



THE JACOBUSKERK

WINTERSWIJK

Heritage and Design Analyses Jacobuskerk Winterswijk
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ANALYSIS JACOBUSKERK

PREFACE

This is the analysis of the Jacobuskerk in Winterswijk. This analysis is part of the Master studio AR3AH110 Winterswijk, Heritage and Architecture Graduation Studio 'Revitalizing Heritage' 2019 - 2020 at Delft University of Technology.

The analysis is part of a broader analysis of architectural heritage in Winterswijk, these buildings are as follows: Town hall, Boogie Woogie cultural center, business area 'De Morse' and the Jacobuskerk.

The aim of this analysis is to get a better understanding of the buildings at hand. This then forms the basis for an architectural redevelopment of the building by individual students of the respective buildings.

The Jacobuskerk is the Catholic church of Winterswijk. It was built in 1869 after a neogothical design of H.J. Wennekers and in 1953 extended by B.J. Koldewey. Nowadays the church has fewer and fewer visitors, a trend that is visible all over the Netherlands. According to management committee member Harry Stotteler, "nowadays every two weeks on Sunday there is a service that is visited by 40-50 people whereas 40 years ago there would be 4 services per weekend visited by approximately 500 people. As the church can house more than 800 people, the building is way too big for its current use". A solution needs to be sought, for the catholic community and for the building. Since the Church belongs to the Roman Catholic community the diocese of

Utrecht has direct influence over the future of the church and its community.

With this analysis we give an overview of the Jacobuskerk, a context of general information and an analysis of all aspects of the building, with at the end the value analysis. The leading question for this analysis is "How has the Jacobuskerk become what it is now and why?" In order to answer this question, the analysis report is structured using the sharing layers developed by Stewart Brand in his book, *How Buildings Learn: What Happens After They're Built* (Brand, 1994) with two additions, namely Surroundings and Spirit of place.

Heritage and Architecture is divided in three chairs, Design, Cultural Value and Technology. These chairs work in close cooperation to lay the foundations for the preservation and continuity of use of built heritage.



These are also seen throughout the analysis according to the perspective that is available on the page. These are indicated by the following icons. CA Cultural Analysis, AA Architectural Analysis, TA Technical Analysis.



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GENERAL INFORMATION

INTRODUCTION

In order to understand a building in the present you must understand its past. Here the past is understood as a series of themes and events that lead up to the construction of the Jacobuskerk. In this chapter we will elaborate on various general aspects regarding the Jacobuskerk. Firstly, the catholic history of Winterswijk to give an image of the time in which the church was built and a history of the Catholics in Winterswijk. Secondly, we will go into the construction process of the Jacobuskerk and the building phases. Then we will talk about the two main architects that worked on the church: H.J. Wennekers who designed the original neogothical church, and B.J. Koldewey who designed the large extension of 1953. The fourth chapter will explain the influence on the construction of churches: Waterstaat, the diocese Utrecht and the Sint Bernulphusgilde, as these parties also had a say in the construction on the Jacobuskerk. The fifth will be about the neogothic style in which the church in built and the sixth chapter about the Delftse School and Bossche school style that influenced the extension of the 1950's. Finally, in the seventh chapter we will give information about the reuse of churches nowadays and policies and reports from the government that help with that.

CATHOLIC HISTORY OF WINTERSWIJK

Charles the Great gave around the year 785 the assignment to abt Bernrad to spread the Christian faith in west-Saxon. Winterswijk became the center of this movement and a small wooden chapel was built. After Bernrad, the Frisian Lutger was in charge of the spread of the faith and made bishop, the first bishop of Münster of which the church community Winterswijk [Kerspel] was part of. In 809 duke Wittekind, a friend of Lutger built a small church in Winterswijk. This church had Saint Jacobus as a patron and was one of the first churches of the diocese Münster. The original wooden church was later substituted by a romanesque stone church. (Meerdink, 1995; p. 7; Stegeman, 1927, p. .168-169) The current Jacobskerk was the Gothic successor of the earlier Romanesque church. The choir is the oldest part of this church and dates from 1472. The tower was constructed in 1507 and around the middle of the 16th century the church was finished. (Meerdink, 1995, p. 7) In the middle ages the diocese Winterswijk was quite important, and according to some sources it was an arch-diocese [aards-diaconaat] with different dioceses under it. From 1559 on the diocese Winterswijk was part of the diocese Deventer. (Stegeman, 1927, p. 170)

The reformation reached Winterswijk since around 1556, by whom is unknown. At first, the Protestants only held services in the field or in barns called hagepreken, but in 1574 they tried to ban the Catholics out of the Jacobskerk. The Catholics kept on using the Jacobskerk for 20 years more as they were still a majority but it got harder and harder

and in the end the Protestants won. For a long time the Catholic services were illegal in the Netherlands. As Winterswijk was close to the border, the Catholics could go to chapels in Germany or sometimes priests would go to the region to hold a service in secret. As it got more difficult to cross the borders, border chapels were built that were very near the border. These were very important for the Catholics in Winterswijk. (Looijenga, 1991, p. 249; Meerdink, 1995, p. 8-11) In 1757, because of the will of priest Schutte, a bigger chapel was built from his former house in Oeding. The Winterswijk Catholics would go there until they got their own church again. The Catholics kept on insisting on having their own buildings for church services. In Winterswijk in the second half of the 18th century they made requests five times for the permission of the construction of a church. (Meerdink, 1995, p. 16-17) In 1796, with the separation of church and state there came freedom of religion in the Netherlands and in 1798 all faiths were made equal by law. Because of these two things the Catholic faith could have their



Figure 1 The Jacobskerk on the market used to be the catholic church of Winterswijk ("Jacobskerk Winterswijk," 2019)

own services again, and a small church was built in Winterswijk in 1799, probably a 'barn church' (schuurkerk) in the style of the Waterstaat engineers. In 1823 the bonds with the diocese Munster were broken and Winterswijk belonged to the priests of the Hollandse Zending. By the constitution of Thorbecke in 1848 the dioceses of former times were re-installed, so also the diocese of Utrecht, to which Winterswijk went to belong. (Meerdink, 1995, p. 18-19)

Already quite fast the church of 1799 had gotten too small and in 1855 the first plans were made for a new church. The original idea was to make a bigger church on the parcel of the existing church. In 1858 a letter was sent to the arch bishop of Utrecht to ask permission to buy half a house next to the parcel to have a bigger place to build the church. In 1860 the plans were changed, then the arch bishop of Utrecht was asked in 1860 to trade the rectory building and the half house with two parcels on the other side of the street, on one the church could be build and on the stood a house that could function as rectory. In 1861 The king was asked for grants for the construction of the church that would cost around 15 thousand gulden. The village Winterswijk couldn't offer much money as they already had a debt because of the purchase of the rectory building, and because more than half of the inhabitants were not able to give money. The plans didn't proceed fast, as in Meddo, a nearby village, construction of a Catholic church was started, and therefore the people of Meddo wouldn't contribute money to the construction of a church in Winterswijk.

Finally the bishop contributed some but most was made by collections of money, a.o. by various of the richer people of the area. (Looijenga, 1991, p. 251-252)

CONCLUSION

An important question for us was why the church was built. The answer can be found in the history. The catholics could have their own churches again from the 19th century, and after one small church they wanted a new church that would fit the amount of catholics, and bring the status of their faith back in the building.



Figure 2 The rectory on the right of the church was a building that already stood on the plot Meerdink, 1995, p. 47)

CONSTRUCTION OF THE JACOBUSKERK

Wennekers made, after the previous design of 1855, three designs for the future Catholic church of Winterswijk in 1864, and Cuypers made two designs. G.W. van Heukelom, the building specialist of the diocese, and the archbishop mgr. Schaepman advised the designs of Wennekers over those of Cuypers because they didn't think Cuypers' designs were suitable for a village church. About the chosen design was said that Wennekers took inspiration from the important monuments of France, but that "it was a pity" that he designed a hall church instead of a cross shape. It was a neogothic design with three aisles, and five bays, on the outside supported by buttresses. The neogothic style was visible in the big pointed arch windows and rose window, the verticality of the design, and the cross rib vaults, carried by neogothic columns. (Meerdink, 1995, p. 45-49)

Arch. 1875

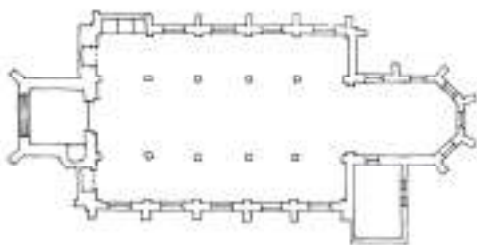


Figure 3 The original floor plan of the Jacobuskerk with the old choir.

Calculations were made that the demolishing of the old buildings on the plots and the old church would deliver 140 thousand usable whole and half bricks, and because of this money could be saved. Still, there

wasn't enough money to build the church, so in 1865 there was again asked for a subsidy. This was initially not approved, but in 1868 finally a lottery loan was given of 8000 gulden. There were 800 tickets of 10 gulden each, and in 30 years each year tickets would be drawn and those would be repaid that year and some would win a prize. Also, it was decided to build the church in phases to save money. (Meerdink, 1995, p. 23-25)

The construction started in 1868 and the nave and tower were finished in 1869. The existing building on the site was used as rec-



Figure 4 The Jacobuskerk before the extension with the narrow choir and the big pointed arch windows. (Meerdink, 1995, p. 31)

tory. The tower was a low tower that barely exceeded the roof. The choir and sacristy were built in 1881. The tower was made higher in 1901 by two levels, and the spire was added in 1911. The tower extension was designed by G. te Riele. In 1916 the choir was restored and the new rectory was built on the place of the former rectory. The windows were carved out, the walls chipped away and the decorations were painted again. (Broekhoven, Kolman, Olde Meierink, Stenvert, & Tenten, p. 653, 2000; Meerdink, 1995, p. 30)

THE EXTENSION

Already in the 1940's the urge was felt to extend the church, because of the rise in visitors of the church. In 1945 the church was damaged because of a bombing: 17 windows were broken and the roof slates at the

west side were damaged. The windows were temporary closed with bricks of bombed buildings, and in 1947 they got glass again. In 1950-1953, an extension was made, designed by B.J. Koldewey. These plans were in the Delfse School and referred to the early romanesque architecture. There were even plans to build a completely new church, but those were stopped by pastor Tempelman. The first changes were made in 1950: the baptism chapel and the choir gallery were added, and smaller windows were made, already matching the windows of the planned new extension. In 1952 the old choir and sacristy were demolished, and a new and bigger choir and a bigger sacristy in a more or less neo-romanesque style were built. Because of the extension the church got a cross shape. The choir didn't get a vault but a ceiling hung from the wooden roof structure. (Koldewey

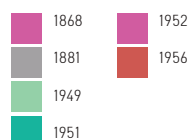
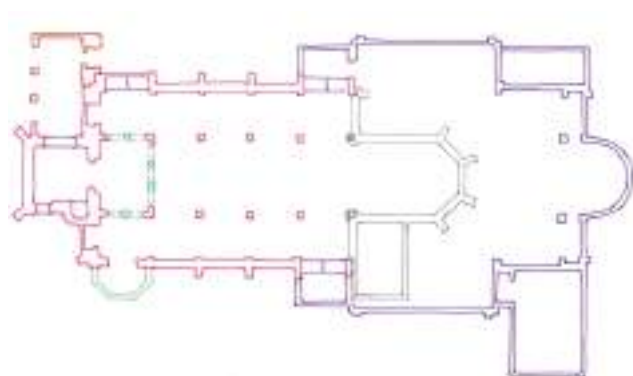


Figure 5 Chronomap of the construction phases of the Jacobuskerk. In grey the choir of 1881 that was demolished for the extension of the 1950's.



Figure 6 The Jacobuskerk after the extension with the new choir (Meerdink, 1995, p. 39)

& Koldewey, 1954; Meerdink, 1995, p. 30-33) New church pews were added, and that doubled the number of seats to around 900. An interior intervention belonging to this redesign was the painting of the interior of the church in white, over the original painting that looked "too richly colored [kakel-bont]". This had to do with the architectural style the New Objectivity that was common in the 1920's and 1930's and still had effects in the 1950's. In 1956 a loggia was built next to the tower, the entrance was closed and a new entrance was made under this loggia. This was to connect the church to the street (Meerdink, 1995, p. 34-38). In 1986 the church was restored. In 1992 the walls were painted cream white, the vaults grey-green and the ribs and beams Terra red.

THE CHURCH NOWADAYS

After WWII first the religious life thrived because people wanted to live a normal and safe life. Halfway the fifties a change came, norms and values started to change and mainly young people opposed the, according to them, old fashioned ideas of the Catholic church about marriage and sex. Since 1966 more people thought that the church should focus on the religion instead of the life of the members of the parish. This was the strongest in the Catholic church, as this was the most strictly organized. Making the rules stricter, as was tried in 1954, didn't work, so the church tried in 1963, from the Vatican, to make the faith more modern, for example by making the nation language the language of the services instead of Latin. Also the place of the altar changed. Origi-

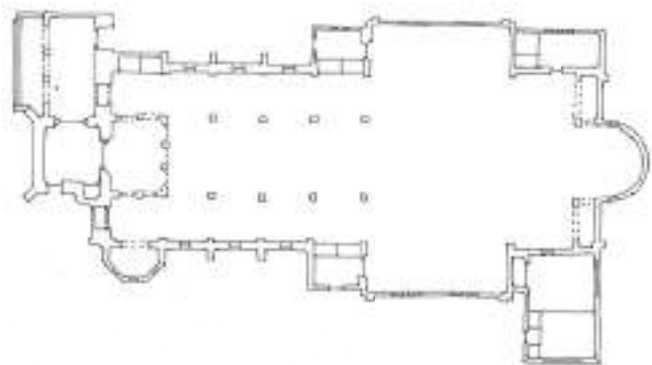


Figure 7 The floor plan of the Jacobuskerk how it is now.

nally the altar stood in the back of the choir and the priest would preach with his back to the people and his face towards god. With this change, the altar was brought more towards the nave and the visitors of the church and the priest would face the people in the masses, more talking to them instead of just to god. But for the Netherlands this was a bit too late, less and less people went to church, and that is still going on. (De Jong, 2006, p. 384) For example, 40 years ago every weekend there were four services in the Jacobuskerk with 500 people going to each service, and now there is one service per two weeks with about 50-60 people coming. (H. Stotteler, 17-09-19&11-10-19)



Figure 8 The Jacobuskerk, a front view with the canopy of 1856 visible, and the rectory connected to the church.

THE ARCHITECTS: H.J. WENNEKERS

Hendrikus Johannes Wennekers was born in Arnhem on 4 September 1827. In 1845 he started studying in Delft at the Royal Academy of Building Engineers. After two years he transferred to the study gauging. From 1851 on he worked as a land surveyor in Zutphen where he was named surveyor of weights and measures of the region. In 1870 he moved to Zwolle and in 1874 to Amsterdam. He moved to Breda in 1895 and to Den Bosch in 1897, where he died in 1900. He also worked as an architect, mainly of churches, and is named a protagonist of neogothic architecture of the north. He worked almost only in the east and north of the diocese Utrecht. He was a less famous contemporary of Cuypers and Tepe, and was in some designs also influenced by Cuypers. (De Jong, 2006, p. 316-318) In the 1860's, Wennekers and Scheepers were leading architects in the north of the Netherlands, and from 1865 Cuypers and Tepe were the most important. Wennekers considered himself an apprentice of Cuypers. (De Jong, 2006, p. 315-316)

Wennekers started in the decorative neogothic style with wooden vaults with stucco but he developed into an architect that used the more orthodox or structural neogothic, with real constructed vaults and the form language and structures of the Gothic style. In earlier designs the brick facades were a bit plain but later they were decorated with ingenious brickwork, which became typical for the later neogothic. (De Jong, 2006, p. 318-319) But he didn't only

work in neogothic. For example the church of Joure was done in an early neoromanesque style. Next to the structural aspects of the Gothic, he was also very interested in the relation with the masses and the church buildings. (Looijenga, 1991, p. 287)

The Jacobuskerk was probably the first church of Wennekers in which he used stone vaults, instead of the wood and stucco vaults he used before this. Originally the vaults were not plastered, maybe this was to show his ability to design masonry vaults. It is not entirely sure by what he was inspired for this church. The type of the three nave hall church was in that time often done in Westfalen, so it is probable that he was inspired by churches there. It also could be that he was inspired by neoclassicist churches that often had this type of nave, and that was still built in the early neogothic period. The church of Irnsum, designed by Wennekers in 1864, also had this three nave hall floor plan, but there the middle nave had proper walls, so it was more a pseudo basilica. The church of Winterswijk, with its high pillars that support the middle nave, was a unique and unprecedented example of the early neogothic style. According to Looijenga (1991) this was his first 'orthodox' church, so really following the rules of the neogothic. (Looijenga, 1991, p. 252)

Between 1856 and 1872 Wennekers designed around 30 churches of which most in the neogothic style, and some profane buildings like mansion [havezate] Kervel in Hengelo in 1870. After this period he gets way less com-

missions because Van Heukelum's influence grew in the diocese Utrecht and he preferred the work of Alfred Tepe. We found only one work of Wennekens after this period, the addition of the aisles to the Our Lady Basilica in Zwolle. (Kolks, 2014)



Figure 9 All churches Wennekens designed were in the diocese Utrecht and then mainly in the provinces Gelderland and Overijssel and Friesland. Already quite a lot are demolished.

THE DEVELOPMENT OF H.J. WENNEKERS

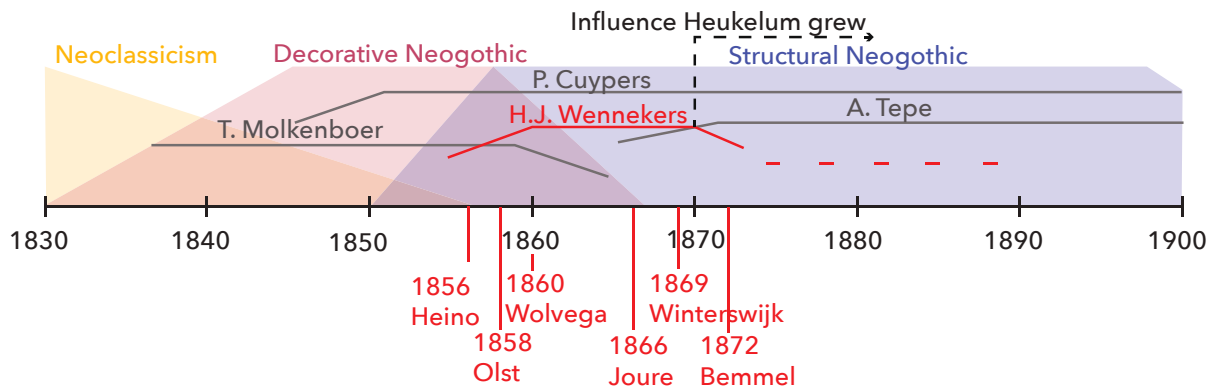


Figure 10 This timeline shows the development of Wennekers and his contemporaries. The lines going up or down indicate an architect gaining or losing popularity. The coloured surfaces indicate the main used styles and when they were used more or less. The examples for this chapter are indicated in red.

Wennekers as an architect is a product of his time applying styles that were common for the era. Wennekers was influenced by multiple styles within the neoclassical and neogothic. His development was non-linear, and would sometimes work in other styles like neoromanesque. The following examples will illustrate the development and oeuvre of Wennekers as an architect and the place the Jacobuskerk has in his development.

ONZE LIEVE VROUWE HEMELVAART

Heino, 1856 (demolished in 1923)

The church of Heino in 1856 was probably his first church design. This church was still more or less in the style of the neoclassicism, which was the main style for churches before neogothic. It had neoclassicist details such as pilasters and a simple barrel vault. The shape of the hall is typical for the influence of the Waterstaat engineers. Something very unusual is the arch resting on the horizontal bands in the upper part of the facade. (Looijenga, 1991, p. 196-198)



Figure 11 Facade drawing for the church of Heino (Looijenga, 1991, afb 63)

H. WILLIBRORDUSKERK

Olst, 1858

In this church early neogothical details are seen but it is not that "neogothical" yet. A type of cross rib vaults are used, made of wood and stucco. The windows are pointed arch windows, but they are still quite small. Something very unique is the triumph arch toward the choir. (Looijenga, 1991, p. 202-209)



Figure 12 Outside view of the church of Olst (Looijenga, 1991, afb. 78)



Figure 13 The nave looking at the choir in the church of Olst (Looijenga, 1991, afb. 73)

H. FRANCISCUSKERK

Wolvega, 1860 (demolished in 1913)

This church is seen as a breakthrough in Wenneker's career and his first 'real' neogothical church. It has the support system of buttresses and a (still wood and stucco) vault, and big pointed arch windows. This is the first design of Wennekers with a real tower. The tower is inspired by the tower of the church in Veghel designed by Cuypers. From this church on, he would work more and more in the orthodox neogothical style, but before the Jacobuskerk in Winterswijk all with wood and stucco vaults. (Looijenga, 1991, p. 217-218)



Figure 14 Outside view of the church of Wolvega (Looijenga, 1991, afb. 79)

ST. MATTHEUSKERK

Joure, 1866 (demolished in 1952, only tower left)

Wennekers didn't work only in neogothic, the church in Joure is an example in neoromanesque style. Striking is the tower with the round arches and ceiling structure with barrel vaults is neoromanesque style. Other neoromanesque designs were for the church of Doetichem and Steenderen. (Looijenga, 1991, p. 243-247)



Figure 15 The barrel vault nave of the church of Joure (Looijenga, 1991, afb. 101)



Figure 16 The tower of the church of Joure, with its round arches (Looijenga, 1991, afb. 100)

DONATUSERK

Bemmel, 1872 (demolished in 1945)

This design is classified as the “most neogothical” of the designs of Wennekens. It was a cross basilica with brick vaults. The tower is freestanding on three sides and has quite some resemblances with the tower of the Jacobuskerk. The facades are strictly neogothical, with buttresses, pointed arch windows and side aisles that are lower than the nave. (Looijenga, 1991, p. 196-198)

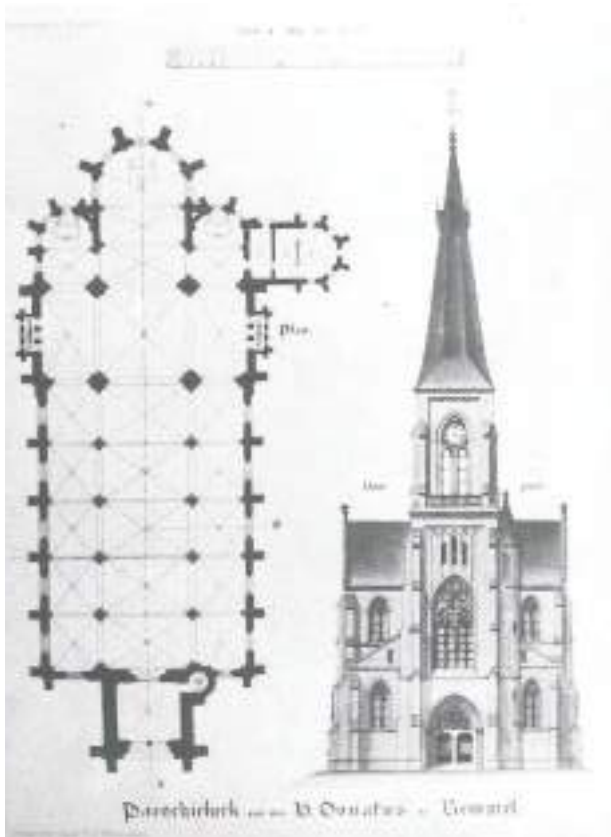


Figure 17 The floorplan of the Donatuskerk as a cross basilica is typical neogothic. (Looijenga, 1991, afb. 106)

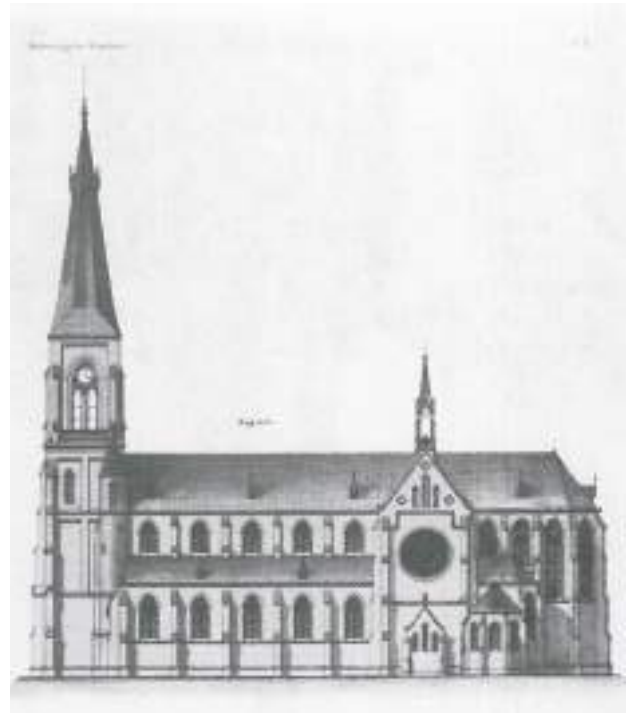


Figure 18 In the facades of the Donatuskerk the neogothical elements like the windows and buttresses are clearly visible. (Looijenga, 1991, afb. 107)

CONCLUSION

The development of Wennekens wasn't linear but there is a certain development to be seen from neoclassical towards neogothic. This matches with the prevalent styles in the time Wennekens and his contemporaries like Cuypers and Tepe operated. This is discussed further in the chapter Neogothic. In that he was quite an architect “of his time”. We can see here that the Jacobuskerk was a crucial church in the development of Wennekens, among other things through the first application of brick vaults.

THE ARCHITECTS: B.J. KOLDEWEY

Bernardus Joannes Koldewey was born in 1895 in Dordrecht. His parents wanted him to be a textile merchant, but he went to study at the Technical College (Technische Hogeschool) Delft, the current Delft University of Technology, in 1920. He started working as an architect in Voorburg in 1926. He mainly designed buildings for the Catholic Church, in the style of the Delftse School. He aimed towards a "religious architecture, that excels through simple though strong spaces, harmonious proportions and a clear inclusion of other decorative arts in the architectural whole". (HNI, n.d.)

The relation between the liturgy and the building was important in church architecture since the 1920's and also before Koldewey. Since 1923 there were congresses about liturgy in relation to church architecture. They also had a magazine in which a lot of priests and also architects, e.g. Koldewey, participated. Before WWII he worked in a traditionalist and robust style. An example of this is the monastery Onze lieve vrouwe ter Eem from 1932 in Amersfoort. With its sloped tiled roofs and brick facades, it is a good example of "local architecture" was important in the Delftse school.



Figure 20 The Onze Lieve Vrouwe ter Eem monastery has a traditionalist architecture with brick and sloped roofs.

With his mentor A.J. Kropholler he designed the Sint Albert Abbey in Egmond-binnen in 1943. Also this building fits the tradition of the Delftse School. (Melchers, 1965, p. 102-103).



Figure 19 The Sint Albert Abbey also looks traditionalistic with its brick facades and tiled roofs.

In the 1950's, he had critique on the Bossche School and its strict rules. He was afraid church architecture would fall back if they wouldn't use new building materials and techniques, as happened a lot in profane architecture. Also because of this he wrote articles in the magazine for Catholic building about the use of concrete in church buildings in 1954-1955. Koldewey thought the use of concrete was fine, but still he preferred natural and artisanal building materials where technically possible. He thought that there should be a balance between utility and beauty. In the 1950's and 1960's brick infill of clean masonry were used a lot, sometimes in combination with steel or concrete load bearing structures. (Melchers, 1965, p. 106-123)

Koldewey also had a strong opinion about the Jacobuskerk, as you can read in Bouwkundig Weekblad, volume 72. Here Kol-

dewey states that “the good thing about the destruction of the windows in 1945 was that they were neogothic and inconveniently big and that now they could immediately get another size and shape”. In this you can see that he wasn’t a fan of the neogothic style, or at least that he preferred something else. (Koldewey & Koldewey, 1954)

The extension to the Jacobuskerk is one of the later works of B.J. Koldewey. It was designed in a neoromanesque style, referring to the early romanesque buildings with massive walls, small windows and a more centralized floor plan. It also fitted in the style of the Delftsche school with the use of local materials like brick and roof slates.

In 1954 his son Hans started to work at his firm. Bernardus Koldewey passed away in 1958.

CONCLUSION

Koldewey was quite an important architect in religious architecture in the 1940’s and 1950’s. His style was influenced by the Delftsche school and he worked in traditional styles, visible in both the examples. The extension of the Jacobuskerk in neoromanesque fits in his oeuvre. It is interesting that he worked in neoromanesque for this church because he criticized the Bossche School and it’s fallback on traditional, often early romanesque examples whereas he also works in this style for the Jacobuskerk extension. Where Koldewey set himself apart here was the free dealing with the neoromanesque:

small windows and massive walls, and a part with masonry vaults, but a current interpretation in composition and with the cassette ceiling. Whereas we first thought the extension of the Jacobuskerk was a bit odd, here we can see that it does fit a certain style of an architect in a certain time period.

INFLUENCE ON THE CONSTRUCTION OF CHURCHES

WATERSTAAT, THE DIOCESE UTRECHT AND THE SINT BERNULPHUSGILDE

Since the separation of church and state in 1796 there was freedom of religion in the Netherlands, and since 1798 all religions were equal by law. The original idea was that the protestants would give back the churches that were catholic churches before the reformation but in the north of the Netherlands, this usually didn't happen. So, a lot of new churches had to be built, especially for all the Catholics that could exercise their faith in public again. The government tried to control the societal life and the construction of churches. King Willem I decided in 1824 that all church constructions and renovations needed to happen under the supervision of the Ministry of Infrastructure and Water (Ministerie van Waterstaat). Because of this supervision, all the churches constructed in this period resembled each other, this style was called the "Waterstaatstijl". Churches were neoclassic with temple like frontons and small towers. This style matched the style for public buildings like schools or courthouses. Officially this supervision on the construction of churches was dispensed in 1868. (RCE, 2011)

The restoration of the Dutch dioceses in 1853 also influenced the construction of churches. The engineers of Waterstaat didn't supervise church design anymore as they did before, but they still had to approve of plans and were for that an important party in

church design. Since 1853 the construction of churches was more centrally coordinated by the Catholic church and the dioceses, just as the style. It had to have a "church architecture" to set it apart from local and profane architecture, which was not the case in the period before 1853. For that it had to be done by specialised and "Catholic architects". Firstly architects were seeking for a way to build these new churches, and the buildings still had neoclassical influences. This developed towards neogothic as a leading style. The catholic church approved of this style as it referred to the middle ages and the catholic church had a leading position in this time. In 1869 bishop Van Heukelum visited a meeting in Xanten of the Gilde de St. Lucas et St. Thomas, a guild for religious art. He wanted to start a similar guild in the Netherlands and did this in the same year with some artists and clergymen under the name of Saint Bernulphus. Their goal was the study of (antique) religious art and especially to get to the essentials of true religious art. Religious architecture was also a topic of interest to them. They got a lot of influence on the construction of catholic churches. They saw the neogothic form language as an ideal way to represent the catholic faith. (Looijenga, 1991, p. 342)

For the construction of the Jacobuskerk these outside influences can also be seen. Various times, the bishop is asked for financial help for the construction of the church, as the parish didn't have enough money. Also, the plans for the Jacobuskerk by Cuypers and by Wennekers were presented

to the archbishop, as was common for plans of churches. Archbishop Schaepman and bishop Van Heukelum of the Sint Bernulphusgilde had discussed about the designs and advised the design of Wennekers over those of Cuypers, and that advise was followed by pastor Van Oppenraay. (Meerdink, 1995, p. 46-49)

Also, as is common in those days, the plans are shown to the engineers of the Ministry of Infrastructure and Water. They didn't comment as much on style as they did before but they did give some technical remarks about the roof and the vault structure that were according to them not constructed correctly and suggests another way to do that. Also about the material they had advices. Generally these advices are followed.

CONCLUSION

We can see that the construction of the Jacobuskerk was influenced by the engineers of Waterstaat and the diocese, as was common in that time. Here Wennekers is still highly valued by the diocese, which would change later when van Heukelum got more power, who favoured Tepe.

NEOGOTHIC PERIOD AND STYLE

In a time with technological evolutions and modernity, the people also looked at the past in the 19th century, looking for security and legitimacy, the picturesque. For buildings, arts and decoration people looked at the past, at historicizing styles. The Gothic had been in the background since the 15th and 16th century and got attention again in the 18th century landscape gardens in England. (De Keyser, 1997, p. 47) The neogothic came to the Netherlands from England together with the English garden style around 1830. It was then a decorative and romantic style which was mainly used for gardens and country houses. This decorative neogothic was also named Willem II style in the Netherlands, after the then king of the Netherlands, who designed an extension to his palace in this style. The stylistic elements were used, like pointed arches, buttresses with pinnacles and friezes under the eaves, but the real principles were not used yet. Also vaults were made, but of wood that was plastered as people didn't have the knowledge anymore to make a vault of brick. For this it was also named "stucco gothic" (stucadoorsgotiek). An important representative of this style was church architect Th. Molkenboer (Bijdenstijn

& Stenvert, 2000, p. 90-92).

Around 1850 a more rational kind of neogothic originated, with as main representative in the Netherlands Pierre Cuypers and in France Eugene Viollet-le-Duc. The gothic and its constructive principles were studied thoroughly. In contrast to the decorative predecessor, in this type of neogothic the elements were not used in a decorative way but really constructionally, so instead of wood and stucco vaults real vaults were made of brick. Cuypers designed his churches not according to a medieval predecessor but according to what would be ideal for the current church services. Also, he took the surroundings into account so that, in contrast to the former neoclassicist churches, the church would not stand on its own but fit its surroundings. The style was also used for other public buildings like post offices, but it was mainly used for churches, and was by some people also named a "catholic architecture". An example by Cuypers is the St. Catharinakerk in Eindhoven, based on the churches of Chartres and Reims but built in brick and with detailing adapted to that material. (Bijdenstijn & Stenvert, 2000, p. 88-93)

Style characteristics of the structural or orthodox neogothic were the use of masonry vaults, pointed arches, verticality in the construction, big pointed arch windows and rose windows. Technical developments made the construction of brick vaults easier. By the use of harder bricks and quick drying Portland cement vaults could be constructed directly. The outer facade was done in clean masonry and the inside was often plastered, but later the inside was often also clean masonry. (Bijdenstijn & Stenvert, 2000, p. 99)



Figure 21 The Sint Lambertuskerk in Helmond, a design of Molkenboer

This type of neogothic became an important style for many churches that were built at the end of the 19th and beginning of the 20th century. The Catholic church was having a revival with continuing acceptance of their faith in the 19th century. They wanted to express that in churches and in the 1850's they embraced the neogothic as a suitable style for their churches as it referred to the middle ages and therefore to the important position the church had in society. (De Keyser, 1997, p. 63,64)

Of the more than 500 Catholic churches that were built in this style between 1850 and 1910, more than 80 were designed by Cuypers. The rest of the architects worked mainly for a certain diocese so regionally, for example E.J. Magry in diocese Haarlem and Wennekers and Alfred Tepe in the diocese Utrecht. Tepe worked in a neogothic based on the "Rhine gothic" (Nederrijnse gotiek), mostly hall churches made of brick with little natural stone elements and a promi-



Figure 22 The St. Catharinakerk in Eindhoven is one of Cuypers' most important works

nent tower. He gained importance since the 1870's as Van Heukelum preferred his work over a lot of other architects like Wennekers and got him a lot of commissions. (Kolks, 2014)

The neogothic got less popular at the end of the 19th century. This is visible in the St Bavo basilica in Haarlem, with a choir of 1895-1898 that was still neogothic but other parts that were built in the beginning of the 20th century used a new orientalist style. (Bijdenstijn & Stenvert, 2000, p. 95)

The interiors of neogothic churches were seen as a part of the design, a *gesamtkunstwerk*, so often the architect also had an idea about the interior. (De Jong, 2006, p. 356) Usually the statues and other decorations of the church weren't ready after construction, as most of it was built or gifted during the years. This also resulted often in a big variation of styles of interior items. In contrast to the churches the centuries before, which had white stuccoed walls, in the neogothic period colors and paintings became the standard. This was done in various ways, for example in some churches of Cuypers the bricks were painted in different colors and patterns so that the structure was visible and elaborated. Often halfway the 20th century these paintings were removed or covered with white again as they were hard to maintain and very dependent on taste. In Winterswijk the paintings were visible on the walls before were covered with white paint in the 1950's. Very common glazing for neogothic churches were stained glass windows like medieval examples. This was very much in contrast with the plain windows of the Protestant and neoclassicist churches. (De Jong, 2006, p. 355-358)

DELFTSE SCHOOL

In 1924 M.J. Granpré Molière was named professor at the faculty of architecture of the Technische Hogeschool Delft, where B.J. Koldewey also studied at that time. The education there was in those times mainly focused towards the design of monumental buildings. Granpré Molière thought the Middle Ages were the best period in history, and he converted to the catholic church because the medieval society was still visible there. He was against international modernist architecture that he saw as materialistic. Instead he wanted a place bound architecture and formulated rules about rhythm and proportions. For the Netherlands he saw buildings of brick with sloped roofs as the most fitting. These things were the basis of the Delftse School, firstly named traditional or archaical direction but later named Delftse School because of the education in Delft that continued in this style. Granpré Molière designed housing and also quite some city halls. A.J. Kropholler and J.F. Staal also worked in this style. The Stock Exchange building of Berlage in Amsterdam was a source of inspiration for them. (Van Heuvel & Verbrugge, 1996, p. 243-244)

The discussion between the modern and traditionalist architects wasn't just held in the Netherlands but also internationally. For example the traditionalist city hall of Stockholm by Ragner Östberg was liked by traditionalists and the modernist city hall of Arne Jacobsen by modernists. After WWII there came more understanding between the

traditionalist and modernist architects in the Netherlands, e.g. because of common study meetings led by Granpré Molière. Especially in catholic buildings, historized styles are still used a lot in the 1950's. An example of this is the church Our lady of perpetual help in Breda that was designed by Granpré Molière. This three nave basilica with a wooden roof structure and clean masonry resembles early romanesque churches. Also in this style there were influences of traditional Scandinavian architecture, e.g. because the Danish also have a tradition of building in brick with sloped roofs covered with roofing tiles. (Van Heuvel & Verbrugge, 1996, p. 262-263)

BOSSCHE SCHOOL

This style influenced catholic church construction and originated just after WWII. A main figure in this style was Hans van der Laan. Dom (monk) Hans van der Laan studied architecture in Delft for a few years and realised some buildings. He developed a theory on rhythm and proportion in space and elements called "the plastic number". In the Bossche school they also looked at early Christian architecture like romanesque and Byzantine architecture. Essential for this tradition was a three year study in Den Bosch in religious architecture, where among others Hans van der Laan also taught. Buildings in this style are often orthogonal, quite sober and built of mainly brick, wood and concrete. An example is the abbey in Vaals of 1968 (Melchers, 1965, p. 57-58, 103-106)



Figure 23 The church Our Lady of perpetual help by Granpré Molière also looks roman-
esque from the outside with its round arches



Figure 25 The church Our Lady of perpetual help has round arches inside as well.



Figure 24 The interior of the abbey of Vaals shows the ortagonality and the rhythms.

CONCLUSION BUILDING STYLES

The architectural styles and their development provide valuable information for understanding the construction and style of the Jacobuskerk. For example the neogothic styles of that periode helps explain why the earlies version of the Jaconuskerk has cross rib vaults and the longitudinal floorplan. The information about the Delftse school and the work of Koldewey tells why the extension was built in a neoromanesque style, referring back to an earlier and more local architecture, and that also explains why the windows were altered. This helps us understand the church as a building better and the value it has in an architectural en technical way.

THE REUSE OF CHURCHES IN THE NETHERLANDS

SECULARIZING SOCIETY

As the society in the Netherlands gets more and more secular, churches are getting empty. Nowadays the numbers are about one church per week that isn't used for services anymore, and it has been like that for around 10 years. As secularization continues, solutions need to be sought to deal with this problem of empty church buildings.

THE USE OF CHURCHES IN THE NETHERLANDS

Ten years ago it was thought that around 100 churches per year would get empty, depending on the secularization of society. Research that newspaper Trouw conducted shows that over the past decade, around 50 churches per years closed, so less than expected. And as secularization continues, the closing speed of churches isn't really increasing. According to Trouw this is mainly due to the fact that churches try to keep their buildings open as long as possible. They get more creative in ways to do this, like renting out rooms during the week. This has a financial component, and the community sees that the church is an important part of this community. Silvia Pijnenborg of Boei says in Trouw

that this is only a temporary solution, and that in the end often church buildings will need to be redeveloped. (Van der Breggen & De Fijter, 2019b)

REUSE PERCENTAGES

In the table on the bottom of this page the percentages of reuse of churches nowadays. Most of the churches before 1800 that have been redeveloped have a cultural or a social function, and for the younger churches this is more spread and the most used function is housing. An explanation for this can be that the older churches are almost all monuments and therefore the reuse is more guided towards keeping as much of the original building as possible, and then a cultural function is easier than housing or office space. In the younger churches, easier changes can be made like partition walls or division in floors. Of the churches before 1970, around 50 got another spiritual or religious function, of which half was turned into a mosque. Except for two all these were before the year 2000. Roetman (2019) says this is due to the changing attitude towards Muslims. Almost all churches that were converted into mosques

Construction	Number of churches	% Redeveloped	Functions
Before 1800	+/- 1200 (almost all national monuments)	20%	80% cultural or social function
1800-1970	+/- 4600 left (2000 were already torn down)	25%	33% houses or apartment buildings 20% cultural or social function 15% office or business space
After 1970	a little under 1000	<3%	

(Van der Breggen & De Fijter, 2019a)

were protestant. This is because protestants see a mosque as a different but religious and for that good function for redevelopment and Catholics generally won't sell their buildings to any non-Christian organization. (Roetman, 2019b)

FUNCTIONS DEPENDING ON RELIGION

The often bigger catholic churches are harder to adjust than the mostly smaller protestant churches. Slingerland (2019): "The brick bakbees from the neo-gothic are just too big to do something cozy with".

Also in the faith of the Catholics the church has another function than in the protestant religion. For Catholics the church is holy (heilig) and for the protestants handy (handig). For this reason, Catholics rather see their buildings re-purposed as a community or care function, so that it still plays a central role in society. Protestants are less critical on this. For Catholic churches it also differs per diocese, as some bishops are more selective in which functions they would allow than others. Almost always when a Catholic church is sold, a lifelong condition is added in the contract: a selling conditions that last

eternally, also when the church is resold after a period of time. So for example if in the condition is put that the church cannot become a café, it can never in the future become a café. (Slingerland, 2019)

THE REDEVELOPMENT PROCESS

The redevelopment is often a long and tedious process. To make this easier Pijnenborg suggests three developments. Firstly, making it easier to change the zoning plan. Secondly, the attitude of the catholic church, sometimes they are very critical in which functions they would allow which doesn't help redevelopment. And thirdly, dioceses and parishes have too high expectations of what a building will make when it is sold. Because of this they don't sell it fast enough, the building stays empty for a longer time and that causes deterioration of the building, what brings higher restoration costs. (Van der Breggen & De Fijter, 2019a)

Religion	Number of churches	% Redeveloped	Functions
Protestant 1800-1970	+/- 3000	+/- 28%	More often office function More often housing
Catholic 1800-1970	+/- 1500	+/- 18%	More often care function

(Van der Breggen & De Fijter, 2019a)

Figure 26 Stellar light font size 6 pt leading 7.2 pt. Align under figure with one enter.

NATIONAL OR LOCAL MEASURES TOWARDS REDEVELOPMENT

On 10 November 2018 the National Church Approach (Nationale Kerkenaanpak) was signed by governments, church owners and representatives of heritage and citizen organizations. The goal of this is the development of a sustainable future perspective for religious heritage in the Netherlands.

This program consists of 5 main points:

- A subsidy of +/- 3 million euro of the Ministry of Education, Culture and Science for municipalities to develop a local church vision.
- Development of knowledge about redevelopment of churches, and making that knowledge accessible.
- An innovation program about sustainability in religious heritage.
- Larger public accessibility of church buildings.
- Let people that have no connection with churches get in touch with the richness of religious heritage to get more support for these plans. ("De Nationale Kerkenaanpak," n.d.)

The government wants to stimulate municipalities to make a vision about the churches in their city or village, to get more insight in the state of the churches and the possibilities with them. With a vision like this, a redevelopment plan of a church doesn't stand on its own but fits a bigger plan. ("De Nationale Kerkenaanpak," n.d.)

The National Cultural Heritage Bureau (Ri-

jksdienst Cultureel Erfgoed, RCE) made two reports to help with planning the redevelopment of churches. One for churches that need to be redeveloped but keep a religious function and one for development towards a nonreligious function. It is meant to guide you along all the steps that need to be taken for the redevelopment of a church. It talks about the monumental values of churches and how you need to deal with those, how to develop a church vision, preparations to be made and parties to be talked to for a fruitful redevelopment, and guidelines for making a good plan. (RCE, 2011, p. 3-8) Then it gives spatial guidelines or examples how to architecturally deal with the space in and around a church, and gives examples of functions to put in a church. Important for a good design are taking the cultural values into account, striving for keeping of historical building parts for the historical techniques and materials they display, attention for special details or elements and a tailor made solution for the church. (RCE, 2011, p. 3-8)

FUNCTIONS

For the choosing of a function, according to the RCE three things are important: that the function fits the building, that it is a durable solution and fits its original role as community center. Some functions are more fitting than others for a church but that is mainly dependent on the church itself and its surroundings. (RCE, 2011, p. 33-34)

1. Religious function

Sometimes it happens that a church is sold to

another religious group. For the building this is usually not that invasive, but the stuff often has to be taken out completely.

