

The Church of St. Mary in Oslo – Overview and Revision of the Building History

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The now ruined Church of St. Mary was once a royal chapel and collegiate church situated on the sandy tongue of land that made up the southern end of Oslo. Its building history, from a small wooden church to a Gothic structure with a monumental façade, reflects key architectural developments in the span of Norway's Medieval Period (AD 1050–1537). Several excavations have shed light on this evolution, in which the question of form and dating has played a leading role. Central to the discussion are the excavations of Nicolay Nicolaysen (1868), Gerhard Fischer (1935) and Håkon Christie (1961–1963; 1969; 1971). This paper aims to examine the ruin and the many works dealing with St. Mary's in Oslo, in order to present an overview of the scholarly discussion. We also revise some issues concerning building history, dating and architectural forms of the building. We suggest a new basis for a hypothetical reconstruction of the church as it may have looked at the death of Håkon V Magnusson in 1319.

The ruin and its surrounding

The ruin of St. Mary's Church is located in the area of Sørenga in the Gamlebyen district of Oslo.¹ It is integrated in a park that counts several exposed ruins from the Medieval Period. An artificial pool today recreates the shore-line of Oslo c. 1300, defining a tongue of land called Øren, on which St. Mary's was erected, a short distance from the king's manor. The town was moved to the area around Akershus fortress following a devastating fire in 1624. St. Mary's had been ruined already in the middle of the sixteenth century, and then unearthed in what had become cropland in 1868.

¹ We are most grateful for critical comments and suggestions from Ole Egil Eide, Øystein Ekroll, Randi Horgen, Regin Meyer and Per Holck. Their contributions have both sharpened our arguments and led us to revise some conclusions. Also Erla Hohler's proof reading of the English text has been of great help. Possible flaws and mistakes are the sole responsibility of the authors.



Fig. 1. Hypothetical reconstruction of St Mary's in Oslo c. 1300. The height of the towers and the width of the west front corresponds. Brickwork is limited to the chancel extension. Model by Karen Maria Eiken-Engelgård and Terje Berner after design by Stige and Snekkestad.

The current appearance of the ruin is the result of conservation work that started in 1961. It is preserved in c. 0,5 to 2,0 m height. Additional courses are added to create a nearly horizontal wall, or put up over a membrane in order to protect the underlying material. In general, the west front and twin towers have most of the original material

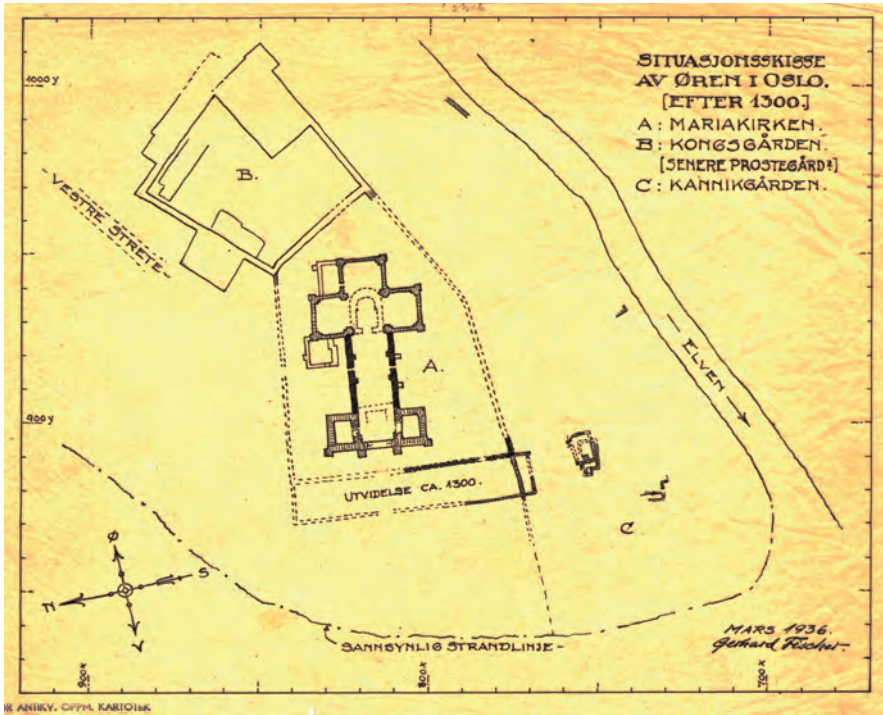


Fig. 2. Site plan showing St Mary's, the royal residence and the small cellars excavated in the presumed Canon's yard by Fischer (1936). Archive of the Directorate for Cultural Heritage.

intact under a membrane, while the brickwork in the Gothic chancel have very little. With some irregularities, the plinths are either visible or barely covered by grass or gravel. The general outline of the fourteenth century version of the church is protruding and readable. The plan of the Romanesque church, however, apart from the nave, is almost entirely reconstructed to ankle-height with new material. This includes the tower and the first elongation of the chancel. The initial wooden church is marked with slices of logs where the posts once stood.

The most striking feature of the ruin is the three-part shift in building material and masonry style. The western part displays thick walls and massive plinths with rough and large stone masonry of varying kind in the Gothic style. The middle part consists of slightly slimmer, but heavy walls dominated by horizontal shifts of lime-

stone, typical of the Romanesque style. This is the nave that survived the Gothic re-building. Finally, the eastern part stands out with its elegant and straight-lined brick-work on top of a base of large and finely hewed ashlar.

According to the most up to date measurements of the church it is 57,8 m long and 31,4 m wide in the west including the corner buttresses. Håkon Christie's drawings as reproduced in many publications, have a scale which makes the west front 33 m wide. It is therefore important to be aware of this source of misinformation.

The function of the royal chapel of St. Mary's

It is generally agreed that St. Mary's was situated on royal ground and built by a ruling king. The church is first mentioned in *Sverris saga* (ch. 134), referring to the churchyard of St. Mary's in a neutral place description in 1197. Historical sources do not reveal anything about the church building or its construction. Arguably, the institution of St. Mary served as the see of the first bishop who came to Oslo under the protection of a king. That is not in conflict with the assumption that the church functioned as a royal chapel from the very beginning (see Christie 1966a). The first bishops travelled with the king as part of his household. In the eleventh and early twelfth centuries it was not uncommon for the king to appoint the clergy of royal churches, and they did not answer to the local bishop. However, by 1300, when King Håkon Magnusson started the process of attaining the privilege of the right to appoint priests for all his chapels, that had all changed. The pope granted this privilege and thus gave room for the development of a collegiate church with a clergy serving as the king's administrative body. In 1314 the rector of St. Mary's in Oslo became chancellor to the king «for eternity». The church now also became the favoured royal burial site.

Excavation, restoration and research history 1868–1971

After being informed by a local landowner who had found mural remains beneath his barn, antiquarian Nicolay Nicolaysen began the first excavation of the site in 1868. He quickly identified it as the royal chapel dedicated to St. Mary and the results were published in *Fortidsminneforeningens Journal* for 1869 (Nicolaysen 1871). Nicolaysen's efficient dig did not comprise the whole ruin, yet allowed for a ground plan drawing by architect Christian Christie with only few inaccuracies.² Apart from doc-

² Fischer 1935: 52 noted that the measurements of the Romanesque tower shows a discrepancy of 2–3 m from his own.



Fig. 3. The area of Sørenga, Gamle Oslo in 1909, looking westwards. The ruin of St. Mary's was found just north and partly underneath the barn seen in the lower right corner. Photo: Ragnvald Væring, Oslo Museum.

umenting loose building stones, mostly moulded brick and a few other finds worth attention, some of the masonry chamber graves were opened and skeletal remains sent away for further examination. Nicolaysen suggested that three graves squeezed together in the crossing belonged to the Gothic church's proprietor, King Håkon V Magnusson, his wife Euphemia and her father Prince Wizlaw, all of whose burials in St. Mary's between 1302–1319 were known through written sources.³

Nicolaysen concluded that the church had two main building stages. The initial building was Romanesque, with a single-aisled nave and a chancel with an apse. Also, it had a west tower. According to Nicolaysen the church was then extensively enlarged around AD 1300 with a western front and a cross shaped and vaulted eastern extension – the latter with brick as the main material. It was not until Christie's excavation in the 1960's that an additional building stage was identified; namely a wooden stave church as a predecessor to the stone church.

³ See Nicolaysen 1871b: 1–22 for a summary of the royal burials, its altars and liturgical equipment known through written sources. For a further discussion, see Roaldset 2000.



Fig. 4. Aerial view of the ruin of St. Mary's after Håkon Christie's conservation work in 1971.

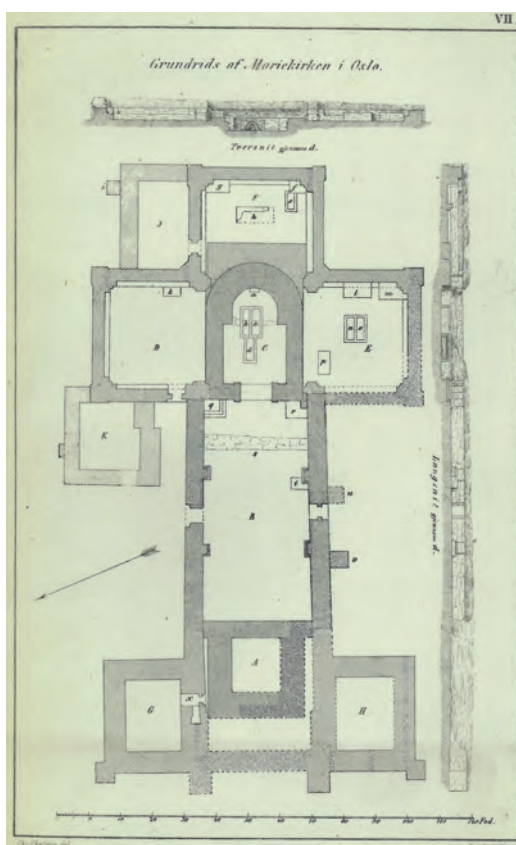


Fig. 5. The ground plan of St. Mary's following Nicolaysen's excavation by Christian Christie. (After Nicolaysen 1870: plate VII.)

The excavated parts of the ruin were backfilled, which gave adequate protection. However, as later noted, Nicolaysen's somewhat rough excavation method had in places damaged the masonry and especially the altars which stood in the way of those underlying sections he sought to document.⁴

In 1935, architect Gerhard Fischer excavated the west front. In addition, he exposed the northern nave wall eastwards, reaching the western lesene, and conducted shallow surveys of the church's east end for measurement purposes. Apart from a detailed field diary, his finds were summarized in a 1937 article and later as part of a popularized book on Oslo's medieval past.⁵ Because the west front was under threat of demolition by the Norwegian State Railways, Fischer sought to document both the masonry and to some degree stratigraphic features. Amongst others, he described floor levels, a path of slabs marking the main entrance, two drains, Post-Reformation cellars and a number of graves both inside and outside the church (Fischer 1935). The context of some of these graves helped Fischer to identify a cemetery wall belonging to the Romanesque church and another further west belonging to the Gothic one. Special attention was paid to the church's foundations and masonry techniques, and mortar in sections above the plinth was in part chiselled out to allow for precise drawings (Fischer 1935: 35).

