

# The Evolution of Cathedral Planning on the Baltic Sea Southern Coast during the 13<sup>th</sup> – 14<sup>th</sup> Centuries in Context of European Building Traditions

Silvija Ozola, *Riga Technical University*

**Abstract.** In Rome, Emperor Constantine I started to build the most ancient cathedral – the five-apsed Archbasilica of St. John in Lateran, but the Lateran Palace was given as a present to Bishop of Rome for his residence. Perimeter building blocks set up the building complex. In Europe, during the 6<sup>th</sup>–9<sup>th</sup> centuries numerous rulers proclaimed Christianity as the only religion in the country. The Church strengthened its impact on the society and governmental administration. In Rome, like in Jerusalem, a religious centre was created, but in the middle of the 8<sup>th</sup> century, a city-state Vatican was founded, and on one of hills, the Pope's residence was placed. Christians organized structures governed by Bishops and founded Catholic church-states – bishoprics.

In the late 12<sup>th</sup> century, subjugation of the lands populated by the Balts and the Finno-Ugric tribes began. Bishoprics and cult centres were founded, and residences for Bishops and Canonical Chapters were envisaged. The bishopric main building was the cathedral. In Europe during lots of centuries evolution of the cathedral building-type happened. In the Balts and Finno-Ugric lands cathedrals were affected by local building traditions. The origins of the Riga Cathedral (Latvian: *Rīgas Doms*) can be found in 1201–1202, when the bishopric centre from *Ūxküll* was moved to the newly-founded Riga, where the Bishop's residence was built on a geopolitically and strategically convenient place. The most important centres to look for inspirations were Braunschweig, Westfalen, Köln, Lübeck, Ratzeburg, Bremen, Hamburg.

**Research problem:** interpretations of sacral building typology and terminology application cause difficulties in the research of historical building plans. **Research topicality:** evolution of the cathedral building-type and impact of cathedral building complexes on formation and planning of medieval urban structures during the 13<sup>th</sup> and 14<sup>th</sup> century. **Goal of the research:** analyse planning of historical structure in urban centres of bishoprics to determine significance of cathedrals as architectural dominances in spatial composition of towns. **Research novelty:** this research is based on Latvian historians and archaeologists' former studies. Nevertheless, opportunities provided by the analysis of urban planning and cartographic materials have been used, and created building due to local construction traditions has been assessed in the European context. **Results:** study of architecture, layout formation and structure of cathedrals on the southern Baltic Seacoast lands during the 13<sup>th</sup> and 14<sup>th</sup> centuries. **Main methods applied:** this study is based on research and analysis of archive documents, projects and cartographic materials of urban planning, as well as study of published literature and inspection of buildings in nature.

**Keywords:** bishopric centre, cathedral building-type, city planning, the Riga Cathedral, urban structures

## Introduction

In Rome, the military leader of the Roman Empire Marcus Vipsanius Agrippa (64/62BC–12BC) started to build (27 BC) a cylindrical “temple of all Gods” – the Pantheon covered by a 22 m high hemispherical cupola (diameter 43 m) of concrete constructions, which symbolized the heavenly vault. The inner room was illuminated through the wide opening (diameter 9 m) in the centre of the cupola. In 126, Roman Emperor (117–138) Publius Aelius Traianus Hadrianus rebuilt the Pantheon, and in 609, the temple became the Christian Church.

In Rome on one of hills, starting from 46, construction of majestic buildings begun. Under Roman Emperor (98–117) Marcus Ulpius Nerva Traianus's guidance, Apollodorus Damascenus (50/60–130) created for political, administrative and religious centre the symmetrical planning Forum Traiani (Italian: *Fordo di Traiano*; 112) (Fig. 1)

surrounded by the portico. In the complex of monumental buildings (107–113) the Temple of Trajan (Italian: *tempio del divo Traiano*) was placed on the longitudinal axis. The Trajan's Column (Italian: *Colonna Traiana*) in front of the temple was created between two library buildings – one for Latin, but the other for Greek documents. The huge Basilica Ulpia by the colonnade was placed perpendicularly. On the eastern side of the Forum Traiani, on the terrace of the hill's slope a five-storey trade complex from bricks and concrete – the Trajan Market (Latin: *Mercatus Traiani*; 100–112) separated from the forum by a high wall was built. Using Caracalla and Diocletian's therms as samples, in Rome instead of a big warehouse (Latin: *horrea piperataria*) the three-apsed Basilica of Maxentius and Constantine (Latin: *Basilica Constantini, Basilica Maxentii*; 308–312) – the first

building covered with a vault was built. A huge statue of Roman Emperor (306–337) Constantinus I Magnus's was placed in the apse on the western side of basilica, but a veranda supported by four columns was erected on the southern side. In Trier, Constantinus I built the Basilica of Constantine (German: *Konstantinbasilika*; 310), where a heated Throne Hall by statues placed in niches of marble wall was suitable for meetings.

Constantinus I gave Roman Bishop the Lateran Palace (Latin: *Palatium Apostolicum Lateranense*) as a gift, so that Popes would have home. In 313, on the Caelian Hill construction of the most ancient Roman cathedral – the Cathedral of the Most Holy Saviour and of Saints John the Baptist, also the Archbasilica of St. John in Lateran (Latin: *Archibasilica Sanctissimi Salvatoris*; 324, rebuilt after 430), whose main relic was the "Holy Stairs", begun. The Archbasilica and the Bishop's residence were included in the perimeter building (Fig. 2). In Vatican (Latin: *Status Civitatis Vaticanae*), the five-nave Papal Basilica of St. Peter (Latin: *Basilica Vaticana, Basilica Sancti Petri*; 324/326–349) with a perpendicular volume to the longitudinal axis or the transept was built instead of the Circus of Nero (Fig. 3). In the hall, in front of the semi-circular apse the altar was erected. It situated just opposite the main entrance at the eastern end, to which the atrium with a fountain adjoined. The entrance in the atrium took along wide stairs and through the triumph arch (Fig. 4). Basilicas built by Constantinus I and his descendants became predecessors of cathedrals.

Bishop of Jerusalem (312–335) *Macarius I* encouraged Constantinus I to knock down the Venus Temple in Jerusalem, and Romans uncovered ancient Jewish burials. The anteroom and burial chamber – a grave with a stone bed for the body (Latin: *arkosolium*) was acknowledged as Jesus's burial site. According to directions, given by Constantinus I's mother Flavia Iulia Helena Augusta (around 250–330), architects Zenobius and Eustace built the Church of the Holy Sepulchre (Latin: *ecclesia Sancti Sepulchri*, German: *Grabeskirche, Kirche des Heiligen Grabes*, Russian: *Воздвiжение Честнoго и Животворящего Крестa Господня*; 325/326–335, destroyed in 1009) on possible authentic site of Christ's punishment outside defensive walls of Jerusalem. In the central part of this church, also called the Church of the Resurrection, or the Church of the *Anastasis* (German: *Auferstehungskirche*), high walls by stone of the Anastasis Rotundas (Italian: *rotonda*, Latin: *rotundus*, German: *Rotunde mit Adikula, Arkadenkranz mit Kuppel*) supported the cupola (Fig. 5). The belfry was built (around 330) next to the five-nave basilica. On 14 September 335, the Church of the Resurrection was solemnly consecrated.

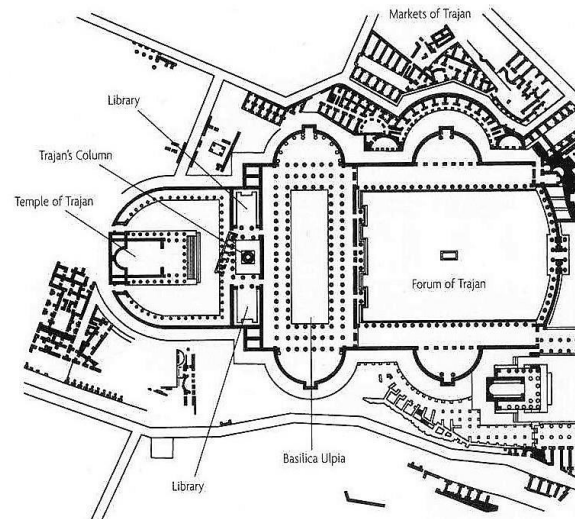


Fig. 1. Rome. The plan with the great Forum of Trajan, 1st century CE [online 19.06.2017, [https://upload.wikimedia.org/wikipedia/commons/0/00/Trajan\\_forum.jpg](https://upload.wikimedia.org/wikipedia/commons/0/00/Trajan_forum.jpg)].



Fig. 2. Giovanni Giustino Ciampini (1633–1698). The drawing of a medieval fortified L-shaped structural complex on the Caelian Hill in Rome: 1 – the Archbasilica of St. John in Lateran, 2 – the Council Hall, 3 – the Balcony of Boniface VIII, 4 – the Lateran Palace, 5 – the Holy Stairs (*scala sancta*), 6 – the Statue of Marcus Aurelius. 1693. [online 13.01.2018, [https://upload.wikimedia.org/wikipedia/commons/0/00/De\\_sacris\\_aedificiis\\_a\\_Costantino\\_Magno\\_constructis\\_synopsis\\_historica\\_pag\\_17\\_Tab\\_V.jpg](https://upload.wikimedia.org/wikipedia/commons/0/00/De_sacris_aedificiis_a_Costantino_Magno_constructis_synopsis_historica_pag_17_Tab_V.jpg)].

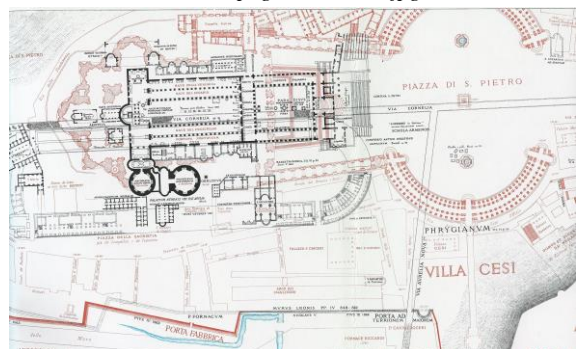


Fig. 3. Archaeologist, Professor at the University of Rome, Rodolfo Lanciani (1845–1929). Plan of St. Peter's Basilica built instead of the Circus of Nero. 2006 [24].

