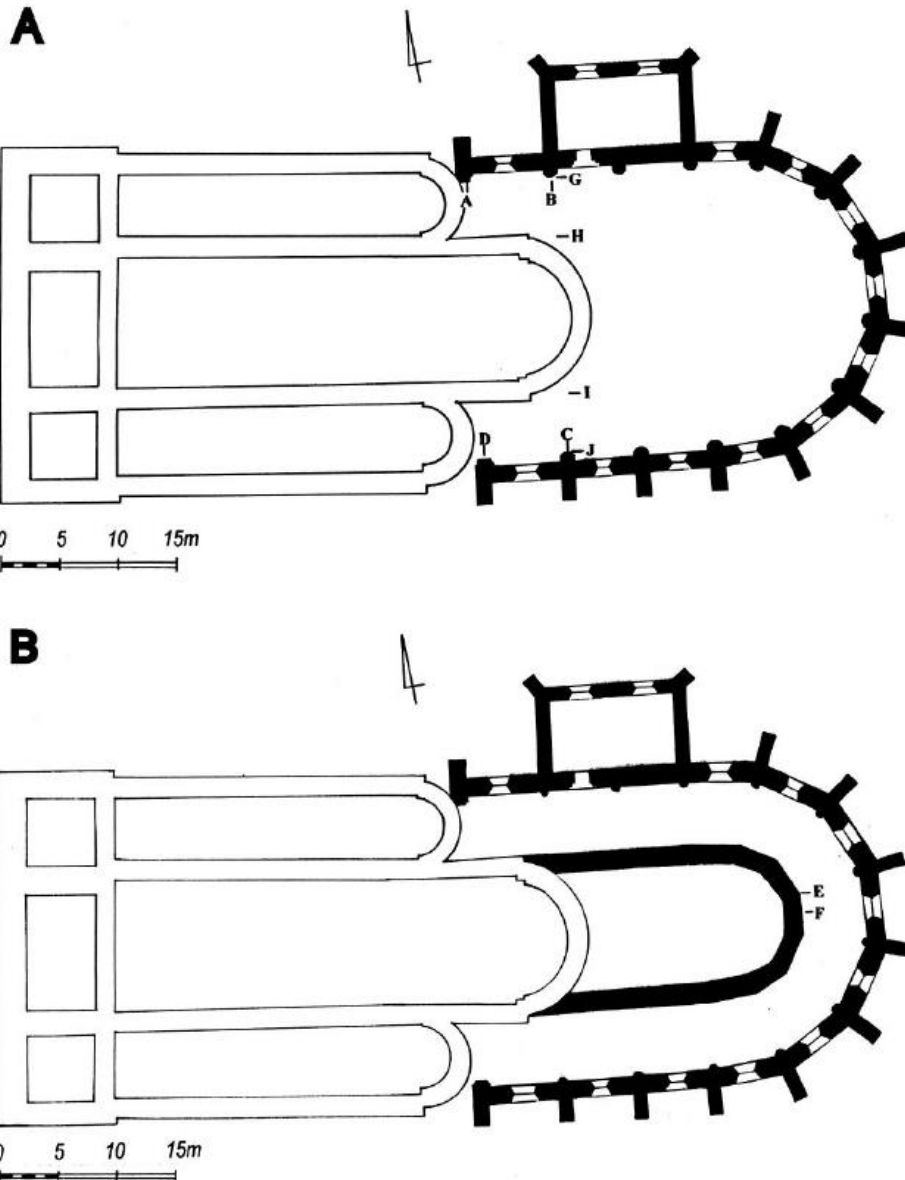


Figure 35. Presumed fourteenth-century building phases of Gniezno Cathedral

Source: Tomasz Janiak, "Początek gotyckiej przebudowy prezbiterium katedry w Gnieźnie w świetle danych archeologicznych" [The beginning of the Gothic conversion of the chancel in the cathedral in Gniezno based on archaeological findings], *Czasopismo Techniczne. Architektura* R. 108, z. 7-A (2011): 381–403. 381–403, fig. 4. Drawn by Ł. Drzewiecka-Ranoszek

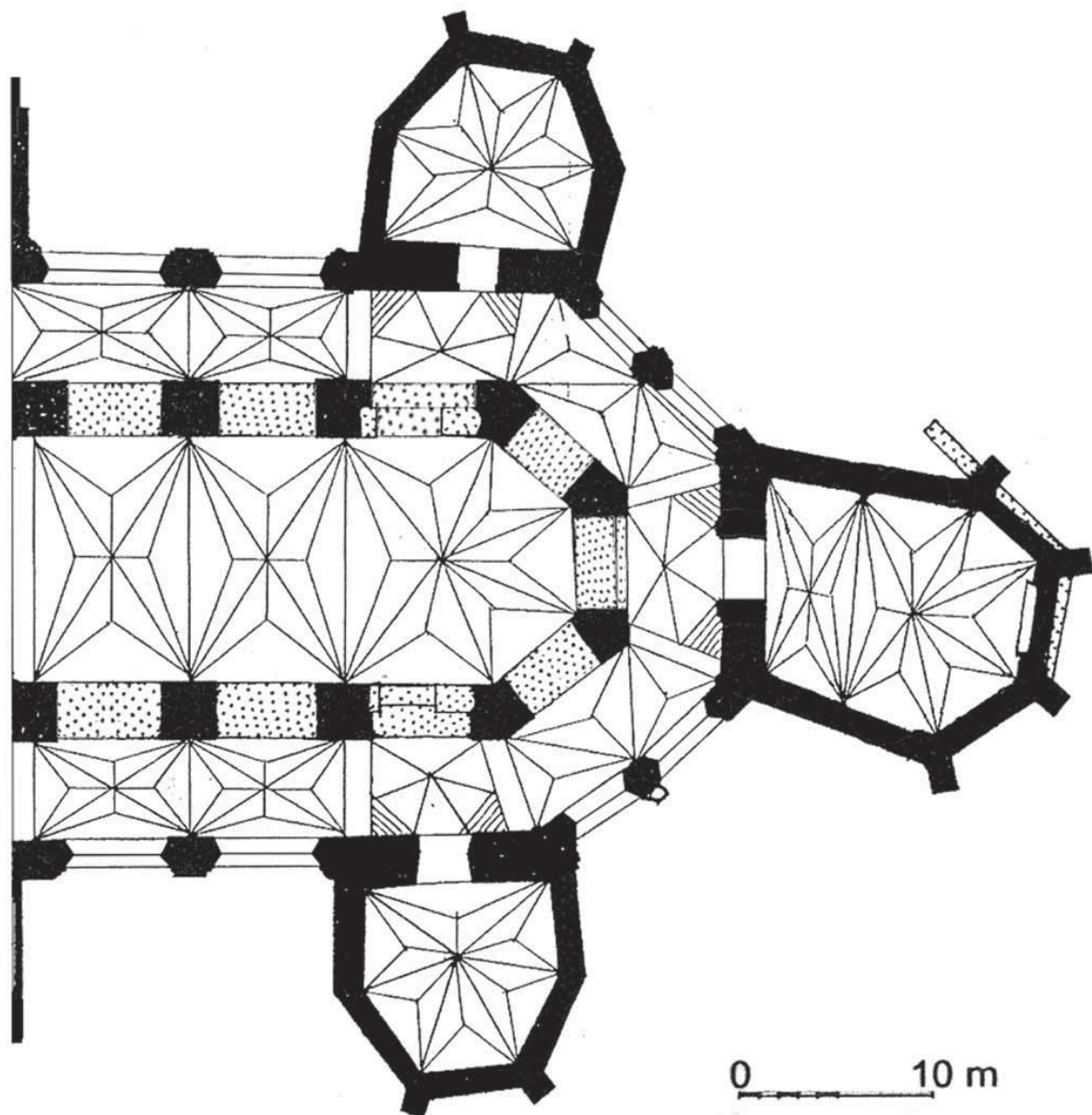


Figure 36. Ground plan of the eastern part of Poznań Cathedral

Source: Tomasz Węclawowicz, *Królewski kościół katedralny na Wawelu: w rocznicę konsekracji 1364-2014* [Royal Cathedral Church on Wawel Hill in Krakow: jubilee of the consecration 1364-2014] (Oficina Wydawnicza AFM, 2014), fig. 13



Figure 37. The eastern part of Poznań Cathedral



Figure 38. Poznań Cathedral, view towards the apse



Figure 39. Poznań Cathedral, south aisle, view towards the ambulatory

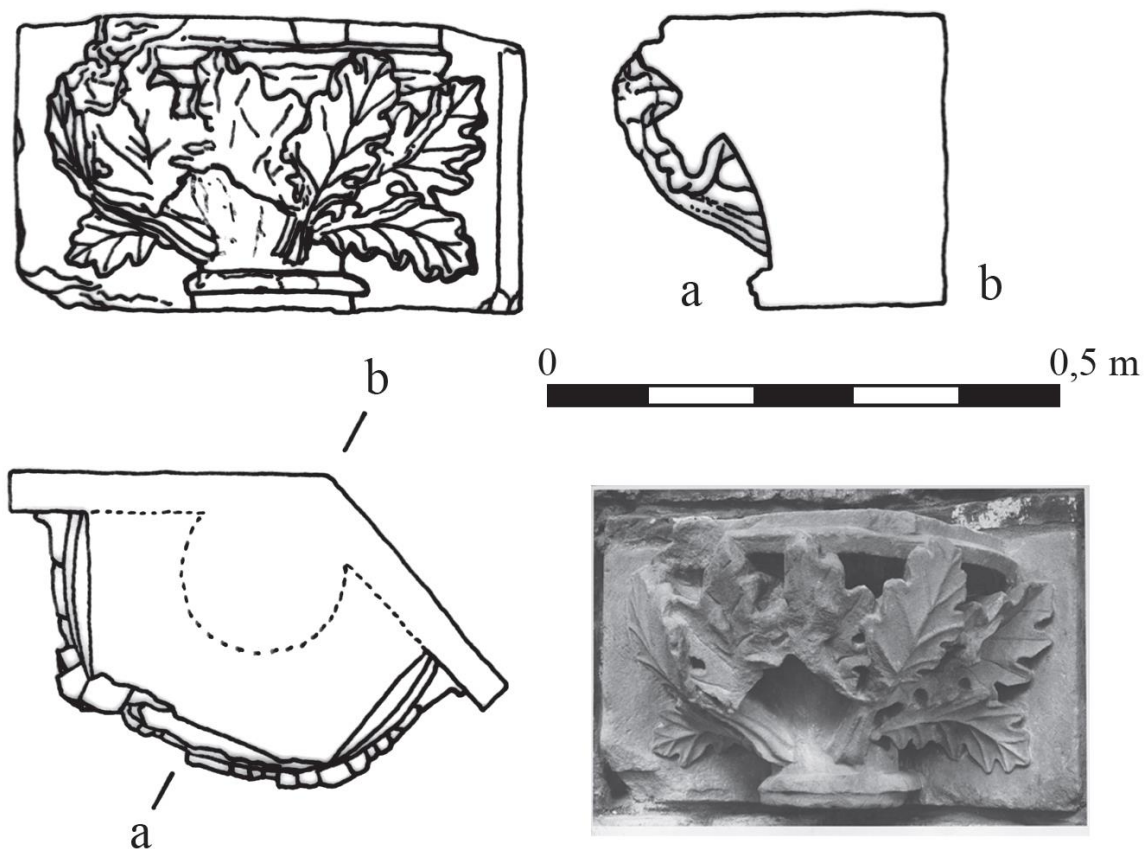


Figure 40. Poznań, Ostrów Tumski. Sandstone capital with oak leaves

Source: Olga Antowska-Gorączniak, "Wczesnogotycka katedra w Poznaniu" [The Early Gothic cathedral in Poznań], *Archaeologia Historica Polona* 22 (December 15, 2014): 89–112., fig. 6. From the collection of the Museum of Archaeology in Poznań; photo K. Józefowiczówna; drawing after K. Józefowiczówna.

