

The Influence of 13th- and 14th-century English Architecture in the Southern Baltic Region and Poland¹

modus

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The significance of the English Decorated style for Northern- and Central European Late Gothic architecture has long been recognised. It was Nikolaus Pevsner who praised Decorated as “in some ways the most forward, the most important and certainly the most interesting in Europe”². Henning Bock was the first to underline some striking similarities between English Decorated buildings and Peter Parler’s groundbreaking choir of Prague Cathedral³, which stimulated a long and vivid discussion on the possible insular roots of European Late Gothic. The most authoritative – yet fairly controversial – statement on the international importance of the Decorated style was formulated by Jean Bony in his flagship book from 1979. He argued that around 1300 France had already lost her previous authority as the most influential and trend-setting centre of European architecture and that this role was taken up by England. Peter Parler’s presumably direct knowledge of the Decorated style seemed to Bony to have been “a decisive stimulus in the development of German architecture,” and to have “set off a great new art movement”. He concluded that till the very end of Gothic architecture in the Baltic area “England remained, in matters of vaulting [...], the source and constant model for all Late Gothic elaboration”⁴.

Jean Bony’s great theory concerning the continental impact of the Decorated, although still valid in several points, soon provoked scepticism and was seen by some to be an overstatement⁵. Yet, it must be noted that it was the alleged possibility

1 The present paper was delivered as a lecture in the Department of History of Art at the University of Cambridge on 10th February 2014. It formed a part of the University of Cambridge Medieval Art Seminar Series, entitled “Decorated English Architectural Style, 1250–1350”, dedicated to the memory of Professor Jean Bony.

2 See N. Pevsner, *An Outline of European Architecture*, Harmondsworth 1942, p. 50.

3 See H. Bock, *Der Beginn spätgotischer Architektur in Prag (Peter Parler) und die Beziehungen zu England*, “Wallraf-Richartz Jahrbuch”, 23, 1961, pp. 191–210.

4 J. Bony, *The English Decorated Style. Gothic Architecture Transformed 1250–1350*, Oxford 1979, pp. 66–67.

5 See among others: P. Binski, *The English Decorated Style. Problems and Possibilities*, in: J. Hamesse (ed.), *Bilan et Perspectives des études médiévales en Europe. Actes du Premier Congrès Européen*

1. Grundplan der Kirche St. Marien, Wallraf-Richartz-Jahrbuch, 23, 1961, S. 191–210.
2. Wallraf-Richartz-Jahrbuch, 23, 1961, S. 191–210.
3. Wallraf-Richartz-Jahrbuch, 23, 1961, S. 191–210.
4. Wallraf-Richartz-Jahrbuch, 23, 1961, S. 191–210.
5. Wallraf-Richartz-Jahrbuch, 23, 1961, S. 191–210.

of Peter Parler having been educated in England that became the topic of an exciting scientific discussion. Both the uncertainty and complexity of these issues are shown best in the research of such eminent scholars as Paul Crossley. In his British Archaeological Association Conference Transactions article from 1981 he tried to discredit Parler's putative indebtedness to the English Decorated⁶. In turn, in the *Parlerbauten* paper from 2004 he modified his view and after a meticulous analysis he had to accept that the Master from Schwäbisch Gmünd and Prague had probably visited some crucial Decorated constructions of the English West Country⁷.

It is hardly a surprise that the majority of scholars interested in this subject were tempted to focus on the artistic origins of Peter Parler's fascinating oeuvre, which was the true turning point and trigger for the continental Late Gothic. The fiercely disputed controversies of this matter account for the fact that only marginal interest was paid to the more distant European regions, which were equally receptive to the novelties of the English Decorated. We mean here the Southern Baltic plain with the former State of the Teutonic Knights in Prussia and the Kingdom of Poland, which produced varied and original Gothic architecture, mostly in brick. The question of English influence in this vast area – which had belonged almost entirely to Poland since the Second Peace of Toruń (German *Thorn*) of 1466 – has only rarely been the subject of detailed investigation. Perhaps the most important is an article by Crossley under the significant title: *Lincoln and Baltic. The fortunes of a theory*⁸.

The present paper does not provide enough space to discuss the above-mentioned problem in its entirety. However, it shows, thanks to several detailed observations, that in some fields English architecture exerted a strong and as such easily recognizable influence on this part of the continent. Even a brief introductory examination of its architecture leads to the conclusion that Jean Bony was not completely wrong with his notion of England as an attractive source for the Baltic Late Gothic, at least in matters of vaulting, and till the very end of the Middle Ages.

It would be methodically advisable to start this investigation by discussing whether the oldest star vaults in Prussia took their origin in Lincoln. They appear to be the oldest on the continent, just after the rather surprising and isolated crossing vault of Amiens Cathedral (before 1264)⁹. This subject pertains to vast literature, starting with Karl Heinz Clasen¹⁰, and including the aforementioned article by Crossley¹¹

d'Études Médiévales, Louvain-la-Neuve 1995, pp. 313–328; P. Binski, *Westminster Abbey and the Plantagenets. Kingship and the Representation of Power, 1200–1400*, New Haven–London 1995, pp. 44–46.

6 P. Crossley, *Wells, the West Country, and Central European Late Gothic*, in: N. Coldstream, P. Draper (eds.), *Medieval Art and Architecture at Wells and Glastonbury*, Leeds 1981 (= The British Archaeological Association Conference Transactions for the year 1978, 4), pp. 81–109.

7 P. Crossley, *Peter Parler and England. A Problem Re-visited*, in: R. Strobel, A. Siefert, K.J. Herrmann (eds.), *Parlerbauten. Architektur, Skulptur, Restaurierung. Internationales Parler-Symposium Schwäbisch Gmünd 17.–19. Juli 2001*, Stuttgart 2004, pp. 155–179.

8 P. Crossley, *Lincoln and Baltic. The Fortunes of a Theory*, in: E. Fernie, P. Crossley (eds.), *Medieval Architecture and its Intellectual Context. Studies in Honour of Peter Kidson*, London 1990, pp. 169–180.

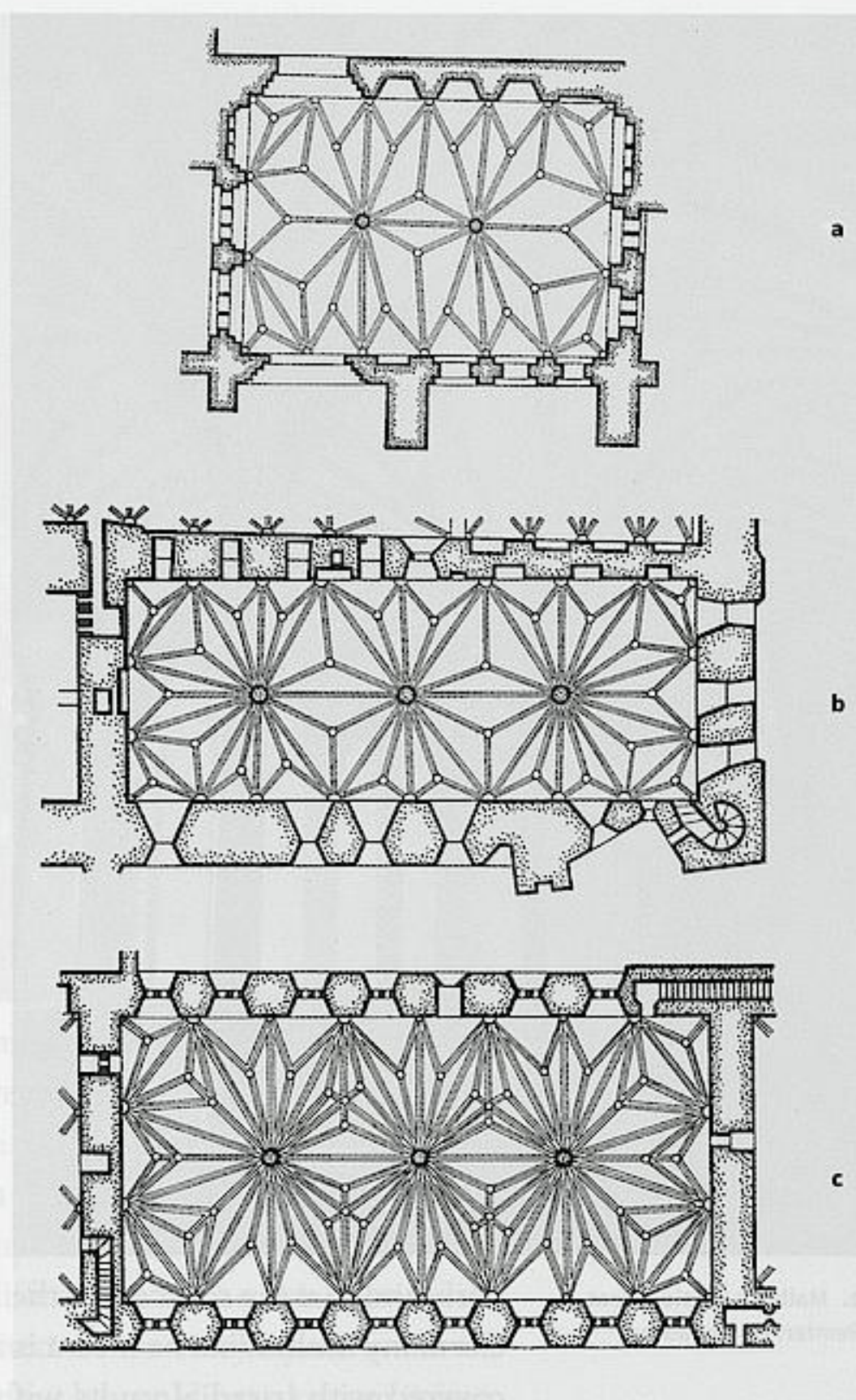
9 Cf.: D. Kimpel, R. Suckale, *Die gotische Architektur in Frankreich 1130–1270*, München 1985, p. 503; N. Nußbaum, S. Lepsky, *Das gotische Gewölbe. Eine Geschichte seiner Form und Konstruktion*, Darmstadt 1999, p. 176.

10 K.H. Clasen, *Deutschlands Anteil am Gewölbebau der Spätgotik*, "Zeitschrift des Deutschen Vereins für Kunstwissenschaft", 4, 1937, pp. 163–85; idem, *Deutsche Gewölbe der Spätgotik*, Berlin 1958, pp. 31–56.

11 See n. 8.

and a dissertation by Steffani Becker-Houns-
low¹². Suffice it to say that it has recently been
acknowledged that the oldest surviving four-
pointed star vault in the Teutonic Knights'
State was constructed probably around 1305 (or
slightly later) in the middle choir bay of St John's
Church at Toruń, covered with roof trusses
dated dendrochronologically to 1302/1303¹³. Its
nearly square ground plan and rather loose rib
pattern with easily detectable triradials suggest
that it constitutes a possible outcome of various
Middle-European experiments with combina-
tions of triple ribs, which were initiated as early
as in the second half of the 13th century¹⁴.

Much more complicated and still unclear is
the question of a possible English origin of the
greatest 14th-century vaulting achievements in
Prussia: the splendid rooms at Malbork Castle
(German *Marienburg*), which in 1309 became
the headquarters of the Grand Master of the
Teutonic Order. In recent literature, Chapter
House of the Upper Castle was dated to before
1324, and the Great *Remter* at the Middle Castle
to the years 1332–1337¹⁵. Besides, it must be re-
membered that in the case of the Chapter House
we deal with total reconstruction by Conrad
Steinbrecht executed in the years 1886–1888
and based on the remains of the vaulting shafts
and formerets¹⁶. Both rectangular halls are covered with a splendid canopy of all-
over umbrella vaults supported with three slender octagonal columns [Figs. 1b, 1c, 2].
The ground pattern of both constructions is based on the combination of numerous



1. Ground plans (not to scale): a. Lübeck, St Mary, *Briefkapelle*; b. Malbork Castle, Chapter House; c. Malbork Castle, Great *Remter*. Drawing: author (after K.H. Clasen, *Deutsche Gewölbe der Spätgotik*, Berlin 1958, figs. 32–34.)

12 S. Becker-Hounslow, *Der Beitrag Englands zur Entstehung und Entwicklung figurierter Gewölbe im Deutschordensstaat Preußen. Eine Hinterfragung etablierter Thesen zur Herkunft von Stern- und Schirmgewölben in der Backsteinarchitektur im 14. Jahrhundert*, Schwerin 1998. See also: eadem, *Malbork Chapter House and Grand Master's "Remter" versus the "Briefkapelle" at St. Mary's in Lübeck: dependent or independent solutions?*, "Biuletyn Historii Sztuki", 60, 1998, no. 3–4, pp. 381–399.

13 C. Herrmann, *Mittelalterliche Architektur im Preussenland. Untersuchungen zur Frage der Kunstlandschaft und -geographie*, Petersberg 2007, p. 761.

14 Cf.: P. Crossley, *Lincoln and Baltic*, pp. 169–174; C. Herrmann, *Mittelalterliche Architektur im Preussenland*, pp. 158–164.

15 K. Pospieszny, *Zwornik ze sceną "Powrotu Św. Rodziny z Egiptu" z Wielkiego Refektarza w Malborku, ok. 1340*, in: B. Pospieszna (ed.), *Fundacje artystyczne na terenie państwa krzyżackiego w Prusach*, exhibition catalogue, Malbork 25 June–12 September 2010, vol. I, Malbork 2010, pp. 41–42; K. Pospieszny, *Dwa trzony służek sklepienia kapitułarza malborskiego, ok. 1320*, in: ibidem, p. 65–66; B. Jesionowski, *Dzieje budowlane skrzydła zachodniego w świetle obserwacji architektonicznych*, in: J. Trupinda (ed.), *Wielki Refektarz na Zamku Średnim w Malborku*, Malbork 2010, pp. 13–30, here pp. 29–30; S. Józwiak, J. Trupinda, *Funkcjonowanie Wielkiego Refektarza w czasach krzyżackich (do 1457 r.)*, w: ibidem, pp. 31–32.

16 R. Rząd, *Odbudowa kapitułarza*, in: J. Trupinda (ed.), *Wielki Refektarz*, pp. 65–74.



2. Malbork Castle, Great Remter. Photo: author

triangular fields with the inscribed triradials; in the Great Remter with some additional crossing ribs. Nonetheless, in their visual appearance, these triangular divisions do not play any decisive role and are not easily detectable. In fact, the main artistic device of the vaults is certainly a dynamic intersection of contrapuntally placed, palm-like “fountains” of radiating ribs that form concave cones springing from the columns and half-cones hung on the perimeter walls.

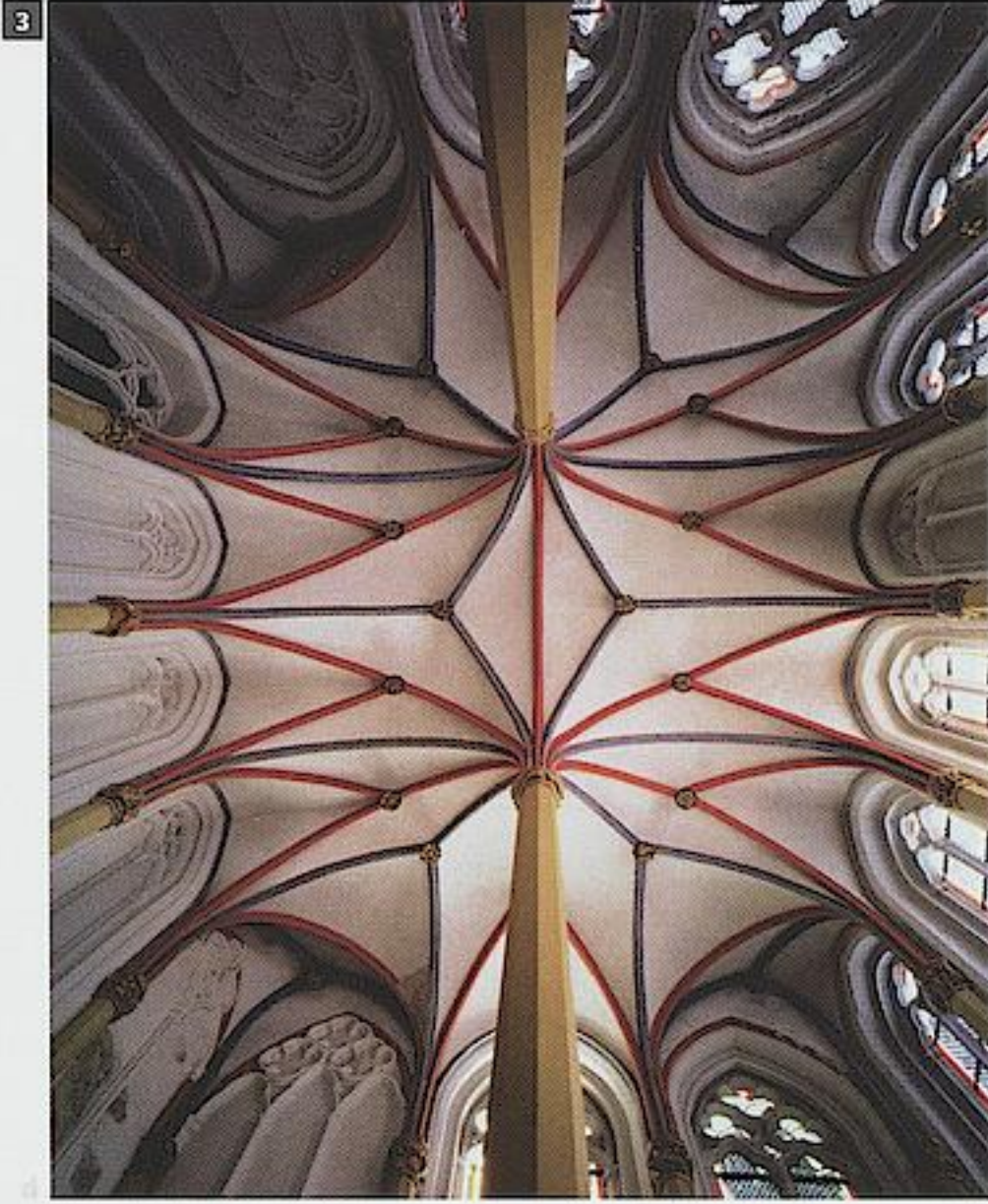
This fabulous architectural achievement is most surprising when we take into account the fact that it was created only some fifty years after the very beginning of monumental architecture in Prussia. Its origins have always provoked a lively scientific debate, in which the Malbork rooms have been constantly compared either to the English chapter houses or to the famous St Anne’s Chapel (or *Briefkapelle*) at St Mary’s in Lübeck¹⁷, dated by an internal inscription to 1310 [Figs. 1a, 3]¹⁸.

In that context, Paul Crossley stated that the similarities between English and Prussian constructions are striking but superficial as there are no tiercerons or ridge ribs at Mal-

bork, and that the sources for the Knights’ Chapter House can in fact be found in Germany itself. What he meant is a number of small square or octagonal interiors covered with triradial vaults with one central support, like the *Silberkammer* at Worms Cathedral (c. 1270), the crypt at St Stephen’s at Kouřim, the Cistercian Chapter House at Vyšší Brod (both in Bohemia, c. 1280), the crypt at St Stephen’s at Breisach and *Auerkapelle* at Regensburg (both c. 1300). Moreover, he proposed the crypt of the Franciscan church at Nowe (German *Neuenburg*) on the Vistula river (after 1311; Fig. 4) as the closest comparison with the Malbork Chapter House, both geographically and chronologically. Crossley was tempted to admit that the interior of the latter, although small and not easily approachable, could serve “as a modest reminder for the Knights, when they began their Chapter House a few

17 Basic literature: K.H. Clasen, *Deutsche Gewölbe*, pp. 40–48; N. Pevsner, *Deutsche Gewölbe der Spätgotik* by Karl Heinz Clasen (review), “The Art Bulletin”, 49, 1959, p. 335; J.T. Frazik, *Zagadnienie sklepień o przęsłach trójpodporowych w architekturze średniowiecznej*, “Folia Historiae Artium”, 4, 1967, pp. 81–83; J. Bony, *The English Decorated Style*, p. 64; P. Crossley, *Lincoln and Baltic*, pp. 174–179; S. Becker-Hounslow, *Der Beitrag*, pp. 223–229; eadem, *Malbork*, pp. 381–396.