During the 4<sup>th</sup> century, Christians created worship places to place the altar. The building of elongated layout by a rectangular hall complied with impression about the temple, therefore large-size public buildings – basilicas built by Romans for court sessions, meetings and trade were adapted to cult needs. The main room was divided lengthwise into three or five naves (French: *nef*, Latin: *navis*) with the help of columns or pillars. Windows at the top of walls of the higher and wider middle nave



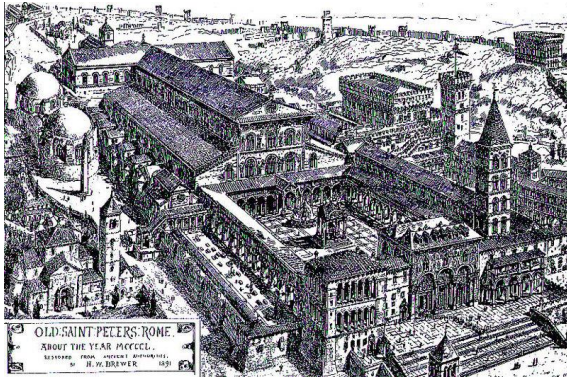


Fig. 4. Henry William Brewer (1836–1903), *Old St. Peter's Basilica as it was thought to have looked around 1450*. 1891 [online 19.06.2017, <http://mentalfloss.com/sites/default/legacy/wp-content/uploads/2009/04/ospb.jpg>].

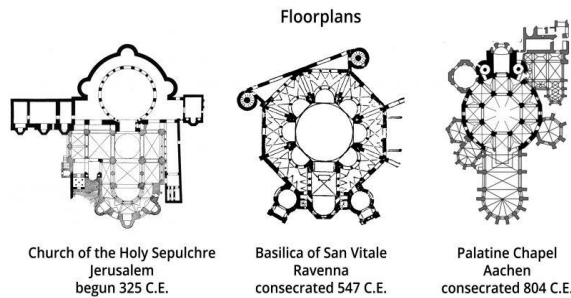


Fig. 5. Floorplans of the Church of the Holy Sepulchre (Jerusalem; begun 325, consecrated July 15, 1149), the Basilica of San Vitale (Ravenna; consecrated 547), the Palatine Chapel (Aachen; consecrated 804) [<http://smarthistory.org/wp-content/uploads/2016/09/floorplans.jpg>].



Fig. 6. Artist Hans Bornemann (1410–1475). The portrait of Anskar, Archbishop of Hamburg, on the painted panel of the Hamburg Dome. 1457. St. Anskar's painting can be seen now in Hamburg St. Peter's Church. [online 24.01.2018, [https://upload.wikimedia.org/wikipedia/commons/0/07/Bornemann%2C\\_Hans\\_-\\_Ansgar.jpg](https://upload.wikimedia.org/wikipedia/commons/0/07/Bornemann%2C_Hans_-_Ansgar.jpg)].

illuminated the worship room. Unlikely the pagans, Christians did not consider the temple as God's home, but rather than a gathering place for believers. A spatial solution appropriate for the function initially was not related to the symbolism. Only one semi-circular planning niche or apse created in the eastern part of the worship room was just opposite the main entrance in the western part of the building, where in front of the entrance a closed anteroom separated with a wall or narthex was meant for the people who were not allowed to enter the worship room. Initially the layout of sacral buildings was simple, and it consisted of two big zones: the presbyterium, where the sacred ritual takes place, and the worship hall. In front of the main entrance in church's stairs were built. Christians changed architecture of basilicas according to the ritual and created symbolism for religion. Hereafter in the Roman Empire, there were public buildings – basilicas, and sacral buildings – basilicas with the atrium [52, 34]. Initially, Roman emperors did not allow Christians to build basilicas in the city: they were built outside the city, thus the name “outside the walls” was obtained. Pope (352–366) Liberius built the three-nave Basilica di Santa Maria Maggiore (*St. Mary Major*, Italian: *Basilica di S. Maria Maggiore*; founded in 356) [43, 216], but Western Roman Emperor (393–423) Flavius Honorius Augustus financed building of the Papal Basilica of St. Paul outside the Walls (Italian: *Basilica Papale di San Paolo fuori le Mura*; around 370). The basilica was considered as a privileged building. Miraculous icons and Saints' relics placed in it, lionized by pilgrims who worshipped Jesus Christ and His mother the Virgin Mary. In Roman Catholic Church, there is distinction between *Basilica majoris* and *Basilica minoris*, which are honorary titles awarded by Roman Pope. All four *Basilica majoris* situated in Rome. They obtained the honorary title and privileges. In Vatican, in the Papal Basilica of St. Peter there is the first Pope (33–67) St. Peter's grave. The Archbasilica of St. John in Lateran is the World's and Roman cathedral, in the Basilica di Santa Maria Maggiore there is the relic of the Bethlehem's Manger, but in the Papal Basilica of St. Paul outside the Walls there is St. Paul's grave. *Basilicas minoris* were located in different cities. Instead of the Christian martyrs' burial site Archbishop of Milan (374–397) St. Ambrose built a three-nave basilica by three apses, but without the transept. The worship room of the Basilica of Sant'Ambrogio (Italian: *Basilica di Sant'Ambrogio*, official name: *Basilica romana minore collegiata abbaziale prepositurale di Sant'Ambrogio*; 379–386) was covered by two crossed half-circumferential vaults, creating cross-vaults.

It was considered, that baptism symbolized beginning of a new life and person's inclusion in the believers' community. Running water was important in the Baptism ritual, although water in a pool was also appropriate. In Italy, a special room for Baptism – the octagonal (number 8 symbolizes rebirth) planning Baptistery of Neon (Italian: *Battistero Neoniano*; 400–450) became as a sample for lots of buildings. One of the main relics for Christians is the Holy Cross, to which, according to the Christian Doctrine, Jesus Christ was crucified. In Ravenna, an early cross-cupola building of bricks – the Mausoleum of Galla Placidia (Italian: *Mausoleo di Galla Placidia*; 425) crested with a cubical tower was built for the oratory, chapel or baptistery orientated north-southwards, whose layout reminded of a Latin cross. Quite possibly, it was related to the narthex of the Basilica of San Vitale (527–547) [52, 36]. In 547, Patricius of the Roman Empire Theoderic the Great (454–526) consecrated an octagonal planning temple for the martyr *Saint Vitalis* [43, 174]. Gallery included the central room covered by a cupola (diameter 16 m) supported with 8 pillars, but an elongated apse was made for the altar. Basilica of San Vitale (Fig. 5) obtained a special status in Christianity.

During the Charles the Great's reign, simple construction volumes were created, without overloading the surface with components. The central part of the Aachen Cathedral was made of the octagonal planning Palatine Chapel (Fig. 5) covered by a cupola. The eastern part of the chapel consecrated by Pope (795–816) Leo III in honour of the Virgin Mary was closed with the apse, but in the western part in front of the entrance, there was the atrium, and on each side of the monumental narthex a cylindrical staircase tower was built. The belfry was erected in the 14<sup>th</sup> century [43, 43].

During the first centuries of Christianity, in the early basilicas the bishop's throne or cathedra (Latin: *Cathedra*, Greek: *Kathedra* – "desk") was placed deep in the apse. In the basilica with the cathedra (German: *Kathedralkirche*, *Kirche der Kathedra*, Latin: *ecclesia cathedralis*), as well as in the cathedral (German: *Kathedrale* or *Dome*) the Holy Court, philosophical contemplations took place and political issues were discussed, but the metropolitan governed the metropolis symbolically, archbishop – the archdioceses, but bishop – the bishopric. Until the 14<sup>th</sup> century, the cathedral was used for religious and social activities.

In different regions of Western Europe, various trends existed in cathedral building: in France, the School of Burgundy, Provence, Aquitaine and other schools, but in German lands – Schools of Saxony and Rhein, where construction volumes of cathedrals

were massive and simple. Diverse architectonic forms and elements reflected local building traditions and artistic taste. Byzantine impact on cathedral building was felt in the Adriatic Sea coastal cities. In Burgundy, where the Roman Catholic Church had a special influence, during the economic and cultural upswing an abbey was created in Cluny (also Cluni), which became as a sample in church building during the 9<sup>th</sup>–11<sup>th</sup> centuries. In the south and south-west part of France as Provence, Aquitaine and somewhere else the link with the Mediterranean coastal lands, Italy and Byzantium was preserved and own architectural traditions and constructive techniques were created. Hall-type buildings (German: *Hallenkirchen*) with one or three naves, applying lancet arches, vault constructions and cupolas for the ceiling, were built, but façades were abundantly decorated. The cathedral architecture of the northern part of France was simple – cylindrical vaults were used for the middle-nave covering, but cross vaults for the side-naves.