2. Social-cultural side use

The religious function can stay in the building because income is created by using of the church on times that there are no religious events for social or cultural events. This is not that invasive for the church space usually.

3. Cultural or museum use

Here the whole building is used for a cultural or exhibition function. Usually the space can stay quite intact as a big space can easily be used for events or exhibitions. Often also (a part of) the interior can stay.

4. Columbarium

A guarding place for urns. This is not done that much yet in the Netherlands but it is done in Germany and does fit the atmosphere of a church.

5. Part of the building used for other functions

When a part of the building is used permanently for other functions, there is more money to keep the religious function also in the building, but often in a part of the original church space. This can be invasive in the space.

6. Commercial use

Often functions as shops or restaurants or bars can be reversible, and that can make it attractive as a temporary use.

7. Care and community function

In this function the church keeps its original function as community center. Because of the function related to the municipality, the space use doesn't need to be optimal because it is not a commercial use; that can

be good for the keeping in original state of some typical spaces.

8. Office function

The space often has to be divided but this can be not that invasive if it is done by transparent walls, which is possible in an office. A drawback is that in this function the church is not publicly accessible anymore.

9. Dwelling

This often is the most invasive, especially when it is done by project developers who want to make the most profit out of it. Often the space has to be divided which ruins the spatial experience, and sometimes details like stained glass windows are sacrificed for more comfort; as the requirements for ventilation and heating are quite high for dwellings. Although it can also be done very nicely when it is done by someone that really takes the church as a starting point for the design. (RCE, 2011, p. 35-42)

SPATIAL MEASURES

The following approach options of RCE report help to develop a strategy for how to deal with the church and the often big space inside, by taking that as a starting point. There are various things possible, each with their own pros and cons and some more invading than others.

1. The whole church is kept in its original states, no spatial interventions are made. The whole space is then used for example for cultural events. The space can be experienced as before, but it can be less practical in use.
2. Smaller elements are put in the bigger

church space and in and around these elements the new function takes place. The spatial experience of the church is still quite visible with this solution, depending on the size and position of the elements.

3. Only the secondary spaces of the church are being redesigned, like aisles or chapels, and the main space of the church stays intact. In the smaller created spaces for example offices are possible, and the big church space can be used for cultural events. If the partition walls are transparent, there is still a spatial connection between all the parts of the church but this is not always possible.

4. Vertical partition. This is mostly used for keeping one part still for the religious use and the other part for another function. Elements like big windows etc are still visible and for the religious users of the church it is nice that they can still do that in the original building. But the big space in the church cannot be experienced as a whole anymore.

5. Horizontal partition. A floor is made and the floor surface to be used is doubled by this. The space experience is altered but less than by vertical partition as from the top floor all the windows and the ceiling can still be experienced. It is sometimes hard with this to get enough light to the ground floor.

6. Box in the church. This is the larger scale version of option 2 where a big box fills almost the entire church space, but without touching it. There is a lot of space for a new function and it can be climatized, and side spaces of the church and for example the choir can still be used for other things. It is

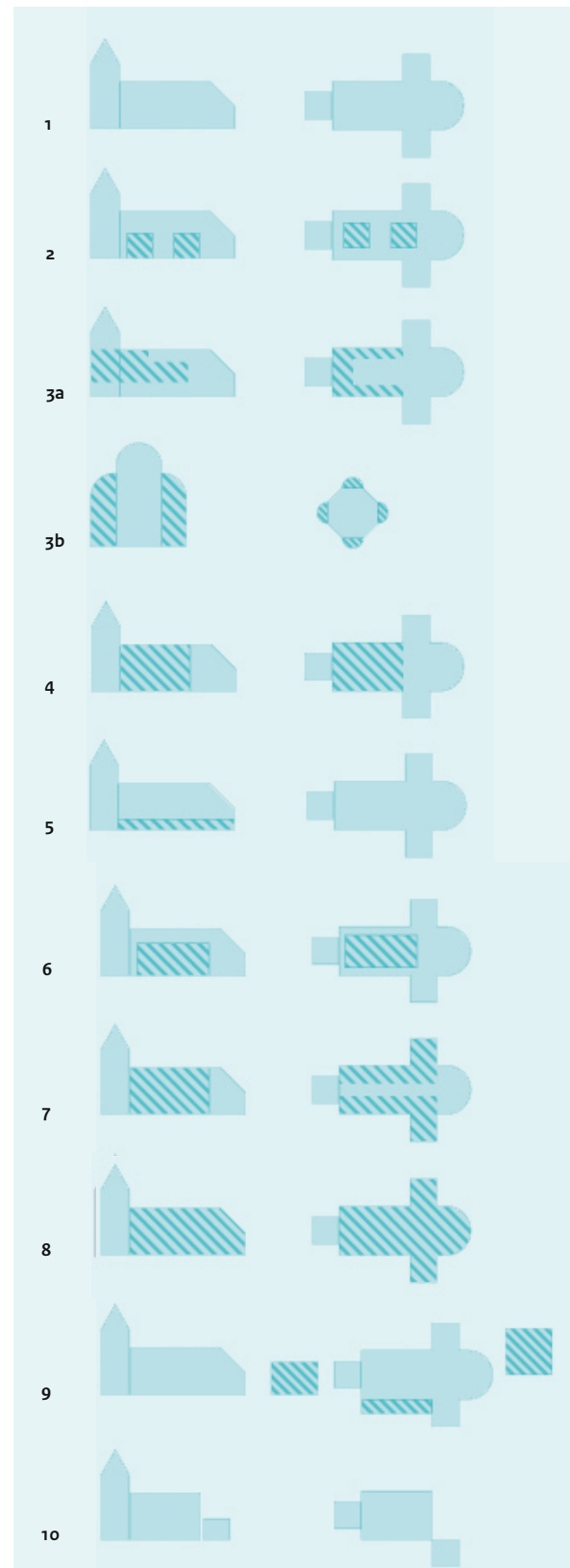


Figure 27 Diagrams of the different spatial uses for church buildings (RCE, 2011, p. 51)

hard to experience the original church space with this intervention.

7. A construction in the church, but with preservation of the sight lines. This is similar to option 6, the difference is that important sight lines are kept to preserve some of the church atmosphere.

8. The church is completely filled. This often happens when for example dwellings are built in a church. The original space cannot be experienced anymore. Only from the outside the volume is still visible as a former church.

9. Extensions on or around the church. When the church is part of a broader vision, sometimes the new functions are organized around the building so that the church space can keep its open character.

10. Demolishing a part. Sometimes the church space is too big for a new function and then demolishing can be a solution. Sometimes the church spatial atmosphere can be preserved by a smaller part of the church. (RCE, 2011, p. 47-52)

HOW TO DEAL WITH THE JACOBUSKERK

The Jacobuskerk is a church with a declining amount of visitors, only 40/50 every two weeks, as the other week there is a service in Meddo in the John the Baptist church.

The board of the parish decided last year that before 2026 the church should be closed. They are now looking for a new function of the building, and invite the people of Meddo to think with them. (Elsinghorst, 2019) Currently the parish consists of Aalten, Bredevoort, Harreveld, Lichtenvoorde, Mariënveld, Meddo, Vragender, Winterswijk

and Zieuwent.

Currently the whole parish has problems with keeping their churches full and that some may have to disappear. For Meddo this plan has already been made for 2026. Future plans for the Jacobuskerk in Winterswijk have to keep the other churches into account. Secondly, the other religious houses of Winterswijk have to be taken into account even though they might not be catholic. Working closer together with the different churches can help to keep funding the Jacobuskerk.

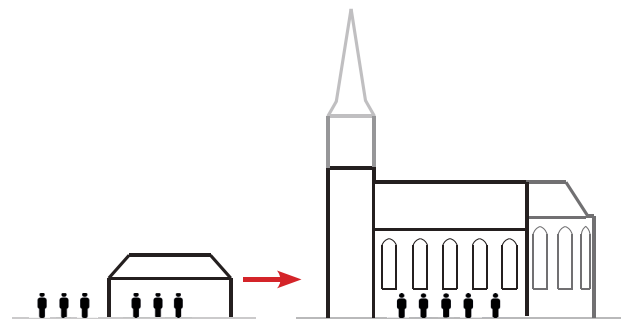
The function needs to be reevaluated. Does it still need to have a religious function? Especially when the church in Meddo is closed in 2026, there needs to be a place for the catholics in the region in Winterswijk, but this can also be another church of the parish. If the church doesn't get a religious function, it can be a function that adds to the needs of Winterswijk. This report tries to gather information for potential new functions and current qualities in and around the Jacobuskerk.

CONCLUSION GENERAL INFORMATION

There are various factors that influenced the construction of the Jacobuskerk. All these factors are described in the paragraphs of this chapter. For our main question "Why and how is the Jacobuskerk the way it is now?" all these factors play a role. The catholic history of Winterswijk resulted in the need for a new church and so the Jacobuskerk was built. Then because it was too small the extension was designed. Both these building phases took place in a certain time and by an architect that worked in a style that was common in that time; so those two greatly decided the building's appearance. Lastly the diocese was an influence because they approved of designs for churches and because of their preference the plan of Wennekens was chosen. The last paragraph about reuse of churches in the Netherlands was added as a framework for ourselves for the next phase in the process.

CATHOLIC HISTORY OF WINTERSWIJK

Since 1798 all faiths were equal in the Netherlands, and the Catholics could build a church again. The church that was built in 1799 had gotten too small and therefore the current Jacobuskerk was built from 1869 until 1881 with tower additions in 1901 and 1911. A new rectory was built in 1916. Because of difficulties with the finances it was built in phases so that a big neogothical church could be built to fit the amount of Catholics and match the positive status of the Catholic faith.



<< Image 28 The old church got too small so a bigger one was needed.

INFLUENCES ON THE CONSTRUCTION OF CHURCHES

In the 1860's, the diocese Utrecht, and especially bishop van Heukelom, had big influences on the construction of churches as the diocese had to approve of building plans. As the diocese chose the plans of Wennekens above those of Cuypers, his design was built.

THE CONSTRUCTION

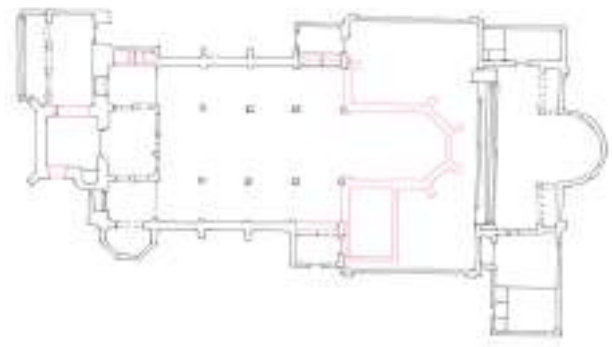
Since the 1940's the church had gotten too small and plans were made for an extension. In 1950-1953 an extension was built after a design of Koldewey. For this the old choir was demolished, and an extension was built on that location. Also the windows were made smaller because they were demolished in WWII and to better fit the extension. A new entrance was made in 1956, on the side of the tower under a newly built canopy. This extension greatly changed the church building.

H.J. WENNEKERS AND NEOGOTHIC

H.J. Wennekers started to work in a decorative neogothic with still some neoclassical influences in the 1850's. Since around 1860 he started to work more and more in a structural neogothical style, as is also visible in the design for the Jacobuskerk of 1868. The Jacobuskerk was the first of his works with a brick vault. His stylistic development matches the stylistic developments in the neogothical style, also seen by for example his contemporaries Cuypers and Tepe.

B.J. KOLDEWEY AND DELFTSE SCHOOL

B.J. Koldewey studied architecture in Delft and was influenced by the Delftse School and a bit by the Bossche School where he later had critique on. This traditionalistic influences are visible in his works, for example in the neoromanesque extension he designed for the Jacobuskerk. He also thought about modern construction ways for churches, which is also visible in the extension in the contemporary way of dealing with the choir ends, and the ceiling.



<< Image 30 The original church parts that have been demolished in pink



<< Image 31 Neogothical elements in the Jacobuskerk, for example the vaults



<< Image 32 The neoromanesque extension



SURROUNDINGS

INTRODUCTION

In this chapter the surroundings of the Jacobuskerk are analysed. The surroundings are defined as the large scale physical, geographical and metaphysical context of which the Jacobuskerk is placed in its centre. The relevance of the context lays in the origin, layout, appreciation and use of the site, its accessibility and related views. The context affects how architecture is experienced. Buildings can blend with its surroundings and become part of their environment or stick out and become distinct and separate. Furthermore, socio-cultural surroundings are important in defining valuable elements of a building, being physical or metaphysical.

In order to design from heritage a broader understanding of the site and situation is necessary. This analysis aims to gather and filter site and surrounding specific properties with the aim to use in a future design.

The central question in this chapter is as followed: What is the current relation of the Jacobuskerk with its surrounding and how did the surroundings evolve over time?

According to Brand (1994) the site is eternal, its geographical setting, location and boundaries outlast generations. Thus historical information for the site and surroundings are and have affected the building even before its commission. In other words "You have to know the past to understand the present." - (Sagan, 1980).

The following topics are ordered according to scale and impact, from regional scale to human scale and experience.

The chapter ends with a conclusion about the values of the surroundings according to the shearing layers (Brand, 2009) and the valuation matrix (Kuipers & de Jonge, 2017)

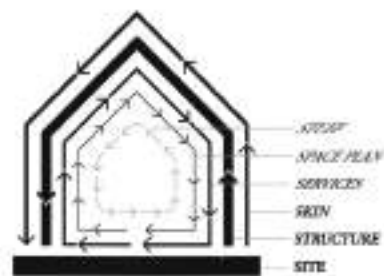


Image 34 Shearing-layers. (Brand, 1994)

Surroundings

Climate

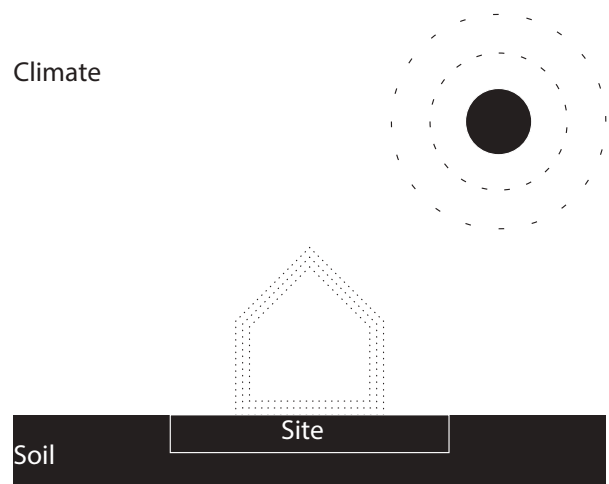


Image 35 Illustration of surroundings as shearing layer. (own illustration)

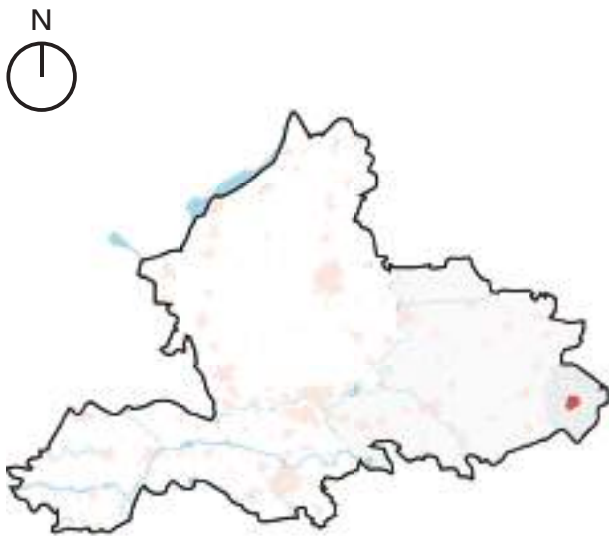
WINTERSWIJK LOCATION

Winterswijk is a village and municipality located in the east of the Netherlands in the province of Gelderland. Winterswijk is also part of a cultural area called "the Achterhoek", this region experiences great influence from Germany, something that is strongly reflected in the local dialect. Winterswijk currently has a population of around 29,000 inhabitants, around 23,000 of whom live in 'the town' Winterswijk and the rest in the surroundings (Openinfo, 2019).

Important income for Winterswijk is mainly hospitality and tourism. Especially tourists from Germany are important for the local economy. The most important access road is the N319 that leads to Germany, Winterswijk is not directly connected to the main motorway system. Nevertheless, the car is the most used means of transport followed by the train.



figure 37 Netherlands as greater context for Winterswijk, illustration shows the main highways, major cities and location of Winterswijk in the Netherlands. (own illustration, information from google maps)



In addition to the town of Winterswijk, the municipality of Winterswijk also has a large outdoor area. This outlying area is divided into nine so-called 'neighborhoods'. These neighborhoods are (population): Meddo (1,438), Huppel (408), Henxel (292), Ratum (379), Brinkheurne (279), Kotten (715), Woold (882), Miste (649) and Corle (263).

The mine (near Ratum) is a prominent tourist attraction for winterswijk. Due to its unique geological location, various old loam layers come to the surface. This brings along fossils and minerals.

Figure 38 Gelderland and the Achterhoek. (Google Maps, own illustration)

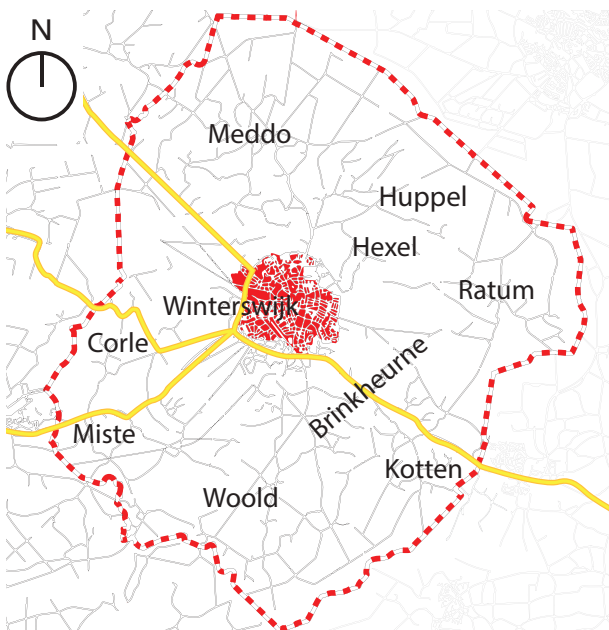


Figure 39 Municipality Winterswijk. (plaatsengids.nl, n.d.)

GEOGRAPHICAL SITUATION GREATER AREA OF WINTERSWIJK

The Netherlands is a river delta and has been on the edge of a falling North Sea basin for millions of years. The northwest and the North Sea fall, while the east and south edges of the basin rise. This decrease is entirely natural in nature, even though human intervention in the topsoils also contributes to this. As a result, the northwest falls on average twenty-five millimeters per century or more. In the southwest, the soil rises on average a few millimeters per century (Natu-

urinformatie.nl, n.d.).

Winterswijk is located in this rising part with an average height of 34m.

The old Winterswijk originated on a drifting sand ridge along the "Whemerbeek", in the midst of centuries-old farmland.

In the Early Middle Ages there was a court farm of the Münsterse St.-Mauritiusstift with a church dedicated to St. James. Clergymen, artisans and traders settled in the shadow of this Jacobskerk, resulting in a modest village center. In the Late Middle Ages, Winterswijk was one of the larger archdioceses of the

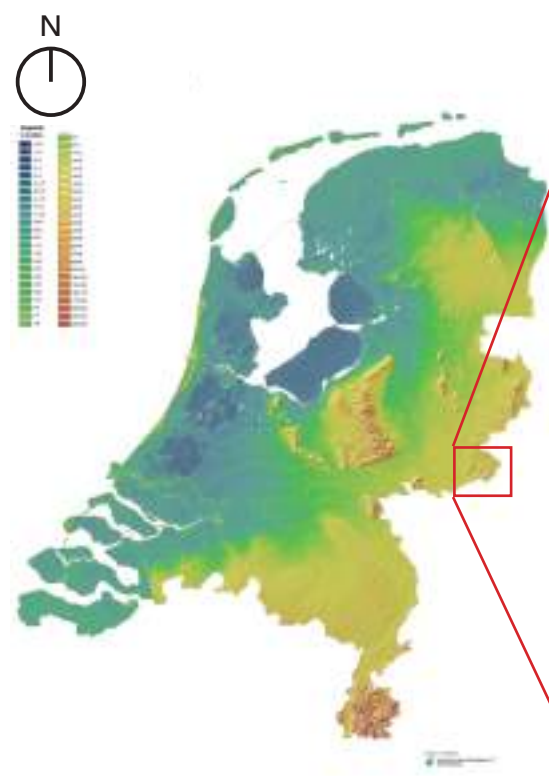


Figure 40 Topographical layer of the Netherlands. ("AHN viewer," n.d.)

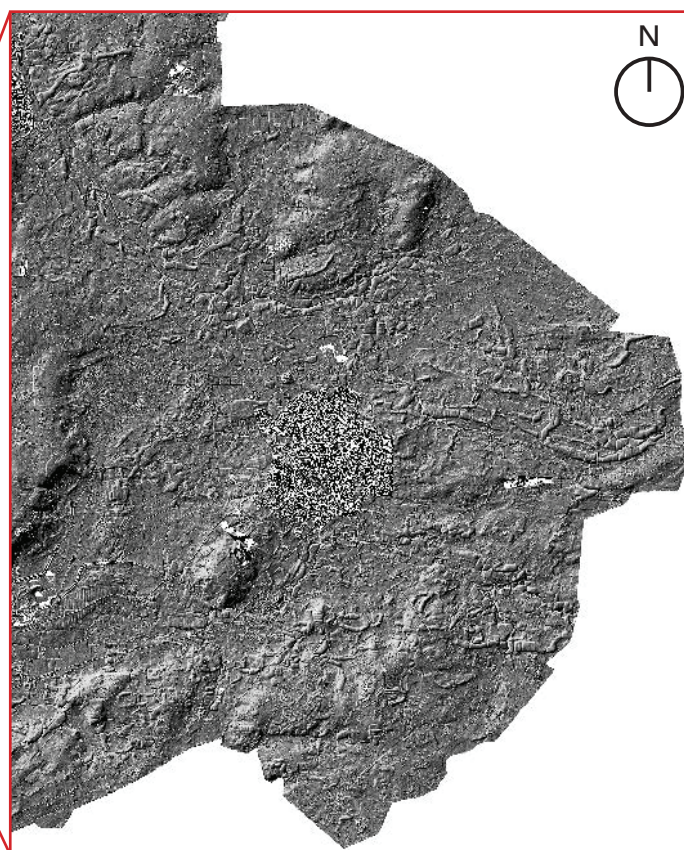


Figure 41 topographical map municipality Winterswijk. (Neefjes & Willemse, 2009)

diocese of Münster and an important spiritual center. The village was fortified by a canals and possibly also by a heavy brick wall.

The surrounding villages mainly consisted of farming communities. The farms were initially on or along the larger sand ridges (figure x). Unlike in Prehistory, they had a fixed location during this period. Probably from the Carolingian period also fields and farms were founded at smaller sand ridges. This laid the seeds for what we now call the old hooves landscape.

During the industrial revolution the landscape started to change drastically. Besides farming the growing textile industry became

an important form of income for the farmers. The forestry landscape changed to make way for more agriculture and flax. The streams and rivers were used to power industrial machines which helped to grow the industrial output of the region. This in-turn created a population boom of which in 60 years the population grew six fold from 2000 in 1860 to 11000 in 1930.

During this period Winterswijk became a hub for the train network and was the main connection to Germany (Neefjes & Willemse, 2009, p. 39-50)



Figure 42 Changing landscape - municipality Winterswijk. (Neefjes & Willemse, 2009)

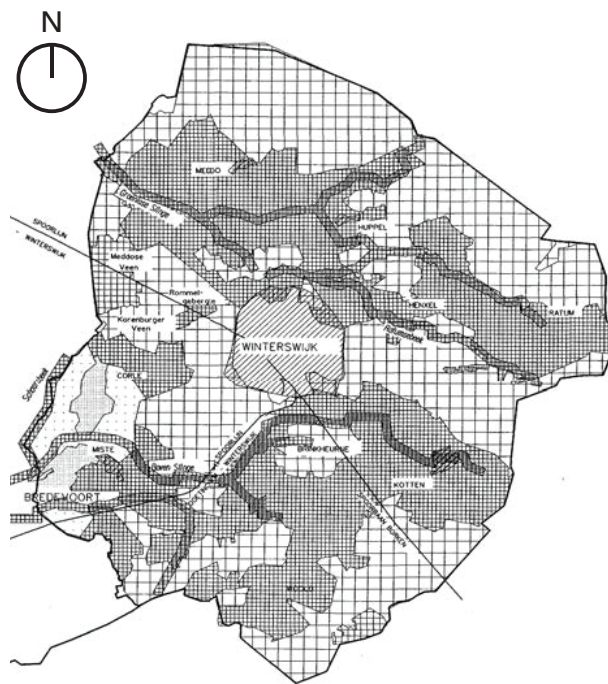


Figure 43 Ground layering municipality Winterswijk. (Gemeente Winterswijk, 2009)

GEOGRAPHICAL SITUATION VILLAGE WINTERSWIJK

Currently Winterswijk has height differences within the borders of the village. The main reason is presumably the Whemerbeek that flows through the village. In the past it regularly happened that the stream flooded, creating a small valley.

The highest point in the village is in the southwest (38m) and the lowest point on the stream (34m). The soil consists mainly of fine sandy soil and clay deposits. The tectonic

effects in the subsurface have led to the complex soil structure of the region. These tectonic structures explain the water structures by sinking subsoil. The heights of the fracture edges can also be explained in geology. These edges later became the ideal location for people to settle. (Neefjes & Willemse, 2009, p. 39-50)

The sandy ground provides a strong layer for buildings. Both the jacobuskerk and the Jacobskerk are built on this strong sand-layer (image x)

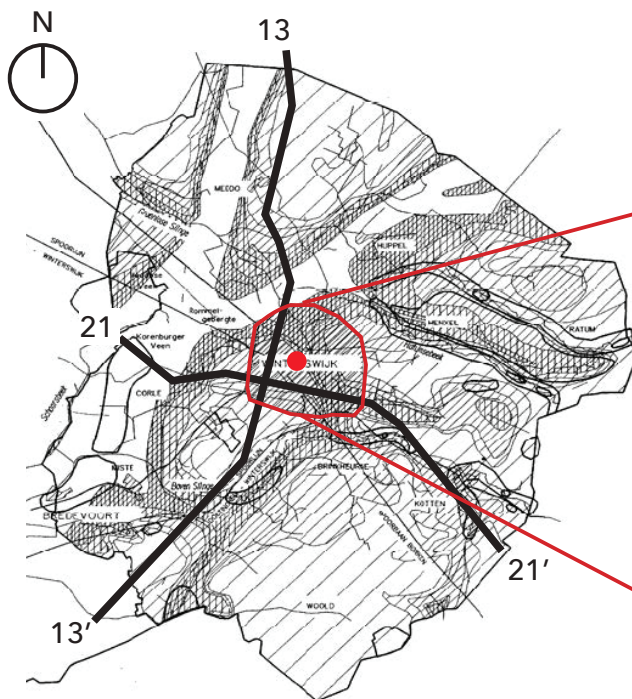


Figure 44 DDepth of sand layers - municipality Winterswijk (Gemeente Winterswijk, 2009)

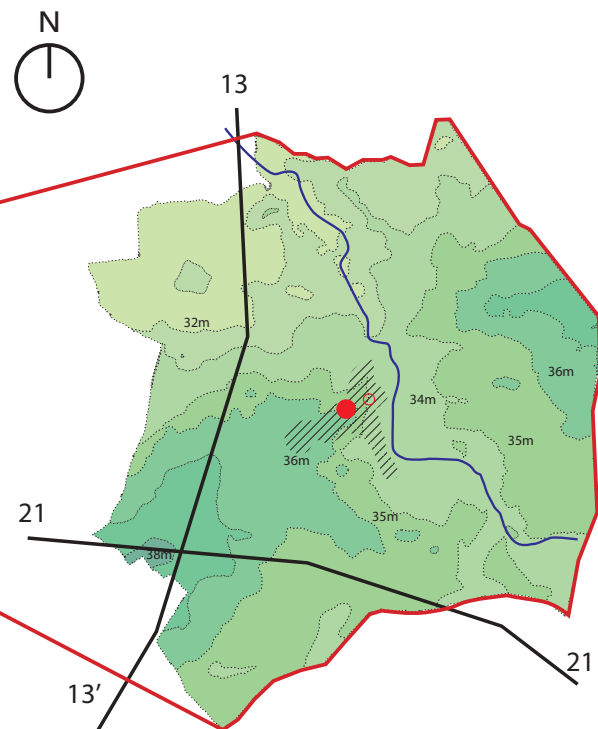


Figure 45 Topographical height map - municipality Winterswijk. (Neefjes & Willemse, 2009)

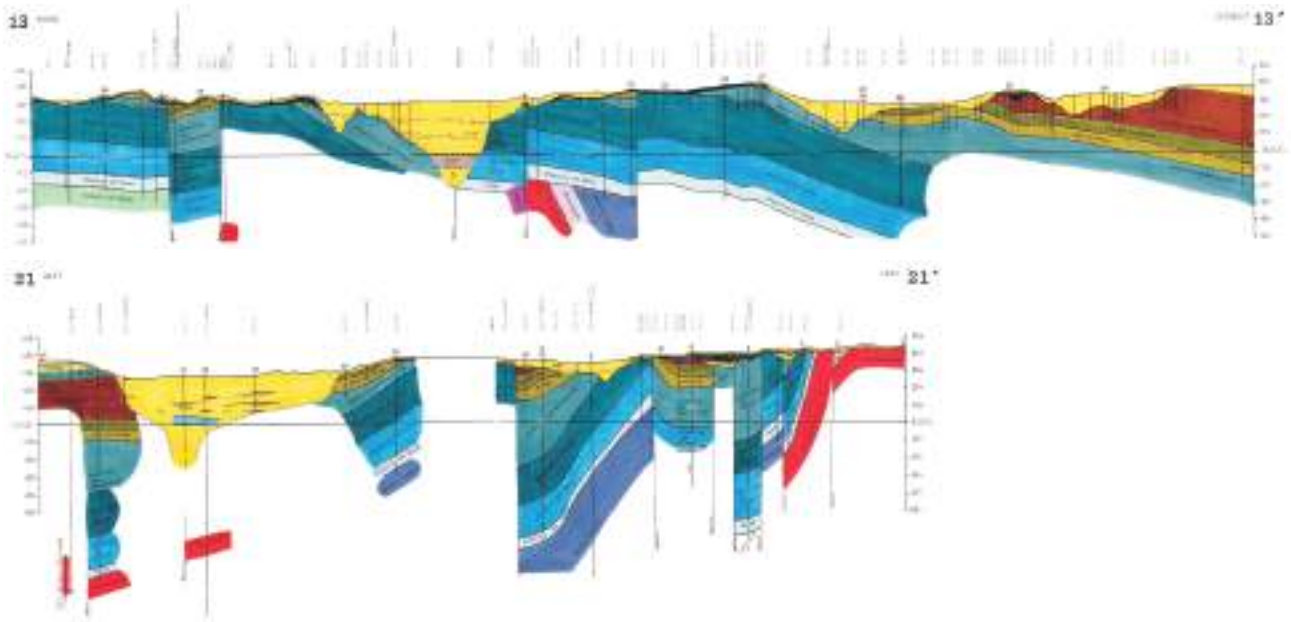


Figure 46 Earth layers section. (Alterareport, 2009)

Legend

- Roads
- Early Pleistocene valley plain
- Sand ridge
- Plateau covered by sand
- Depression

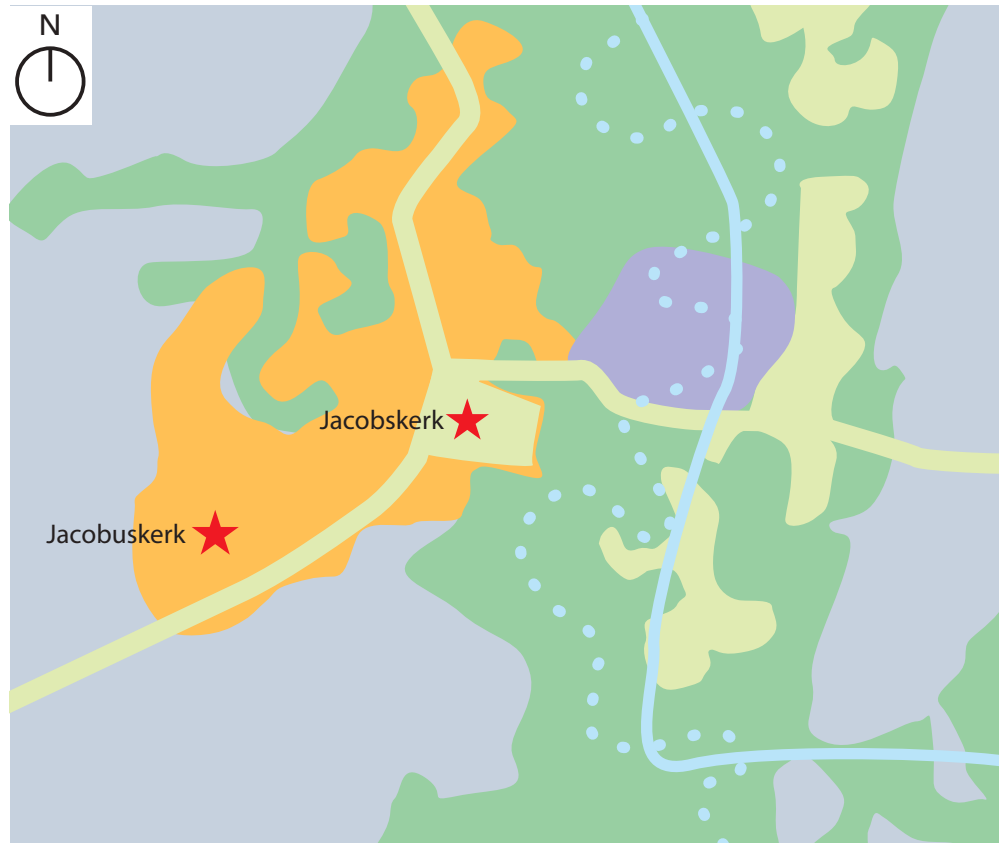


Figure 47 Ground layers center Winterswijk (Cultuurhistorische Atlas Winterswijk, 2009)

HISTORICAL BACKGROUND

500BC–400AD

Already in prehistorical times the area around Winterswijk was populated. We know that the area had been populated by Germanic tribes, of which the best known were the Chatten, Cherusken and Bataves. They mainly lived on the sandy higher pieces of land along the rivers, between the peat land. They lived close to the Roman border and traded but also fought wars with them. The border was after a long struggle with the Germanic tribes drawn along the river Rhine so Winterswijk was north of that. (Neefjes & Willemse, 2009, p. 36-41)

400 AD – 1000 AD

In the turbulent last 2 centuries of the Roman empire, a large part of the population disappears and probably the area was hardly populated. In the 6th century the Frankish Merovingians founded the Merovingian Empire and after 550 AD the area is slowly getting more populated. There are findings from the 6th to 8th century in Aalten and Lievelede that show that this area was populated by Frankish people or under Frankish influence. Then the area came within the sphere of Saxon Westfalia, and these were defeated by the armies of Charlemagne at the end of the 8th century. In that time also the Christianisation [kerstening] of the area began and a small wooden chapel was built where Winterswijk is now. Archeological finds show that the village Winterswijk and villages like Ratum and Heurne already existed at that time in some form, and each of them was on a higher bit of land, in the case of Winterswijk

a sand hill along the creek Weemerbeek. The first written document of around 1000 AD shows that the development of the “parish of Winterswijk” was probably connected to a church built there. (Neefjes & Willemse, 2009, p. 40-44; Stegeman, 1927, p. 168-169; Zuiderveld, 2010), p. 14-17)



Figure 48 Impression of Winterswijk during the early middle ages (Cultuurhistorische Atlas Winterswijk, 2009)

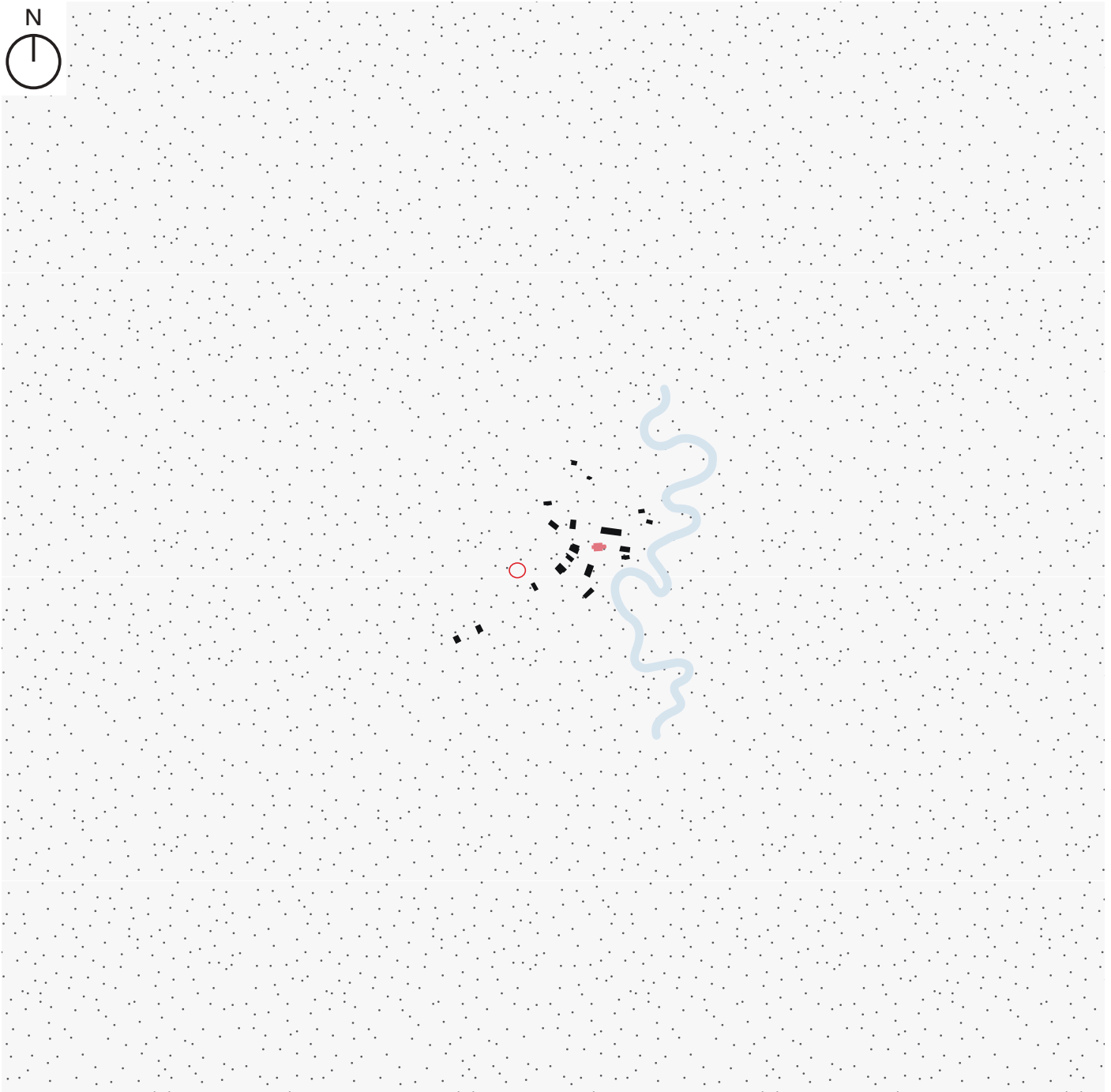


Figure 49 The early Winterswijk of 1100

“Winterswijk” consisted of a probably already stone church with around this some houses and most people were probably farmers. It this time it was part of the Lohn County, until 1316. They established laws about classes and the feudal system. It is formed along the west side of the Wheemerbeek, that is meandering through the land. (Neefjes & Willemse, 2009, p. 40-44; Zuiderveld, 2010, p. 17-19)

1200 WINTERSWIJK

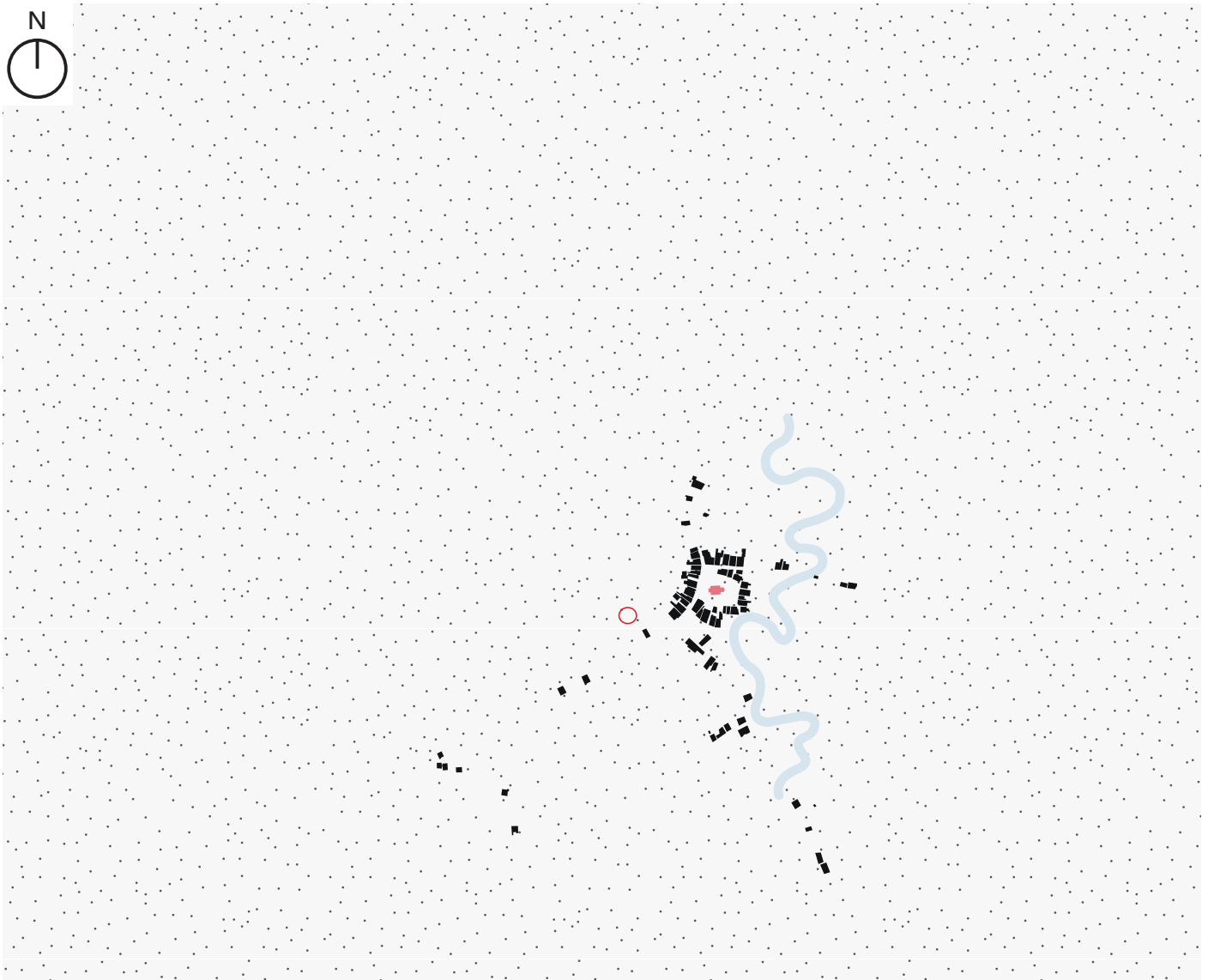


Figure 50 Winterswijk of 1200, growing around the church.

