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Written in architecture... St. James' Church in Toruń – the Gothic pearl of Pomerania discovered by archaeologists

Abstract

The article is about the Church of St. James in Toruń, which underwent archaeological research between 2008 and 2020. The author's goal was to present the most important findings and the conclusions drawn upon them.

During excavations, numerous traces of architectural alterations and pieces of sacrum furnishings were discovered. Examination of the foundations and stratification, as well as OSL dating of the bricks, proved that construction of the parish church in the Nowe Miasto Toruń began shortly after the city's foundation (1264). This structure was destroyed in the 13th century.

Analyses have revealed that the year 1309, previously considered the beginning of the parish church's construction, denotes to the construction of the new, second chancel. The basilica structure of the Nowe Miasto Toruń parish church, from the foundations to the roofing of the nave, was built in stages, from approximately the 3rd quarter of the 13th century to 1368. During the 15th century, chapels were built on arcaded foundations. After 1667, the old monastery was joined to the chancel by a corridor, and the claustrum was expanded.

From the 13th century, baptisms were performed at a stone baptismal font. In the 15th and 16th centuries, the interior was decorated with a floor adorned with flour de lis; a tombstone lay in the Chapel of St. Valentine, and a stone washbasin was used for ablutions in the sacristy.

This article points to the importance of archaeology in understanding the architectural history and the origins of Toruń's Nowe Miasto, thanks to interdisciplinary research on the Toruń church, considered a gem of Gothic architecture of Pomerania.

Key words: St. James Church, Toruń, Gothic architecture, archaeology, reconstruction of construction stages

Introduction

These considerations focus on the structure of St. James's Church in Toruń, recognized as a pearl of Pomeranian architecture, built from the 2nd half of the 13th century to the beginning of the 16th century and slightly modified until the 19th century (Figs. 1–3).

The author's goal is to demonstrate the crucial role of archaeological discoveries and findings in understanding of the construction process, development stages, and the architectural alterations. She also addresses the hypotheses put forward by those who analyzed St. James's Church many years ago, some of whom believed that the construction of the first church in the Nowe Miasto Toruń [New Town of Toruń] begun immediately after the city's founda-

tion, and others who believed that this history commenced only in 1309.

State of research

The building in question is the parish church of the historic Nowe Miasto Toruń, founded by the Teutonic Knights in 1264 (31 years after the founding of the Old Town of Toruń), located a short distance from the Vistula River, northeast of the Teutonic stronghold (1231). As it transpires from the literature of the subject, the parish church of Nowe Miasto Toruń – formerly dedicated to Saints James and Philip¹ – has been the subject of research by many architects and historians, primarily medievalists and art historians,

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¹ See the inscription on the southern wall of the chancel: [...] CHORUS ET PERFICIENDUS AD LAUDEM SANCTI JACOBI PARITERQUE PHILIPPI IN QVO LAUDANDUS DEUS EST...



Fig. 1. Toruń, St. James' Church:

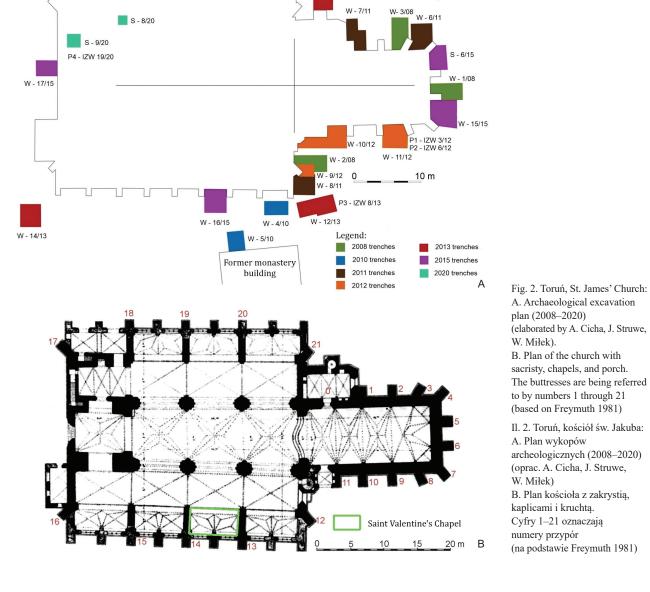
A. View of the sacristy; the western tower in the background (photo by K. Sulkowska-Tuszyńska), B. View of the chapels adjacent to the southern nave (photo by W. Ochotny)

Il. 1. Toruń, kościół św. Jakuba:

A. Widok na zakrystię; w tle wieża zachodnia (fot. K. Sulkowska-Tuszyńska), B. Widok na kaplice przylegające do nawy południowej (fot. W. Ochotny)

W - 13/13

W - 7/11



A. Archaeological excavation plan (2008–2020) (elaborated by A. Cicha, J. Struwe, W. Miłek). B. Plan of the church with sacristy, chapels, and porch. The buttresses are being referred to by numbers 1 through 21 (based on Freymuth 1981) Il. 2. Toruń, kościół św. Jakuba: A. Plan wykopów archeologicznych (2008–2020) (oprac. A. Cicha, J. Struwe, W. Miłek) B. Plan kościoła z zakrystią, kaplicami i kruchtą. Cyfry 1-21 oznaczają numery przypór (na podstawie Freymuth 1981)

since the 2nd half of the 17th century. In the 19th century, when Poland was under partition, these were mainly German researchers (Steinbrecht 1885, 26–30; Heise 1889, 291–315; Wernicke 1839, 40–42). In the 20th and 21st centuries, Polish specialists gradually joint in this scientific discourse (Mroczko 1980; Freymuth 1981; Kutzner 1986; Krantz-Domasłowska, Domasłowski 2001; Sulkowska-Tuszyńska 2022a, 18–21; Błażejewska 2022, 7–31; Pilecka 2023).