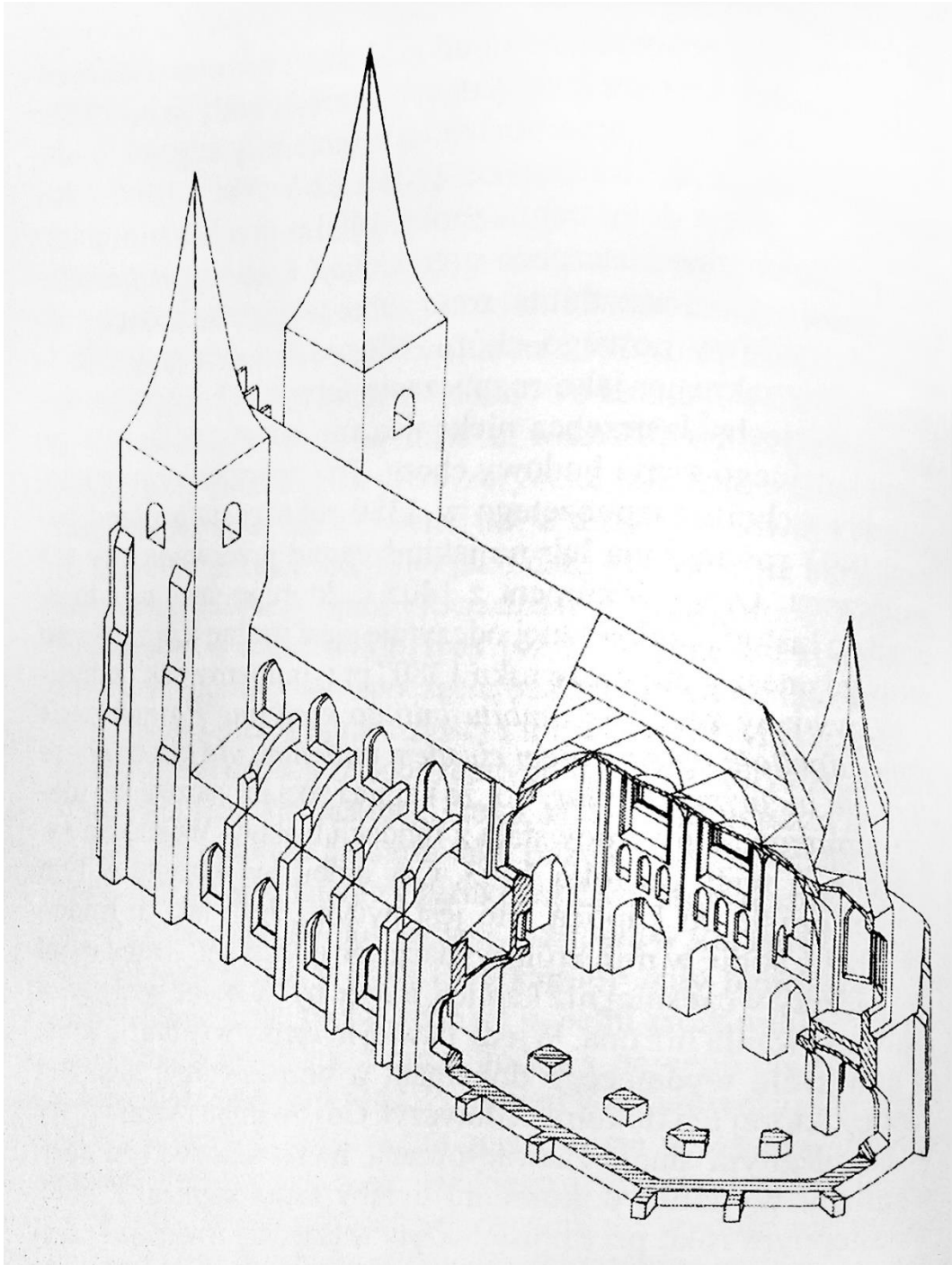


Figure 41. Poznan Cathedral, reconstruction showing ambulatory and three towers

Source: Szczesny Skibiński, *Katedra poznańska* (Księg. Św. Wojciecha, 2001), 56. Drawing by K. Skalska.

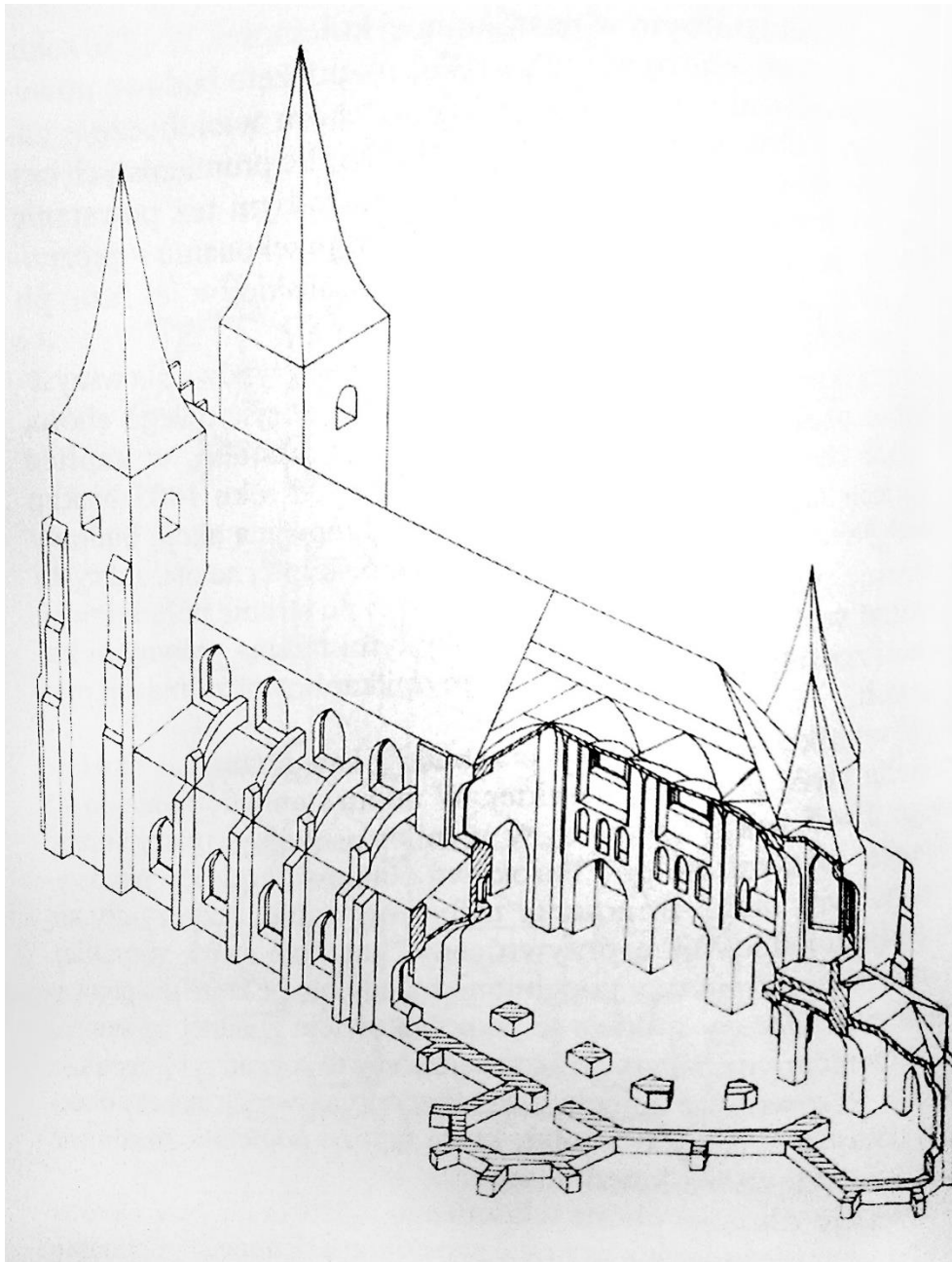


Figure 42. Poznan Cathedral. Reconstruction drawing with ambulatory, three towers and three additional chapels.

Source: Szczesny Skibiński, *Katedra poznańska* (Księg. Św. Wojciecha, 2001), 60. Drawing by K. Skalska.

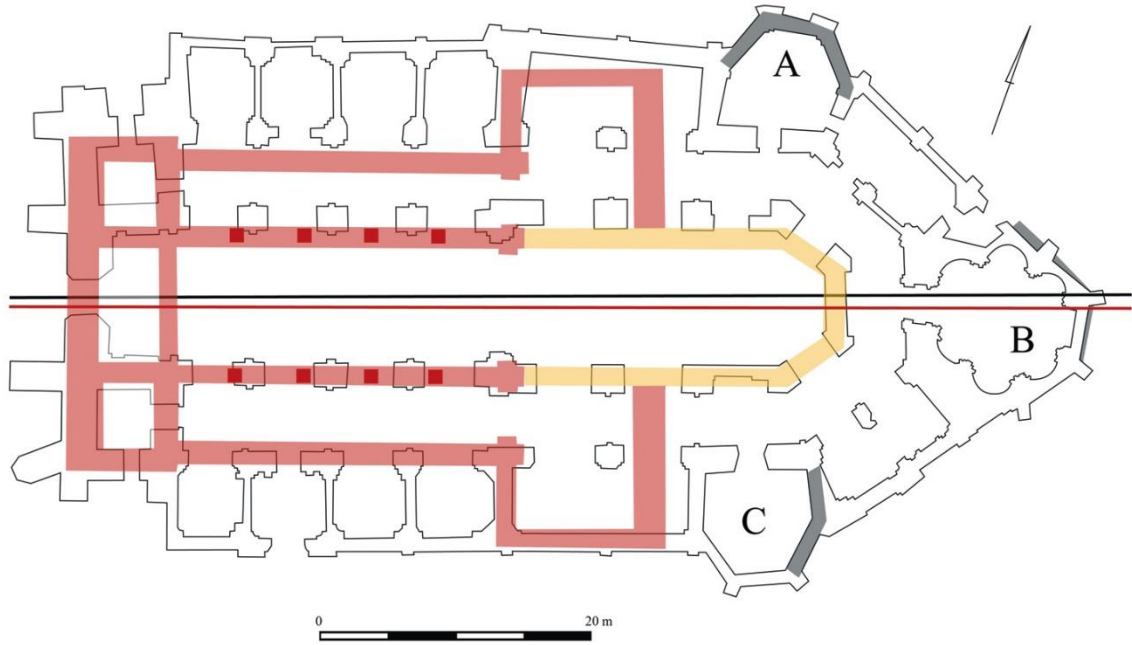


Figure 43. Ground plan of Poznan Cathedral showing the Early Gothic Phase and the possible change in axis

Source: Source: Olga Antowska-Gorączniak, “Wczesnogotycka katedra w Poznaniu” [The Early Gothic cathedral in Poznań], *Archaeologia Historica Polona* 22 (December 15, 2014): 89–112., fig. 4.

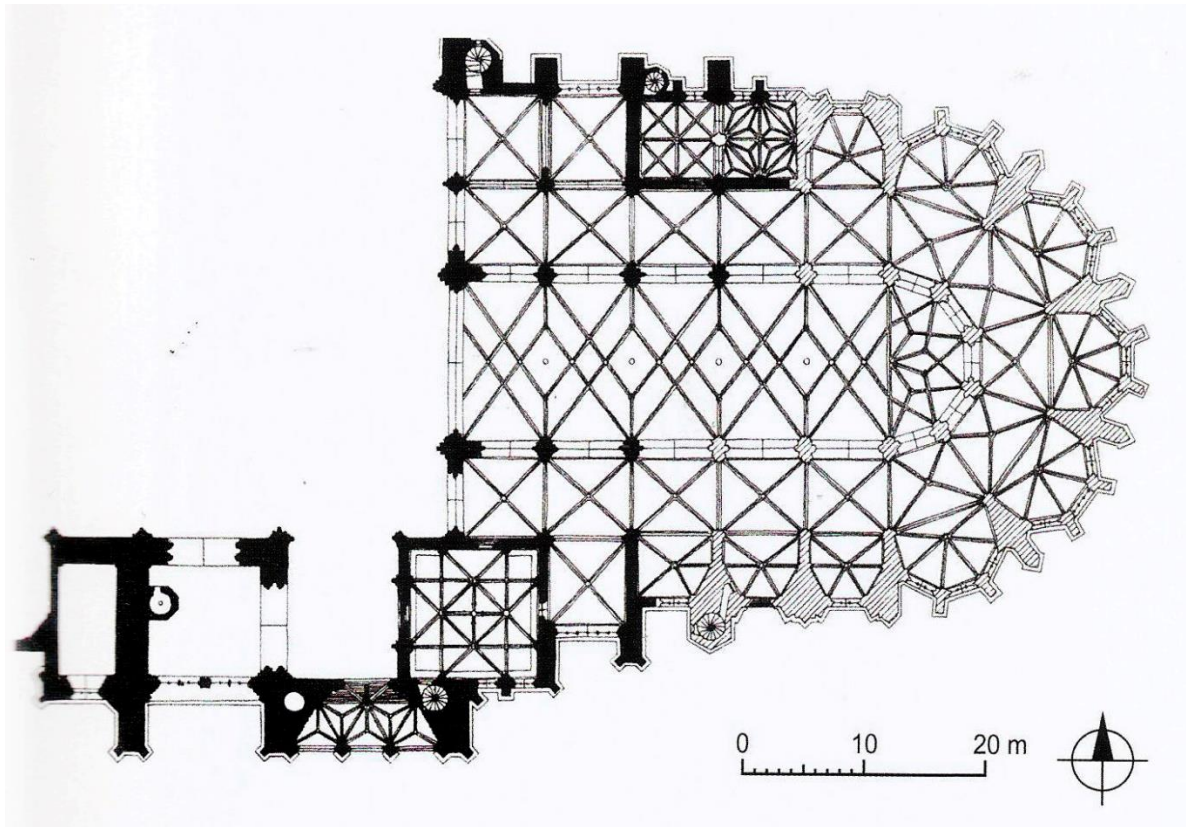


Figure 44. Groundplan of the medieval parts of St. Vitus Cathedral

Source: Jiří Kuthan and Jan Royt. *The Cathedral of St. Vitus at Prague Castle*. Prague: Karolinum Press, 2016. p. 119