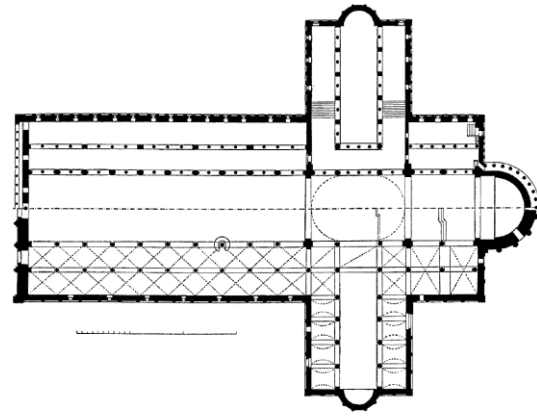
In Bremen at the Market Square next to merchants' guilds and city seniors' houses, the Town Hall and the Roland's Statue, the first Bishop of Bremen (787–789) Willehad built from wood the Bremen Cathedral, dedicated to St. Peter (German: *Bremer St. Petri Dom*; 789), but the Saxons burnt down this building. Bishop built the cathedral (805), where in the middle-nave of the worship hall and the side-naves was made with the choir. In Hamburg, instead of the burnt wooden church Benedictine monk Ansgar (*Saint Ansgar*; 801–865) built from stone Saint Mary's Cathedral (German: *Hamburger Dom*, *Alter Mariendom*) (Fig. 6) with a tower in order to provide observation, protection, sacral ritual and entrance functions. Christians founded the Roman Catholic Archdiocese of Hamburg (Latin: *Archidioecesis Hamburgensis*, German: *Erzbistum Hamburg*; 831) and Ansgar became the archbishop in 831. Hamburg was conquered (845–848) by the Danes, and building was burnt down. In 847, in the alliance with Bremen the Archdiocese of Hamburg-Bremen (Latin: *Episcopatus Bremensis*, German: *Erzbistum Bremen*) was founded, and Ansgar, whose residence due to the Polish attack was moved to Bremen, in 848 became the first archbishop [41, 109–110]. In 1041, the Bremen Cathedral, dedicated to St. Peter, and a part of the library was destroyed by fire. Hamburg-Bremen Archbishop (1043–1072) Adalbert I (*Adalbert von Bremen*) started construction of a new cathedral and invited Adam from Bremen to write the chronicle "History of Bishops from Hamburg Churches" (*Gesta Hammaburgensis ecclesiae pontificum*; between 1072 and 1076) [30, 73]. In 1060,



in the Kingdom of Denmark the Diocese of Lund (Swedish: *Lunds stift*) was founded and the Christianity Centre was opened. Bishops were Germans, who maintained a close link with the Hamburg-Bremen Archbishopric.

After the victory in Palermo, Italian architect Buschetto (Buschetto) started to build a five- nave basilica in Pisa – the Pisa Cathedral (Italian: *Duomo di Pisa, Duomo di Santa Maria Assunta*; 1063–1118) (Fig. 7). Basilicas in Florence and Pisa had colonnades and flat ceiling, but crypts and side-naves were covered by vaults. In the intersection place of the equal coverings of the middle-nave and side-nave a stone cupola was erected (1090–1383), creating the feeling of spaciousness inside of the large mosque. In the middle part of the main façade, a round rose window symbolized the Fortune Wheel, Sun, Christ or the Virgin Mary compared with a rose without any thorns [52, 40, 46]. Architect Rainaldo completed the Pisa Cathedral by richly decorated external walls, using stylistically different Byzantine, Islamic and Lombardian elements. In 1118, Pope (118–119) Gelasius II consecrated it. The cathedral became the principal building in the ensemble, which included also the belfry (1174–1372) and Baptistery (Italian: *Battistero di Pisa*; 1153–1265/1278) built by Diotsalvi (also Deotislavi).

Previous researches on cathedrals in Western Europe: drawings of medieval cathedrals' façades, plans and sections have been collated in the edition "*Kirchliche Baukunst des Abendlandes*" [9], prepared by art historian Georg Gottfried Julius Dehio (1850–1932) and Gustav von Bezold (1887–1901). "*Heinrici Chronicon*" (1993) [16] tells us about events in the Lund Cathedral (Swedish: *Lunda domkyrka*; 1080–1145), dedicated to Saint Lawrence. The architectural assessment of the world's most outstanding buildings can be found in the book "*Мировая архитектура*" (2012) [52] by Russian writer, art historian Pyotr Gnedich (Russian: *Петр Петрович Гнедич*; 1855–1925). Hungarian architect, academic Máté Major (1904–1986) has been analysed architecture of ancient buildings of Roman Empire and Middle East in the book "*Geschichte der Architektur. Die Architektur der Urgemeinschaften und Sklavenhaltergesellschaften*" (1957) [26]. In the 1<sup>st</sup> volume of the edition "*Geschichte der Architektur*" (1984) [27] this information has been supplemented by the description about the first Christian buildings in Jerusalem – the Church of the Anastasis and Basilica of the Nativity (Latin: *Basilica Nativitatis*). The 2<sup>nd</sup> volume is dedicated to architecture of the most ancient cathedrals and churches in Europe. The abundantly illustrated book of history of architecture is "*Historia architektury w Zarysie*" (1959) [5] by Polish architect Tadeusz Andrej



1. PISA: KATHEDRALE.

Fig. 7. Art historian Georg Dehio (1850–1932), Gustav von Bezold (1887–1901). Plan of the Pisa Cathedral (1063–1118) [9].



Fig. 8. Overview of the Lunda Cathedral (1080–1145) [online 19.06.2017, [https://upload.wikimedia.org/wikipedia/commons/thumb/4/4f/Lunds\\_domkyrka%E2%80%99%93flygbild\\_06\\_september\\_2014.jpg/800px-Lunds\\_domkyrka%E2%80%99%93flygbild\\_06september2014.jpg](https://upload.wikimedia.org/wikipedia/commons/thumb/4/4f/Lunds_domkyrka%E2%80%99%93flygbild_06_september_2014.jpg/800px-Lunds_domkyrka%E2%80%99%93flygbild_06september2014.jpg)].

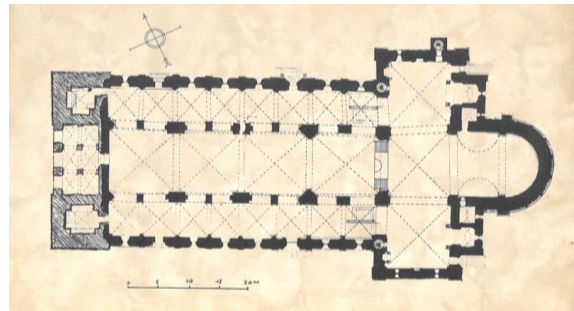


Fig. 9. Plan of the Lunda Cathedral [online 19.06.2017, <https://larsgahmskriver.files.wordpress.com/2011/05/bild4.jpg>].

Broniewski (1894–1976). There are 799 pictures with precise information on their authors, and descriptions about medieval cathedrals in Europe have been collated. Dr. Hubert Kürth and Dipl.-Ing. Aribert Kutschmar in the book "*Baustilfibel*" (1976) [23] illustrated by drawings and photos have dedicated two chapters to medieval cathedrals – "*Die Baukunst der Romanik*" and "*Die Baukunst der Gotik*". In the book "*История градостроительного искусства*" (1984) [55] Professor Dr. art. Tatiana Savarenskaya (Russian:

Татьяна Фёдоровна Саваренская; 1923–2003) analysed the most ancient cathedral placement in urban environment. Architecture of cathedrals has been analysed in the book “История архитектуры” (1984) [53] by historian of architecture and urban construction Nikolai Gulyanitsky (Russian: *Никола́й Феоодо́сьевич Гуляни́цкий*; 1927–1995) and in joint-work “Античное искусство: Очерки” [54] (1988) by Nina Dmitrieva (Russian: *Нина Александровна Дмитриева*) and Ludmila Akimova (Russian: *Людмила Ивановна Акимова*), as well as in two volumes of “Очерки по истории архитектуры” (2003) [48, 49] by Nikolai Brunov (Russian: *Николай Иванович Брунов*). Latvian art scientist Skaidrīte Cielava (1920–2005) prepared an educational, dedicated to art processes in the world, – series of books “*Vispārīgā mākslas vēsture*” /General History of Art/ [8], where in the 2<sup>nd</sup> volume architecture of medieval cathedrals has been analysed. Italian architect, historian of architecture, one of the founders and presidents of the Italian Urban History Association (Italian: *Presidente dell'Associazione italiana di storia urbana*) Guido Vittorio Zucconi (b. 1950) provides information on the Florence Cathedral in the book “*Firenze guida all'architettura*” (2007) [47]. History and descriptions of the world's architecture about medieval cathedrals in Europe have been collated in the edition “A Global History of Architecture” (2007) by Professor (1991) Dr. Francis D. K. Ching (b. 1943) and architecture historian Professor Dr. Mark M. Jarzombek (b. 1954) (the edition “*Всемирная история архитектуры*” (2011) [56] is the translation into Russian). The book “Cathedrals and Churches of Europe” (2015) [43] by Rolf Toman, Alan Bednorz and Barbara Borngässer is informatively rich and illustrated.

Previous researches on the Riga Cathedral: in the late 18<sup>th</sup> century, artist Johann Christoph Brotze (1742–1823) started to depict urban building for the sake of research. In the 1<sup>st</sup> volume of the edition “*Zīmējumi un apraksti*” /Drawings and Descriptions/ (1992), fragments of plans by the Riga Cathedral placement [4, 84–85], descriptions, containing information of the building [4, 43–78] have been included. Riga sights, where the Riga Cathedral can be seen [4, 43, 48, 62, 63, 65, 66, 67, 68, 70, 73, 74, 75, 76, 78], have been collated.