The exterior of St. James' Church in Toruń is preserved in its Gothic style (Figs. 1, 3) with a Renaissance porch; in the sacred space there are preserved polychromes and inscriptions, mainly medieval and baroque works of art.

The first systematic archaeological research was conducted at this site (site # 360) by the so-called Jacob's Expedition of the Institute of Archaeology of the Nicolaus Copernicus University (Sulkowska-Tuszyńska 2022a, 22-26). The object of research was a complex problem, made all the more difficult to analyze and interpret because it could only be observed from the outside² (Fig. 2A). From 2008 to 2020, research was carried out in eight installments - mainly around the chancel; only four trenches were set up near the nave from the south and west and between the church and the monastery³. In 2020, due to the pavement change around the church, rescue research confirmed and enriched this knowledge. The findings, concerning the architecture, the church cemetery and the material culture of Toruń's inhabitants, have been presented in numerous publications (Sulkowska-Tuszyńska 2022a; 2022b; 2023a)⁴.

The research on St. James's Church also aimed to verify old theses, in order to answer important questions asked by researchers who analyzed this structure thoroughly, but out of necessity, only above ground level – Teresa Mroczko (1980) and Otto Freymuth (1981). Independently, but unanimously, they called for archaeologists to urgently uncover the temple's foundations to clarify hypotheses that could not otherwise be proven. This research was summarized in a monograph on St. James's Church (Sulkowska-Tuszyńska 2022a, 47–50). In this article, additional results from rescue research have been added (Sulkowska-Tuszyńska 2023a) and others, yet unpublished

The history and architecture of St. James's Church

The architecture of St. James's Church stands out from the medieval hall-style buildings prevalent in Pomerania, including Toruń. Its basilica form stands out. The building features a relatively long and narrow chancel and a short nave, centered on a massive tower with a two-gable roof (Figs. 2B, 3B). The high chancel is squarely closed, with





Fig. 3. Toruń, St. James' Church:
A. View of the chancel from the south.
Fragment of the inscription is visible (photo by A. Cicha),
B. View from the southeast of the stair tower and western tower (photo by K. Sulkowska-Tuszyńska)

II. 3. Toruń, kościół św. Jakuba:
A. Widok na prezbiterium od południa.
Widoczny fragment inskrypcji (fot. A. Cicha),
B. Widok od południowego wschodu na wieżyczkę schodową i wieżę zachodnią (fot. K. Sulkowska-Tuszyńska)

a small sacristy to the north. The entire structure is surrounded with buttresses – on the straight sections of the walls, they are perpendicular to the church axis, on the corners, diagonal and doubled, and at the nave, single (Figs. 3A, 2B)⁵. Some charm is added by two turrets with stairs inside – a high polygonal one, from the south, at the junction of the nave with the chancel, and a low one, from the north,

² Inside, it was possible to set up two surveys – in the northern nave and at the western tower, where the new floor was not laid.

³ Between 2008 and 2020, 19 trenches (W-1/08 to W-19/19) and nine surveys (S-1/11 to S-9/20) were opened. Systematic excavations were conducted while students were trained during fieldwork. Discoveries inside the church were made possible thanks to financial support from the Provincial Conservation Center in Toruń.

⁴ There is older literature and a blog: archeologia.jakub.wordpress.com.

⁵ See also the new plan of St. James's Church made in 2010, 2011 – measurements by M. Tuszyński, drawing by W. Miłek (after: Sulkowska-Tuszyńska 2022a, Fig. 14 and page 48/49).

on a quadrangular plan with a cut corner – while also being a pillar of the supporting arch stretching over the sacristy (Figs. 3B, 1A)⁶. To the north and south, the naves are flanked by shallow chapels nestled between buttresses. The smallest and newest chapel, adjoining the western wall of the nave, is located next to the main portal (Figs. 1A on the right, 1B, 2B). Soaring over the entire complex and the city, the massive tower, on the axis of the complex, was built into the western bay of the nave. It is flanked on the north and south by two rooms that extend the side naves. Here is the main portal of the church. Near the tower, on the north side, is a Renaissance plastered porch with two portals leading into the interior (Fig. 2B).

The history of St. James's Church is crucial for considering the circumstances of architectural alterations. It was founded by the Teutonic Knights rather than the townspeople, a fact that has been and continues to be a subject of debate (Błażejewska 2013), in the mid-14th century, the church, together with the hospital and school, was handed over by the Teutonic Knights to the Cistercian nuns of Toruń under the patronage of the Teutonic Knights (Błażejewska 2022, 86–98). Until the mid-16th century, Catholics prayed in this church; from 1557, for 110 years, it was occupied by Protestants. Since 1667, it has been Catholic again.

With the advent of the Reformation, already in the 1520s and 1530s, new religious trends reached Toruń, leading to the Lutheranization of the townspeople and the city in the middle of the century (Cackowski et al. 1994)⁷. Protestants took over St. James's Church, removing many furnishings, rearranging the interior and whitewashing the walls to cover the polychromes. Over time, the side altars were likely taken apart and perhaps the flooring was replaced⁸. The abandoned monastery was converted into a warehouse and granary. During the, so-called, Swedish Deluge, the church suffered shelling and robbery of the bells. Only in 1667 were the nuns allowed to return to the reclaimed church and old monastery⁹. The Protestant city authorities distrusted the monastic orders and were hostile towards Catholics, so it became necessary to create a cloistered area near St. James's Church through construction of a corridor to ensure safe passage between the church and the monastery for the nuns. In the 18th century, the chancel was surrounded by new monastery buildings¹⁰.