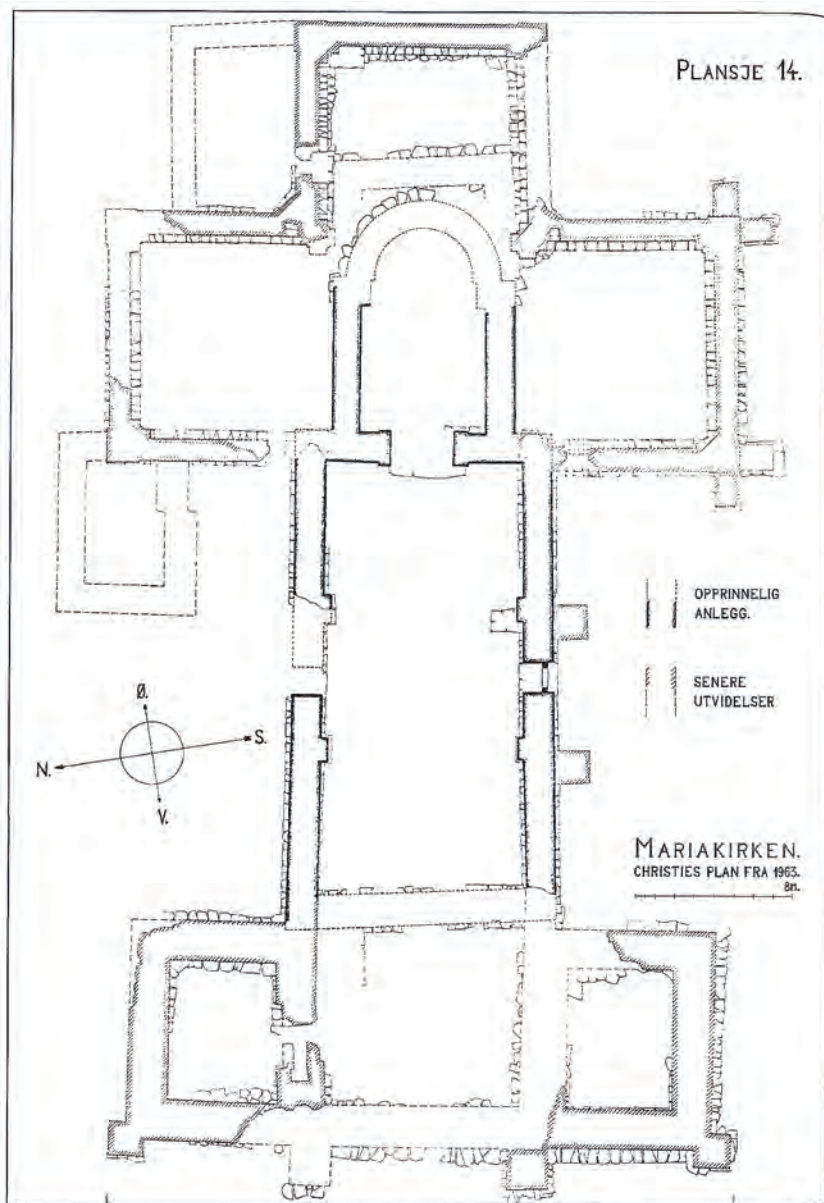
Apart from correcting some inaccuracies concerning the plan drawing, and observations that Nicolaysen in part had only shallowly exposed walls, Fischer took no serious issue with the former's conclusions (Fischer 1935: 10, 52). Yet, through the study of foundations, plinths and buttresses of the west front, he emphasized that two monumental towers flanked the Gothic extension of the nave (see Fischer 1950b: 84). No mural conservation was undertaken during or after the dig. Exposed masonry was backfilled, with the exception of the west front, which at some point was covered anticipating a full conservation in time for the 1950 Oslo City 900-years anniversary (see Fischer 1935: 56–57; 1938: 57–58; 1946: 59; 1950a: 59; Christie 2002 [1961]: 2).

Conservation work was however not undertaken until architect Håkon Christie's excavation from 1961 to 1963. Now the whole ruin saw daylight for the first time. His finds were summarized in two articles.⁶ Unlike his predecessors, Christie did not work under heavy time pressure. Yet he did not excavate the site completely to sterile ground, concentrating instead mainly on issues concerning early

⁴ Christie 2002 [1961]: 5, 7, 13. Especially, each side of the chancel arch, marking both the Romanesque and Gothic chancel, were intensely excavated.

⁵ Fischer 1935; 1937; 1950a. Fischer, with the help of Bernt Lange, also undertook a minor investigation in 1946, primarily aimed at preserving skeletal remains.

⁶ Christie 1966a; 1966b. The compiled and machine typed version of Christie's field diary was available in 2002 at the Directorate for Cultural Heritage.



Facing page: Fig. 6. The ground plan of St Mary's following Håkon Christie's excavation from 1961 to 1963 by Håkon Christie. (After Eide 2015: 82)

building history.⁷ Finds clearly indicated a wooden church predating the Romanesque stone church. A number of graves, to which careful attention was given, attested to a cemetery belonging to this initial structure.

Christie's excavation gave other valuable insights. Exposure of the foundations, in the nave, revealed the first tower to be a secondary addition. After the corners of the Gothic transept and chancel were uncovered, a detailed account of the vaulting system could be presented (Christie 2002: fig. 4–8).

Save for the sacristy and chapel, the ruin finally underwent conservation from 1961–1963. Some years later, in 1969 and 1971, the Romanesque west wall and tower were reconstructed to one course height in places where only foundations had survived. Although the principal conservation techniques were documented, a description of secondary material added to the Medieval Period masonry is missing. Consequently, it is not always clear which courses are authentic, and whether secondarily applied building stone was found on-site or not.⁸ Moreover, the masonry character has in places been altered, through straightening out “sinking” courses, changing the position of individual stones and applying too fat joints. These misrepresentations are mostly found in the western part of the nave, where Fischer chiselled out joints. Considering how the masonry character of St. Mary's, especially the Romanesque masonry of the nave, has been the object of scholarly study and comparison with other churches, it is necessary to be aware of how and where conservation work changed its look.

Excavation, restoration and research history 1971–2016

After Nicolaysen, Fischer and Christie's work, no major excavations have been conducted in or around the church (Molaug 2006). However, their results have been re-examined, skeletal remains have been studied and the re-reading of historical records concerning St. Mary's have widened our understanding of the church. These concrete

⁷ A section in the nave from its western wall to the western lesene pair and a section close to the chancel arch were dug out to sterile ground. This is also the case with the Romanesque chancel, including its extension. The northern transept wing, for instance, was however only unearthed to the level of plinths, conserving the graves underneath.

⁸ Conversation with Per Holck, 8th of April 2011. Holck confirmed that loose building stones, brick in particular, were extensively reapplied to the ruin. For a description and identification of the ruin's authentic and inauthentic masonry, see Snekkestad 2012.

contributions will be discussed where appropriate in the following chapters on the building history and possible look.

Only three works have dealt specifically with the architecture. Archaeologist Ole Egil Eide discussed the Romanesque St. Mary's in light of similar and contemporary churches in and around Oslo, later offering accurate suggestions as to its conception (Eide 1974; 2007). Art historian Randi Horgen looked at King Håkon V Magnusson's Gothic rebuilding, studying the fragments of soapstones and moulded brick tracery assembled by the excavators. She reconstructed one of the major windows and suggested that the concept of the new Eastern limb was inspired by burial-churches in Asia Minor (Horgen 1995: 140). Lastly, Petter Snekkestad studied the ruin and the diaries and photographic material of Fischer and Christie in order to distinguish between original and modern, added-on material in the ruin. He argued that both Gothic towers had staircases and that a huge fitting-stone on the site belonged to a western portal in the Romanesque church (Snekkestad 2012: 14).

Osteologists Per Holck and Elin Brødholt have both worked with the skeletal material from the church site. They summarized their results in a 2012 article that paid special attention to the skeletal trauma on the individuals examined. They argued that many of the injuries should be seen in relation to the Norwegian civil war from c. 1130–1240 (Brødholt & Holck 2012).

Historian Hege Roaldset has provided the most thorough reading of the historical sources regarding St. Mary's. The administrative and liturgical functions of the church have influenced and shaped the architecture. Thus Roaldset, also discussed the building history in detail. Other works on St. Mary's deal mainly with the royal administration in the thirteenth and fourteenth centuries (Bjørkvik 1970, Bagge 1970; 1974; Opsahl 2015).

Building history

Firstly, we should make some general remarks on the dating of St. Mary's building stages. The various suggestions as to its age should be divided into two groups: those prior to the unearthing of an initial wooden church between 1961 and 1963, and those that came after. This is because early dating suggestions, those of Nicolaysen and Fischer, understandably tied the Romanesque stone church to Harald the Hardruler's reign, as related by Snorre Sturlason (*Saga of Harald Hardrada*, ch. 60). Following Christie's excavation, it became clear that the wooden church dated to the time of Harald's reign, and that it was replaced with a stone church some time later. In light of these early dating suggestions, Christie entertained the idea that Harald also saw

the building of the first stone church (the king died in 1066). Randi Horgen argued for a building start c. 1070, Erik Schia suggested c. 1100 and like Horgen Hege Roaldset supported an early dating based on the need of the bishop for a representative church before the Cathedral of St. Hallvard was completed (Christie 1966b; Schia 1994: 28; Horgen 1995: 17–18; Roaldset 2000: 34).

Eide's revised assessments based on a detailed comparative analysis of the masonry of Oslo's earliest stone churches should here be given weight (Eide 2007). Eide suggested that the hitherto perceived earliest group of stone churches in Oslo; St. Mary's, St. Clemens' and St. Edmund's, did not predate the city's cathedral, St. Hallvard's, but rather originated from its building lodge. The building of St. Hallvard's

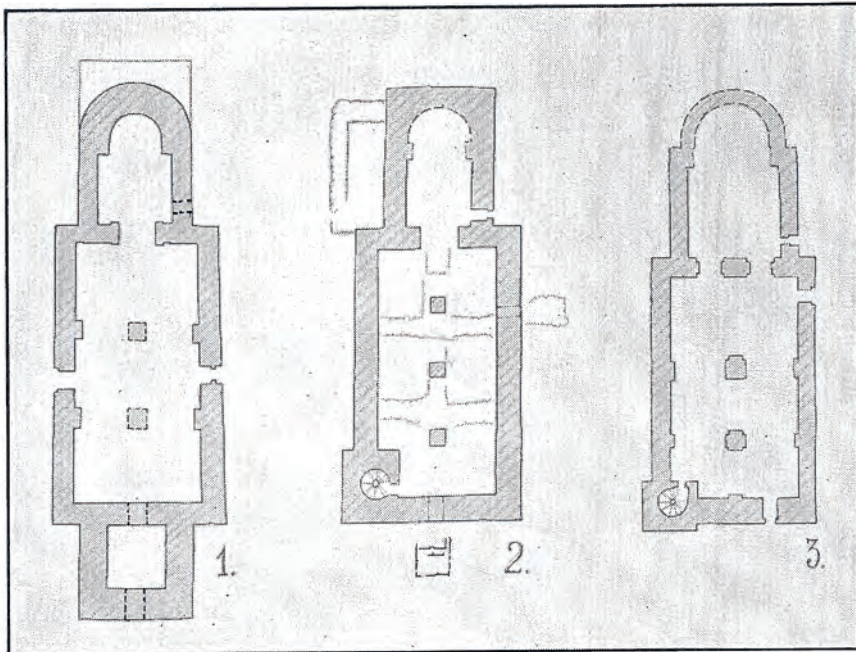


Fig. 7. The ground plans of the Romanesque churches of St Mary's (1) and St Clemens' (2) in Oslo and St Edmund's (3) on the close-by island Hovedøya. Note that Fischer's claim of two foundations supporting vaults in the nave of St Mary's was later refuted. The shape of the apses are also not precise. (After Fischer 1950: 86)

must lie somewhere between Oslo's establishment as a diocese around 1100 and the 1130 burial of its possible proprietor, Sigurd the Crusader. Recognizing that St. Mary's constructional compeer, St. Edmund's, was near or fully completed when taken over by the Cistercians in 1147, St. Mary's also falls into the second quarter of the twelfth century. We believe this argument to be sound.