Figure 45. The choir of St. Vitus Cathedral from the East

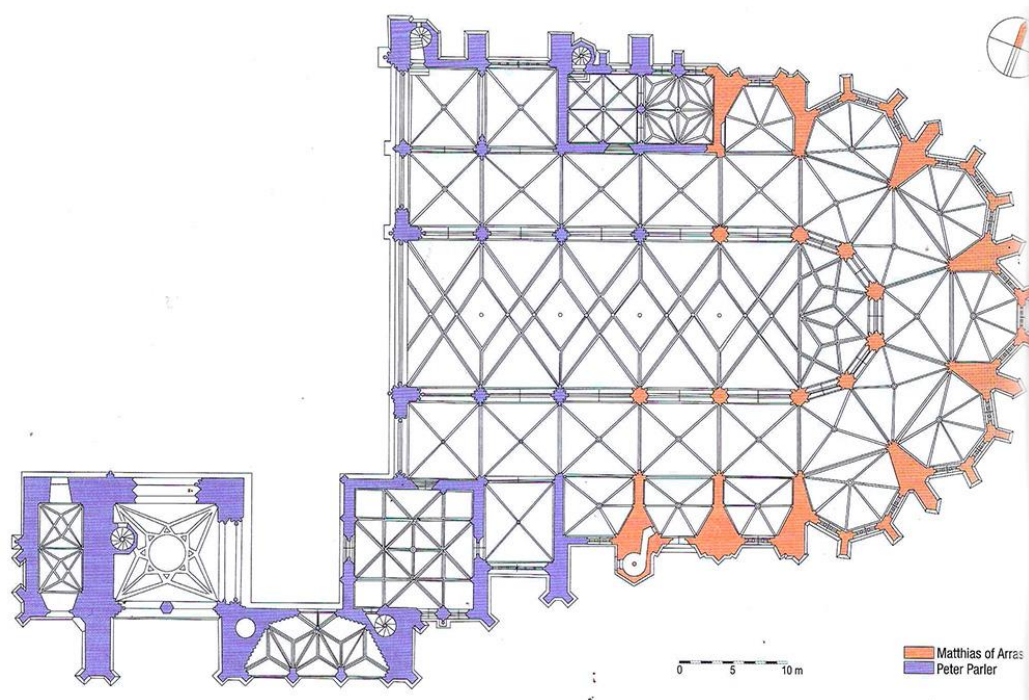


Figure 46. Ground plan of St Vitus Cathedral. Building phases of parts built by Matthias of Arras (orange, 1342-1352) and Peter Parler (blue, 1355-1399)

Source: Jiří Kuthan and Jan Royt. *The Cathedral of St. Vitus at Prague Castle*. Prague: Karolinum Press, 2016. p. 76

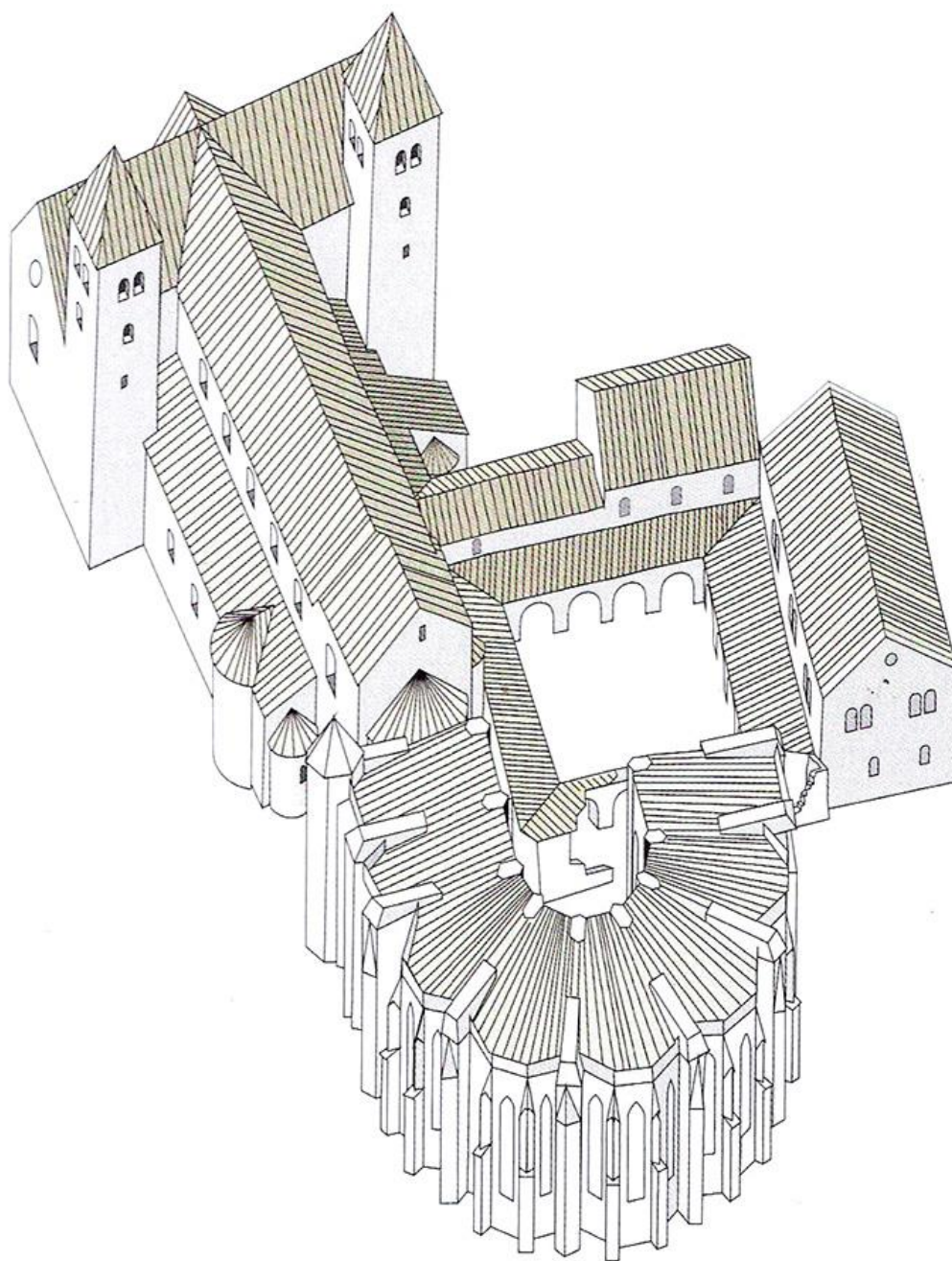


Figure 47. St. Vitus Cathedral, mass reconstruction of the state at the death of Matthias of Arras (1352)

Source: Jiří Kuthan and Jan Royt. *The Cathedral of St. Vitus at Prague Castle*. Prague: Karolinum Press, 2016. p. 76

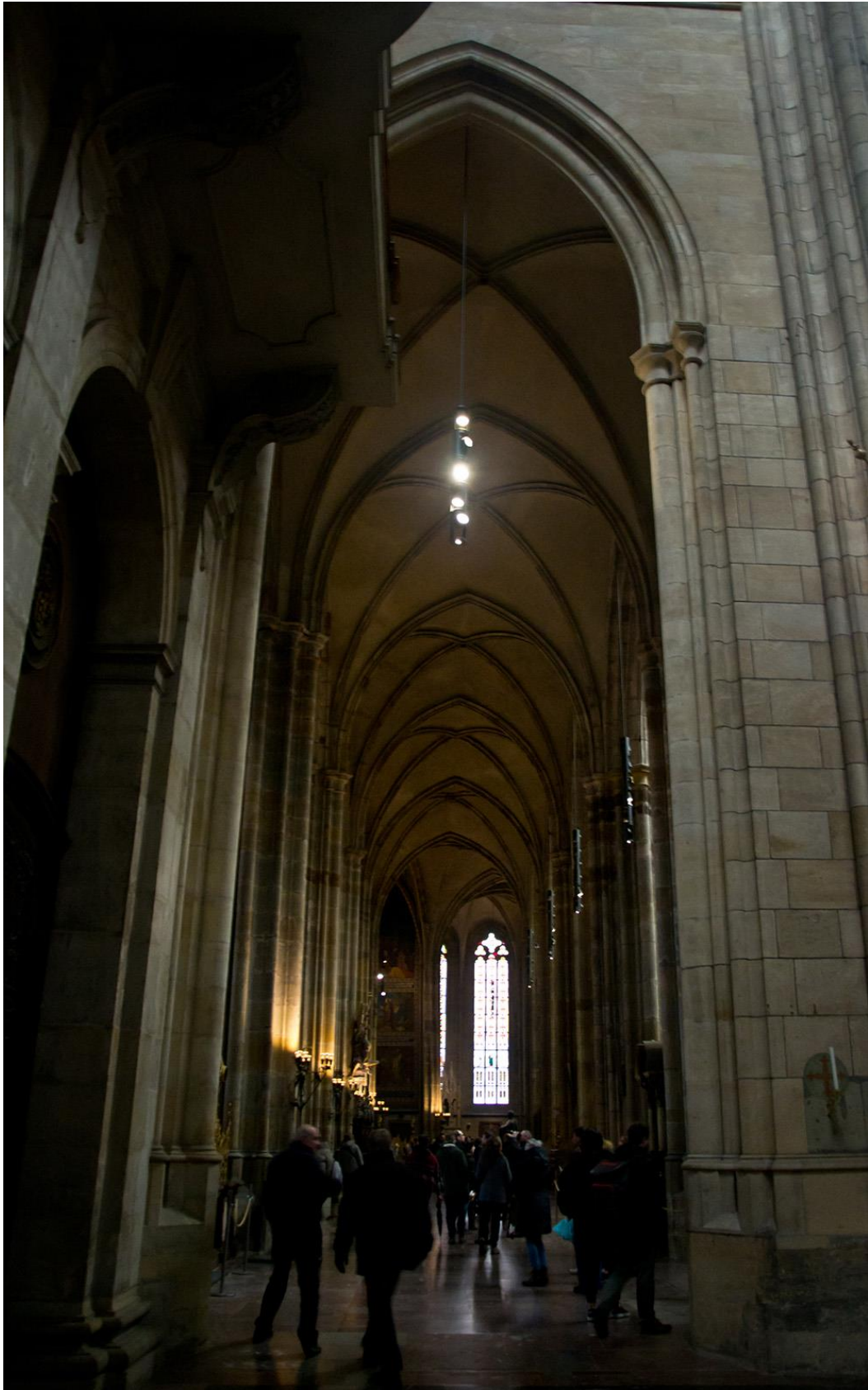


Figure 48. St. Vitus Cathedral, the northern aisle towards the east, where it turns into the ambulatory