In 1833, the Prussian occupying authorities forced the Cistercian-Benedictine nuns to abandon their church and

convent, thus beginning the dissolution of the monastery. Several years later (1837), the Prussian authorities informed the parishioners of their intention to close down the cemetery, prohibiting burials in there. To this day, St. James's Church serves as the parish for the former Nowe Miasto Toruń and the surrounding neighborhoods (Sulkowska-Tuszyńska 2022a, 330, 331).

Of the many publications, two are particularly important for the archaeologist studying architecture. The first were the research of Mroczko (1980), who demonstrated that St. James's Church was not a homogenous structure, but was rather modified during its construction. Based on the "abnormal" arrangement of the corner, doubled buttresses of the chancel, she suggested that the original concept of the church had already been altered during construction (Fig. 2B, 3A). She assumed that the chancel was extended by a single bay, added from the east, over which a pseudopolygonal vault was installed. Due to the homogeneity of the chancel with brick facing (a Polish bond), Mroczko believed that the hypothesis of the chancel's extension could only be verified in the foundation section. In conclusion, she assumeded that the construction of the chancel began in the 4th quarter of the 13th century, and subsequent construction phases lasted from 1309 to approximately 1349 (Mroczko 1980, 167, 168). The second researcher, Freymuth (1981)¹¹, was also doubteful that the year 1309 could be the starting point of construction work on the church and rightly believed that this date could be connected with the reconstruction of the chancel. He suggested also, that the entire structure was built by at least two masters and that older forms are found in the naves, so the chancel is younger than the naves (!). He stated that the master of 1309 must have taken into account remnants of an older building, which may have had a polygonally closed chancel, converted to a square one after 1309. According to Freymuth, the new chancel was built on old foundations the length and width of the old choir (1981, 14, 28, 30, 56–66, 72, 73); ultimately, he concluded that by the beginning of the 14th century, nothing remained of the original chancel, but the naves had survived in their original form. He believed that around 1253 (before the city foundation) the construction of the first church with a three-sided closure began, from 1309 a new chancel was built, and already in 1349 the construction of the first of the side chapels between the buttresses of the naves began (Freymuth 1981, 83, 98) (Fig. 2B).

Liliana Krantz-Domasłowska expressed the opposite opinion, claiming that [...] the presbytery had the same form as it has today from the very beginning (Krantz-Domasłowska, Domasłowski 2001, 47). Jakub Adamski was convinced of the perfect compositional uniformity of all the presbytery elements (2010, 19), and Adam Soćko concluded that the different arrangement of the diagonal buttresses

⁶ The nave and sacristy were surrounded by supporting arches extending from the main walls to the buttresses. As a result of the construction of chapels and the raising of the roof, these arches were obscured. The arch extending onto the sacristy's turret is the only visible element of this structure today.

⁷ The privilege of King Sigismund Augustus of December 12, 1558, allowing the preaching of the Gospel according to the Augsburg Denomination (Cackowski et al. 1994).

⁸ This is merely a supposition. Inside, two fragments of such tiles were found in two of the surveys.

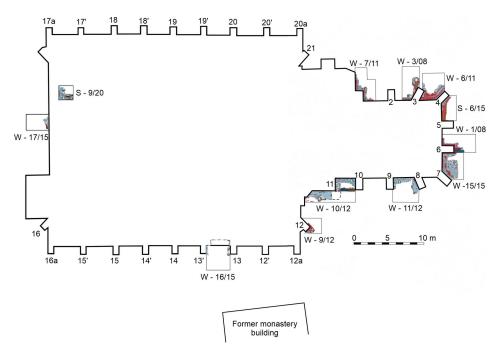
⁹ At the same time, the nuns lost their convent on the Vistula River, which was destroyed by the Swedes.

This is indicated by preserved iconographic sources – plans of Toruń from the 18th century and the results of archaeological research at the contact point with the old monastery building (Cicha 2010; Sulkowska-Tuszyńska, Cicha, 2010).

¹¹ Freymuth was associated with Toruń until the end of World War II. He died in Goslar in 1953. Only a year after Mroczko's publication did his work on the stages of construction of St. James's Church appear. What is significant here is that many of the conclusions reached by both researchers, undoubtedly formed independently, are convergent, and that several of them have been positively verified.

Fig. 4. Toruń, St. James' Church.
Foundations of the church
uncovered during archaeological
excavations 2008–2020.
The buttresses are being referred
to by numbers 1 trough 21.
Blue and grey – stone foundation
in limestone mortar. Red – brick
foundation and offsets
(drawing by W. Miłek based on
the documentation
of the St. James' Expedition)
II. 4. Toruń, kościół św. Jakuba.

Fundamenty kościoła odsłonięte podczas badań archeologicznych 2008–2020. Cyfry 1–21 oznaczają numery przypór. Niebieski i szary – fundament kamienny w zaprawie wapiennej. Czerwony – fundament ceglany i odsadzki (rys. W. Miłek wg dokumentacji Ekspedycji Jakubowej)



resulted from the need to transfer the forces of the vault's weight (2010, 60). Many of these theses were verified in the course of archaeological work. The results of eight excavation campaigns conducted at the church were made available in the form of articles, lectures, monographs of the object, at exhibitions (Sulkowska-Tuszyńska 2022a, literature there)¹² and in numerous presentations.

Results of archaeological and architectural research

After archaeological and architectural research, seven stages (I–VII) of construction and alterations in the building process were discerned (Figs. 4, 5A–D).