As for the Gothic rebuilding, there are many loose threads. Especially, the presumed simultaneity of the western and eastern extensions is worth questioning. Yet, Nicolaysen's dating of this undertaking as a whole to c. 1300 has been generally accepted by later scholars (Fischer 1950b: 82–84; Horgen 1995: 20; Roaldset 2000: 25). The following is thus a critical overview of the building history based on archaeological documentation, earlier research and our own observations and analysis.

The stave church

Prior to the erection of a stone structure, the Church of St. Mary was a small wooden building with a 4 X 3 meter nave and 2 X 2 meter chancel. The scarce surviving remnants, namely the post holes, document a stave construction with earth-dug posts, some of them on sleepers. This type of construction is also found in early versions of the churches of Urnes, Kinsarvik, Mære, Lom and Kaupanger (Christie 1966b: 209). Because little can be said about the building above ground, two questions have taken the fore; when was it built and who built it? Christie argues convincingly for the case of a royal proprietor and a building around 1050, which points to King Harald the Hardruler. He contends that at least four factors support this claim. Firstly, Snorre writes that Harald, who fell in 1066, founded a trading post in Oslo. If so, a motte-and-bailey fortress and the proximate church was most likely built as part of a royal estate in connection with this trade. Harald is the likely candidate, Christie argues, given that a hoard of coins deposited c. 1050 was found in a levelled-out sand terrace on which both the fortress and the church rest. Also, apart from noting Harald's erection of a St. Mary's church in Nidaros, a comparison with the vanished Borg, as described by Snorre, shows a connection between royal churches dedicated to St. Mary and royal fortresses at the beginning of Norway's Medieval Period.⁹ Following further investigation of Oslo's eleventh century topography, it has been suggested that the wide and thick secondary sand terrace on which the church was built would demand royal capacity.¹⁰

⁹ Christie 1966b: 191–211. Note that the sand terrace under the fortress is not positively identical to the one under the church, yet given their secondary nature and closeness it is highly likely.

If one is to doubt the interpretation of the sand terrace as a royal undertaking, the church may well predate Harald's alleged foundation. Christie notes that infants comprise many of the earliest graves, and asks if this can indicate a missionary church, perhaps in the radiance of Danish influence in the Oslo Fjord (Christie 1966b: 209). This is however unlikely after Eide's excavation of St. Clemens' in the 1970's: The first version was indeed a missionary church from the late 900's, which should rule out a second one only a stone's throw away (Eide 1974; see also Roaldset 2000: 27). Moreover, the need for missionary churches in the Viken area as late as 1050 seems unlikely.

First stage of the Romanesque stone church

Similar to most stone churches replacing a wooden predecessor, St. Mary's was in all likelihood built from east to west around the walls of the still functional initial church.¹¹ Although it had a familiar form not unlike contemporary parish churches – in broad terms a single, rectangular nave and a smaller semi-square chancel with an apse – some features place it comfortably among the overall richer city churches, of which only few have survived.¹² For one, its size indicate a special status (Eide 1974: 116). The external length measured 37 m and the width of the western façade was 13,5 m. Also, as Eide has shown, the chancel consisted wholly or partly of orthocer limestone ashlar, something which only the richer churches had the means to appropriate (Eide 1974: 104, 122). In accordance with this, the quality of the c. 1,5 meter thick masonry walls attests to highly skilled craftsmen. The eastern part of the nave was built in reddish gneiss while the western part had silty limestone. Thus, the Romanesque church contained material from three different quarries (Eide 2015: 222).

On both sides of the aligned north and south portal in the nave, base-moulded pilaster strips dress the inner walls of the nave. This unusual feature, along with other constructional and stylistic characteristics, ties St. Mary's to St. Edmund's Church on Hovedøya just outside Oslo, as well as to the above mentioned St. Clemens'.¹³

¹⁰ Schia 1995: 114–116. The sand layer is approximately 0,5 m thick in and around the church. Schia suggests that the terrace partly came about to keep the church clear of tidal flow.

¹¹ Christie 1966b: 204, Eide 2007: 153, 155. Analysing the strict change in material use in the eastern part of the nave, Eide rightly asserts that west-to-east overhanging stones actually indicates a building sequence starting from the west. This would be a very rare case, yet, we can not rule out this possibility.

¹² It is not entirely clear if the apse had a horse-shoe shape or not. Only the foundation to the apse survive, and ground plan drawings understandably depict a regular form.

¹³ St. Clemens' is 35,5 m long and 15 m wide while St. Edmund in its original state was



Fig. 8. Inner, northern wall of the nave displaying three periods of building. The Romanesque masonry to the right is cut and extended westwards by the Gothic elongation of the nave. Lastly, a later rebuilding in brick of the opening to the northern tower is seen to the left. Photo: Morten Stige.

The pilaster strips can be understood as part of an experimentation with vaulting techniques conducted by members of the same building lodge, as revealed in the foundations of St. Mary's contemporary «siblings». Following this, the lesenes in St. Mary's possibly hint at an abandoned plan for a vaulting system connecting them to two pillars along the central axis.¹⁴ Devoid of pillars, the nave must have had a timbered roof, presumably with a flat ceiling as normal in Eastern Norway (Storsletten 2002: vol. 1, 188). Because of its width, the side walls of the nave would not be able to bear the considerable lateral thrust of a stone vault (Eide 1974: 106). There is no

36,5 m long and 14 m wide. All three churches had approximately the same size.

¹⁴ Eide 2007:153–155. Earlier, Eide 1974: 106 suggested that the pilasters might be a decorative element running up to the uppermost part of the wall with or without capitals, simply a constructional retainment or as part of a frieze of blind arches, even perhaps diaphragma arches. These alternatives can still hold some merit. Lidén played with the idea of the lesenes as carrying two arches strengthening the timber roof truss. Although the pillars in St. Clemens' and St. Edmund's are thought to carry stone vaults, they might have carried roof beams instead, see Lidén 1993: 93.

proof of vaulting in the Romanesque chancel, yet this is a real possibility, as is also the case with a presumed half-dome covering of the apse.

The church has two known portals, both placed centrally in the nave's long-walls. The eastern jamb of the north portal is gone, while remains of the south portal reveals the internal opening to be 150 cm wide, and the door itself 102 cm. Assuming that the two portals were opposing each other, the lost jamb should be placed in such a way to allow a markedly wider portal in the north. Keeping in mind that the gate tower of the royal tower was placed north-east to the church, this potentially exquisite portal would be a suitable king's entrance.

All reconstructions of St. Mary's depict a schematized west portal (see Fischer 1950b: 86; Keller & Schia 1994: 12–13), reflecting a common trait in the East-Norwegian Romanesque church type to which it belongs. Archaeological evidence for a three meter wide threshold indicates a sizeable portal (Christie 2000 [1971]: 71). A closer look at a large, free standing framing stone just south of the ruin, can add a clue to what the portal looked like. The stone has a slot to fit a hinge, perpendicular, vertical sides and clear lines between smoothed and rustic surfaces suggesting it belonged to the side jamb of a portal. An orthocer limestone, the type which was used in the Romanesque church's chancel and framings, strongly indicates that it belonged to a portal in the Romanesque stone church.¹⁵ Regardless, it attests to a portal of greater proportions than others found in its group, with a nearly 40 cm rebate on the inside and one-, or probably two-stepped on the outside, with or without colonnettes in its recess corners. If correct, the special care given to St. Mary's west portal



Fig. 9. The southern portal of the nave is the best preserved element of the Romanesque church. The portal is fitted with orthocer limestone. Photo: Morten Stige.

¹⁵ Hypothetically, the fragment could have belonged to a vanished south portal in the chancel. Taking into account the dimensions, it is however highly unlikely that the chancel was given a portal larger than the nave's south portal.



Fig. 10. The finely hewed block of orthocer limestone probably belonged to the southern jamb of the Romanesque church's west portal. Photo: Morten Stige.

should in part be understood through its assumed visibility to Oslo's seafaring visitors. Lastly, since the chancel was torn down low enough to allow the floor of the new Gothic chancel to cover it, a fourth portal in the south or north wall of the chancel cannot be ruled out.

As for windows or other masonry openings, comparable surviving churches like Gamle Aker in Oslo suggests simple round arched windows in the south wall and none to the north. The placing of two buttresses on the southern nave wall indicate three Gothic Period windows that probably reflect a similar arrangement in the Romanesque church. It is an open question whether there were windows in the north wall, which was not common in Romanesque churches in Eastern Norway. An apse window is likely, as is a window high up on the west wall to allow light for an assumed loft over the nave. One ought to ask if the latter were given a special form in tune with its visibility from the fjord, a round window or a double arch. Alternatively, recognizing the church's immediate connection to the harbour, the west wall of the nave might have had a door-like opening which allowed for sails or trading goods to be stored on the loft.¹⁶

¹⁶ Such openings are mostly found in churches along the Norwegian West Coast, with direct contact to the sea. It is worth noting that both St. Edmund's and St. Clemens' had staircases leading to a loft wide enough to allow for effective storage, see Eide 2007. This supports the idea of a flat ceiling and a functional loft, and spurs the question of how its presumed storage goods were moved in and out. A door-like opening in the nave's west wall would solve this problem.



Fig. 11. Værnes church, Nord-Trøndelag is an illustration of the possible scale of the Romanesque St. Mary's and shows the imposing effect of the western tower. Photo: Morten Stige.

Finally, in attempting to recreate the Romanesque church's elevation, Værnes Church in Trøndelag (c. 1130-1195) can serve as a guiding parallel. The nave is 34 m long and 14 m wide which is similar to St. Mary's measurements excluding the towers. The nave's walls are 9 m high with a gable of 18 m. The use of Værnes as a model for a reconstruction of the volume of St. Mary's does not imply that we see it as a likely model for St. Mary's. We are aware of the regional stylistic differences between Trøndelag and Eastern Norway. Churches in Trøndelag of the period are generally more high-raised and exhibit steeper gables than the Eastern Norwegian ones (Lidén 1981). Yet, notable exceptions in parish churches in the district suggest that a similar height in a high-status church like St. Mary's is likely.¹⁷ Værnes' roof angle of 55 degrees is also slightly steeper than the average in Eastern Norway (Storsletten 2002). Again,

¹⁷ Balke Church in Hedmark is c. 8 m high. Bø Church in Telemark is 7,5 m high.

the many exceptions support Værnes as a reasonable proposition.¹⁸ The high exposure of St. Mary's west gable would suggest a rather steep roof angle. This willed drama of steep gables in the nave is revealed by a general tendency to make the steepness in the less exposed chancel less accentuated (Christie & Christie 1969: 101). Lastly, we should note that St. Mary's chancel had an apse in its eastern end, while Værnes was right-angled. This also reflects a regional difference in the period, but does not weaken Værnes as an analogy. The strong inclination among the richest Eastern Norwegian proprietors to build apses in their churches would make a right-angled eastern end an odd choice. Not least considering that St. Mary's closest parallels in Oslo, St. Edmund's and possibly St. Clemens', as well as the cathedral had apses.