At the end of the 19<sup>th</sup> century, the complex approach to building's restauration quickly contributed to the detailed study of the Riga Cathedral. At that time careful study of this object, including the prospection method and archaeological excavations, became one of the most essential work methods for new pleiad of art and architecture historians, which introduced studies of Latvian art history on a professional level. As the

most famous building researchers could be mentioned architect Wilhelm Bockslaff (1858–1945) and architect Wilhelm Johann Carl Neumann (1849–1919) who published the first essay about art history “*Grundriss einer Geschichte der bildenden Künste in Liv-, Est- und Kurland vom Ende des 12. bis zum Ausgang des 18. Jahrhunderts*” (1887) [32], in which medieval buildings and cities have been described, but, having become the builder of the Riga Cathedral, he implemented reconstruction of the building. As the manager of the Riga Cathedral renovation, he published the “*Der Dom zu St. Marien in Riga*” (1912) [31]. Architect of Pärnu City, building art lecturer of Tarbatu University Architecture Faculty Reinhold Ludwig Ernst Guleke (1834–1927) has depicted the Riga Cathedral especially broadly in photos, drawings of details and surveys in the collection “*Alt-Livland*” (1896) [33, 194]. Old photo of the Riga Cathedral can be seen in the edition of the Church Central Administration, issued during the Latvia Republic period, “*Latvijas evaņģēliskas luteriskas baznīcas. Mārtiņa Lutera Mazā katķisma un Augsburgas ticības apliecības 400 gadu atcerei*” / Evangelical Lutheran Churches of Latvia. Certificates of Martin Luther's Small Catechism and Augsburg Confession for 400 Years of Remembrance/ (1929/1930) [25]. An old picture with the Riga Cathedral placement in the urban environment has been published in the edition History of Latvia (2009) [39, 189] by diplomat, historian, Latvia University Philology Doctor of Roman languages, Professor Dr. phil. Arnolds Spekke (1887–1972). Artists' work related to Riga have been included in the album “*Senā Rīga gleznās, zīmējumos un gravūrās*” /Old Riga in Paintings, Drawings and Engravings/ (1937) [37], but Professor Dr. Hans Schröder compiled in the “*Rīga im Wandel der Zeiten*” (1942) [36]. Culture historian Jānis Straubergs (1886–1952) has collated pictures, descriptions, also about the Riga Cathedral, maps about the Old Riga in six notebooks “*Rīgas vēsture*” /History of Riga/ (1937) and in the book “*Vecā Rīga*” /Old Riga/ (1951) [42, 73–77]. The history of Riga and its old churches has been published in the edition dedicated to Latvia anniversary “*Latvijas pilsētas valsts 20 gadus*” / Cities of Latvia during 20 Years of the State / (1938) [40].

The capacity of the empirical thought has a limit, beyond which the vicious circle of never-ending interpretations starts, therefore, it is essential to emphasize the initial research stage and work methods related to it. A researcher of buildings on the initial stage in his work has the closest contact with the research object, which is accurately documented and studied, fixes the evolution of building forms and interconnection with constructions and materials and generates primary

information which is further applied by theoreticians. Historian of architecture, candidate of art sciences Yuri Vasilyev (Jurijs Vasiļjevs; 1928–1993) did not theoretically try previous cognitions, but hypotheses and assumptions tested in nature. Lacking the written resources, the source of information became the object itself. It was the advantage of researcher in comparison with a theoretical analysis [10, 173]. Yuri Vasilyev introduced the methodology of architecture research, which during the 1950s was a novelty in Latvia. The main essence was awareness of the carefully written and iconographical material together with a detailed study in nature [10, 167].

The Latvia SSR Academy of Sciences and The State Committee for Building and Architecture of the Latvian SSR of the Council of Ministers issued an album dedicated to Riga architectural monuments (1956). Authors are Latvia SSR meritorious architect, Chairman of Latvia SSR Council of Ministers Architecture Department, Vice Chairman of Latvia SSR National Building Affairs Committee Ēvalds Ādolfs Kišē (1899–1974), who in 1930 started studies at Moscow Architecture Institute, worked as an architect in the urban building design trust department in Moscow, and Leons Plauciņš (1903–1993) [19]. In 1960, a volume of the Tartu University scientific articles collection was issued as art historian, pedagogue, Professor Dr. art. Voldemar Vaga's (1899–1999) monography about the spatial form issues of Estonian and Latvian medieval churches – development of basilica and hall-type buildings in Livonia, emphasising the significance of St. Mary's Church, also the Riga Cathedral (Latin: *Domus Dei*, Latvian – "*Dieva nams*") in development of cult architecture in Estonia [50]. After the Riga Cathedral restoration (1962) a special booklet "*Rīgas Doms*" /The Cathedral of Riga/ (1966) [35] illustrated by pictures of the renovated building was published. During the Soviet time, the first research, which was not worse than the scientific level of the pre-war period, was the work by architect Yuri Vasilyev, who an important part of his working life dedicated to the complex of Riga St. Mary's Cathedral. He also devoted a book to Riga architectural monuments (1971), in which the information on the Riga Cathedral was included [51, 24]. Vasilyev had a good knowledge on the history of Riga Cathedral's restoration. He considered that the incomplete basic information could create further misunderstandings and mistakes, so the description of the restoration was included in the publication (1975) about Latvian building monuments' research history [44]. Due to different reasons, the research was not published till 1985. Prof. Voldemar Vaga's conclusions about the Riga Cathedral Basilica as the original one and only

volume solution were contradicted. Already in the late 1960s, knowing the bad technical condition of cloisters' small capitals, he in cooperation with Ieva Miķelsone and Margarita Zarenkova carried out a survey of these details. In 1975, a similar work with participation of Vita Rinkeviča and Vladimirs Neilands was organized. Sketches and notes about the Riga Cathedral shows on serious absorption, but in archives written records are missing. Drawings are shown, that Vasilyev cooperated with researcher of medieval architecture, engineer builder Gunārs Erdmanis (1927–1990) and also used a graphical analysis of planning and proportions of building forms [10, 171–172]. Further activities in the research of the Riga Cathedral linked to the 1980s, when extensive repairs were going on. During that time, the need to prepare materials for several publications and the album about the Riga Cathedral ordered to look for answers again in the same objects [1]. Information on the Riga Cathedral art values has collated in the book "The Riga Dom Cathedral stained glass" (1997) [38].

Cathedral, church and chapel are typologically different sacral buildings. In the Middle Ages, each of them had its own function, spatial structure and location in the urban environment. In Dr. arch. Jānis Zilgalvis's essay "*Latvijas arhitektūras īsa vēsture*" /Concise History of Latvia Architecture/ (1993, see p. 15) [45], as well as Professor Dr. habil. arch. Jānis Krastiņš, Professor Dr. habil. arch. Ivars Strautmanis (1932–2017), Riga City Chief Architect Jānis Dripe's (b. 1953) joint work "*Latvijas arhitektūra no senatnes līdz mūsdienām*" /Latvia Architecture from Ancient Times till Nowadays / (1998, see p. 29 of the 1<sup>st</sup> chapter of "*Latvijas arhitektūra no senatnes līdz mūsdienām*" /Latvia Building Art during the Course of Ancient Centuries/, written by Krastiņš) [21], the Riga Bishop's cathedral or the Dome is incorrectly called as church, which is another and from the cathedral a different type of sacral building.

Dr. arch. hon. causa Andrejs Holcmanis (1920–2009) in his book "*Vecrīga – pilsētībūvniecisks ansamblis*" /Old Riga – an Urban Ensemble/ (1992) described the layout of ancient settlements and building from the urban point of view, summarized the history of the Old Town of Riga, emphasizing the special significance of the Riga Cathedral [18, 93–98] in the medieval urban planning and building. However, in the essay of Riga history published in the encyclopaedia "*Latvijas pilsētas*" /Cities of Latvia/ (1999) [17], the Riga Bishop's Cathedral has not been mentioned at all. Art scientist Dr. art. Elita Grosmane has collated information on Bishop Albrecht's (German: *Albrecht von Buxthoeven*, Latin: *Adalbertus Canonicus Rigensis*; 1165–1229) intention and

cathedral construction in Riga (2000) [11] and architectural and art values of the Riga Cathedral [14], but Prof. Krastiņš and Prof. Strautmanis, working together, in the guidebook “*Liels Rīgas arhitektūras ceļvedis*” /The Great Guidebook of Riga Architecture/ (2002) [22] introduce their readers with the most important medieval buildings in Riga, whereas the description of the Bishop’s Cathedral confirms formal attitude: the altar part of the church plan, put in for illustration, is turned towards the west. Prof. Krastiņš describes architecture of the Riga Bishop’s Cathedral in the book “*Rīgas arhitektūras stili*” /Styles of Riga Architecture/ (2005) [20, 40–45]. In the book “*Latvijas mākslas vēsture*” /History of Latvian Art / (2004) [3] Dr. art. Laila Bremša, Dr. art. Aija Brasliņa, Mg. art. Dainis Bruģis, Dr. art. Stella Pelše, Mg. art. Inta Pujāte provide a survey of Latvian sacral architecture and art. Professor Dr. hist. Ilgvars Misāns and Asoc. Prof. Andris Šnē of Latvia University History and Philosophy Faculty have prepared materials for seminars in Medieval History of Western Europe “*Klosteris, pils un pilsēta*” /Abbey, Castle and City/ (2004) [29]. Historian, inspector of culture monuments to be protected Vitolds Mašnovskis (b. 1942) describes cultural and art values of the Riga Cathedral [28, 258–283]. Archaeologist, Professor Dr. habil. hist. Andris Caune (b. 1937) and Dr. hist. Ieva Ose in the encyclopaedia “*Latvijas viduslaiku mūra baznīcas. 12. gs. beigas – 16. gs. sākums*” /Medieval Stone Churches of Latvia. The late 12<sup>th</sup> cent. – the early 16<sup>th</sup> cent./ (2010) [7] analyse the Riga Cathedral in a great detail.

In 2006, a sketch design was prepared for the Riga Cathedral restoration – restoration plan, in which the information on further Riga Cathedral application, building history, art values, exterior and interior, building constructions, engineering and technical communications were included. The long-term chairperson of the Restorers’ Society Dace Čoldere and Jānis Zilgalvis in collective monography “*Rīgas dievnami. Arhitektūra un māksla*” /Churches of Riga. Architecture and Art / (2007) in the research on the Riga Cathedral [46] have published unique pictures of the Riga Cathedral in the second half of the 18<sup>th</sup> century, sections and plans of monastery’s Chapter Hall (13<sup>th</sup> cent.) made in 1932 by architects Ādolfs Vilmanis (1904–1991) and Jānis Līcītis (1908–1981), the Riga Cathedral in Augusts Vegers’s engraving published in the “*Rigascher Almanach für 1877*”, and a photo of monastery’s yard after the reconstruction in the early 20<sup>th</sup> century from V. Kamals’s collection. Unfortunately, authors of the exciting research are not consequent in terminology application and they write about the building – St. Mary Dome Church

(cathedral) (Latvian: “*Sv. Marijas jeb Doma baznīca (katedrāle)*”) [46, 65]. The issue of the authorship and influence area of the construction plastic arts’ samples has obtained new outlines in Elita Grosmane’s studies [12, 13]. Art historian Dr. art. Agnese Bergholde-Volfa (b. 1980) has studied building plastic arts of the Riga Cathedral [2]. She is also not consistent when using the terms. She calls the Riga Cathedral as church. In the context of construction of monasteries in Europe, Assist. Prof. Mg. arch. Silvija Ozola has analysed two urban structures of the Riga Archdiocese Centre’s planning [34, 76–77].