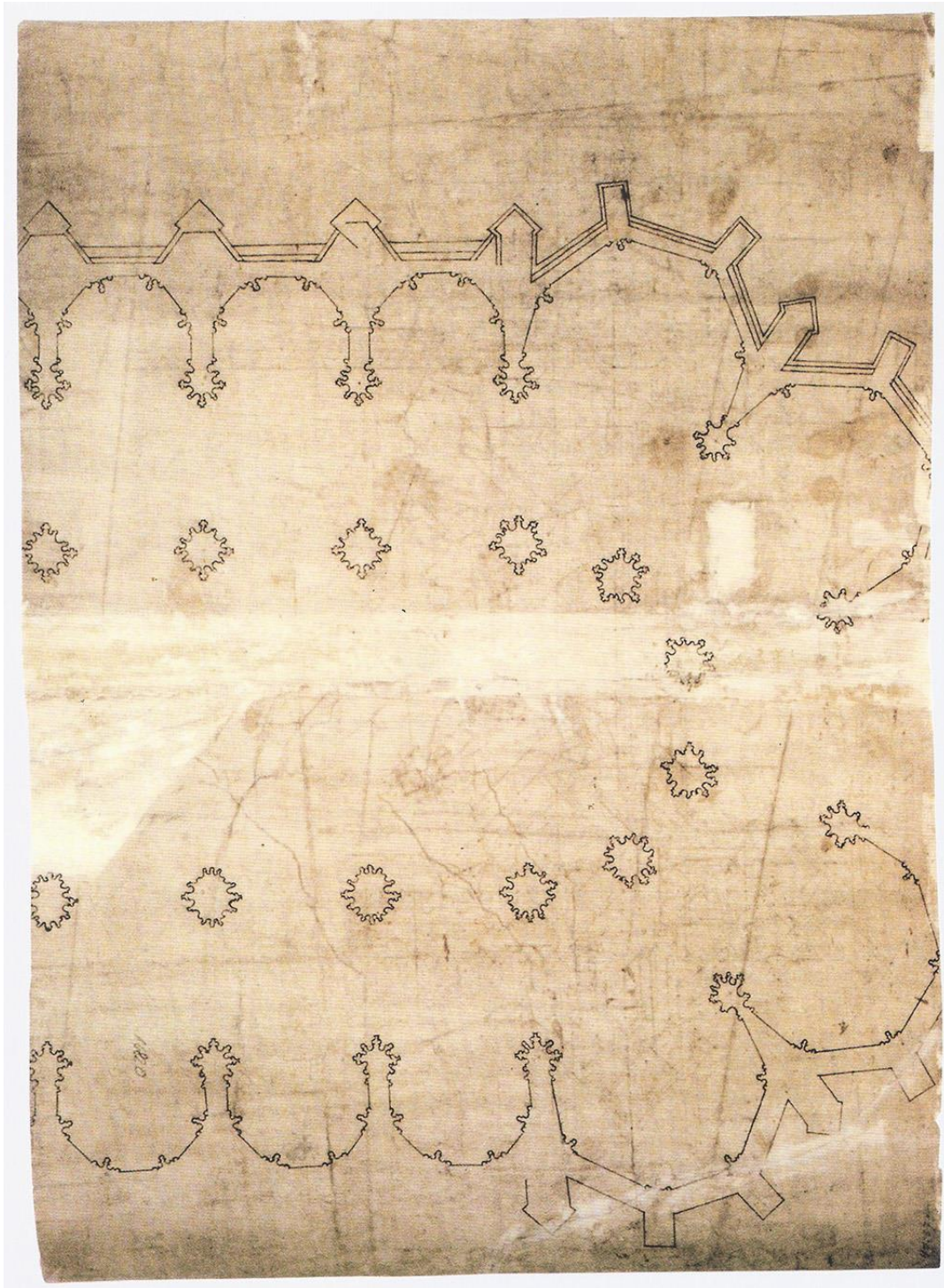


Figure 49. Ground plan of the choir, probably from the time of Matthias of Arras. Vienna, Academy of Fine Arts, Inv. No. 16820v

Source: Jiří Kuthan and Jan Royt. *The Cathedral of St. Vitus at Prague Castle*. Prague: Karolinum Press, 2016. p. 146

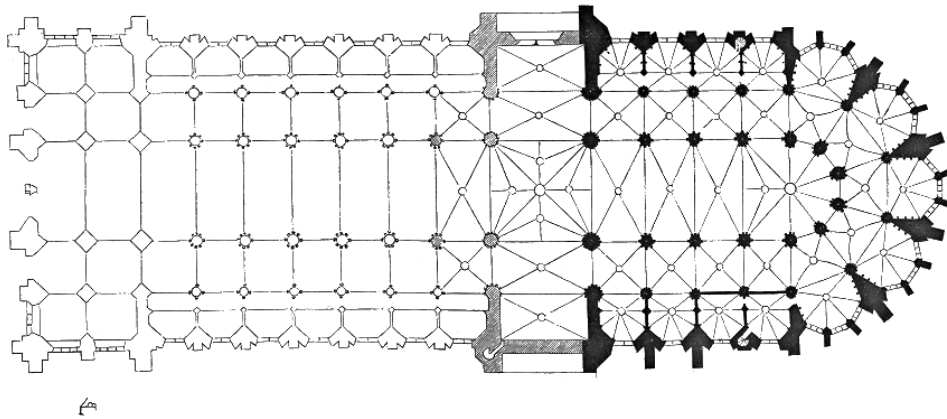


Figure 50. Ground plan of Narbonne Cathedral

Source: Eugène Emmanuel Viollet-le-Duc. *Dictionnaire raisonné de l'architecture française du XI^e au XVI^e siècle*. 1856

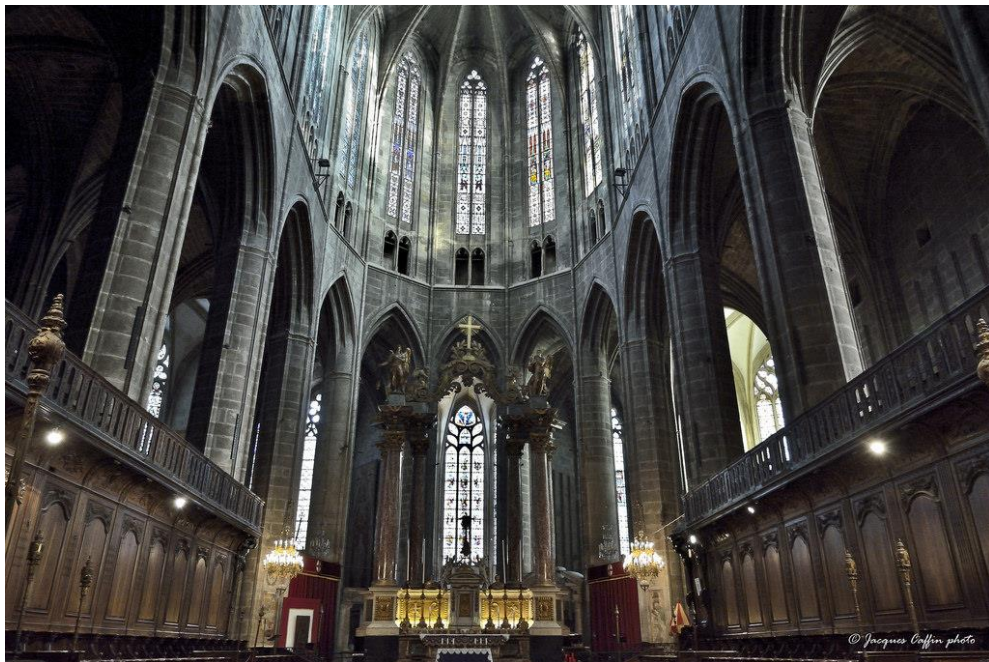


Figure 51. Choir of Narbonne Cathedral

Source: <http://domainedepalatz.com/en/tag/narbonne/> last accessed: 22.03.2018.

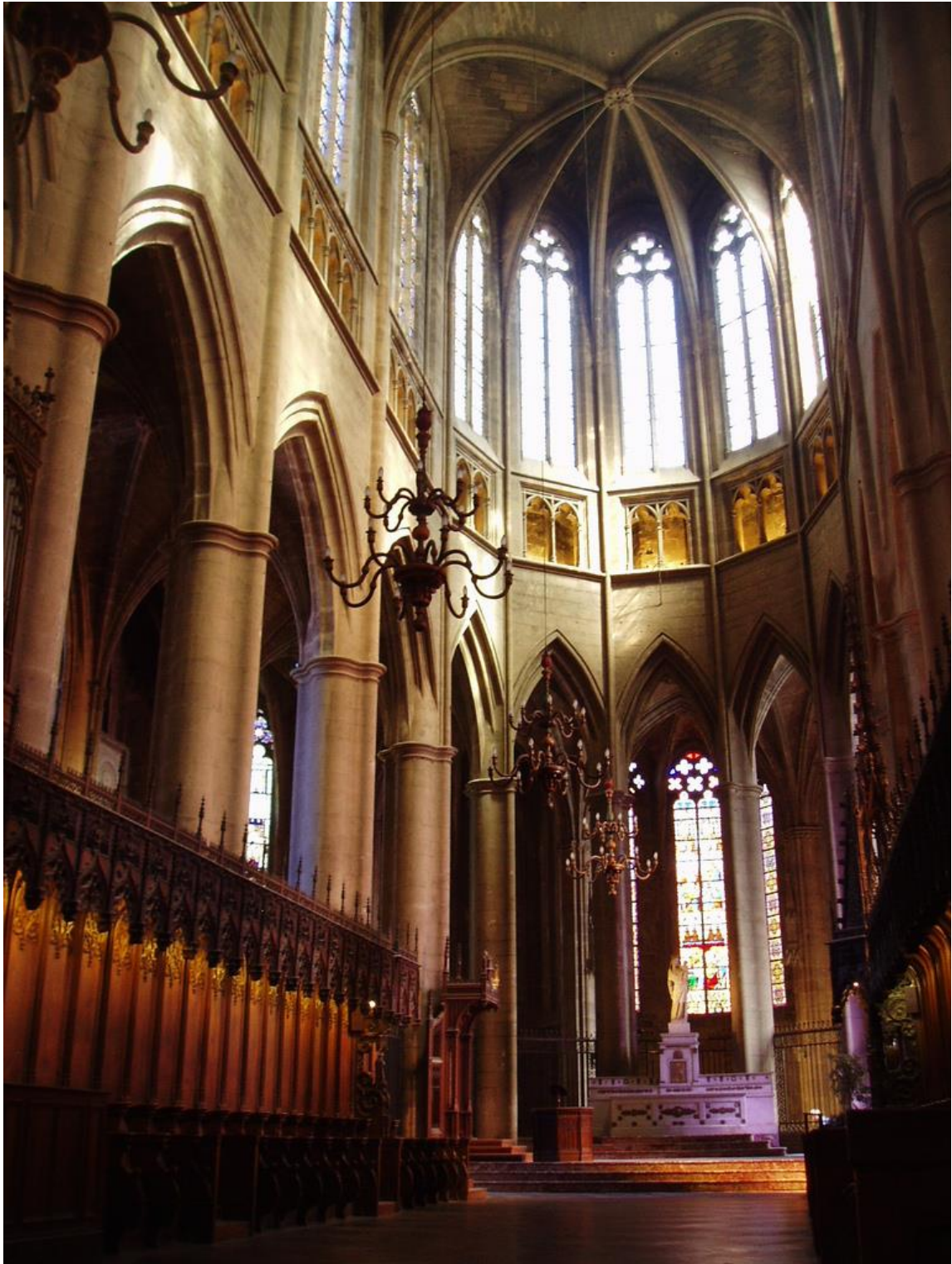


Figure 52. Choir of Rodez Cathedral

Source: <http://www.flickrriver.com/photos/amthomson/sets/72157626855920397/> last accessed: 22.03.2018.