The village grew around the church square, the density is the highest there and outside are only some houses. You can already vaguely see lines of houses pointing towards 4 directions. Probably Meddo in the north, Lohn on the east, Weurden on the southeast and Bredevoort on the southwest. It is plausible that the houses were built in these lines because there were roads there connecting these places/"centres". From 1316 until 1798 Winterswijk fell under the manor Bredevoort. This was an important place with a castle, located where you could cross the river. Bredevoort belonged to Gelre, later the Bourgondy empire and the Republic, but as it was a peripheral area they largely governed themselves. The people themselves were organised in hamlets [buurtschappen] with rules and obligations. The influence of landowners of a large estate was big. In the center from the mid 15th century construction of the Jacobskerk began. During the reformation Winterswijk became protestant, in contrast to the villages Groenlo and Lichtenvoorde that stayed catholic. Since 1531 there was a yearly market in Winterswijk on the market square. Most of the people in the region were farmers. ((Neefjes & Willemse, 2009, p.82-83; Petelier, 1996, p. 49; Zuiderveld, 2010, p. 26-27)

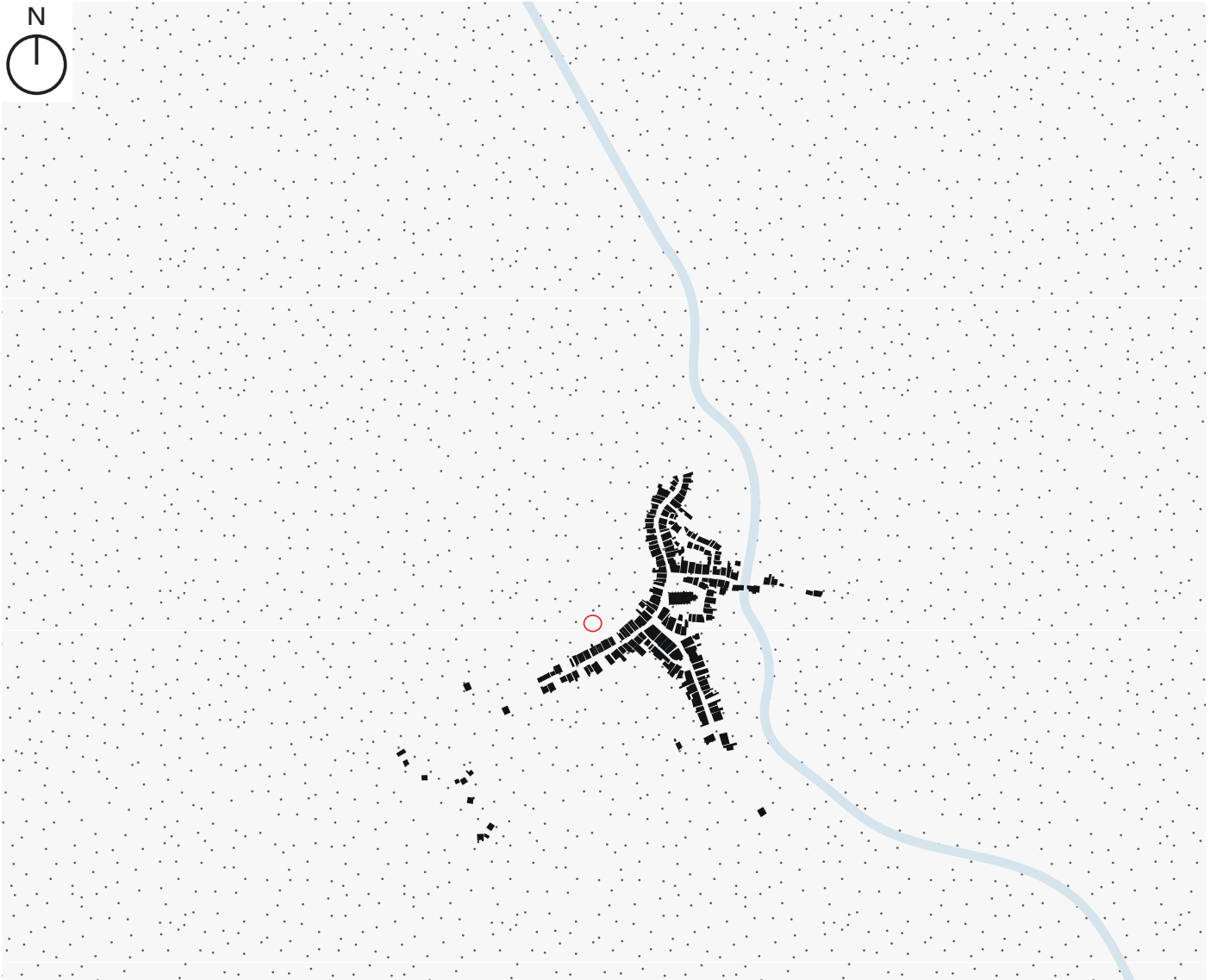


Figure 51 Winterswijk around 1700, the area around the church is way denser, and the ribbon development is seen

Since the 17th century Winterswijk had a form of textile industry, connected in the Saint Michael's Guild. It then existed mainly of the wives of the farmers that made textiles and sold them. It originated around the nowadays Nieuwstraat, that used to be called the "textile street" [Lappenbrink] was the center of this textile industry. The Lappenbrink is also visible, being the second street going to the east on the north of the church. There are a lot more houses than in 1200, and the important streets that were only vague directions before become clearly visible in ribbon development [lintbebouwing]. To the north the nowadays Meddosestraat to Meddo; to the east is not that clear, maybe since the connection with Lohn was less important; to the south-east the current Wooldstraat that continues to Weurden; and towards the southwest the current Misterstraat. Visible is also that the Wheemerbeek is made straighter in the constant battle with/ against the water. In 1795 the Netherlands were conquered by the French and the feudal system was abolished. But as some influential farmers that owned a lot of land [scholtenboeren] took over the land of Bredevoort, and because of this the system of the scholten went on longer in this region. (Neefjes & Willemsse, 2009, p. 44, 51; Zuiderveld, 2010, p. 46-47)

1830 WINTERSWIJK

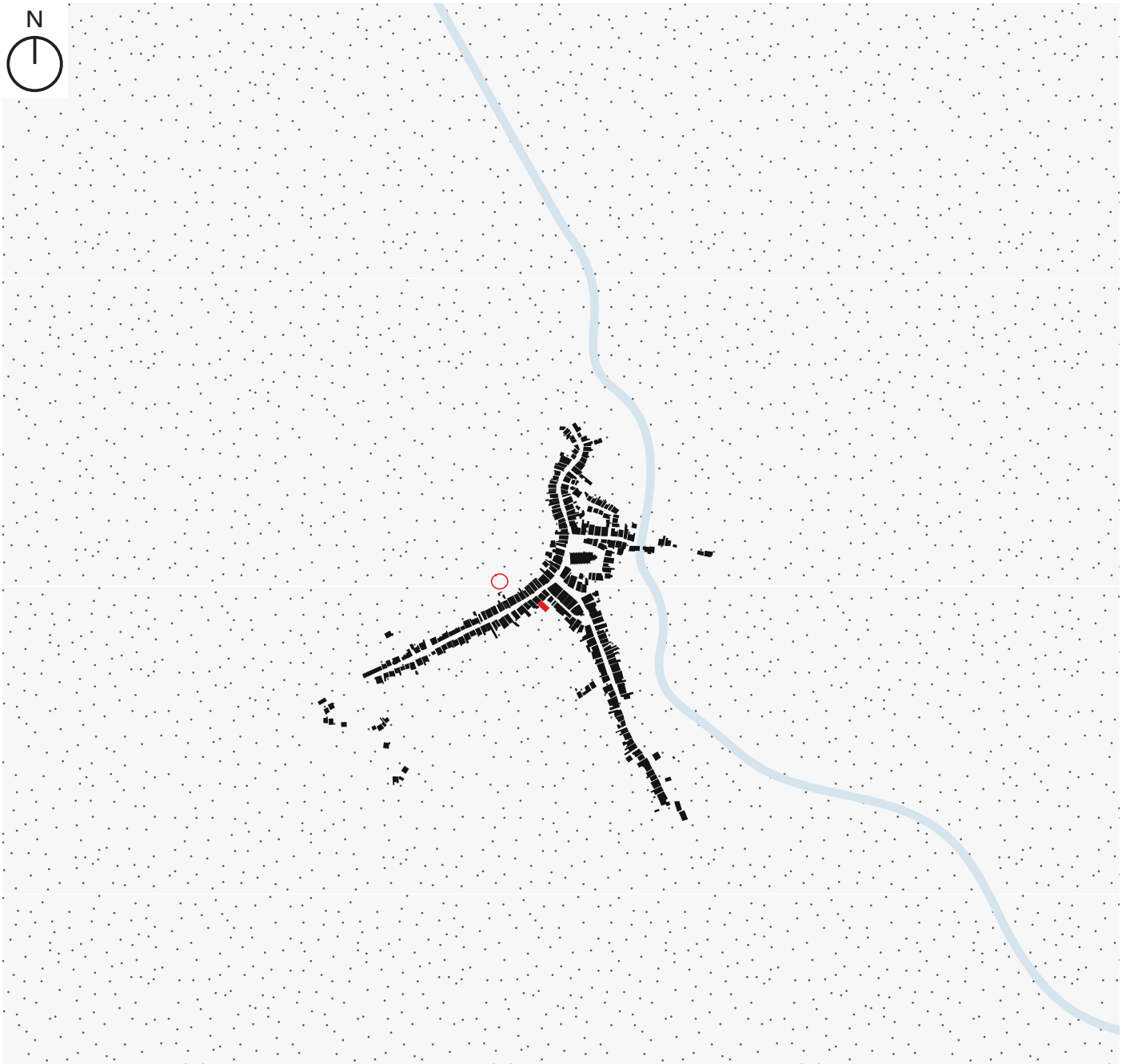


Figure 52 Winterswijk in 1830 before the industrial developments

With the arrival of the steam engine, the industry got a boost and also the population grew. The village grew along these lines of ribbon development, still the important connection routes. Around these streets the buildings are quite dense and around it is hardly anything built. The textile factories originated on the east, the first one with steam engines in 1855, just at the other side of the Weeme. They were built there because the water was used for the steam engines. (Neefjes & Willemse, 2009, p. 44; Zuiderveld, 2010, p. 52-55)

1895 WINTERSWIJK

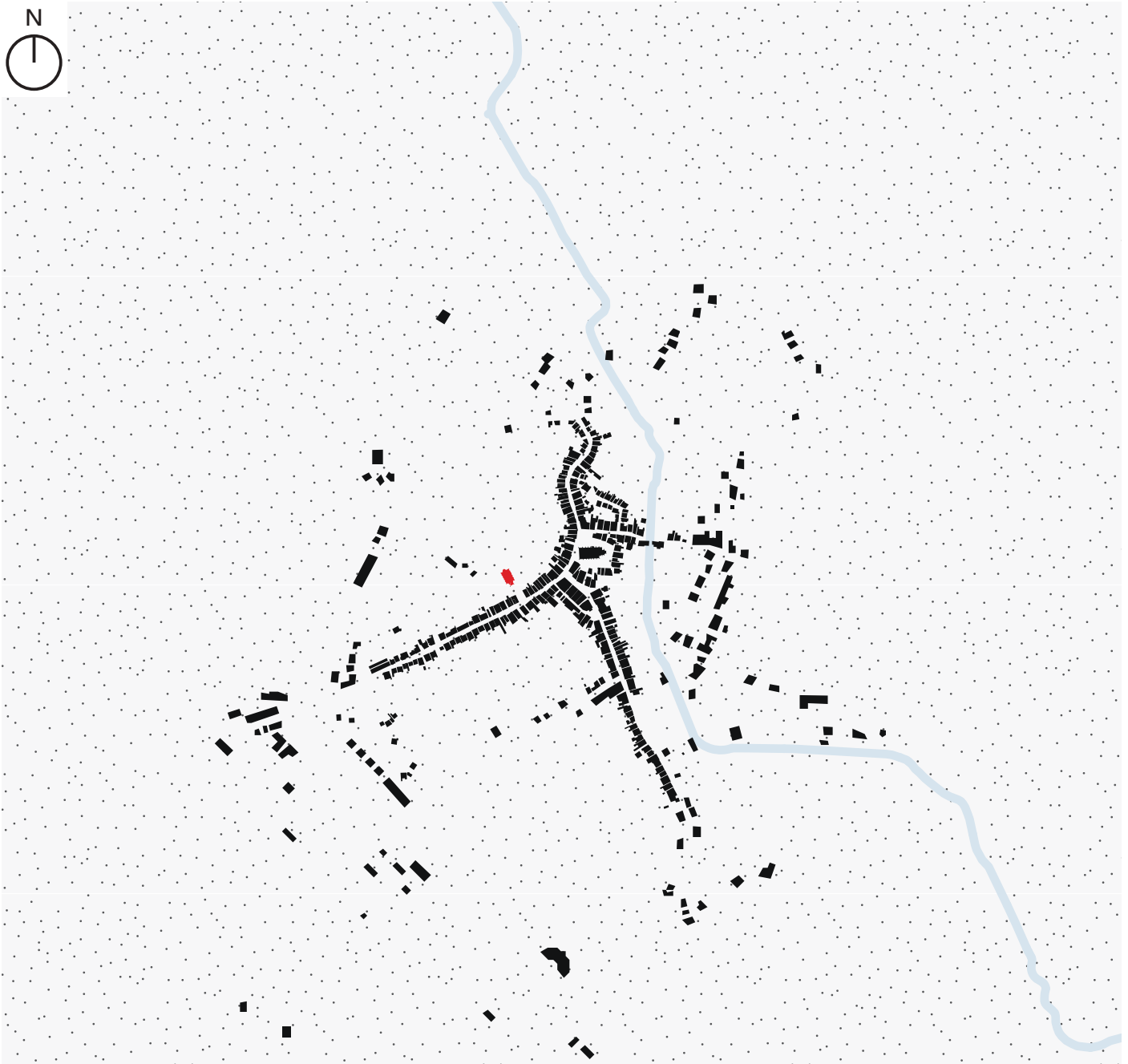


Figure 53 Winterswijk in 1895, the developments of the industry make the town grow

At the beginning of the 20th century, Winterswijk had 7 textile factories, for example the Tri-cot factory also along the Weemerbeek but more north than the Gaudium. and the population grew because of that. The first railway in Winterswijk was opened in 1878 on the initiative of textile manufacturer Jan Willink: the line Zutphen - Winterswijk - Gelsenkirchen (Germany), with a branch to Bocholt (Germany). A few years later connections were also made to Zevenaar and Hengelo / Enschede. In the street pattern you can see more streets emerge, connecting the four main streets. Around 1860 the decline of the system of scholten starts. They couldn't let just the oldest son inherit anymore so scholten had to be split or other sons had to be bought out, and the farmers let their children marry with the children of other farmers to keep the system. Around 1920 the system of the scholten is really abolished. (Zuiderveld, 2010, p. 54-55)

1930 WINTERSWIJK

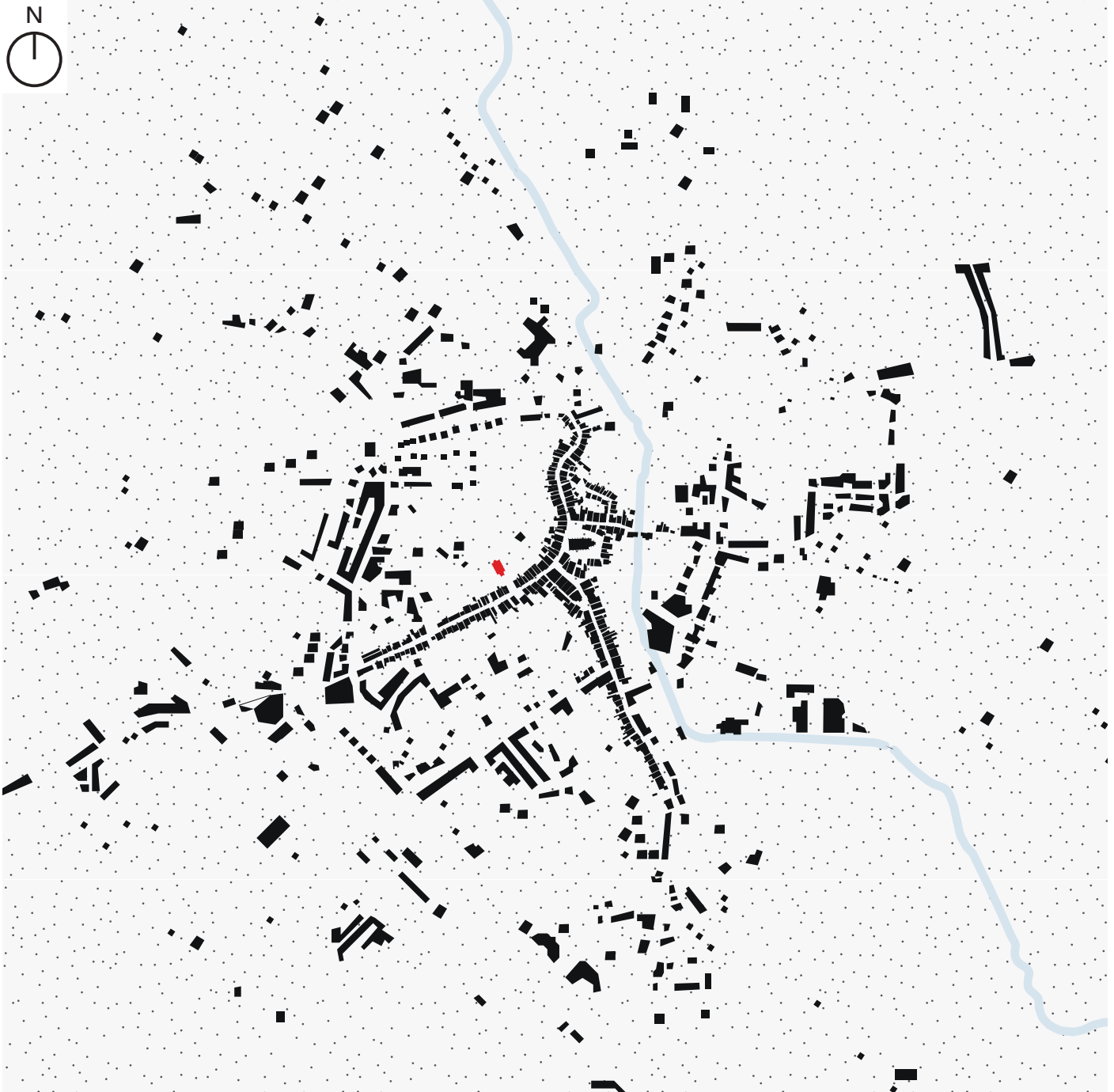


Figure 54 Winterswijk of 1930, grown explosively because of the industry.

Because of the textile industry the population skyrocketed from 2000 in 1860 to 11000 in 1930. You can see this back in the buildings. Also the industry complexes are growing, you can see that in the big buildings on the map. At the end of the 1930's only freight transport went from Winterswijk to Twente and Germany, and it stopped totally in 1970. (Neefjes & Willemse, 2009, p. 84-85; Zuiderveld, 2010, p. 54-55)

1955 WINTERSWIJK



Figure 55 Winterswijk of 1955, Mainly the industry zones have gotten more visible but apart from the main street it is not that dense yet.

The industry zones of the city got more visible, and the city expanded in the zones where there is no industry. There is industry north of the center along the Weeme, on the southeast along the Weeme and on the very south. After the war, immigrant from the Moluccans arrived in Winterswijk. They were housed in Kamp Vosseveld, a former building of the Dutch working service [Nederlandse Arbeidsdienst]. Zuiderveld, 2010, p. 56-57)

1975 WINTERSWIJK



Figure 56 Plan of 1975. the town has grown more dense as the population kept growing after WWII.

Around this time, German people started to visit Winterswijk, and especially the market. The industry partly left, but the zones where the industry used to be were left unbuilt. Also it is visible that Gaudium on the southeast along the Weeme still has a connection with the hinterland, and that around the factories nothing is built and the city expands in other directions.



Figure 57 The current Winterswijk. The industry zones are clearly visible, and the center is recognisable as such because of the dense buildings.

The city expanded to about 29 thousand inhabitants. Nowadays the industry is not that important anymore, only Gaudium is left. The connection of Gaudium with the hinterland is still there, the housing expansion went in all other directions. Also the industry terrain on the south of Winterswijk grew a lot. The most important income for Winterswijk are the (mainly German) tourist that visit the market in big numbers on Wednesday and especially Saturday.

2018 WINTERSWIJK



Figure 58 The whole Winterswijk, the same map as on the previous page but on half the size so that it shows the surroundings

Nowadays Winterswijk is quite a dense village, in an agricultural landscape. In the center are the most shops and other functions, around it are mainly dwelling areas. The biggest industry zones are where the industry originally was and Gaudium for example still is, and on the south side of Winterswijk.

SURROUNDINGS JACOBUSKERK

Before the French occupation of the Netherlands Catholics were a suppressed majority religion in the region. This changed with the Batavian Republic and the following changes in the political climate. The Catholics acquired a church in 1799 but outgrew this quickly, the building was old and in bad conditions. In the 1850s the population grew due to the growing industry and the connection the train network in the Netherlands. Plans for the new church were made during the 1860s, the building was finally built in the year 1869.

Back then the church was built on agricultural land and stood out from the rest of the town, although it was still without the existing spire. The front of the church was connected to the Misterstraat and its back to the agricultural fields. (Figure 59)

In the following decades the town center expanded around the church, but its main orientation to the Misterstraat stayed. Nowadays the Misterstraat is the main shopping street. Due to the change in street scape the church seems to hide away from the street. (Figure 60)

The following chronomaps show the changing built surroundings of the Jacobuskerk.



Figure 59 View of the Jacobuskerk in the 1950's after the extension. (aerophotos, n.d.)



Figure 60 Air view of the current situation of the Misterstraat. (aerophotos, n.d.)

INFRASTRUCTURE

The infrastructure in and around Winterswijk is mainly based on the use of the car, with the main roads being the N18 towards Enschede, the N312 to Zutphen, N318 to Doetichem and the N319 to Kotten and, as an extension, to Germany. (figure x)
Winterswijk as a village has a concentric structure, which means that the neighbor-

hoods are centered around like pie tips. In this way the neighborhoods are also accessible through road structures.
Winterswijk also has a train connection, these go to Zutphen and Arnhem respectively North and South.
Because the car is the main means of transport for both residents and tourists, many parking spaces have been created in and around the center.

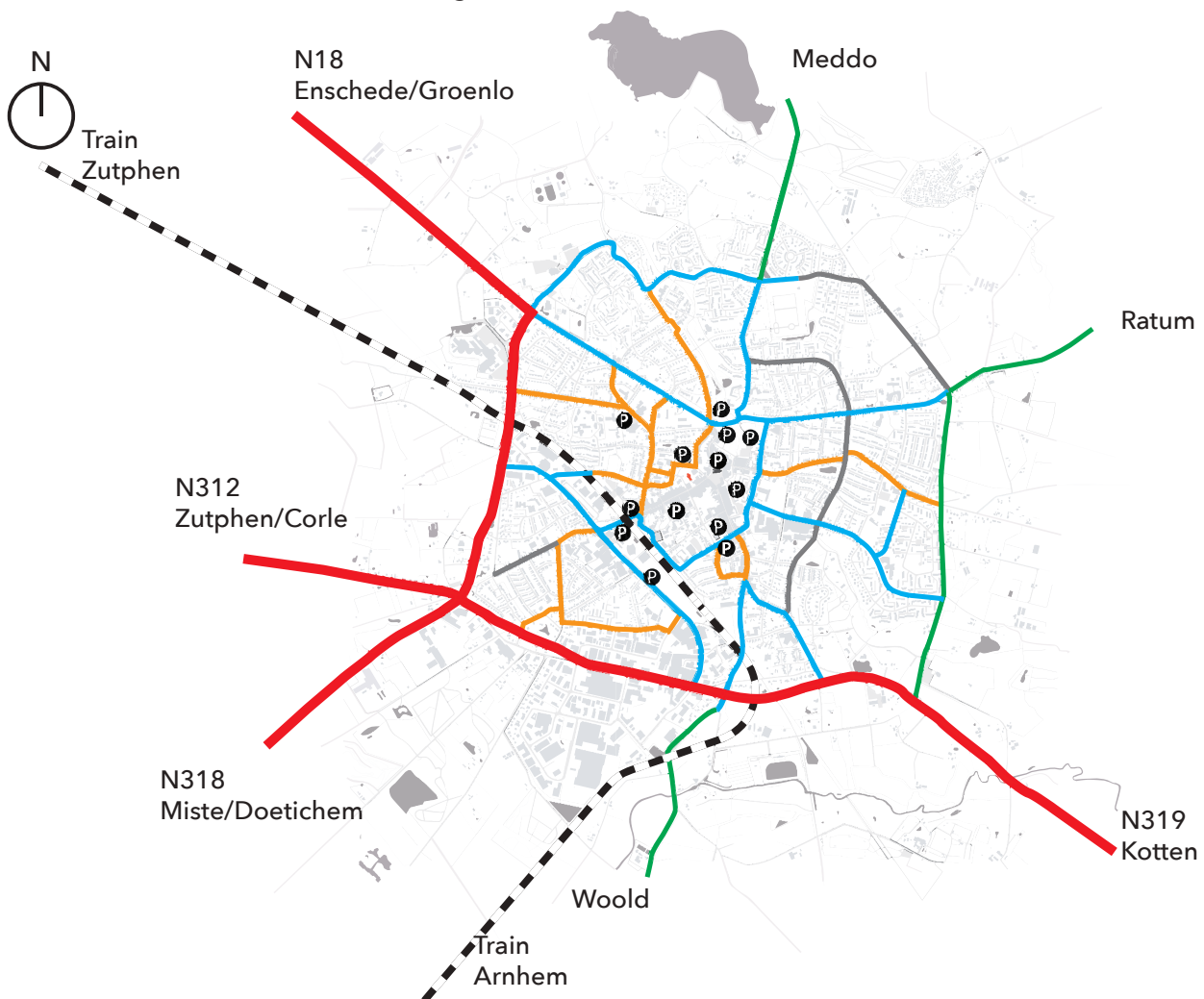


Figure 61 Infrastructure Winterswijk, main roads for car, parkingspots an train line Winterswijk (Own illustration)



Figure 62 Chrono mapping of roads in Winterswijk center (Koman, & Bouten, 2012)

CHRONOMAPS INFRASTRUCTURE

The road pattern of Winterswijk barely changed before 1832 and is a typical case of ribbon development. Figure x shows the historic road structure from before 1832. Where the Jacobuskerk will be constructed is still agricultural land at the back of the ribbon development. Here only a small road runs that should not be seen as the main road.

In the period between 1832 and 1950 much changes, the population increases, the train-network was connected to Winterswijk and the car becomes publicly accessible. This can also be seen in the road structure. Existing paths become paved roads. Roads are being shifted around Jacobuskerk and Roelvinkstraat is being extended so that it crosses Misterstraat and continues alongside the church.

With the arrival of the train connection in Winterswijk, the village started to expand towards the station. The large number of cars therefore requires a main structure of motorways in and around the center. The ring road is currently located as N road around Winterswijk. Changes to the Jacobuskerk can be found in the construction of the Eucalyptus Park where the town hall is also located. This space is part of the main access from the center, however, the shopping area is largely car-free and primarily intended for pedestrians.

INFRASTRUCTURE CENTER

The Jacobuskerk is located in the historical center of Winterswijk along the main shopping street. This shopping area is prominently for pedestrians, outside the pedestrian zone cars have the main priority. In order to facilitate the shopping pedestrians a multitude of parking areas is situated around the town's center. Within a reach of five minutes of walking lie multiple parking spots, to the North a bus stop, and to the south the train station. Parking is important for Win-

terswijks retail companies this is seen in the high amount of parking spots in the center which is around 590. These are mainly used during market days on Wednesday with 80% occupancy and Saturday 98% occupancy (Rinsma, 2008). Due to the dependency on tourism, parking is free all year round ("Gratis parkeren in Winterswijk," n.d.)

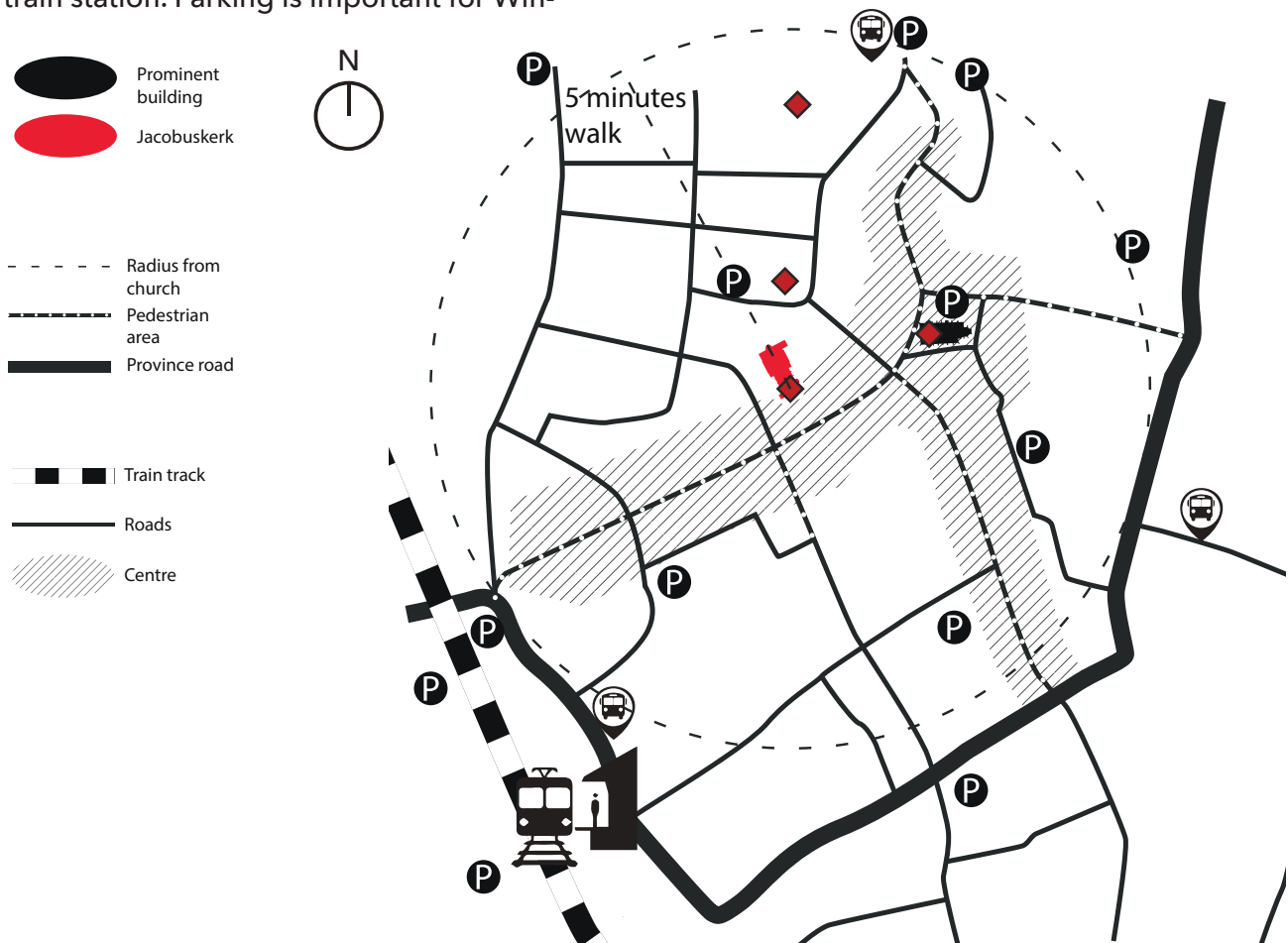


Figure 63 Infrastructure center Winterswijk (own illustration)

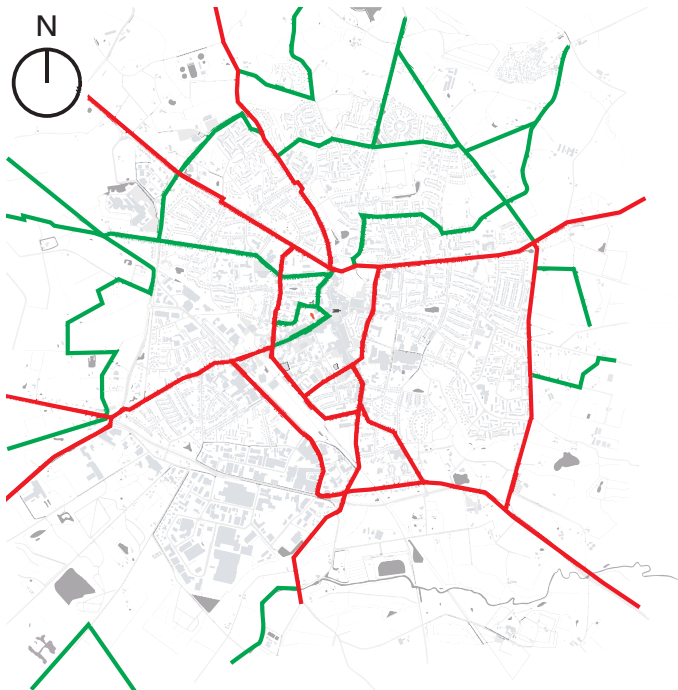


Figure 64 Bicycle structure Winterswijk (Rinsma, 2010)

BICYCLE STRUCTURE

The bicycle structure in Winterswijk is divided in two classes: red is the main cycling routes for work and everyday traffic, the green is more recreational and connects to, for example more touristic locations mainly outside the town. In the last case the cycling routes are often disconnected from the main roads. (Rinsma, 2010)

The Jacobuskerk is surrounded by cycling routes which enhances its accessibility in addition to the car and parking facilities in the area.

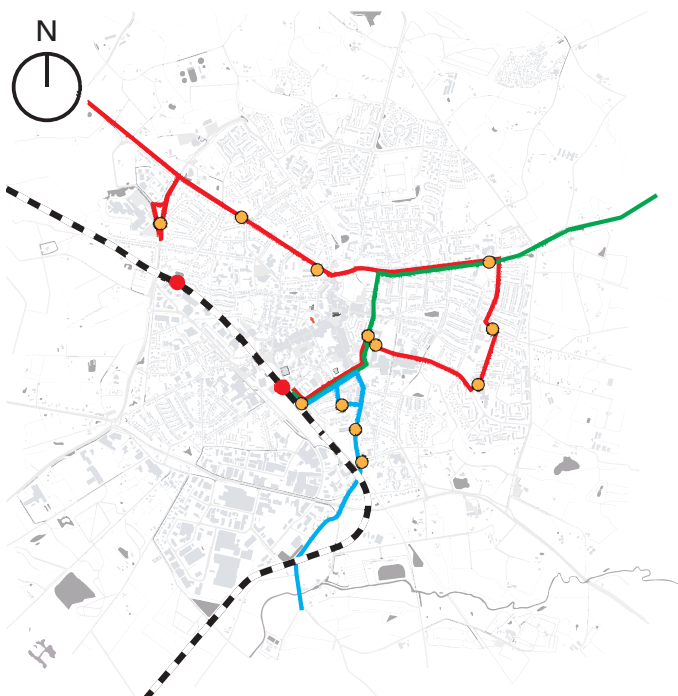


Figure 65 Public transport structure Winterswijk (Rinsma, 2010)

PUBLIC TRANSPORT STRUCTURE

Winterswijk has a multitude of public transport. There are two train-stations: Winterswijk en Winterswijk-west of which Winterswijk forms the main transport hub for train to bus and or car. The main bus-connection is the Arriva connection to Enschede which is available during the week. There are two bus connections to Germany namely to Vreden and Sudlohn. Other connections are demand-responsive bus connections to Oeding and Barlo. ("OV in Nederland, Winterswijk," 2019)

The Jacobuskerk is not directly connected to a transport node, but is well in range of them within five minutes walking.

PEDESTRIAN PRECINCT

The street is the place where most people experience the urban environment the most. This so called public realm includes both the street and the buildings facades at eye level. In Winterswijk open spaces such as squares form places where activities are held and people can meet, these places are often very dynamic and are part of how people navigate/travel through the urban fabric. The Jacobuskerk is surrounded by these open spaces: north Eucalyptus park, East the Markt and South the Misterstraat and No-

taristuin. The Jacobuskerk itself has a small square on its site, this square is encapsulated due to the setback of the main church and the flanking of the parish building.

The city center is mainly for pedestrians with only access for cars on incidental cases, loading and unloading is only for targeted traffic. This implies that there is no hierarchy in the street pattern within the center.

Along the streets within the center, most buildings have a commercial function on the ground floor and dwellings on top. Most buildings are two to three stories high.



Figure 66 Pedestrian precinct and open spaces Winterswijk center (own illustration)

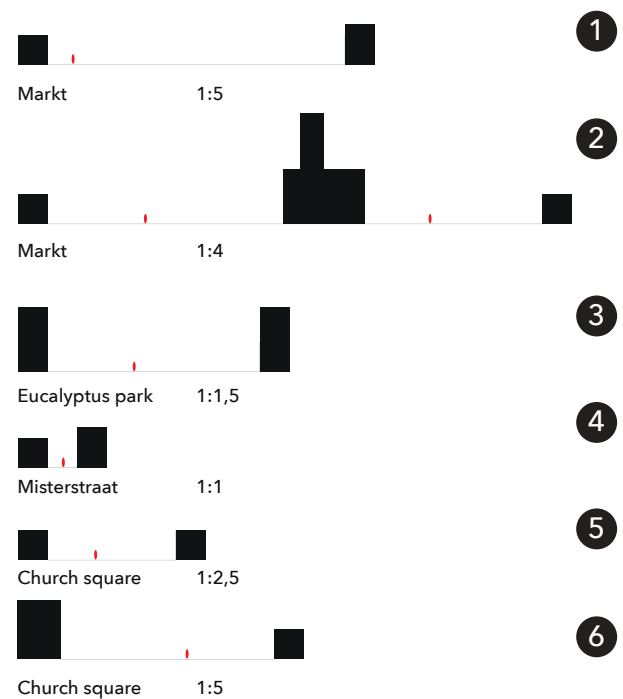


Figure 67 Open spaces ratio height buildings to size open space (own illustration)

HISTORICAL STRUCTURES

The relief in the street of historic osendrops and coulissen archways are still present, often remaining from the old village structure. The osendrops acted as water collection systems, escape routes in the event of fire and wide corridors to the rear yard. Many of the existing buildings find their structure in the old subdivision of the village.

Legend

- Border research area
- Historical road structure, before 1850
- Allotment structure pre-1850 recognizable
- Historical alley / osendrop
- Former church path
- Backstage wall
- Water (stream)

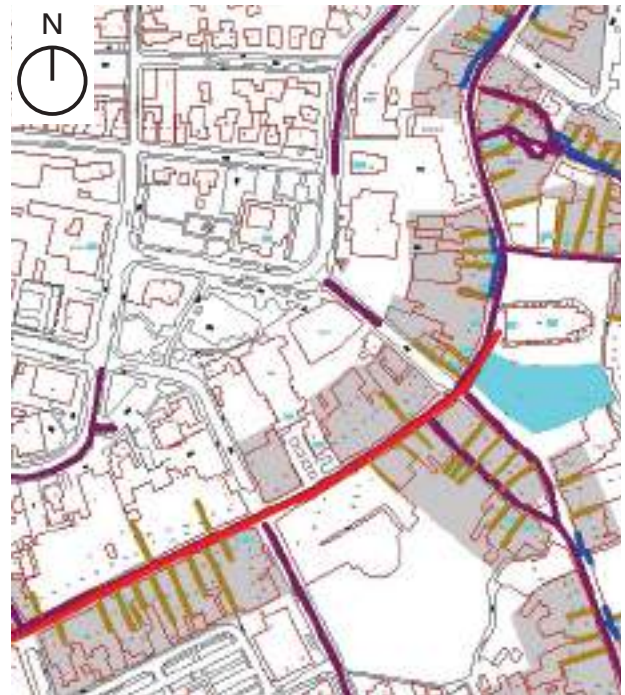


Figure 68 Historic town center remnants (Frank et al., 2016)

VALUABLE BUILDINGS AND SIGHT LINES

The value of the various buildings in the center can mainly be traced back to history. Similarly, many buildings are derived from the older land development pattern. Historical or monumental buildings such as the churches also represent religious values. Sight lines are also of value in the center, this is mainly in the existing townscape and the function that has a sight line towards a landmark. For example, the Jacobuskerk is a landmark, but it has fewer sight-lines compared to the Jacobskerk in the market square.

Legend

- Landmark
- Marked corner building
- Important accent in facade wall
- Valuable line of sight

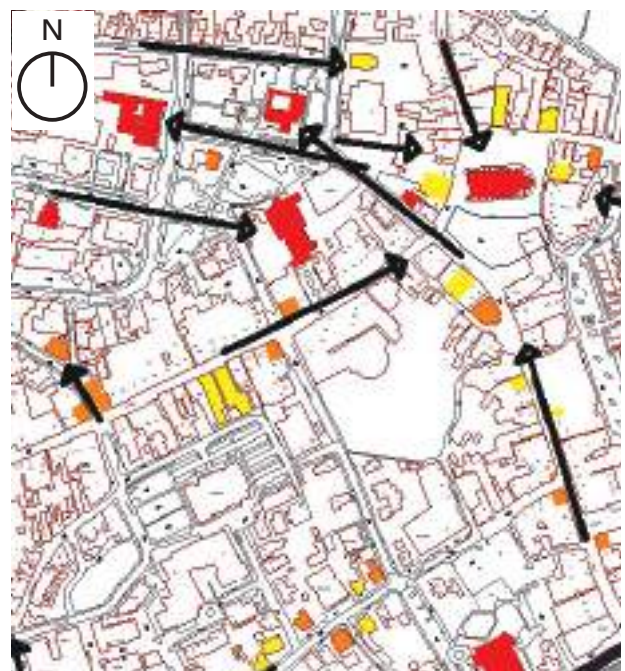


Figure 69 Landmarks and sight lines (Frank et al., 2016)

RELATIONSHIPS OF CHURCH

SPATIAL HEIGHT RELATIONS

The Jacobuskerk had a tower since its design, initially it was around 35 meters high until it was completed in 1911 when the height of the tower went up to 55 meters. The tower has become a landmark over time and complements the skyline next to the towers of the Jacobskerk and the Raadhuis and the old chimney of the Tricot factory, .

A reason for the tower and its height is not given, however, we can assume that the tower at the time was a symbol of faith and belonged to a church. In addition, the recognizability and the use of church bells for the church services is a plausible reason for the existence of the tower. The height is probably determined by the proportions of the building.



Figure 70 historical photo (beeldbank)

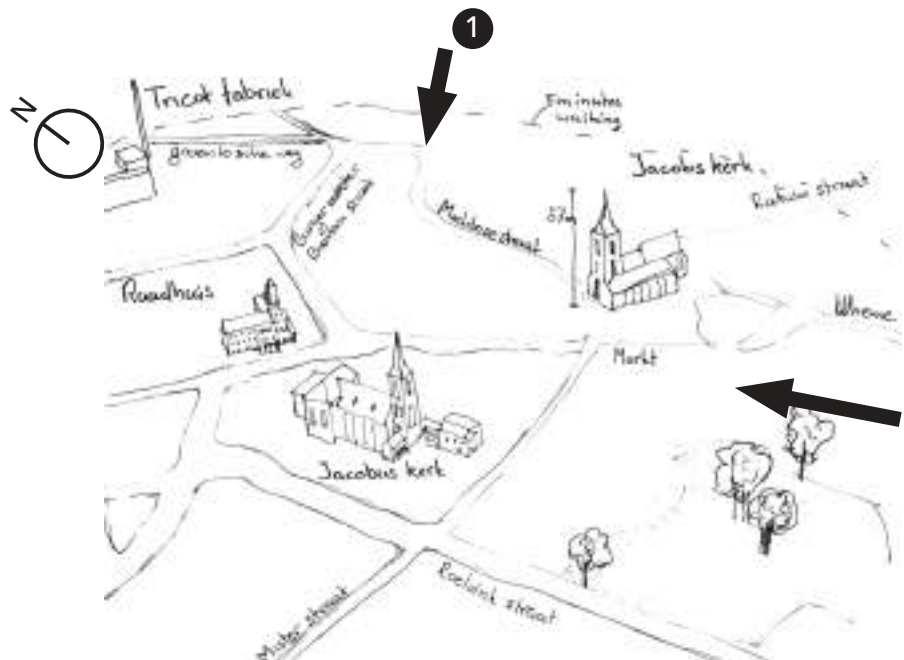


Figure 71 iconic landmarks in Winterswijk (own illustration)



Figure 72 imagined skyline Winterswijk with iconic landmarks (own illustration)

RELIGIOUS RELATIONSHIP

The Jacobuskerk in Winterswijk is one of the nine religious communities under the Catholic religious organization called Sint Ludger. The religious communities are all in the Eastern Achterhoek and have been a covenant since 2011. The parish Sint Ludger also has nine physical churches of which the Jacobuskerk is one. The Sint Ludger parish cooperates with the Sint Paulus Parish and together forms one pastoral team that controls the organization.

The nine municipalities of Sint Ludger are: Aalten, Bredevoort, Harreveld, Lichtervoorde, Marienvelde, Meddo, Vrangender, Zieuwent and Winterswijk. (Figure x)

The Parish owes its name to the missionary Ludger, born in Utrecht, who after the surrender of the local Saxons to Charlemagne came to preach the gospel. Although Ludger is never declared a saint, he is regarded as such by the prefix saint.

Due to the shrinking of the religious community throughout the Netherlands, it is also difficult for the Sint Ludger parish to keep all churches open. For the time being, the churches of Lichtervoorde, Winterswijk and Zieuwent retain the liturgical functions. The following churches will be withdrawn from Divine worship in the coming period: the church of St. Georgius and the St. Hart in Bredevoort, the church of St. Agatha in Harreveld, the church of Our Lady of Lourdes in Mariënvelde, the church of St. John the Baptist in Meddo, the church of St. Anthony of Padua in Vragender. The first church to be divested from the holy service is Saint

Helena in Aalten, for which a new destination is being sought in November 2019.