The rationale for differentiation of the construction stages and history of St. James's Church has diverse footing and importance – it stems from observations of architectural changes, primarily revealed in the foundations, data encoded in the stratification of cultural layers, and the context of artifacts deposited. Written and iconographic sources were also used, and above all, the results of brick dating by the OSL (Optically Stimulated Luminescence) method. Unique medieval objects discovered during excavations, related to the function and furnishings of the parish church, also speak to the character of this architecture: a stone baptismal font and tombstone, floor tiles, and a water tank by the sacristy.

It has been established that the construction of this church began immediately after the town was marked out.

Stage I

Presbytery and western massif (Phase I: after 1264 – before 1309: IA – construction of the presbytery I and IB – beginning of construction of the western massif) (Fig. 5I).

After digging the foundation ditch and collecting the building materials, the construction of the foundations began, using field stones, laying them in layers and pouring mortar on top (Fig. 6A; phase IA). The stone foundations of the chancel, both the walls and the buttresses, were consistent in all the examined locations; they were built all at once. The first church in Nowe Miasto Toruń, built after the city's foundation until the beginning of the 14th century (before 1309), had a rectangular chancel, square-ended on the east, with one diagonal buttress resting on a foundation uniform with the eastern wall in the northeast corner (Fig. 5I, 10B). Both southern corners of the chancel, however, had foundations that extended significantly beyond the main walls to support some circular or polygonal masonry structures (presumably turrets). A layer of mortar remained on the top of these foundations (up to 2.2 m high, 3.5 m diagonal) (Fig. 6A, on the left). In other places the first presbytery was surrounded by buttresses set at right angles to the axis (Fig. 6A on the right, 6B - F0-1, phase IA). The firing time of the bricks sampled from the offsets of the north-east corner of the chancel, above the foundation stones, was determined to be the 13th century, closer to the 3rd quarter of the century¹³. Thanks to the dating of the bricks, it is known that the western massif was built no lat-

¹² St. James's Church has been undergoing renovation and conservation work for several decades, both inside and outside. During this work, additional polychromes and inscriptions (14th–18th centuries) were uncovered, most of which have already been published (Kluczwajd 2010; Błażejewska, Pilecka and Saar-Kozłowska 2023).

¹³ OSL dating indicates that the bricks from the lower offset: JK4 were fired no later than 1221, and from the lower offset, near JK5, no later than 1262. From the sacristy from the outside: JK3 – ca. 1300 (Chruścińska et al. 2014, Fig. 39, Table 5). The bricks from the northeastern corner of the chancel were the oldest of all those used in the structure of St. James's Church.

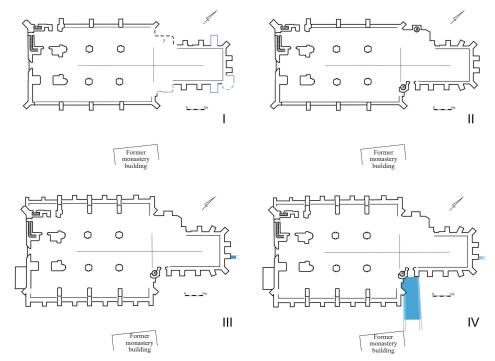


Fig. 5. Toruń, St. James' Church. Stages of church reconstruction: I – Phase I (beginning of construction), II – Phase II (reconstruction after 1309), III – Phase III (addition of chapels); IV – Phase V, addition of a connecting passage and construction of the modern monastery Blue – connecting passage foundation (Phase V) (elaborated by K. Sulkowska-Tuszyńska, drawing by W. Miłek) II. 5. Toruń, kościół św. Jakuba. Etapy przebudowy kościoła:

II. 5. Toruń, kościół św. Jakuba.
Etapy przebudowy kościoła:
I – faza I (rozpoczęcie budowy),
II – faza II (przebudowa po 1309),
III – faza III (dobudowa kaplic);
IV – faza V, dostawienie łącznika i budowa nowożytnego klasztoru
Niebieski – fundament korytarza/
łącznika (faza V)
(oprac. K. Sulkowska-Tuszyńska,
rys. W. Miłek)





Fig. 6. Toruń, St. James' Church, chancel: A – eastern wall from the south (W-15/15). The great foundation of the southern corner (trench 15/15; Phase I), with a diagonal buttress (Phase II). On the right, a straight buttress (see Fig. 2B: 7, 6) (photo by J. Struwe); B – diagonal buttress of the northern wall (W-3/08).

Foundation of the straight buttress of the northern corner (W-3/08 during exploration), on it a diagonal buttress (phase II) (see Fig. 2B: 3).

F – foundation of the northern chancel wall, O-1 offset of the foundation buttress, O-2 offset of the northern chancel wall, P – diagonal buttress (no. 3) (photo by K. Sulkowska-Tuszyńska)

II. 6. Toruń, kościół św. Jakuba, prezbiterium: A – ściana wschodnia od południa (W-15/15). Wielki fundament narożnika południowego (wykop 15/15; faza I), na nim przekątniowa przypora (faza II). Po prawej przypora prosta (por. il. 2B: 7, 6) (fot. J. Struwe);
 B – skośna przypora ściany północnej (W-3/08). Fundament prostej przypory narożnika północnego (W-3/08 w trakcie eksploracji), na nim przekątniowa przypora (faza II) (por. il. 2B: 3).

F – fundament północnej ściany prezbiterium, O-1 odsadzka fundamentu przypory, O-2 odsadzka północnej ściany prezbiterium, P – przypora skośna (nr 3) (fot. K. Sulkowska-Tuszyńska)

er than the 3rd quarter and in the 4th quarter of the 13th century (phase IB); the tower was started, and then the western wall of the nave, homogenous with it, was built (Chruścińska, Pawlak and Palczewski 2022, 292–298¹⁴) (Fig. 7).