18 *Turri principia dant M tria C duo quina / Tunc q’capella pia fuit hec tibi structa Maria*; quotation after: K.H. Clasen, *Deutsche Gewölbe*, p. 43. Although the inscription dates the Chapel unequivocally to 1310, its vault (being itself a substantial 19th-century reconstruction) was often believed to be constructed only after that date (cf.: K.H. Clasen, *Deutsche Gewölbe*, p. 43–46; H.J. Böker, *Die Mittelalterliche Backsteinarchitektur Norddeutschlands*, Darmstadt 1988, pp. 149–151 [here dated do c. 1350 or later!]). Among the more recent literature see: E. Gąsiorowski, *Die Briefkapelle der St. Marienkirche zu Lübeck*, “Deutsche Kunst und Denkmalpflege”, 2, 1977, pp. 148–164; A. Grewolls, *Die Kapellen der norddeutschen Kirchen im Mittelalter. Architektur und Funktion*, Kiel 1999, pp. 192–193.



years later, of a distinguished Bohemian and German tradition of triradial umbrella vaults¹⁹. When it comes to the relationship between Malbork and Lübeck, he stated that the *Briefkapelle* may have played a decisive role in determining the origin of the castle interiors, despite the fact that its own origins lie in England²⁰.

In turn, Becker-Hounslow tried to exclude any direct linkage between St Anne's Chapel and Chapter House and scrutinised differences in the use of triradials in both interiors. She suggested that the architect of the *Briefkapelle* knew the aforementioned triradial vaults from Germany, but he could have known it from the Westminster Chapter House. In turn, the great Malbork constructions result from the independent Prussian evolution of the decorative rib patterns, which she called the "Prussian vault explosion"²¹.

Before we proceed, it must be emphasised that there can be no certainty when it comes to the question of possible origins of the Malbork and Lübeck umbrella vaults. As noted by Crossley, similarities between any two constructions may be "striking but superficial", and any conclusions will be merely hypothetical, and to some extent subjective. It is also worth noting that during the entire Middle Ages the whole Southern Baltic area, including Hanseatic cities like Lübeck and the State of the Teutonic Knights, maintained lively political and commercial contacts with England, where the Order was even called the *Caput Hansa*²². This means that, at least theoretically, the English artistic influence could serve as the inspiration anywhere in the Baltic region.

3. Lübeck, St Mary, vault of the *Briefkapelle*. Photo: author

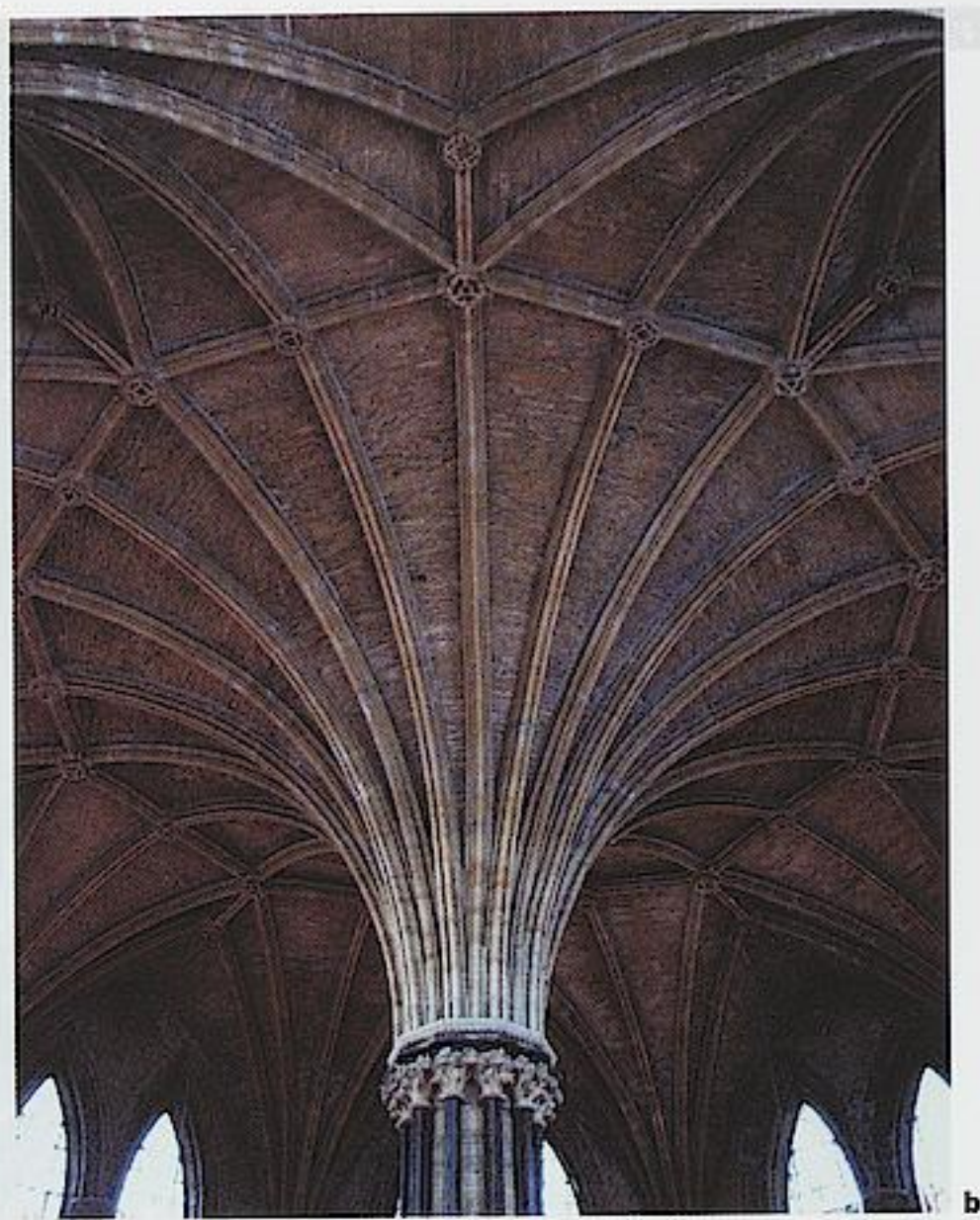
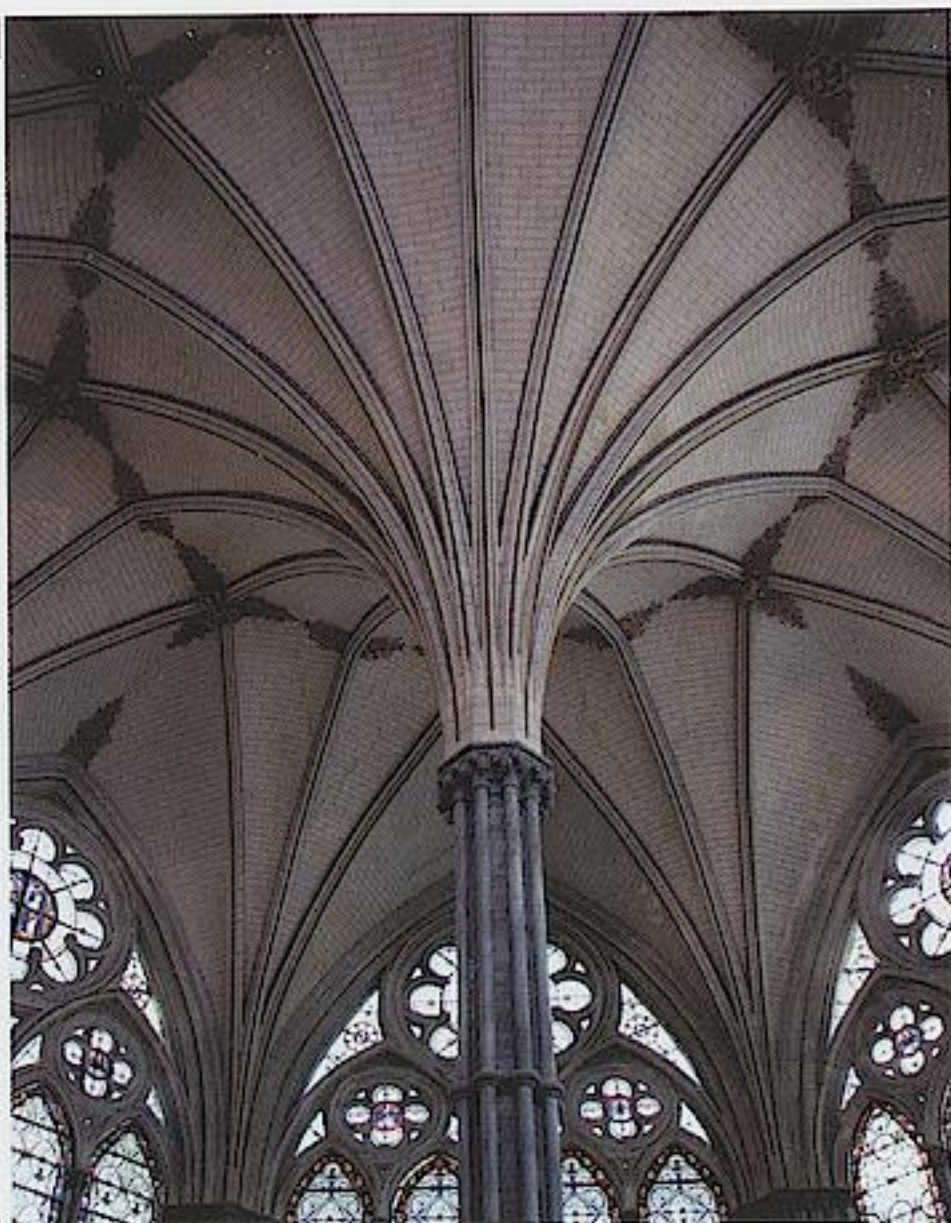
4. Nowe, Franciscan Church, crypt. Photo: author

19 P. Crossley, *Wells, the West Country*, pp. 82–84; idem, *Lincoln and Baltic*, pp. 177–178.

20 Idem, *Wells, the West Country*, p. 82–83; idem, *Lincoln and Baltic*, p. 179.

21 S. Becker-Hounslow, *Malbork*, pp. 381–396.

22 Cf.: H. Samsonowicz, *Późne średniowiecze miast nadbałtyckich. Studia nad dziejami Hanzy nad Bałtykiem w XIV–XV w.*, Warszawa 1968; P. Crossley, *Lincoln and Baltic*, pp. 178; M. Biskup, G. Labuda, *Dzieje zakonu krzyżackiego w Prusach. Gospodarka – społeczeństwo – państwo – ideologia*, Gdańsk 1986, pp. 329–332; S. Becker-Hounslow, *Malbork*, pp. 387–388.



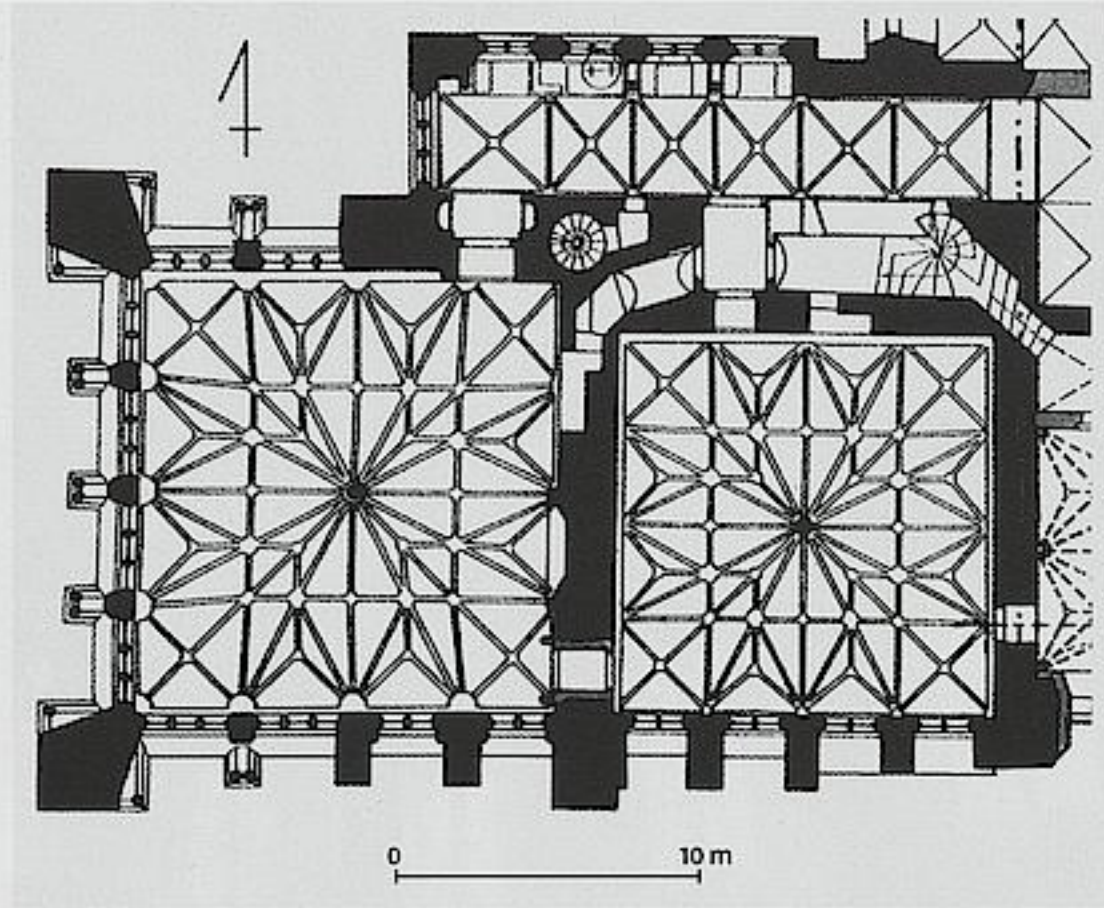
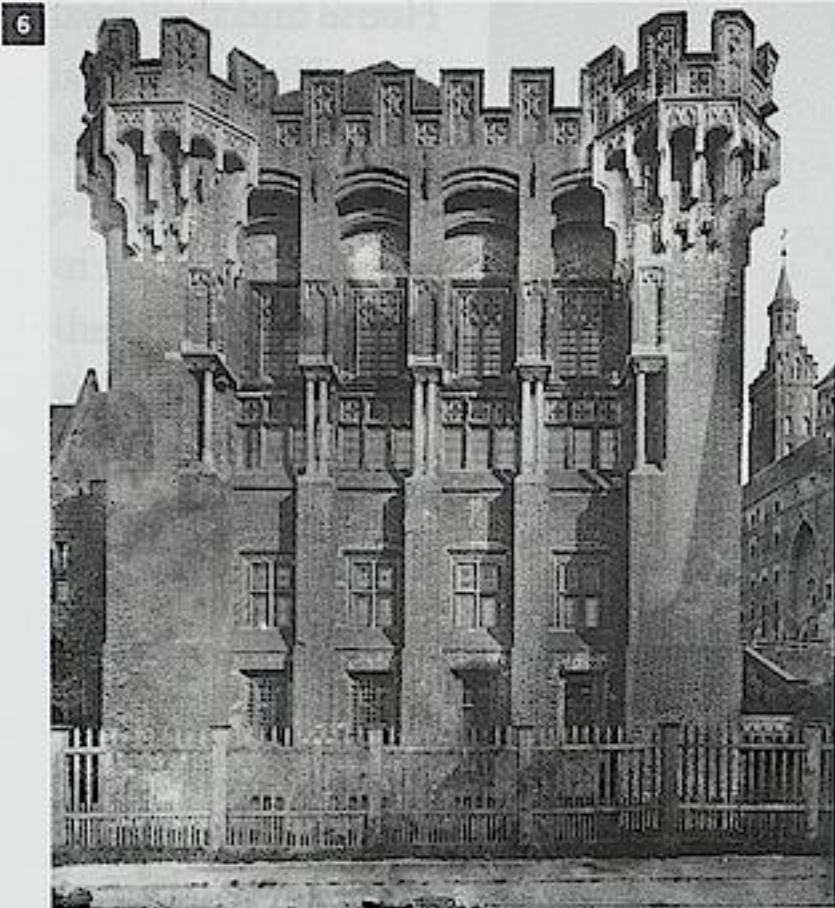
5. Vaults of the chapter houses of: a. Salisbury Cathedral; b. Lincoln Cathedral. Photo: author

In Germany, until the early 1320s, when the Malbork Chapter House was under construction, triradial umbrella vaults had been applied as formal experiments only in small, secondary spaces like crypts, chapels or chapter houses, and they were still incomparable to the splendid halls of the Knights. Even the geographic proximity of the crypt at Nowe is not sufficient to treat it as a decisive inspiration for the Malbork rooms, notwithstanding the fact that they share some features. The comparable Southern-German constructions, such as the Summer Refectory at Bebenhausen (c. 1335) and Chapter Houses at Maulbronn (probably 2nd quarter of the 14th century)²³ and Eberbach (c. 1345) all come later. When we consider terms of architectural exuberance, the only notable construction that may have indeed exerted a general influence on the conception of the Malbork Chapter House is naturally the *Briefkapelle*. I am convinced that Paul Crossley and Norbert Nußbaum were right to see a direct link between both buildings²⁴, while Becker-Hounslow's proposition that only a fully identical use of triradials would suffice as proof is certainly a misconception that undermines the creativity of medieval architects²⁵. In the Southern Baltic plain, the *Briefkapelle* was the most novel achievement of the early 14th century. We must not forget that it was a splendid addition to the most important parish church of the entire Hanseatic area, thus it was an attractive model. The Teutonic Knights and the unknown architects must have seen or heard of the Lübeck Chapel – a veritable architectural gem. The principal castle of

23 This traditional chronology of the Maulbronn Chapter House was questioned by Jürgen Michler, who proves that it was ready by 1273/1274; cf. J. Michler, *Der Kapitelsaal des Zisterzienserklosters Maulbronn. Ein Beitrag zur Zisterziensergotik*, "Zeitschrift des Deutschen Vereins für Kunstwissenschaft", 52/53, 1998/1999, pp. 299–321. Still, I do not acknowledge this construction as a direct source of inspiration for the Malbork Chapter House.

24 Cf. P. Crossley, *Lincoln and Baltic*, p. 179; N. Nußbaum, *Deutsche Kirchenbaukunst der Gotik*, Darmstadt 1994, pp. 151–152.

25 Cf. S. Becker-Hounslow, *Malbork*, p. 396.



the Order was conceived and planned to eclipse everything that had hitherto been built in this part of Europe. Therefore, it is not surprising that the Chapter House and the slightly later Great *Remter* bear a general resemblance to the *Briefkapelle*, nonetheless, they exceed it in terms of architectural complication.