There are several religious communities within Winterswijk, of which the Reformed Church is the most present in addition to the Catholics. An interesting trend seems to be the return of religious communities to religious buildings as happened with 'De Ontmoeting' and Life Winterswijk.

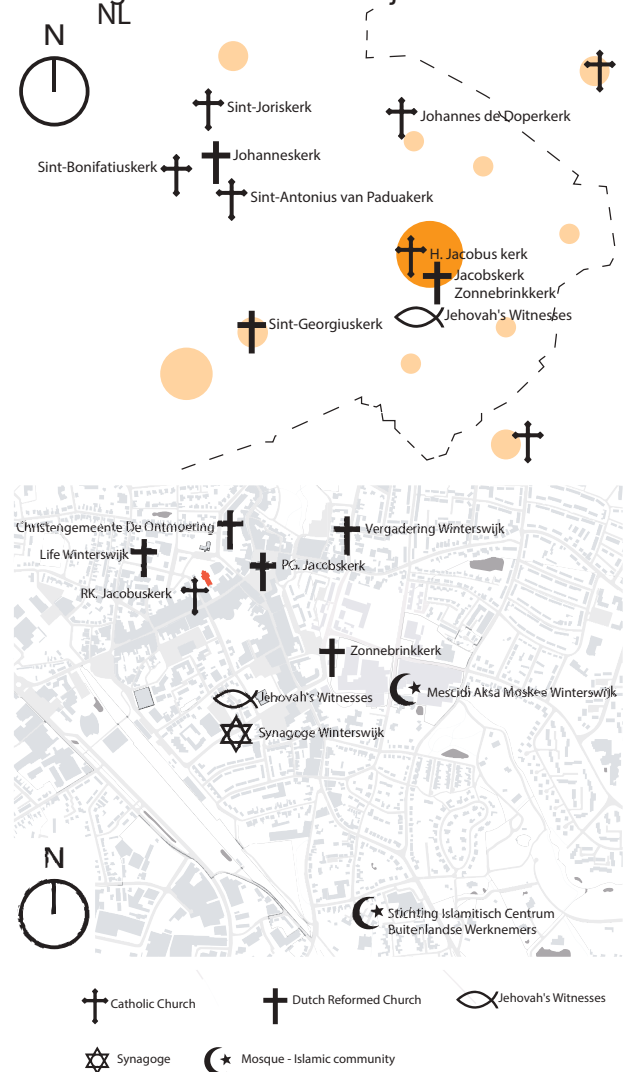


Figure 73 Religious centers Winterswijk and surrounding area

RE-USE OF CHURCHES IN THE AREA

As mentioned earlier, more and more churches are being closed and then re-designated. This is also the case in Gelderland and the Achterhoek. The following examples are a selection of 'inspiring' re-uses documented by the website: toekomstreligieuserfgoed.nl

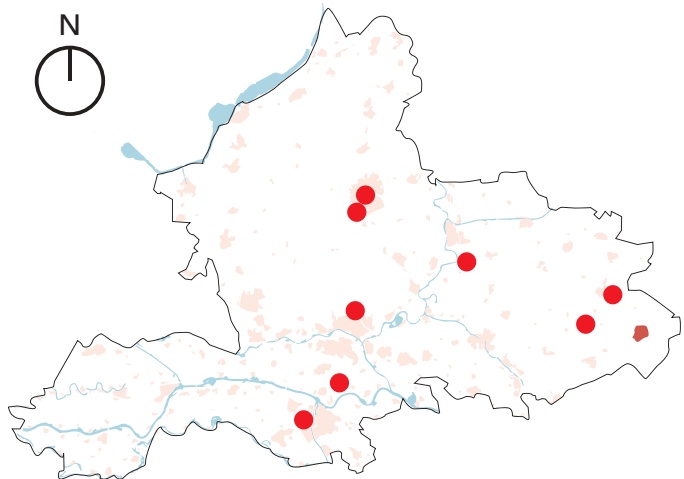


Figure 74 Examples of redeveloped churches in Gelderland

1. THEATER IN ST. DONATUS CHURCH, BEMMEL

The Theater Church Bommel has received flexible use, so the stage can be retracted. The theater contains a theater hall with 250 seats, a room foyer with restaurants and various spaces for all kinds of applications.

Address: Markt 7, 6681 AE Bommel
 Architect: J. Sluymer
 Year built: 1949
 Transformation year: 2016
 New feature: Theatre



Figure 75 TheaterKerk Bommel (Rutgers, toekomstreligieuserfgoed.nl, n.d.)

2. ST. WILLIBRORD CHURCH, VIERAKKER

The St. Willibrord church is a good example in the restoration of a church building. The success of this conservation lies in mobilizing the local community by opening up and seeking publicity. The purpose of the church was therefore to give everyone access and visit the church, "after all, the money is not put into something that [...] remains hidden" (quote: interviewed, C. Bonga)

Address: Vierakkersestraatweg 31, 7233 SE
 Vierakker
 Architect: H. J. Wennekers
 Year built: 1870



Figure 76 St. Willibrorduskerk Vierakker (Bonga, toekomstreligieuserfgoed.nl, n.d.)

3. ZUIDERKERK, APELDOORN

The Zuiderkerk is a municipal monument and in art deco style. The architect has realized four houses in the church where the interior and the light of the church have been respectfully approached. The original entrance is also used as a shared porch of the four houses.

Address: Arnhemseweg 74-78, 7331 BN Apeldoorn
 Architect: E.J. Rock houses
 Year of construction: 1932
 Transformation year: 2007
 New feature: Living

4. POLICE ACADEMY, APELDOORN

The former Archbishop's Small Seminary from 1935 has not only undergone a thorough renovation, but has also been considerably expanded to accommodate the new Police Academy.

Address: Arnhemseweg 348, 7334 AC Apeldoorn
 Architect: Jan van Hardeveld
 Year of construction: 1935
 Transformation year: 2010
 New function: School

5. ONZE-LIEVE-VROUWEKERK, ARNHEM

The Church of Our Lady was last used as a church in 1995, after which it was used for art activities and manual labor. At the end of the 1990s, the Portaal housing association bought the building and converted the church into rental properties.

Address: Van Sichtenhorststraat 36, 6821 CM Arnhem
 Architect: W.G. Welsing
 Year of construction: 1910-1911
 Transformation year: 2001
 New feature: Living

6. OUDE CALIXTUS, GROENLO

The church could no longer be sustained from the religious function. The church now has a function as a tourist attraction and the church's ship can be rented for meetings. With the redesign, a sustainable solution for this medieval church has been achieved.

Address: Mattelierstraat 5, 7141 BP Groenlo
 Architect: Unknown
 Year of construction: 14th - 15th century
 Transformation year: 2005-2007
 New function: Multifunctional use while maintaining religious function

3



Figure 77 The Zuiderkerk (Funda- <https://indebuurt.nl/apeldoorn/wonen/luxe-apartementen-apeldoorn-elk-budget-10247/3/>, n.d.)

4



Figure 78 The atrium of the police academy (van den Heuvel, toekomstreligieusertgoed.nl, n.d.)

5



Figure 79 The nave of the Onzelievevrouwekerk in Arnhem, BOEI, n.d.)

6



Figure 80 The flexibility of the space in the Oude Calixtus (NPH, n.d.)

SPATIAL GROUND LEVEL RELATIONS

In addition to the spatial and religious relationships that the Jacobuskerk has, the church also enters into a direct relationship with the street level. The entrance to the church and parish building are located on the Misterstaat. The church has a setback of approximately 35 meters, creating a square. The square is barely visible from either side of Misterstraat. However, the square provides an open space so that the church becomes more visible. The setback causes a change in the street plinth that makes people slow down and look up. Because of its location on

Misterstraat, the main passers-by are people who shop. People also live on Misterstraat, the Jacobuskerk contributes to a dynamic city center due to its 'other' function.

Based on the demand for a good plinth in the book "The city at eye level" (Glaser, 2016) there are many strong elements that can be distilled from the entrance square of the Jacobuskerk, these are listed in the text below:

The building:

- enough small scale units
 - variety of functions
 - façades with a 'veranda feeling'
 - special character of the architecture
 - richness in material, architecture that embodies 5 km / h details
 - not too large glass surfaces as they mirror light and amplify noise
 - vertical orientation of the facade
 - a well-functioning "hybrid zone" (the transition from private to public)
 - appropriate signing on façades, no neon
 - flexibility in height (> 4m)
 - flexibility in the land use plan (zoning)
- (Glaser, 2016)

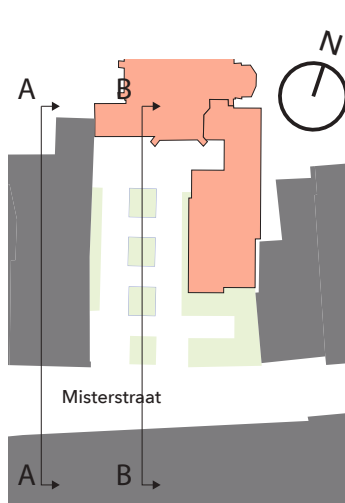


Figure 81 Map of church front in urban fabric

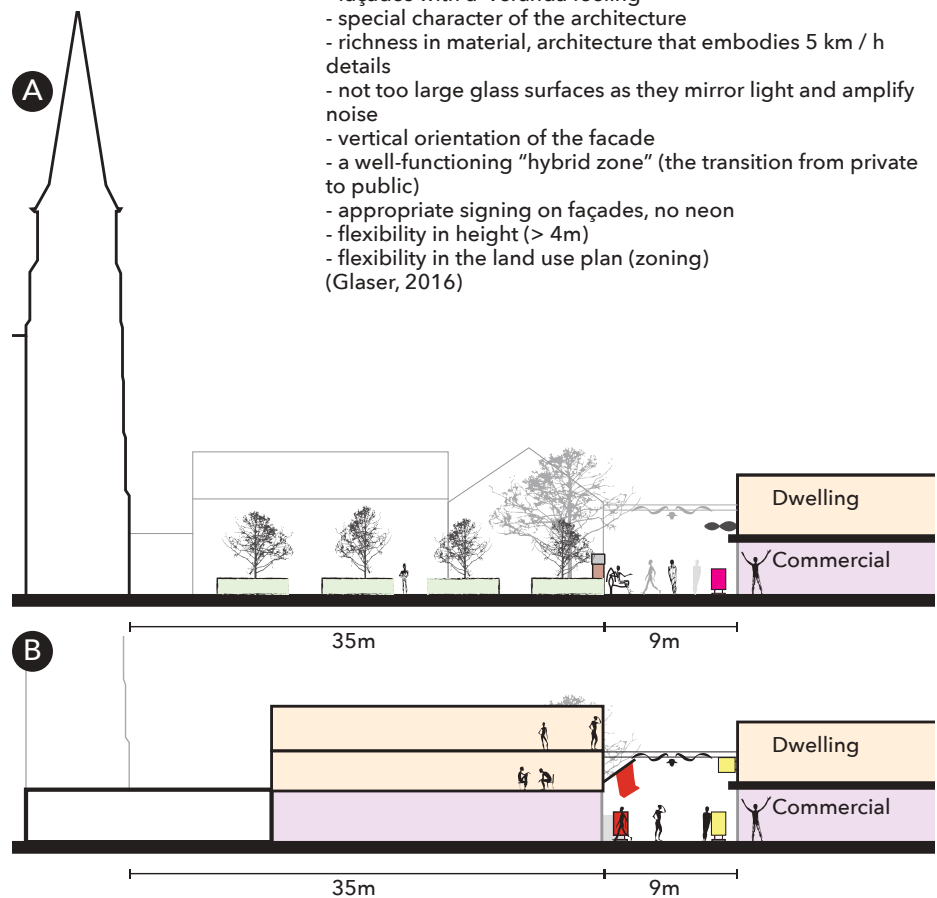


Figure 82 Section A church Misterstaat, Section B shops Misterstaat.

USERS JACOBUSKERK

A large part of the value of a place or building comes from the interaction that we as people have with the building. The user is an essential part of the Jacobuskerk, the visitors use the church as a holy place for religious celebrations and other gatherings. Currently the church is being used less and less, this has led to the church services being less frequent and being used between Meddo and Winterswijk.

The parish building is smaller in scale and has a less religious function, this has ensured that after the pastor's departure from the

building could easily be used for other functions. The building thus forms a consultation place for the various working groups that the religious community has, such as the board, choirs and other Catholic interest groups.

Figure x shows an average selection of the weekly activities of the church and rectory.

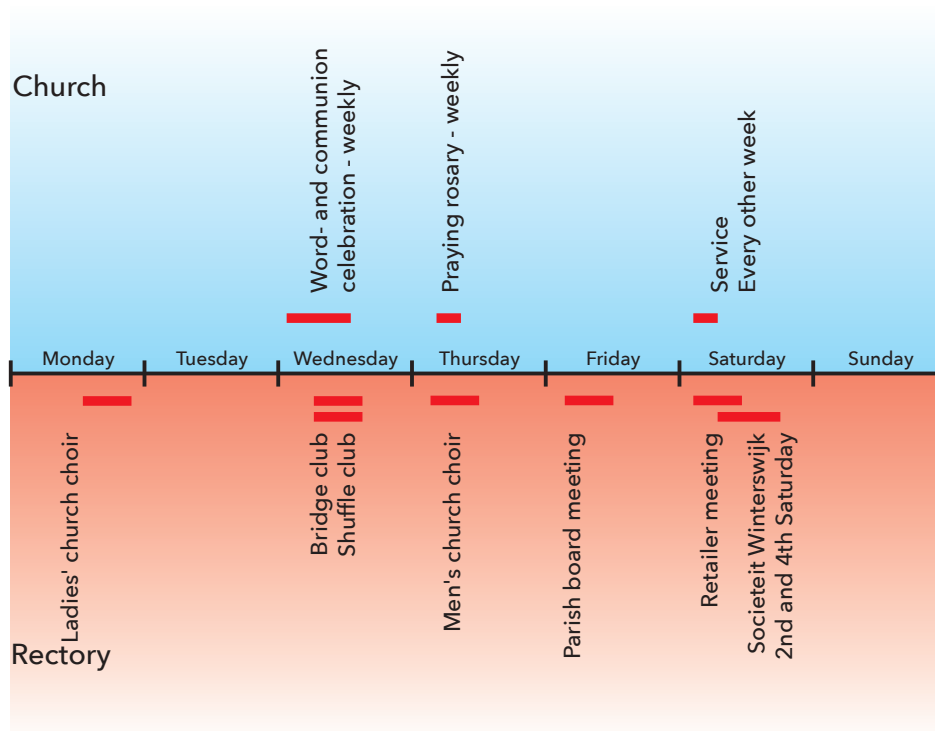


Figure 83 Activities during the week in rectory and church

FUNCTIONS

The functions of buildings have a strong connection with the activities and liveliness of a place. The center of Winterswijk and its immediate surroundings have a high variety of functions. In the center there are mainly commercial shops, these are located on the

Misterstraat where the Jacobuskerk also borders. In addition, Winterswijk has a high Trade and hospitality sector compared to the Netherlands average. This can be explained by the high number of tourists who come from Germany for the most part. Compared to the average in the Netherlands, Winterswijk has a double number of square meters

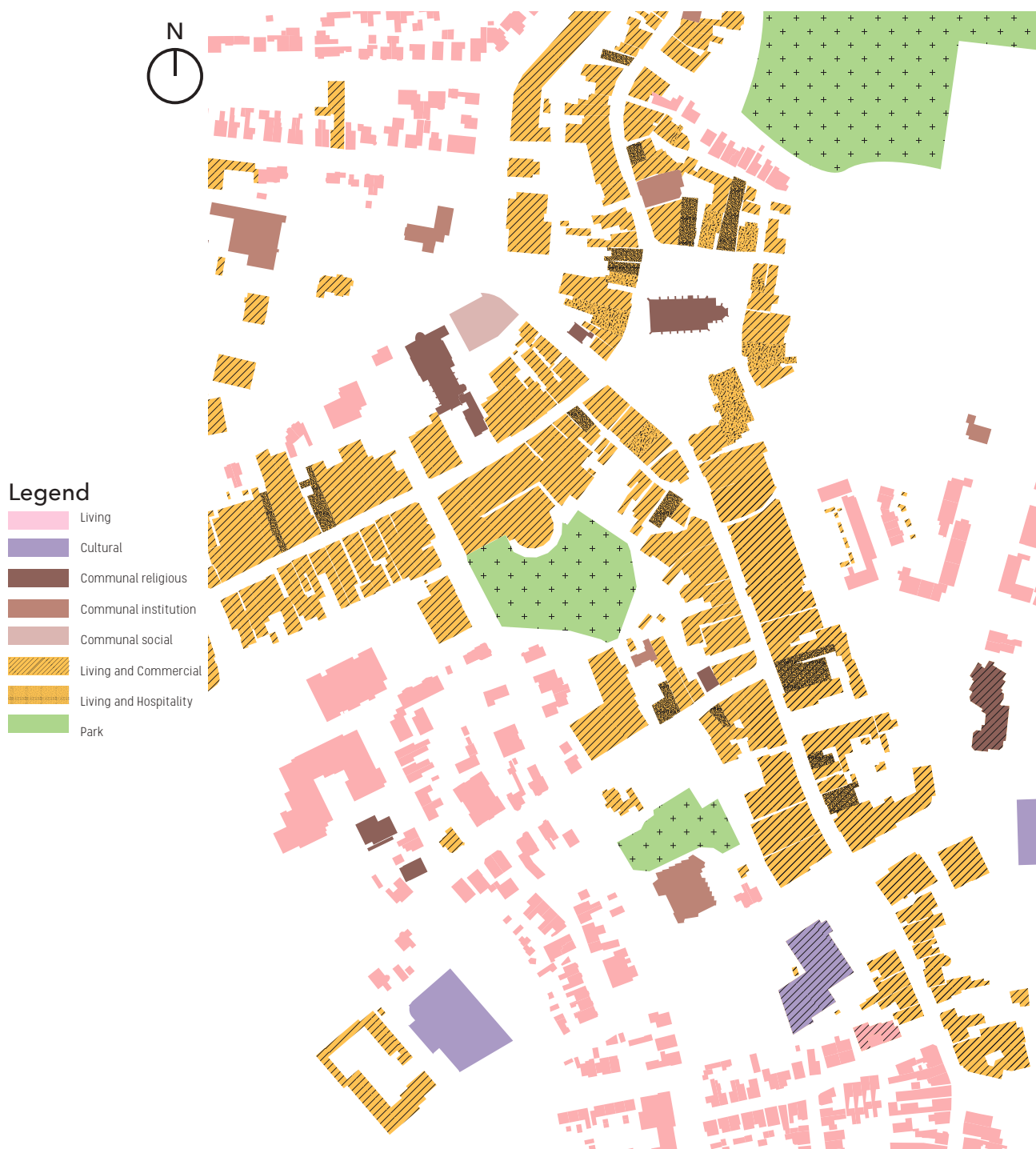


Figure 84 The different functions of the buildings and open spaces are explained here.

of retail space (Venneboer, van Gerwen, & Wigman, 2011) which can be translated into a carrying capacity for shoppers of around 80,000 people out of a 2000 population.

Dependence on tourism at an economic level also brings dangers. For example, in the event of an economic crisis such as that of

2008, a large vacancy rate could arise. The centralization of functions in the center also means that other areas in the village are empty. A varied area of functions can therefore help target groups.

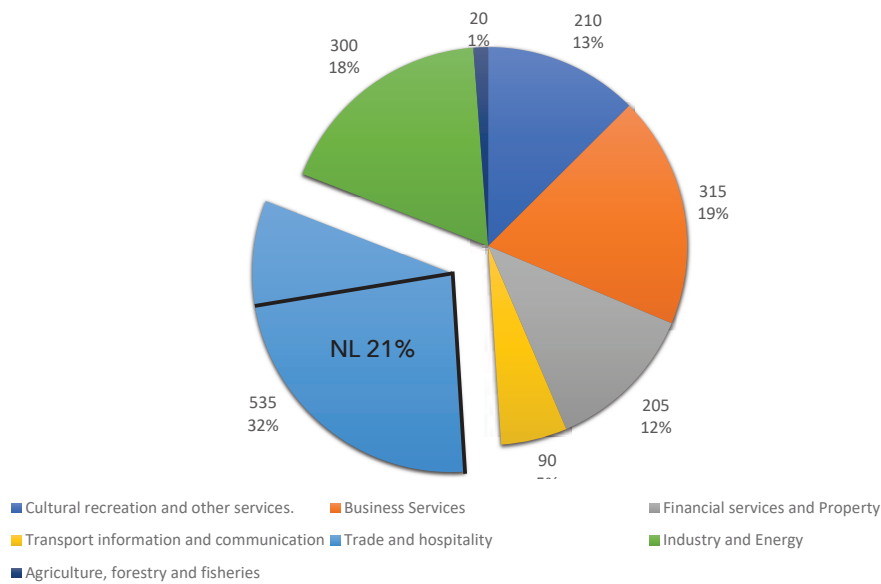


Figure 85 Functions in Winterswijk (<https://allecijfers.nl/gemeente/winterswijk/>)

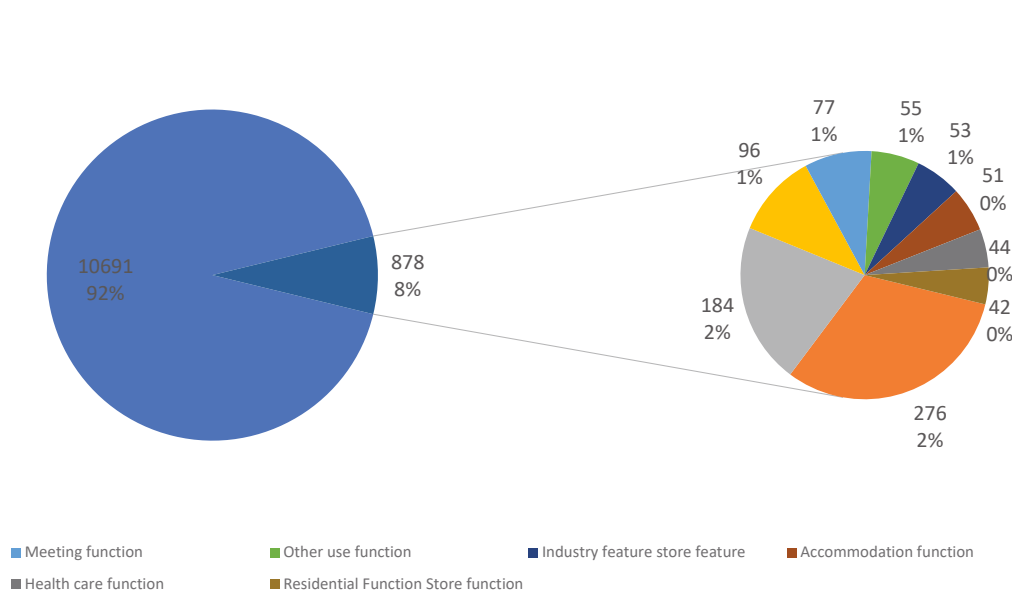


Figure 86 building types and amount Winterswijk (<https://allecijfers.nl/gemeente/winterswijk/>)

ACTIVITIES

Activities and the crowds that generate them are a good benchmark for how people experience places. People tend to undertake activities in 'friendly' places (Glaser, 2016). Activities at a location have a strong relationship with the functions that are located in a plinth. There are also activities that have no relationship with functions such as street theater or a non-permanent market. We have conducted our own research for the Jacobus, and we have chosen for the two days (Wednesday, Saturday) that there is a market in Winterswijk because these are the outliers according to the local population.

ACTIVITIES WINTERSWIJK WEEKDAY

During the week there is comparatively less activity to the weekends. The Wednesday is an exception due to the market on the Markt.

This market is about one fourth of the size of the market on Saturdays.

The busiest part of the center are the market, the Misterstraat close to the market and the Wooldstraat close to the market.

In front of the Jacobuskerk are several benches that are mostly occupied during days of research. The shops have a low number of visitors and are perceived as quiet. A possible explanation for the quietness can be the high amount of shops compared to inhabitation. The capacity is related to the peak of visitors during the weekend. This observation is similar for the parking spots that are near empty during the week-days without market. For Wednesdays this amounts to half of the parking spots being used.

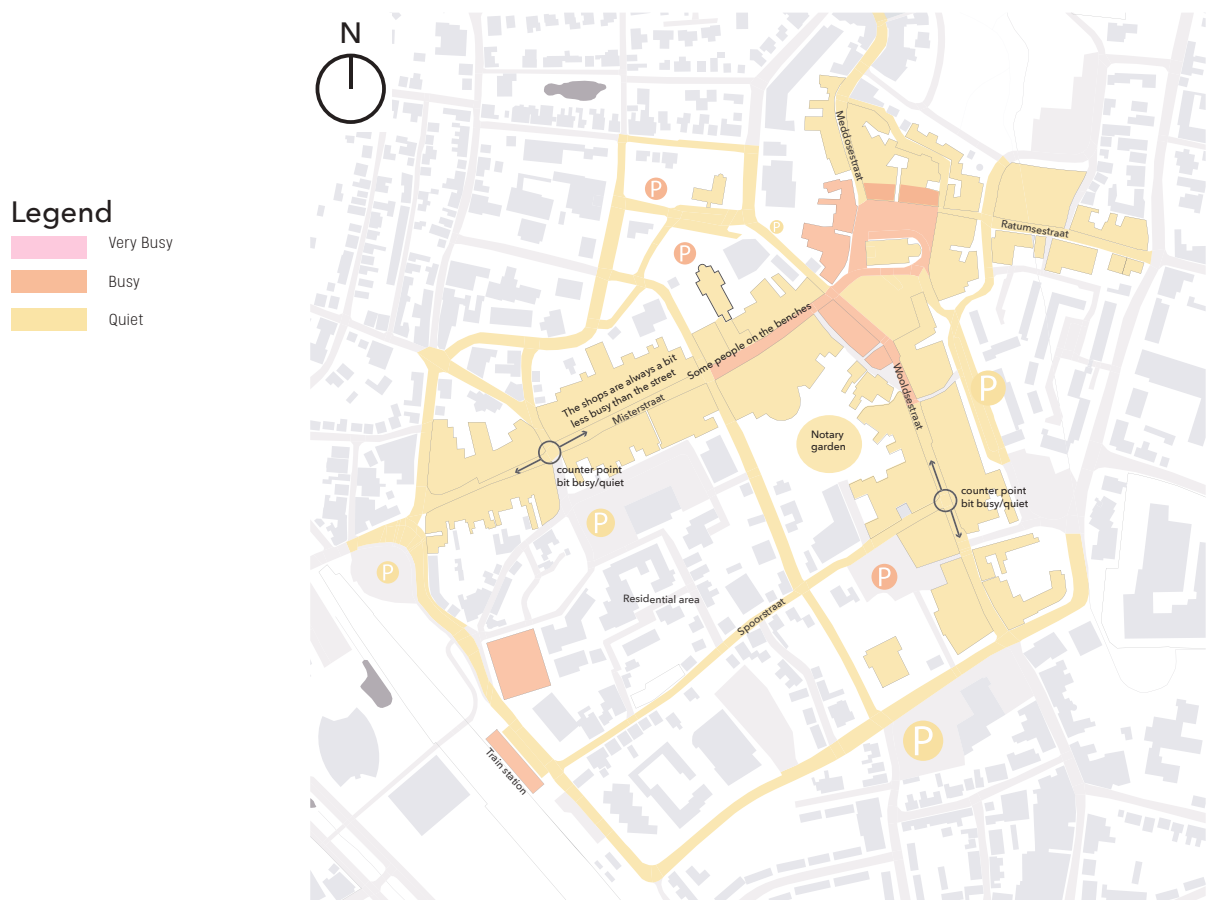


Figure 87 Activity map Winterswijk during the week

ACTIVITIES WINTERSWIJK WEEKEND

In our observations and in conversations with the local shop-owners we found that Saturday is the busiest day of the week. Every Saturday has a market on the Markt square. The market forms an important attraction for German tourists who are the main costumers of the street vendors. According to local vender owners the German tourists mainly come to the market for the food such as kibbeling (fish), cheese and coffee. During our observations the busiest place in the center of Winterswijk on Saturday afternoon was the space between the four fish stands on the market. The Markt forms the heart of most activities in the center of Winterswijk. Streets become busier as you approach the Markt. When walking on the street it becomes apparent that a high amount of people on the street are from Germany, more than half of the conversations you hear are in German. The busiest streets are the shopping streets

Misterstraat and Wooldstraat.

Even tough the streets are rather busy it seems to still be rather quiet in the shops along these streets. We noticed a sharp decline in activity as we went further from the Markt, this decline correlates with the closeness of parking-sport near the end of the streets. The benches in front of the Jacobuskerk are constantly occupied during the day of observation, mainly by elderly people. What we found odd was the quietness of the Meddosestraat. Located close to the Markt and with commercial functions in the plinth, it was still very quiet, this was similar for the Ratumsestraat. All parking spots are filled, with many cars are parked along the streets close to the center of which half were identified with German numberplate's.

The notary garden south of the Jacobuskerk was used by some people but overall rather quiet. Interestingly the former town hall, where the tourism office is based, was very quiet. A possible explanation can be that during Saturdays people come mainly for the market, while during holidays tourists come for more than one day.

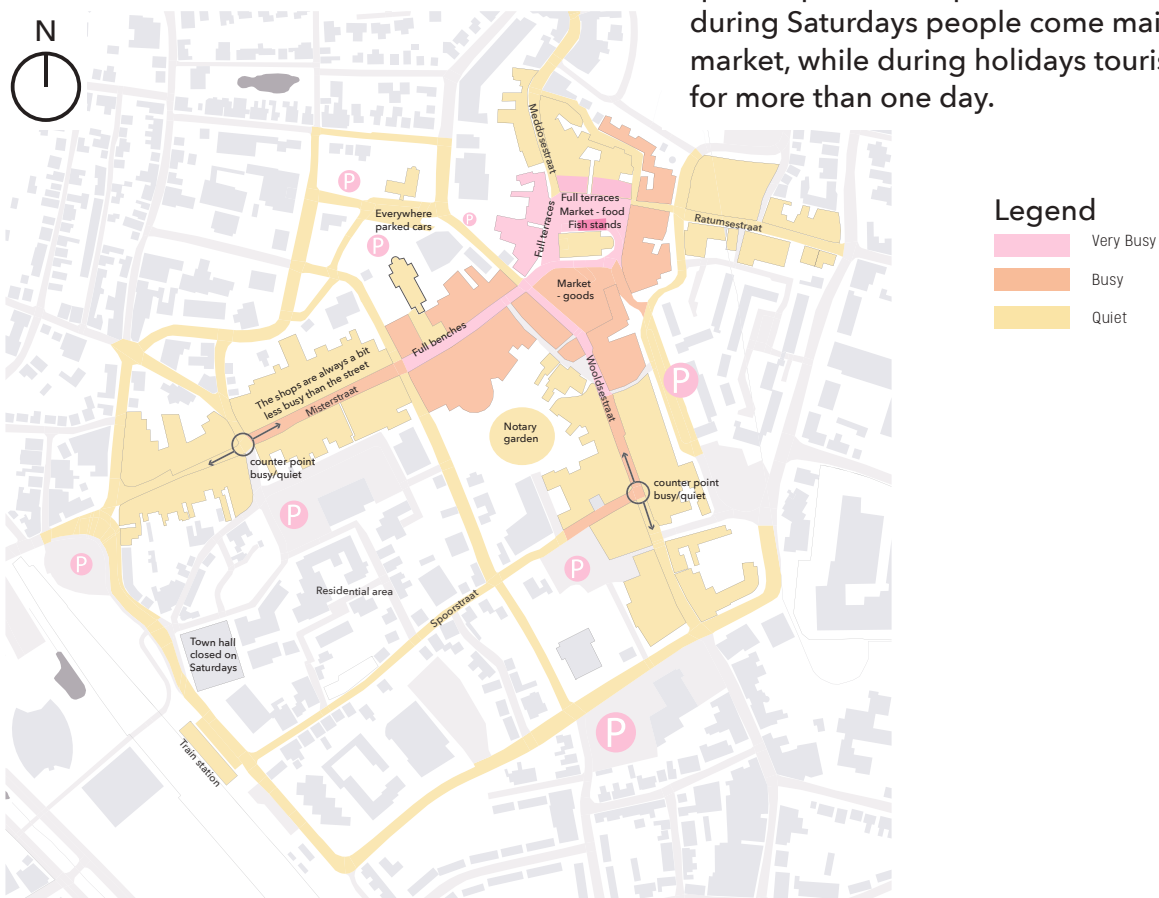


Figure 88 AActivity map Winterswijk during Saturdays

EXPERIENCE OF THE STREET

People are not just rational beings by nature, we need emotion to experience the city. How we experience a place is through the use of our senses such as touch, smell, hearing and sight. For example, textures play an important role in building a place, they can indicate hierarchy and boundaries in the streetscape and thus direct people both physically and emotionally.

Sounds represent life in a place, open spaces that, when empty, can feel overwhelming, but when there are others who also produce sound, a place comes across as familiar. The same goes for well-being streets, where sound offers contact with places that may not be visible yet.

However, the street is mainly experienced visually. Patterns, textures and scale play an

important role in this, because people are inclined to look for places that have the right proportions, so there are only few people who experience a long narrow bare facade as pleasant. Wayfinding is also an important element in the experience of the urban fabric. Anchor points and nodes are important to find your way through a place. The book by Kevin Lynch Image of the City shows how a city can be experienced how wayfinding can important theme (Glaser, 2016).

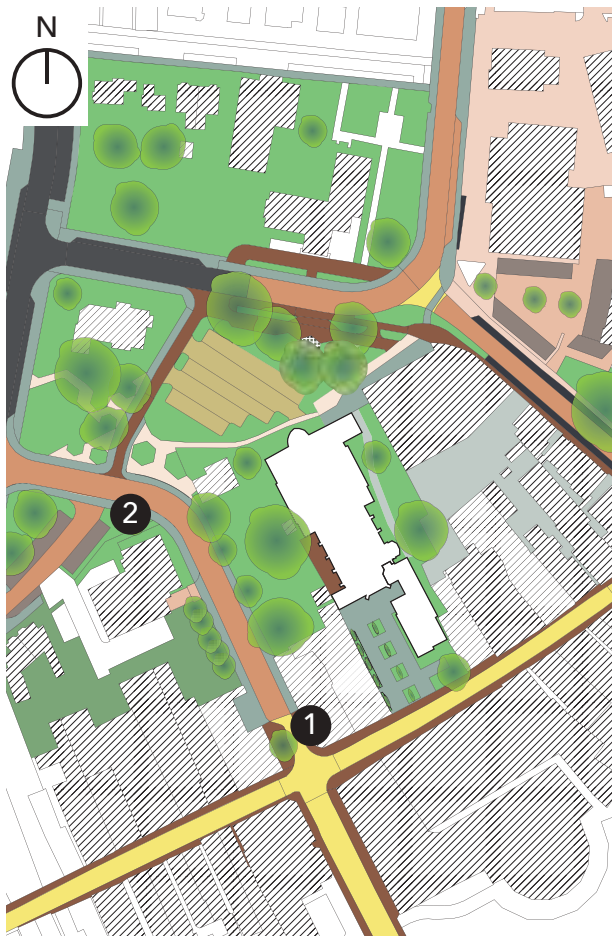


Figure 89 Textures street surrounding area of Jacobuskerk

TEXTURE

A number of things stand out in the texture use of the Jacobuskerk. The different areas in the center have their own texture in street material. For example, the Misterstraat where the Jacobuskerk has its entrance has a color combination of yellow and brown paving stones. Where the pedestrian area ends, the yellow line is then turned into a brown pavement where the sidewalk is given gray standard tiles and an elevation compared to the street.

This attitude is adopted throughout the city center: streets where hierarchy is present a clear difference is found between color and size of the pavement.

The secondary use of texture can be the way they interact with sound. Especial vegetation helps to absorb sound while stone like materials reflect sound. Both are applied in the center creating a rich texture of sounds. Figure x and x show the difference in pavement and the transitions within the hierarchies.



SOUNDSCAPE

Sound contributes to the livelihood of a place even though it is not visible. According to Kees Went the acoustic equivalent of a landscape is the soundscape (Glaser, 2016). For Winterswijk and the site of the Jacobuskerk the auditory quality is that it has a rich array of sounds, from blowing trees to people talking. No one area is too loud or too quiet, especially in the Misterstraat where during the day we find a constant stream of people talking and walking.

In the soundscape around the Jacobuskerk we find again a difference between the front along the Misterstraat and the back of the church. While the front is dynamic and rich, the backside is more quiet. Here the sound of passing cars and wind through trees are more prominent creating two diverse worlds.

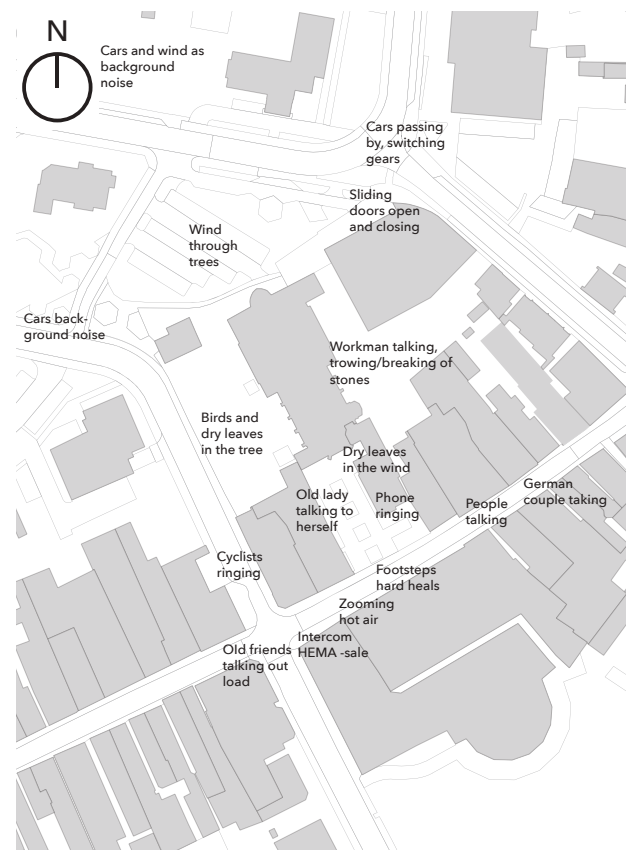


Figure 82 soundscape map surroundings Jacobuskerk Winterswijk

ROUTES TOWARDS THE JACOBUSERK

In this chapter all the routes towards the Jacobuserk are explained. There are five directions from which you can reach the church, each with a different visibility of the church. Firstly there are drawn on a map, then the viewpoints are shown with on the right page the views. Generally the Jacobuserk is not very well visible within Winterswijk. Mostly it is not visible, or maybe a tip of the tower.

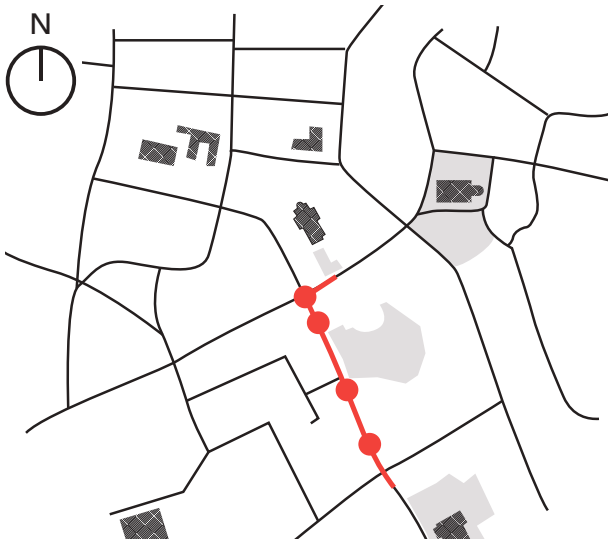


Figure 83 The route via the Roelvinkstraat, ending on the south of the Jacobuserk

ROELVINKSTRAAT

The Roelvinkstraat is not a busy street. It is the connection of the busy car street Dingsstraat along Boogie Woogie with the area of the Raadhuis. It runs along the side of the Jacobuserk.

1. In the beginning the Roelvinkstraat is quite green and there are not that many houses. In the tower of the Jacobuserk is already visible.
2. The street gets busier and there are more and bigger houses on the left side. On the right side is the Notary Garden.
3. Close to the Misterstraat there are shops in the Roelvinkstraat. On the right you can just see the tip of the tower of the church.
4. Just before the crossing with the Misterstraat you can see a bit more of the church tower. But to see the rest of it you need to walk to the front or to the side.



Figure 84 The route in detail, you can see that it is not so densely built and that it gets denser as you get closer to the Misterstraat

1



2



3



4



Figure 85 The things you see underway. Clearly visible is that you enter the more central part of the town and that the buildings get bigger and closer together.

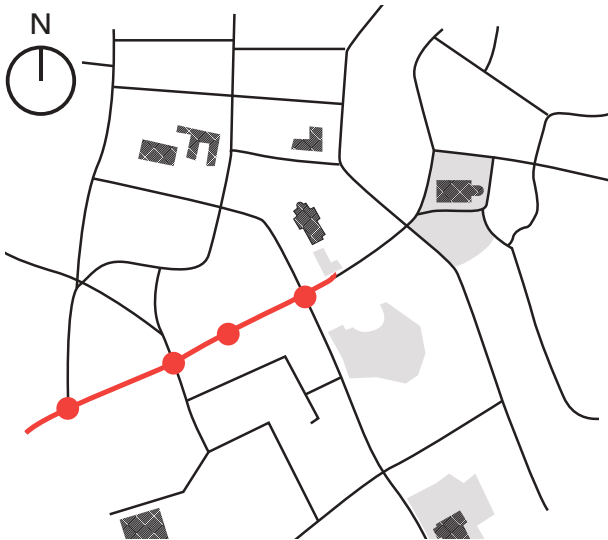


Figure 86 The route along the Misterstraat leads to the south of the Jacobuskerk

MISTERSTRAAT

The misterstraat is one of the main routes to get to the Jacobuskerk, you always have to pass it as the entrance is located at this street. The Misterstraat connects the station with the market and is one of the main shopping streets.

1. The street unfolds as a long shopping street.
2. Continuing the shopping street you see different buildings from different construction periods, each with shops on the ground floor.
3. You get closer to the church but still you cannot see it, it is hidden behind the shops.
4. Only when you get close, you get a view of the church but this is only when you stand really in front of it. So even though the Misterstraat is the street on which the entrance of the church is, this doesn't mean that the church is very visible in this street.



Figure 87 The route more in detail. Clearly visible is the density of the buildings, matching its function as busy shopping street.

1



2



3



4

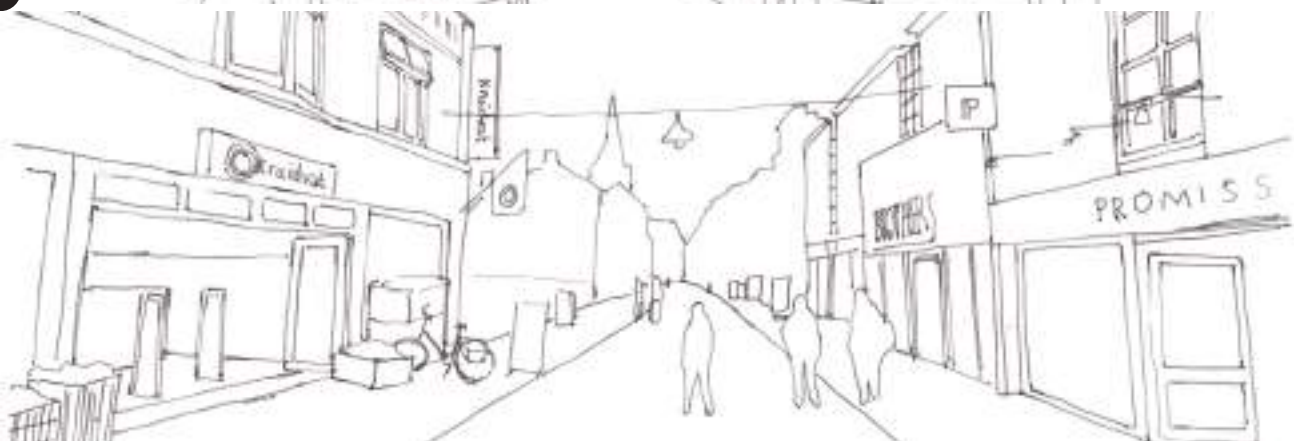


Figure 88 The views of the Misterstraat, when the Jacobuskerk is not visible the whole route.