The indicated construction period of the western massif and the clearly different dimensions of the nave bays (at the tower and at the junction with the chancel) suggest that construction of the entire structure, was progressing simultaneously, from approximately the 3rd quarter of the 13th century through the 4th quarter of the 13th century, may have proceeded from two directions – the chancel was built from the east toward the nave, and the nave from the tower and western wall toward the chancel. This construction sequence was already suggested by Freymuth (1981).

 $^{^{14}\,}$ The OSL dating results of samples taken from the northern wall of the tower (JW1 and JW2) indicated that both bricks were fired no later than 1250, and the average date for bricks from the western wall of the nave massif JSz1, JSz2 is $1236\pm30.$

The above conclusions resulted from observations of the foundations and their relationship to the above-ground structure. The architectural modifications discovered are supported by a key witness of the past – the stratification of the layers. The only intact section of the soil profile, not damaged by burial pits, has been preserved around and beneath the side portal¹⁵ (trench W-10B/12). There, between the crown of the stone foundation (phase IA, late 13th/early 14th century) and the modern floor (3rd quarter of the 17th century), six thin units have grown: typical utility and construction levels. The lowest preserved layer of brick dust proves that after the wide foundation (phase IA) was laid, some destruction of the upper brick section occurred (Fig. 8, arrows).

From the oldest sacral furnishings, we know only of a stone bowl in a distinctly late Romanesque style. It was a limestone chalice baptismal font – octagonal, hemispherical inside, decorated with motifs of lions (?) striding around holy water; the Teutonic Knights most likely brought it from Gotland¹⁶. This bowl could have been used for a very long time, also inside the new second chancel, not only in the 14th, maybe even in the 15th century (Sulkowska-Tuszyńska 2012; 2022a – cat. 1, 119, 120, Fig. 103; appendix XII, 315–324; 2022b, Fig. 25, 23).

In the 2nd half of the 13th century, closer to the end of that century, the foundations of a large building perpendicular to the axis of the presbytery began – the presumed first monastery (Chruścińska et al. 2014, tab. 5; Sulkowska-Tuszyńska 2022a, 325, 326; Cicha 2010; Sulkowska-Tuszyńska, Cicha 2010)¹⁷.

Stage II

In the second stage, a new presbytery was built – the second one (after 1309 until about the 3rd quarter of the 14th century; phase II) (Figs. 2B, 3A, 5II).

It can be assumed that Bishop Herman's placing of the cornerstone in 1309 was necessitated by the effects of a catastrophe, after which the chancel was thoroughly rebuilt. Archaeological discoveries reveal that several new, now diagonal buttresses were built on the old foundations of the first chancel, without extension by a bay. The new structure still had a straight eastern wall with three "old" buttresses—two parallel to the axis and a diagonal one in the northern corner; the southeast corner however, was thoroughly rebuilt: a new diagonal buttress was built in place of the demolished (?) tower. This gave both eastern corners diagonal buttresses (Fig. 2B: 7, 4). The second pair of corner buttresses from the east (No. 3 and No. 8) was dismantled to place the diagonal buttresses on the old foundations and match them with the first pair of buttresses, thus obtaining the im-



Fig. 7. Toruń, St. James's Church from the interior. Uniform foundation of the tower and western wall. Bird's eye view (photo by B. Kriks)

II. 7. Toruń, kościół św. Jakuba od wnętrza. Jednorodny fundament wieży i ściany zachodniej. Widok z góry (fot. B. Kriks)

pression of a polygonal closure (Fig. 3A). Perhaps the need to accommodate the old foundations' varying lengths and widths meant that the pairs of diagonal buttresses are not parallel to each other and have slightly different dimensions. The third and fourth pair of straight buttresses were left unchanged (Figs. 2B: 2 i 9, 1 i 10). Of the fifth pair, right next to the nave, the southern buttress was erected perpendicular to the chancel (Fig. 2B: 11), resting its low foundation on the great foundation from phase IA, and a side portal was built next to it. Between this entrance and the eastern wall of the southern nave, a slender, polygonal stair turret was "inserted", partly resting on the great foundation of the phase IA (Sulkowska-Tuszyńska 2014). Much older bricks were used to build this turret, probably from the demolished wall of the first structure (Pawlak et al. 2025). On the northern side, by the 3rd-4th quarter of the 14th century, a sacristy was built or extended (?) with an external pillar for the supporting arch (Figs. 1A, 2B), inside which stairs lead to a small gallery, from where there is a view of the main altar¹⁸.

The dating of bricks (OSL) sampled from several locations in the second chancel indicates a date of the 14th century, primarily the 1st half. The results of the absolute dating of these bricks and the stratification of the walls complement and confirm each other. The accuracy of this data is confirmed by an inscription informing about the completion of the church's construction in 1368, located in the nave, above the arcades, and recently discovered during conservation work (Pilecka 2023, 121, 122).

Perhaps during the construction of the sacristy, or at the latest in the 1st half of the 15th century, a recess was made inside in its northern wall for a stone washbasin¹⁹, from which a drain was led in the northern wall, in front of the

¹⁵ In other researched places the arrangement of layers was disrupted by burial pits (7–15 levels of graves).

¹⁶ Found in front of the church, in a demolition layer from the 19th century. Such baptismal fonts in the State of the Teutonic Order were used mainly in the 13th and even in the 14th century (Sulkowska-Tuszyńska 2022a, 119, 120).