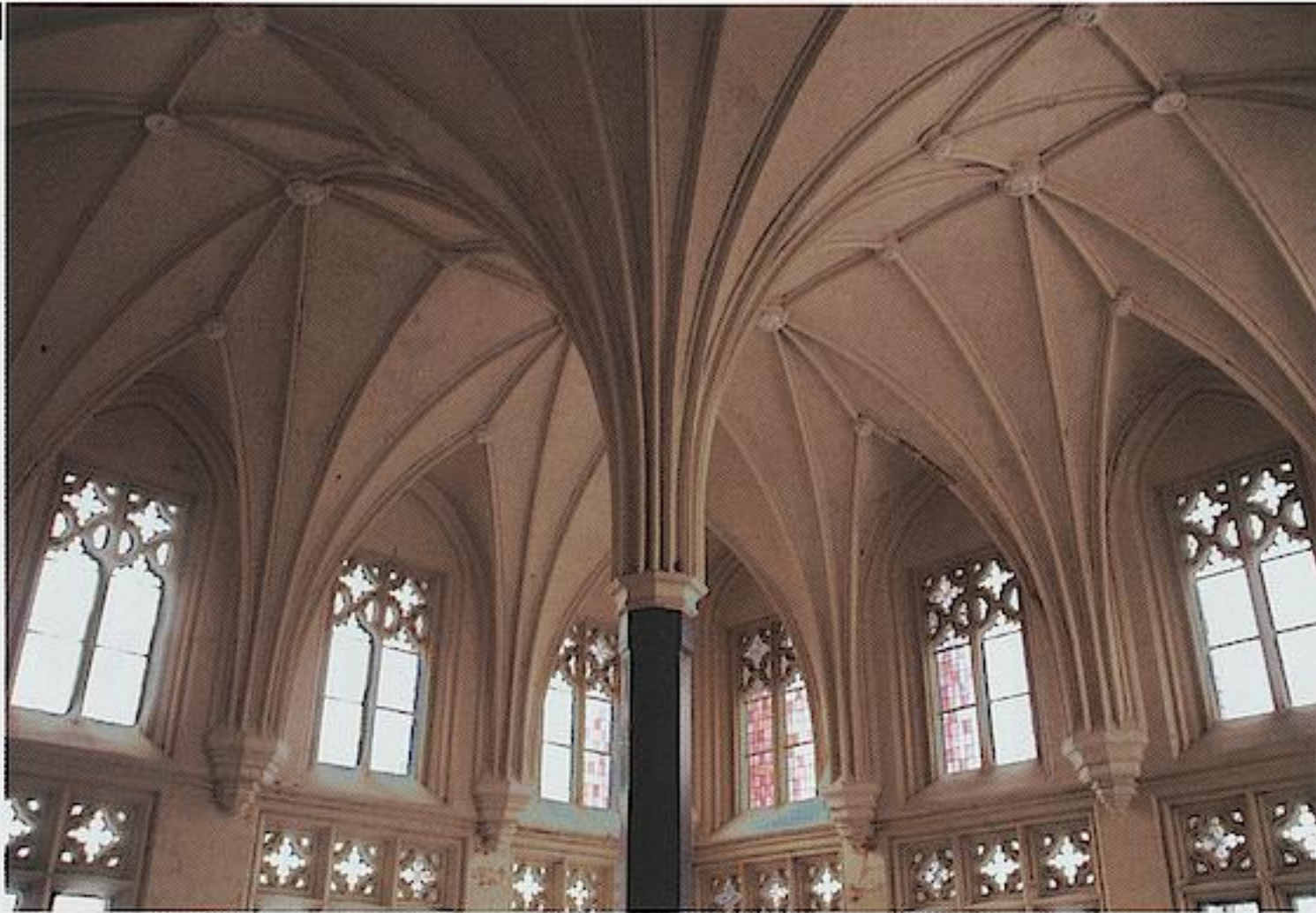
I believe that the Lübeck Chapel and the Malbork Halls have common English roots. Thus, it is a misconception to describe the latter as merely having been inspired by the *Briefkapelle*. The architects from the Southern Baltic region could have known other German experiments with triradial vaulting typical at the turn of the 14th century. Yet, only in the insular chapter houses could they have found prototypes for the slender, pencil-like octagonal piers supporting decorative umbrella vaults with a dense mesh of radiating ribs, remarkable in comparison to rather low and broad earlier German interiors. Besides, in Westminster (c. 1246–1250) and Salisbury (c. 1263–1279; Fig. 5a) we find a clear partition of the vault's ground pattern into triangular fields with inscribed triradials, as in the Malbork rooms, proving that triradials were not solely a German device. In turn, the position of the *Briefkapelle* at St Mary's in Lübeck is clearly prefigured, as noted by Crossley, in the two rectangular western chapels at Lincoln Cathedral (c. 1230), among which the northern one has a slender central support²⁶. Although in Lübeck and Malbork the bosses are fairly modest and the piers are smooth and have no detached shafts, the joyful and decorative character of the interiors is well maintained. In the Great *Remter* the additional tiercerons, springing from the corner fields and creating four star-like intersections in the triangular fields between two piers and the perimeter wall are also likely to be of the English origin. Such ribs have no predecessors in the Southern Baltic region and therefore cannot be explained as “developed from Prussia's earlier use of triradial vaults”, as suggested by Becker-Hounslow²⁷. In fact, they are reminiscent of the intersecting ribs at the Lincoln Chapter House (c. 1220; Fig. 5b) and in the retrochoir of the Wells Cathedral (c. 1326–before 1337). However, the ingenious creativity of the Lübeck and Malbork architects meant that they did not limit themselves to the explicit reproduction of other buildings. In fact, the *Briefkapelle*, Malbork Chapter

6. Malbork Castle, Palace of the Grand Masters, west front. Photo: author's archive

7. Malbork Castle, Palace of the Grand Masters, ground plan. Drawing: author (after K. Pospieszny, *Der Hochmeisterpalast der Marienburg. Forschungen zum Ostteil des Hauptgeschosses*, in: T. Biller et al. (eds.), *Burgen kirchlicher Bauherren*, München–Berlin 2001 [= *Forschungen zu Burgen und Schlössern*, 6], Fig. 25)

26 See P. Crossley, *Lincoln and Baltic*, p. 179; see also P. Draper, *The Formation of English Gothic. Architecture and Identity*, New Haven–London 2006, p. 139.

27 Cf. S. Becker-Hounslow, *Malbork*, p. 393.



8. Malbork Castle, Palace of the Grand Masters, vault of the Summer Remter. Photo: author

9. Malbork Castle, Palace of the Grand Masters, Winter Remter. Photo: author

House and the Great Remter have no literal predecessors; they are reminiscent of one another but not identical, and in their general conception they seem to be inspired by the ingenious insular chapter houses.

We can detect an English influence in the most splendid building at Malbork with far more certainty, that is in the Palace of the Grand

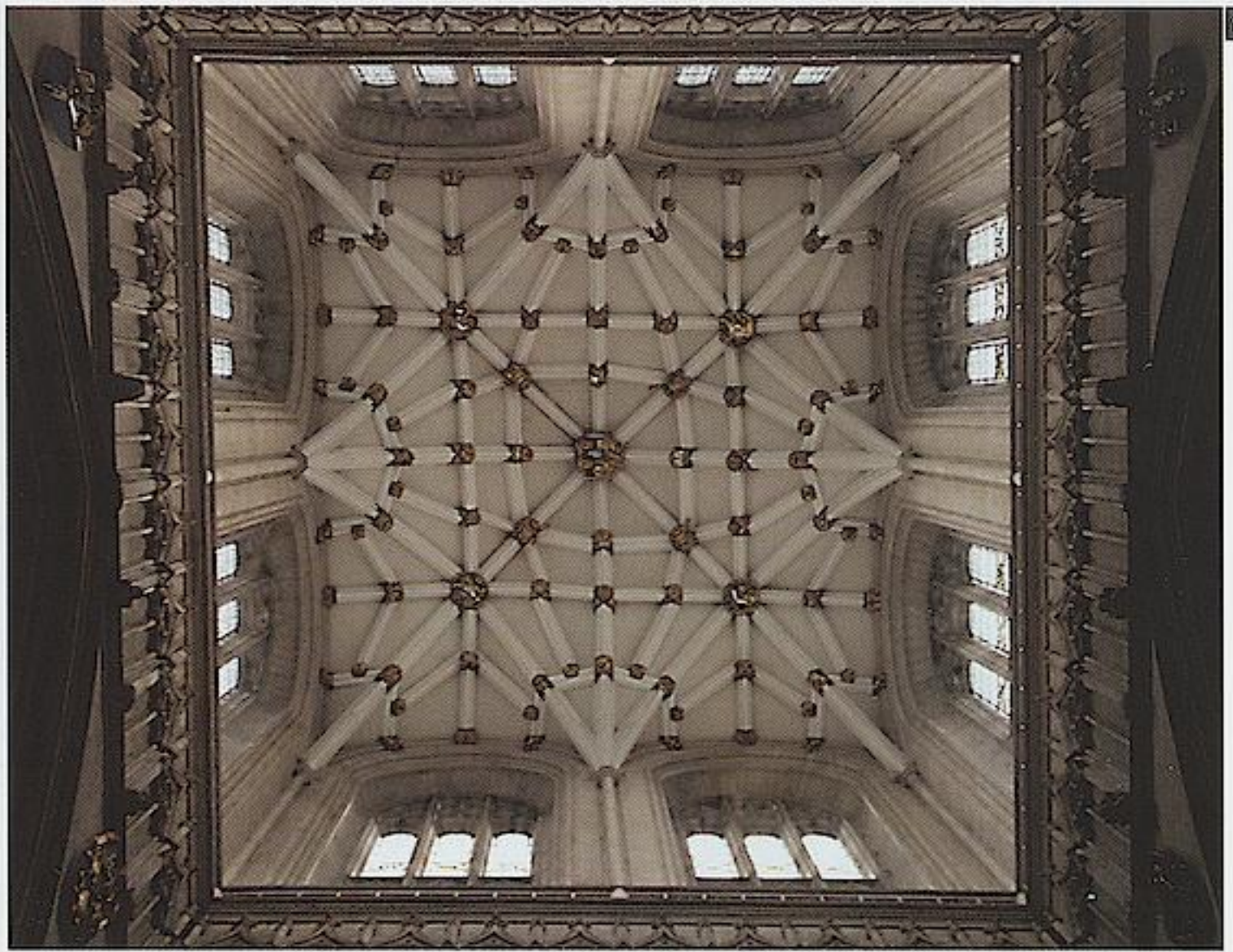
Master that forms the western part of the Middle Castle. Its main representational section that forms an elegant square tower facing the Nogat river (Figs. 6, 7) was constructed around the years c. 1380–1393 during the service of Conrad Zöllner von Rotenstein (1382–1390), Conrad von Wallenrod (1390–1393) and Conrad von Jungingen (1393–1407)²⁸. As in the case of the Chapter House and the Great Remter, the residence of the Grand Masters stands at the peak of architectural possibilities of its time and belongs to the most ingenious constructions of the late 14th century in Europe. Therefore, it is hardly surprising that its functional and artistic complexity is an outcome of various international sources of inspiration, mostly from within the greatest achievements of court art. As shown by Tadeusz Żuchowski, the sequence of rooms and their use is modelled after papal palaces at Vatican and Avignon, which had to fulfil various functional tasks, such as courtly venues, seats of public administration and private residences of the head of the ecclesiastic state²⁹.

The architectural ambitions of the Grand Masters were stimulated by the desire to represent the worldly power of the Teutonic Order then at the peak of its political and economic strength. It found its ultimate expression in the inspiration drawn

28 Basic literature: K.H. Clasen, *Der Hochmeisterpalast der Marienburg*, Königsberg 1924; K. Pospieszny, *Der Hochmeisterpalast der Marienburg. Forschungen zum Ostteil des Hauptgeschosses*, in: T. Biller et al. (eds.), *Burgen kirchlicher Bauherren*, München–Berlin 2001 (= *Forschungen zu Burgen und Schlössern*, 6), pp. 71–94; K. Pospieszny, *Malborski donjon-logis z końca XIV wieku*, “Teka Komisji Historii Sztuki”, 10, 2005, pp. 77–85; K.H. Clasen, *Der Hochmeisterpalast des Deutschen Ordens in der Marienburg (Malbork) und die französische Architektur*, “Mitteilungen der Residenzen-Kommission der Akademie der Wissenschaften zu Göttingen”, 16, 2006, pp. 53–66; J. Jarzewicz, *Malborski Pałac Wielkich Mistrzów i natura*, in: J. Wiesiołkowski, J. Kowalski (eds.), *Wielkopolska – Polska – Europa. Studia dedykowane pamięci Alicji Karłowskiej-Kamzowej*, Poznań 2006, pp. 163–175; C. Herrmann, *Mittelalterliche Architektur im Preussenland*, pp. 248–250.

29 See T. Żuchowski, *Vatikan – Avignon – Marienburg. Die Genese der funktionalen Anordnung der Marienburger Hochmeisterresidenz*, in: T. Biller et al. (eds.), *Burgen kirchlicher Bauherren*, pp. 29–36.

from the royal French residences of the Valois dynasty. The *donjon*-like arrangement of the main part of the Grand Master's Palace with internal superposition of square rooms with a central support clearly resembles the Charles V's *Donjon* at Château de Vincennes (c. 1337–1371). In turn, the western elevation of the Palace – framed with two square turrets, articulated with four deep wall arcades and



10. York Minster, vault of the crossing tower. Photo: author

closed with segmental arches – follows the principal composition of the *Logis du Roi* at *Palais de la Cité* (before 1375), as convincingly acknowledged by Kazimierz Pospieszny and Jarosław Jarzewicz³⁰. It is worth noting that both Valois residences had been finished only about ten years before the construction at Malbork began, which testifies to the artistic aspiration of the Great Masters clearly opting for the most novel and prestigious models of court architecture.

The quest for innovation was not in this case limited solely to the domain of French architecture, for the Palace also shows some peculiarly English traits. The insular origin has long been recognised in two identical *lierne* vaults of the most sumptuous rooms – the Summer and Winter *Remters*³¹ (Figs. 8, 9). Although a basic model for their umbrella coverings with a central support in the form of an octagonal stone pier was clearly offered by the Chapter House at the Upper Castle and the neighbouring Great *Remter*, the strictly geometric rib pattern of both constructions is unmistakably English, even if it has no literal predecessors³². In the last quarter of the 14th century there was not a single vault on the Continent comparable to Malbork. The inscribed perpendicular grid of thin ribs, from which some serve to emphasise the continuous square ridge of the vaulting shell, as well as the richness of numerous sculpted bosses – rather exceptional in this part of Europe – is an unequivocal sign of the English origin of the Malbork constructions. Being unique in their composition, they resemble various insular

30 K. Pospieszny, *Malborski donjon-logis*, pp. 80–81; J. Jarzewicz, *Malborski Pałac Wielkich Mistrzów*, pp. 167–170.

31 Cf.: K.H. Clasen, *Der Hochmeisterpalast*, pp. 87–88; J.T. Frazik, *Sklepienia gotyckie w Prusach, na Pomorzu Gdańskim i w ziemi chełmińskiej*, “Kwartalnik Architektury i Urbanistyki”, 30, 1985, pp. 7–9; N. Nußbaum, *Deutsche Kirchenbaukunst*, p. 152.

32 A systematic geometric analysis of the Summer *Remter* vault has recently been presented by Jarosław Jarzewicz: “*More geometrico*”. *Kompozycja sklepienia Letniego Refektarza w Pałacu Wielkich Mistrzów w Malborku*, “*Studia Zamkowe*”, 4, 2012, pp. 77–89.



11. Malbork Castle, Palace of the Grand Masters, Tall Hallway. Photo: author

vaults, applied in the square crossing bays or towers, and often distinguished with a compositional grid of ridge ribs, like at Lincoln (c. 1360–1380), York (c. 1370–1374; Fig. 10)³³ or Peterborough (c. 1350–1380)³⁴.

The Malbork architect, certainly familiar with a wide range of both secular and church buildings across the Continent and England, was also well acquainted with Middle European architecture, and was capable of selecting and blending numerous motifs of various origins. This is best shown again in the *Remters* and in the Tall Hallway, this time in the form of plain vaulting pads, with or without applied brackets (see figs. 8, 9). They probably first appeared in the St Margaret's Chapel (now sacristy) at the Cracow Cathedral (c. 1322), but were most popular in Bohemia and Silesia in the 3rd quarter of the 14th century³⁵. In the case of Malbork, its most plausible origin is the Bohemian origin³⁶, since the political relations between Poland and the Teutonic Order throughout the 14th century were mostly tense, if not hostile. Yet, it must be noted that in Bohemia and Silesia such vaulting pads

were usually combined with microarchitectural brackets with filigree trefoils, while in the Grand Master's *Remters* the analogous elements are heavy, polygonal and richly moulded. They are once again probably reminiscent of English architecture, where similar forms were in constant use, for example in the Lady Chapel at Ely (late 1330s – 1349)³⁷ or in the external elevations of the northern porch of St Mary Redcliffe at Bristol (c. 1320)³⁸, to name just a few notable examples. A peculiar treatment of "stalactite" brackets in the Summer *Remter* is perhaps best comparable to the smaller, but similar forms giving support to the mouldings in the transept arcades at Gloucester Cathedral (c. 1337)³⁹.

Traces of English architecture are apparent at the Palace of the Grand Master, and not only in the realm of vaults. Christofer Herrmann stated recently that the reduction of architectural details to a purely constructional form is in this late 14th-century building so advanced that it looks like a product of the early 16th-, if not even the 20th century⁴⁰. In fact, the astonishingly "modernistic" appearance of

33 S. Becker-Hounslow, *Der Beitrag*, p. 236.

34 D. Stephenson, *Heavenly Vaults. From Romanesque to Gothic in European Architecture*, New York 2009, p. 176.

35 Cf.: P. Crossley, *Gothic Architecture in the Reign of Kasimir the Great. Church Architecture in Lesser Poland 1320–1380*, Kraków 1985, p. 23; K. Czyżewski, M. Walczak, *Z badań nad gotycką katedrą w Krakowie*, "Studia Waweliana", 8, 1999, pp. 21–22.

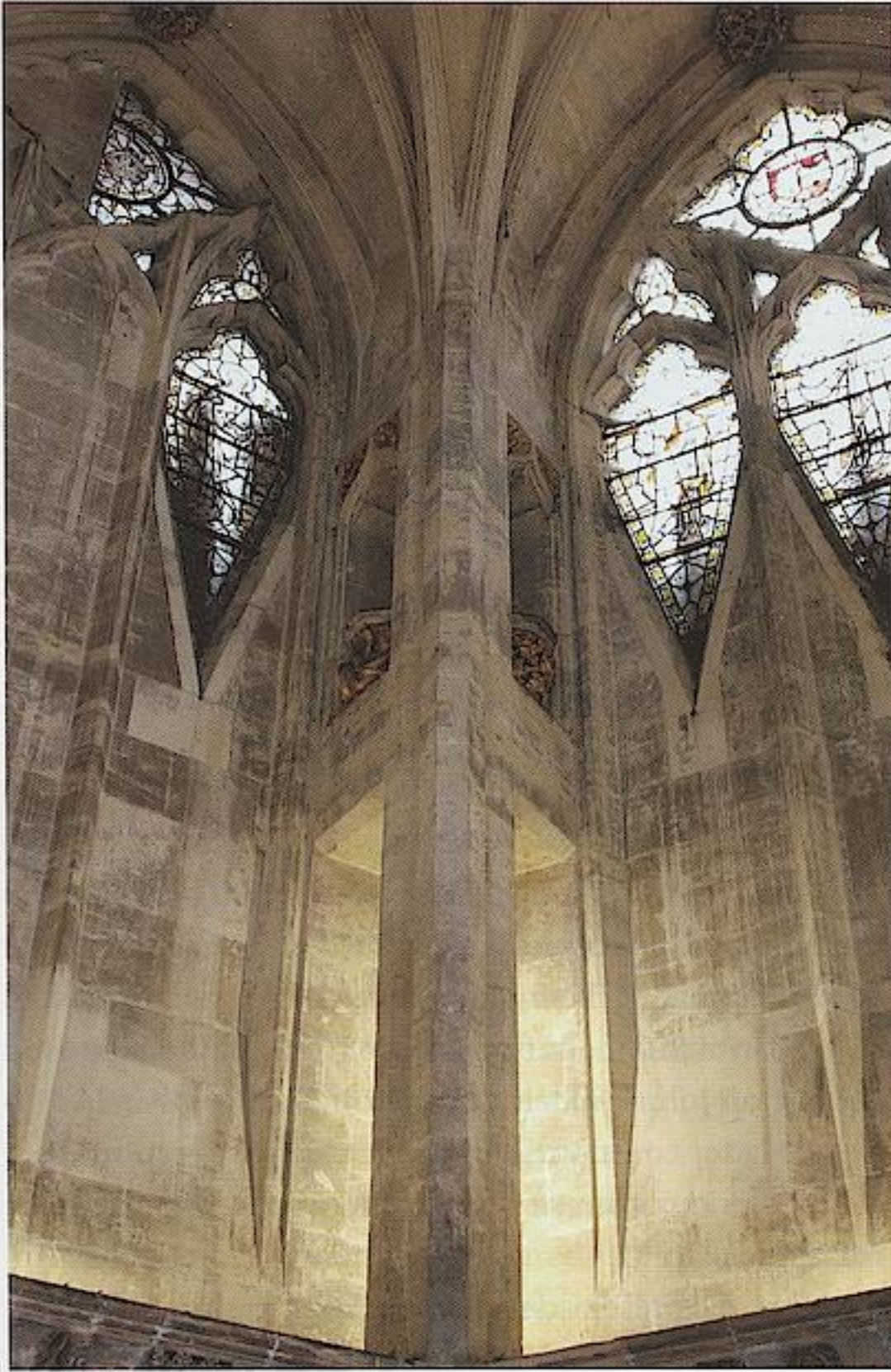
36 Cf. J.T. Frazik, *Sklepienia gotyckie*, p. 9.