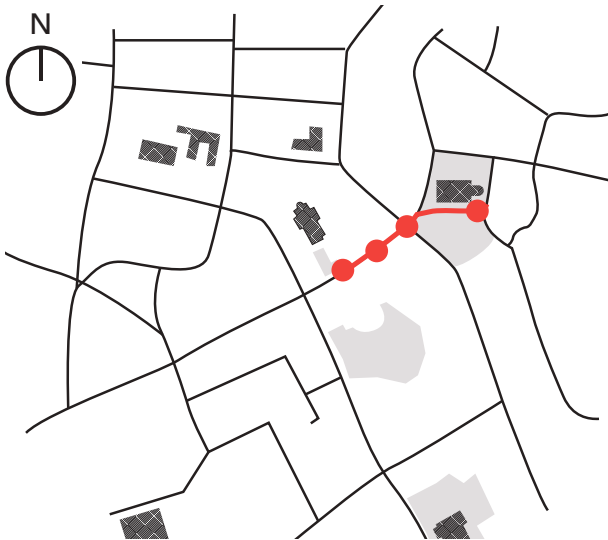


Figure 89 The route from the market, with the church tower already visible.

MARKT – MISTERSTRAAT

The market is the center of the town. The busiest streets Misterstraat and Wooldstraat start or end here. Also here are the most terraces and it is very busy on market days. From the market you can reach the church via the Misterstraat, but then from the north.

1. From the market you can see the tower of the Jacobuskerk already above the other lower buildings.
2. When you enter the Misterstraat the church disappears out of sight, you can only see the tip of the tower if you pay attention.
3. When you get closer the church completely disappears from view, only the shops are visible.
4. If you get very close you can already see the fence of the church plot, indicating where the church is. But you have to be in front of the church to see it again.



Figure 90 This route goes through the busiest part of Winterswijk, reflected in the density of the buildings

1



2



3



4



Figure 91 Onfly from the beginning of this route the church tower is visible, then it is hidden for most of the time.

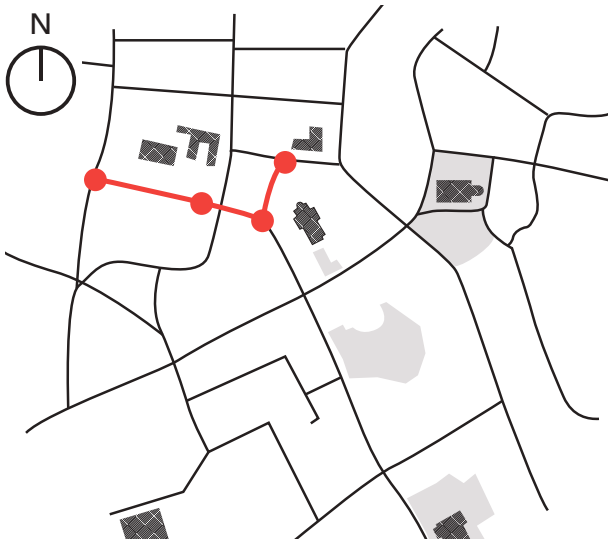


Figure 92 This route goes through a more quiet part of Winterswijk

JEUGDKERKSTRAAT

Here the church is approached from the west. From far away you can already see the church tower and you can always see it during this route.

1. From the beginning of the Jeugdkerkstraat the church is already visible above the houses. The street is not that busy in the beginning and there are some open parts.
2. When you come closer, the church is still visible. On the front you can see the bank buildings, and more to the back all the trees around the back side of the church.
3. Now next to the tower you also see the new choir of the church. Now you also see all the parking around the back side of the church.
4. When you turn to the right and you look again you are behind the choir of the church and you can see the back side surrounded by trees, and by cars.

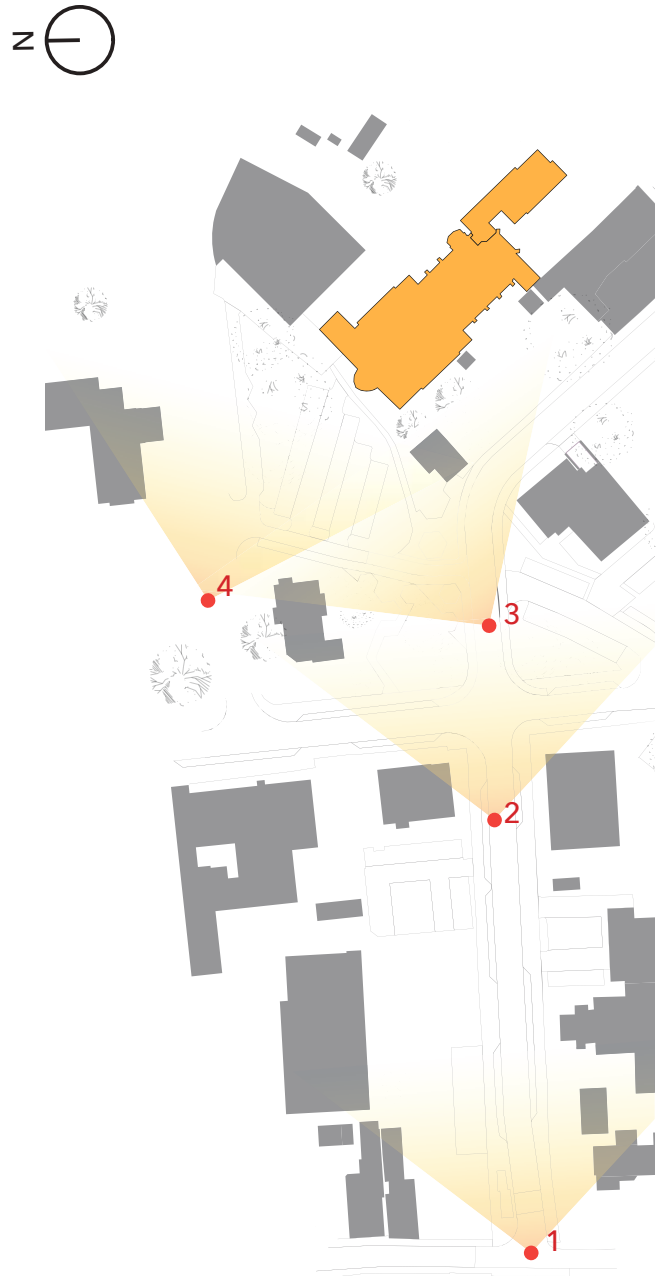
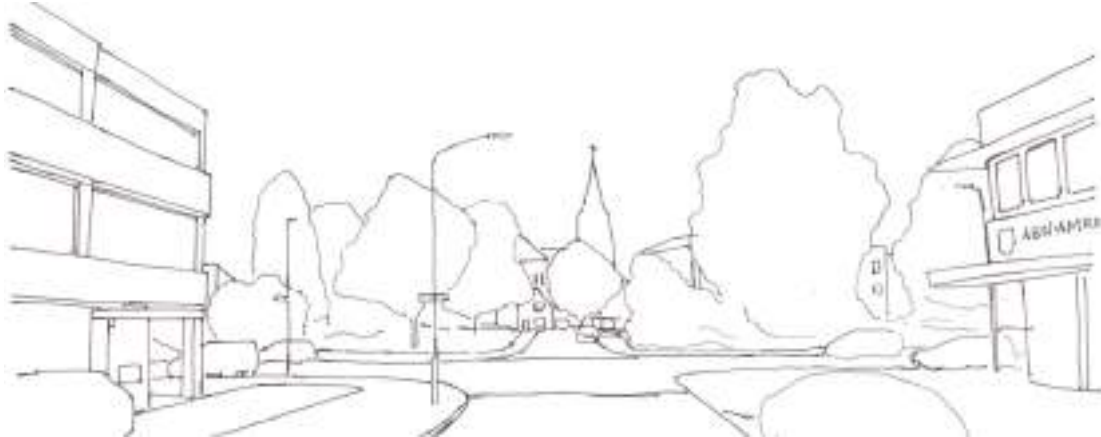


Figure 93 There are quite some empty spaces along this route, also visible on the maps, the area closer to the church has a lot of green.

1



2



3



4



Figure 94 As you proceed the church, first you encounter all the trees and then the cars that are parked at the parkings at the back of the church.

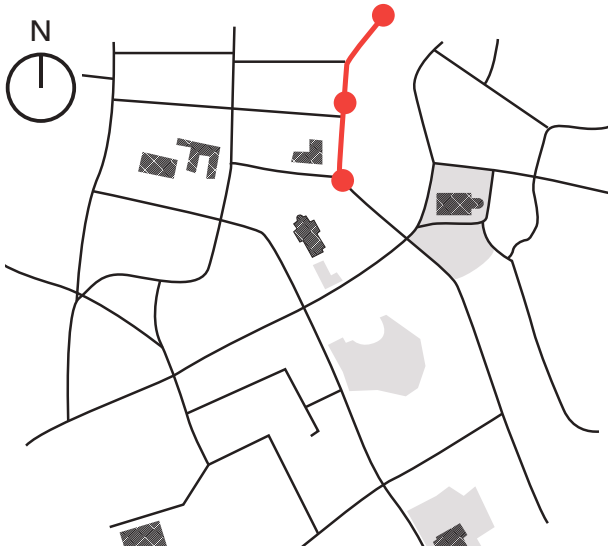


Figure 95 This route goes through a residential zone along the Raadhuis

BURGEMEESTER BOSMASTRAAT

In this route the Jacobuskerk is approached from the north. This street is a dwelling street and then goes past the Raadhuis.

1. From this viewpoint you can see the houses, and an office on the left side. The church is not yet visible, but you can already see the tower of the Raadhuis.
2. This open space is surrounded by (former) bank buildings on the left and back, and the Raadhuis on the right. On the back the tower of the Jacobuskerk is visible above the other building.
3. When you approach the building, your view is blocked by big trees standing behind the church. If you would walk on and under the trees you would find the back of the Jacobuskerk.

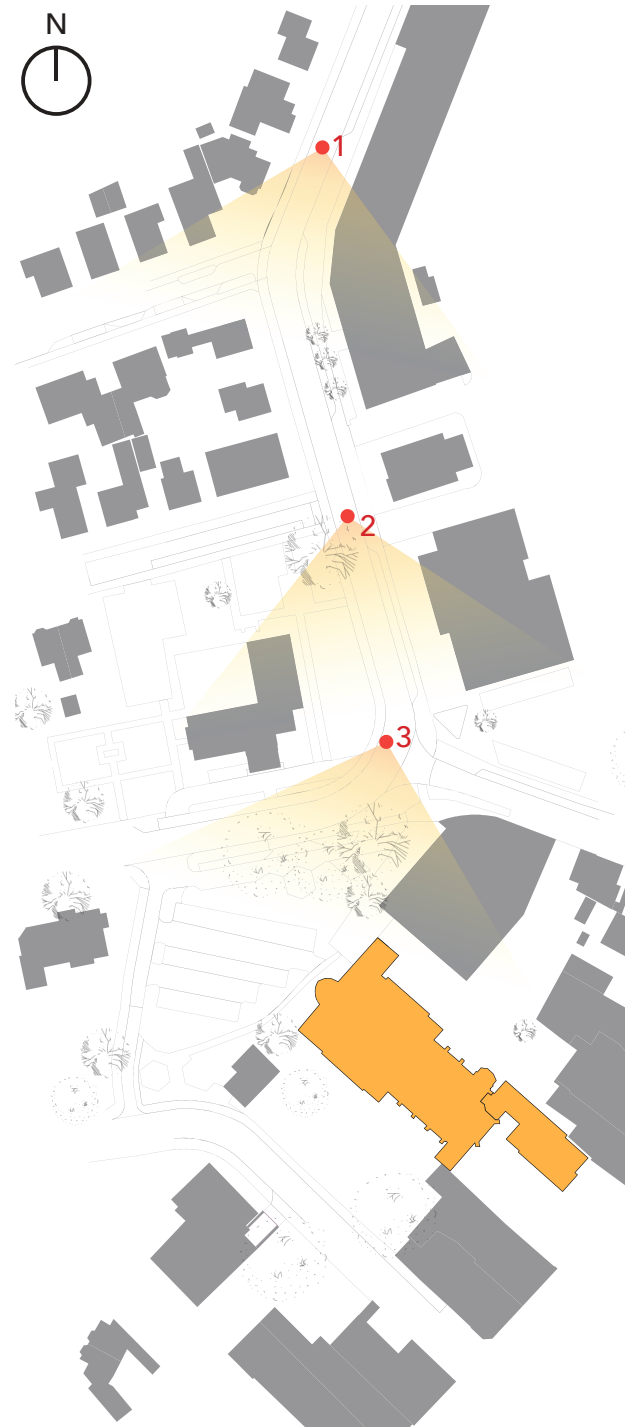


Figure 96

After the dwelling street you enter an open space surrounded by big buildings.

1



2



3

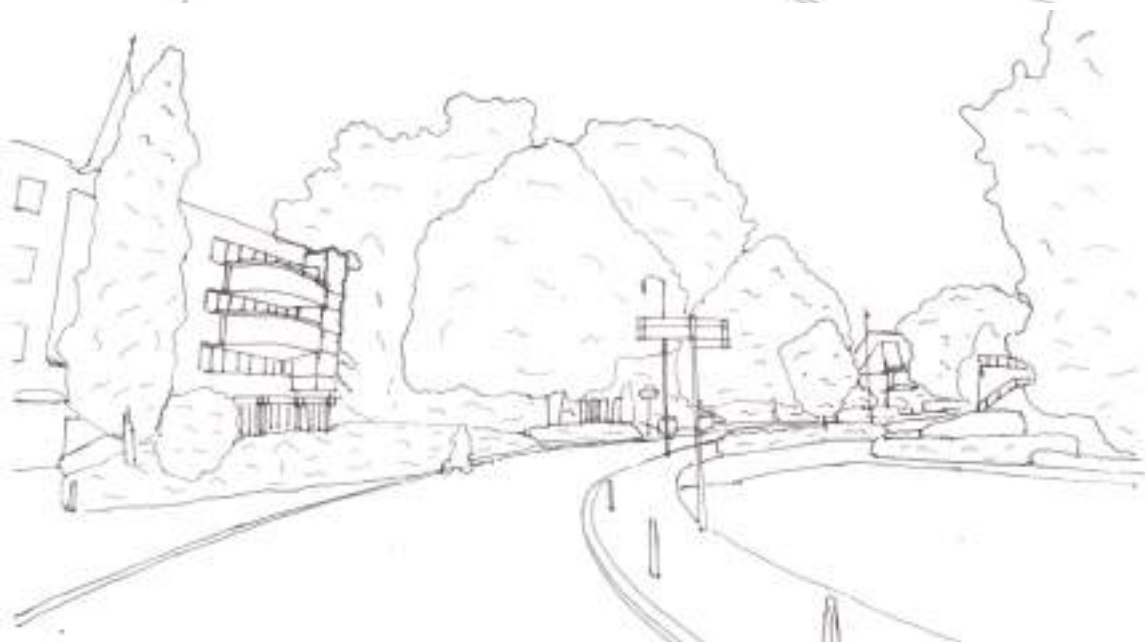


Figure 97 Here the relationship between the towers of the Raadhuis and Jacobuskerk is visible. First you see the tower of the Raadhuis, then the one of the church.

NATURE AND LANDSCAPE WINTERSWIJK

The natural landscape surrounding Winterswijk is characteristic in its historical structure, high variety in plants and trees and archeology.

In the past, the owners of "scholte" farms with their tenants and servants have left a big mark on the development of this area. They built and maintained wooded banks, streams, ash trees, windmills, forests and farmlands. The result is a varied landscape with a number of nature reserves with rare animals and plants. ("Nationaal Landschap,"

n.d.)

The landscape played an important role for Winterswijk, being built on a raised sand back along the creek Whemerbeek. For the largest part of its history Winterswijk was a agraric community and was thus surrounded by a cultivated landscape. Farmers marked their land by planting trees and building wood walls, these are often still visible in the landscape. Nowadays Winterswijk has grown and largely lost its agricultural landscape within the town. Remnants of this landscape can be found along the Whemerbeek where greenery enters the town. The center of the



Figure 98 Landscape Winterswijk (Gemeente Winterswijk, n.d.)



Figure 99 Winterswijk located in its landscape (Gemeente Winterswijk, n.d.)

GREEN STRUCTURE CENTER

In proximity of the Jacobuskerk two prominent green structures are visible: the Eucalyptuspark and Notaristuin. Both having valuable historical structures and vegetation. The Eucalyptuspark consists of a construction with hexagonal planting sections and a pond basin with artificial stone edges.

The Notaristuin as a park was finished in 2012, the park holds historic paths and protected trees. (Gemeente Winterswijk, 2009)

Part of the green structure in Winterswijk is

the axis from Eucalyptuspark in the North to the Music school along the Roelvinkstraat. Future plans are to establish a stronger connection between the parks

The small park around The music school Boogie Woogie has a harmonious relationship with the building on the site with zigzag paths, with a pavement in honeycomb pattern. The grass fields and embankments are interspersed with shrub, bushes and tree beds. A striking element is the relief in the garden. (Neefjes & Willemse, 2009)



Figure 100 Green structure center Winterswijk (MONUMENTEN ADVIES BUREAU, 2016)



Figure 101 fractured greenery structure surrounding Jacobuskerk (Gemeente Winterswijk 2006)

BIODIVERSITY

Besides humans urban areas are inhabited by animals and plants. Where some animals and trees use the earth and vegetation as habitat there are multiple species that use buildings for nesting.

FAUNA

It is the "red" alert phase for nature and biodiversity in the Netherlands, including in the Winterswijk landscape. Recent research suggests that over the past 27 years, 75% of flying insects (including butterflies) have

declined. Insects are enormously important for life on earth. In Winterswijk, efforts are being made to increase biodiversity, among other things by expanding ecological road-side management, extensive management of corners, more diversity in the edges of forests (mantle / hem) and by actively stimulating field edge management. (Poelmans & Snellenberg, 2018)

The following figure (X) shows the habitation elements of animals and hunting area.



Figure 102 Fauna map surroundings Jacobuskerk Winterswijk

ANIMALS IN AREA

The following animals are expected to be in the area, the red outlined animals are main inhabitants in buildings and are highly expected to inhabit the Jacobuskerk, Raadhuis and old Postkantoor.



Magpie



House sparrow



Hedge sparrow



Squirrel



Butterfly



Blackbird



Tawny owl



Robin



Little Owl



Common big-eared bat



Four-spot dragonfly

FLORA

The center of Winterswijk, although slightly, is part of the greater nature network (figure 103) of the area. Winterswijk has several green lobes and fingers such as the railway and Whemerbeek that penetrate the urban structure.

Within the town the green-structure is fragmented in parks such as the Eucalyptuspark North of the Jacobuskerk and Notaristuin south of the Jacobuskerk. The gardens are mainly covered with grasses, herbs and trees, of which the oak is the most common. In

addition, more and more solitary trees are being planned lately, these are doing well on their own and can therefore survive more easily in a built environment. The Markt is regarded as relatively green, but this is very artificial and small size.

The image below shows the important trees and green locations. Some trees are marked as protected. (figure 104)

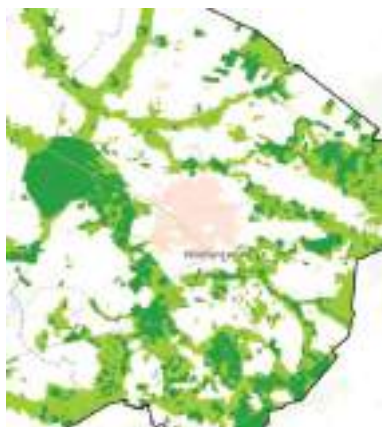


Figure 103 Natural landscape municipality Winterswijk



Figure 104 Fauna map surroundings Jacobuskerk Winterswijk

1 Eucalyptuspark - West



2 Eucalyptuspark - North



3 Markt



4 Notatistuin



CONCLUSIONS SURROUNDINGS

This chapter aims to start understanding the Jacobuskerk by starting from the surroundings of the church. This is done by zooming in from the greater context to the direct surroundings of the church mainly the center of Winterswijk. The following conclusions are based on findings and studies related to the starting question: What is the current relation of the Jacobuskerk with its surrounding and how did the surroundings evolve over time?

CONCLUSION #1

Winterswijk lies in the east of the Netherlands in Gelderland near the German border. Here it lies in relative isolation from the rest of the country. The smaller neighborhoods around Winterswijk have a close relation with Winterswijk and as such Winterswijk functions as a local center. Within the town, the Markt is both the historical center and the current one. In the center the historic building blocks are preserved as are the historic roads.

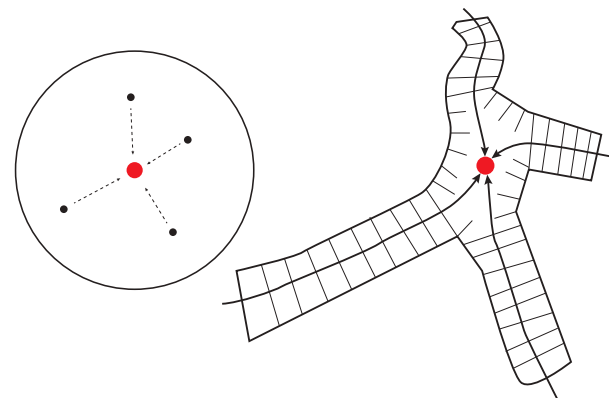


Figure 105 conclusion 1

CONCLUSION #2

Winterswijk and especially the Jacobuskerk is situated along a strong sand ridge that formed over time by wind activity. Towards the Whemerbeek the terrain becomes more clay like and is less strong compared to the sand layer. The sand layer allows the church to be built without a secondary pile foundation.

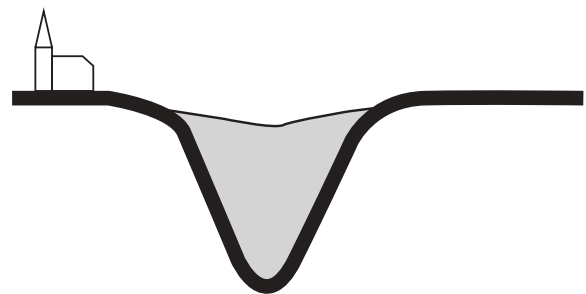


Figure 106 conclusion 2

CONCLUSION #3

Car is King. The main mode of transport in Winterswijk and surroundings is the car. Shop owners and other commercial functions rely heavily on the free parking around the town for their accessibility. This in contrast to Public transport that was on the decline in the past decades.



Figure 106 conclusion 3

CONCLUSION #4

The Jacobuskerk lies in a precarious spot within the town. Although it lies close to the geographical and historic center it is hardly visible from close-by, this is stark contrast with the Jacobskerk on the town square. Due to its high tower the Jacobuskerk is a landmark together with the earlier mentioned Jacobskerk. Its position in the urban fabric is thus of high value.

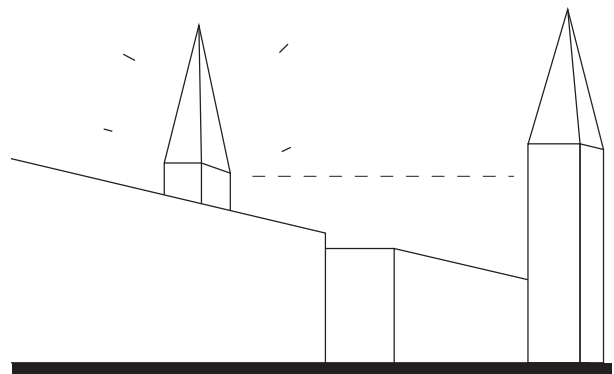


Figure 107 conclusion 4

CONCLUSION #5

Winterswijk has a typical growth pattern for Dutch towns in the east. Starting as a ribbon development and continuing this pattern up to the middle of the 20th century. Due to this rapid growth the town center is perceived as being of a different era. The Jacobuskerk was part of the earliest growth patterns. This results in the current situation where the Jacobuskerk is encapsulated by other buildings.

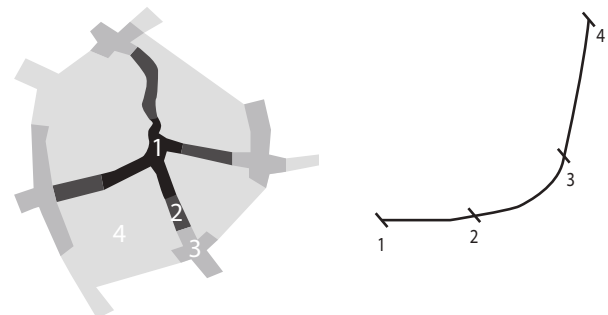


Figure 108 conclusion 5



INTRODUCTION

In this chapter the site of the Jacobuskerk is analyzed. The site is defined as the geographical exact location of the building and the plot that legally belongs to the owner of the plot. Steward Brand described the Site as being eternal of whose boundaries and context outlast generations of ephemeral buildings. However as we shall discuss the site is not eternal in the literal sense, which leads to the question of "What is on the current site of the Jacobuskerk and how did the site evolve over time?"

The site is the smaller equivalent of the previous chapter Surroundings. The site is occupied by the Jacobuskerk and the rectory which are the main subject of the analysis.

The site is in direct relation with the building upon it for this reason a better understanding of the site will help understand the Jacobuskerk and its value in a deeper way. This analysis aims to gather and filter site specific properties with the aim to use in an future design.

The chapter starts with an analysis of the development of the church followed by the current legal situation and infill off the plot, lastly the boundaries of the site are analysed followed by diagrammatic conclusions about the chapter.

This chapter intentionally leaves out any

archaeological and geographical situation of the site since these are largely explained in general for the surroundings. Archaeologically we don't see any reason to assume the site contains any valuable archaeological findings.

CHRONOMAPS SITE

1860

Since 1798 all religions were made equal by law in the Netherlands, so in 1799 the first small Catholic church was built, the first one since they had to give up the Jacobskerk. This church was on the opposite side of the Misterstraat. Already quite fast this church got too small, so in 1858 the parish asked permission of the arch bishop of Utrecht to buy half a house next to the original church to enlarge the original church. The plans were changed and in 1860 the parish asked permission to trade the rectory building and the half house just bought with two parcels on the other side of the Misterstraat (the hatched area on the map). The building next to the old rectory could function as new rectory and on the other parcel a new church could be build. This was approved. (Meerdink, 1995, p. 21-22)

1881

The two parcels are traded. The rectory was housed in the original building next to the former rectory, until on that place a new rectory would be built in 1916. The church was built in phases between 1869 and 1881 on the other parcel. The tower was made higher in 1901 and the spire was added in 1911. (Meerdink, 1995, p. 23-30)

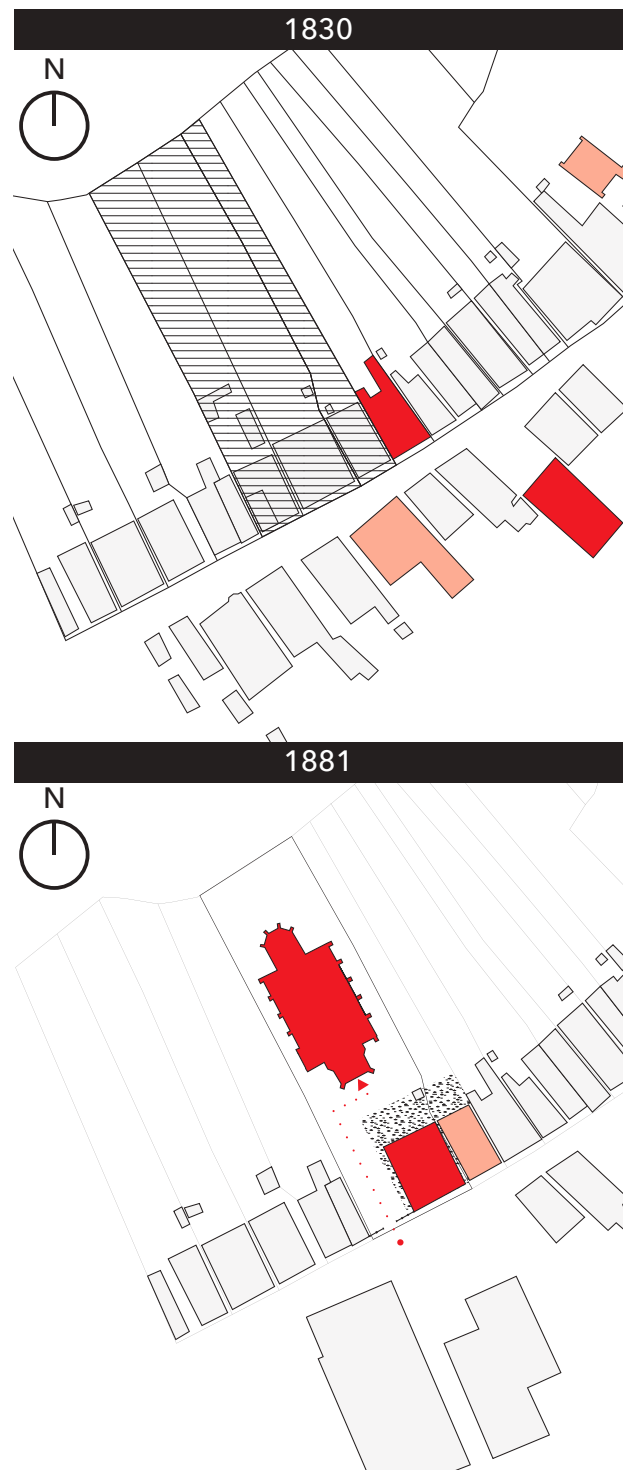


Figure 109 Chronomaps Jacobuskerk Winterswijk

1916

Here the new rectory building from 1916 is visible. Firstly the old rectory was demolished, then the new one was constructed, more or less on the same spot but set back from the street.

1956

For the extension of 1953-1956 with the new choir and the chapel and canopy, probably the parcel on the east of the church was bought, but we have no sources that confirm this. However it is likely as the extension of the church is partly on this parcel, and the building on the plot is property of the Jacobuskerk. In the 1950's an extension was made that connected it to the Jacobuskerk. The entrance was set more to the west of the plot with the new entrance canopy. The original idea behind this was to connect the church more with the street. The entrance route to the church was actually not in the middle of the plot but more to the west, because on the west of the rectory there was a plant bed, more or less in line with the church tower, and the visitors had to walk around that. With the new canopy the entrance to the church was in one straight line from the street and along the plant bed.

2019

The biggest changes here are not in the parcels of the Jacobuskerk but in the surroundings. The plot of the Jacobuskerk has stayed more or less the same, but a lot of buildings around it have changed, demolished and rebuilt or enlarged. The Torenstraat is made on the place of a former alley on the northeast of the church, and for that the plots along the street and the buildings on it have altered a lot. Also northeast of the Jacobuskerk the building "Vrijwilligerspunt" with charity organizations was built on the new Torenstraat. It crosses about 6 plots that used to belong to the buildings at the Misterstraat but have probably changed with the construction of the Torenstraat.

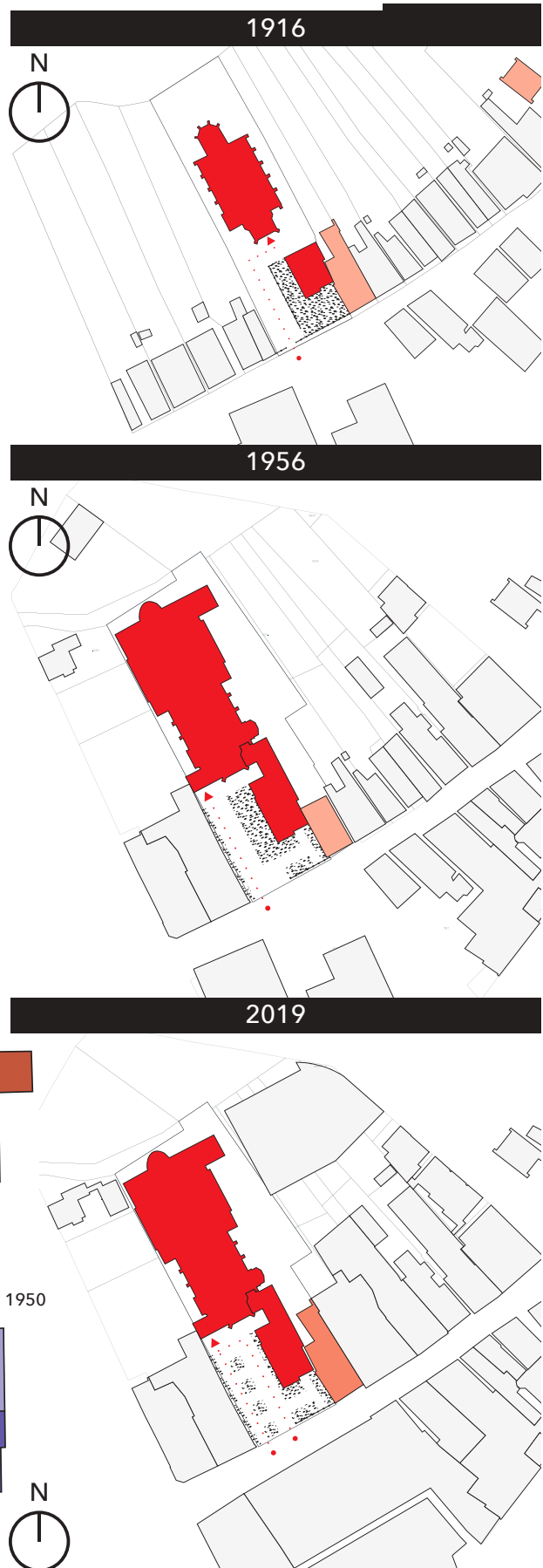


Figure 110 Chronomaps and time layering Jacobuskerk Winterswijk

THE PLOT

In the image right contains the cadastral information, the postal code and the measurements of the plot. Originally these were three plots, but nowadays they are all property of the Jacobuskerk. On number 20 is the Jacobuskerk itself and number 18 is the rectory. On number 16 is a shop where currently the Denim.bar is housed. The Denim.bar rents from the Jacobuskerk. The shop is of great value to the church as it provides additional income while the religious community shrinks.

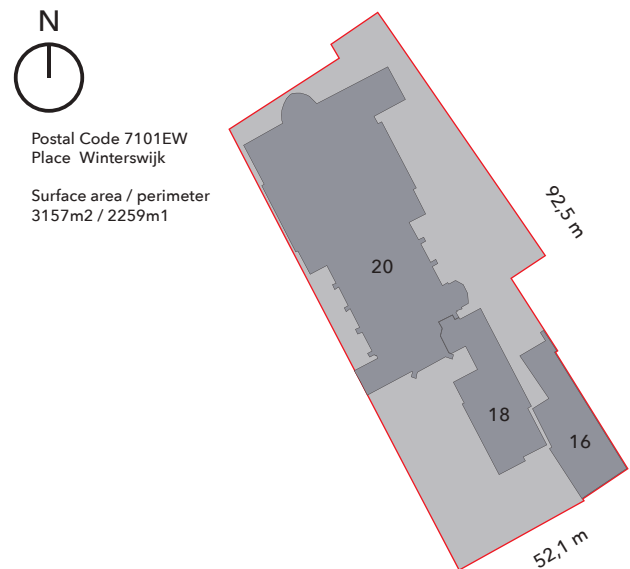


Figure 111 The legal information of the plot

LAYERING OF THE PLOT

The plot consists of several layers. The 'legal layer' with the cadastral borders of the plots, these boundaries stay relatively consistent over time. The second layer is the infill of the plot, this layer changes faster than the legal layer, but still the ratio built and open space has stayed the same since the 1950's. Even though the interior of the buildings has changed often. The infill of the plot is partly filled with greenery and partly stone tiles.

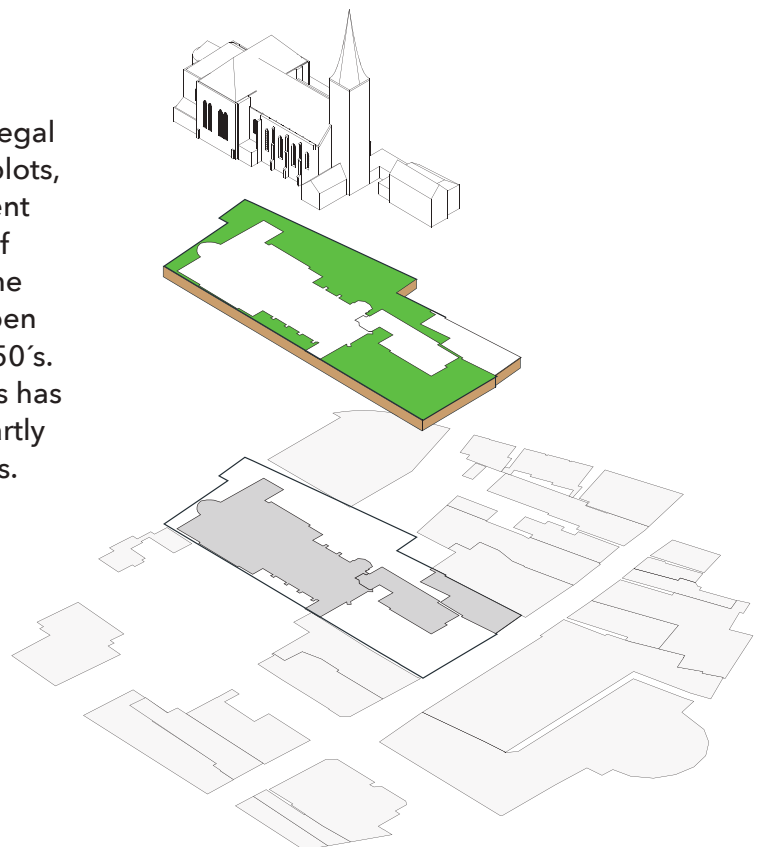


Figure 112 The plot consists of several layers, here projected on top of each other

CLIMATE

Winterswijk has a typical Dutch climate with a prevailing wind direction of southwest. The church is oriented northwest-southeast so the wind is most prominent on the southern part of the plot. In summer the sun is higher in the sky than in the winter.

INFILL OF THE PLOT

The plan on the right shows the infill of the plot. There are mainly three zones: north-west, northeast and south of the church. At the southwest the church almost touches the borders of the plot.

On the northwest the plot touches a parking lot. Along the church there is a small plant bed with two bushes. At the east side of this zone is a pavement.

On the northeast side there is a small park like space with grass, some trees and a path through it. This is accessible from the north through a small fence and from the east through a fence, although this fence is often closed. From the south it is not accessible.

The south of the plot is the most public space as it is the entrance zone. It consists of a pavement zone with hedges on the sides and plant beds in the middle. In front of the rectory there is also a plant bed, and a large tree. On the south border the plot is closed off by a metal fence.

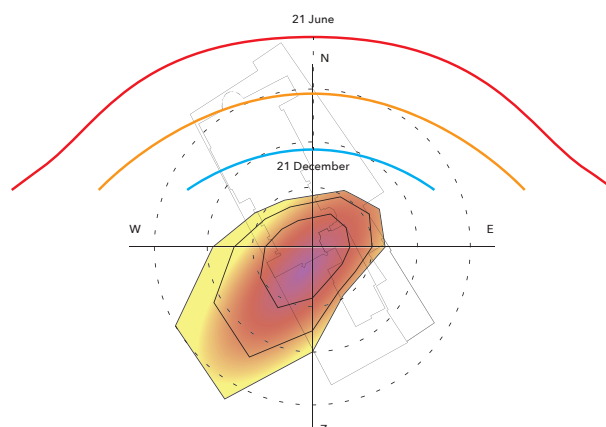


Figure 113 The plot with the wind directions and sun height.



Figure 114 The plot with the spatial elements around it.

SPATIAL ELEMENTS ON SITE

The site is experienced most from the South along the Misterstraat. Here the site has multiple spatial elements that divide or create the space in front of the church

The following drawing shows the elements on the southern part of the site and their spatial relationships. The site is dominated by the church followed by the rectory. The square that remains is filled in with greenery elements these create a direct path from street to entrance of the church. Along

the Misterstraat the border of the plot is highlighted by a fence with stone pillars, in front of the fence two benches are placed these face away from the church in to the street. Moving up the plot to the church the rectory entrances become visible of which the main entrance is the entrance facing the Misterstraat. Flanking the church tower is the entrance portal for the church, a small staircase and ramp allow access to the church. The back of the site is relatively closed compared to the south side. Here the entrance to the garden on the west site is situated.

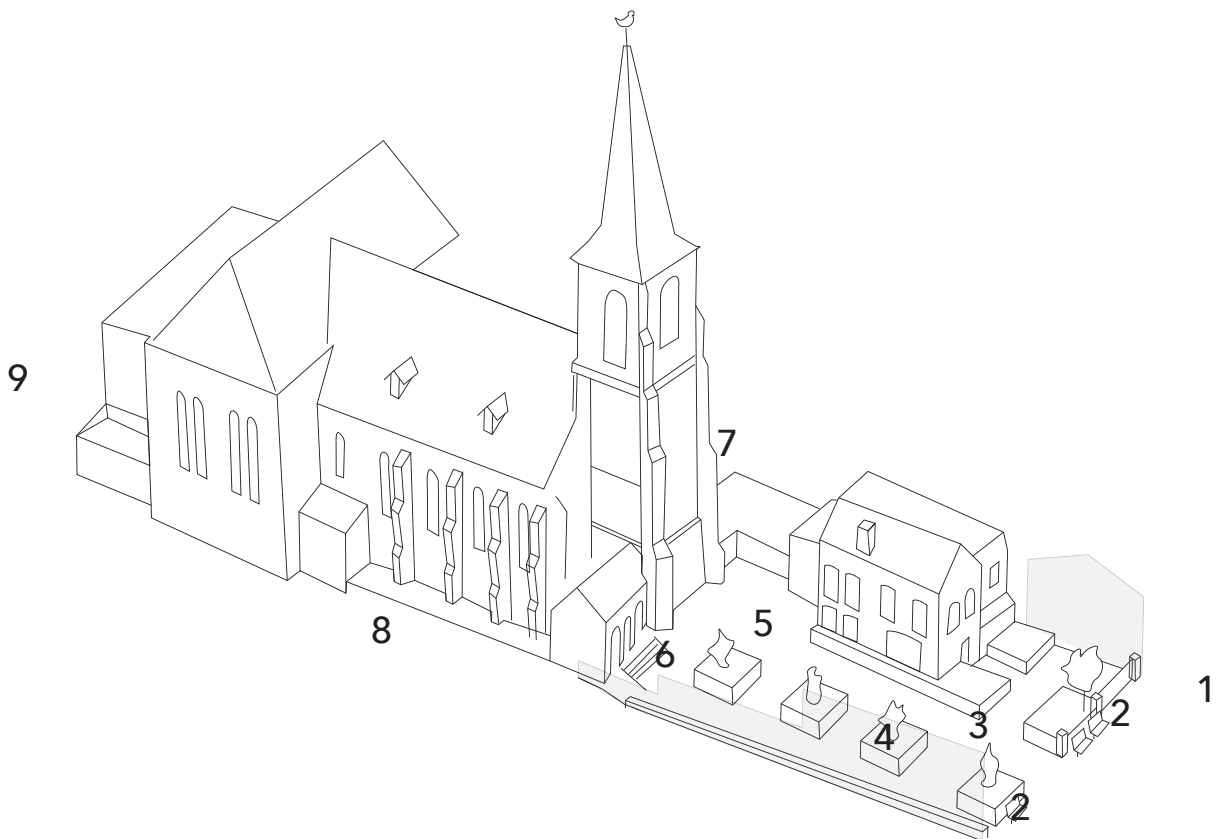


Figure 115 3D image showing the spatial elements of the site in birds eye perspective. On the south part it is visible that there are other buildings next to the square in front of the church that closes it off at three sides.

1



Figure 116 The metal fence with brick supports forms the border of the site. It has authentic details and looks old.

3



Figure 118 In front and around the rectory are some plant beds. They form an entrance zone to the rectory.

5



Figure 120 The second entrance of the rectory is a bit put away in the corner. It has a small canopy but it doesn't really do justice to the nice building.

7



Figure 122 This alley runs along the church on the northeast side, on the right the small green space is visible, but it is closed off by a fence.

2



Figure 117 There are 3 benches in front of the plot that are always occupied. The reason for this is probably that this is halfway the Misterstaat. The bins refer to Mondriaan.

4



Figure 119 The plant beds in the middle of the terrain structure the entrance zone. There are 4 of them and they all have a small tree in the middle.

6



Figure 121 The entrance canopy to the church used to be in one line with the main entrance route, but with the current placement of the plant beds not anymore.