Research problem – mistakes and insufficiencies emerge in medieval architecture studies, if methods of graphical analysis are absolutized and significance of the archaeological research is not appreciated, but self-isolation within the framework of one branch, without listening and applying opportunities of cooperation with specialists of other close branches, using an autonomous research method closed within one branch, and analysing the object only from the archaeologist, architect’s positions, the base for a confusing and even false information is created. Cathedral, church and chapel are typologically different sacral buildings, whereas lots of researchers in Latvia change arbitrarily the status of buildings: the Bishop’s Cathedral, including also the Riga Cathedral, are called as the church. Research novelty: analysis the bishoprics’ cathedrals planning and structure in the context of regional and European building traditions, as well as the Riga Cathedral, which affected the 13<sup>th</sup>–14<sup>th</sup> century Riga urban development and formation of cult centres, subjugated to the Riga Archbishopric. The goal of the research: analyse evolution of the cathedral planning, common and different characteristics of cathedral layout and spatial structures, as well as the Riga Cathedral role in formation of environment of cult centres. Main methods applied: photo fixations, cartographic and graphic materials have been used for the analysis of cathedrals and urban centres.

#### **Development of the cathedral building-type in the German lands in the 11<sup>th</sup>–13<sup>th</sup> centuries**

During the 11<sup>th</sup>–12<sup>th</sup> centuries, two tendencies characterized the complex and controversial development of Western Europe: national self-determination efforts, due to whose impact feudalism flourished, and conservative processes, which delayed the national development for a long time. Tectonic thinking fitted in organically in the creative synthesis of both opposite systems. In cities, cathedrals took the leading position and in the 13<sup>th</sup> century replaced monastery churches [30].



The peculiarity of cathedrals was not determined by varied building materials, or geographically climatic conditions, but rather by the socially political development of the country, culture-historical, artistic and building traditions.

One of the “Emperor’s cathedrals” (German: *Kaiserdome*) in the Holy Roman Empire was the Speyer Cathedral (Latin: *Domus sanctae Mariae Spiraie*, German: *Speyerer Dom, Kaiser- und Mariendom zu Speyer*; reconstructed in 1030), which was rebuilt. The solution of the cathedral’s western construction volume could have depended on the practical and liturgical function meant for that (staircase tower or functional westwork). The westwork and transept was made, but a tower was built for the choir on each side, and in 1040 the crypt (Latin: *crypta*) was built under the altar. The main nave covered with flat wooden ceiling was closed with a semi-circular apse, which was rectangular from the outside. One of the biggest Christians’ cathedral, which was also politically important and symbolized the Emperor’s power, was consecrated in 1061 [43, 22], but later it was extended. Building was finished in 1106. In Mainz, instead of the church destroyed in fire in 1081, construction of the three-nave basilica with columns – the Mainz Cathedral or St. Martin’s Cathedral (German: *Mainzer Dom, Der Hohe Dom zu Mainz* or, officially, *Der Hohe Dom zu Mainz*; 1100 and 1137) was started. Saint Martin of Tours (Latin: *Sanctus Martinus Turonensis*; 316 or 336–397) and St. Stephan (*Stephanus*) became its patrons. The old *Abschluss des Ostbaus* was replaced with a large apse with a narrow arch (German: *Blendarkaden*) gallery (German: *Zwerggalerie*) – elements which were used for the first time for the Speyer Cathedral, but the second time for the eastern apse of the Mainz Cathedral. It seems that five niches in the gable (German: *Giebel*) arranged in the growing order on the right and left were borrowed from the Speyer Cathedral. It is possible that the square planning prismatic tower built by Willigis-Bardo (around 940–1011) was replaced with the octagonal cupola, and the idea was borrowed from the Speyer Cathedral to make the crypt (German: *eine dreischiffige Hallenkrypta*) under the three-nave hall of the new eastern choir, whose construction was not continued. The middle tower on the eastern side was essentially rebuilt several times. The eastern transept (German: *Querschiff*) round the brick tower was raised and extended. A tower of staircase was built on each side of the apse [43, 26]. Two big portals took to passages on the right and on the left from the apse, above which there were two floors, where the application of rooms has not been found out yet: possibly, the sacristy and archive, accessible only from the chancel, and storerooms were on the lower

floor, but upstairs there might have been the chapel. The emperor’s death in 1106 marked a significant turning-point in construction: the building was completed in a hurry and incompletely. It is considered, that unfinished transept and portals were made during 1125–1130. Cross vaults were used for covering in Worms St. Peter’s Dom (German: *Wormser Dom, Dom St. Peter zu Worms*; 1130–1181). Two span lengths in side-naves complied with each covering span length in the main nave. This system was especially common in German cathedral architecture. Building façades had monumental simplicity, which expressed the spatial composition of the building. The arch motive dominated in the modest décor [53, 78]. Emperor built three grand cathedrals – the Cathedral of Speyer, Mainz and Worms.

During the second Crusade (1147–1149), knights rebuilt the Christians’ most sacred place the Church of Resurrection. Towards the *cardo maximus* was turned the façade with the entrance gate, in front of which in the early 12<sup>th</sup> century the atrium of stones was made (Fig. 5), and on its western side the Lord’s Brother St. Jakov’s Orthodox Church (Russian: *церковь святого Иакова, брата Господня*; 1009–1055), built for the first bishop in Jerusalem. The Chapel of St. Mary Magdalene (Russian: *греко-православная часовня святой Марии Магдалины*; 1009–1055) made in relation to its baptistery. Construction of the belfry (arch. Maitre Jourdain; 1160–1180) was completed in 1172, but later its height was decreased for two floors. In the main temple of the Church of Resurrection Catholicum (Russian: *Кафоликон*, German: *Katholikon*; 1160–1170) or Eastern Orthodox Patriarchate of Jerusalem (Russian: *кафедральный храм для Патриархов Иерусалимской Православной Церкви*), the Anastasis Rotonda covered the sanctuary divided into two parts. On eastern side of the Coptic Chapel (Russian: *Кувуклия, Коптская капелла*) in external Angel’s Chapel (Russian: *придел Ангела*) a low pilaster with a built-in stone – the Angel Altar, placed above the Golgotha cliff rock, that had supported the Holy Cross. In the wall of Rotonda three altars are built – one is facing the south, the other – the north. The altar of the Chapel of the Syrians or Jacobite Chapel (Russian: *придел православных сирийцев (Сиро-Яковитской Церкви) or придел Никодима*) built in the back of the 11 m high west-side external wall of the former Constantine Basilica is turned towards the east. According to street layout, four entrances with eight doors were made opposite each other. The renovated Church of Resurrection was solemnly consecrated on the 50<sup>th</sup> anniversary of Jerusalem conquest, 15 July 1149.

In Scandinavia the only archbishopric – the Archdiocese of Lund was founded, where a basilica

of stone with wooden ceiling – the Lund Cathedral dedicated to Saint Lawrence (Fig. 8, 9) was built. The main entrance in the western façade was surrounded by twin towers. The altar of crypt was consecrated in 1123, but the main altar of the cathedral – on 1 September 1145. Sweden fell into Lunda's influence, and in the early 12<sup>th</sup> century, the metropolis was founded, where bishops of Denmark and northern countries were consecrated. In the 12<sup>th</sup> century, in the Kingdom of Sweden six bishoprics and the centre of archbishopric in Uppsala (1164) were created. In 1234, the Lunda Cathedral was destroyed by fire [16, 7].

The cathedral type further development was affected by four cathedrals built by Duke Heinrich der Löwe (around 1129–1195). On 11 August 1154, on the highest spot of the Old City of Ratzeburg in the north part of the island the first Bishop of Ratzeburg (1154–1178) Evermod laid the foundation-stone for the Ratzeburg Cathedral (German: *Dom von Ratzeburg*) (Fig. 10), which altar part was built by 1160, but in 1220 the entrance was made in the south side. In the second half of the 13<sup>th</sup> century, in the Bishopric of Ratzeburg (German: *Bistum Ratzeburg*) the cloister and Canonical Chapter's building were built for Premonstratensians. On the west side of the Ratzeburg Cathedral instead of the initially envisaged two-tower façade the construction volume is closed by the middle tower built around 1251, with side outbuildings on the height of the middle nave. Having returned from the Holy Land, Duke laid the foundation-stone for the Brunswick Cathedral (German: *Braunschweiger Dom*; 1173–1226) in 1173, but although during 1182–1185 he was evicted to England. Under the choir, the crypt for the three-apse cathedral was built. In the west part of the Brunswick Dome the middle room of the three-part planning construction volume was made as a narrow corridor. On 29 December 1226, the building was consecrated as the collegiate church, which became a sample for the Bremen Cathedral, dedicated to St. Peter (German: *Bremer St. Petri Dom, Bremer Dom*) (Fig. 11), and the church of Segeberg Augustinian Monastery (German: *Augustinerkloster Segeberg*; 1134) [11, 59–60]. Three-nave basilica (Fig. 12) of the Lübeck Cathedral (German: *Lübecker Dom*; 1173–1230), founded by Duke in 1173, was built until 1247. In the Lübeck Cathedral's interior, the bay between the towers opens towers the longitude in its whole height. In 1241, Lübeck (on the Baltic Seacoast) and Hamburg (on North Sea coast) signed the trade agreement, which can be considered as the beginning of the Hanseatic League (Latin: *Hansa Teutonica*, German: *Deutsche Hanse*). In Gotland, where the Visby Cathedral (Swedish: *Visby domkyrka, Visby S:ta Maria domkyrka*; 1225) (Fig. 13) was built, after 1241 Germans established a significant centre.