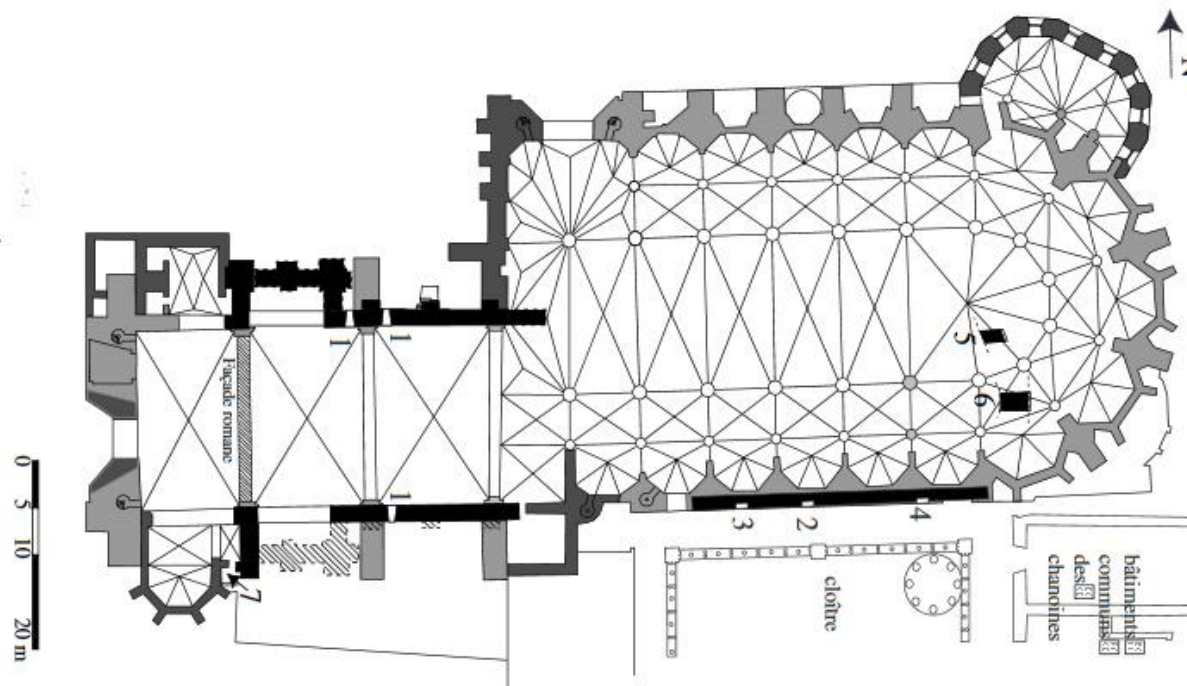


Figure 53. Ground plan of St. Étienne, Toulouse

Source: Drawing by Quitterie Cazes. Published in Quitterie Cazes. "La Cathédrale Saint-Étienne" In: *Archéologie du Midi médiéval*. Supplément n°2, 1998. Le quartier canonial de la cathédrale pp. 1-194.; p. 62



Figure 54. St. Vitus Cathedral, view of the northern pillars of the main apse from the South

A pillar characteristic of Peter Parler on the left, and two of Matthias of Arras on the right.



Figure 55. St. Vitus Cathedral, the choir from the ambulatory, showing the vaulting, with the tomb of St. Vitus

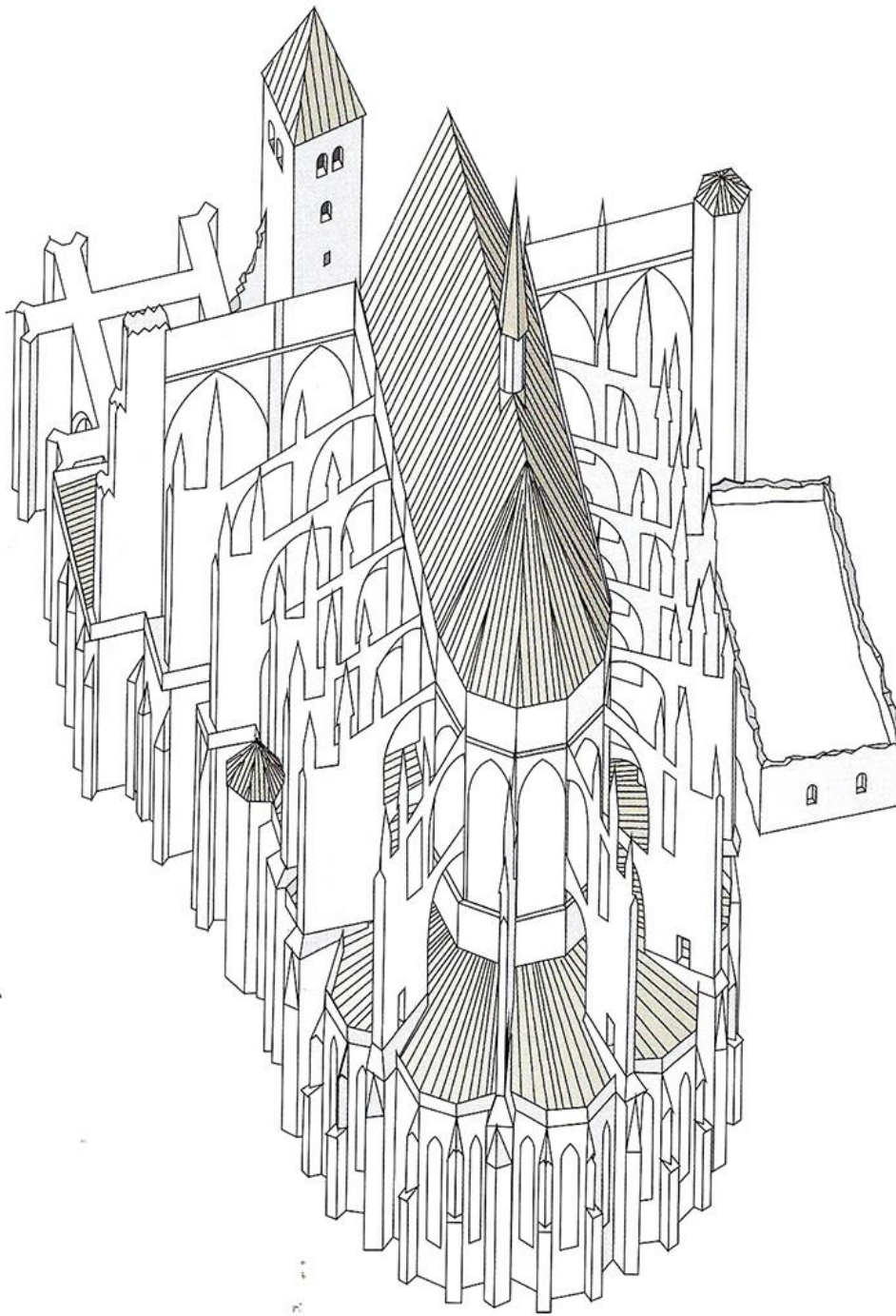


Figure 56. *St. Vitus Cathedral, mass reconstruction of the state in the 1380s*

Source: Jiří Kuthan and Jan Royt. *The Cathedral of St. Vitus at Prague Castle*. Prague: Karolinum Press, 2016. p. 88

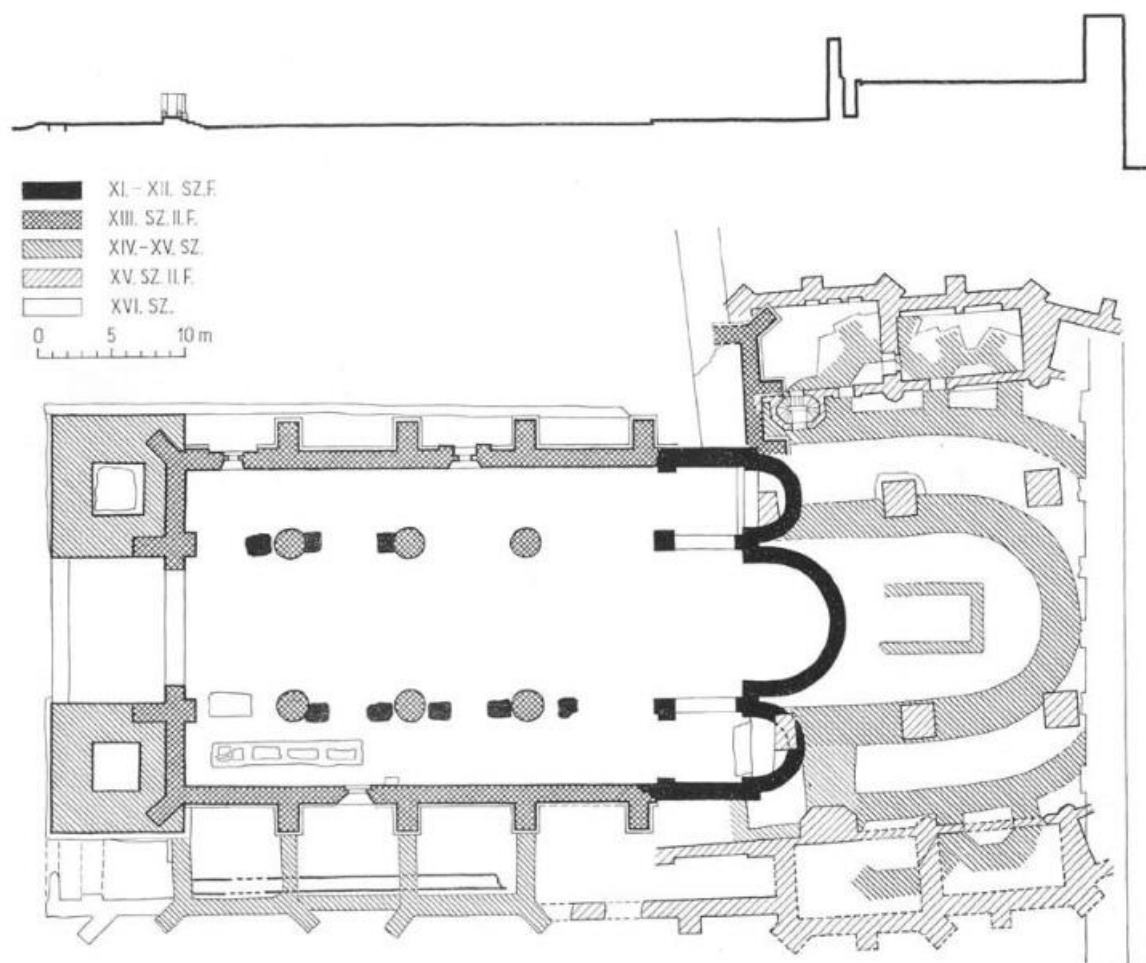


Figure 57. Eger Cathedral, excavation plan depicting different building periods

Legend for shadings, from top to bottom: 11-12th century, second half of 13th century, 14th-15th century, second half of 15th century, 16th century.

Source: Drawing by Károly Kozák. Published in Mihály Détsy –Károly Kozák: "Eger vára." In: *Magyarország Műemléki topográfiája, Heves Megye Műemlékei II.* Budapest 1972. 77-159.

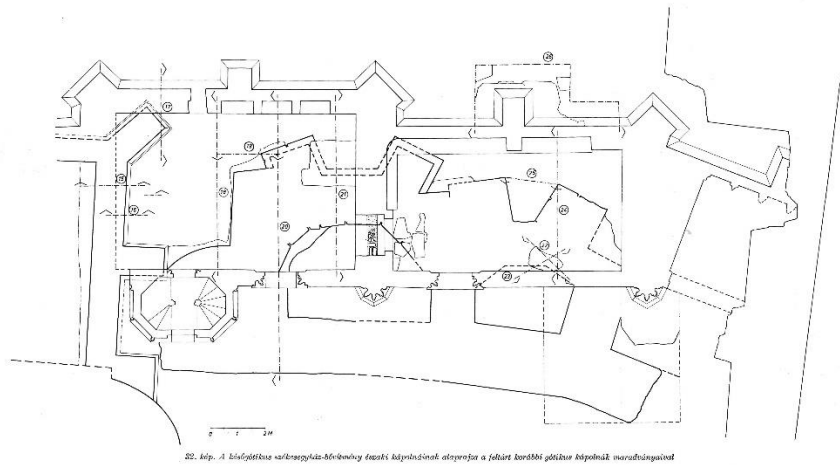


Figure 58. Eger Cathedral. Excavation drawing of polygonal radiating chapels discovered in the north-western part of the choir in 1966

Published in: Károly Kozák. "Az Egri Várszékesegyház Feltárása II. [The Excavation of the Castle Cathedral of Eger II.]" *Agria. Annales Musei Agriensis* 11/12 (1974 1973): 131–54. Fig. 32.