8



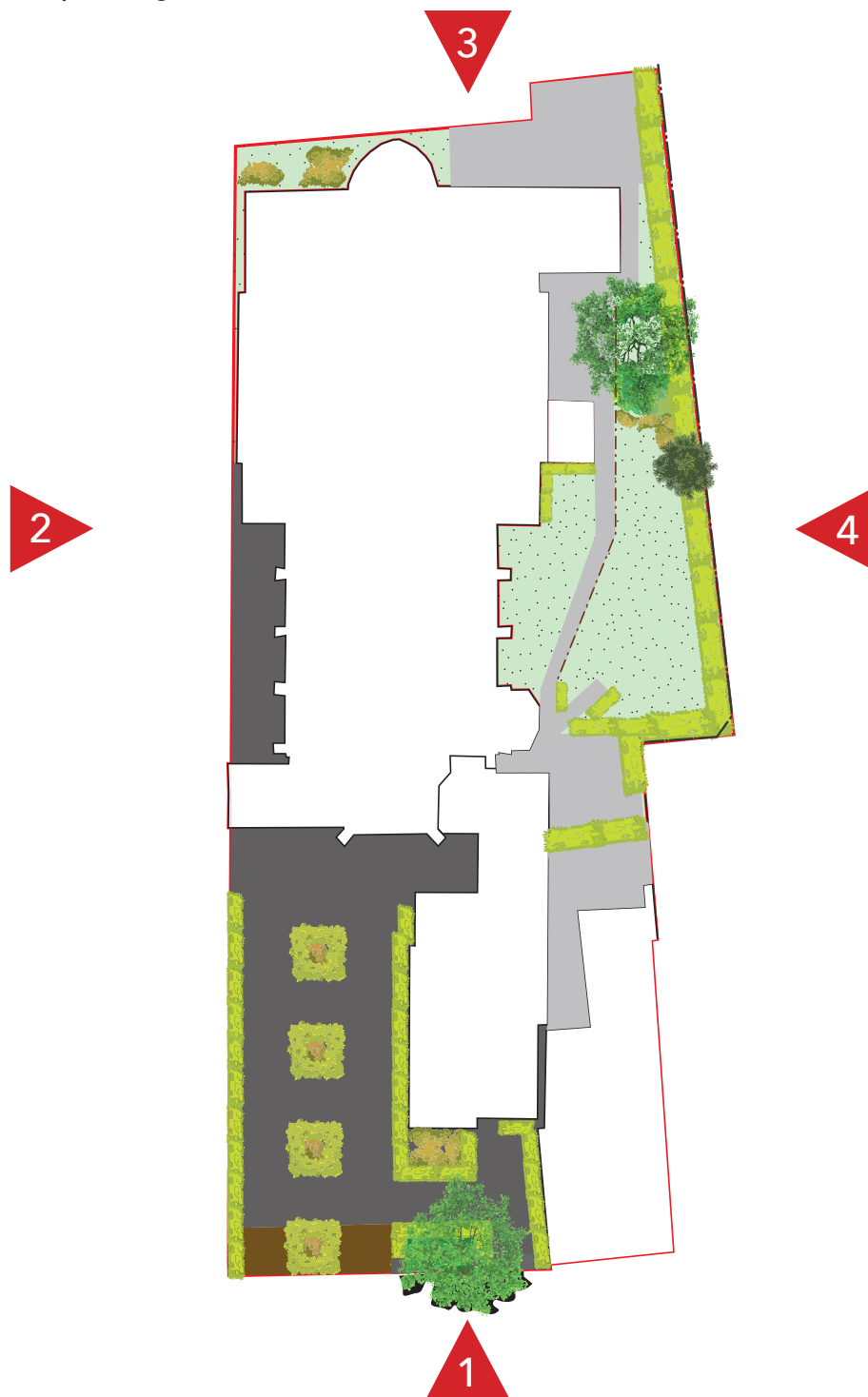
Figure 123 At the backside of the canopy there is a door that leads to a small path on the southwest of the church. The door leads to the side of the choir.

BOUNDARIES

The site has different boundaries on the different sides. These are dependent on the functions that are along the plot.

On the northwest side, number 3, is a parking lot; on the northeast, number 4, a space behind the shops along the Misterstraat; at

the south side, number 1, the Misterstraat; and at the southwest also the back side of shops along the Misterstraat.



1



Figure 124 Here the fence that forms the south boundary is visible. You can only see the church when you are right in front of it, otherwise often there are shops in front of it or like here the rectory. Behind the fence the green square forms the transition area to the church entrance.

2



Figure 125 There are two shops on the west of the Jacobskerk, and behind them is a terrain with not a really clear use. There is a street along that terrain and a fence that is partly a wooden fence between brick pillars and partly a metal fence.

3



Figure 126 At the side of the parking there is a house next to the church with a hedge around it. Behind that there is a small footpath and along the church some green that forms a buffer in the corner. on the other side of the path there is also some green as a boundary between that path and the parking.

4



Figure 127 This terrain lies between some shops and is the parking of the owners. It is not really publicly accessible. There is a metal fence with behind it a hedge to mark the terrain of the church, but it is possible to enter through the fence if you have the key.

CONCLUSIONS SITE

This chapter aims to start understanding the developments of the Jacobuskerk by focusing on the site specific developments. This is done by zooming in from the greater context to the direct Site of the church. The following conclusions are based on findings and studies related to the starting question: What is on the current site of the Jacobuskerk and how did the site evolve over time?

CONCLUSION #1

The Jacobuskerk was developed in the period that Winterswijk almost didn't grow in size. The current building was built behind the existing urban fabric of what was previously agricultural land. The church was approachable from all sides, although the entrance was in the front, and had its back towards the open countryside. Nowadays the church has a single orientation, towards the Misterstraat. It seems like the church is encapsulated by buildings around it and the park on its backside.

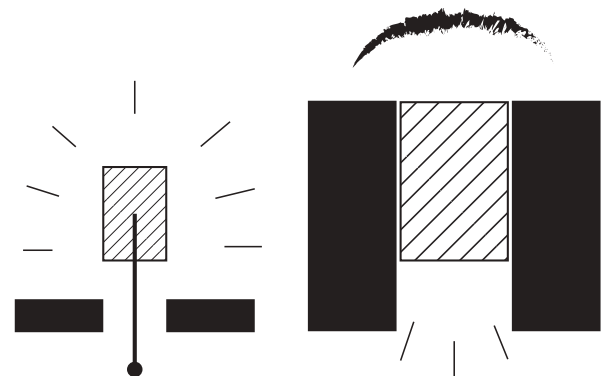


Figure 128 conclusion 1

CONCLUSION #2

In the earlier period of the church development the site accessible by both sides. Currently the site is divided in two parts that are closed off from each other. This further strengthens the orientation towards the Misterstraat.

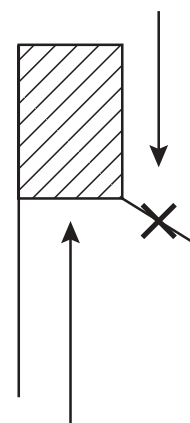


Figure 129 conclusion 2

CONCLUSION #3

The church and rectory of the Jacobuskerk are setback from the Misterstraat. This setback has the effect of creating a moment within the existing street fabric. This moment is experienced by passersby as a moment in which people slowdown and look around, this brings the church in a focal-point.

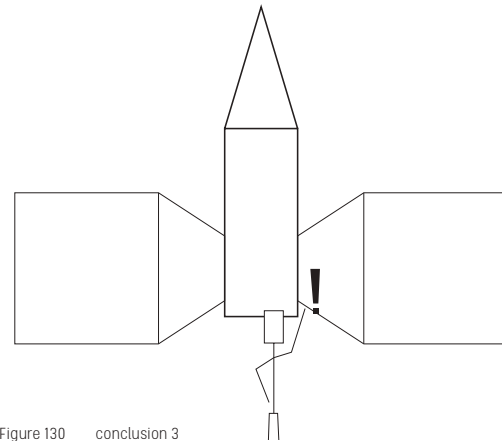


Figure 130 conclusion 3



SKIN – CHURCH

INTRODUCTION

The building skin involves all surfaces separating the inside from the outside. In this chapter the skin of the Jacobus church and its rectory is analysed mainly to a research of the facades from a larger scale to a smaller scale. To gain a clear understanding of what and how the skin is like it currently is it is essential to learn the understanding of how the facades have developed through time, how the composition of the facades works, what the materials are that create the facade and how these materials come together in a functioning building skin. The research questions for the chapter of Surfaces can therefore be formulated as:

'What is the impact of the development of the facade of the Jacobus church through time?'

'What is the relation of the materials composing the skin of the Jacobus church and its rectory?'

'What is the relation of the composition of the skin of the Jacobus church and its rectory?'

To provide answers to these questions, this chapter is constructed through a separation of the front, side and back facade of both the Jacobus church and its rectory. Starting with the church, per facade it is first researched how the facades has developped through the main building years regarding the extension of the tower in 1920 and the expansion by Koldewey in 1952 on the original building of 1868 by Wennekens. After the chronomapping the materials of the current situation of the facades are inventorised. Thirth the surface of daylight infiltration by facade openings is researched. Then the compositional rhythm of the facades as result of the openings, the elements and the masses composing the facades is researched throughout the important timeframes. The research of the skin of the church comes together in the explanation of how the materials come together in a typically representational section of both the original building part of 1868 by Wennekens and the 1952 expansion by Koldewey, along with the facade fragments of inside and outside and details of the crucial connections. Since there has not been important development throughout time regarding the rectory the separation of timeframes is not applicable for the skin of the rectory. The rectory is therefore only researched on its materials, openings and rhythms of the current situation.

FACADES JACOBUSKERK

The facades are the parts of the skin that are the most experienced by people walking by. The facade of the Jacobuskerk were important to the architect to express the neogothical style. This paragraph will look at the development of the facades through time.

FRONT FACADE 1868

In the original the design of 1868 by architect H.J. Wennekers the main entrance is located in the bottom part of the tower in the center of the facade. The doorway contains neogothical ornaments made from natural

stone. Centrally positioned in the tower is a rose window.

In the front facade two windows are situated at the endings of the side aisles. The window frames are made of natural stone and contain neogothic ornamentation. In contrast to the rounded arches of other facade openings and the blind niches, the windows have a pointed arch. In the tower holes there are holes for reverberation of the church bells. The tower is still incomplete at this time, the plan then was to extend the tower when the funding was raised for its construction. The tower is almost as tall as the roof of the

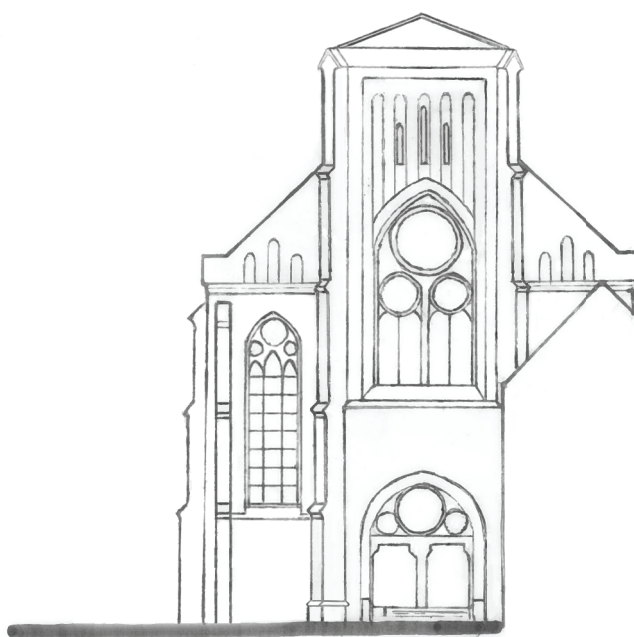


Figure 131 Front facade, 1868 (1:35)



TOWER EXTENTION 1901 AND 1911

Almost 50 years after the construction in 1868 the need has grown of the tower to contain a clockwork and church bells. Therefore, in 1901, the tower that was originally organized in two sections receives a third section. The original five parted buttresses on each four corners of the tower are topped with one more part. The same materials and brickwork are used in the added parts of the tower to integrate the new parts in the original tower. The spire was added in 1911.

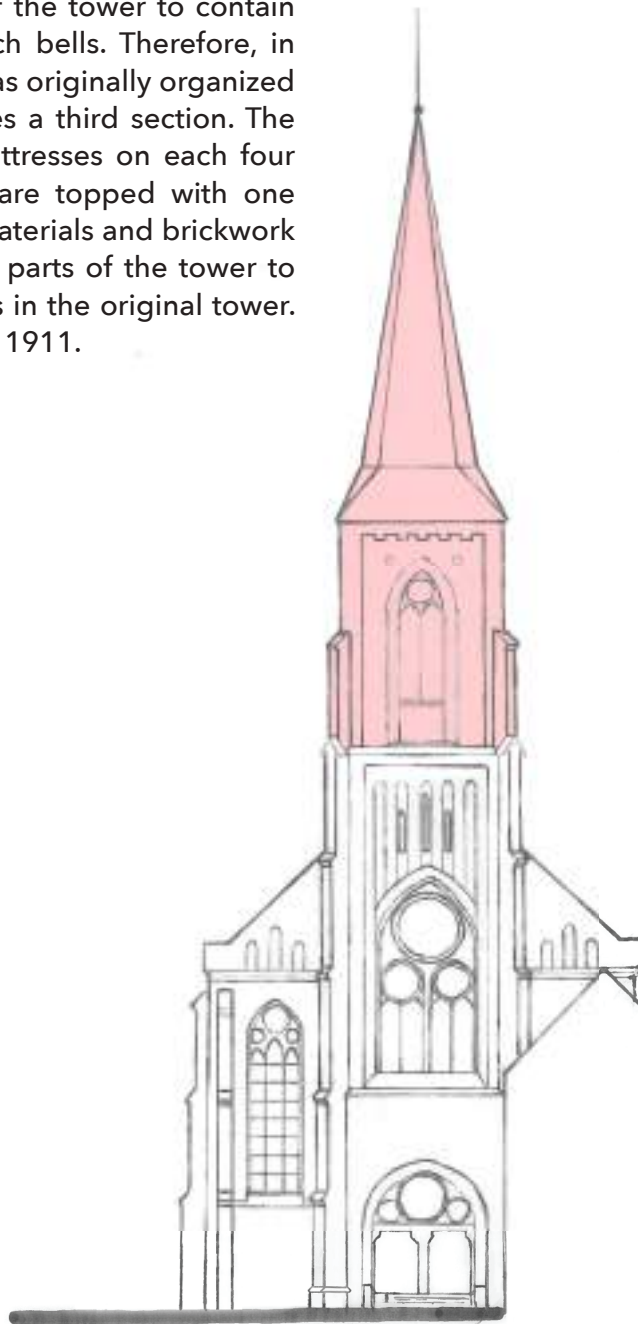
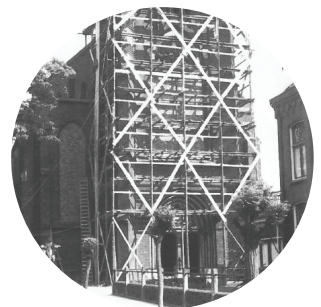


Figure 132 Front facade, 1920 (1:35)



FRONT FACADE 2019

In 1950-1953 a big expansion of the church was done, designed by B.J. Koldewey. In the front facade, the rose windows in the tower and the windows in the aisles were removed and closed with brick. This is clearly visible in the current situation as the brickwork has a slightly different color since it has not yet weathered as much as the original facade. In 1956, shortly after finishing the expansion, the entrance changed from centrally in the tower to the left side of the tower, under a newly built canopy. As a result the original entrance was closed with brickwork introducing narrow vertical window openings that only allow strips of light to enter the entrance room in the tower before entering the narthex. The original doors and the decorated top part were removed but the natural stoned ornamentation of the entrance frame remained.

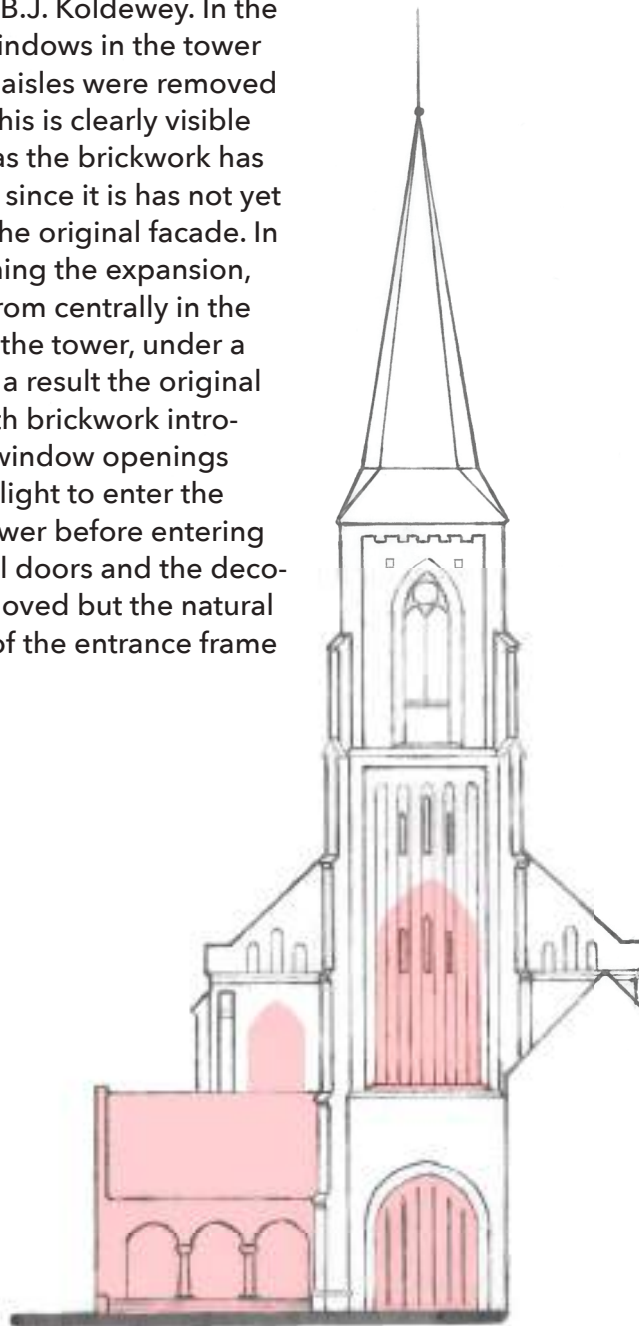


Figure133 Front facade, 2019 (1:35)



MATERIALS FRONT FACADE

The front facade expresses the historical development of the facade through its material use. This is caused by the weathering of the materials which differentiates almost 100 years, and is best indicated by the difference of color of brick, mortar and the natural stone. The specific locations of the 'new' brickwork expresses the removal of the windows. This same brickwork is used for the closing of the original entrance in the front of the tower and the entrance canopy leading to the main entrance now on the left side of the tower. The different type of brick used in the brickwork to close the original entrance contains a beaded joint. This joint type is also applied locally to repair the old (original) joint type which is a flush joint. This very strict and skilled applied beaded joint forms a contrast with the flush joints and results in a very typical meeting of an old brick and a new joint. The glass in the narrow window openings in similar to the coloured glass of the other church windows. The original 1868 natural stone elements are remnants of the neogothical expression, originally meant for the facades in combination with the original windows. The original neogothical expression is still visible in the buttresses and door-frame of the original entrance in the front face of the tower.

- Old brickwork
- New brickwork
- Natural stone
- Slates on plumbum
- Stained glass
- Single glass

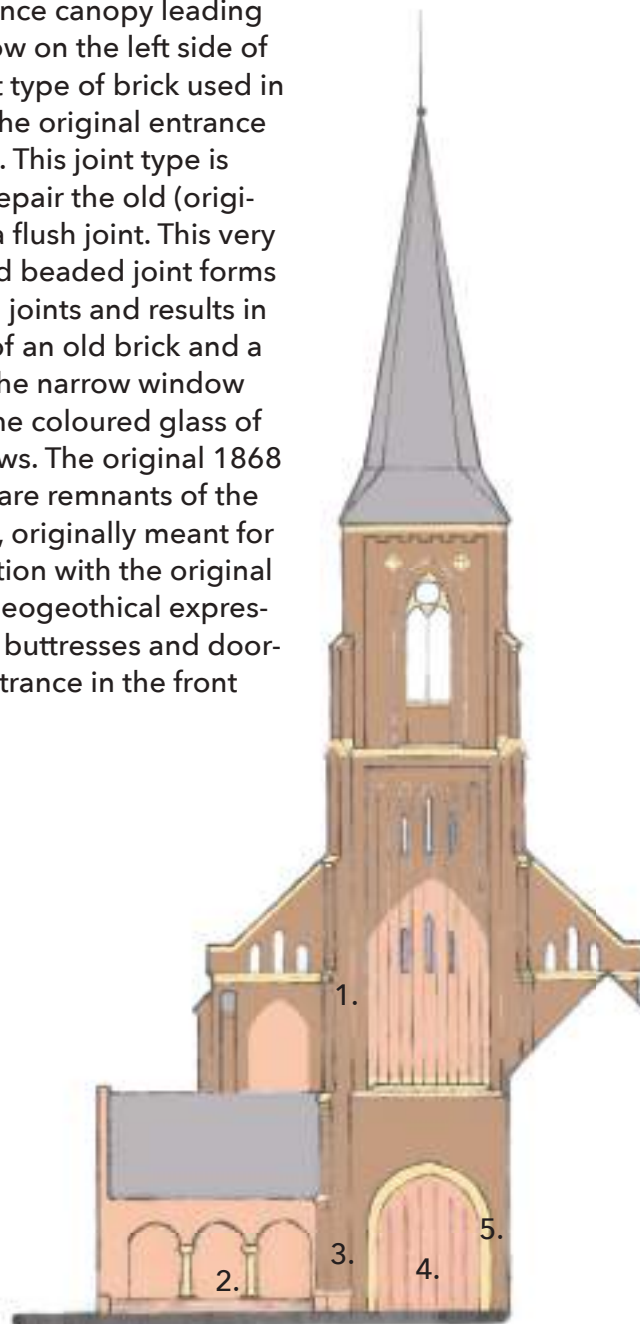


Figure 134 Materials. Front facade, 2019 (1:35)



1.



2.



3.



4.



5.

OPENINGS

In the comparison of the openings in both facades the impact of the removal of the rose window in the tower and the neogothic windows becomes clear. The original facade of 1868 expresses the floorplan of the church more clearly compared to the current facade appearance. The current facade appears more closed and rather unwelcoming viewed from the shopping street than the original facade with its big windows and the entrance in the front, clearly visible from the street.

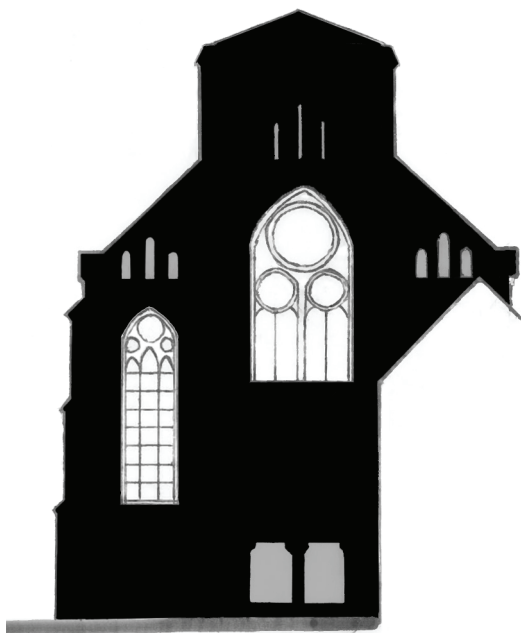
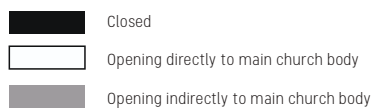


Figure 135 Openings. Front facade, 1868 (1:35)

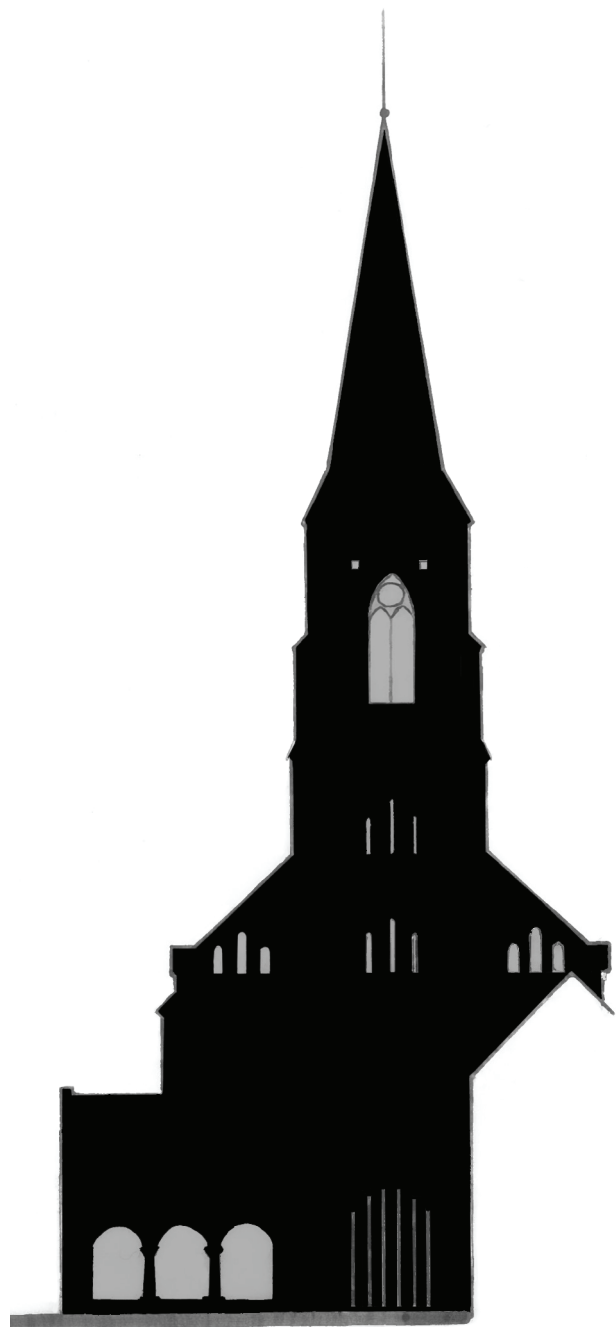


Figure 136 Openings. Front facade, 2019 (1:35)

RHYTHM OF THE OPENINGS

In the rhythm of the openings the role of the windows as separate ordering elements becomes visible. In the facade of 1868, the openings were clearly organised and vertically oriented, in contrast to the current facade. In 1868 the windows and entrance separated the three main masses: tower and aisles. This had the secondary effect of highlighting the entrance way to the church.

The removal of the windows left a blank space on the facade removing the vertical effect it once had. The removal of the large window in the front facade created space for the continuation of the existing vertical windows. These windows highlight the vertical form of the tower, but the former logic of two similar windows above each other is gone.

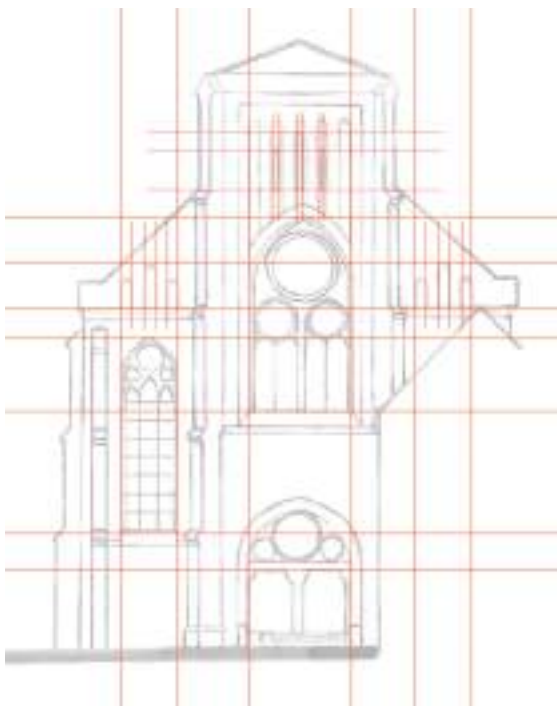


Figure 137 Rhythm by openings. Front facade, 1868. (1:35)

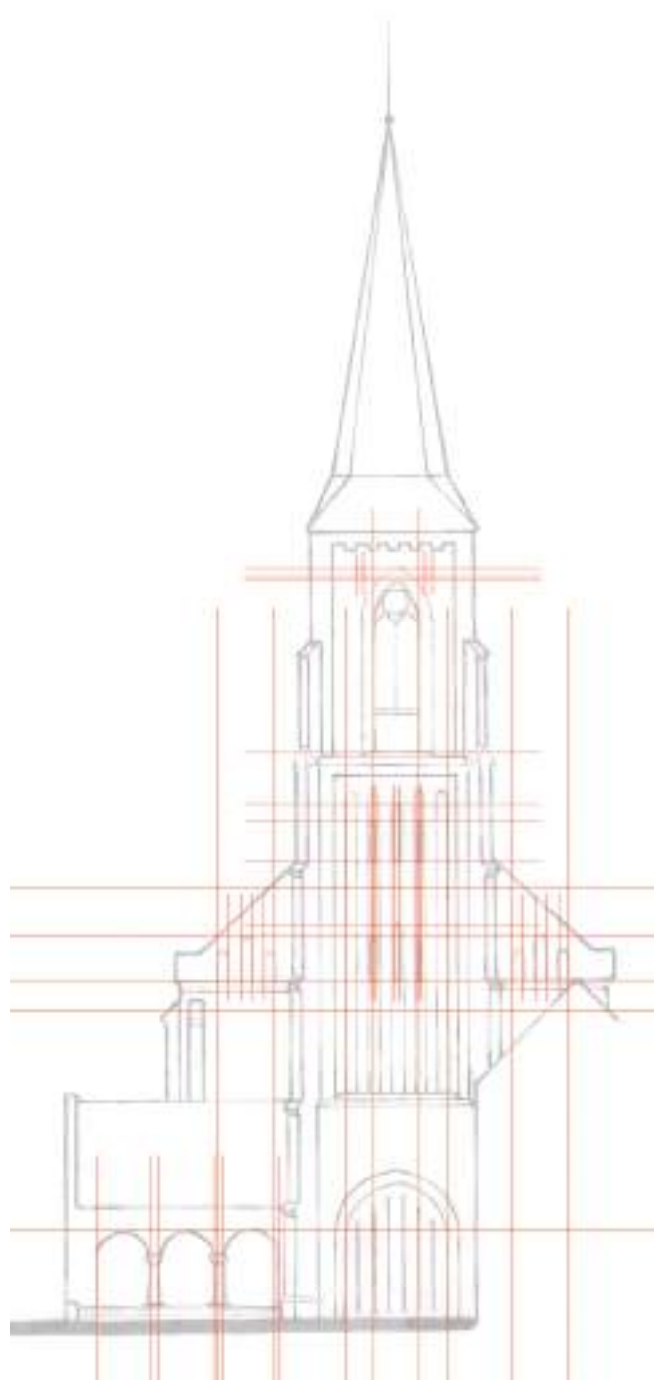


Figure 138 Rhythm by openings. Front facade, 2019. (1:35)

RHYTHM OF THE FACADE ELEMENTS

The separation between the tower sections is mostly acknowledged by the elements of natural stone forming horizontal lines. These lines are mostly kept throughout the changes. With the adding of the third tower section and spine the facade gains vertical articulation by height. The verticality is enhanced by the openings in the new entrance and the lines in the second part of the tower which enhances the essence of the tower as tall object. The entrance canope counters this vertical articulation and replaces it for a horizontal one on eye level by the articulation of the roof line.

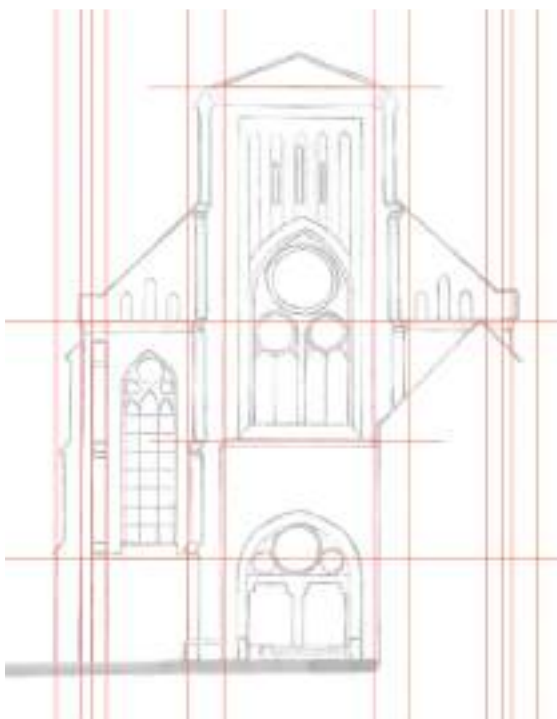


Figure 139 Rhythm by elements. Front facade, 1868. (1:35)

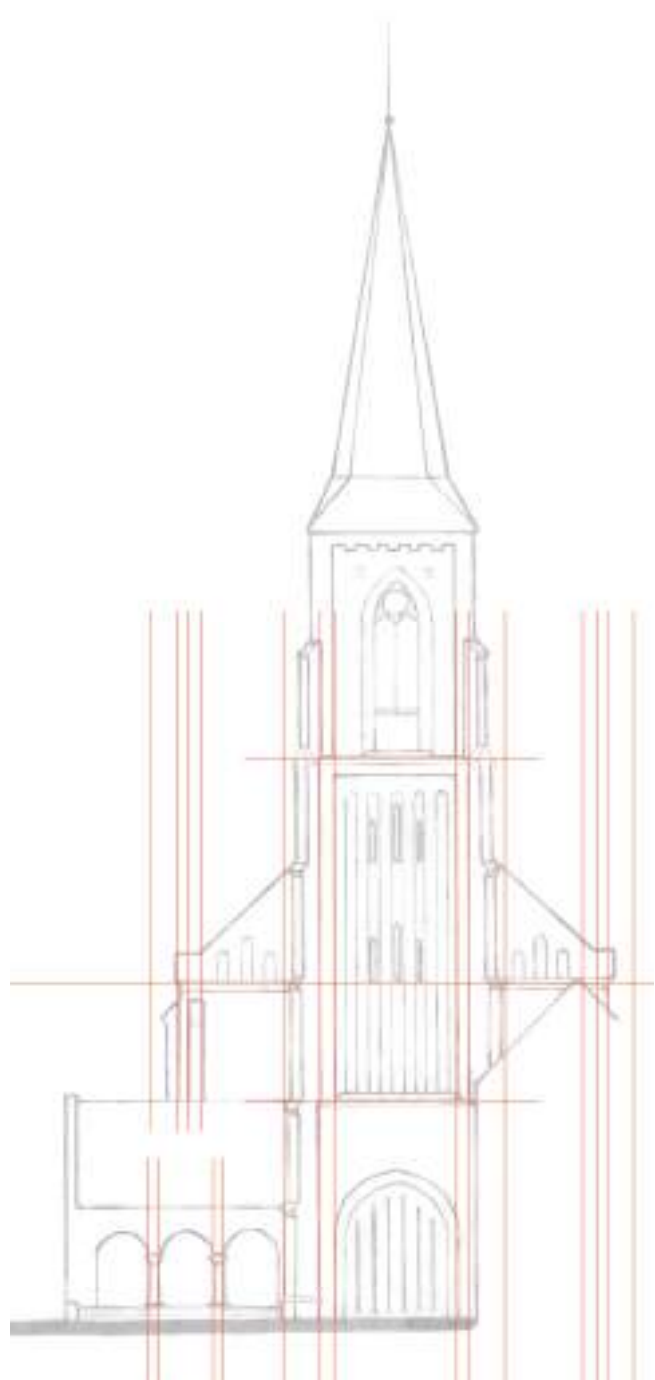


Figure 140 Rhythm by elements. Front facade, 2019. (1:35)

RHYTHM OF THE BUILDING MASSES

Comparing the masses aside from the influence of openings, the impact and role of the tower as a vertical element in the facade becomes clear. The accentuation of the vertical direction by the height of the tower with the spire is a iconic external expression for Catholic Churches. This verticality repeated in the interior through the structure, the vertical windows and the height of the space. With the entrance canopy of 1956 the facade balance now gets an L-shape by the volume being placed on the foreground; instead of the vertical shape created by the connection between the voids and the openings with the tower. Furthermore, the entrance building diminishes the acknowledgement of the three volumes and hides the actual entrance of the church.

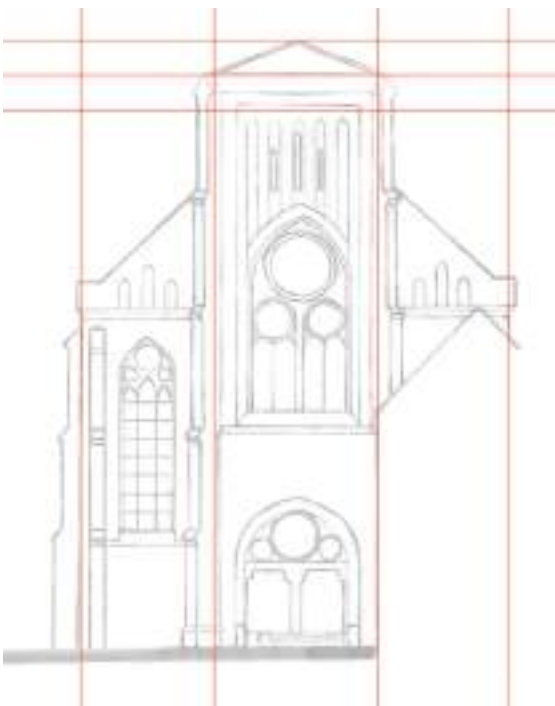


Figure 141 Rhythm by mass. Front facade, 1868. (1:35)

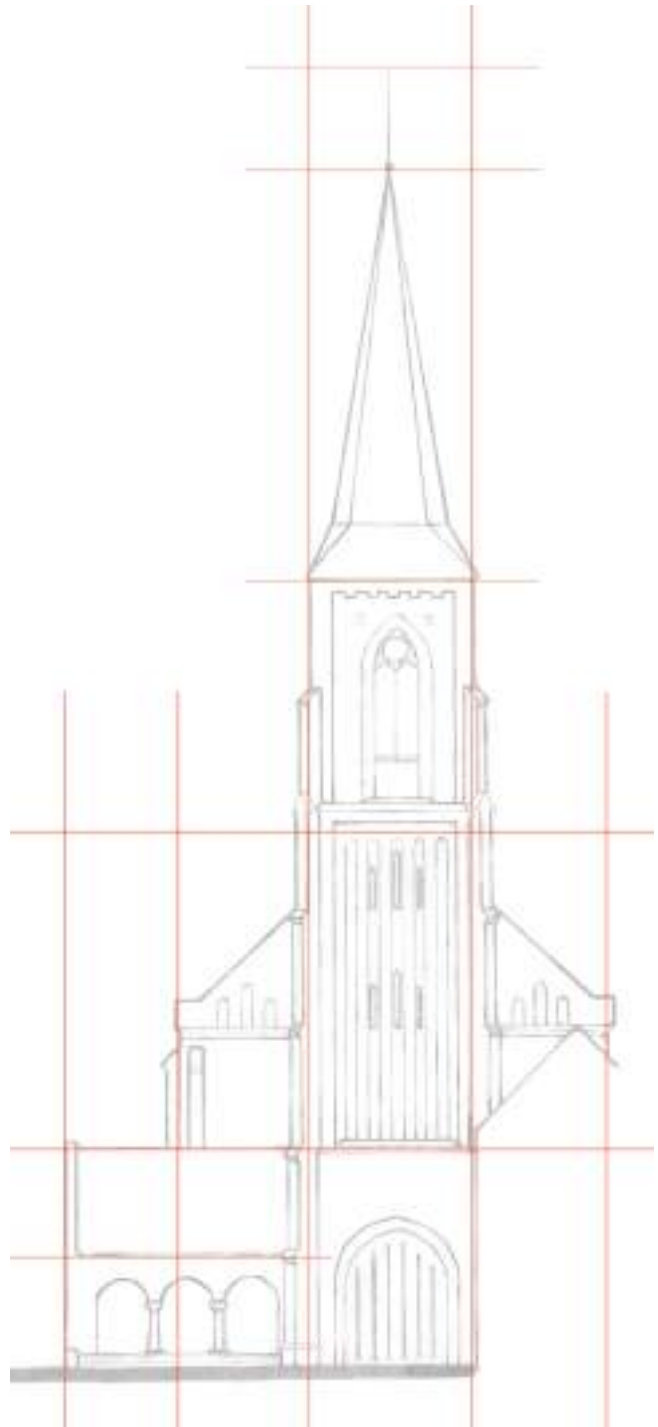


Figure 142 Rhythm by mass. Front facade, 2019. (1:35)

SIDE FACADE

1868

The original side facade consists of a very clear separation of 3 parts namely the tower, the nave and the choir. All parts have a strict vertical rhythm caused by the buttresses and the windows. The largely dimensioned neogothical windows in the nave and choir allow an as high as possible amount of daylight to enter the church. Between the grid of the buttresses the line of the natural stone windowsill is pulled through causing a hard line, resulting in an horizontal separation in the facade. This line is repeated by the natural stone under the roof line, clearly separating the facade from the slated roof.



Picture of the demolished choir around 1945 (Meerdink, 1995, p.31).



Figure 143 Side facade, 1868 (1:35)

TOWER EXTENSION 1901 AND 1911

The proportionately increased height of the tower by the third section and the spire in 1901 and 1911 strongly impacts the original proportions of the length and height of the church. Whereas the general form of the church was more or less horizontal but with vertical articulation, now there is a clearly vertical element rising above the roof of the church.

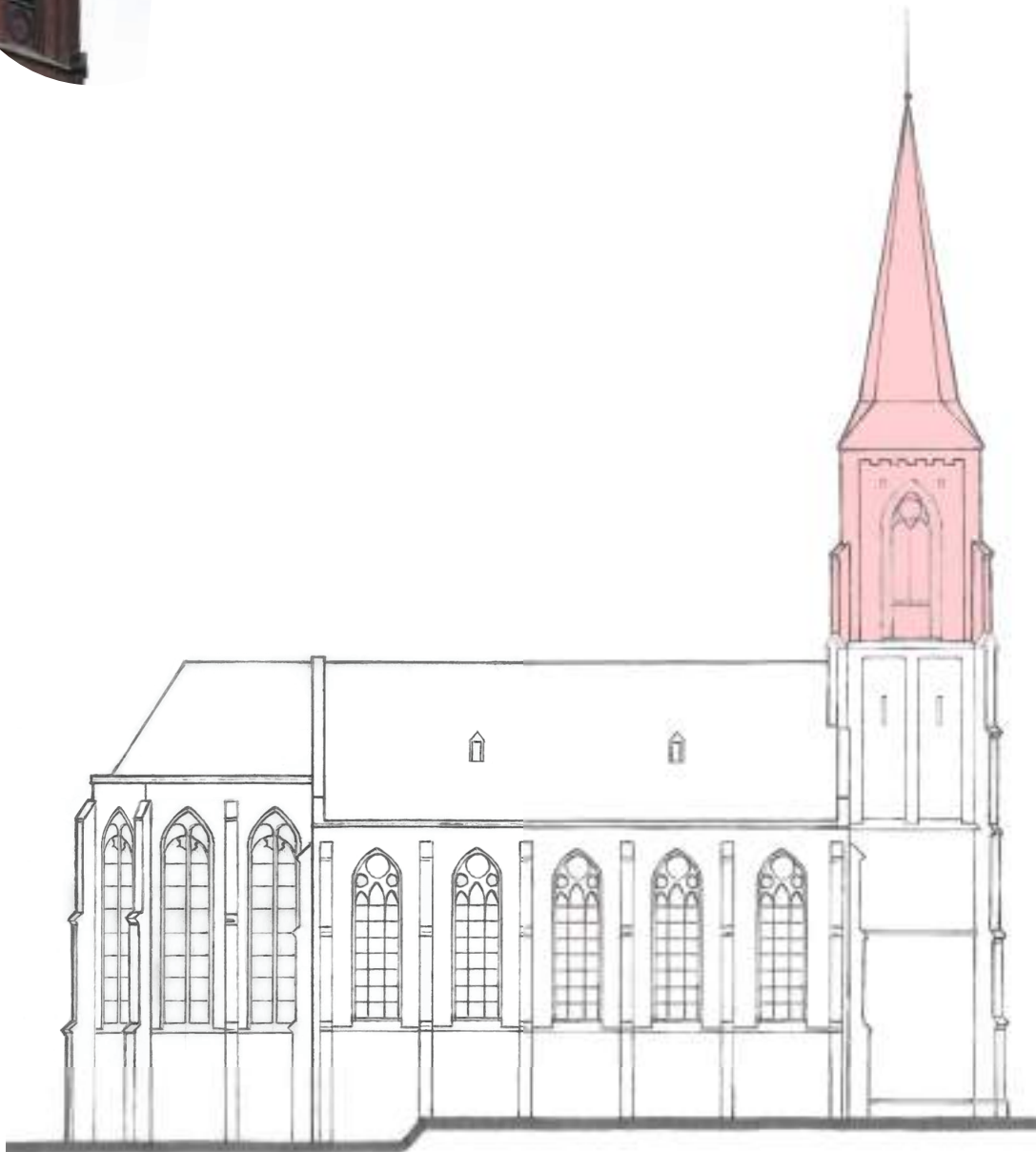


Figure 144 Side facade, 1920 (1:35)



SIDE FACADE 2019

The expansion of the church in 1953 includes the removal of the choir which formed the third section of the original facade. On the exact same line as the previous choir the expansion is built leaving the line of the original rhythm intact. The expansion part breaks loose of the original rhythm as the new facades are flat surfaces without buttresses or other elements dividing the facade. Where the windows were placed according to a vertical rhythm in the design of Wennekers the expansion part of Koldewey seems to place the windows more freely without a clear grid system other than the horizontal rhythm in line with the bottom of the new windows that were replaced for the original neogothical windows in 1949. These windows are smaller in both length and width which is clearly

visible in the current situation as the brickwork has a slightly different color since it is not yet weathered. With these replaced windows the line that was created by the continuous line of the natural stone windowsills has disappeared. The brickwork of the expansion has the same brick bond as used in the Wennekers part but has a different brick, as the stone is lighter of color and smoother of surface. The joint type differs from an extended joint to flush and is locally faded away to a raked joint or has been repaired. The extended joint is similar to the joint type in the part by Wennekers only the joint of 1868 is a bit executed, which shows the difference of construction time.