37 P. Lindley, *Ely Cathedral, Lady Chapel*, in: J. Alexander, P. Binski (eds.), *Age of Chivalry. Art in Plantagenet England 1200–1400*, exhibition catalogue, Royal Academy of Arts, London, 6 November 1987–6 March 1988, London 1987, pp. 413–414.

38 C. Wilson, *St Mary Redcliffe, Bristol, outer north porch*, in: J. Alexander, P. Binski (eds.), *Age of Chivalry*, p. 413.

39 H.J. Böker, *Der Beginn einer Spätgotik innerhalb der englischen Architektur zwischen 1370 und 1450*, Köln, 1981, pp. 30; C. Wilson, *Gloucester Cathedral, choir*, in: J. Alexander, P. Binski (eds.), *Age of Chivalry*, p. 417.

40 Cf. C. Herrmann, *Mittelalterliche Architektur im Preussenland*, p. 250.

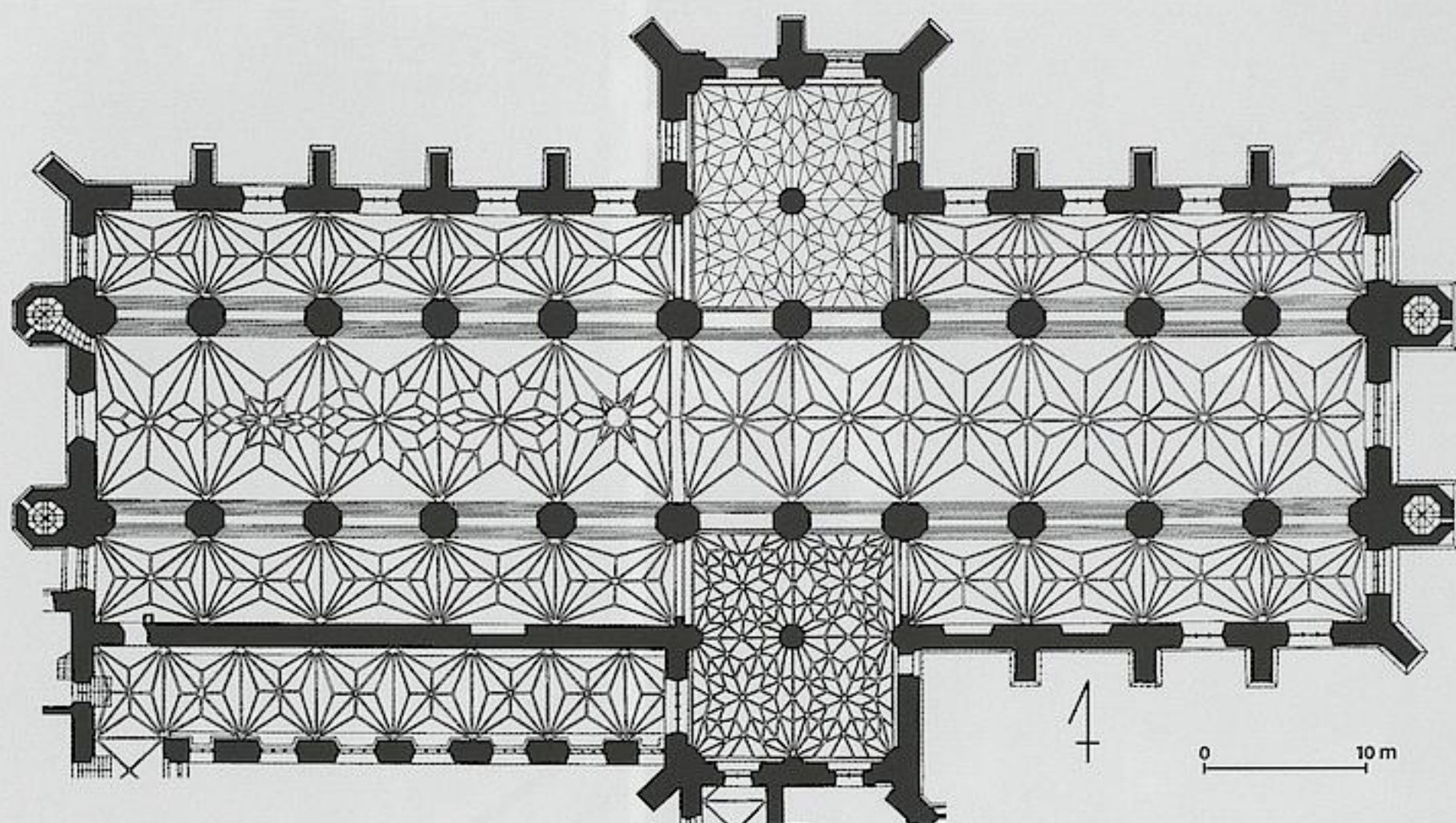


many details of the residence has no comparison on the Continent and has never been properly explained, even if we note that it owes much to the creative originality of its architect. One of the most striking features of his idiosyncratic style is a consistent use of detached polygonal colonnettes on the external elevations of the Palace. They are inserted in the partially interrupted stripes of solid walls at the level of huge rectangular windows so that more light is let into the *piano nobile*⁴¹. They also appear in the Tall Hallway (Fig. 11), both in the window wall and in the small internal porch leading to the Summer *Remter*, as well as in the deep window jambs of the Low Hallway. Once again, there are no comparable forms in the contemporary architecture on the Continent. In turn, we may recall a striking English analogy: the internal arrangement of the aforementioned magnificent porch of St Mary Redcliffe at Bristol, characterised by Bony as having “spatial magnificence” and being “a typical example of the new style of spatial dramatization”⁴² (Fig. 12a). Despite all the differences, its octagonal shafts, applied to the residual parts of the richly perforated strips of the wall, as well as the general sharpness of the upper storey of the porch, may have acted as a source of inspiration for the Malbork

12. a. Bristol, St Mary Redcliffe, interior of the northern porch; b. Lincoln Cathedral, supposed remnants of the shrine of bishop John Dalderby. Photo: author

41 Cf. J. Jarzewicz, *Malborski Pałac Wielkich Mistrzów*, p. 165. The eastern elevation of the Palace is a faithful reconstruction from 1823 based on numerous remnants; see: M. Kilariski, *Odbudowa i konserwacja zespołu zamkowego w Malborku w latach 1945–2000*, Malbork 2007, p. 20.

42 J. Bony, *The English Decorated Style*, p. 38.



13. Pelplin, Cistercian Church, ground plan. Drawing: author

architect. He may also have been aware of the English use of detached collonnetes, square or polygonal in section, in the microarchitecture – for instance in the base of the shrine of St Alban at St Albans (c. 1302–1308)⁴³ or in the supposed remnants of the shrine of bishop John Dalderby (d. 1320) at Lincoln Cathedral (1320s; Fig. 12b)⁴⁴. Besides, the latter construction is decorated with stepped battlements, which prefigure the curious pattern of the superimposed rectangular windows of the Grand Master's Palace⁴⁵.

Finally, it must be noted that the present-day external appearance of the residence is overwhelmed by high-hipped roofs constructed for the purposes of conservation in the years 1914–1915 and 1921⁴⁶. As shown in late-medieval and early-modern iconography, originally only the middle part of the Palace was covered with a much lower roof and all the battlements were free standing. The whole structure had a mighty, box-like silhouette, giving an impression of strength and a seemingly defensive function to the building⁴⁷. To terminate all the walls of an utterly

43 Ibidem, p. 20; N. Coldstream, *Base of the Shrine of St Alban, St Albans Cathedral*, in: J. Alexander, P. Binski (eds.), *Age of Chivalry*, pp. 207–208; eadem, *The Decorated Style. Architecture and Ornament 1240–1360*, London 1994, p. 44.

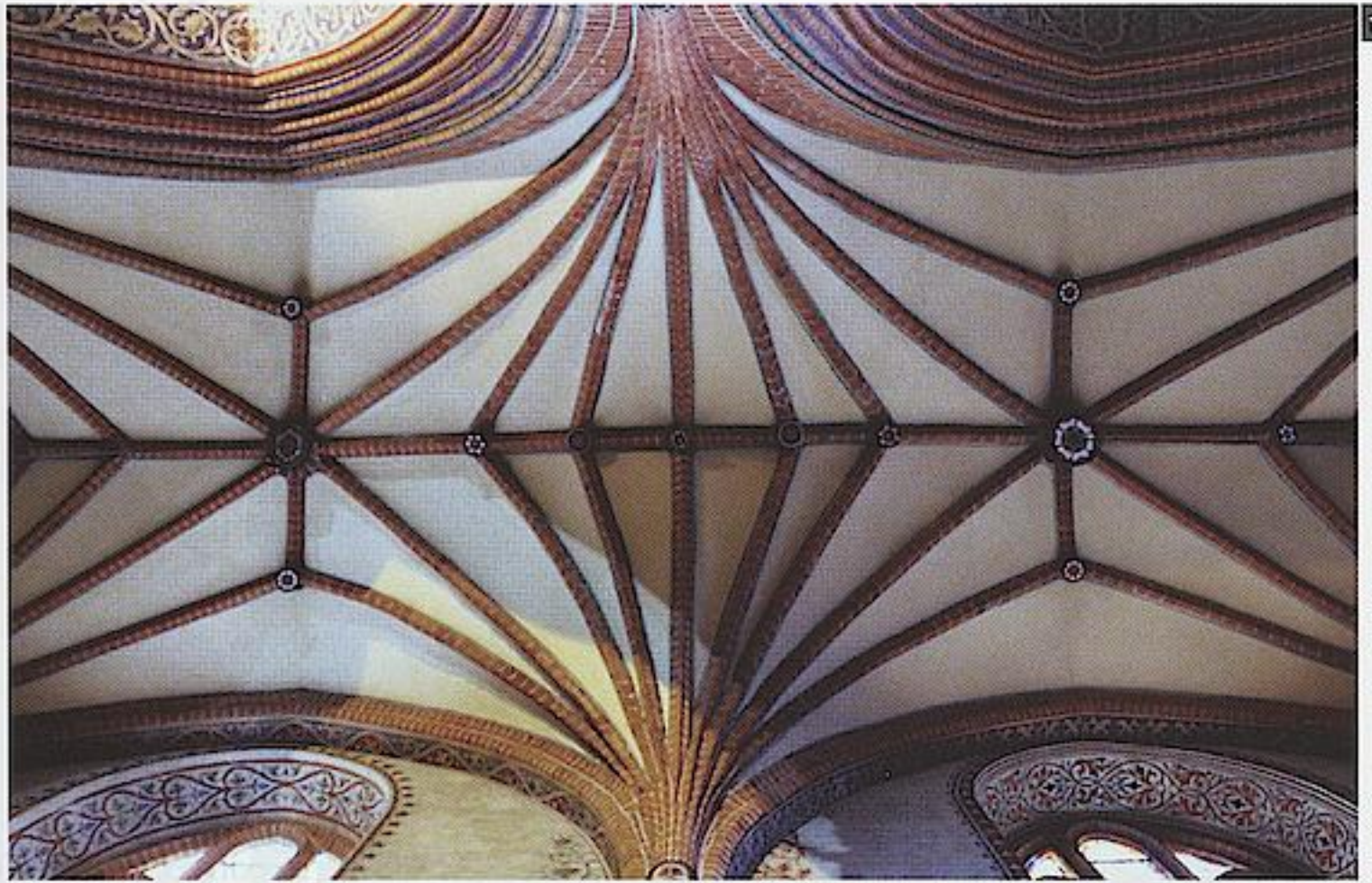
44 D. Owen, *A History of Lincoln Minster*, Cambridge 1994, pp. 134–135.

45 It is worth noting that a very similar shape of windows appeared in the last quarter of the 14th century in the second storey of the Cathedral cloister at Eichstätt in Bavaria. Curiously, the buttresses of the Cloister are supported in their lower sections with detached shafts, being the 14th-century interpretation of Romanesque twin columns. Of course, there can be no certainty whether the Malbork architect knew the Eichstätt cloister or not, since its dating is not precise. Notwithstanding this, both buildings seem to be contemporary (cf. M. Schmidt, *Reverentia und Magnificentia. Historizität in der Architektur Süddeutschlands, Österreichs und Böhmens vom 14. bis 17. Jahrhundert*, Regensburg 1999, pp. 62–63).

46 M. Kilarski, *Odbudowa i konserwacja*, p. 35.

47 Cf. K. Pospieszny, *Das Verteidigungssystem der ersten Marienburg (Preußen) und seine Änderung unter dem Einfluss der Stilprinzipien der Gotik im 14. Jahrhundert*, in: G. Eimer, E. Gierlich (eds.), *Echte Wehrhaftigkeit oder martialische Wirkung. Zur praktischen Funktion und zum Symbolcharakter von Wehrelementen profaner und sakraler Bauten im Deutschordensland Preußen und im Ostseeraum*, Köln 2000, p. 96.

representational construction was not a common thing on the Continent, but, as stated by Bony, it was a typically insular trait, popular already in the 13th century⁴⁸. There is no need to call all the notable English churches or residences crowned with purely decorative battlements. Nonetheless, it is tempting to compare



14. Pelplin, Cistercian Church, vault of the northern choir aisle. Photo: author

the sumptuous Malbork crenellation decorated with blind tracery panels and unrivalled in the Southern Baltic area with the similarly rich open-work battlements of the eastern part of the Gloucester Cathedral (c. 1331–1350). The quest for architectural splendour and virtuosity of the Grand Master's Palace was manifested not only in the exceptionally rich use of building stone, a rare feature in the areas of the brick Gothic, but also, as we may see, in the numerous motifs drawn from the renowned architecture of England.

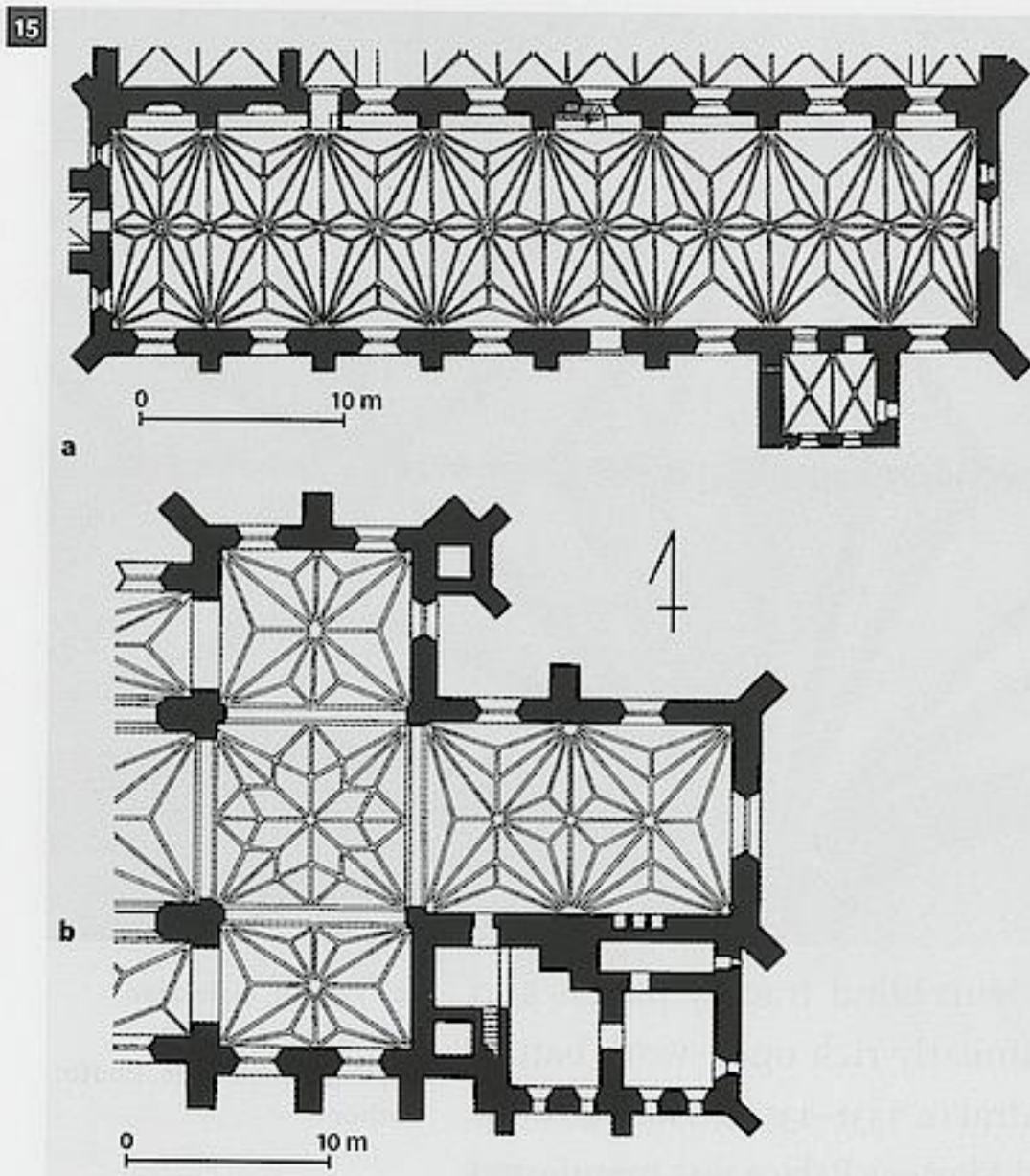
Around the same time as the construction of the Malbork residence, typically insular vaulting figurations appeared in Prussia in several important churches proving that the English stimulus was well welcomed not only by the Knights, but also by other ecclesiastical patrons. Probably at the very end of the 14th century, such vaults were constructed in the two most important Cistercian abbeys in Prussia, namely at Pelplin and Oliwa. The former was founded at its present location in 1276, but, unfortunately, we do not have any written sources concerning the building history of the present-day monumental church with a rectangular basilican choir at our disposal⁴⁹ (Fig. 13). Its northern aisle is covered with an unmistakably English four-pointed star vault with a continuous ridge rib and additional tiercerons next to the transversal ribs (Fig. 14). In the southern aisle of the choir and in both aisles of the nave this basic pattern is retained, but the ridge ribs are not continuous. Since Clasen's publication, it has been long believed that the construction of the choir was initiated soon after 1276, and that the tierceron vaults in the northern choir aisle are the first star vaults in Prussia which are English in origin and are crucial for the later development of the decorative rib patterns in the State of the Teutonic Order⁵⁰. This theory was questioned first by Janusz Ciemnołowski⁵¹ and

48 J. Bony, *The English Decorated Style*, p. 17.

49 More recent literature: P. Crossley, *Lincoln and Baltic*, p. 169–173; H. Domańska, T. Mroczko, A. Włodarek, *Pelplin. Opactwo cystersów p.w. Panny Marii oraz śś. Benedykta, Bernarda i Stanisława*, in: T. Mroczko, M. Arzyński (eds.), *Architektura gotycka w Polsce*, vol. 2, Warszawa 1995, pp. 182–184; S. Becker-Hounslow, *Der Beitrag*, pp. 77–124.