Figure 59. Eger Cathedral. Detail of periodized ground plan of Eger Castle

Legend from top to bottom: 17th century, 1568-1596, 1552-1568, 1549-1552, second quarter of 16th century, last third of 15th century, first half of 15th century, 14th century, second half of 13th century, around 1200, 12th century, 11th century, 10-11th century

Source: Drawing by Gergely Buzás. Published in: Gergely Buzás – Endre Tóth. *Magyar építészet 1. – A rómaiaktól Buda elfoglalásáig* [Hungarian Architecture 1. – From the Romans until the capture of Buda]. Budapest: Kossuth Kiadó, 2016. p. 79

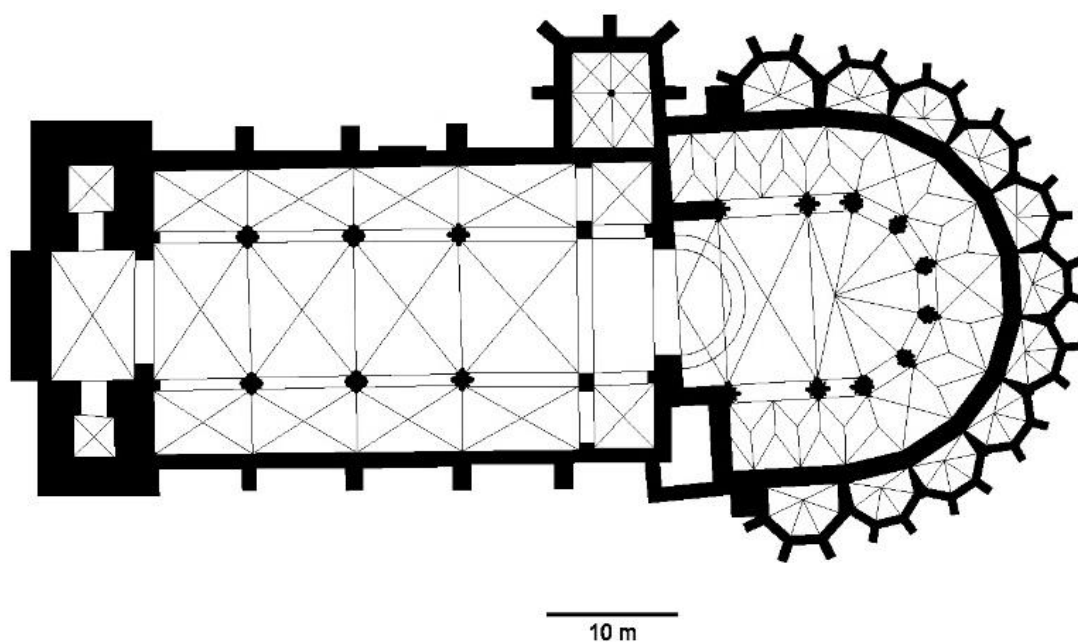


Figure 60. Eger Cathedral. Reconstruction drawing of 14th century state

Source: Drawing by Gergely Buzás. Published in: Gergely Buzás. "Az egri székesegyház XIII-XIV. századi gótikus épülete [The XIII-XIV. Century Gothic building of Eger Cathedral]." *Az Egri Vár Híradója* 38 (2006): 21–65. p. 45

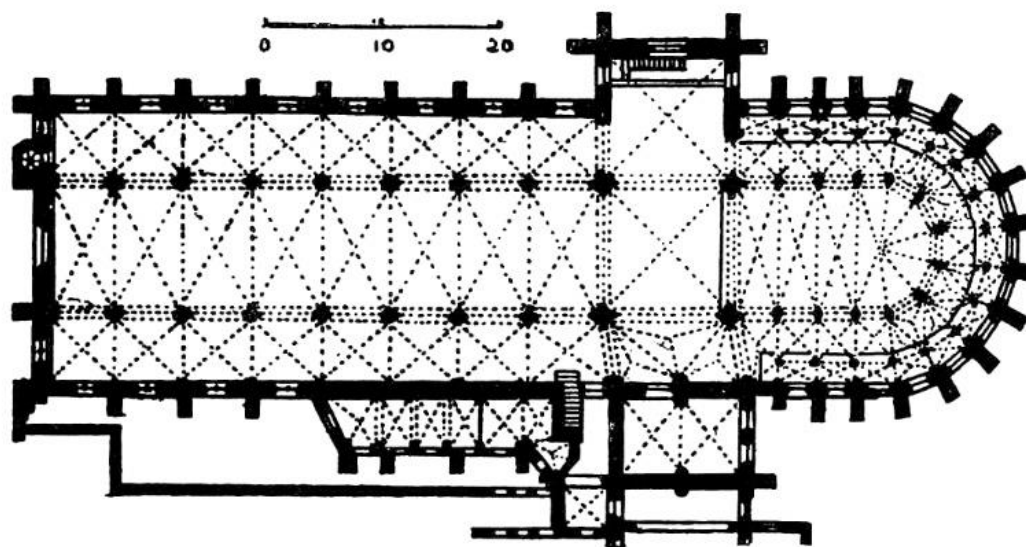


Figure 61. Ground plan of abbey church of Kaisheim

Source: Drawing by Gergely Buzás. Published in: Gergely Buzás. "Az egri székesegyház XIII-XIV. századi gótikus épülete [The XIII-XIV. Century Gothic building of Eger Cathedral]." *Az Egri Vár Híradója* 38 (2006): 21–65. p. 46

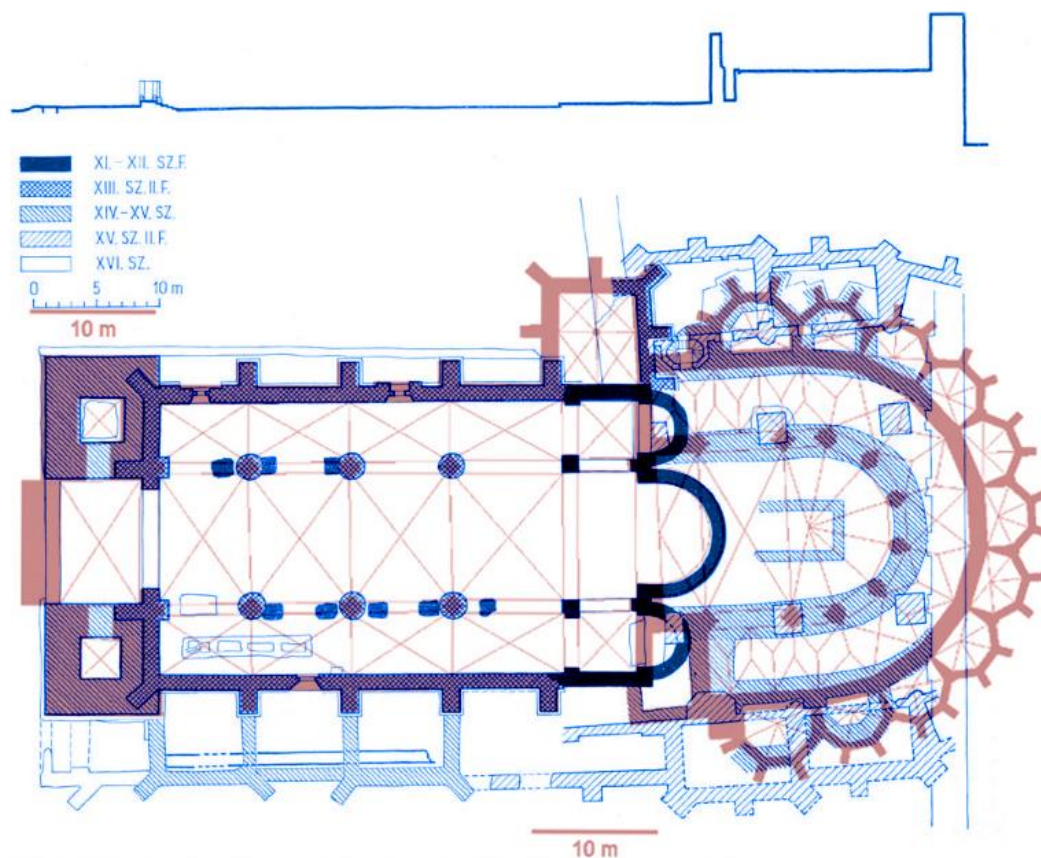


Figure 62. Eger Cathedral. The reconstruction of Gergely Buzás combined with the original drawing of Károly Kozák

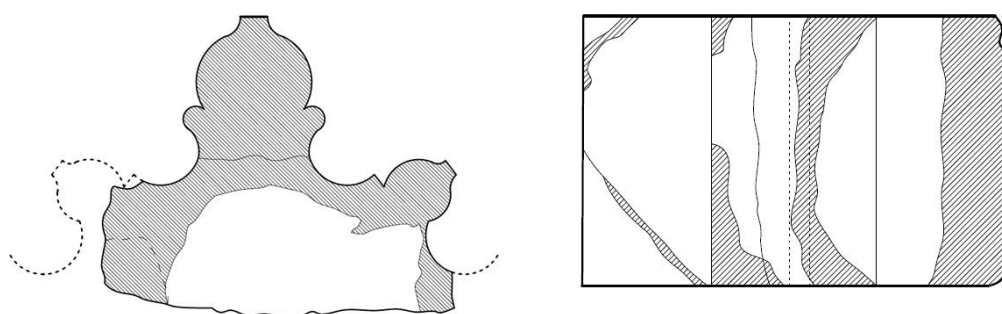


Figure 63. Eger Cathedral. Part of a 14th century pillar

Source: Drawing by Gergely Buzás. Published in: Gergely Buzás. "Az egri székesegyház XIII-XIV. századi gótikus épülete [The XIII-XIV. Century Gothic building of Eger Cathedral]." *Az Egri Vár Híradója* 38 (2006): 21–65. p. 44

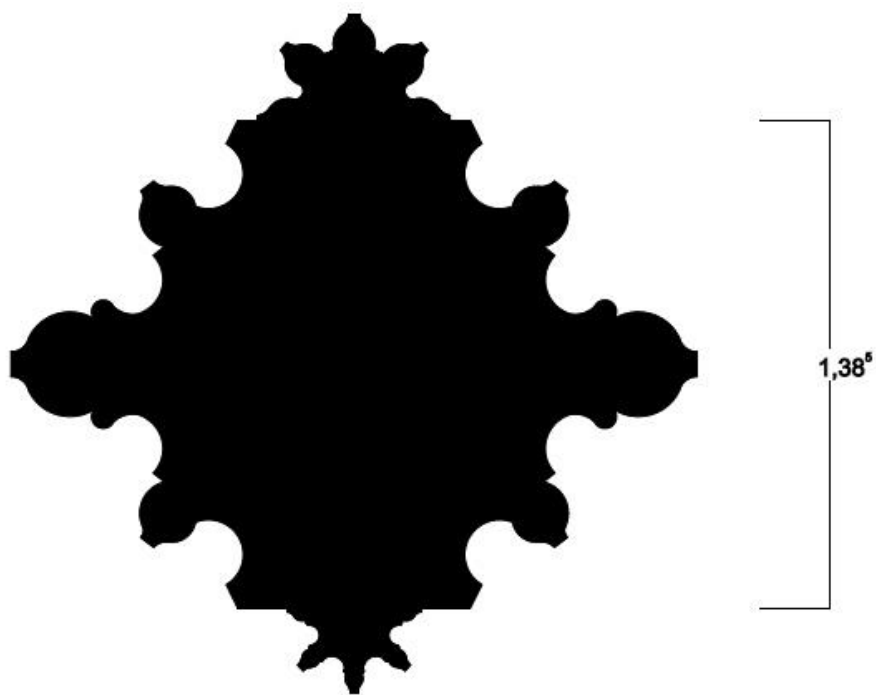


Figure 64. Eger Cathedral. Reconstruction of 14th century pillar

Source: Drawing by Gergely Buzás. Published in: Gergely Buzás. “Az egri székesegyház XIII-XIV. századi gótikus épülete [The XIII-XIV. Century Gothic building of Eger Cathedral].” *Az Egri Vár Híradója* 38 (2006): 21–65. p. 44