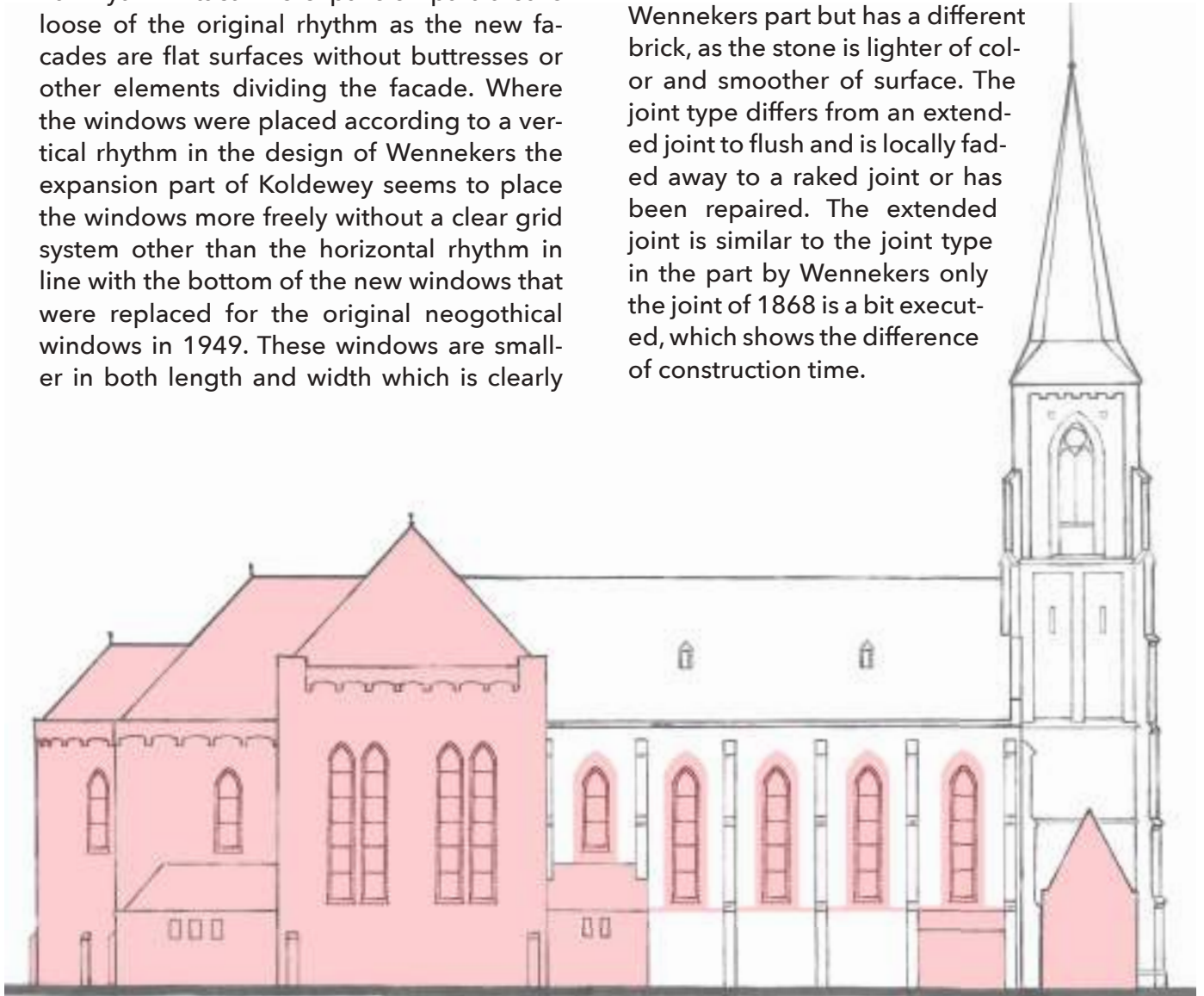
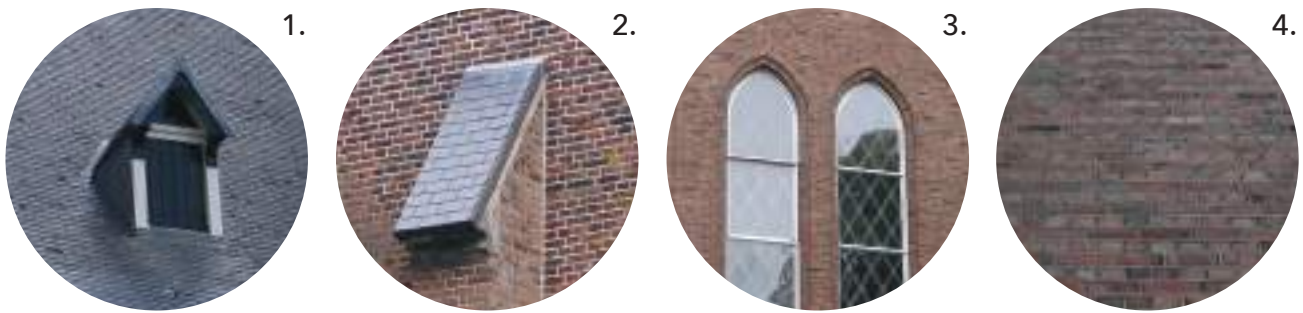


Figure 145 Side facade, 2019 (1:35)



SIDE FACADE 2019

Identical to the front facade, the side facade clearly expresses the historical development of the original facade through material, but brings this to another extend of contrast as the side facades are the only facades where the 1952 expansion meets the original 1868 facade. The 'new' brickwork in the 1868 facade parts is clearly visible and again shows that it has been replaced through time. The same brickwork is used in the facade parts of 1952 making a very clear contrast of time with the old original brick in the 1868 facade. However, throughout the facade the same white painted steel windows and a fully transparent front layer of glass in a white steel frame are placed in the same materials and the same width. This creates a consistent connection

through material between the 1868 and 1952 building parts. This consistence continues by the slated roof that is replaced throughout time and therefore does not acknowledge time differences.

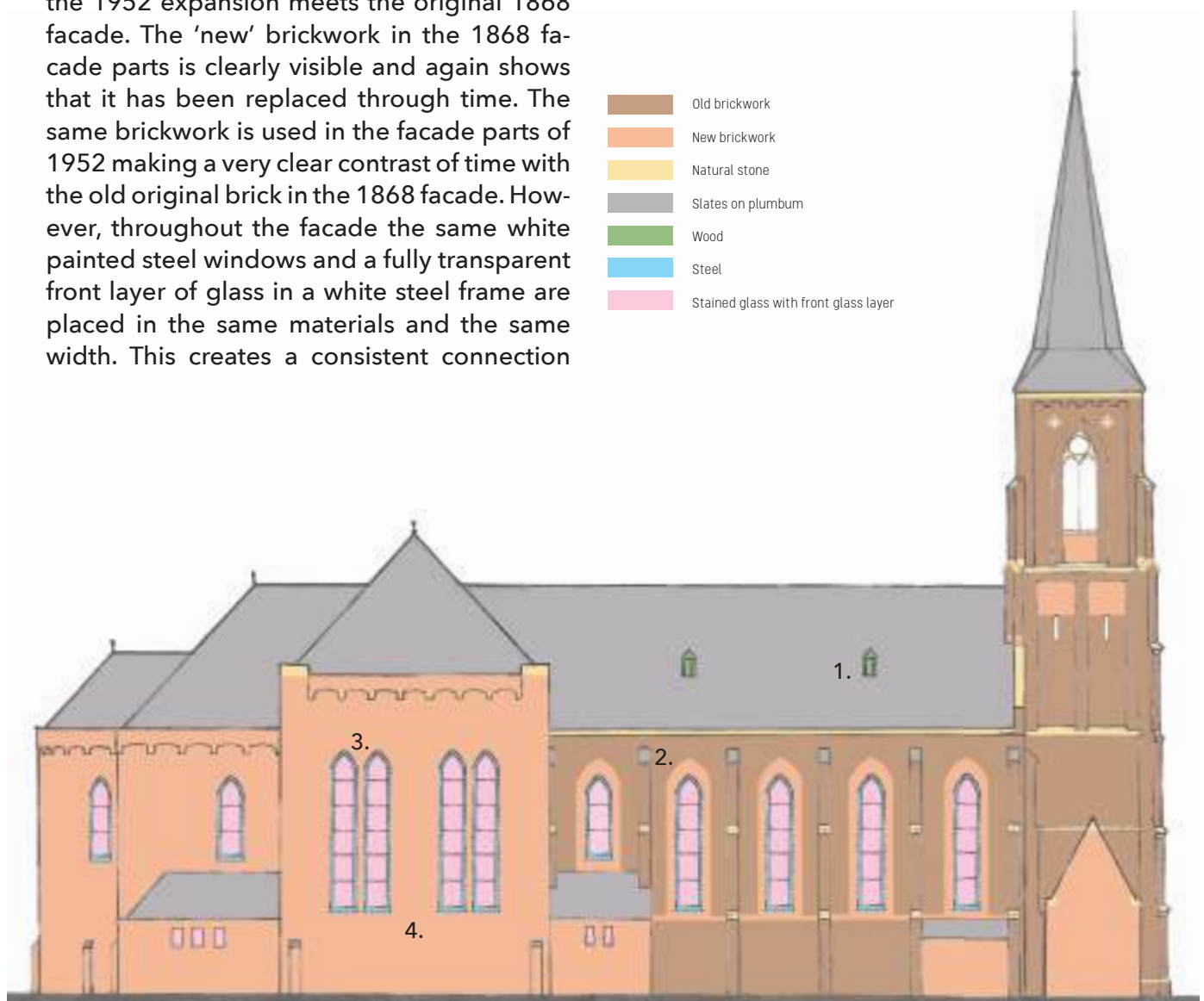


Figure 146 Materials. Side facade, 2019 (1:35)

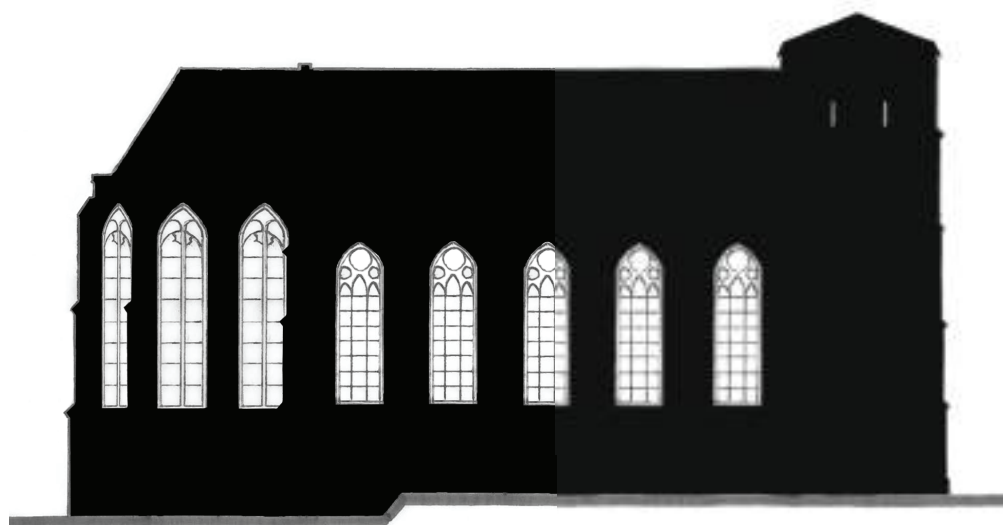


Figure 147 Openings. Front facade, 1868 (1:35, 80%)

OPENINGS

In the comparison of the openings in both facades becomes clear how open the back facade of the 1868 church was, made possible because of the dimensions and the close repetition of the windows, in comparison with the 1952 expansion. The total volume as result of the expansion in combination with the repetition of windows indicates more horizontal acknowledgment than the strong vertical articulation originally meant in the 1868 facade. This effect is countered by the windows decreasing significantly in width and therefore becoming more vertical. As a result however, the effect of the decreased width of the windows and the shorter windows, is that more plane voids of brickwork are created accentuating the mass and therefore the horizontality.

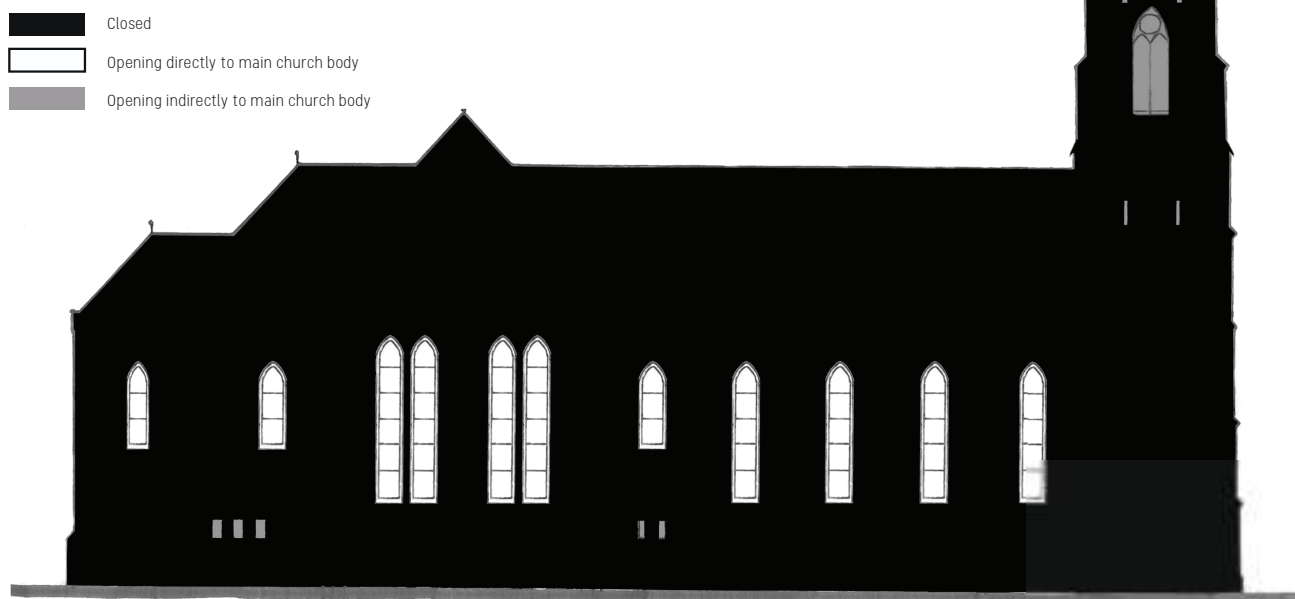


Figure 148 Openings. Front facade, 2019 (1:35, 80%)

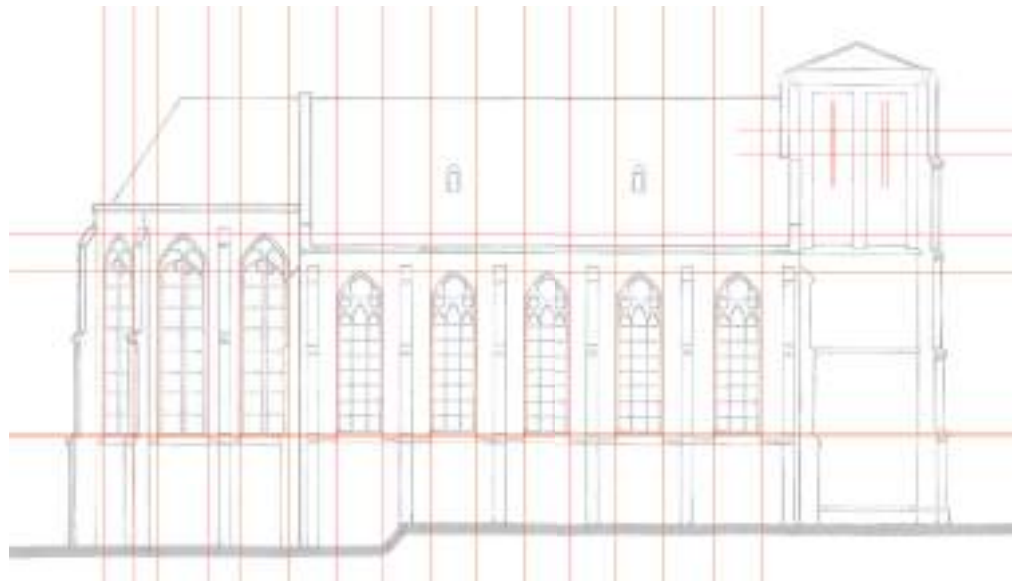


Figure 149 Rhythm by openings. Front facade, 1868 (1:35, 80%)

RHYTHM OF THE OPENINGS

In the 1868 facade the facade appears to be based on the strong systematic vertical rhythm of the large windows. To enhance the focus on the vertical direction the horizontal lines are kept submissive by simply continuing the bottom line of the windows and enlarging the length of the longer windows without horizontal disruption. Although the strong systematic vertical grid is not literally kept, it becomes clear in the current situation how the smaller width of the windows remains to possess a strong systematic vertical articulation as response on the original 1868 design, mainly in the 1868 facade and the neighboring expansion volume with the four long windows. The horizontal lines continue to submissively order the rhythm. The smaller window openings in the secondary volumes and the tower are not disrupting.

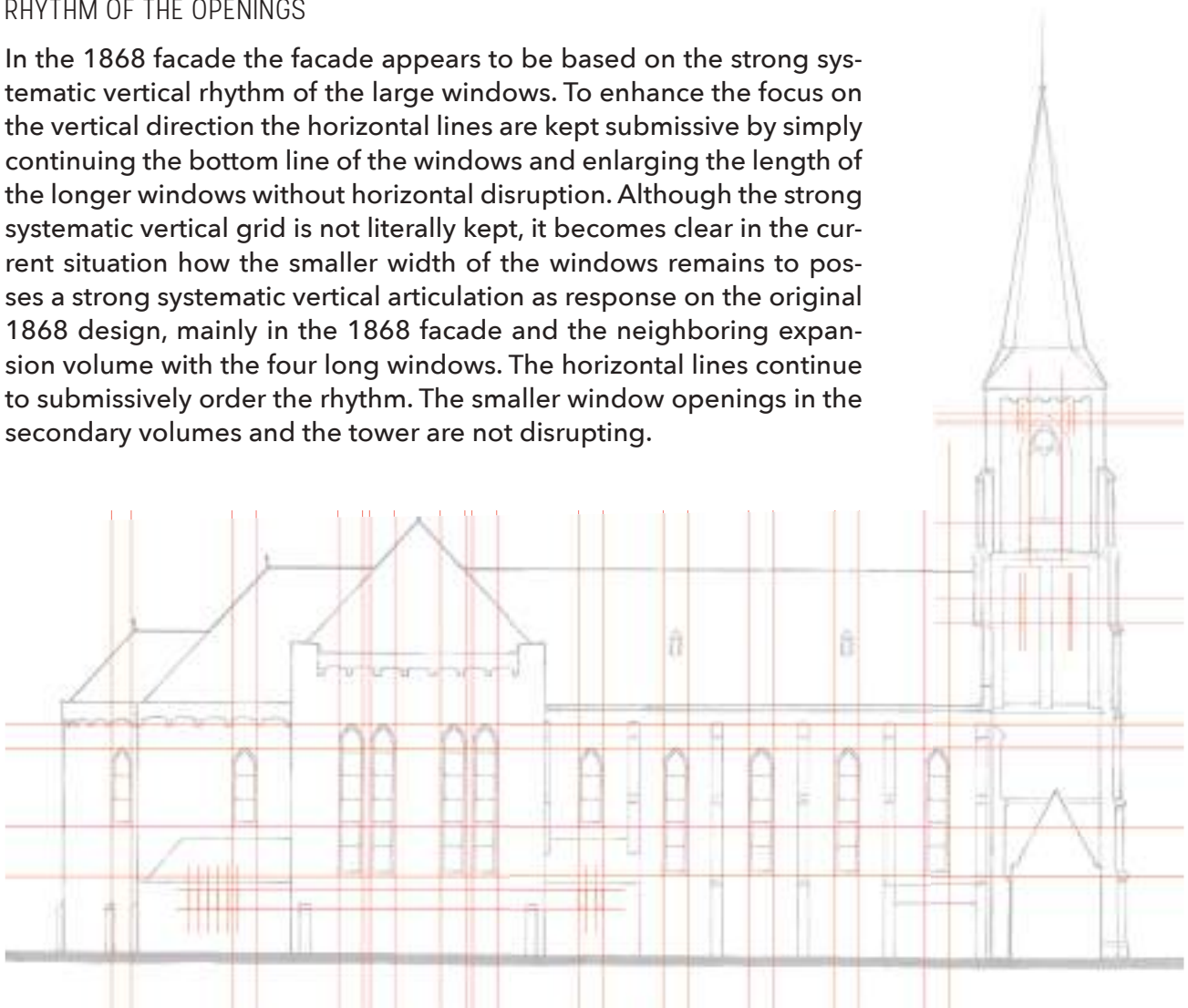


Figure 150 Rhythm by openings. Front facade, 2019 (1:35, 80%)

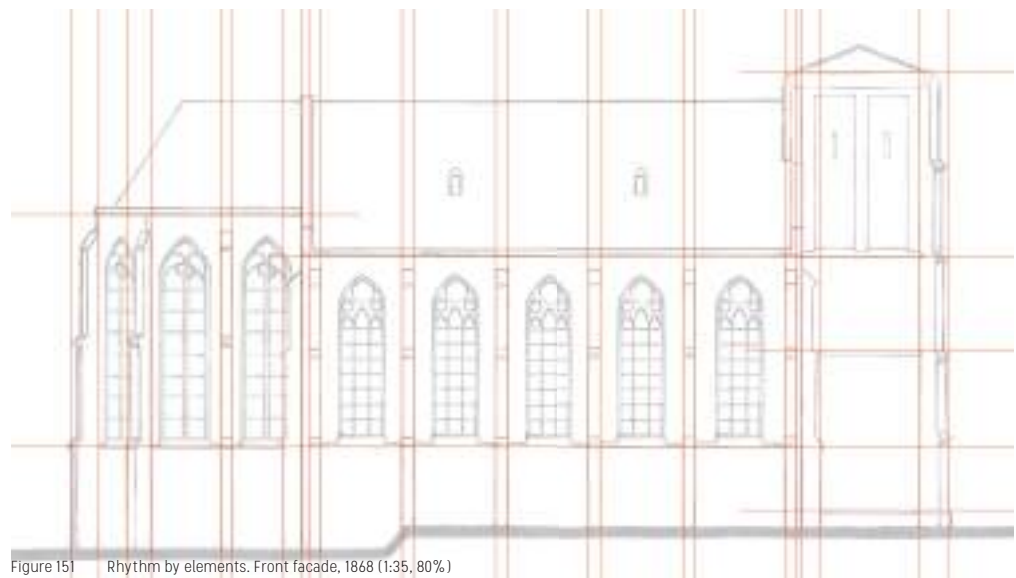


Figure 151 Rhythm by elements. Front facade, 1868 (1:35, 80%)

RHYTHM OF THE FACADE ELEMENTS

The original 1868 side facade contains a very strict vertical rhythm caused by the structural buttresses spanning over almost the entire height of the facade and is horizontally balanced by the continuous line of the natural stone windowsill in between the buttresses. Both this windowsills and the natural stone strip under the roof line result in horizontal lines clearly splitting the facade planes in 2 horizontal parts. Since the natural stone windowsill has disappeared from the 1868 part, the current facade becomes an horizontally separated facade plane clearly separating the roof from the facade by the remaining natural stone strip and acknowledging the end of height of the facade plane. This effect of the natural stone stroke is similarly created by the top collar of the 1953 facades made of decorative brickwork. Also remaining from 1868 is the strict vertical rhythm caused by the buttresses which clearly separates the original 1868 part from the 1952 expansion since it is completely absent in the 1952 facades.

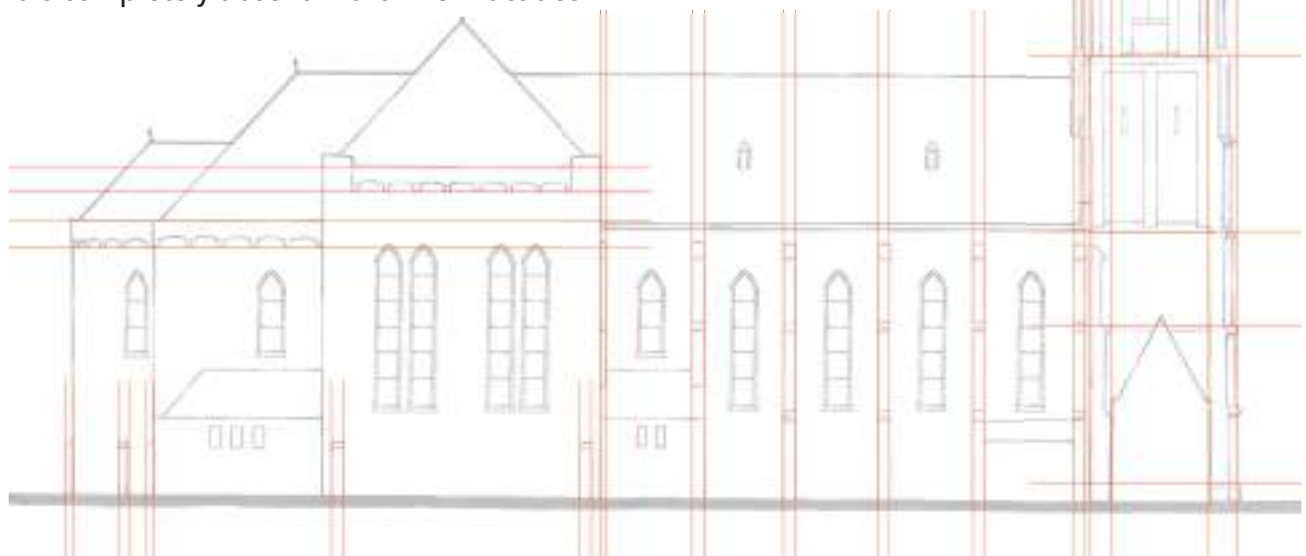


Figure 152 Rhythm by elements. Front facade, 2019 (1:35, 80%)

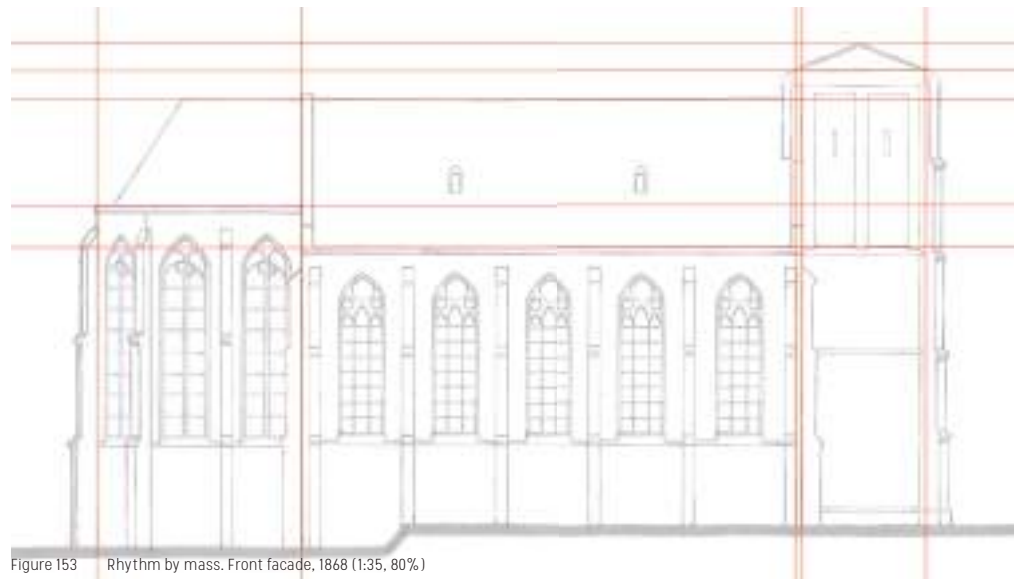


Figure 153 Rhythm by mass. Front facade, 1868 (1:35, 80%)

RHYTHM OF THE BUILDING MASSES

The original side facade consisted of a very clear horizontal separation of 3 parts namely the tower, the nave and the choir. This is replaced by the expansion of 1952 introducing 3 new parts: the transept, choir and the chavrette (small back part of the choir), as addition to the tower and nave, resulting currently in 5 parts. The 3 new parts together are in balanced dimensions of length and width with the original 1868 part of the nave, but they are way bigger than the original choir used to be.

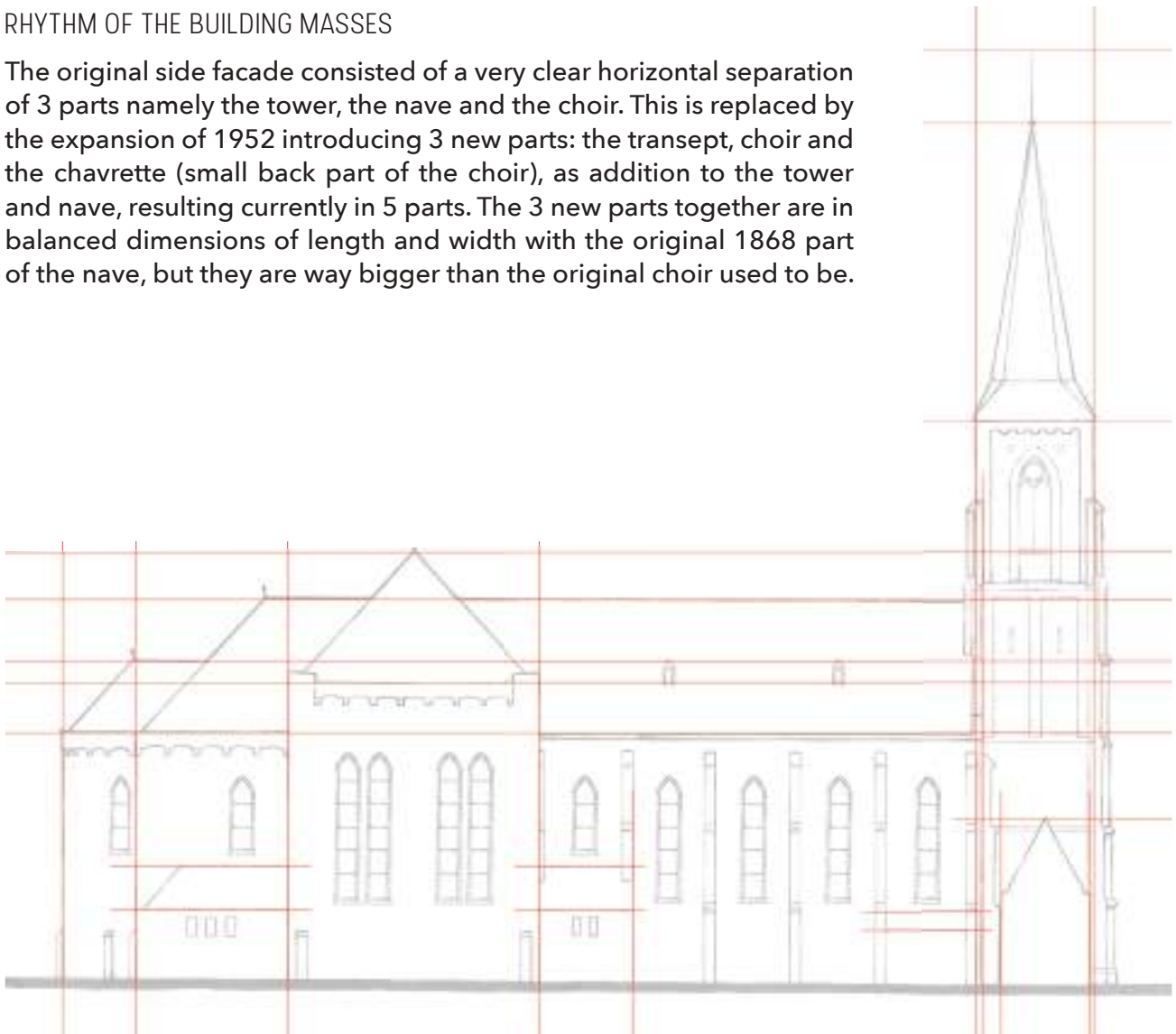


Figure 154 Rhythm by mass. Front facade, 2019 (1:35, 80%)

BACK FACADE

When the church was built in 1868 the style was neogothical. A typical representation of this is shown in the image below, where the original neogothical windows take up a large part of the facade. The large windows maximize light entering the choir and are decorated in natural stone. The facade is mainly built in brick with highlights of natural stone underneath the windows and tapered buttresses.

1868

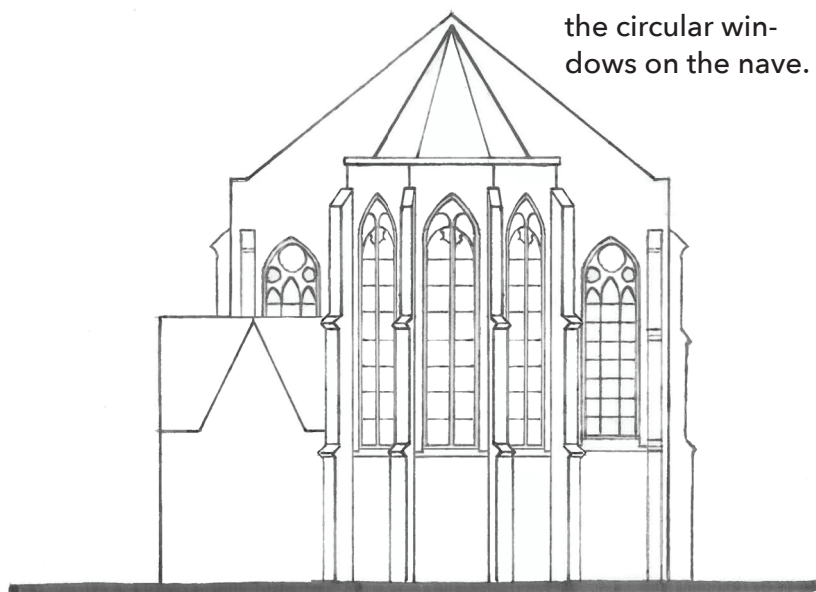


Figure 155 Back facade, 1868 (1:35)

CURRENT FACADE

With the big expansion of 1952 the back-facade changed drastically, since none of the original facade was left. The current facade has a layering of three parts: 1 chrevette, 2 choir, 3 transept. Koldewey, the architect of the expansion, adopted a different architectural style namely neoromanesque. When comparing the two facades a difference in window sizes becomes apparent as is the introduction of the circular windows on the nave.



2019

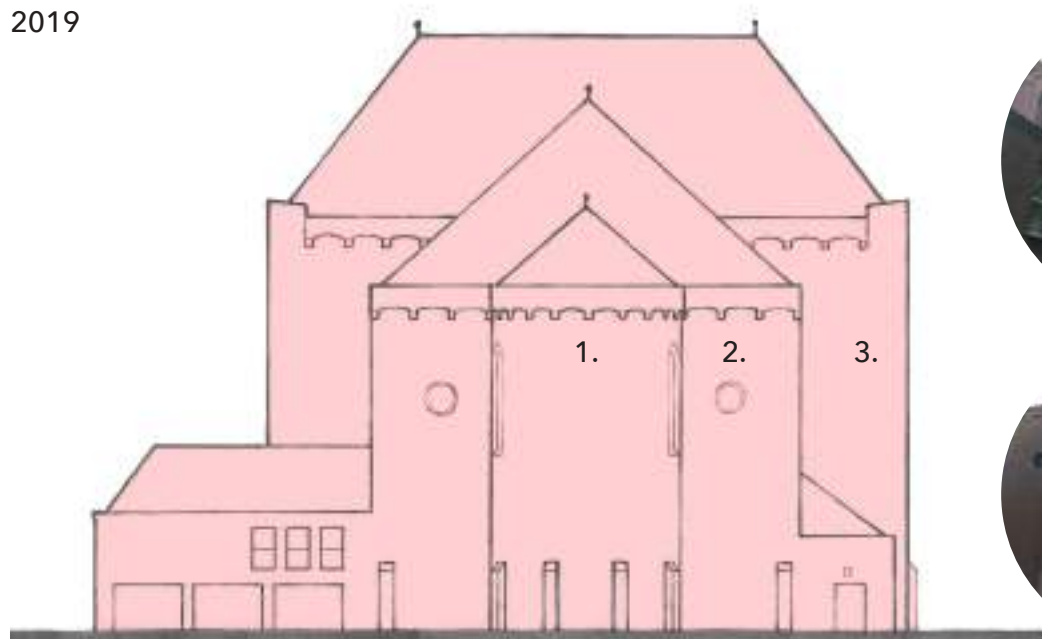


Figure 156 Back facade, 2019 (1:35)



MATERIALS

The back facade consists only of the expansion of 1953, since the 1868 choir was completely removed for the extension. It consists fully of plain brick facade surfaces. In relation with the side facades the back facade contains 2 similar windows and 2 small round windows, all consisting of the same steel window frames painted in white, filled with stained glass with a fully transparent front layer of glass placed before the stained glass, also in a white painted steel frame. Other openings are dark painted metal doors in the facade leading to the secondary spaces of the main church body. The middle of the facade plane of the round building volume functioning the choir, represents a symbol of the Roman Catholic church. This symbol is craftily composed of brickwork that is skillfully interwoven in the facade plane. The top collar of the facade exists of decorative brickwork in combination with natural stone. This natural stone is also found back under the round windows and as corner stones of the large volume in the back. The roof slates are placed on a layer of lead at the point of connection with the neighboring facade parts.



1.



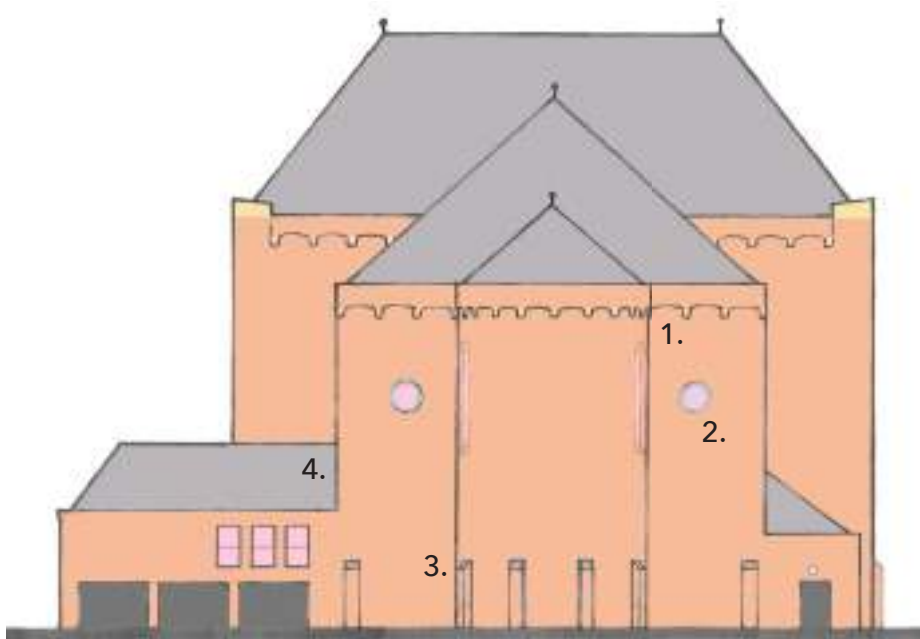
2.



3.



4.



- New brickwork
- Natural stone
- Slates on plumbum
- Steel
- Stained glass with front glass layer
- Dark painted steel

Figure 157 Materials. Back facade, 2019 (1:35)

OPENINGS

In the comparison of the openings in both facades yet again proves how open the facades of the 1868 church was in comparison with the 1952 expansion of Koldewey. In the 1868 church the windows of the choir were extended in length compared with the windows of the nave and aisles, to maximize the daylight infiltration of the choir. In the 1952 expansion the choir remains to be positioned in the apse in the center of the back facade. However, this apse only facilitates daylight infiltration by two relatively small windows in the corner of the facade and two small round ones. Aside from the windows being hidden behind the volume of the church itself the facade is entirely hidden behind large trees and neighbors a parking area and a house on the corner closing off the West side of the facade completely. There is a narrow uninviting pathway passing by the facade of the church which forms a shortcut for pedestrians. Altogether the back facade of the 1953 expansion has become a completely closed facade resulting in a dark choir in which the vertical articulation by daylight is absent.

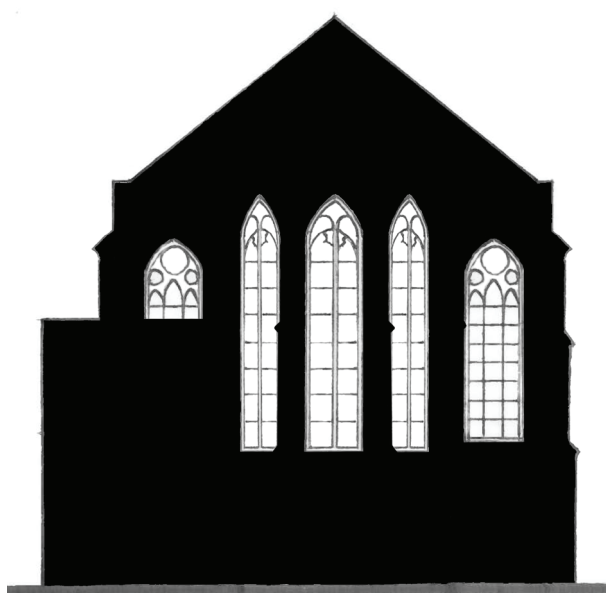


Figure 158 Openings. Back facade, 1868 (1:35)

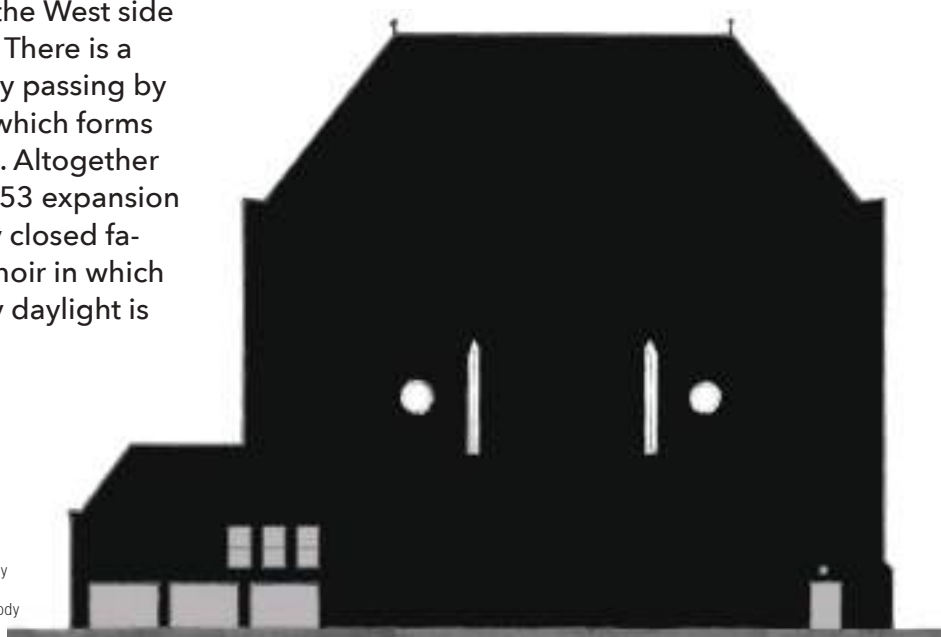
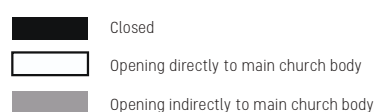


Figure 159 Openings. Back facade, 2019 (1:35)

RHYTHM OPENINGS

In the rhythm of the back facade of 1868 the verticality and geometrical order is strongly present by the two windows on the ends of both aisles and the long windows in the choir, spanning over about half of the entire height of the facade. In width the windows almost span the entire distance between the buttresses. The continuous line of the natural stone windowsill in between the buttresses in combination with the central position of the windows in the facade, splits the facade in three horizontal parts. Therefore, both through verticality and horizontality the geometrical order is present. In the rhythm of the side facade of the 1953 expansion becomes clear that the horizontal positioning of the windows in the back facade is in relation with the other windows in both the 1868 and 1953 building parts. The positioning of the back windows in comparison with each other seems to be on a horizontal line. Vertically the positioning of the windows in the volumes appear to be placed rather freely. The openings of the doors and windows in the secondary volumes on both sides of the choir seem to follow a separate grid system without relation with the openings in the primary volumes.