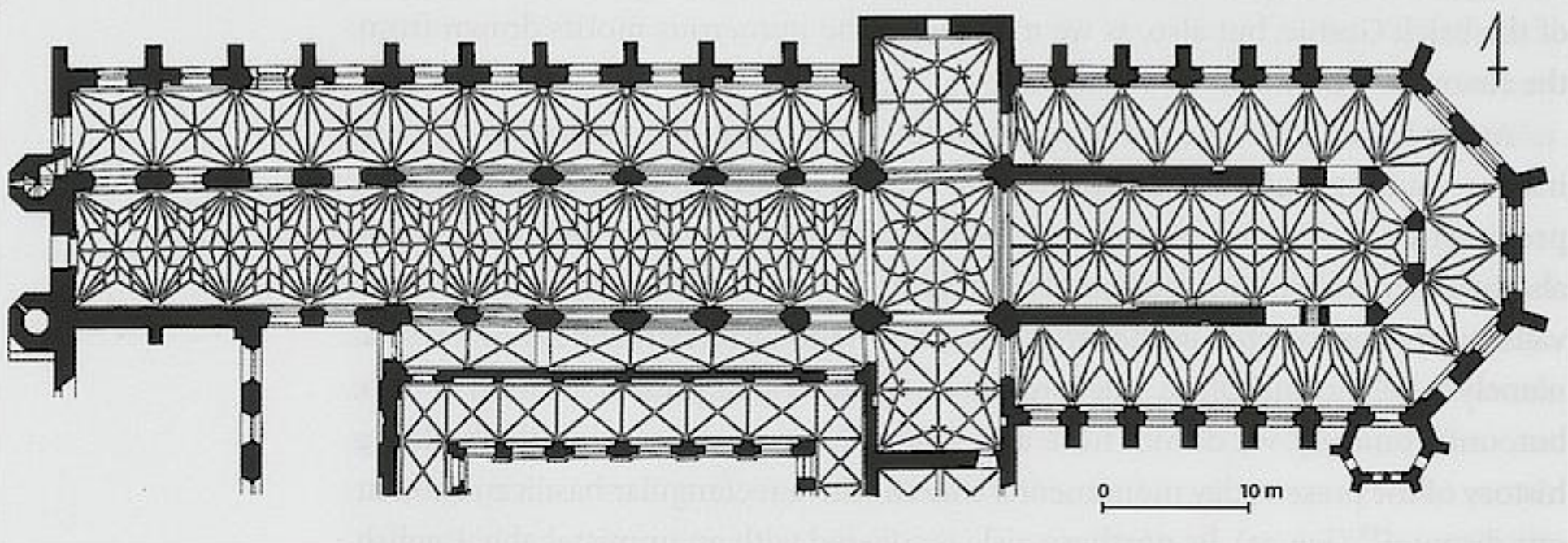
50 Cf. K.H. Clasen, *Deutsche Gewölbe*, pp. 31–34.

51 J. Ciemnołowski, *Ze studiów nad bazyliką w Pelplinie*, "Kwartalnik Architektury i Urbanistyki", 19, 1974, pp. 27–66.



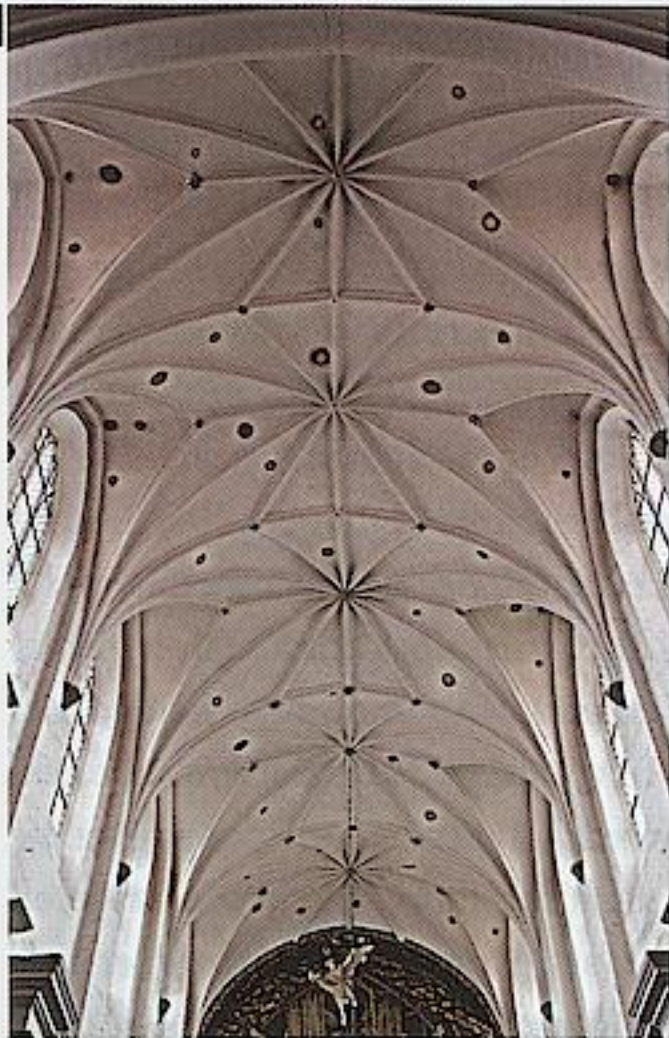
15. Ground plans:
a. Chelmsza Cathedral, east arm; b. Żarnowiec, Cistercian Nuns' Church. Drawing: author

16. Oliwa, Cistercian Church, ground plan. Drawing: author



later by Becker-Hounslow and Herrmann, who stated after a meticulous analysis that it was impossible for the monks to erect such a huge church right after their settlement in the rather tough Prussian wasteland⁵². It is worth reminding that its architectural prototype at the Pelplin's mother abbey of Doberan was not finished before the late 1290s⁵³. Although we have no written sources at our disposal, it is most probable that the present-day basilica at Pelplin, certainly not the first church of the abbey, was constructed in the course of the 14th century, and that the lierne vaults of the choir date back to the very end of the 14th century or the beginning of the 15th century, which, in turn, converges with the dating of the sculptural vaulting consoles⁵⁴. Nevertheless, it is beyond question that the Pelplin four-pointed rib patterns bear the first-hand knowledge of the English tierceron vaults codified at Lincoln

- 52 S. Becker-Hounslow, *Der Beitrag*, pp. 123–124; C. Herrmann, *Mittelalterliche Architektur im Preussenland*, pp. 158–164.
- 53 H.J. Böker, *Die Mittelalterliche Backsteinarchitektur*, p. 163. Piotr Skubiszewski, the first post-war monographer of the Pelplin Abbey, suggested (*Architektura opactwa cysterskiego w Pelplinie*, in: M. Walicki (ed.), *Studia Pomorskie*, vol. 1, Wrocław–Kraków 1957, pp. 56–61) that the flat east end of the choir was most probably modelled after similar choirs of the 12th- and 13th-century Cistercian churches in England, at Jervaulx (Yorkshire), Fountains (Yorkshire), Netley (Hampshire), Tintern (Monmouthshire), Sawley (Yorkshire), Byland (Yorkshire), Waverley (Surrey) and Rievaulx (Yorkshire). The substantial number of such monuments in England makes it thinkable that the Pelplin Cistercians knew that this type of basilican choir was especially popular among their English co-brothers. Still, it must be remembered that rectangular choirs without ambulatory appeared occasionally in the German Cistercian Abbeys as well: at Mariensee in Brandenburg (c. 1260–1271, unfinished), Hude near Oldenburg (late 13th-century) and Amelungsborn near Brunswick (c. 1300). Therefore, there is no certainty about the artistic origins of the Pelplin choir. It is only Doberan Minster that can be perceived as an obvious prototype for the Pelplin octagonal turrets and double-aisled transepts with middle supports.
- 54 Cf. T. Jurkowlaniec, *Gotycka rzeźba architektoniczna w Prusach*, Wrocław–Warszawa–Kraków–Gdańsk–Łódź 1989, p. 192.



around c. 1235–1245 and in use during the entire Decorated period⁵⁵. It is certainly a rare example of such a consistent use of the typically insular tierceron figurations. This was not without consequences in Prussia itself, where the additional tiercerons, this time next to the formerets, were applied in the vaults of the Cistercian Nuns' Church at Żarnowiec (German *Zarnowitz*, after 1389, probably early 15th century; Fig. 15a) and in the choir of the Cathedral at Chełmża (German *Kulmsee*, probably after the fire of 1422; Fig. 15b)⁵⁶.

Less controversial is the dating of the choir vault of the Cistercian church at Oliwa (German *Oliwa*, now within the borders of Gdańsk, German *Danzig*). The monastery was completely destroyed in a disastrous fire on 15 March 1350 and then completely rebuilt, with the addition of a new basilican choir with ambulatory⁵⁷ (Fig. 16). The vault must have been erected at the end of the 14th century, but there are no written sources confirming it⁵⁸. Its pattern is based conventionally on the diagonals. In the middle of each bay there is an additional pair of shorter crossing ribs placed along the continuous ridge rib and paralleled by ribs framing the side penetrations, which are linked together with the lateral ridge ribs (Fig. 17). Thus, the central keystone binds twelve sections of radiating ribs. This peculiar figuration was called an “independently Prussian experiment with neglect of bay divisions” by Becker-Hounslow⁵⁹, but much more probable is its direct English origin. Almost identical rib patterns were used in the choir vault at Pershore

17. Oliwa, Cistercian Church, vault of the choir. Photo: author

18. Pershore Abbey, vault of the choir. Photo: author

55 Cf.: S. Becker-Hounslow, *Der Beitrag*, pp. 56–60; P. Draper, *The Formation of English Gothic*, pp. 139–140; J.S. Hendrix, *Architecture as Cosmology. Lincoln Cathedral and English Gothic Architecture*, New York 2011, pp. 179–246.

56 Cf. S. Becker-Hounslow, *Der Beitrag*, pp. 113–122. Before the publication by Steffani Becker-Hounslow, the choir vault at Chełmża was dated after 1317 (cf.: T. Mroczko, *Architektura gotycka na ziemi chełmińskiej*, Warszawa 1980, p. 247; J.T. Frazik, *Sklepienia gotyckie*, pp. 13–15).

57 I. Strzelecka, B. Rol, A. Włodarek, *Oliwa. Opactwo Cystersów p.w. Panny Marii*, in: T. Mroczko, M. Arsyński (eds.), *Architektura gotycka w Polsce*, vol. 2, pp. 172–173.

58 J. Heise, *Die Bau- und Kunstdenkmäler der Provinz Westpreussen*, vol. 2: *Der Landkreis Danzig*, Danzig 1889, p. 117; J.T. Frazik, *Sklepienia gotyckie*, pp. 11–13; S. Becker-Hounslow, *Der Beitrag*, pp. 231–232.

59 Cf. S. Becker-Hounslow, *Der Beitrag*, pp. 231–232.



19. Golub, St Catherine, vault of the choir. Photo: author

ish Church at Golub on the historical border of the Prussian State of the Knights and the Kingdom of Poland. It was probably constructed after 1414, the year of the written estimation of the damages made to this 14th-century building in 1410 by Polish troops in the Great War with the Teutonic Order⁶³. It is worth mentioning that Teresa Mroczo surmised that we deal here with a faithful 15th-century reconstruction of the original vault built with the entire choir in the second quarter of the preceding century⁶⁴. The composition of the rib figuration is almost identical to that at Oliwa, with the exception that at Golub there are no additional crossing ribs in the middle of each bay (Fig. 19). Therefore, the vault looks as if additional triradials were inserted into the triangle fields on the lateral webs, created by intersections of the diagonals, and further bisected with a continuous ridge rib. Although such pattern could be perceived as a simplification of the Oliwa vault, or even of a typical four-pointed star figuration⁶⁵, it seems

Abbey (after 1288, perhaps c. 1300–1310; Fig. 18) and in the transept vaults at Milton Abbey (14th century?), with the only difference that in both cases the lateral ridge ribs span the whole width of the bay. It also appeared in the microarchitecture, for instance, in the twin tomb canopies of Nicholas de Cantilupe (died 1355) and of an unknown canon from the Wimbishe family in the Angel's Choir at Lincoln Cathedral. Besides, as noted by Józef Frazik, such a rib network contains all the distinctive elements of the so called "Bridge" net pattern⁶⁰, first used by Peter Parler in the Old Town Tower of the Charles Bridge in Prague (c. 1380–1385). Therefore, it could have acted as a source of inspiration for the German architect⁶¹. Remembering that the question of the possible English education of Parler is still a matter of a lively debate⁶², we might suggest that he eliminated some additional ribs from the constructions, as can be found at Pershore and Milton, and retained only the peculiar doubled zigzag pattern, thus created the famous "Bridge" rib network.

A similar vault to that at Oliwa was spanned over the choir of St Catherine's Par-

60 Cf. J.T. Frazik, *Sklepienia gotyckie*, p. 11.

61 S. Bürger, *Figurierte Gewölbe zwischen Saale und Neisse. Spätgotische Wölbekunst von 1400 bis 1600*, vol. 1, Weimar 2008, pp. 91–93.

62 See notes 6 and 7.

63 T. Mroczo, *Architektura gotycka*, pp. 277–280; A. Soćko, *Układy emporowe w architekturze państwa krzyżackiego*, Warszawa 2005, p. 133; C. Herrmann, *Mittelalterliche Architektur im Preussenland*, pp. 443–444.

64 T. Mroczo, *Architektura gotycka*, p. 280.

65 As suggested by Christofer Herrmann (*Mittelalterliche Architektur im Preussenland*, p. 443).

plausible that it is again a result of the English inspiration. Perhaps decisive for the creation of such rib pattern are the vaults of the nave aisles at Lincoln Cathedral (c. 1230), repeated in the aisles of the Angel Choir (1256–1280)⁶⁶ and characterised with additional tiercerons placed along the longitudinal axis and lack of lateral ridge ribs. A vault identical to that at Golub was erected after c. 1265 in the Lady Chapel of Chester Cathedral. In the 14th century it appeared, this time with ridge ribs in the lateral webs, in the southern transept of the aforementioned Benedictine Church at Pershore (c. 1300–1310), and in a monumental version in the nave of the Worcester Cathedral (1377; Fig. 20)⁶⁷.

The external appearance of the Golub choir with a decorative treatment of the stair turret and pinnacle-crowned buttresses bears an unmistakable resemblance to the greatest architectural achievement in the State of the Teutonic Order – the choir of St James's Church in the New Town of Toruń (1309–c. 1320)⁶⁸. This proves the architectural ambitions of the church investors, in this case – almost certainly the Knights, who ruled this strategically important town which was overshadowed by their magnificent castle. In this context, the presence of a prestigious English vaulting pattern at Golub may be explained by the same ambitious motivation.

In the 15th century, various architects from the Southern Baltic area became interested in the novelties of English lierne vaults, which they probably treated as an alternative to the typical and already widely disseminated tierceron star vaults. Besides, it must be emphasised that they were rather uninterested than unaware of Peter Parler's vaulting experiments in Prague, decisive to the future development of the figurative vaults in the southern and western regions of the Holy Roman Empire⁶⁹.



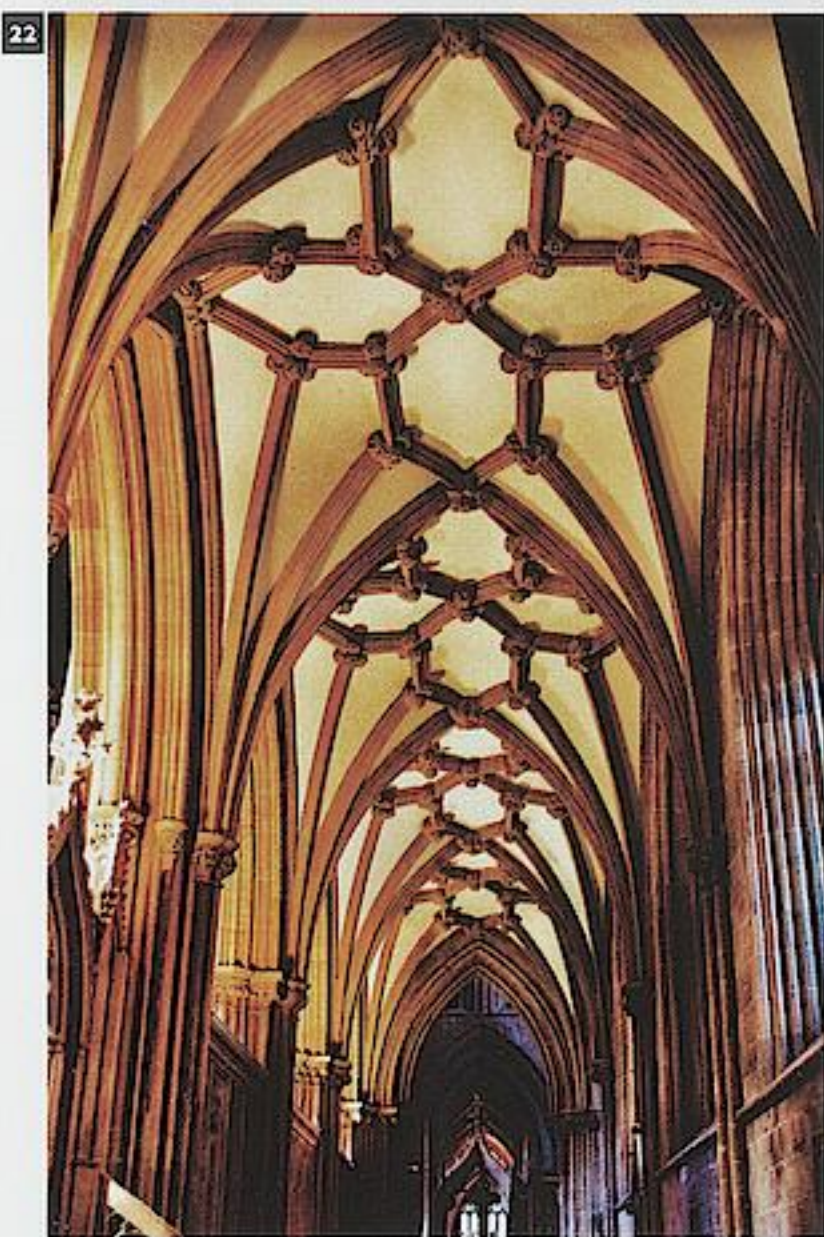
20. Worcester Cathedral, vault of the nave. Photo: author

66 S. Krämer, *Herrschaftliche Grablege und lokaler Heiligenkult. Architektur des englischen "Decorated Style"*, München–Berlin 2007, pp. 219–222.

67 T. Mroczko, *Architektura gotycka*, pp. 278–280; J.T. Frazik, *Sklepienia gotyckie*, pp. 12–13; cf.: N. Nußbaum, S. Lepsky, *Das gotische Gewölbe*, pp. 187–188; U. Engel, *Die Kathedrale von Worcester*, München–Berlin 2000 (= Kunstwissenschaftliche Studien, 88), p. 172.

68 Cf. A. Soćko, *Układy emporowe*, p. 134. About the Toruń Church, see J. Adamski, *The Pseudo-polygonal Rib Vaults, St. James' in Toruń and the Question of Illusionism in Gothic Architecture*, "Artibus et Historiae", 65, 2012, pp. 275–305.

69 A notable exception to that observation is the "Cathedral" rib network in the nave of St Catherine's Church at Brandenburg an der Havel, erected according to the plans most probably by Hinrich Brunsberg, (c. 1381–1440s) (see U. Gentz, *Der Hallenumgangschor in der städtischen Backsteinarchitektur Mitteleuropas 1350–1500. Eine kunstgeographisch vergleichende Studie*, Berlin 2003 [= Studien zur Backsteinarchitektur, 6], pp. 296–303 [with older literature]).



21. Chelmsza Cathedral, vault of the crossing. Photo: author

22. Wells Cathedral, vault of the northern choir aisle. Photo: author

The first signs of this interest appeared simultaneously at the aforementioned Chelmsza Cathedral and at St Andrew's Church at Goslawice in Greater Poland, the western region of the Kingdom of Poland. The former church was damaged by fire in 1422 started by Polish and Lithuanian troops⁷⁰. Although we know that on 13 April 1469 Bishop Wincenty Kielbasa issued a charter in which he donated a garden to the Chelmsza Chapter as contri-

bution to the Cathedral's restoration efforts⁷¹, it seems rather unlikely that the building remained ruined for almost fifty years⁷². Most probably in the 1420s or 1430s new vaults had already been erected over the choir and the crossing⁷³. The latter structure is covered with a four-pointed star pattern with lierne ribs, which form an internal inscribed cross with triangular endings based on the top of the formerets (Figs. 15b, 21). Teresa Mroczko was the first to suggest the insular origin of this peculiar rib figuration, but she was wrong in pointing out that the wooden nave vault at Chester Cathedral was erected in 1307–1377, as she assumed⁷⁴. In fact, it was built between 1461 and 1490⁷⁵.