The western tower

Two building elements were later added to the church. In the west a tower was erected, of which only the boulder foundation, some plinth stones and four stones of the wall have survived. The foundation's relation to the west wall, crudely laid upon the wall's outer plinths, convinced Christie of its being a secondary addition.¹⁹ How much later this tower was added, is however an open question. As Roaldset points out, Danish west towers were usually put up contemporaneously or just after the erection of Romanesque churches. She argues for a late twelfth century west tower at St. Mary's as a means for the crown to keep up with the ecclesiastical building programs in the northern part of Oslo (Roaldset 2000: 25, 31–34). This dating is in tune with our assessment of the most probable building date. A Romanesque royal church certainly would call for a western tower both as a symbolic feature, and as an element giving the façade towards the fjord a stately appearance. Also, it is known in Sweden and Denmark that the king had a gallery in the tower. Thus this undertaking should not be linked to the elongation of the chancel, which will be discussed in the next chapter.

Although the tower possibly had no west portal, as is the case in Værnes, it is more likely that a portal was one of the distinguishing features of the important western façade. The Værnes tower is almost 28 m high excluding the spire, and can at least point to the grandeur of the one at St. Mary's.

¹⁸ The steepest roof gables that have survived on stone churches in Eastern Norway are Rygge (53), Ulnes (54), Skjeberg (55), Tanum (55), Sørnum (58), Slidre (58) and Frogner (60).

¹⁹ Christie 2002 [1969]: 78. In support of this assertion, it should be noted that the wide and finely shaped threshold, which is contemporary with the west wall (see Christie 2002 [1971]: 78) can suggest that it was not intended to be confined and hidden inside a narrow tower.

The first chancel extension

At some point the chancel was elongated, the apse being replaced by a right-angled east end. The original chancel covered a net surface of 57 m² (Eide 2015: 249). After the extension it measured c. 83 m². This makes the addition a 45% increase of the floor space. Chancel extensions became common in the thirteenth century and all our cathedrals had modern Gothic chancels by ca 1300 (Stige 1997: 197). The reasons could have been both liturgical and functional. It has been argued that the reference to the teaching of transubstantiation at the fourth Lateran council of 1215 gave new importance to the communion and thus larger choir space. For the cathedrals we presume that a larger clergy was the main driving force. This may also have been the case for St. Mary's.

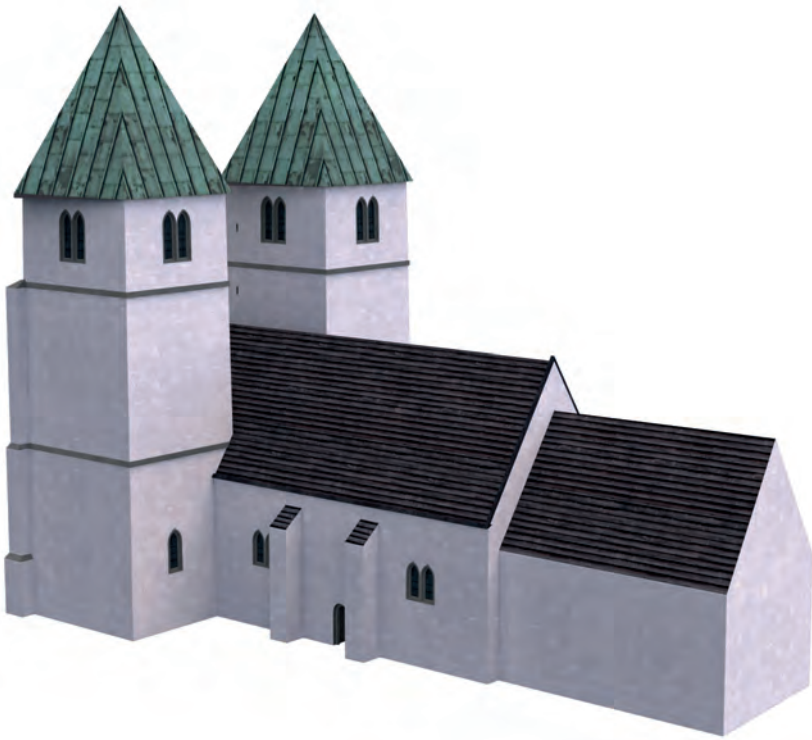


Fig. 12. Hypothetical reconstruction of St. Mary's 1220–1280, with the Early Gothic chancel and the extended west front. Model by Karen Maria Eiken-Engelgård after design by Stige and Snekkestad.

Probably, the clergy in the service of the king was extended in pace with the growing role of the royal administration long before the process of giving formal privileges to the royal chapels, initiated by Håkon V Magnusson in the year 1300.

It has also been suggested without any substantial arguments that the elongation's modest size was due to the need of supporting or replacing a crumbling apse (see Roaldset 2000: 24–25 for discussion). However, a relative extension of 45% of the floor space is significant, and sufficient to make the effort in a church with a royal patron. We may add the cult of relics, the need for more altars for a growing clergy and the intention to use the church for funerary purposes to the list of possible reasons for the rebuilding. These motives will be discussed below in relation to a later extension of the chancel.

The most likely dating of the extension falls in the period after the choir extensions as a phenomenon started c. 1220 and 1250, when the apsidal chancel would have been clearly outdated.

No architectural details of the chancel are known. Documentation from the lost Ås Church in Akershus, whose plan, size and building history follows St. Mary's closely, can reflect the look of the extended chancel. The Gothic chancel in Ås was covered by two cross-vaults and new, spacious windows in the southern and eastern walls (Christie & Christie 1969: 27, 33–36).

The final Gothic extensions

Since Nicolay Nicolaysen's initial excavation of St. Mary's in Oslo, it has been agreed that the final stage of development of the church was reached during the reign of Håkon V Magnusson (1299–1319). It has also been commonly agreed that his contributions were the new cruciform chancel and the western section with two flanking towers, both of these constructed of brick on top of a stone base.

When the ruin, the written sources and the archaeological documentation are examined, a firm basis for such a design and building history is hard to find. Particularly the use of brick in the western section stands undocumented. Horgen addressed this in her 1995 dissertation, but ended up supporting Fischer's view on the use of brick in the western section (Horgen 1995: 26). Little notice has been given to Nicolaysen's conclusion as stated in 1871: "There are no traces of brick in the walls of the western end" (Nicolaysen 1871: 193). This question deserves a critical examination.

It also opens up for a rethinking of the dating of the building stages. King Håkon V Magnusson's obvious ambitions for the church points to his involvement in both Gothic extensions, but does in no way exclude other possibilities. His interest

in the enlarged chancel is well documented and supported by circumstantial evidence. Yet, the western section may actually be older. In fact, a dating of both Gothic extensions to the last decades of the thirteenth century was suggested already by Nicolaysen in 1871 (Nicolaysen 1871: 192). A close reading of the sagas and preserved diplomas reveal that Duke Håkon resided in Oslo from 1284 and spent more time there in the period before he became king in 1299, than later.

The western part

The western extension comprises the north and south towers and an extension of the nave between them. The walls are c. 210 cm thick, with rough, Gothic-style lime stone masonry rising up to 140 cm above the plinth. The Romanesque western tower must have been torn down to allow for a westward prolongation of the nave. There are no traces of a partitioning wall defining a narthex. Entering the church from the west one would have faced an extremely long and narrow space. The monumental west front and the position of the church gave the expectation of entering a basilica, but the Romanesque, single-aisled nave was never replaced. One can but speculate if that was the initial intention.

The preserved ruins suggest two towers flanking the nave. The total width of the western front is 31,4 m, including the clamping buttresses. Considering that the monumental west front of Trondheim Cathedral is 38,5 m wide, St. Mary's façade was constructed to impress Oslo's sea-faring visitors.²⁰ Creating such a powerful appearance must have been the main aim for erecting the west front.

The function of the ground floors of the two towers are not known. Initially they both seem to have had large arches opening towards the nave. A secondary wall of solid brick is preserved in the northern opening, and Fischer's excavation diaries describe similar brickwork in the southern tower opening (Fischer 1935: 20, 47). A straight flight of steps in the south wall of the northern tower leads towards a probable spiralling staircase in the western wall. A corresponding staircase in the southern tower is likely, but impossible to prove from the preserved ruin.

The very thickness of the walls, which are considerably more robust than those of the chancel, and the comprehensive foundations, attest to a design with flanking towers.²¹ Also, clamping buttresses on the corners provided stability for the towers.

²⁰ The Cathedral of St. Hallvard had a western façade of c. 24 m, while Gamle Aker is c. 17 m wide, almost half of St. Mary's.

²¹ For a description of foundations, see Fischer 1935: 36, 51. Beneath the northern wall of the north tower, instead of vertical piles, rows of thin timber were laid horizontally under the stone foundation. The tilting of the foundations under the southern buttress shows that the

The clamping buttresses also added to the conceived size of the façade and allowed for a visually harmonious, gradual narrowing of the towers as in for instance St. Mary's in Bergen.

Brick or stone walls in the western section?

As noted above, no documentation exists of brick *in situ* or imprints of brick in the mortar in the outer walls of the western part. The ruined walls measure 140 cm from the plinth at its highest, while the presumed original stone masonry in the chancel stretches up to 120 cm. One would therefore expect traces of brick if they were used in the west front, but it cannot be positively ruled out that brickwork was applied at a higher level.

It can be argued, as have most authors, that the eastern and the western extensions belong together as they provide an architectural balance to the church. The clear evidence of brick in the east then suggests a similar material choice in the west. This is a sound point, but many surviving churches demonstrate that building projects did not always go according to plan. The two parts may thus have been built with a considerable distance in time and with different materials and design. We can often ob-



Fig. 13. A building design where a brick volume has been added to a volume of dressed stone. Marginal miniature from the Girart-de-Roussillion manuscript (1448) in the National Library in Vienna. (After Jan Svanberg, *Master Masons*. Stockholm 1983: 75.)

towers were built and that they must have had a considerable height. See Fischer 1935: 32; 1950b: 84.

serve that our sense of harmony in style and materials was not always pursued by the medieval builder.

As mentioned, Nicolaysen unearthed the eastern parts of the church and followed the outline of walls westwards without finding brick in or around the western part. Admittedly, at the central west front and between the towers, the walls were not completely excavated. This can be seen as dotted lines on Christian Christie's ground plan. Some scholars have used these "superficial examinations" to discredit Nicolaysen's observations, but we fail to see that later investigations of this area have unearthed material that would alter his conclusions. The plan also shows that Nicolaysen was aware of the solid brick section in the northern tower. His investigations were not that superficial and he would probably have been on the lookout for brick, yet he argued against brickwork in the outer walls of the western part. This indicates that he did not find much brick debris in the west, if any at all (Nicolaysen 1871: 193). His conclusion must be given considerable weight as he was the first to dig through the c. 1,2 m of cultural layers accumulated after the church went out of use in 1542 and then soon demolished.