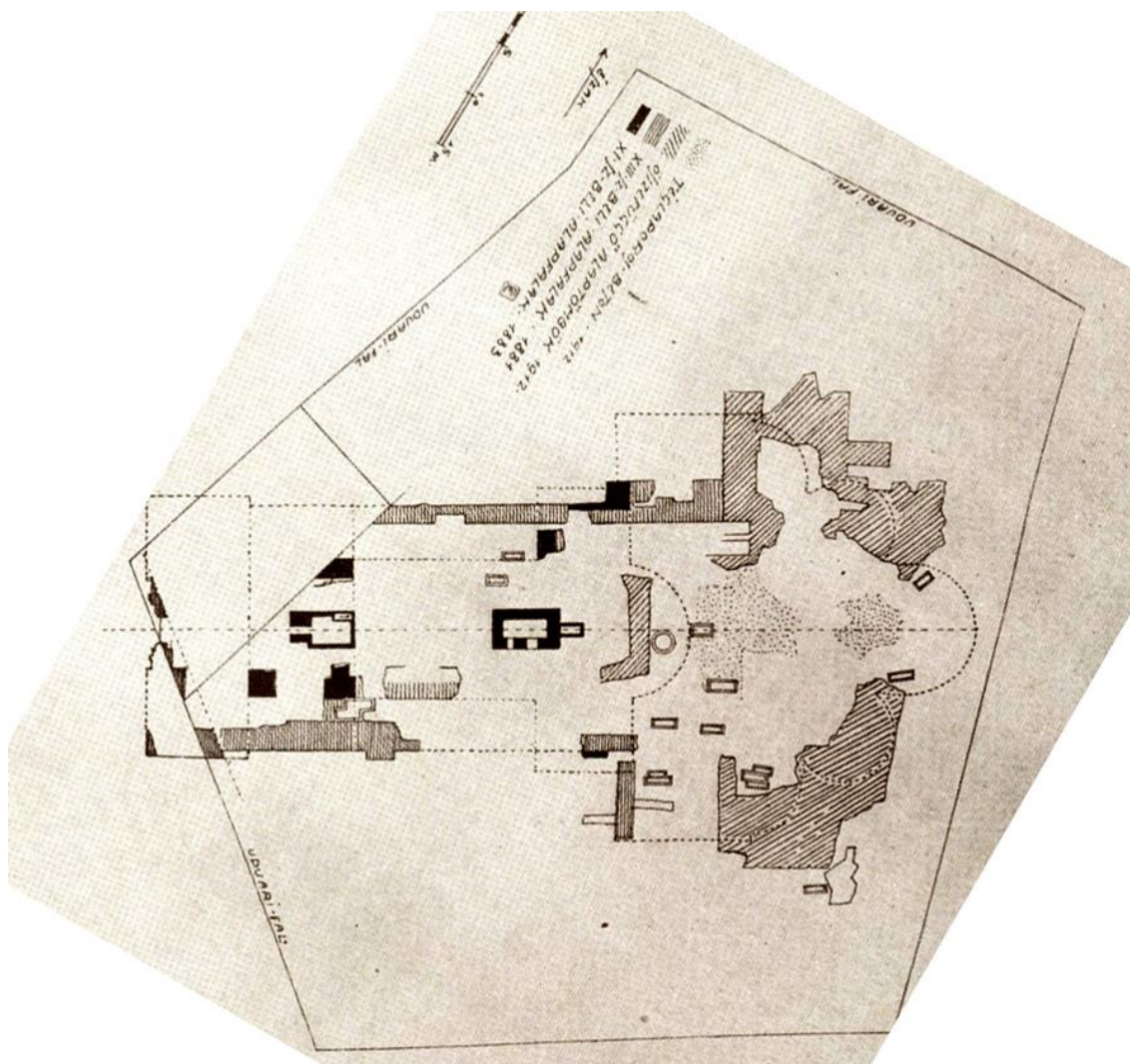


Figure 65. Várad Cathedral. Drawing summarizing the finding of the excavations of 1881, 1883 and 1911-12

Rotated so that it is East-West oriented. Black: 11th c. walls excavated in 1881, vertical hatch: 13th century walls excavated in 1883, slanted hatch: continuous foundation (interpreted as the foundation of the 14th century choir), dotted: concrete mixed with brick dust

Source: Drawing by Ernő Foerk. Ernő Foerk, "Árpád-kori templomaink típusai" [Types of Our Árpadian Churches]. In: *A Magyar Mérnök és Építész Egylet Közlönye*. 3/9-12., pp. 113-127, 1926

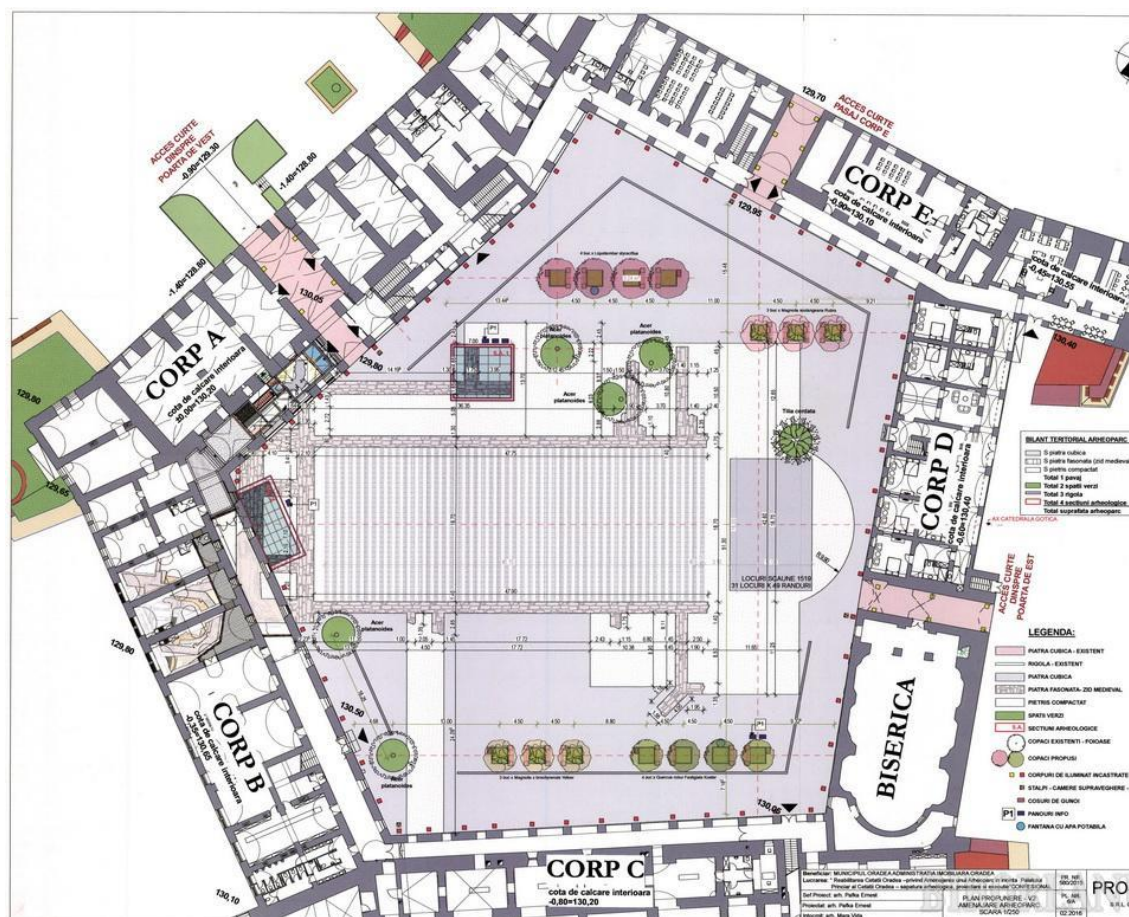


Figure 66. Plan of the pavement of Oradea Castle's inner courtyard, based on excavations in 2014-2015

Source: <http://www.bihon.ro/incinta-palatului-princiar-al-cetatii-oradea-va-putea-fi-vizitata/1631902> last accessed: 22.03.2018.

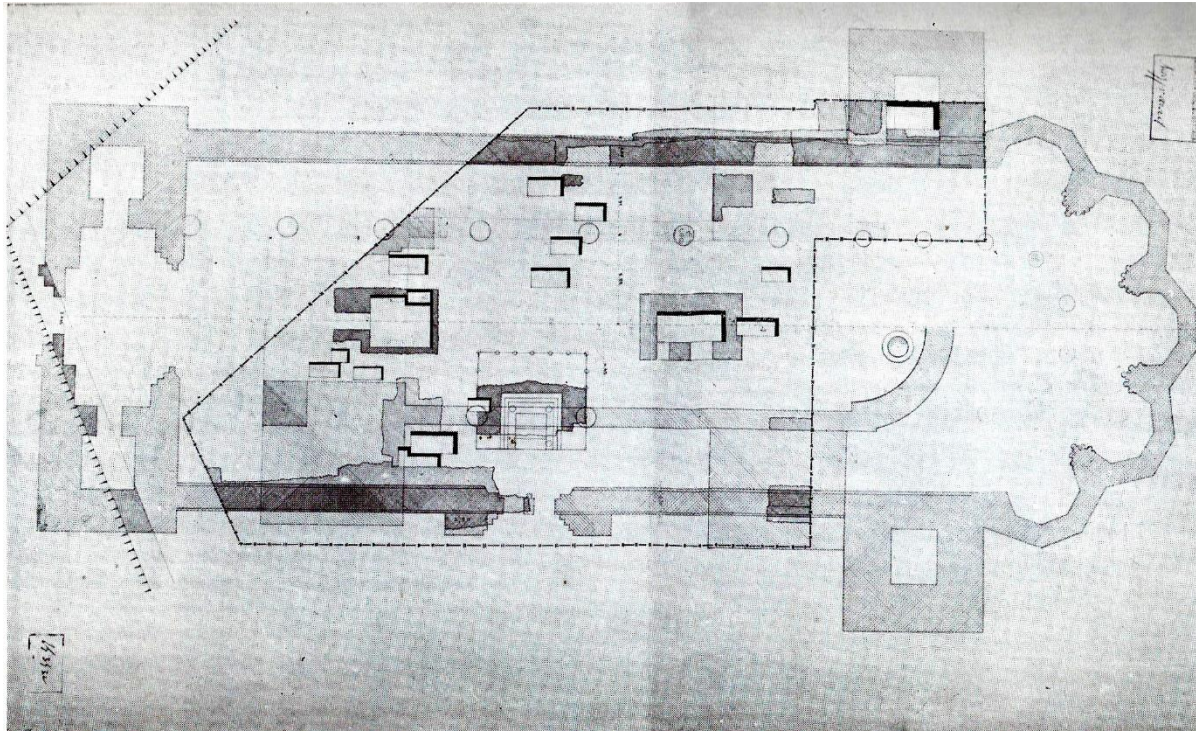


Figure 67. Várad Cathedral. Reconstruction based on the 1881 and 1883 excavations.

Source: Drawing by László Steinhausz. Published in: Jolán Balogh. *Varadinum: Várad Vára. [Varadinum: Castle of Várad]*. Vol. 1. 2 vols. Művészettörténeti Füzetek 13. Budapest: Akadémiai Kiadó, 1982. Fig. 9

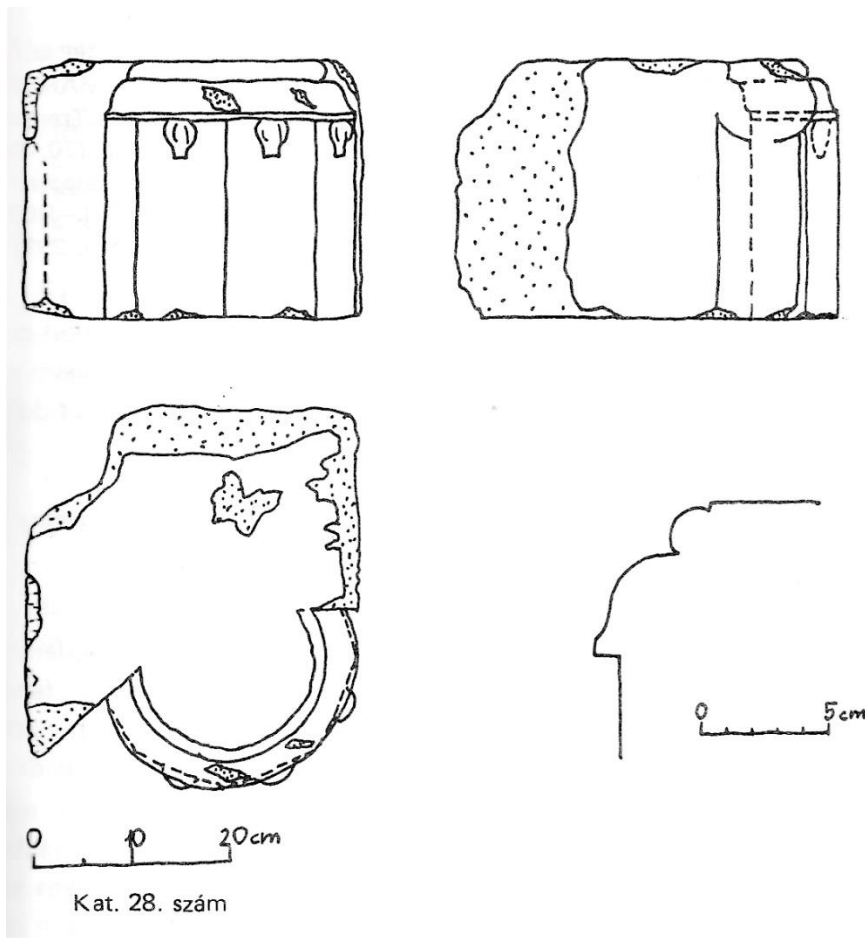


Figure 68. Várad Castle. Octagonal column basis, based in a wide-angled corner from the 14th century

Source: Terézia Kerny (ed.) *Váradi Kőtöredékek [Stone Fragments of Várad]*, Budapest: Magyar Tudományos Akadémia Művészettörténeti Kutatócsoport, 1989. Cat. No. 28 p. 59