English experiments with the inscribed lierne crosses combined with the four-pointed star patterns start with the prodigious artistic activity of William Joy in the West Country. As acknowledged by Richard Morris, Joy was probably the author of the nave vault at St Augustine's at Bristol constructed in the 1330s–1340s⁷⁶, in which the conventional star figuration is interrupted with four cusped lozenges creating a cross-like motif on the ridges of each bay. Almost identical

70 S. Becker-Hounslow, *Der Beitrag*, p. 114.

71 See *Urkundenbuch des Bisthums Culm*, vol. 2: *Das Bisthum Culm unter Polen 1466–1774*, Danzig 1887, no. 650, p. 539.

72 Christofer Herrmann was the only one to believe that the reconstruction of the Cathedral after the fire of 1422 was undertaken as late as in c. 1470–1485 (cf. idem, *Mittelalterliche Architektur im Preussenland*, pp. 535–536).

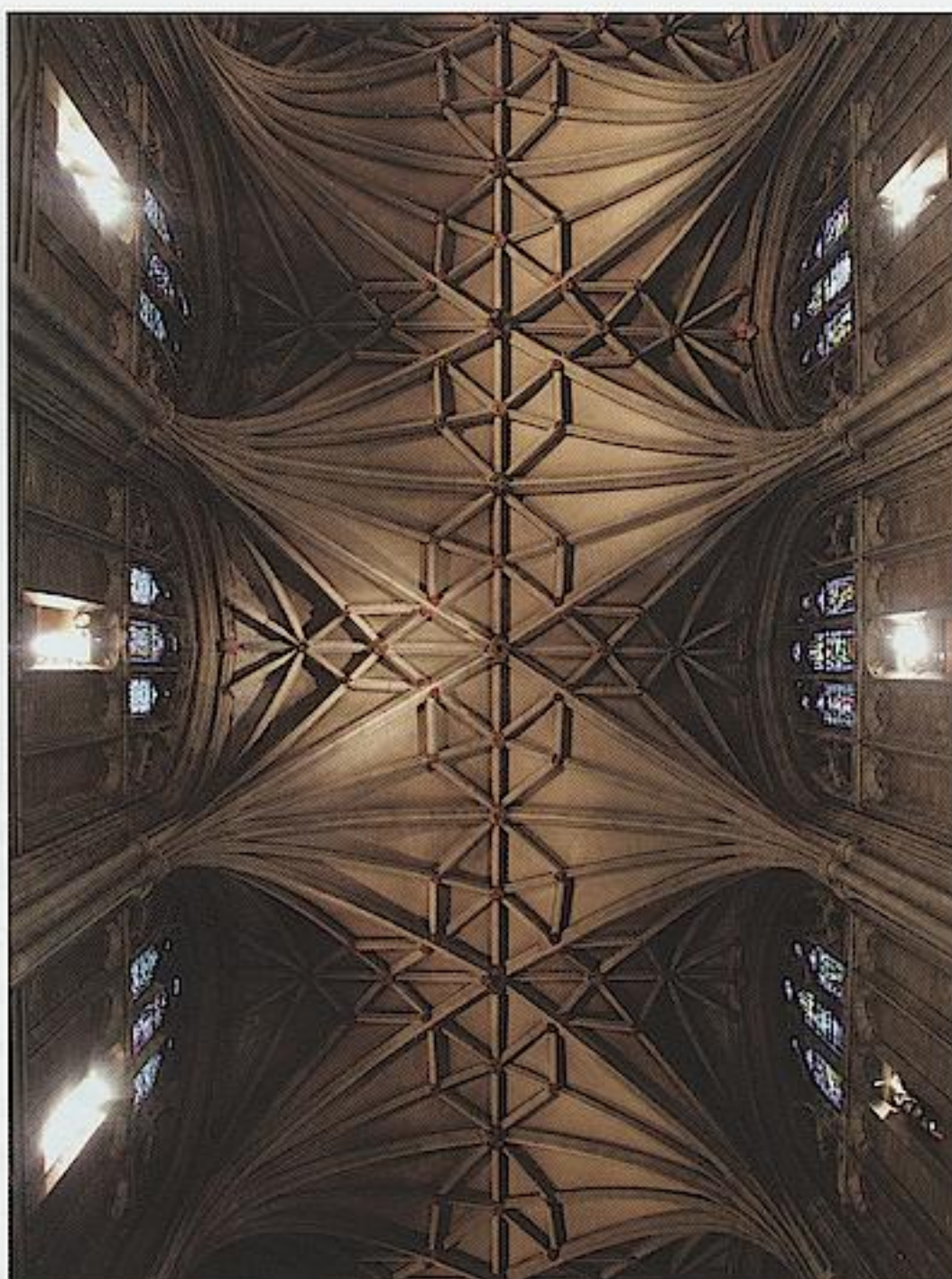
73 Such dating was accepted by: T. Mroczko, *Architektura gotycka*, pp. 247–248; J.T. Frazik, *Sklepienia gotyckie*, pp. 18–19; S. Becker-Hounslow, *Der Beitrag*, pp. 117, 119; J. Adamski, *Remote Artistic Connections of the Late-Gothic Church Architecture in Lesser Poland. Figured Vaults in the 15th Century*, in: Z. Sarnecka, A. Fedorowicz-Jackowska (eds.), *Artistic Translations between Fourteenth and Sixteenth Centuries*, Warsaw 2013, p. 105.

74 Cf. T. Mroczko, *Architektura gotycka*, p. 248.

75 J.S. Hendrix, *Architecture as Cosmology*, p. 264. The present-day structure is a 1868–1876 replacement by George Gilbert Scott.

76 R.K. Morris, *European Prodigy or Regional Eccentric? The Rebuilding of St Augustine's Abbey Church, Bristol*, in: L. Keen (ed.), *Almost the Richest City. Bristol in the Middle Ages*, Leeds 1997

patterns, just without cusps, were used by Joy in the crossing bay at Ottery St Mary (after 1337) and in the eastern arm of Wells Cathedral (c. 1326 – before 1337)⁷⁷ in the rectangular bay of the retrochoir and in both side chapels. His experiments are clearly noticeable in different shapes and positions of the ridge lozenges, and occasionally in elimination of diagonals or sections of ridge ribs. Even more influential figuration was created by Joy in the vaults of choir aisles, in which the lierne ribs form a wide inscribed cross with triangular endings. There are no ridge ribs and the diagonals appear only in the middle part of the vault (Fig. 22). This basic pattern was further transformed and combined with curvilinear forms in the southern nave aisles of St Mary Redcliffe at Bristol (c. 1337–1342)⁷⁸. In the nave vault of this church, as well as in the much later, but similar transept vaults of St Augustine's (last quarter of the 15th century)⁷⁹, the rib formation still contains the motif of an inscribed ridge cross. However, the complication and almost



23. Canterbury Cathedral, vault of the nave. Photo: author

mannerist virtuosity of the design makes it barely noticeable. Therefore, it is probable that the decisive role in standardisation and dissemination of the Wells and Bristol “inscribed cross patterns” was played by the strictly regular nave vault at Canterbury Cathedral constructed by Henry Yevele (or Thomas Hoo?) by 1405⁸⁰ (Fig. 23). Its composition is very clear, for it retains all the diagonals, tiercerons and ridge ribs, and the inscribed lierne crosses are easily detectable. It also develops the basic pattern. The insertion of additional tiercerons in the lateral webs creates a symmetry between triangular endings of the ridge crosses and additional triangular extensions based on the top of the formerets. Certainly not insignificant for the international importance of the novel architecture of the Canterbury nave was the cult of St Thomas Becket, so widespread on the Continent⁸¹, and Canterbury's location close to the Kentish shore.

(= British Archaeological Association Conference Transactions, 19), pp. 41–56. See also: S. Krämer, *Herrschaftliche Grablege*, pp. 83–122.

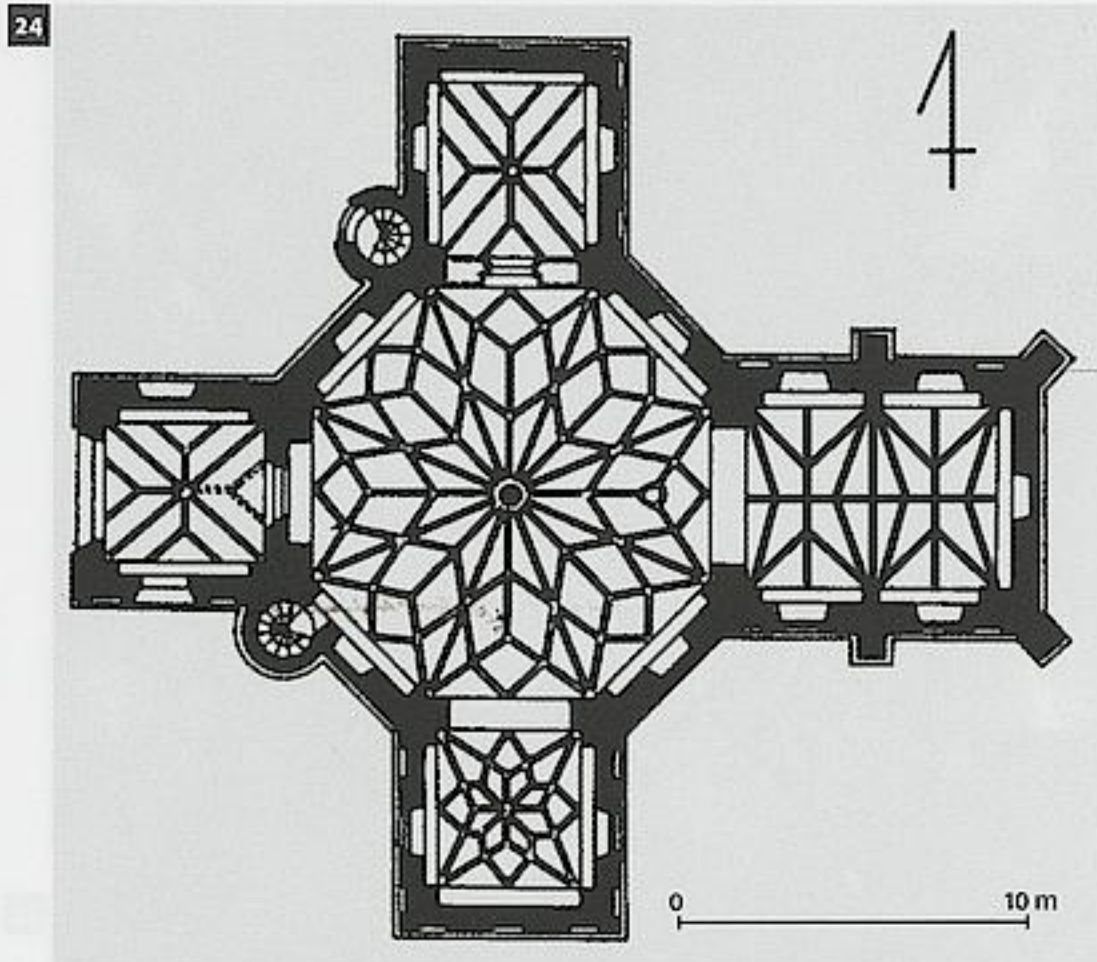
77 P. Crossley, *Peter Parler and England*, pp. 163–165; S. Krämer, *Herrschaftliche Grablege*, pp. 257–301.

78 P. Crossley, *Peter Parler and England*, n. 51 on p. 177; J.S. Hendrix, *Architecture as Cosmology*, p. 230.

79 S. Krämer, *Herrschaftliche Grablege*, p. 88.

80 H.J. Böker, *Der Beginn einer Spätgotik*, pp. 95–106; idem, *Englische Sakralarchitektur des Mittelalters*, Darmstadt 1984, pp. 289–294; J.S. Hendrix, *Architecture as Cosmology*, pp. 253–254. The attribution of the nave vault to Thomas Hoo was promoted by Francis Woodman (see: F. Woodman, *The Architectural History of Canterbury Cathedral*, London 1981; idem, *For their Monuments, Look about You. Medieval Masons and Their Tombs*, in: J.A. Franklin, T.A. Heslop, C. Stevenson (eds.), *Architecture and Interpretation. Essays for Eric Fernie*, Woodbridge 2012, p. 189).

81 Cf. M. Walczak, “Alter Christus”. *Studia nad obrazowaniem świętości w średniowieczu na przykładzie św. Tomasza Becketa*, Kraków 2001 (= *Ars Vetus et Nova*, 5).



24. Gosławice, St Andrew, ground plan. Drawing: author

25. Gosławice, St Andrew, vault of the central octagon. Photo: M. Potocki

The crossing vault at Chelmża Cathedral, though much simpler in its composition, is clearly one of the very first continental responses to the aforementioned vaulting experiments in England. It preserves all the principal ribs of a four-pointed star vault, but the central motif of an inscribed lierne cross is compositionally dominant, even more that the tiercerons are slightly broken at the intersections with the liernes.

Second among the earliest vaults of the analysed type is the exceptional church of St Andrew at Gosławice in Greater Poland. It was founded around 1418 by the Bishop of Poznań Andrzej Łaskarz and was probably finished around the founder's death in 1426⁸². It was conceived as an intentional copy of the *Anastasis* Church in Jerusalem, which is to be clearly seen in its unique octagonal plan with four rectangular annexes (Fig. 24). It is an outcome of the bishop's pilgrimage to the Holy Land between 1409 and 1411, as well as his stay at the Council of Constance in the years 1415–1418, when he certainly visited the chapel of St Maurice – a 10th-century copy of the Holy Sepulchre⁸³.

Although the central octagon with a slender polygonal pier at Gosławice bears a general

resemblance to the English chapter houses, it has been acknowledged by the Polish scholars that this is only a coincidental feature, as the church owes its shape to the long tradition of octagonal copies of the *Anastasis*⁸⁴. Nevertheless, it is beyond question that the majority of Gosławice vaults are of the English origin and that they were constructed by a workshop trained in the Prussian State of the Teutonic Order⁸⁵, where the English influence had been present since the second quarter of the 14th century.

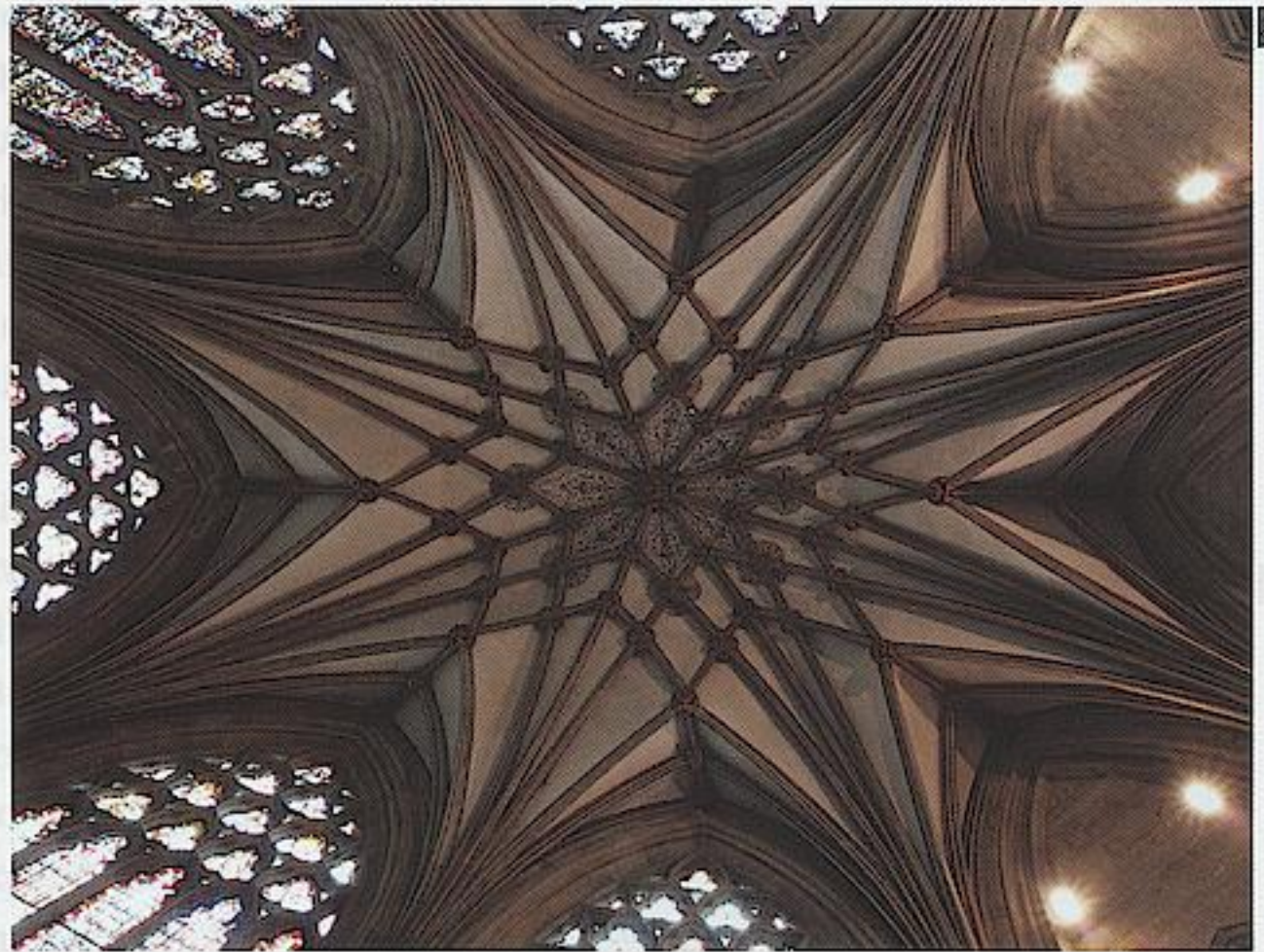
82 A. Grzybowski, *Kościół w Gosławicach. Zagadnienie genezy*, "Kwartalnik Architektury i Urbanistyki", 16, 1971, pp. 270–274.

83 Ibidem, pp. 281–308; idem, *Kościół w Gosławicach i Miszewie jako pośrednie kopie Anastasis*, in: P. Paszkiewicz, T. Zadrozny (eds.), *Jerozolima w kulturze europejskiej*, Warszawa 1977, pp. 155–168 [reprinted in: idem, *Między formą a znaczeniem. Studia z ikonografii architektury i rzeźby gotyckiej*, Warszawa 1997, pp. 120–138]; J. Kowalski, *Gotyck wielkopolski. Architektura sakralna XIII–XVI wieku*, Poznań 2010, pp. 159–179.

84 A. Grzybowski, *Kościół w Gosławicach*, pp. 298–299; J.T. Frazik, *Sklepienia żebrowe w Polsce XV wieku*, in: P. Skubiszewski (ed.), *Sztuka i ideologia XV wieku. Materiały sympozjum Komitetu Nauk o Sztuce Polskiej Akademii Nauk, Warszawa 1–4 grudnia 1976*, Warszawa 1978, pp. 530–531; J. Kowalski, *Gotyck wielkopolski*, pp. 165–170, 173–179.

85 Cf.: J.T. Frazik, *Zagadnienie sklepień*, p. 12; idem, *Sklepienia żebrowe*, pp. 530–531; M. Kutzner, *Wielkopolska, Kujawy, ziemia łęczycka i sieradzko-wieluńska*, in: T. Mroczko, M. Arszyski (eds.), *Architektura gotycka w Polsce*, vol. 1, p. 163; J. Kowalski, *Gotyck wielkopolski*, p. 170.

The umbrella vault of the central octagon is a very imaginative and individual creation (Fig. 25). It is divided with eight diagonals into triangular fields, each filled with a triradial. This is combined with two rotating lierne crosses with triangular endings, touching the highest point of a formeret on every second wall. This curious pattern is legible mostly in its ground plan. In the actual appearance of the construction, the central fountain of ribs forming an eight-sided concave cone finds culmi-



26. Wells Cathedral, vault of the Lady Chapel. Photo: author

nation in a crystal-like combination of half-cones covered with a complicated net made of liernes and tiercerons which give an impression of architectural splendour and virtuosity. The final effect is not fully dissimilar to the splendid Lady Chapel vault at Wells Cathedral by Thomas of Whitney (by 1326; Fig. 26)⁸⁶, admittedly doing without a central support, but comparable in the radiating multiplication of ribs and in the rotation of inscribed figures. It is also worth emphasising that the superposition of diagonals and inscribed lierne crosses is an outcome of the same sources of inspiration as the contemporary crossing vault at Chełmża, which is perceived as the closest work to Gosławice. This is best proved by the vault in the octagon's southern arm, which is almost identical with the cathedral crossing, with the exception that the lowest sections of the diagonals are missing. Therefore, it strongly resembles the vaulting experiments of William Joy, mostly in the choir aisles at Wells, for he was constantly rejecting the conventional diagonal ribs⁸⁷. This is also the case of the choir vault at Gosławice, which was slightly altered, probably around 1900, by removing the transversal rib and covering it with a stucco decoration⁸⁸. It features a simple four-pointed star pattern, fully devoid of diagonals. This peculiar figuration was probably first used on the Continent at the very end of the 14th century in the nave of the upper church of the Holy Cross in Wrocław (German *Breslau*) in Silesia⁸⁹. Yet, the west-English origin of this motif at Gosławice is much more probable, not only due to the presence of other insular vaulting patterns in the same church, but also because of the continuous ridge ribs on both axes of the vault.