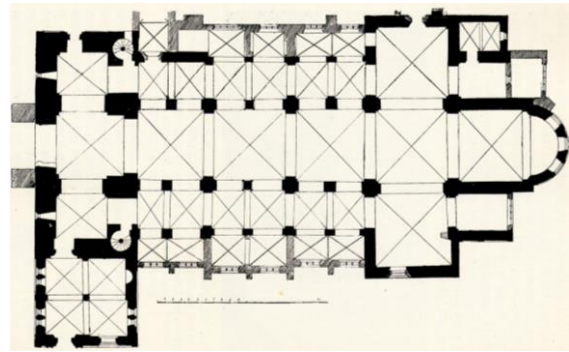


Fig. 10. Plan of the Ratzeburg Cathedral. Around 1880 [Grundriß des Domes vor dem Umbau online 07.06.2017, [http://www.ratzeburgerdom.de/images/gross/haupt\\_46.jpg](http://www.ratzeburgerdom.de/images/gross/haupt_46.jpg)]

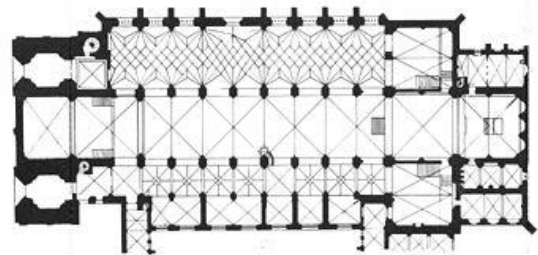


Fig. 11. Plan of the Bremen Cathedral before its restoration in 1888 – 1901. On the south side the monastery building was destroyed by fire in 1912. 1888. [online 19.06.2017, <https://upload.wikimedia.org/wikipedia/commons/thumb/0/02/BremenDomGrundriss.jpg/360px-BremenDomGrundriss.jpg>]

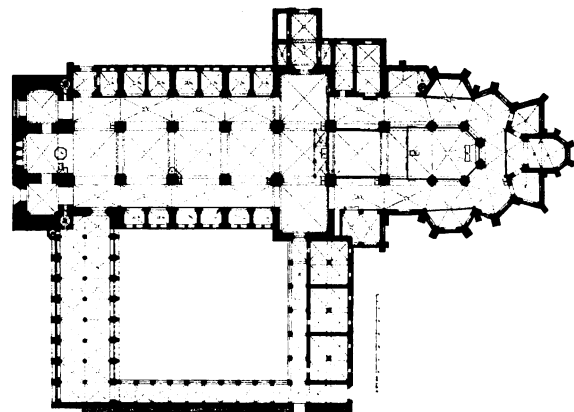


Fig. 12. Plan of the Lübeck Cathedral with the circular passage around the chancel, built later. 1878. [Plan des Lübecker Doms vor 1878. online 19.06.2017, <http://upload.wikimedia.org/wikipedia/commons/thumb/7/77/GrundrissDom.png/220px-GrundrissDom.png>]

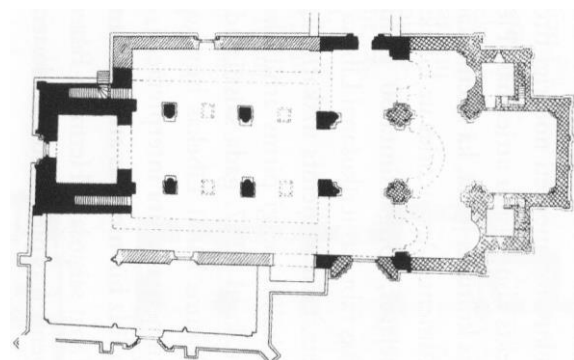


Fig. 13. Plan of the Visby Cathedral [2, 75].

### Riga Bishop's Cathedral erecting under the impact of German building traditions

Bishop of Riga Albrecht spent his youth in the Bremen Cathedral, which often highlighted as one of the second Riga Cathedral's (Fig. 14) pre-sample. This time coincided with the upswing period of the Archdiocese of Hamburg-Bremen, introduction of the expansion policy in the Baltics and active building of the Ratzeburg Cathedral, which was the first north-German three-nave basilica of bricks with the choir's square, transept and apses. On the Baltic Sea eastern coast, Bishop Albrecht created one of the biggest centres of Christian faith extension Western branch, and before laying the foundation-stone of the second Riga Cathedral. He arrived in the religious life centre Magdeburg, where for the first time the new choir for the German church was built according to the French Gothic sample, but the place in front of the cathedral (sometimes called "new marketplace", *Neuer Markt*) was occupied by the imperial palace (*Kaiserpfalz*), destroyed in fire of 1207.

Construction of the Riga Bishopric's Cathedral could have been affected by Segeberg Augustinian Monastery St. Mary's church (1156) and one of the biggest pillar basilicas the Lübeck Cathedral. In the newly founded Bishopric of Riga, it was not possible to implement quickly the large-size pillar basilica with the choir square and apse, transept with two apses in the eastern side, three-nave room for the congregation. Supposedly, applying local dolomite ashlars, building outside the city's walls on the bank of the Daugava begun after St. Jacob's Day on 25 July 1211, when the place was consecrated.

In 1220, the Riga Cathedral altar part and transept were finished. The cathedral was not made any more like the basilica with narrow side-naves, but as a hall-type building on one level, covered with vaults. Strategically the most important turning point in creation of Riga Bishop's Cathedral, probably, was related to the transition, implemented in the building process during 1220s. The rapidly spread modern material in the Baltic Seacoast building practice – red brick, to whose aesthetic qualities representative significance was awarded in the early phase of building, emphasising the contrast between the basic red of clay and the white chalk joints, plastered over and whitewashed elements of the wall décor. The change of building material happened without changing the planning of the pillar three-nave basilica. Simultaneously, construction of the monastery's eastern block was started. Functionally important cube-type choir with the apse for the liturgical ceremonial process and the transept with apses at the back had already been built to the cathedral, which was necessary for the mission work and baptism. Building was continued in the transept and the west end of the north side-nave, and the

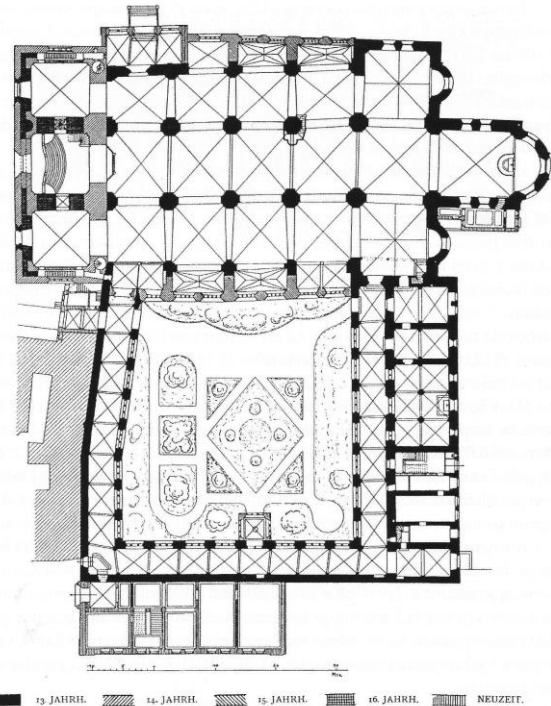


Fig. 14. Architect Johann Wilhelm Carl Neumann (1849–1919). Plan of Riga Bishop's second Cathedral and monastery. 1912 [6, 253].

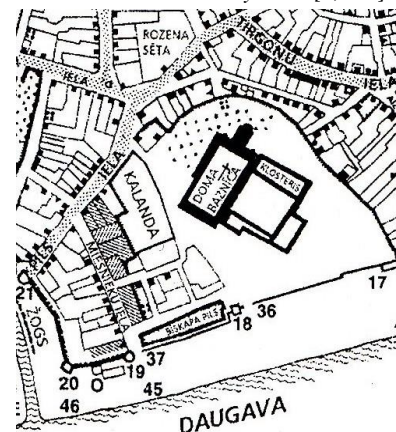


Fig. 15. Culture historian Jānis Straubergs (1886–1952). Planning of Riga Bishop's second yard around 1500 [41, 154–155].

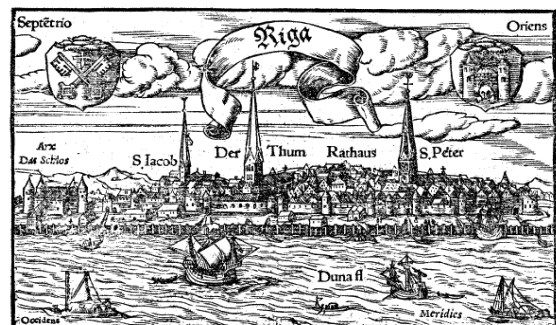


Fig. 16. Riga Bishop's second Cathedral crowned by a high spire in the drawing of panorama of Riga before 1547 [4, 43] submitted to Sebastianam Minsteri for publishing by the office secretary of Riga Town Council, poet, chronicler Hans Johann Hasentöter (also Hasentödter, around 1517–1586) [30].



massive cross-type poles on both sides of the middle-ave justified the preparation. Monastery rooms were not less important, especially the Chapter Hall. Partial construction of the cloister eastern building and the south building can be related to the first building period, which was necessary for monastery's household life [14, 8–9]. The Latin cross planning of the Riga Cathedral, which confirms the initial basilic intention of the building, has a square choir and apse of a semicircle form, the eastern transept and a massive construction volume on the west side. The four bays of the congregation's room, whose planning is close to a square form, create outlines typical to a hall-type building. Massive pillars of a cross-type planning mark borders between the middle nave and side naves. Buildings of the abbey are placed on the south side of the cathedral at the end wall of the transept, but the square yard is surrounded by three cloister blocks. Presumably, on the west façade of the Riga Cathedral there was the initial entrance with a semicircle covering. Nevertheless, the portal of the main entrance has been made on the north side. The pre-season for these changes is not known, but it could be related to the desire to make the church more accessible to the newly-founded city, to which the north façade of the Riga Cathedral was turned. The equivalence of all three bays' size is an important feature to the Riga Dome's representable entrance. The middle room was been made as a full-fledged bay, similarly to the Lübeck Cathedral and the Ratzeburg Cathedral. The layout of the Riga Cathedral and monastery buildings was traditional (Fig. 15): the cathedral with the tower, crowned by a slender, tall spire (Fig. 16), was situated in the north, but monastery buildings – in the south [7, 33].