Figure 69. Várad Castle. Octagonal column basis from the 14th century



Figure 70. Várad Castle. Octagonal Corbel from the 14th century

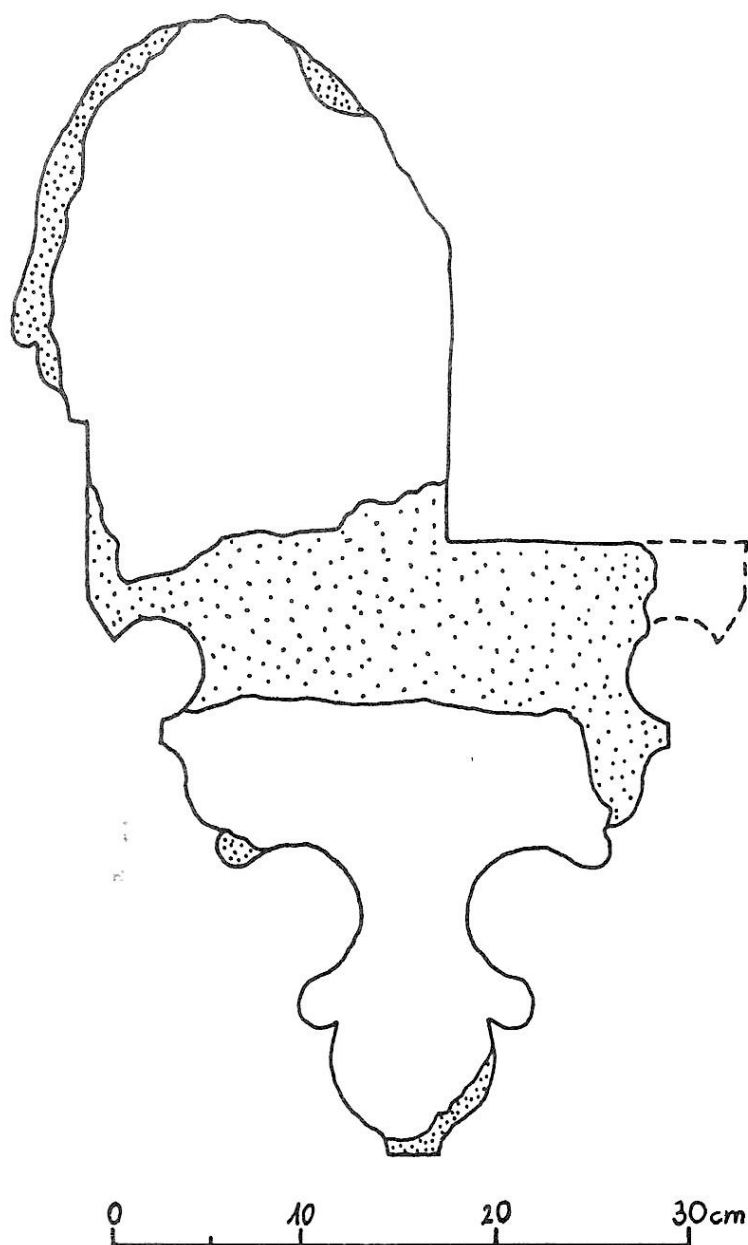


Figure 71. Várad Castle. Architectural fragment from the 14th century

Source: Terézia Kerny (ed.) *Váradi Kőtöredékek [Stone Fragments of Várad]*, Budapest: Magyar Tudományos Akadémia Művészettörténeti Kutatócsoport, 1989. Cat. No. 43 p. 66

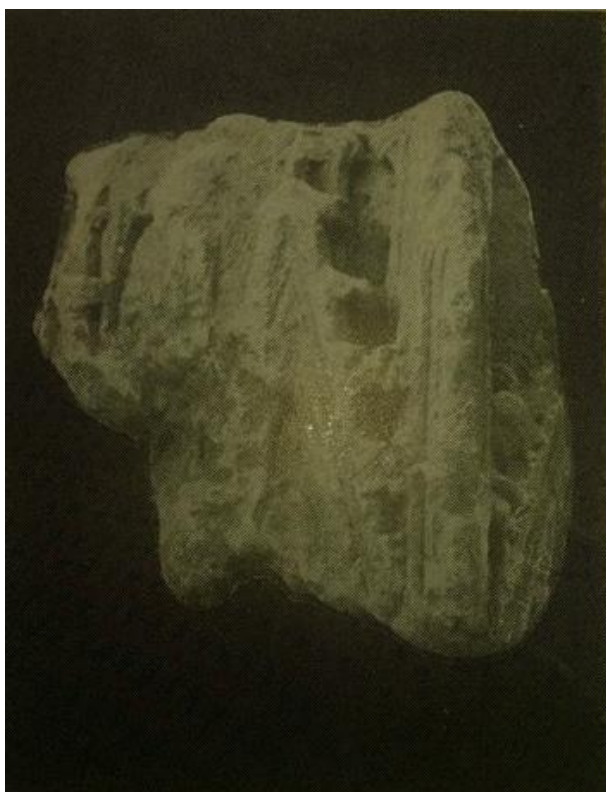


Figure 72. Várad Castle. Fragment of a baldachin from the 14th century

Source: Terézia Kerny (ed.) *Váradi Kőtüredékek [Stone Fragments of Várad]*, Budapest: Magyar Tudományos Akadémia Művészettörténeti Kutatócsoport, 1989. Cat. No. 31 p. 311



Figure 73 a & b. Várad Castle. Baldachin from the 14th century



Figure 74. Detail of drawing of Váradi Castle by Cesare porta, 1596

Source: Published in: Jolán Balogh. *Varadinum: Váradi Vára*. [*Varadinum: Castle of Váradi*]. Vol. 1. 2 vols. Művészettörténeti Füzetek 13. Budapest: Akadémiai Kiadó, 1982. Fig. 99



Figure 75. Detail of drawing of Várad Castle by Georgius Huffnagel, 1598

Published in: Jolán Balogh. *Varadinum: Várad Vára. [Varadinum: Castle of Várad]*. Vol. 1. 2 vols. Művészettörténeti Füzetek 13. Budapest: Akadémiai Kiadó, 1982. Fig. 106

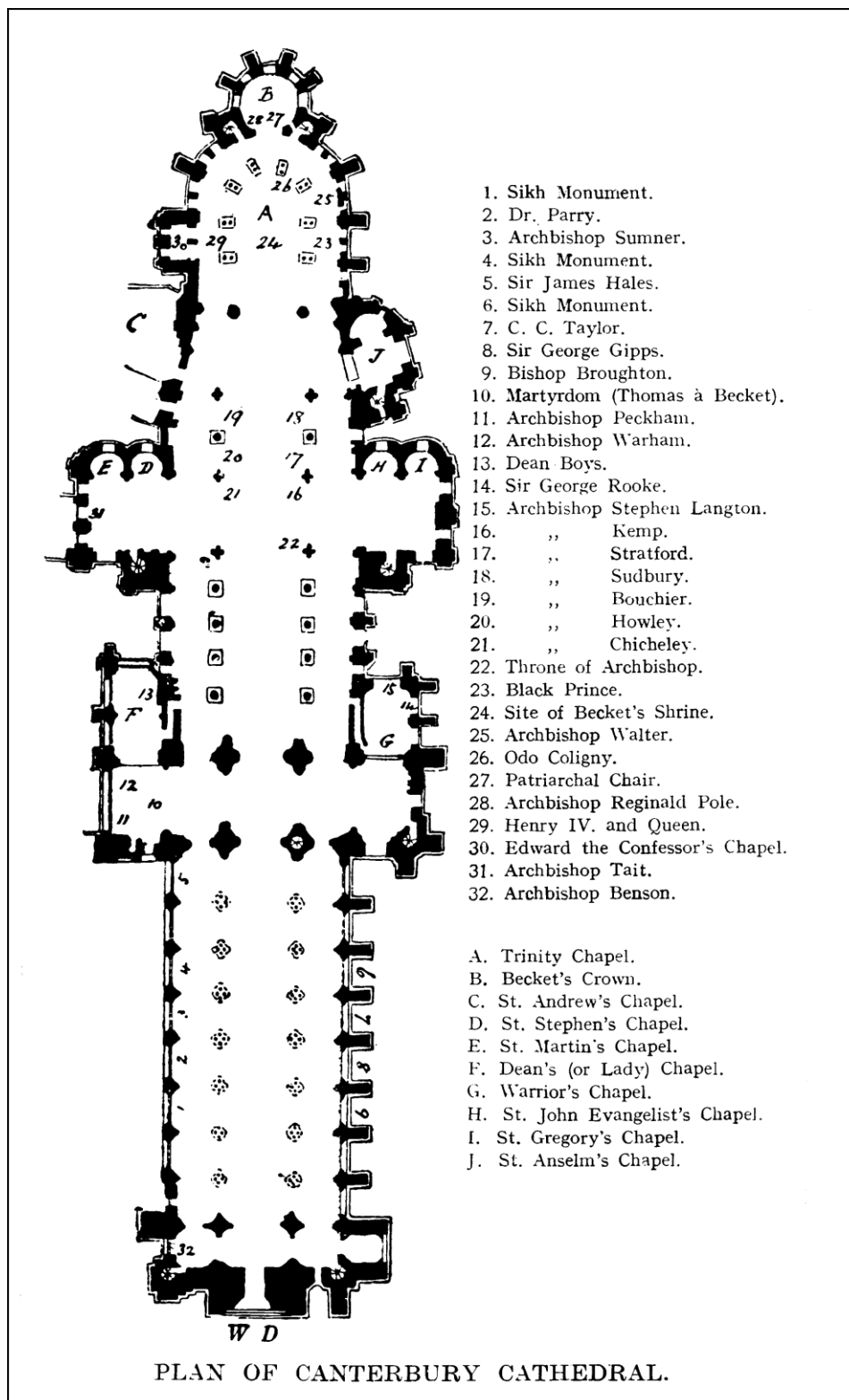


Figure 76. Ground plan of Canterbury Cathedral

Source: Frewen Lord: Tales from Canterbury Cathedral last accessed: 17.05.2018.
<http://www.mainlesson.com/display.php?author=lord&book=canterbury&story=plan>

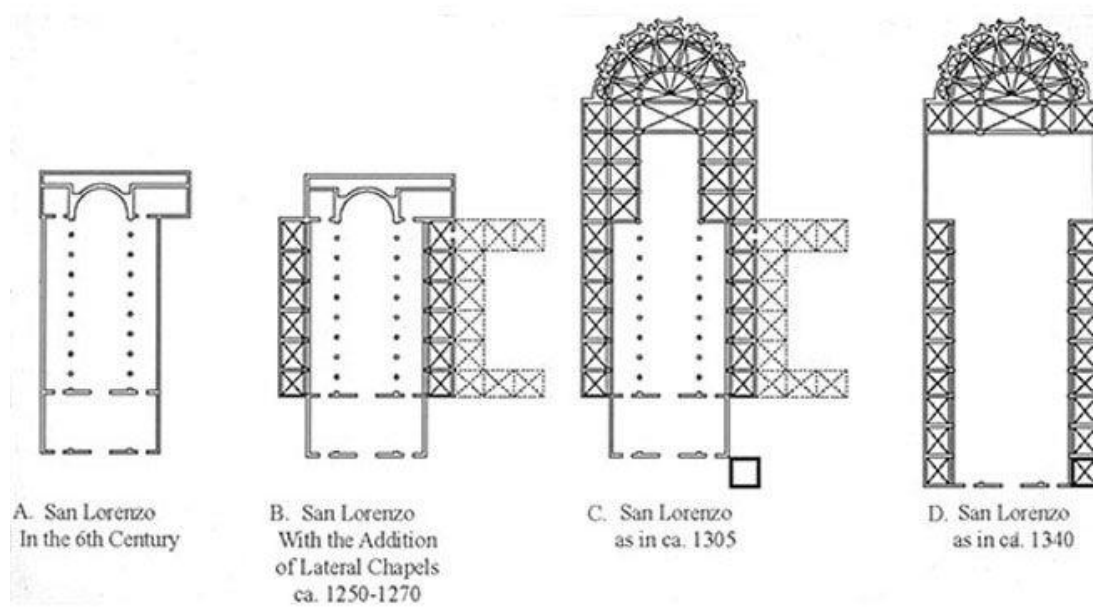


Figure 77. Reconstruction of the building phases of the new church of San Lorenzo Maggiore in Naples

Source: Bruzelius, Caroline Astrid. *The Stones of Naples: Church Building in Angevin Italy, 1266-1343*. Yale University Press, 2004. fig. 62