We know that Håkon facilitated brick production in Oslo in 1290, just as the ruling kings probably had done before him (DN II 27). The royal residence was partly built in brick, and in the St. Olaf's Church built by Håkon IV Håkonsson, brick was probably used before 1237 (Hommedal 1986: 171–172). Brick was thus available for a royal builder in Oslo through most of the thirteenth century. At the end of the period, it seems to have become common. The Friary of St. Olaf and the Franciscan convent in Oslo initiated brick-building campaigns with royal patronage in the last decades of the thirteenth century (Ekroll 2011: 9). Also, the stone extension of the chancel of the Cistercian monastery on Hovedøya got brick vaulting at the same time. Brick must therefore be considered a likely building material for the west front of St. Mary's even earlier than Håkon V Magnusson.

The stylistic difference between the chancel and the west front has rarely been commented on. In the chancel the bricks form the dressing of a wall with a core of lime mortar and rubble. The only existing brickwork in the west is found in the tower arch and consists of a solid brick wall. Moreover, this section is a secondary addition and not a part of the original fabric. Fischer confirms this, noting that the original opening was 2,75 m wide (Fischer 1935: 46). In short, the existence of this brick wall is not evidence of brick being the original building material of the western façades. Conversely, such a rebuilding similar to the Gothic chancel, is an indication that the west front is an earlier undertaking.

The main reason for Gerhard Fischer's and Håkon Christie's argument for a western brick façade seems to be the finds of brick fragments in the area. According

to their diaries, brick was found during the excavations also in and around the western part. How much brick did they find and from where did it derive? As for a general impression of Fischer's documentation, there are no strong indications that the fragments of brick found around and between the towers belonged to the initial erection of the walls. The context is barely described, often with reference to layers of building-rubble, mortar and sand-fillings, which probably relate to the demolition. The finds that were made do not seem substantial and can be attributed to the secondary inner brick walls and the brick floors that were laid here, as well as possibly secondary brick window tracery.²² Also, the transport of masses of secondary brick vaults and coincidental transport of masses through the centuries would explain the finds of brick fragments in this part. Very interesting are the descriptions of areas along the walls of the western tower where lime rubble is described without any mention of brick debris (Fischer 1935: 20, 32, 45, 49). If the whole western part was built in brick



Fig. 14. Detail from the north wall of Riddarholmskyrkan, Stockholm shows how the brickwork starts above three courses of ash-lars. Photo: Morten Stige.

²² Fischer and H. Christie describes finds of brick fragment in the west, but are not very concrete and uses terms as "a couple of" or "some", see Horgen 1995: 26. See also Fischer 1935: 10, 20, 35, 36, 38.

one would expect to have found substantial masses of brick rubble even if intact stone was reused elsewhere. This does not seem to have been the case.

The stone walls below the brickwork in the chancel mainly consist of reused ashlar from the Romanesque chancel. Its quality suggests that it was left exposed. This would go well with the brickwork above. The western part of St. Mary's has a very different character, with limestones of different sizes and shapes with pinning stones, necessitating plastering. It would contrast the brick awkwardly. The reason for the use of this stone would be to reuse the material from the Romanesque tower. The stone of the Romanesque tower may have had this character, but it is hard to imagine that reuse should give priority to the exposure of a unified brick wall on the main façade, if the aim indeed was to construct a brick façade.²³



Fig. 15. Viborg Cathedral, Jutland in 1863 before restoration. The first storey of the western part in dressed stone has been heightened to towers in brickwork. Photo: Rye. (After Vellev 1976: 18.)

²³ The Romanesque masonry looks very different from the masonry of the western towers. The main reason being that the stones were placed resting on their largest surface while the Gothic masonry contain stones turned on their side.

We know examples of a mixture of stone and brick which do not look like a result of an aesthetic choice, but rather a practical solution, probably intended to be covered by plaster. Viborg Cathedral had the brick towers built on top of older masonry standing up to the level of the side isles (Vellef 1976). If the masonry of the Romanesque tower was reused to build the lower parts of the new west end, how high would the wall stand before the brickwork started? If given the same height as in Værnes, the volume of the Romanesque tower would have been c. 1200 m³. That allows for at least 4 m of stone wall in addition to the foundations, if the masonry was good enough for reuse.²⁴ The quality of the preserved lower part of the wall does not show building stone of particularly good quality, suggesting that the old walls could not be reused to a great extent above foundations. The possibility of a few meters of stone wall below the brick can however not be ruled out. This way of building would in any case give a stone character to the façade, which makes it reasonable to regard the west front as stylistically different from a distinct brick expression in the east.

The thickness of the walls differ markedly between the eastern and the western sections of the church. This is not directly related to the choice of material for the outer masonry shell, but rather indicates different functions and different building periods. The walls of the towers are c. 210 cm thick, while the walls of the chancel are only c. 120 cm thick. The main reason for this difference is probably the intention of building towers in the west. However, the eastern part had four rib vaults. For the purpose of supporting these vaults, the masonry is daringly thin. Especially as the chancel was not originally supported by buttresses, but only had corner lesenes protruding some 10 cm. Later on, angled buttresses were applied to the southern transept and the sacristy would have given support for the northern transept. The construction of the chancel reveals a true ambition to build thin walls following Gothic construction principles, of which there are no traces in the west front. Gerhard Fischer or Håkon Christie may have found loose brick fragments in the west in a context that made their conclusion seem obvious. There are, however no documentation or arguments in the diaries referring to such finds. It is therefore not possible to make a pos-

²⁴ The volume of the Værnes tower is c. 1000 m³ excluding foundations, the surface of the ground plan for the tower walls of St. Mary's in relation to Værnes is 31/25, which gives an estimated volume of 1240 m³. When divided on the surface of the walls in the new west front which is c. 180 m², the result is 6,9. 2,5 m deep foundations leave material for some 4 m of wall. A calculation which is based on the surface of wall instead gives the relation 1:5 which means that if the old tower was as tall as the new one, which is not unlikely, there would be enough stone for 2,5 m of wall in addition to the foundations. Both calculations indicate that the stone walls would have been taller than the preserved masonry, which in turn means that the lack of visible brick is not in itself proof that brick was not used in this part of the building.



Fig. 16. Hypothetical reconstruction of St. Mary's with the extended west front. Model by Karen Maria Eiken-Engelgård after design by Stige and Snekkestad.

itive conclusion concerning the material of the walls of the western section. The lack of positive evidence makes it necessary to rely on circumstantial evidence. In our opinion the above discussion points towards a stone front being the most likely arrangement. Without the well documented use of brick in the chancel, we doubt if any of the former scholars would have concluded positively with the west front having a brick façade.

Consequently, the western front could be contemporary with the first extension of the chancel. It must be said that this leaves us a rather odd church with a cathedral-like west front attached to a building not unlike a large parish church. As the nave never was extended to be basilical, the final result had some of the same charac-

ter. The aim of the building king must have been to construct an imposing façade towards the fjord.

Dating of the western extension

Regardless of the building material, the western part was probably built before the final choir extension. The only brick that has survived in the west was used in the secondary walls closing off the towers. This may be explained as a modernisation undertaken when the brick chancel was completed around 1300. If we assume that the west front was built of stone, an earlier building date is more likely. Nicolaysen dated the western part to the Gothic period based on the shape of a stone cover belonging to one of the buttresses (Nicolaysen 1871: 191). We do not even know if he referred to one of the original corner buttresses or the two secondary buttress protruding from the west façade. The only other positive indication is the Gothic style of masonry, opening up for construction in the 1230s at the earliest. All known buildings erected by Håkon IV Håkonsson (1217–1263) have a Gothic character and it is likely that the spread of Gothic architecture outside Trondheim took place during his reign (Ekroll 1997: 40). Based on the plan, the Romanesque façade probably had dimensions similar to Værnes Church. The extensions transformed what must have looked like a large parish church to one boasting a monumental façade second only to Trondheim Cathedral in size.

Håkon IV was known as a church builder and probably introduced the Gothic style to Eastern Norway. His saga relates how he had houses built in the close-by royal castle, without mention of extensions of St. Mary's (*Håkon Håkonssons saga*: 315). However, nothing is mentioned about his building activities on St. Olaf's either, so this negative indication can not be given too much weight. Especially his early undertakings may have been forgotten by the chronicler. The saga mentions that the royal residence in 1224 was still not rebuilt after a fire (*Håkon Håkonssons saga*: 88). The 1220s were quite unstable in Eastern Norway and King Håkon spent many winters in Oslo in the period. As late as 1227 he still did not stay in the royal residence, but shortly after this, the new houses must have been finished (*Håkon Håkonssons saga*: 139). We don't know if St. Mary's was affected by the fire, but in any case the king's presence in Oslo in the 1220s and 1230s, combined with documented building activities, fits well with an extension of the royal church.

Håkon's son, Magnus VI the Lawmender, is also a possible candidate. The sources mainly mention building activities in Bergen during his reign, stressing that he was the patron of many churches. However, he may have taken an initiative to

modernise also the royal church in Oslo before his untimely death in 1280. Magnus only lived to be 42 years old and may therefore have left an unfinished church to be completed by the guardian government ruling when his two sons were under-age. A last possibility is that building was not begun until his son Håkon V Magnusson, who ruled Eastern Norway as duke and from 1299 as the King of Norway, came of age when turning 15 in 1285.

Considering all the evidence, we find it most likely that the western part was indeed originally built in stone, making the first half of the twelfth century, before brick became common, the most likely period. Considering the Gothic character of the wall, a building start later within this timespan seems more likely than an early one. All in all, a building during the reign of Håkon IV Håkonsson stands out as the strongest hypothesis. Working towards a basis for our reconstruction, we find it most likely that the western extension took place during the first decades of the rule of Håkon IV (1217–1263).

Hypothetical reconstruction of the western extension

In 1935 Harald Sund made two reconstruction drawings of the west front (Fischer 1937: 16). One of them shows an Early Gothic screen front while the other was based on Roskilde Cathedral. Both of them have the proportions of Roskilde and the versions with the stepped gables of Roskilde has been the most published.

Even though Fischer did not argue for Roskilde as a likely medieval inspiration, he accepted it as a relevant parallel. Schia and Keller also looked to Roskilde when they made their reconstruction drawings (Keller & Schia 1994). The argument above, as well as the fact that Roskilde got its second tower only in the late fourteenth century, rule out the brick cathedral as an inspirational model for reconstructing the west front. Realizing however that Roskilde's powerful façade is only 1,5 m wider than St. Mary's, its grandeur allows us to imagine how impressive the facade in Oslo would have been.²⁵ On the other hand, Roskilde's present towers are more than 40 m tall and the central gable c. 35. These are very unlikely dimensions for St. Mary's both regarding style and the unstable ground on which it was erected.