¹⁷ OSL dating allowed us to establish that the brick from this foundation was fired no later than 1297. A similar result was shown by dating the wood from the formwork of this foundation (14C dating by Prof. Marek Krapiec; 2022).

¹⁸ Archaeological research could not be carried out in the sacristy. The sacristy was probably built from its eastern wall – the samples taken there were the oldest (JK1:1297–1356; JK3: 1265–1337); inside, the sacristy could have been completed as early as the 2nd half of the 14th century: JB: 1320–1400 (Chruścińska et al. 2014, Fig. 39, Table 3; Chruścińska, Pawlak and Palczewski 2022, Table 6).

¹⁹ Washbasin was identified and uncovered during conservation work.

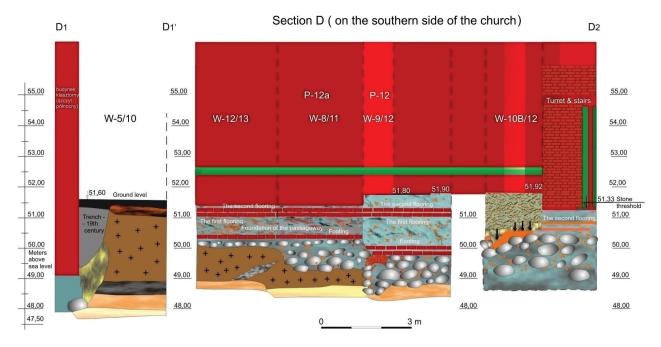


Fig. 8. Toruń, St. James's Church. Stratification, section D – from the southern portal of the chancel to the monastery, along the eastern wall of the nave and the connecting passage. Arrows above the foundation indicate brick dust (phase IA=destruction) (elaborated by K. Sulkowska-Tuszyńska, drawing by W. Miłek)

II. 8. Toruń, kościół św. Jakuba. Stratyfikacja, odcinek D – od południowego portalu prezbiterium do klasztoru, wzdłuż wschodniej ściany nawy i łącznika. Strzałki nad fundamentem wskazują na miał ceglany (faza IA=destrukcja) (oprac. K. Sulkowska-Tuszyńska, rys. W. Miłek)

sacristy, 1 m below ground level. Around this opening (45×15 cm), the space between the sacristy wall, the turret, and the buttress was enclosed by a low wall, thus creating a quadrangular container (area 2.85 m^2 , depth 1 m). In the brick bottom of the tank (+50.7 m above sea level), a funnel-shaped outlet for the water was made (30–40 cm lower than the floor). Until the 1760s^{20} , this tank was filled with water-filtering charcoal (Sulkowska-Tuszyńska 2023 a, 49, 50)²¹.

Stage III

This stage is connected with the construction of chapels (15th–first years of the 16th century).

In the 2nd quarter of the 15th century, chapels were successively added to the nave between the buttresses (Konieczny 2010, 112–118), resting their walls on arcade foundations (Fig. 5II). It is known that the current chapel of St. Valentine²², was built as the last in the southern row, around the 1420s–1430s (Konieczny 2010, 98; Sulkowska-Tuszyńska 2023a, 67 ff.). Its construction began with the disassembly of the appropriate section of the southern wall of the church nave. Between two extended buttresses, made of recycled bricks²³, a new, southern wall of the chapel was

Stage IV

Between 1557 and 1667, the interior of the church was altered, when Lutherans gathered there: the walls were whitewashed to cover the polychromes, flour de lis decorated floor, which was perhaps associated with the Virgin Mary, was likely removed, and the side altars were also disassembled. There is no archaeological data for this stage.

built, rested on an arcade foundation supported by a new buttress on its axis (Fig. 9A). Its medieval furnishings are unknown. The only known information about its interior decoration is that the eastern wall and the vaulting were decorated with plant motifs²⁴. It is very likely that a grave marked with a limestone slab, with a majuscule inscription around the "head" and a maker mark on the axis, was located in this chapel as early as 1435. The slab lay over the supposed grave, as indicated by the inscription, of Toruń alderman Mikołaj Rumpeler²⁵ (Krantz-Domasłowska, Domasłowski 2001, 90; Jurkowlaniec 2015, 318). This is one of the few medieval tombstones that is fully preserved and legible²⁶. At that time, the church was floored with tiles decorated with flour de lis (Sulkowska-Tuszyńska 2022a, 74–78, ryc. 56–58, Kat. 78–79).

On the floor of the tank under the charcoal, a Toruń shilling was found (August III Sas, 1760; IMo-55/20).

²¹ Such a container filled with charcoal is unknown from Polish literature of the subject.

²² This is the only chapel examined by archaeologists, and only from the outside.

²³ OSL dating of bricks – 13th century (Pawlak et al. 2025).

²⁴ Conservation work carried out in 2022.

Nicclos Rumpeler died in 1435, he was the son of Nicholas, councilor and judge of the Nowe Miasto Toruń.

Over time, during the construction of the Baroque altar, it was likely removed from the floor and used as a mensa. It remained there until 2020 and was revealed when conservators dismantled the altarpiece.



Fig. 9. Toruń, St. James' Church. St. Valentine's Chapel:

A. View of the eastern part of the arcaded foundation and the foundation of buttress P-13 (Fig. 2),

B. Western foundation of the passage between the chancel and the monastery (see Fig. 5IV)

(photo by J. Struwe)

II. 9. Toruń, kościół św. Jakuba. Kaplica św. Walentego:
 A. Widok na wschodnią część arkadowego fundamentu i funf. przypory P-13 (il. 2),
 B. Zachodni fundament łącznika pomiędzy prezbiterium a klasztorem (por. il. 5IV) (fot. J. Struwe)

Stage V

Dated after 1667 to the 1830s. The addition of a connecting passage began the construction of the modern monastery (Fig. 5IV), which continued throughout the 18th century. The dissolution of the monastery by the Prussians (1833) brought it to an end.