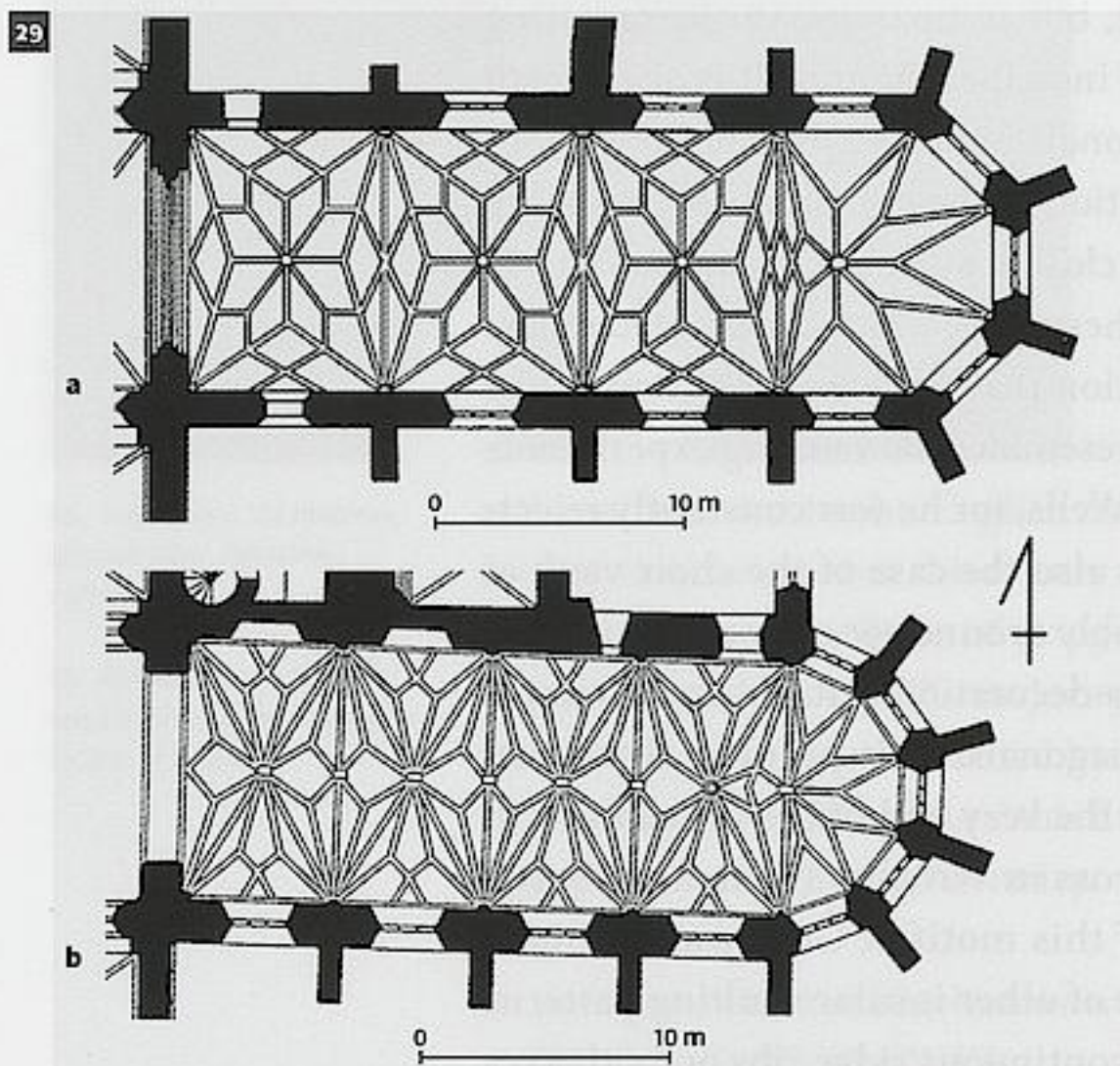
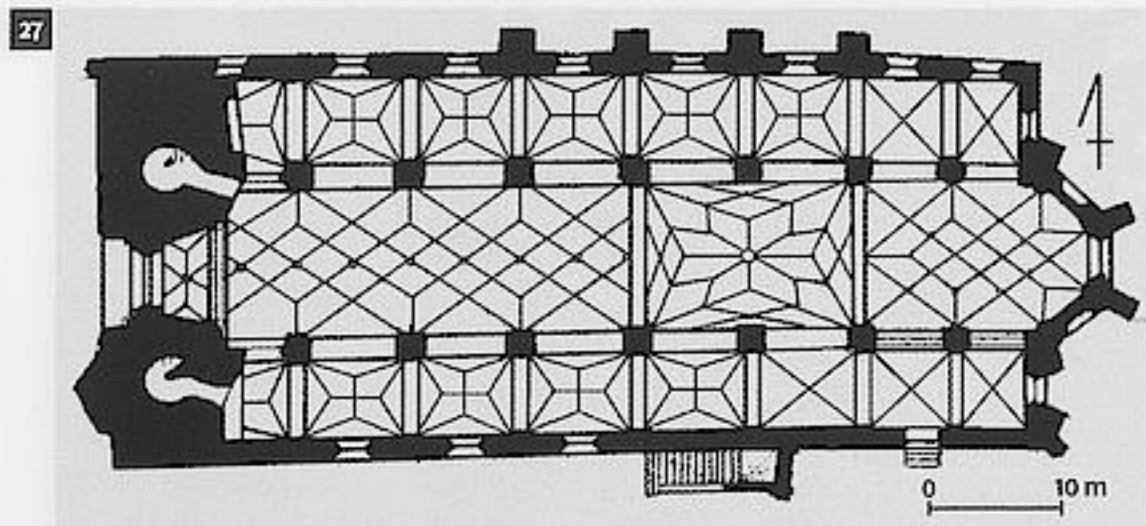
Paul Crossley observed that the Wells pattern of the lierne vaults without diagonals “seems to have had a delayed, but important, influence in Bavaria in the early 15th century”. He is here referring to the vaults by Stefan Krumenauer erected around 1450 in the choir of the Franciscan church in Salzburg and in the nave

86 J. Bony, *The English Decorated Style*, pp. 48–49; P. Crossley, *Peter Parler and England*, p. 166.

87 Cf. P. Crossley, *Peter Parler and England*, p. 166.

88 A. Grzybowski, *Kościół w Gosławicach*, p. 279; J. Kowalski, *Gotyk wielkopolski*, p. 164.

89 R. Kaczmarek, *Rzeźba architektoniczna XIV wieku we Wrocławiu*, Wrocław 1999. See also: K.H. Clasen, *Deutsche Gewölbe*, pp. 65, 77; S. Bürger, *Figurierte Gewölbe*, pp. 80–83.



27. Seeon, Benedictine Church, ground plan. Drawing: author

28. Ottery St Mary, vault of the Lady Chapel. Photo: author

29. Ground plans: a. Cracow, St Mary, choir (original state); b. Cracow-Kazimierz, St Catherine, choir. Drawing: author

aisles of St Stephen's church at Braunau am Inn⁹⁰. It is now obvious that the lierne rib constructions at Chelmza and Gosławice from the 1420s predate the earliest Bavarian examples, being perhaps the first on the Continent. In fact, such constructions had indeed appeared early in Southern Germany, even before Krumenauer started his activity. A first-hand knowledge of the

English West Country works of William Joy is apparent at the Benedictine church at Seeon (Fig. 27), rebuilt in the years of 1428–1433 by Konrad Bürkel, the most important representative of the so-called Burghausen Workshop⁹¹. He covered the 12th-century nave with a barrel with side penetrations decorated with a triple parallel rib network, which was obviously a copy of the Lady Chapel vault at Ottery St Mary (after 1337; Fig. 28)⁹². In turn, in a rectangular bay between the nave and the choir, Bürkel constructed a four-pointed star vault with an inscribed lierne cross with triangular

endings set symmetrically with short extensions based on the top of the formerets. The original appearance of this composition was altered around 1579 when some of the ribs were removed. This is the first almost literal copy of the aforementioned nave vault of the Canterbury Cathedral. The only difference is that at Seeon the lowest sections of diagonals, the ridge ribs and the additional lateral tiercerons are missing.

The Bavarian church of the Benedictines might have played an important role for the middle-15th-century figured vaults in Cracow, the capital of the region of Lesser Poland and the Kingdom of Poland⁹³. In that period, the architectural landscape of the city was dominated by some minor undertakings, like chapels, private oratorios,

porches or new decorative rib vaults. The first of these were erected as early as the 1430s, chiefly thanks to the foundation activity of Bishop (and from 1449 cardinal)

90 Cf. P. Crossley, *Peter Parler and England*, p. 166, n. 51 on p. 177.

91 N. Nußbaum, *Die sogenannte Burghausener Bauschule. Anmerkungen zur ostbayerischen Spätgotik und ihrer Erforschung*, "Ostbairische Grenzmarken", 26, 1984, pp. 85–87; N. Nußbaum, *German Gothic Church Architecture. Translated from the German by Scott Kleager*, New Haven–London, 2000, pp. 181–182.

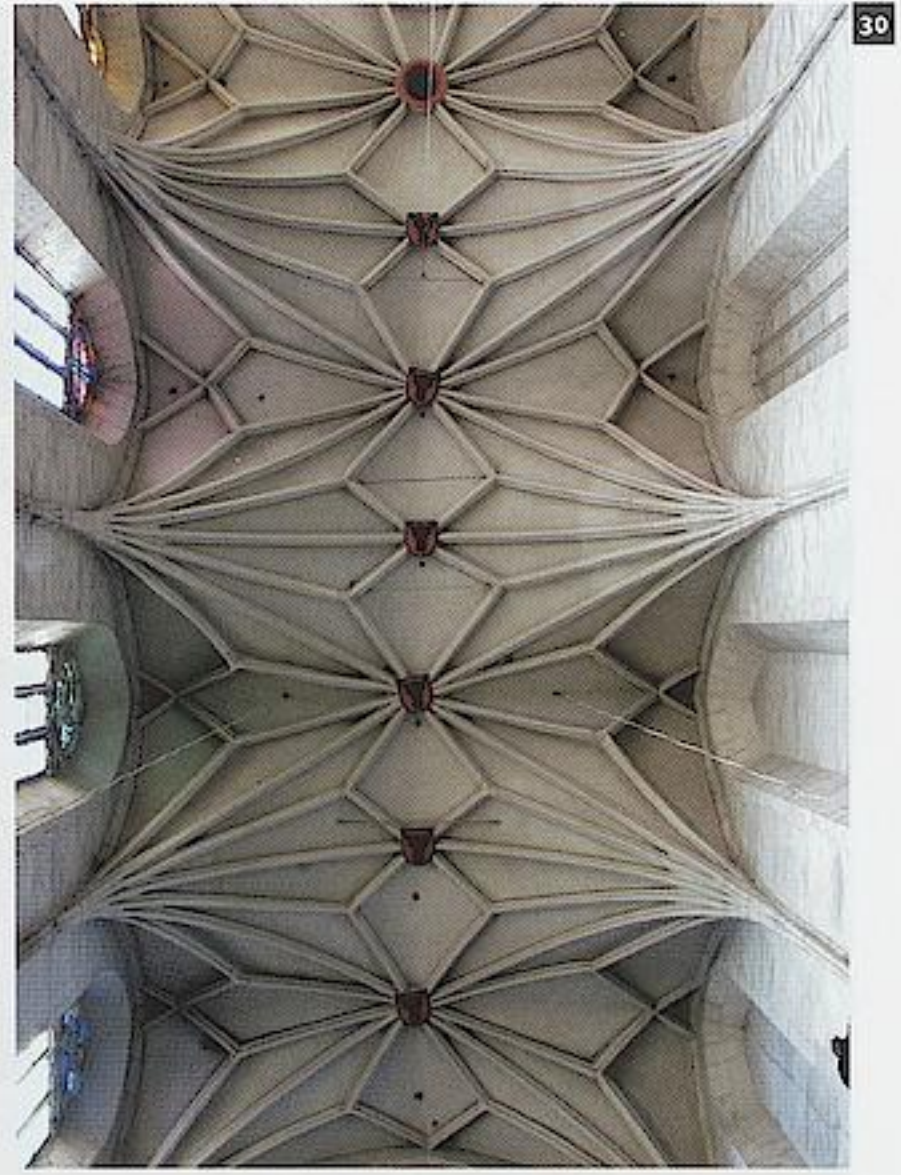
92 P. Crossley, *Peter Parler and England*, pp. 164–165.

93 Cf.: J. Adamski, *Nurty stylowe późnogotyckich sklepień w Krakowie. Przekrycia chórów kościołów Mariackiego, Augustianów i Dominikanów*, "Biuletyn Historii Sztuki", 75, 2013, no. 2, pp. 175–212; idem, *Remote Artistic Connections*, pp. 95–114.

Zbigniew Oleśnicki, who was apparently the most important founder of the works of art and architecture of that period⁹⁴. One of them was constructed in 1440 in the two western bays of the northern aisle of Cracow Cathedral, which was the result of the alterations made by the bishop to the adjoining Clock Tower⁹⁵. It has the form of a groin vault with a horizontal ridge covered in each bay with two intersecting formations of three parallel ribs⁹⁶.

Such a pattern, somewhat odd, albeit original, has no literal counterparts in the architecture of the first half of the 15th century. Frazik suggested that the Cracow construction is a unique copy of the mid-14th-century timber nave vault at York Minster (c. 1345–1360), yet devoid of the ridge ribs⁹⁷, while Marek Walczak treated it admittedly as a copy, but transmitted via architectural drawings⁹⁸. It is true that the ground pattern of the Cracow vault is similar to the triple-rib crosses from the English Minster, but its general character is markedly different, due to narrow proportions of the bays, more pitched spatial structure, and sharp and “aggressive” ribs with no decorative bosses, which are featured in York. The suggestion of an indirect English influence gains more credibility when we consider that Polish contact with the English became both friendlier and more frequent after the great battle of Grunwald (German *Tannenberg*), and that the Polish king Casimir IV Jagiellon received the Order of the Garter⁹⁹. The church at Seon may have taken on the role of a transmitter, in this case with its nave vault. The multiplication of rhomboid cells on the ridge of the vault, the steep section of the barrel and sharp profiles of the ribs with just marginal use of bosses are common features of both the Seon and Cracow constructions. As the Bavarian church was consecrated in 1433 and the Cracow vault erected in 1440, a direct link cannot be excluded.

In Cracow there are two more mid-15th-century lierne vaults which were almost certainly inspired by the Canterbury nave pattern transmitted to Lesser Poland most probably via Seon, and perhaps simultaneously via geographically far closer



30. Cracow-Kazimierz, St Catherine, vault of the choir. Photo: author

94 M. Walczak, *Remarks on Late-Gothic Vaults in Lesser Poland. The Role of the Founder in the Studies of Gothic Architecture in Central Europe*, in: *Seminaria Niedzickie*, vol. 7: *Gothic Architectures in Poland, Bohemia, Slovakia, and Hungary*, Cracow 1992, pp. 43–47; idem, *Przemiany architektoniczne katedry krakowskiej w pierwszej połowie XV wieku i ich związek z działalnością fundacyjną kardynała Zbigniewa Oleśnickiego*, “*Studia Waweliana*”, 1, 1992, pp. 7–28; idem, *Działalność fundacyjna biskupa krakowskiego, kardynała Zbigniewa Oleśnickiego*, “*Folia Historiae Artium*”, part one: 28, 1992, pp. 57–73, part two: 30, 1994, pp. 63–84. See also: idem, *Niekoľko úvah o architektúre neskoro gotických meštianskych kaplniek pri Mariánskom kostole v Krakove*, in: D. Bořutová, Š. Oriško (eds.), *Pocta Václavovi Menclovi. Zborník štúdií k otázkam interpretácie stredo-europejského umenia*, Bratislava, 2000, pp. 193–208.

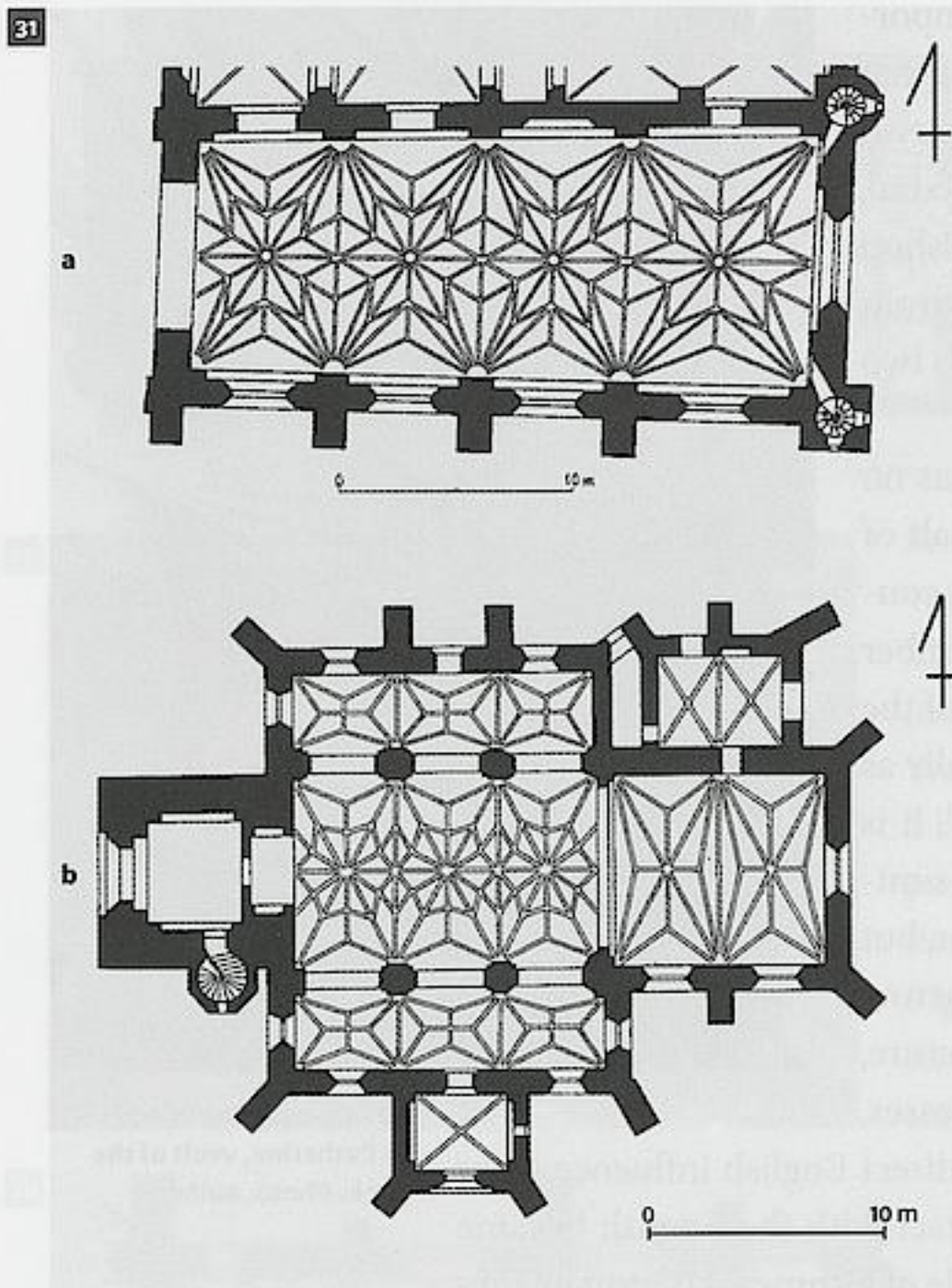
95 M. Walczak, *Remarks*, p. 45; idem, *Działalność fundacyjna biskupa krakowskiego*, pars one, p. 68; idem, *Przemiany architektoniczne katedry*, pp. 27–28.