The argument for both a different building material and an earlier dating, forces us to look elsewhere for models. The kings of the thirteenth century were oriented towards England. This is reflected in the architecture of Western Norway and Trøndelag. The imprint is less obvious in Eastern Norway, probably in a large part due to

²⁵ Roskilde was used as a model for the reconstruction (Fischer 1950b: 83). However, the idea of Roskilde as a medieval inspiration, was discarded already by Horgen. See Horgen 1995: 111.



Fig. 17. Reconstruction drawing of St. Mary's by Harald Sund (1935) with early Gothic screen front. Archive of the Directorate for Cultural Heritage.



Fig. 18. Reconstruction drawing of St. Mary's by Harald Sund (1935) inspired by Roskilde Cathedral. Archive of the Directorate for Cultural Heritage.



Fig. 19. Reconstruction drawing of St. Mary's by Erik Schia and Karl-Fredrik Keller inspired by Roskilde cathedral. (After Keller & Schia 1994: 29.)



Fig. 20. The two tower west front of Elgin Cathedral, Scotland (1224–1280). Photo: Richard Fawcett. (After Fawcett 2011: 134.)

the fact that all major town churches from the period are lost. As St. Mary's had a royal patron, we presume the west front was built in Early English with grouped lancet windows and blind arches.

Ripon Cathedral near Leeds has an Early English west front with twin towers and the exact same width as St. Mary's. The nave is much higher and wider than in Oslo, but the detailing of the wall and the windows are relevant. The west front was added c. 1220. A marginal monument like Elgin Cathedral, the northernmost of mainland Scotland, gives an impression of how the volumes of the west façade might have



Fig. 21. The two tower west front of Ripon Cathedral, North Yorkshire (c.1220). Photo: Diliff (http://www.wikiwand.com/en/Ripon_Cathedral, License: Creative Commons Attribution-Share Alike 3.0)

looked. It was begun 1224 and finished c. 1280 and is 27 m wide, yet behind the façade it is a basilica (Fawcett 2011: 128–135). Nothing like St. Mary's is likely to be found in more central parts of Europe: A major royal church with a single-aisled nave in the thirteenth century was inconceivable elsewhere. However, styles and features were in general influenced by the international developments. A single monument was never copied, but each church was created as a unique combination of borrowed and original features.

In Norway, the Romanesque west façades of St. Mary's in Bergen and Hamar Cathedral were possible inspirations close at hand. The eastern front of Stavanger Cathedral (1272–1300) is later, but still serves as an interesting parallel, demonstrating an original way of composing a representative façade with simple means. Like the two Romanesque churches it has twin towers. These façades are only 20,5, 20,0 and 19,5 m wide respectively, yet they express the same concept as St. Mary's with its 31,4 m. The Gothic western volume in Stavanger has the same wall dimensions as St. Mary's and a width of 10,8 m, which is similar to each of the bays in Oslo. The height of 19,5 m to the top of the gable is also relevant as a reference as to the possible elevation of St. Mary's.

In Trondheim, the chancel was completed c. 1250, but the erection of the twin tower west front had only just started. As this was by far our most prestigious ecclesiastical building both by function and as architecture, it is an important point of reference. It remains the only building in Norway that took full advantage of the possibilities of Gothic construction. The only likely exception is the lost Apostle



Fig. 22. The two-tower west front of St. Mary's, Bergen by Knut Skjeggstad. (After Lidén og Magerøy: *Norges kirker. Bergen vol 1*. 1980: plate 3.)

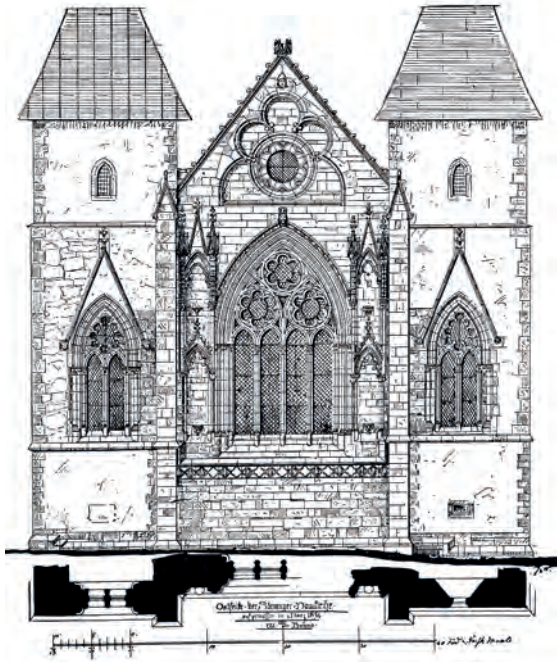


Fig. 23. The two tower east front of Stavanger Cathedral by Wilhelm von Hanno (1856). (After Gerhard Fischer, *Domkirken i Stavanger*, 1964: plate X.)

Church III in Bergen. Its predecessor, which was consecrated in 1248, is also lost without trace, but would have been a very relevant parallel for the west front of St. Mary's.

So far, we have established that the western part had flanking twin towers with the nave protruding between them.²⁶ How may the elevation have looked? Was the Romanesque nave heightened? The two secondary buttresses on the nave's southern wall may suggest that the nave walls were too unstable to heighten, or the opposite, that the nave was indeed heightened, with unstable walls as a result. If we base our reconstruction on the height of the western gable of Stavanger Cathedral (19,5 m), an adequate sensation of verticality inside the church was secured—at least if the roof construction was open. Placed between the tall towers, the gable front was rather humble. Perhaps they added a screen front? Flanking towers without a basilica behind is already akin to a theatrical façade. With an English style screen front covering the

²⁶ As there are no traces of a wall closing of the west front from the nave, we presume a very long isle and no entrance hall as could be expected.

27



Fig. 24. The seal of St. Mary's showing a church model with a twin towers west front and an additional central tower. (After Nicolaysen 1870: plate V.)

gable, the illusion would be complete. St. Mary's seal is here relevant. One must be extremely careful in regarding seals as architectural evidence, but taking the seal of St. Mary's c. 1300 at face value, it shows a screen front with two flanking towers and a central tower behind.

We need also to consider a proportional approach to the façade design. The width of the west front excluding the corner buttresses is 29,5 m, which equals 100 roman feet. If this reflects the height of the stone towers, the west front would describe a square. The height of the central bay, either in the shape of a gable or a screen, could be $\frac{2}{3}$ of the towers which is 19,6 m – corresponding to the western gable of Stavanger Cathedral. Another alternative is the golden ratio, which makes the central bay 18,2 m high and almost identical to the Værnes gable, used as a scale model in our description of the Romanesque church.

The towers were most likely finished with pointed pyramid roofs with a roof angle of c. 60 degrees, which added to their verticality. Based on the roof construction of Værnes, the roof angle of the nave is 55 degrees in our model. This is also a reasonable roof angle c. 1240, even if a steeper roof could be possible, as noted above.

Probably, the face was plain without much sculpture. This seems to be a characteristic of the architecture of Oslo since the Romanesque period. Gamle Aker f.i. is as good as devoid of figural sculpture. St. Hallvard's must have been richer, as proven by archaeological finds of building sculpture. The finds in the vicinity of St. Mary's however indicate a plain façade without much sculpture or ornament.

The corner buttresses formed part of the original design and must be considered both an aesthetic and a constructional element. The two buttresses on the west front itself are secondary and therefore must have served a constructional end. Fischer's excavations of the foundations showed considerable settlings. Even if not necessarily intentional, the buttresses would have given an added emphasis on the three bay structure of the west front. The overall architectural expression of the west front is one of simplicity, with windows and portals as the most important decorative elements.

The windows of the Early Gothic often have a lancet shape; tall and narrow with a pointed arch. The lancets are either single or grouped, often three together. We have looked to Ripon for the details of the windows, but have presumed a more restrained use of window surface. If the west front was built as late as 1250, a central tracery window can be expected. The upper story must have had sound openings allowing for the bells to be heard, and the presumed spiralling staircases would have been lit through small windows. Window fragments found on the site will be discussed in the chapter concerning the chancel, where they most likely belonged.



Fig. 25. The foundations under the Southwestern corner of the western tower show considerable settling stemming from the weight of the tower. Photo: Gerhard Fischer (<http://kulturminnebilder.ra.no>).

Albeit the west wall of the nave is gone, it must have had a main portal. This portal served as the ceremonial, royal entrance and was thus the most elaborate. The simple, yet majestic portals of Ripon and Elgin are possible parallels from the period. The deep recess gives plasticity and added effect. The northern entrance to the nave may have been the regular entrance for the king. The remaining portals are rather humble; a southern portal of the nave and two portals in the east walls of the transepts are squeezed in towards the inner corners.

For the reconstruction we have chosen a design based on stone with the height of the nave and its roof angle based on the eastern façade of Stavanger Cathedral (c. 19,5 m), which corresponds with the presumed Romanesque nave. The height of the towers equals their width (c. 29,5 m).

The Gothic chancel

The last major building stage of St. Mary's was the enlargement of the chancel from a rectangle of some 80 m² to a cross-shape of 425 m² floor space. After the extension St. Mary's was 57,75 m long, which makes it the country's fourth longest church, only beaten by St. Hallvard's Cathedral, the Franciscan church in Bergen (both c. 60 m) and Trondheim Cathedral (102 m). The addition can be interpreted either as a transept or as a chancel extension, depending on the use of the room. The outer shell of the walls have a lower section of 40–120 cm built of reused limestone ashlar from the Romanesque chancel. The rest of the walls were dressed with brick on both sides. The brick layer is one stone deep, and covers a core of rubble and lime.

The excavations unearthed a number of moulded brick fragments that together with preserved remains of slender responds in the corners of the chancel, suggest that all four space units in the east were covered by rib vaults. Brick ribs with the same profile as the ribs of St. Mary's were also found in the cross shaped chancel at Hovedøya Abbey which was probably completed at the end of the thirteenth century.²⁷ Hence one of the closest parallels to the Romanesque St. Mary's also got a Gothic chancel with the same layout and vaulting.

Nicolaysen described the find of two lime stone bosses, of which only one has been refound in the collection of the Museum of Cultural History in Oslo (Nicolaysen 1871: 191). It has a central hole indicating that a rope ran through it. Arguably, the piece crowned the crossing covered by a ridge turret with a bell.²⁸

²⁷ Eide 2015: 198–202. The lay-out of the choir extension at St. Edmund's is assumed c. 1150, but the work does not seem to have been completed until more than 100 years later.

²⁸ Nicolaysen notes the find of both melted bell metal and roof lead in the crossing. Nicolaysen 1871: 193.

Damages in the masonry from the removal of the Romanesque wall between the nave and the chancel were repaired with brick, revealing that the space of the chancel and the nave were integrated after the extension. Higher up we suggest a transverse arch supporting the vault of the crossing and negotiating the transition to the wooden ceiling of the nave. Entering the church through the western portal, one would face an extremely long and narrow space, only opening towards the transepts. The eastern limb must have functioned as the choir with a high altar, and would be visually closed off by a screen supporting a lectorium. We see indications of a lectorium in this position in the steps leading from both transepts, probably entered through openings towards the northern and southern walls of the choir. Also textual sources describe the burial of King Håkon VI “sub lectorio” (Storm 1892: 420–421).