When the Benedictine nuns were finally able to return to their convent in 1667 after regaining St. James's Church, they first commissioned the construction of a passageway – a connecting passage between the old house and the chancel. This was a long and narrow building, essential for the cloistered convent in the turbulent, predominantly Protestant city of that time. The connecting passageway was built on a continuous brick foundation, that disturbed the burial grounds. The foundation was constructed of recycled brick²⁷, had two communication routs – the outer one, between the portal and the monastery along its entire length, and one on the church side, only between the buttress and the monastery. The passage matched the width of one bay of

the chancel and was probably roofed²⁸, plastered²⁹ and had a brick floor. It widened at the church portal, narrowed at the monastery (external width 4.8–5.2 m, internal 3.5–4.4 m) and visibly leaned towards the east (Figs. 5IV; 9B). The total length of the passage between the side portal of the chancel and the monastery could have reached 17 m (Sulkowska-Tuszyńska 2022a, 79–87). The passage was probably demolished along with the early modern monastery after the Prussians decided to dissolve the congregation in 1833. This marks the end of the "monastic" phase of development in the shade of St. James's Church.

Stage VI

It lasted from around the 1840s until at least the end of the 19^{th} century. After the dissolution of the Benedictine convent and the demolition of the monastery buildings, in the 2^{nd} quarter of the 19^{th} century, a narrow structure was built along the entire southern wall of the chancel. It is known from a lithograph – in 1846, it had the form of a Neo-Gothic

 $^{^{\}rm 27}$ OSL dating of two bricks indicates the $16^{\rm th}$ and $17^{\rm th}$ centuries (Pawlak et al. 2025).

²⁸ Traces preserved on the presbytery façade, just above the side portal.

²⁹ Pieces of milky-grey plaster with burgundy wavy lines found in the demolition layer.





Fig. 10. Toruń, St. James' Church.

Chancel – eastern wall. Foundation of the northern corner:

A. Trench W-6/11. View from the north. On the left, a diagonal buttress with offsets O-1, O-2 (see Fig. 2B, no. 4 and Fig. 5I), on the right, the foundation (F) of the straight buttress (Fig. 2B, no. 3 and Fig. 4), on it a new diagonal buttress is visible (Fig. 5II and Fig. 10A-BP),

B. Survey S-6/15. View from the east on the homogeneous foundation of the eastern wall and the diagonal buttress (not adjustable; Fig. 2B, no. 4) (photo by J. Struwe)

II. 10. Toruń, kościół św. Jakuba.

Prezbiterium – ściana wschodnia Fundament narożnika północnego:

A. Wykop W-6/11. Widok od północy. Po lewej przypora skośna
z odsadzkami O-1, O-2 (por. il. 2B, nr 4 i il. 5I),
po prawej fundament (F) przypory prostej (il. 2B, nr 3 i il. 4),
na nim widoczna nowa skośna przypora (il. 5II i il. 10A-BP),
B. Sondaż S-6/15. Widok od wschodu na jednorodny fundament
wschodniej ściany i skośnej przypory (nieprzestawianej; il. 2B, nr 4)
(fot. J. Struwe)

"wall" with battlements. Of this structure, only the outlines of the foundations of the outer wall and two partition walls, as well as thick layers of rubble, remain. Meanwhile, in the sacristy, after 1873, the outer doorway was broken out, the washbasin alcove was bricked up, and the charcoal tank was filled in (Sulkowska-Tuszyńska 2023a, 50)³⁰.

Stage VII

This is the final stage in the history of St. James's Church. All that remains of the claustrum is the oldest building, its gable facing the chancel, and the cemetery site displays of dozens of tombstones. St. James's Church currently functions as a parish. The new cemetery is located on Jakubskie Przedmieście Street. The beautiful Gothic cellars of the nearby hospital remain underground (!).

Summary and conclusions

In summary, the Gothic Church of St. James in Toruń, an elegant creation by an unknown master (Sulkowska-Tuszyńska 2022b), when subjected to archaeological research, revealed evidence of architectural alterations over the course of over seven hundred years. These alterations were identified through observation of foundations, stratigraphy, OSL dating of bricks, and other sources. The most important result of the investigation was confirmation that construction of parish church began in Nowe Miasto Toruń shortly after the city's foundation. The church was destroyed after the foundations were laid and the walls were raised to an unknown height, perhaps as early as the 13th century (an invasion of pagan tribe). It should be added that Tomasz Jasiński (1999, 145-148) also suggested, the parish church in Nowy Toruń was built immediately after the city's foundation. As a result of the analyses, it became clear that the inscription about the setting the cornerstone for the church in 1309 refers to the new – second – chancel.

This house for God was built from two sides from the 3rd and 4th quarters of the 13th century. The Teutonic Knights, increasingly powerful (from 1309 with their capital in Malbork), as ruler of both Toruń cities, emphasized their growing dominion by erecting a new, taller structure (after 1309).