The Lübeck Cathedral was rebuilt (1266–1335): side-naves were raised up to height of the middle-ave and a circular passage was made around the chancel [43, 50]. Bishop (1317–1341) Heinrich II Bochoholt created eastern choirs and extended the building: the massive rectangular cross-section buttresses outlined the border in the oldest part and columns – in the newest part. In the second half of the 13<sup>th</sup> century, the middle-ave was made in the Riga Cathedral building. Around 1300, rooms were completed. In the 14<sup>th</sup>–15<sup>th</sup> centuries, the congregation room was extended, breaking out side-walls and building chapels. There was an intention to extend the cathedral towards Jauniela side, rebuilding the altar part testified by massive

foundations, found in excavations in 1986, dating back to the 15<sup>th</sup> century. Monastery rooms, sacristy and Chapter Hall were built in the early Gothic forms. In the west wing, the irregular shape of the cloister confirms shortening of the congregation room during the course of building. Different materials and building techniques can be noticed in massive tower's brick design decorated by niches and arcades. It is likely that stone parts of the tower were raised simultaneously with the basilica's middle-ave building [18, 94–96]. The Riga Cathedral was restored several times – in the late 19<sup>th</sup> century, during the 1960s (arch. Edgars Georgs Slaviētis (1905–1985), Vilis Druģis (1912–1990)), in 1982–1984 (arch. Juris Galviņš).

Around 1400, Riga had become an important trade and crafts city on waterways and road crossings, the centre of the Teutonic Order and the Riga Archbishopric. Close by Riga defensive wall fortified yards were created, but in the central part of the city the monastery complex was placed, in which the Riga Cathedral was included. The planning of the Riga Archbishopric Centre made by two urban structures adjoined the defensive wall of Riga. The Riga Bishop's second yard's perimeter construction included the sacral building and reminded of the solution for Roman Bishop's residence on the Caelian Hill in Rome, but in the centre of Riga Canonical Chapter's yard the Riga Cathedral building complex consists of the cathedral and the monastery.

## Conclusions

1. Assessing in the European context, a common feature for the Riga Cathedral, which became the main building in the Riga Archbishopric, in whose subjugation seven bishoprics got, was the ability to organize urban environment in an architecturally active way. A distinctive feature was the structural construction of the Christianity centre – mutual correlation between the Canonical Chapter and Bishop's residence – two urban building structures, related to the cathedral. Functional solutions of urban building development have been developed in building plans of bishoprics' capital cities, but the aesthetic and artistic quality of building was affected by the cathedral building-type further development.

2. The building complex of Riga Cathedral, monastery and Riga Bishop's second yard influenced formation of the street network and square placement in the city, as well as erection of gates in Riga City's defensive wall.

## References

1. Architektonisches Ensemble der Dom-Kathedrale in Riga. Leningrad: Aurora-Kunstverlag, 1980.
2. **Bergholde, A.** Rīgas Doma viduslaiku arhitektūra un būvplastika eiropēisko analogiju kontekstā. Disertācija. Rīga: Latvijas Mākslas akadēmijas Mākslas vēstures institūts, Mākslas vēstures pētījumu atbalsta fonds, 2015, 408 lpp. ISBN 978-9934-8471-4-1.
3. **Bremša, L., Brasliņa, A., Bruģis, D., Pelše, S., Pujāte, I.** Latvijas mākslas vēsture. Rīga: Pētergailis, 2004, 543 lpp. ISBN 9984-33-045-1.



4. **Broce, J., K.** Zīmējumi un apraksti. 1. sējums: Rīgas skati, ļaudis un ēkas. Rīga: Zinātne, 1992, 455 lpp. ISBN 5-7966-0313-2.
5. **Broniewski, T.** Historia architektury w Zarysie. Wrocław: Zakład Narodowy im. Ossolińskich, 1959, 570 lpp.
6. **Caune, A.** Bīskapa sētas Rīgā 13. gadsimtā. **In:** Latvijas viduslaiku pils, I. Pētījumi par Rīgas arhibīskapijas pilīm. Rīga: Latvijas Vēstures institūta apgāds, 1999. 216. – 240. lpp. ISBN 9984-601-26-9.
7. **Caune, A. Ose, I.** Latvijas viduslaiku mūra baznīcas. 12. gs. beigas – 16. gs. sākums. Enciklopēdija. Rīga: Latvijas vēstures institūta apgāds, 2010, 511 lpp. ISBN 978-9984-824-17-8.
8. **Cielava, S.** Vispārīgās mākslas vēsture II. Rīga: Zvaigzne ABC, 1999, 224 lpp. ISBN 9984-17-257-0.
9. **Dehio, G., von Bezold, G.** Kirchliche Baukunst des Abendlandes. Stuttgart: Verlag der Cotta'schen Buchhandlung, 1887–1901.
10. **Dirveiks, I.** Juris Vasiļjevs un Latvijas sakrālās arhitektūras izpēte. **In:** Sakrālā arhitektūra un māksla: Mantojums un interpretācijas. Rīga: Neputns, 2008, 166. – 177. lpp. ISBN 978-9984-807-32-4.
11. **Grosmane, E.** Bīskaps Alberts un Rīgas Doms. **In:** Senā Rīga. Rīga: Latvijas vēstures institūta apgāds, 2000, 52. – 64. lpp. ISBN 9984-601-50-1.
12. **Grosmane, E.** “Lībieša tēls” vai būvmeistara atveids Rīgas Doma austrumu apsīdā. **In:** Materiāli latviešu literatūras un mākslas vēsturei. Rīga: 1995, 61. – 64. lpp.
13. **Grosmane, E.** Rīgas Doma arhitektūra un būvplastika 13. gadsimtā. **In:** Latvijas māksla starptautisko sakaru kontekstā. Rīga: Neputns, 2000, 7. – 22. lpp.
14. **Grosmane, E.** Rīgas Doms: arhitektūras un mākslas vērtības. Rīga: Latvijas Mākslas akadēmijas Mākslas vēstures institūts, 2014, 48 lpp. ISBN 978-9934-8471-0-3.
15. **Grosmane, E.** Rīgas Doms gadsimtu gaitā un paradigmas maiņas rekonstrukcijā. **In:** Sakrālā arhitektūra un māksla: Mantojums un interpretācijas. Rīga: Neputns, 2008, 9. – 30. lpp. ISBN 978-9984-807-32-4.
16. **Heinrici Chronicon,** Rīga: Zinātne, 1993, 453 lpp. ISBN 5-7966-0326-4.
17. **Holcmanis, A.** Latvijas Republikas galvaspilsēta: vēsture. **In:** Latvijas pilsētas. Rīga: Preses nams, 1999, 382.–400. lpp. ISBN 9984-00-357-4.
18. **Holcmanis, A.** Vecrīga – pilsētībūvniecisks ansamblis. Rīga: Zinātne, 1992, 254 lpp. (Latvijas PSR arhitektūras un mākslas pieminekļi) ISBN 5-7966-0474-0.
19. **Kiše E., Plauciņš, L.** Rīgas arhitektūras pieminekļi = Памятники архитектуры Риги. Rīga: Latvijas PSR Zinātņu akadēmijas izdevniecība, 1956, 84 lpp.
20. **Krastiņš, J.** Rīgas arhitektūras stili. Rīga: Jumava, 2005, 240 lpp. ISBN 9984-38-017-3.
21. **Krastiņš, J., Strautmanis, I., Dripe, J.** Latvijas arhitektūra no senatnes līdz mūsdienām. Rīga: Baltika, 1998, 312 lpp. ISBN 9984-9178-3-5.
22. **Krastiņš, J., Strautmanis, I.** Lielais Rīgas arhitektūras ceļvedis. Rīga: Puse, 2002, 376 lpp. ISBN 9984-527-61-1.
23. **Kürth, H., Kutschmar A.** Baustilfibel. Berlin: Volk und Wissen Volkseigener Verlag, 1976, 291 lpp.
24. **Lanciani, R.** Forma Urbis Romae. Roma: 1893–1901
25. Latvijas evaņģēliskas luteriskas baznīcas. Mārtiņa Lutera Mazā katķisma un Augsburgas ticības apliecības 400 gadu atcerei. Rīga: Baznīcas Virsvaldes izdevums, 1929/1930, 59. lpp.
26. **Major, M.** Geschichte der Architektur. Die Architektur der Urgemeinschaften und Sklavenhaltergesellschaften. Budapest: Verlag der Ungarischen Akademie der Wissenschaften, 1957, 400 lpp.
27. **Major, M.** Geschichte der Architektur. Band I. Berlin, Budapest: Henschelverlag Berlin, 1984, 719 lpp.
28. **Mašnovskis, V.** Latvijas luterāņu baznīcas. 3. sējums. Rīga: DUE, 2007, 472 lpp. ISBN 978-9984-9948-4-0.
29. **Misāns, I., Šnē, A.** Klosteris, pils un pilsēta. Materiāli semināriem Rietumeiropas viduslaiku vēsturē. Rīga: Latvijas Universitāte, 2004, 288 lpp. ISBN 9984-770-19-2.
30. **Münster, S.** Cosmographie oder Beschreibung aller Länder. Basel: 1550
31. **Neumann, W.** Der Dom zu St. Marien in Riga. Rīga: G. Löffler, 1912.
32. **Neumann, W.** Grundriss einer Geschichte der bildenden Kunst in Liv-, Est- und Kurland vom Ende des 12. bis zum Ausgang des 18. Jahrhunderts. Reval: 1887.
33. **Ose, I.** Latvijas viduslaiku pils, II. Latvijas viduslaiku piļu pētniecība 18.–20. gadsimtā. Rīga: Latvijas vēstures institūta apgāds, 2001, 383 lpp. ISBN 9984-601-39-0.
34. **Ozola, S.** Impact of Dominican and Franciscan Monastery Complexes on Urban Planning Development in the Livonia Confederation and the State of the Teutonic Order. **In:** Landscape Architecture and Art. Scientific journal of Latvia University of Life Sciences and Technologies. Volume 12. Number 12. Jelgava: Latvia University of Agriculture, 2018, pp. 76–84. ISSN 2255-8632 print, ISSN 2255-8640 online. DOI: <http://doi.org/10.22616/j.landarchart>
35. Rīgas Doms. Rīga: Liesma, 1966, 64 lpp.
36. **Schröder H.** Riga im Wandel der Zeiten. Tilsit, Leipzig, Riga: Holzner Verlag, 1942, S. 57.
37. Senā Rīga gleznās, zīmējumos un gravūrās. (1937) Rīga: Latvijas Pilsētas valdes izdevums, 102 lpp.
38. **Spārtis, O., Stefane, M.** Rīgas Doma vitrāžas = The Riga Dom Cathedral stained glass. Rīga: Rīgas vēstures un kuģniecības muzejs, 1997, 102 lpp.
39. **Spekke, A.** Latvijas vēsture. Rīga: Jumava, 2008, 382 lpp. ISBN 9984-05-667-8.
40. **Straubergs, J.** No latviskās Rīgas senatnes. **In:** Latvijas pilsētas valsts 20 gados. Rīga: Latvijas pilsētu savienība, 1938, 62. – 74. lpp.
41. **Straubergs, J.** Rīgas vēsture. II daļa. Rīga: Grāmatu Draugs, 1937.
42. **Straubergs, J.** Vecā Rīga. Rīga: Latvijas Valsts izdevniecība, 1951, 100 lpp.
43. **Toman, R., Bednorz, A., Borngässer, B.** Cathedrals and Churches of Europe. Potsdam: h. f. ullmann publishing GmbH, 2015, 400 lpp. ISBN 978-3-8480-0690-8.
44. **Vasiļjevs, J.** Latvijas arhitektūras vēstures studiju pamattendences un koncepcijas pirmspadomju laikā. **In:** Latvijas PSR arhitektūra un pilsētībūvniecība. Rīga: Zinātne, 1987, 30. – 58. lpp.