There are no traces of staircases in the chancel, except for the presumed lectorium stairs. This indicates that the discussed stairs in the western wall also served the space above the vaults in the chancel. This in turn presupposes a ceiling over the nave, making it possible to move to the upper level of the chancel. As the space above the vaults allow for well-lit rooms, supposing windows in all three gables, the chancel loft was possibly used by the chancery.

The functions of the chancel

The attention bestowed on the church by Håkon V Magnusson, its patron after his becoming of age, indicates that the establishment of St. Mary’s as a burial-church for himself and his close family was indeed the result of a plan. Both the grave of King Håkon and Queen Eufemia are placed in the crossing, which corresponds with the old chancel. The floor level of the crossing and the eastern limb was higher than both that of the nave and the transepts (Horgen 1995: 29–32). Regardless of the total spatial organisation of the chancel, the crossing constituted a new focal point in the room, most fitting for royal tombs. Thus, the establishment of a royal grave church was most likely the primary driver behind the enlargement of the eastern limb. Roaldset has argued well for Håkon following a European trend of favouring a single church for royal burials, not leaving it to chance or personal choice (Roaldset 2000: 40–44). The French kings favoured St. Denis from the tenth century and Westminster Abbey became the English royal burial church after 1272 (Roaldset 2000: 41).

Håkon’s dispositions towards St. Mary’s point towards another intention. As mentioned above, the royal chapels received a special status after 1308, and the rector of St. Mary’s was formalised as the royal chancellor in 1314. According to Nicolaysen, the chapel had a chapter of 12 canons whom, along with the rest of the clergy of St.



Fig. 26. The excavated ruin of St. Mary's seen from the East. The brick burial chambers of King Håkon Magnusson, Queen Eufemia and Prince Wizlaw are exposed in the crossing. Photo: Håkon Christie (1961) (<http://kulturminnebilder.ra.no>).

Mary's, received noble ranks from baron to «kjertesveine» (Nicolaysen 1871: 180). A spacious and luxurious choir goes well with such status. Even if the choir function was limited to the eastern-most limb, the space at disposal was 110 m². In Stavanger Cathedral the Gothic chancel's floor space measures c. 165 m². Thus, we can assume that the crossing also had choir functions. The main altar, as well as at least two side altars, were placed in the eastern limb, but the choir stalls may well have flanked the crossing. Such an organisation would not only suit the clergy, but would also emphasise the graves of King Håkon and Queen Eufemia. Participants of the mass, the celebrant, the clergy and the congregation would face the graves at all times. Not even the most prominent royal tombs in St. Denis or Westminster Abbey were placed in

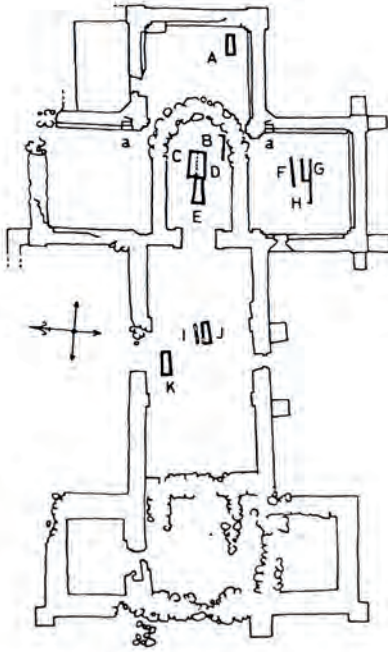


Fig. 27. Håkon Christie's ground plan with indications of the 11 unearthed grave chambers. C Queen Eufemia, D King Håkon Håkonsson, E Prince Wizlaw. (After Holck 1975: 157.)

such a way. Rather, the space behind the altar and to the side of the main axes in the church was used for royal burials.

That the double grave vaulting in brick, centrally located in the crossing, did indeed belong to King Håkon and his Queen Eufemia, is well documented and has been the general opinion since an article by Gustav Storm in 1877 (Storm 1877: 468; Storm 1892: 416–424; Holck 1975: 149–168). He also argued for the grave of King Håkon VI being a «much damaged burial» to the south east of the double grave (Storm 1892: 421–422). Circumstantial evidence makes this conclusion reasonable.

A third important function of the chancel would have been to establish new altars. Excavations have unearthed eight side altars in addition to the main altar. Nicolaysen claimed there were at least 12 altars in total, along with rich relics (Nicolaysen 1871: 181). Altar service in a prestigious church was an important base of income for the clergy. Many altars were needed to read masses over the deceased, a service which was well paid through testamentary gifts. Famous relics strengthened the attractivity of the altar. The cult of relics was also an aim in itself, as it was a matter of prestige

both for the clergy and the king himself to own valuable relics. Of special significance was the Thorn of Christ, received as a gift from the French King Philip IV in 1304 (Liepe 2015: 76).

All three functions of the eastern extension were important. This is supported by the common description of all four bays as the chancel, even if the choir function proper was limited to the eastern limb and the crossing. The two transepts would have been integrated in the exclusive space of the royal household and his clergy. Also, the stairs to the lectorium starts in the transepts and not in the choir itself.

Dating of the chancel

If the western section and the first choir extension was built in the period c. 1220-1250, as assumed above, the final chancel extension could have followed shortly after. By 1250 brick building was well established in Oslo. Only dating of building details on stylistic grounds can give us a more accurate starting point. Unfortunately, very few elements with datable features have been preserved. As discussed below, the reconstructed tracery window has details pointing towards the development in England towards 1300. The brick vault ribs are very similar to those at Hovedøya, also dated to the last decades of the thirteenth century. The preserved boss from St. Mary's crossing is too damaged for stylistic dating, and the one at Hovedøya is also difficult to date more precisely due to its naïve composition.

This makes it reasonable to assume a starting point for the chancel extension when Håkon became of age in 1285, or, perhaps more likely, after Åke became his chancellor in 1293. Even if Åke was formally still a canon of the Apostle Church in Bergen, his activities extended to the whole realm of the Duchy of Håkon (DN IV 15). No direct evidence links him to St. Mary's before 1300, but his influence as Håkon's chancellor may have contributed to his church building policy. This is of course speculative. Yet, Håkon spent more time in Eastern Norway prior to becoming king than after. Only four out of his ten first winters as king were spent in Oslo or Tønsberg, the rest he spent in Bergen. He would therefore have had more time and interest in building in Oslo while serving as duke.

If building of the new chancel indeed started c. 1293, when was it finished? Well documented building projects from abroad show that with sufficient resources a building campaign could proceed amazingly fast. The Cathedral of Senlis was built in 10 years, while a major country church like Værnes is estimated to 133 work years, yet could efficiently be built in less than 10 years.²⁹ Håkonshallen in Bergen, with a

²⁹ The volume of the masonry is 2.650 m³, see Stige 2016: 190.



Fig. 28. Lime stone boss found in the ruin of St. Mary's, fitted with one of the brick ribs. Probably from the crossing. Collection of The Museum of Cultural History, University of Oslo. Photo: Morten Stige.

masonry volume considerably greater than the chancel of St. Mary's, took a maximum of 14 years to build.³⁰ Thus, it is reasonable to assume a period of 5–10 years to build the chancel, presupposing full support from Håkon. This makes it likely that the new building was ready prior to the funeral of Prince Wizlaw in 1303.

When looking for brick churches with plans and details corresponding with what is left in the ruin, parallels are found in Northern Germany and Denmark. They are generally Romanesque buildings dated to the period between the late twelfth century and the early thirteenth. These buildings have the tall proportions and rib vaulting of the Gothic, but ornaments and openings are Romanesque in character. Randi Horgen noted this and asked: “Does the church have a ‘Romanesque’ plan with Gothic structures, in the Gothic period?”³¹ We think this is a sound point. Even if the use of brick was less conventional in Norway, the total layout of the chancel must

³⁰ The volume of the masonry is c. 3.000 m³, see Eide 2015: 226, note 41.

³¹ Translated from Horgen 1995: 145.

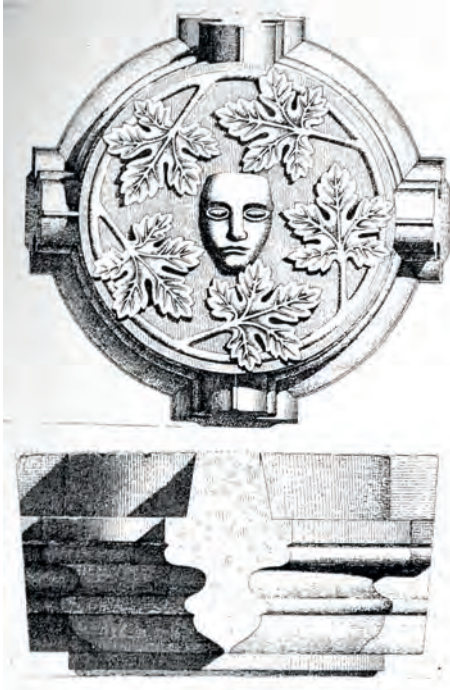


Fig. 29. The boss from the Abbey church at Hovedøya has the same rib profile as the chancel vaults of St. Mary's and gives an indication of the style of the lost and damaged bosses. Drawing by Nebelong (1849). (After Nicolaysen, *Hovedø kloster og dets ruiner*. Kristiania, 1891.)

have been rather old fashioned by 1300 and would have impressed neither Queen Eufemia nor Prince Wizlaw.³²

Håkon's famous letter of June 1300, listing land donations to St. Mary's, cannot be used as an indication of building activities (DN XXI 5). On the other hand, the letter states which properties that were to be given to the mensa of the clergy of St. Mary's, which is not connected with the building funds. This can be explained by the building activities being finished at this time. The letter must be interpreted as an expression for Håkon's wish to formalize earlier dispositions after becoming king. It also reflects his interest in the church and goes well with a role as the patron of the extensions. All in all, a building period from c. 1293 to 1300 seems likely.

³² For an introduction to Queen Eufemia's cultural background, see Bandlien 2012.

Hypothetical reconstruction of the chancel

Albeit we know the layout and material of the chancel, its elevation is in the blue. Each limb is c. 13 m wide externally, which is slightly less than the Romanesque west front of 13,6 m. A roof ridge at the same height as the nave, at some 18,5 m, corresponds to a ratio of 1:1,4, and would express a clear verticality.³³ Compared to the German and Danish brick churches, this is not very tall. They often have a proportion of 1:2 or more.³⁴ The modest size of the corners, as well as the thin walls, do not



Fig. 30. Hypothetical reconstruction of St. Mary's c. 1300 with the extended west front and the new cruciform brick chancel. Model by Karen Maria Eiken-Engelgård after design by Stige and Snekkestad.

³³ The terrain rises to the east, so 19,5 m at the west gable corresponds to c. 18,5 m at the transepts.

³⁴ Roskilde transepts 1:2,1, Bergen on Rügen transepts c. 1:2.

allow for much higher walls, considering the weight and lateral thrust caused by the vaults.

The find of melted roof lead in the chancel provide a clue. It was the most exclusive roofing material of the period, befitting a royal chapel. However, possibly only the ridge turret above the crossing had a lead covering. The rest of the roof could have been covered with horizontal boards or shingles. The ridge turret may have looked like the one at Roskilde Cathedral or St. Mary's in Lübeck.