Verifying the theses of the Gothic architecture scholars Mroczko and Freymuth, it was confirmed that St. James's Church in Toruń is not a uniform structure and that during its reconstruction, new buttresses and two stair turrets were built at the corners of the chancel and two stair turrets near the naves. The two pairs of diagonal buttresses flanking the eastern wall of the chancel were intended to give the design an impression of polygonality of the eastern closure. Contrary to Mroczko's suggestion, the "abnormal" arrangement of duplicated buttresses did not necessitate the addition of an additional bay – the relevant buttresses were merely rebuilt from straight to diagonal (Fig. 10A). Thanks to brick dating using the OSL method, it is known that the construction of the first structure was carried out from

 $^{^{30}}$ In the highest layer of rubble, below the entrance to the sacristy, there was a coin (2 pfennig – 1873, Germany, Empire).

around the 3rd quarter of the 13th century, and subsequent construction phases accumulated after 1309 and, as indicated by the date in the inscription, lasted until 1368 (Pilecka 2023, 121, 122). Currently, without dating many bricks from the upper parts of the structure, it is impossible to verify the construction stages up to the roof. Freymuth's suggestion that the entire structure was built by at least two masters is justified, as there are visible differences between the foundations of the tower massif (wide footing, no offsets, slight slant of the foundation face, no large stones at the corners, less care in arranging the stone layers) (Fig. 7) and the presbytery (wide brick offsets, no footing, considerable slant of the foundation face, large flat stones at the corners, stones in the layers clearly selected according to size) (Fig. 6, 10). It seems that the two brick bonds visible in the walls – Wendish and Polish – can be linked to two stages of the chancel's construction. There is no evidence to determine at what stage or to what extent the first construction was advanced before the construction of the new, second chancel began after some disaster. It has been assumed that if the first chancel had been finished and roofed before the destruction, fragments of roof tiles would have survived above the undisturbed soil, but none were found. The collected data indicates that Freymuth was right in suggesting that the second chancel could have been added to the naves, but he was fundamentally wrong in claiming that a slanted arrangement of the buttresses can be connected with a polygonal closure. Archaeological verification carried out along almost the entire eastern wall of the chancel (Fig. 6B, 10B) refuted the hypothesis of a three-sided eastern closure of the first church (Gasiorowski 2011, 85). When building a new chancel after 1309, the master used the existing foundations and did not change them in anywhere (!).

From the above, it follows that before the addition of chapels began, the construction of St. James's Church, begun in the 3rd quarter of the 13th century, already lasted nearly a century.

Thanks to excavations, it is known that in the earliest period, a chalice-shaped stone baptismal font was used in the church; in the 15th and 16th centuries, the sacred space was decorated with a colorful flooring with flour de lis, and a tombstone was located in the Chapel of St. Valentine. A washbasin for ablutions before the liturgy was a significant convenience in the sacristy.

In summary, the observations of the discovered alterations made by archaeologists, confirmed by the results of absolute OSL dating, leave no doubt that the Nowe Miasto Toruń had been building its own church since the beginning of its foundation (1264), a common practice in Christian Europe and in Hanseatic cities.

Pointing to the role of archaeology in deciphering architecture, it was proven that in the course of archaeological and architectural research identification certain stages of the building's construction and expansion was made possible. The application of absolute brick dating using the OSL method revealed the periods of architectural modifications and demonstrated that, in addition to new bricks, recycled material was also employed in the 14th and 15th centuries. The furnishings discovered confirm the building's function, speaking to the tastes and generosity of the benefactors and parishioners, as well as to contacts and transfers of ideas.

Despite numerous publications on St. James's Church in Toruń and the extensive research already conducted, primarily through conservation and archaeological efforts, this elegant church deserves still further studies. From an archaeological perspective, a series of further brick datings using the OSL method (naves, chapels, upper sections of the building, and tower) are urgently needed, as well as archaeological and architectural research beneath the chancel and in the crypt. The alterations documented using this archaeological method, of crucial importance, especially for explaining the initial history of this church and the entire Nowe Miasto Toruń, do not resolve many issues, therefore, research should continue.

Translated by Joanna Didik

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Streszczenie

Zapisane w architekturze... Kościół św. Jakuba w Toruniu – gotycka perla Pomorza odkrywana przez archeologów

Tematem artykułu jest kościół św. Jakuba w Toruniu poddany w latach 2008–2020 badaniom archeologicznym. Celem autorki było przedstawienie najważniejszych wyników odkryć i płynących z nich konkluzji.

W trakcie prac wykopaliskowych odkryto liczne ślady zmian dokonywanych w architekturze oraz elementy wystroju sacrum. Dzięki zbadaniu fundamentów i stratyfikacji oraz datowaniu cegieł metodą OSL udowodniono, że w Nowym Mieście Toruniu farę zaczęto budować niedługo po lokacji miasta (1264). Budowla ta w XIII w. została zniszczona.

Po wykonaniu analiz wiadomo, że rok 1309, uznawany dotąd za początek wznoszenia fary, odnosi się do budowy nowego – II prezbiterium. Bazylikowa bryła fary Nowego Miasta Torunia od położenia fundamentów do zadaszenia korpusu powstawała etapami, od około 3. ćwierci XIII w. do 1368 r. W ciągu XV stulecia budowano kaplice na arkadowych fundamentach. Po 1667 r. stary klasztor połączono z prezbiterium korytarzem, a claustrum rozbudowano.

Od XIII w. chrztów udzielano w kamiennej chrzcielnicy. W XV–XVI w. wnętrze zdobiła posadzka z motywami lilii; w kaplicy św. Walentego leżała płyta nagrobna, a w zakrystii do ablucji służyła kamienna umywalka.

W artykule wskazano na ważką rolę archeologii w poznawaniu historii architektury i początku Nowego Miasta Torunia, dzięki interdyscyplinarnym badaniom toruńskiego kościoła, uznanego za perłę gotyckiej architektury Pomorza.

Słowa kluczowe: kościół św. Jakuba, Toruń, architektura gotycka, archeologia, rekonstrukcja etapów budowy