45. **Zilgalvis, J.** Latvijas arhitektūras īsa vēsture. **In:** Latvijas Arhitektūra 93'. Rīga: Baltika, 1993, 14. – 36. lpp.
46. **Zilgalvis, J., Čoldere, D.** Rīgas Doms. **In:** Rīgas dievnami. Arhitektūra un māksla. Rīga: Zinātne & Mantojums, 2007, 64.–83. lpp. ISBN 978-9984-823-00-3.
47. **Zucconi, G.** Firenze guida all'architettura. Verona: Arsenale Editrice, 2007, 147 lpp. ISBN 978-88-7743-146-2.
48. **Брунов, Н. И.** Очерки по истории архитектуры. Том 1. Москва: Центрполиграф, 2003, 400 с. ISBN 5-9524-0111-2
49. **Брунов, Н. И.** Очерки по истории архитектуры. Том 2. Москва: Центрполиграф, 2003, 540 с.
50. **Вага, В.** Проблема пространственной формы в средневековой архитектуре Латвии и Эстонии. **In:** Ученые записи Тартусского государственного университета. Выпуск 86. Тарту: Тарту государственный университет, 1960.
51. **Васильев, Ю.** Рига, памятники зодчества. Рига: издательство Лиесма, 1971, 285 с.
52. **Гнедич, П. П.** Мировая архитектура. Москва: ЭКСМО, 2012, 230 с. ISBN 978-5-699-56587-0.
53. **Гуляницкий, Н. Ф.** История архитектуры. **In:** Архитектура гражданских и промышленных зданий: Учебник для вузов. В 5-ти томах. Том I. /ЦНИИ теории и истории архитектуры, Московский инженерно-строительный институт им. В. В. Куйбышева. Москва: Стройиздат, 1984, 334 с.
54. **Дмитриева, Н. А., Акимова, Л. И.** Античное искусство: Очерки. Москва: Детская литература, 1988, 256 с. ISBN 5-08-000762-1.
55. **Саваренская, Т. Ф.** История градостроительного искусства. Москва: Стройиздат, 1984, 376 с.
56. **Чинг, Ф. Д. К. Яржабек, М., М.** Всемирная история архитектуры. Сооружения всех стран и континентов за 6000 лет: от IV тысячелетия до н. э. до наших дней. Москва: Астрель, 2011, 784 с. ISBN 978-5-271-35405-2.

#### INFORMATION ABOUT THE AUTHOR:

**Silvija Ozola**, Mg. arch, Assistant Professor of Riga Technical University (RTU), Latvia. Graduated the Faculty of Building at the Riga Polytechnic Institute in 1980 and obtained a certificate of architect. In 2003 at the Latvian Academy of Sport Education obtained the diploma of Education and Sport specialist. In 2008 obtained a master degree in architecture at the Faculty of Architecture and Urban Planning of the Riga Technical University. In 2010 at the Faculty of Architecture and Urban Planning of the Riga Technical University graduated the Architecture theoretical course of doctoral studies. Academic work experience: lecturer of Riga Building College (2005–2010), lecturer of the Riga Technical University (2006–2016); Assistant Professor of the Riga Technical University since 2016. Professional work experience: architect at Design Institute „*Lauku projekts*” / „Rural Project” (1980–1983); architect at Architect’s Design Group in Liepāja District (1984–1990). Since 2018, an international expert of architecture, culture and art. The author of numerous village development projects and projects of public and private buildings. The author of more than 80 scientific works on various aspects of landscape architecture, urban planning, history of architecture, published in Latvia, Estonia, Poland, Portugal, United States of America, Italy, Germany, Austria, Russia. Research interests – art, music, landscape architecture, urban planning, history of architecture. E-mail: ozola.silvija@inbox.lv

**Kopsavilkums.** Romas imperators Konstantīns I 313. gadā sāka Romā celt senāko katedrāli – piecjomu Sv. Jāņa Kristītāja katedrāli (latīņu: *Archibasilica Sanctissimi Salvatoris*; 324, pēc 430 pārbūvēta), bet Laterāna pili (latīņu: *Palatium Apostolicum Lateranense*) uzdāvināja Romas bīskapam mājvietai. Izveidoja L-veida perimetra apbūves kompleksu. Kristieši 4. gadsimtā radīja lūgšanu vietas, kur novietoja altāri. Priekšstatam par templi atbilda iegarena celtnes ar taisnstūra zāli, tādēļ kulta vajadzībām pielāgoja tiesu sēdēm, sapulcēm un tirdzniecībai romiešu celtās liela izmēra sabiedriskās ēkas – garena plānojuma bazilikas, kur ar kolonnu vai stabu rindām gareniski dalīja telpu trīs vai piecos jomos (franču: *nef*, latīņu: *navis*). Vidusjomu veidoja augstāku un platāku, un sienu augšdaļā ierīkoti logi izgaismoja telpu. Atšķirībā no pagāniem kristieši neuzskatīja templi par Dieva mājokli, bet gan par ticīgo pulcēšanās vietu ar funkcijai atbilstošu telpisko risinājumu, kuru sākotnēji ar simbolisku nesaistīja: zāles austrumdaļā altārim izveidoja vienu vienīgu pusapļa plānojuma nišu jeb apsīdu, kas atradās tieši pretī galvenajai ieejai celtnes rietumdaļā, kur pirms ieejas ar sienu nodalīja slēgtu priekštelpu – nartekstu, paredzētu personām, kurām liedza ieiet lūgšanu telpā. Sakrālo celtni plānojums sākotnēji bija vienkāršs, un to veidoja divas lielas zonas: altārdaļa garīgajam rituālam un draudzes telpa. Pirms galvenās ieejas baznīcā izbūvēja kāpnes. Kristieši atbilstoši rituālam izmainīja baziliku arhitektūru un radīja reliģijai simbolisku. Romas impērijā turpmāk pastāvēja sabiedriskas celtnes – bazilikas, un sakrālas celtnes – bazilikas ar ātriju. Eiropā daudzi valdnieki 6.–9. gs. pasludināja kristietību par valsts reliģiju. Baznīca nostiprināja savu ietekmi sabiedrībā un valsts pārvaldē. Romā tāpat kā Jeruzalemē izveidoja reliģisku centru, un uz viena no pakalniem 8. gs. vidū izveidoja pilsētu-valsti – Vatikānu (latīņu: *Status Civitatis Vaticanae*), kur izvietoja pāvesta rezidenci. Kristieši radīja bīskapu pārvaldītas teritoriāli organizatoriskas struktūras un dibināja katoļu baznīcvalstis – bīskapijas, kur galvenais dievnams bija katedrāle. Baltijas jūras dienvidu piekrastē 12. gs. nogalē sāka pakļaut baltu un somu-ugru apdzīvotās teritorijas un dibināt bīskapijas. Bīskapiju centros paredzēja mājvietu bīskapam un Domkapitulam, bet bīskapu troņa novietošanai cēla katedrāles, kas kristietības centrā kļuva par apbūves galveno dominanti. Daudzu gadsimtu gaitā Eiropā izveidoja katedrāles būvtipu, kura attīstību baltu un somu-ugru zemēs ietekmēja vietējās būvniecības tradīcijas. Rīgas Doma pirmsākumi meklējami 1201.–1202. gadā, kad bīskapijas centru no Ikšķiles pārcēla uz jaundibināto Rīgu, kur ģeopolitiski un stratēģiski izdevīgajā vietā izbūvēja bīskapa rezidenci.