The walls had a high base of reused lime ashlar. The lowest brick courses are not preserved in the exterior of the western parts of the transepts, but from what is left in the east, it seems that the transition between stone and brick formed a horizontal line, independent of the falling terrain. Thus, the stone base is c. 65 cm in the



Fig. 31. The turret over the crossing at Roskilde Cathedral, Zealand. (After Kjersgaard: *Roskilde domkirke*. Roskilde, u.å.)

east and rising to at least 120 cm above the ground level in the western transept walls.

Lesenes only protruding 10 cm adorn the corners. This elegant solution pronounce the corners in a very subtle way. Unfortunately, they failed to offer needed support, and the two southern corners of the transept were reinforced with secondary buttresses.

The chancel had no monumental portal, only two modest doorways in the western corners and a secondary doorway in the north wall leading to the sacristy. The two lowest courses of the corner portals were in lime stone, and the rest of the framing in moulded brick. The mouldings are worn and difficult to interpret. A precise reconstruction of the profiles, based on the ruin and the brick fragments in the museum, would give valuable clues in the search for stylistic parallels. The opening of the southern portal is 109 cm wide, while the jambs of the north portal are lost.

The windows constituted an important part of the architectural expression. Remnants of at least three different tracery windows and a number of lancet windows have been found in the ruin debris. They were discussed by Randi Horgen who worked closely with Håkon Christie. They were able to reconstruct the largest of



Fig. 32. The moulded splay of the west portal of the northern transept. Photo: Morten Stige.



Fig. 33. Reconstruction of one of the stone tracery windows of St Mary's based on fragments found in the ruin by Randi Horgen and Håkon Christie. (After Horgen 1995: Fig. 16 A).

the windows with an external width of c. 250 cm and a height of c. 515 cm. That window, as well as a smaller tracery window, is made of soapstone. A small tracery window has mullions and tracery of brick, while the lancet windows also have brick mullions, but soapstone bases (Horgen 1995: 57–71). Recognizing that the church had numerous windows of varying size, these windows only serve as examples.

While the exact provenance of the windows remains unknown, the material suggests a combined use of tracery and lancet windows. Also, soapstone and brick were combined. Stone tracery has some technical advantages to brick, making the choice of stone a natural one also in brick architecture. All the windows display a Gothic character, placing them in the chancel or as replacements of earlier windows in the nave or in the west façade. Horgen suggested that the largest window belonged in the west front (Horgen 1995: 72–75). The geometrical tracery is rather conventional and could at first sight be dated from c. 1250 to the first decades of the fourteenth century. Horgen however emphasised the pointed trefoil in the circular centrepiece, which is a motive not positively documented in England before the last decades of the thirteenth century (Horgen 1995: 77). An English example of this feature is the cloister arcade at Lincoln Cathedral, started in 1296 (Bond 1913: 594–599).

Such an unconventional motive is not a good basis for an accurate dating. However, the tracery of the window fits well with the assumed building start for the eastern extension to the last decade of the thirteenth century.

Considering the dimensions of the west front and the modest size of the window it is more likely that it belonged to one of the transepts. The central bay between the buttresses of the west front is 10 m wide. A window with a width of 2,4 m was anything but impressive and does not fit with the ambition of showing off – grandeur being the hall mark of the west front project. In comparison, the central tracery window of the eastern front of Stavanger Cathedral is c. 5,5 m wide in a bay with a width of 8,5 m. The reconstructed window would fit better in one of the transepts than in one of the gables of the main axis.

What about the other windows? The smaller tracery window made of soapstone, as well as the windows that included brick, probably belonged to the chancel. We must assume additional windows with geometrical tracery as well as simple lancet windows giving light to the loft and architectural effects to the façade. As the fragmented window remains in brick have not been properly investigated, this clue to the church's architecture is not fully explored. We have to search openly for foreign parallels to suggest possible designs of the elevation of the chancel. Here, Roskilde, as well as Aarhus and the other Danish brick churches, are relevant places to look. The same goes for Northern Germany, where many single features of St. Mary's can be encountered, but as mentioned, most often in far older monuments. Based on these possible parallels, we suggest that the windows of the chancel were a combination of tracery and grouped lancets.

Another source of inspiration was the Cistercian abbeys (Horgen 1995: 108–110). Simplicity was an ideal, and Cistercian architecture is related to the non-ornamental character of many Oslo churches, as mentioned above. In any case, the brick churches normally display an ornamental restraint independent of religious order. Ornamentation is restricted to brick patterns, blind arches and patterns of protruding bricks marking the cornices.

The sacristy

The church had two secondary additions. Two walls running from the eastern extreme of the chancel to the middle of the northern transept made up a sacristy. While stylistically mimicking the chancel with brick over a stone masonry base, it lacks ash-lars and a strict linearity. Mentioned already in 1321, the sacristy was built not long after the new chancel was finished (DN V 66). Like in most other Nordic churches



Fig. 34. Hypothetical reconstruction of St Mary's c. 1320 with the sacristy. Model by Karen Maria Eiken-Engelgård after design by Stige and Snekkestad.

of the period, the sacristy was placed at the north side of the chancel with a single entrance to the latter (Christie 1969: 671). Also, the room was probably vaulted and had a shed-roof, leaning to the outer northern wall of the chancel's eastern limb, like most contemporary sacristies in Norway. Due to lack of investigations – the outer side of the masonry was not excavated at all – we are left with few clues as to how the sacristy looked. A probable brick niche in the north-east corner is the only building detail discernible.

The northern chapel

A few slabs of rock are the only remains of a stone building extending from the north wing of the chancel. From Håkon Christie's plan, a corner turning west is discernible, and his reconstruction seems to rely on a disturbance in the arrangement of plinths in the wing's western wall. The building has been interpreted as a chapel erected at the time of a note in a 1389 letter which concerns testamentary gifts to St. Mary's (DN IV 571; see also Roaldset 2000: 26). It is here referred to "Mariu kofwan" (normalized Norwegian: "Marikova"), which normally translates to a small building, often an annex or tiny chapel. In the letter, a gift in the form of a bed can be understood as part of the funding of the erection or maintenance of a "Marikove", or even as an asset to be used in the building. This points towards a tradition of "Marikova" used as a term for hostels organizationally connected to churches (Hoel 1985: 131–137). Such a hostel could well be run by St. Mary's, but would hardly be placed in direct connection with the church building. If Marikova was a hostel, it would more likely be a wooden building somewhere on Øren. If Marikova indeed was a chapel, it may well have been a major enclosed altar inside the church – perhaps exhibiting a ciborium. Thus the assumption that these archaeological remnants relate to "Marikova", is not well founded. The room does not have a door opening to the church and a much more likely interpretation is that it was built as a funerary chapel in the late Medieval Period for one of the descendants of King Håkon V or another high status nobleman (Roaldset 2000: 72).

Conclusion: A revised building chronology

Our investigation has shown that a close reading of the ruin, the excavated stone fragments, medieval written sources and previous research on St. Mary's, makes it necessary to challenge some of the claims concerning building history, architectural choices and functions of the church.

We suggest the following building history, discerning between seven distinct stages with shorter or longer distances in time between them.

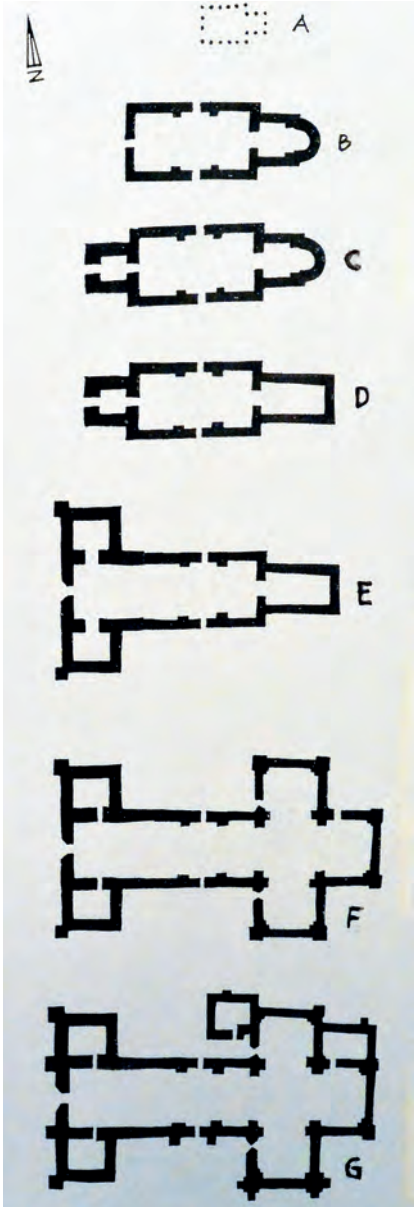


Fig. 35. The seven building stages of St. Mary's based on the five building stages suggested by Erik Schia. (Reworked after Schia 1995: 150)

- A c. 1050. Harald Hardruler erects a wooden church.
- B 1130–40. One of the kings or throne pretenders builds the Romanesque stone church with an apsidal chancel.
- C 1140–80. A Romanesque western tower is added.
- D 1220–50. The apse is replaced by an extended chancel with a rectangular east end.
- E 1220–1280. A new western section with flanking towers is added. The most likely building date is 1230–1250, during the reign of Håkon IV.
- F 1293–1303. Håkon V Magnusson extends the chancel area with transepts and a new choir in brick gothic.
- G 1303–1321. A sacristy is added to the north of the choir.

Our main point is that the different building phases have to be analysed independently. However, the distance in time between discernible steps may have been short. For instance, we see it as very likely that the western tower was built shortly after the Romanesque nave was finished.

Our early dating of the west front (stage E) departs from all previous dating suggestions, so let us summarize our arguments. Firstly, we have shown that the idea of the west front and Gothic chancel belonging to the same building program, is questionable. Conversely, a striking stylistic difference between them opens up for an earlier dating of the west front. Scholars have not argued for this possibility earlier, perhaps because it entailed an awkwardly monumental western front, without a grandiose eastern section to balance it. However, we find this form of “theater-architecture” clearly attested in the Stavanger Cathedral, rebuilt after a fire in 1274. Moreover, the only preserved brick work in the towers is evidently secondary, “closing” a 2,75 m wide opening with a wall of massive brick and a regular door. The undertaking is in line with the style of Håkon V Magnusson’s Gothic chancel and would have been done when the chancel was enlarged or after it was finished.

We also questioned the claimed use of brick as the facade material of the west tower. There is simply no positive evidence as to the use of brick. Very little brick rubble was unearthed in the area, and Nicolaysen being the first to excavate the site, argued against brick in the west. If correct, this makes the difference in dating of the two limbs even more likely.

Håkon IV Håkonsson is the most likely patron of the west front regardless of whether brick was used in this part of the building or not. He and his heirs invested great resources in royal works. A new screen front for the old royal church in Oslo transformed a building the size of a large country church to Norway’s second most

impressive church façade. Like the master builder of Stavanger, the king's architect managed to get much out of little.

We see a similar ambition in the final chancel extension, probably built by King Håkon V Magnusson when residing in Oslo as duke. He wanted to establish a royal grave church, as well as improve the conditions for his chapel clergy, give room for more altars and finally better the display of his most precious relics. To this end, he built a spacious, but rather conservative chancel in brick. The new chancel hardly impressed his North German queen Eufemia, but fulfilled his intention, becoming a symbol of his royal line in the centuries to come.

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