96 In the eastern bay the sections of two ribs are missing.

97 Cf. J.T. Frazik, *Sklepienia żebrowe*, p. 536.

98 Walczak, *Przemiany architektoniczne katedry*, pp. 27–28; idem, *Działalność fundacyjna biskupa krakowskiego*, pars two, pp. 65–66, 70.

99 Walczak, *Remarks*, p. 47 idem, *Działalność fundacyjna biskupa krakowskiego*, pars two, p. 70.



31. Ground plans:
a. Gdańsk, Carmelite Church; b. Pruszcz Gdański, Holy Cross. Drawing: author

Chelmsza and Gosławice. They are the new rib constructions replacing the accidentally destroyed mid-14th-century vaults in the choirs of St Mary's Parish Church (Fig. 29a) and of St Catherine's Augustinian Church at Cracow's sister town of Kazimierz¹⁰⁰ (Figs. 29b, 30). The former was erected by Master Czipser (Zipser) from Kazimierz, in compliance with the contract signed in 1442. Unfortunately, it was barbarously altered during the renovation of the church in 1889, when its rich design was simplified to the pattern of a four-pointed star with no diagonals. The latter vault could have been constructed by the same master mason before 1450 after the earthquake in 1443, and was founded by a member of the Ligeza family (perhaps John from Bobrek Ligeza), which may be confirmed by numerous bosses with their *Półkożic* coats of arms. The common feature of both vaults is the use of triangle rib extensions based on the formerets, but the basic pattern of both constructions is slightly different. At St Mary's it was an exact copy of

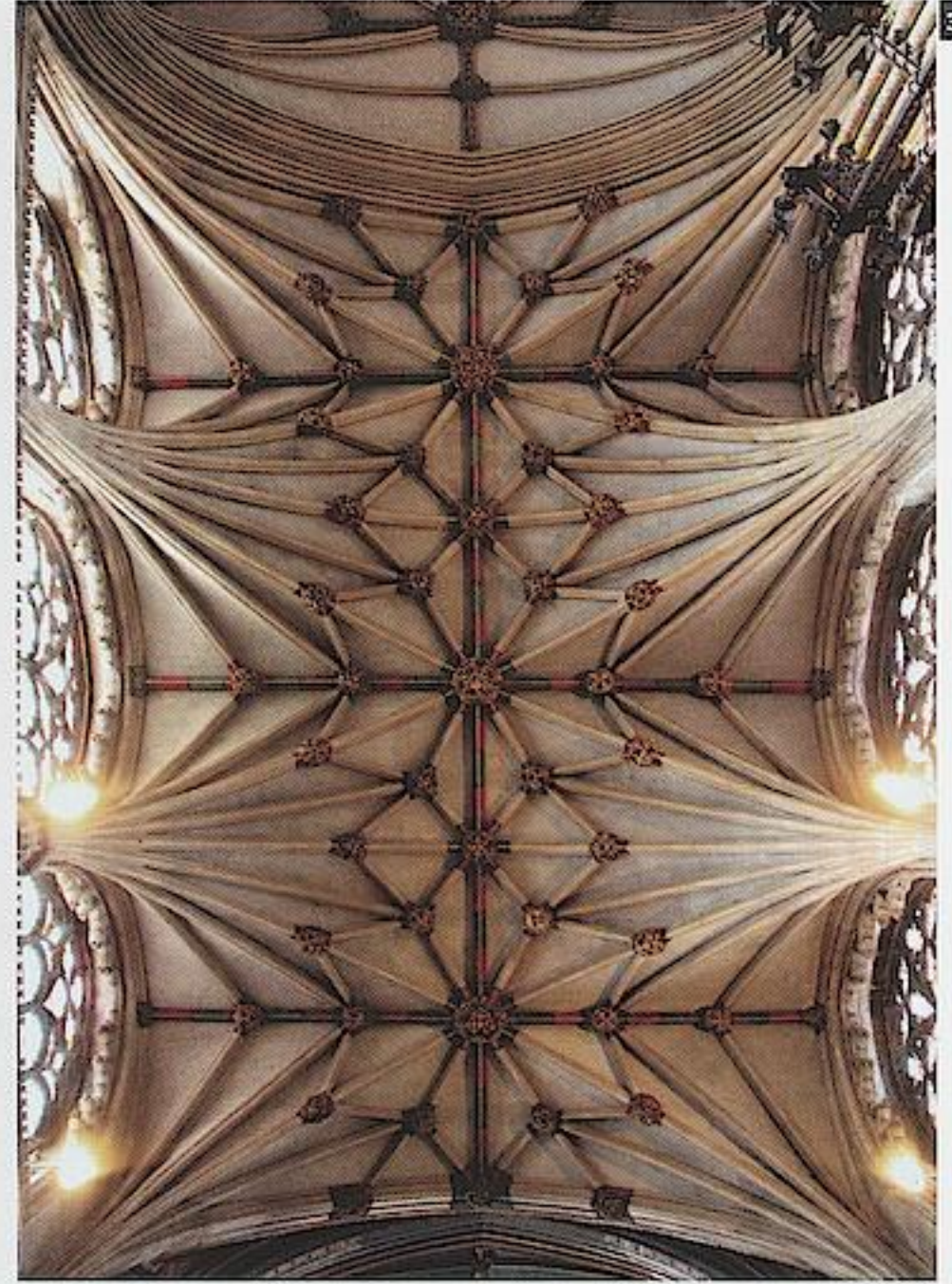
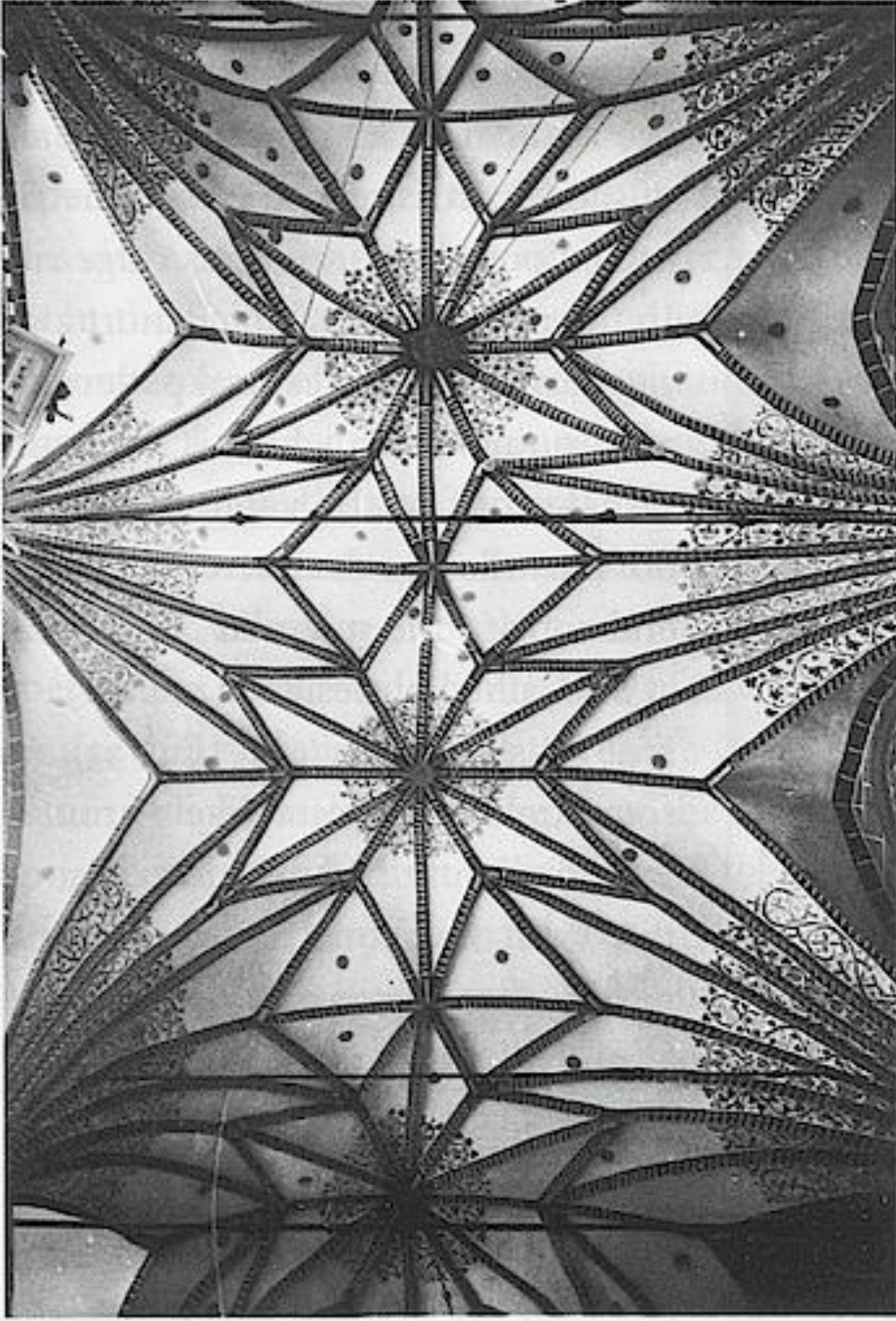
the Canterbury lierne stars in a "continental" version simplified at Seon, while with St Catherine's we deal with a sequence of eight-pointed stars devoid of ridge ribs. However, the common authorship of both vaults is almost certain. It is not without significance that Master Czipser was the burgher of Kazimierz where the Augustinian Convent is located.

The author of both constructions was probably well acquainted with European architecture. He probably knew not only the English lierne vaults, either directly from Canterbury or indirectly from Seon, but also a typically Prussian version of the eight-pointed star pattern, particularly popular in the State of the Teutonic Order since the great reconstruction of the Upper Castle Chapel at Malbork in 1331–1344, and especially around 1400¹⁰¹. It is also worth noting that the first lierne stars were used in Cracow as early as in the late 1430s, although limited in size and thus of an experimental character. Again, it was all thanks to the building activity of Bishop Zbigniew Oleśnicki, since we are referring here to the northernmost bay of the eastern walk of the Franciscan Cloister (probably before 1436) and the ground floor of the Clock Tower of the Cracow Cathedral (1437), here in a simpler version with no triangular ridge cells¹⁰². They were probably inspired by the same sources, most likely by Chelmsza and Gosławice, and acted as a catalyst for master Czipser's interest in lierne vaults, which were

100 See my monographic study: J. Adamski, *Nurty stylowe*.

101 S. Becker-Hounslow, *Der Beitrag*, pp. 211–222; C. Herrmann, *Mittelalterliche Architektur im Preussenland*, pp. 103–104. About the 14th-century phase of the Malbork Chapel see: S. Skibiński, *Kaplica za Zamku Wysokim w Malborku*, Poznań 1982, pp. 88–120.

102 M. Walczak, *Remarks*, pp. 43–44; idem, *Działalność fundacyjna biskupa krakowskiego*, pars two, pp. 68–71; idem, *Przemiany architektoniczne katedry*, pp. 7–21.



executed by him in a truly monumental version in the choirs of St Mary's and St Catherine's.

In the second half of the 15th century, in the entire Kingdom of Poland, which after the Thirteen Years' War in 1466 incorporated the former lands of the Teutonic Order along the Vistula, various patterns of decorative lierne vaults with inscribed crosses became widely disseminated, and hence there was no need to explain them as having insular influences¹⁰³. How quickly they proved to become one of the most popular rib patterns is perhaps best shown by St John's Church in Gdańsk, which had been covered with rich and varied lierne vaults by 1465¹⁰⁴.

Curiously enough, an interest in the 14th-century English Decorated vaulting patterns reappeared at the end of the 15th century again in and around Gdańsk, the richest Polish trade and harbour city and at that time a blooming centre of Late Gothic architecture¹⁰⁵. After 1496, when the roofs and gables of the newly built rectangular choir of the Carmelite Church (begun in 1482) were finished, its interior was covered with a rich lierne vault¹⁰⁶ (Figs. 31a, 32). Its composition

32. Gdańsk, Carmelite Church, vault (pre-war state). Photo: author's archive

33. Ely Cathedral, vault of the choir. Photo: author

103 Cf.: J.T. Frazik, *Sklepienia żebrowe*, pp. 521–531; idem, *Sklepienia gotyckie*, pp. 18–25; J. Kowalski, *Gotyck wielkopolski*, pp. 359–376.

104 J.T. Frazik, *Sklepienia gotyckie*, p. 19; I. Strzelecka, A. Włodarek, *Gdańsk. Kościół par. p.w. św. Jana Chrzciciela*, in: T. Mroczko, M. Arszyski (eds.), *Architektura gotycka w Polsce*, vol. 2, pp. 75–76.

105 Cf.: T. Chrzanowski, M. Kornecki, *Pomorze Wschodnie*, in: T. Mroczko, M. Arszyski (eds.), *Architektura gotycka w Polsce*, vol. 1, pp. 107–109; A. Miłobędzki, *Danzigs architektonische Bühne: 1450–1800*, in: T. Grzybkowska (ed.), *Danziger Kunst vom 15. bis 18. Jahrhundert*, Gdańsk 1997, pp. 13–34; C. Herrmann, *Mittelalterliche Architektur im Preussenland*, pp. 169–174.

106 H. Domańska, *Gdańsk. Kościół p.w. proroków Eliasza i Elizeusza, karmelitów*, in: T. Mroczko, M. Arszyski (eds.), *Architektura gotycka w Polsce*, vol. 2, pp. 80–81. Józef Frazik (*Sklepienia gotyckie*, p. 24) thought that the vault was constructed much later, i.e. after 1577 (the supposed, but much too late date of the construction of a similar vault at Pruszcz Gdański) (cf. S. Becker-



34. Oliwa, Cistercian Church, vault of the nave. Photo: author

down in the civil war between the Polish King Stefan Batory and the burghers of Gdańsk, it was covered with a decorative timber ceiling (*tabulis ligneis ornatum*). The present vault was constructed in 1582 with the financial help of the king¹⁰⁹ (Fig. 34). Once again it is a lierne construction with additional tiercerons and inscribed crosses which closely resembles the Canterbury nave vault, notwithstanding the fact that some ribs are missing, especially in the lateral webs. It shows how influential and imaginative the Decorated and early Perpendicular architecture was, still capable of inspiring far-distant works almost two or three centuries later.

-Hounslow, *Der Beitrag*, p. 236). It seems rather improbable that after a relatively quick construction of the entire choir (with roofs and gables, as confirmed by written sources), the vault would have been built almost a century later. The original construction was destroyed in 1945 and reconstructed in concrete in 1960.

107 J. Bony, *The English Decorated Style*, pp. 47–48; H.J. Böker, *Englische Sakralarchitektur*, pp. 237, 244; J.S. Hendrix, *Architecture as Cosmology*, p. 171.

108 Józef Frazik (*Sklepienia gotyckie*, p. 24) wrongly dates the vault to after 1577, when the church was renovated after the civil war between the Polish King Stefan Batory and the city of Gdańsk (cf.: J. Heise, *Die Bau- und Kunstdenkmäler*, pp. 124–130; I. Strzelecka, B. Rol, *Pruszcz. Kościół par.*, in: T. Mroczko, M. Arszczyński (eds.), *Architektura gotycka w Polsce*, vol. 2, p. 191).

109 J. Heise, *Die Bau- und Kunstdenkmäler*, pp. 99, 117; I. Strzelecka, B. Rol, A. Włodarek, *Oliwa*, p. 172; J.T. Frazik, *Sklepienia gotyckie*, pp. 23–24.

is based on diagonals and six pairs of tiercerons per bay, from which the outermost intersect with a pair of shorter crossing ribs set symmetrically along the continuous ridge rib. In the middle of each bay, short zig-zag liernes create a central pattern of a six-pointed star, which is the main visual motif of the vault. It is most obvious that we deal here with a literal copy of the splendid choir vault at Ely Cathedral, designed in the 1320s and finished by 1336¹⁰⁷ (Fig. 33). At some unknown point, likely around 1500, a slightly simplified version of this vault was constructed over the nave of the Church of the Holy Cross at nearby Pruszcz Gdański (German *Praust*), certainly under the influence of the Gdańsk Carmelites¹⁰⁸. Since there are just two pairs of tiercerons per bay, the central star pattern is even more remarkable.

The nave vault at the aforementioned Oliwa Abbey near Gdańsk might be called the latest proof of the direct English influence in the architecture of the Kingdom of Poland. Until 1577, when the church was burnt

Paraphrasing the statement of Jean Bony quoted at the beginning of the present paper, we may say that English architecture of the 13th and 14th centuries provided an important source of inspiration for Late Gothic elaboration in the Baltic area. It is especially true in case of the rib vaults, but it should not be forgotten that England was also a constant provider of alabaster sculpture, which proved to be very popular in the Baltic lands in the 14th and 15th centuries¹¹⁰. Of course, England was not the only source of architectural inspiration, nor was it even the most important. It was as well not critical for the very beginning of decorative vaults in Prussia. Obviously enough, the architectural knowledge of the Prussian and Polish architects was much broader, as can be confirmed by numerous works showing Bohemian, Southern German or even Netherlandish traits¹¹¹. Still, it is unquestionable that the spectacular Decorated architecture of England was perceived as a very attractive source of inspiration during the entire Gothic period, even if the formal complication and decorative abundance of the insular buildings was usually beyond the constructional and artistic possibilities of the Baltic architects and masons. Therefore, it remains as no surprise that we are not speaking here of the English influence at the level of whole buildings or even their basic spatial dispositions, but, above all, the decorative tierceron and lierne vaults. Even complicated rib patterns were not very difficult to construct with brick, and it was not necessary to follow the original schemes of wall articulation. In fact, any rib figuration can be applied to any type of internal articulation. What is most important is that the vaulting patterns were easily transmittable via architectural drawings¹¹². Likewise, it was easy to adjust them to the local requirements, for instance, to the polygonal east ends or to the customary curvatures of the vaulting shells, which, in turn, depended on the constructional tradition of each region. Although there are no such extant drawings from the Baltic area, they must certainly have existed as early as in the late 13th century. This is proven unequivocally by the rich Southern German collections of architectural drawings and lodge sketchbooks from the 15th and 16th centuries, in which vault projects and vault cut models constitute the vast majority¹¹³. In his book on the German Gothic Church Architecture, Norbert Nußbaum emphasised that the figured rib vaults were the main device of Late Gothic architecture, and were the main focus of great church architecture since the early 15th century. Designing complicated rib patterns with extensive geometrical design-aids was the most important task of a master mason, especially in Southern Germany¹¹⁴. It should, however, be noted that this phenomenon was earliest found in the Southern Baltic area, where figurative vaults had been developing since around 1300, with a distinct English flavour. ●

110 Cf. Z. Massowa, *Angielska rzeźba alabastrowa z XIV–XV wieku w zbiorach polskich*, exhibition catalogue, Gdańsk, National Museum, 30 August – 29 November 1996, Gdańsk 1996.

111 See, among others: A. Grzybowski, *Niderlandyzm w gotyckiej architekturze pomorskiej*, in: T. Hrankowska (ed.), *Niderlandyzm w sztuce polskiej. Materiały Sesji Stowarzyszenia Historyków Sztuki, Toruń, grudzień 1992*, Warszawa 1995, pp. 279–301; C. Herrmann, *Mittelalterliche Architektur im Preussenland*, pp. 157–200.

112 Cf. P. Crossley, *Wells, the West Country*, p. 98.

113 Cf.: H.J. Böker, *Architektur der Gotik. Bestandskatalog der weltgrößten Sammlung an gotischen Baurissen (Legat Franz Jäger) im Kupferstichkabinett der Akademie der Bildenden Künste Wien mit einem Anhang über die mittelalterlichen Bauzeichnungen im Wien-Museum Karlsplatz*, Salzburg 2005; R. Bork, *The Geometry of Creation. Architectural Drawing and the Dynamics of Gothic Design*, Farnham–Burlington 2011.

114 N. Nußbaum, *German Gothic*, pp. 180–185, 195–198.