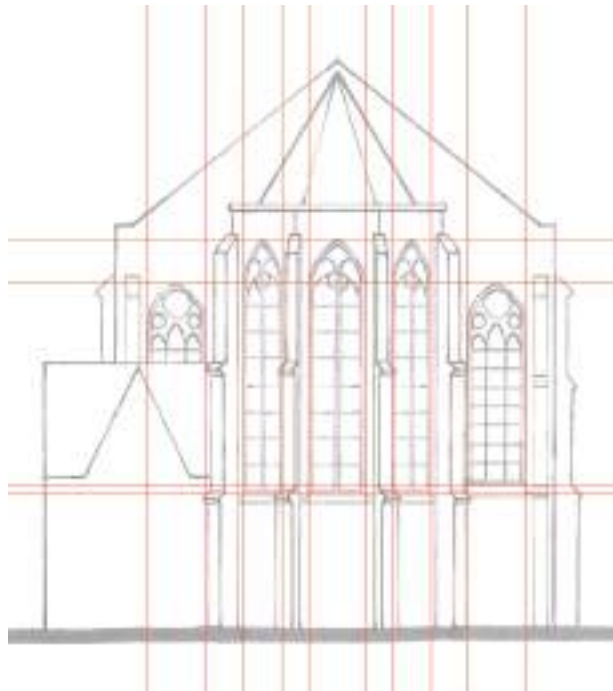


Figure 160 Rhythm by openings. Back facade, 1868 (1:35)

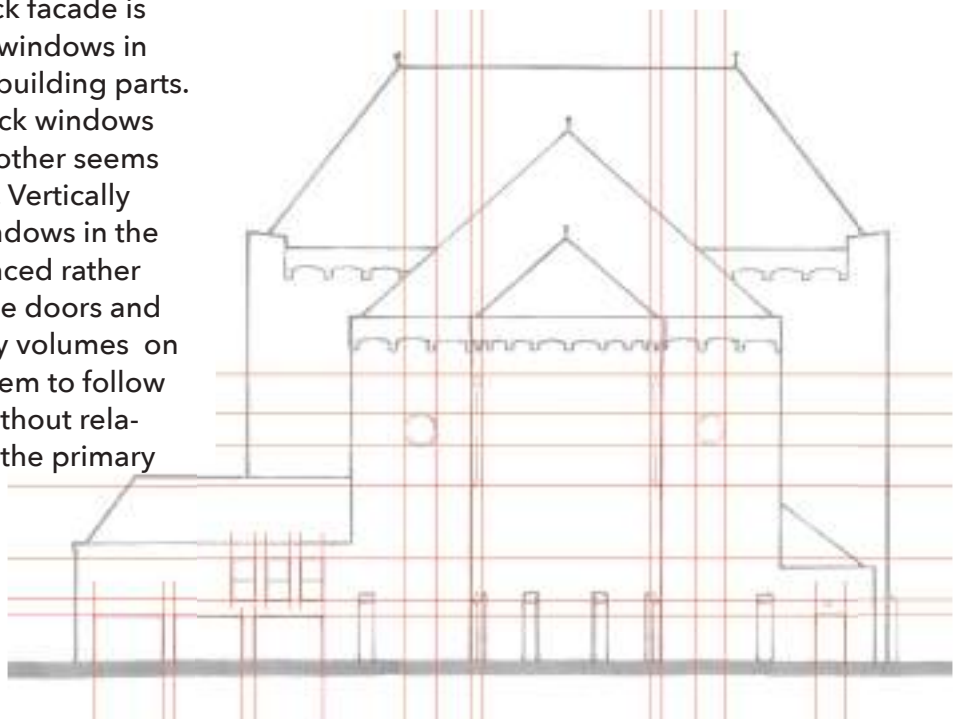


Figure 160 Rhythm by openings. Back facade 1919 (1:35)

RHYTHM OF THE FACADE ELEMENTS

The rhythm of facade elements of the back facade of 1868 is vertically created by the structural buttresses spanning over almost the entire height of the facade and is horizontally created by the continuous line of the natural stone windowsill in between the buttresses. In the expansion of 1952 the buttresses are significantly lower and have no structural function. These buttresses are not long enough to vertically separate the complete facade plane but purely function as vertical divisions of the facade on eye level. The decorative brickwork forming the top collar of the facade results in a strong horizontal element indicating and acknowledging the end of height of the facade plane and accentuates the width of the facade. The relation between the vertical and horizontal rhythm is absent.

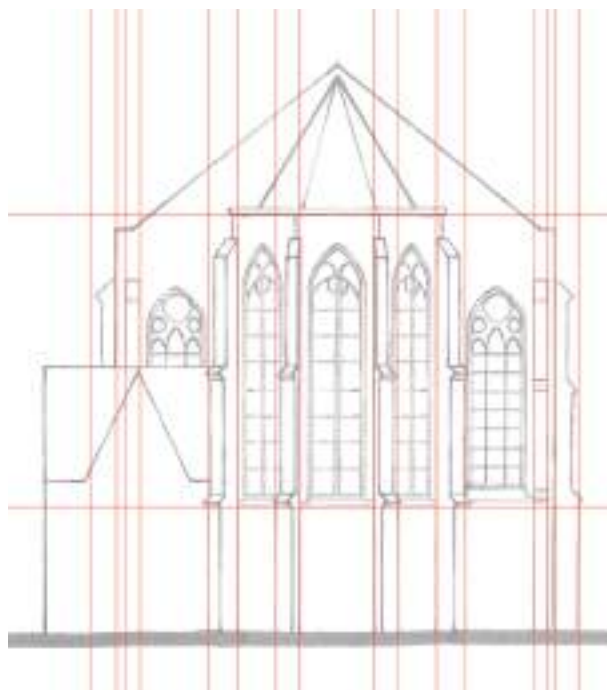


Figure 161 Rhythm by elements. Back facade, 1868 (1:35)



Figure 162 Rhythm by elements. Back facade 2019 (1:35)

RHYTHM OF THE BUILDING MASSES

The rhythm by mass has stayed similar over the expansion and remains to exist through strong geometrical hierarchy. Although the choir has become a semicircular volume without the corners of the 1868 choir, it remains to be positioned in the center of the nave and almost remains the exact same width of the 1868 choir. The width of the nave as the volume behind the choir remains the same as the expansion outlines the facade of the 1868 nave. The line of the middle volume follows the high of the 1868 roof. The dimensions of the secondary volume on the right is in relation with the secondary volumes on the sides. The secondary volume on the left side of the church is slightly higher.

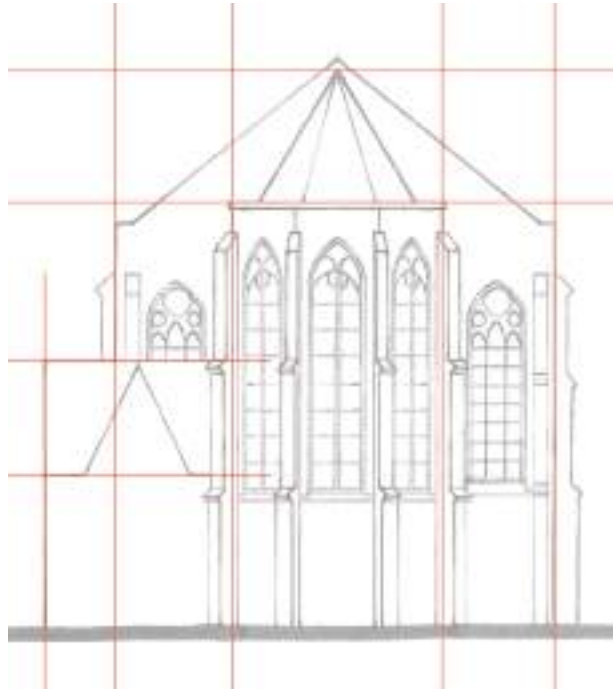


Figure 163 Rhythm by mass. Back facade, 1868 (1:35)

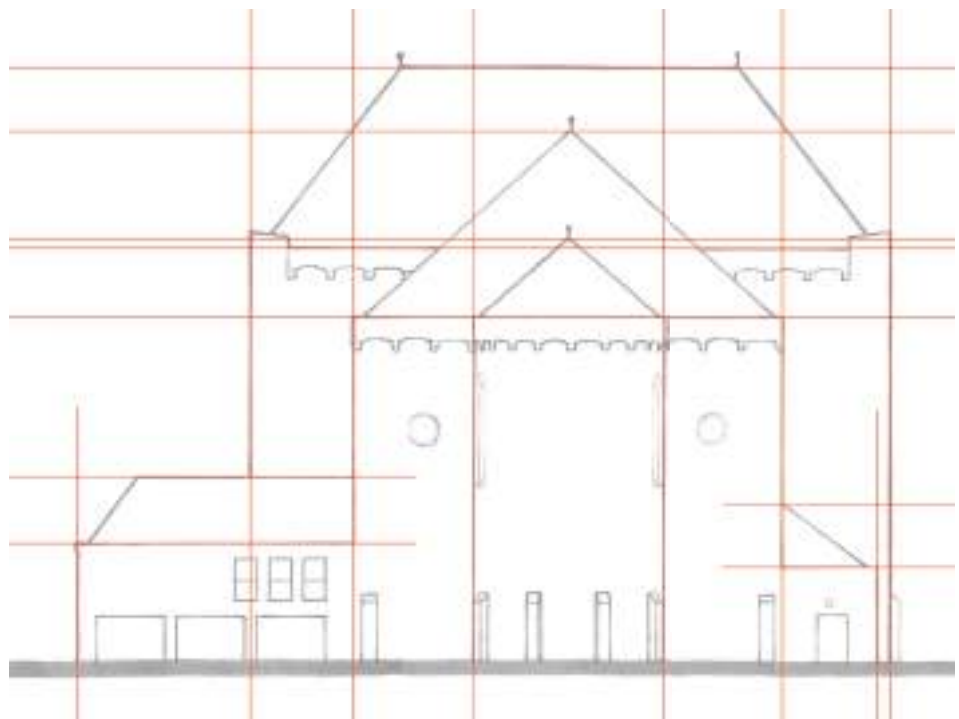
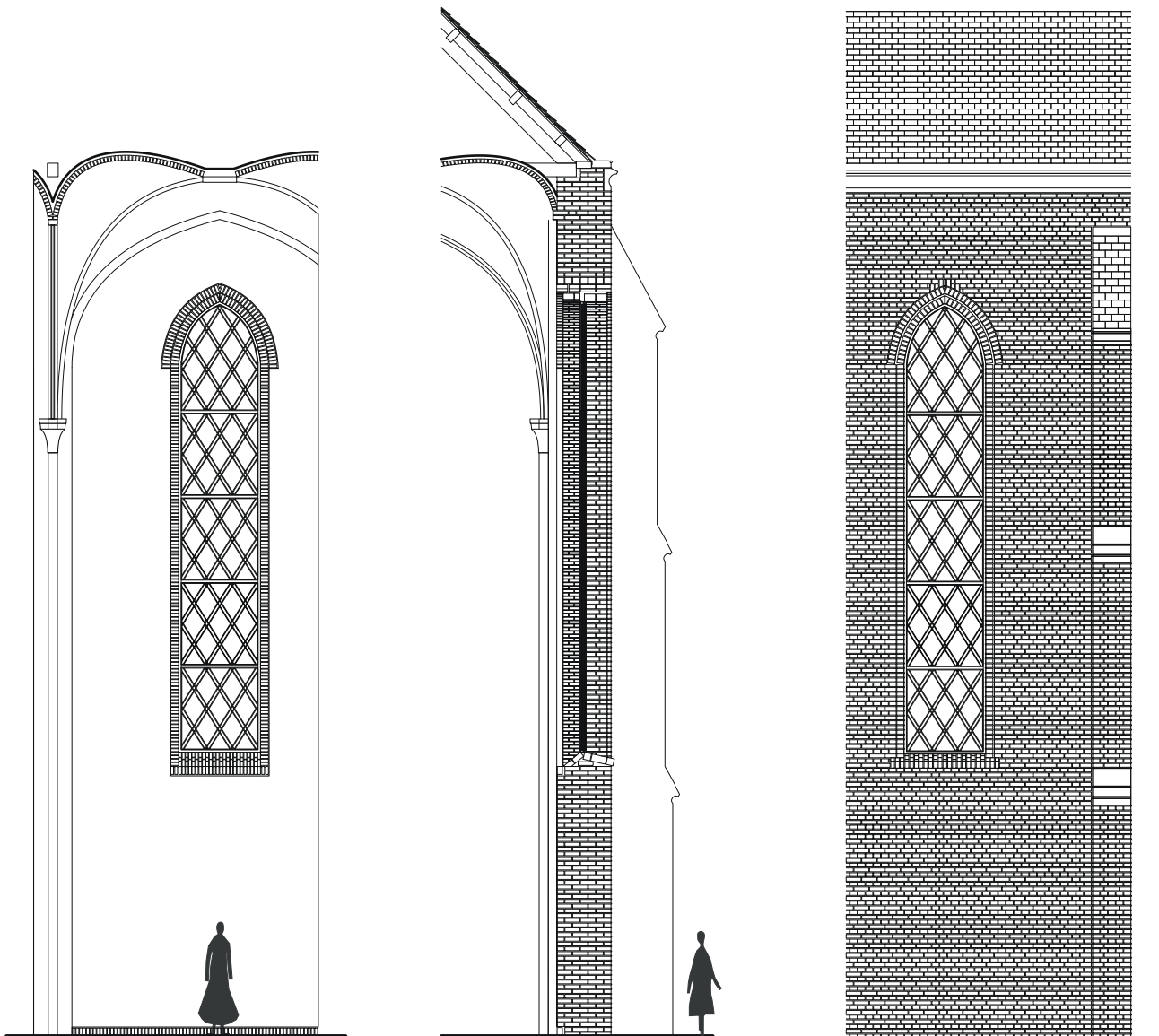


Figure 164 Rhythm by mass. Back facade 2019 (1:35)

FACADE SECTION OF A SIDE FACADE OF THE 1868
NAVE WITH INTERIOR AND EXTERIOR NAVE

Here the relation between the interior view, the facade section and the exterior view of the nave is seen. On the next pages the facades will be described more in detail. From the ground up you can clearly see the massive brick wall, then the high window, another part of brick wall and at the inner side the

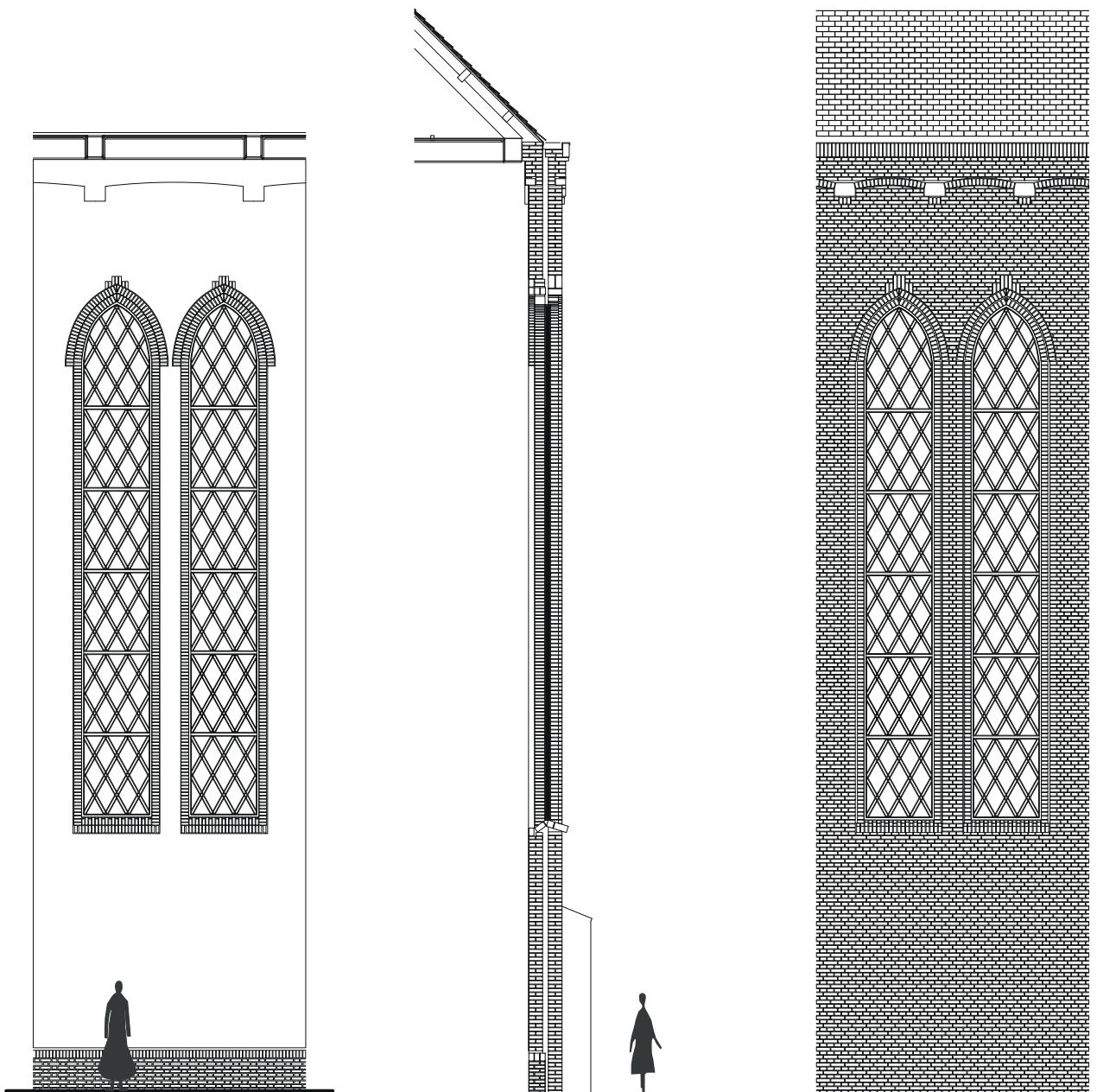
pilaster branching out to form the ribs of the cross rib vault. On top of the brick wall and the pillars in the middle rests the wooden roof construction. On the inside is white plaster, on the outside the brickwork is visible, so there is a clear difference between inside and outside finishing.



FACADE SECTION OF A SIDE FACADE OF THE 1952 EXTENSION TRANSEPT WITH INTERIOR AND EXTERIOR NAVE

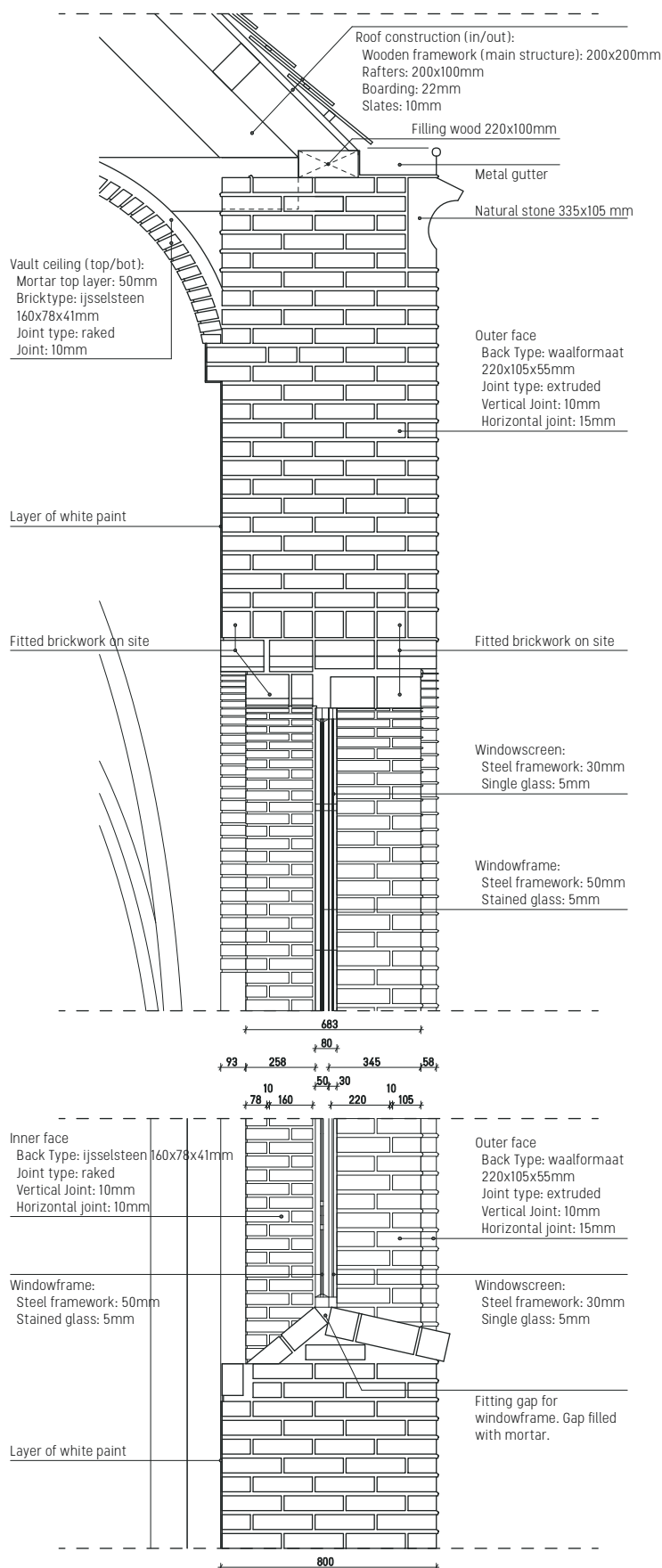
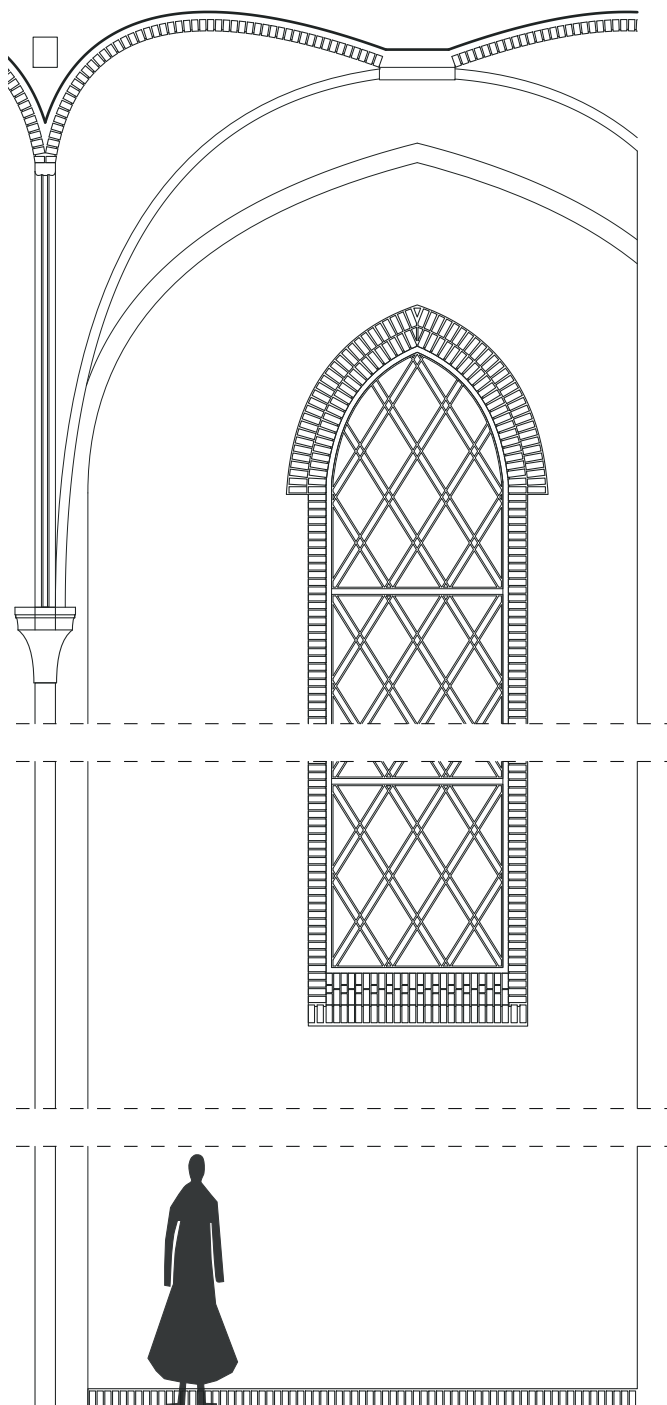
Here the relation between the interior view, the facade section and the exterior view of the transept is seen. On the next pages the facades will be described more in detail. From the bottom up we see a thick brick cavity wall, a different system than the mas-

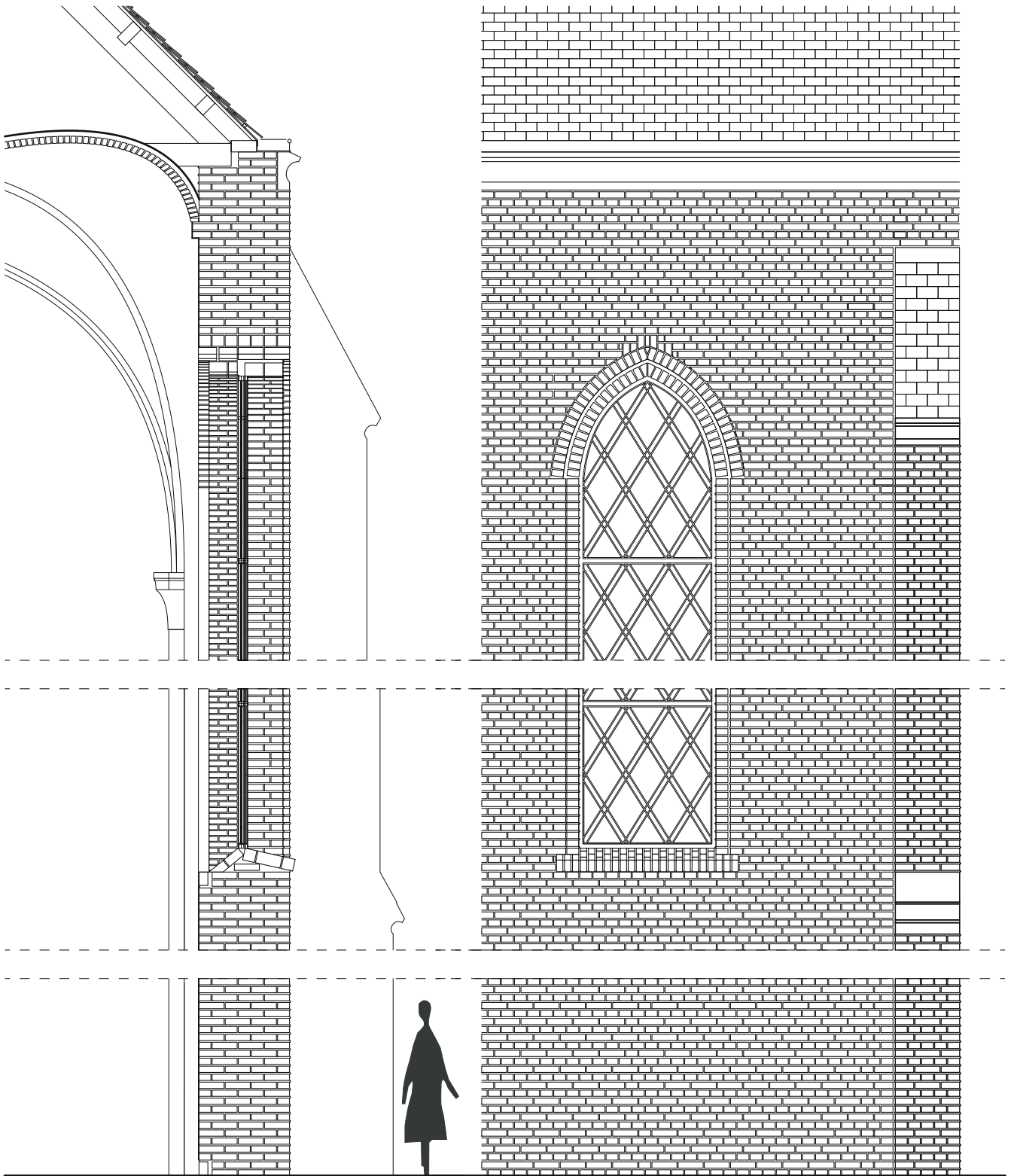
sive brick wall, then the high window, another part of cavity wall and the wooden roof structure supported by the brick walls. The cassette ceiling then hangs on the roof structure. On the inside is white plaster except for a bottom strip when the brick is left in sight, on the outside the brickwork is visible, so also here the difference in finishing between outside and inside is there.



FACADE SECTION OF THE 1868 NAVE IN DETAIL

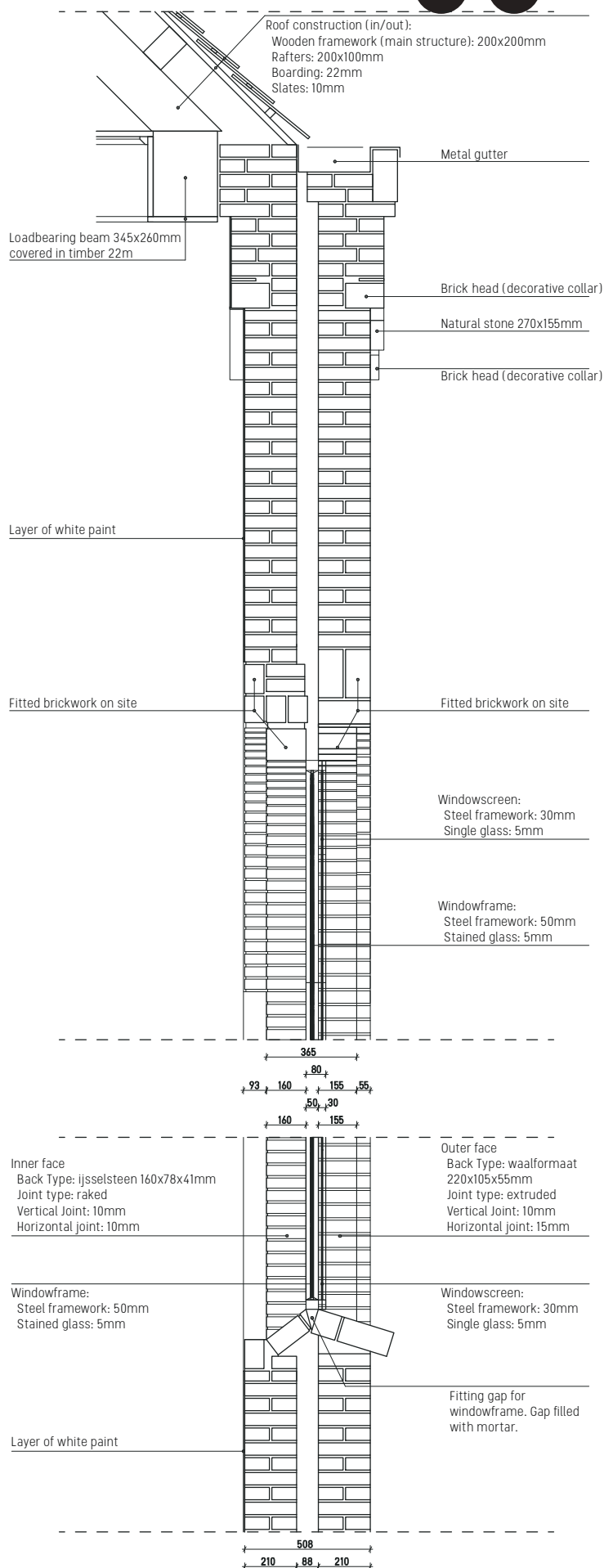
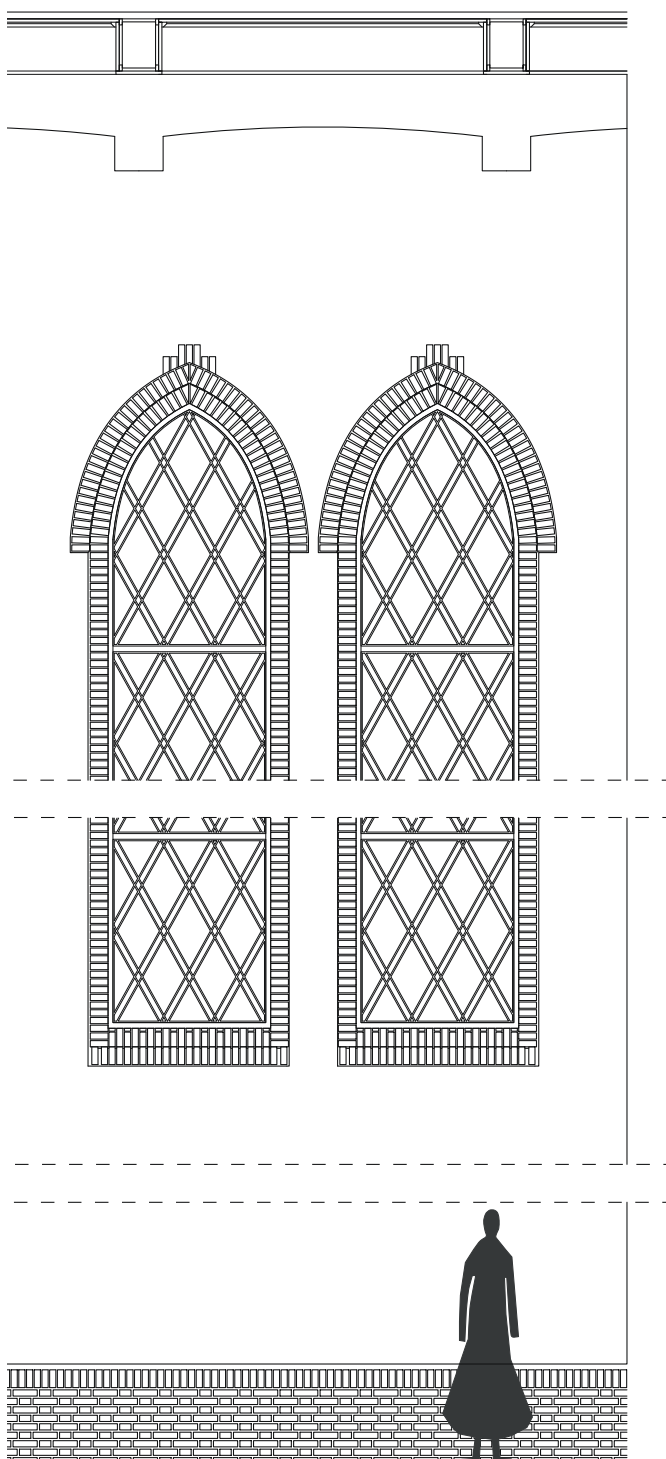
All the materials in the facade are indicated in the drawing on the right to show the connection between materials. On the right page again the full facade so see the dimensions in relation to each other.

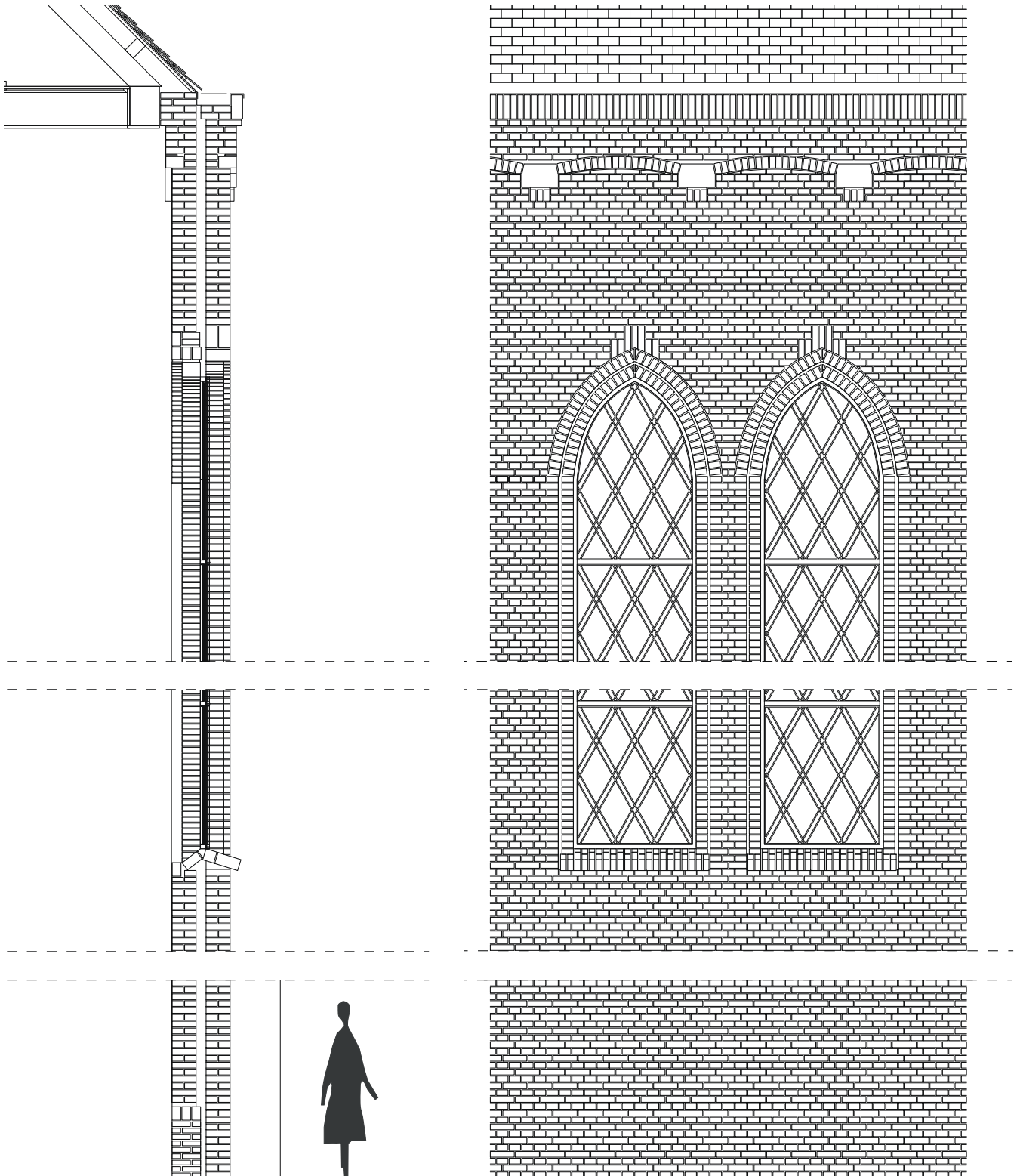




AA TA

All the materials in the facade are indicated in the drawing on the right to show the connection between materials. On the right page again the full facade so see the dimensions in relation to each other.







SKIN RECTORY

INTRODUCTION

In this chapter, the surfaces in the interior will be analyzed. The focus lies on the most significant of the buildings' interior surfaces, such as the different types of flooring, walls, doors, windows and ceilings.

Understanding how the surfaces are related to each other and how they were formed will be helpful for future plans.

FRONT FACADE

The front facade of the rectory is the first view that a passerby would see from the Misterstraat coming from the market square. Although the front facade is partially hidden by the garden and a large tree standing in front of it, the facade clearly expresses to be different than the shop fronts that dominate the Misterstraat. Together with the high and decorated casted steel gate in separating the garden from the Misterstraat, the facade expresses an old and classical building style through its materials and composition. The windows and floor anchors clearly show the rectory to contain three floor levels.



Front facade, 2019 (1:35)

FRONT FACADE – OPENINGS

The front facade of the rectory contains a large number and relatively largely dimensioned openings of the facade. With the rectory being positioned on the foreground of the site, just a few meters from the Misterstraat, which is the street from which visitors would see and approach the church site, it is of high importance that the front facade of the parish has an open and welcoming expression to suffice also for the church since the facade of the church is highly closed. The welcoming effect is enhanced by the windows clearly expressing the building to have three stories which makes the building appear homely.



Openings. Front facade, 2019 (1:35)



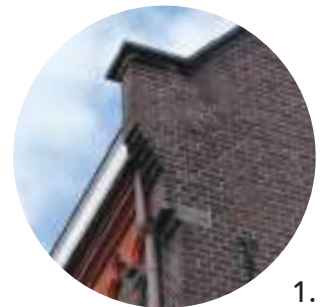
FRONT FACADE: MATERIALS

The facades of the rectory seem to be build from a comparable brick type as used for the facades of the original section of the 1868 church. The brick has a similar brown color but is a bit less red and is gradually slightly more grey. The brickwork is installed in the same English cross bond as the brickwork of the church. Although the main roof correctly consists of roof tiles, the other roof surfaces are made of similar slates the ones on the church. The natural stone elements appear to be the same natural stone than is used in the church but especially the stone forming the window sill appears to be in a newer condition. The decorative brickwork made of a bright orange brick clearly separates the facade in a back and a front surface. Although the faces next to the door are in line with the front surface, the door itself is placed to the back and is positioned in the back facade.

- Old brickwork
- Decorative brickwork
- Natural stone
- Slates
- Rooftiles
- Painted wood
- Wooden door
- Painted wooden frames
- Glass



Materials, Front facade, 2019 (1:35)



1.



2.



3.



4.

FRONT FACADE: RHYTHM OPENINGS

The six large vertical windows divide the rhythm by openings throughout the facade. The 'secondary' openings formed by the three smaller openings on the left top floor, the entrance door in the centre and the window on the right of the door, are placed in line of the rhythm created by these windows.



Rhythm by openings: Front facade, 2019 (1:35)

FRONT FACADE: RHYTHM ELEMENTS

The vertical direction created by the facade openings is strongly accentuated by the elements in the facade. These vertical elements are the floor anchors, the cross on the rooftop and the spires on the roofs of the chimneys and dormers. The horizontal direction balancing the verticality of the facade rhythm is created by the natural stone windowsills, the decorative brickwork under the roof and the ending line of the height of the plinth.

The decorative brickwork forming the collar of the facade plane indicates the end of the

facade plane and forms a separation of the facade from the roof. The collar and the effect of the collar is similar to the collar of the 1952 expansion of Koldewey and the natural stone at the top of the side facades of the 1868 parts. This decorative brick collar is even stronger present than in the expansion by Koldewey, through the bright color and the large dimensions in proportion to the dimensions of the facade plane.



Rhythm by elements: Front facade, 2019 (1:35)

FRONT FACADE: RHYTHM MASS

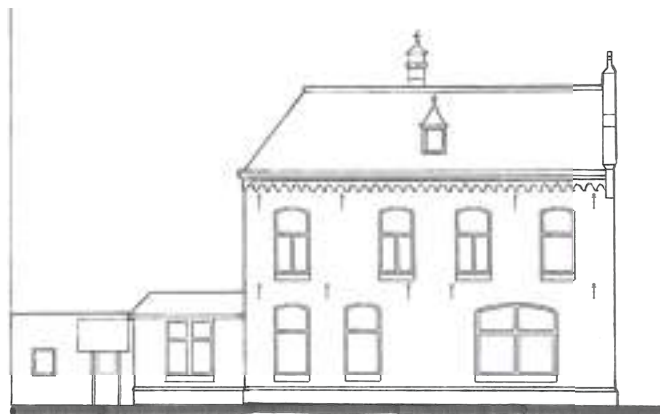
The rhythm of the mass dominantly organizes the front facade of the rectory. It is clearly deriving from the differences in depth by the placement of the facade faces. The composition of depths creates a strong hierarchy of the frontal face and the face placed about a meter to the back. The surface on the right sight is positioned far to the back and is covered by the tree in front of the building and the neighboring building that stands about two meters on the right side of the rectory.



Rhythm by mass: Front facade, 2019 (1:35)

SIDE FACADE

The side facade of the rectory is the facade that becomes visible for a viewer that would walk the Misterstraat towards the market square. While walking the street towards the market square, the facade changes in perspective. As a result of the long horizontal facade surfaces, the facade indicates the viewer to follow this horizontal direction of the surface of the facade. Doing so this would open up the site and the front square before the front facade of the church 'welcoming' the viewer to enter the plot.



Side facade, 2019 (1:35)

SIDE FACADE: OPENINGS

Similar to the front facade the side facade of the three story volume, forming the main rectory building along with the smaller volume on its left side, contains a large number of the largely dimensioned vertical windows resulting in an overall very open facade. The double window in the bottom corner on the right of the facade plane balances the almost becoming monotone vertical direction created by the facade openings as this window is wider. This window is positioned on the corner and large enough to look past the curtains inside from a distance of the Misterstraat. This imitates the corner window of a very typical corner house of a block of Dutch terrace houses. Together with the human proportioning of the facade it therefore reminds of a certain domestic expression.



Openings. Side facade, 2019 (1:35)



SIDE FACADE: MATERIALS

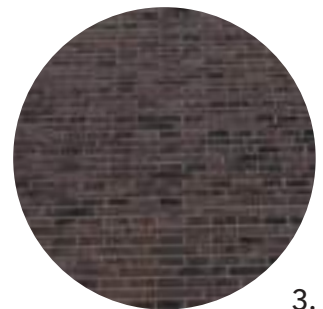
The materials and the composition of the front facade are continued to the side facade of the rectory. Of the three volumes that compose the side facade, the volumes on the right and middle form the original rectory and the volume on the left forms an extension connecting the rectory to the church. The facade of the extension is placed about 4 meters backwards in line with the facade of the rectory leaving a space in between the rectory and tower of the church. A contrast is created by the materialization of this extension and the original rectory, as it contains a lighter and more red/orange color of brick. The extension does not contain any of the materials used in the facades of the rectory and therefore expresses a completely different character than its context of the rectory or church. This makes the extension appear out of place. The brick composing the extension is also installed for the facade of the smaller volume of the rectory indicating that this facade plane has been replaced.



1.



2.



3.



4.



5.

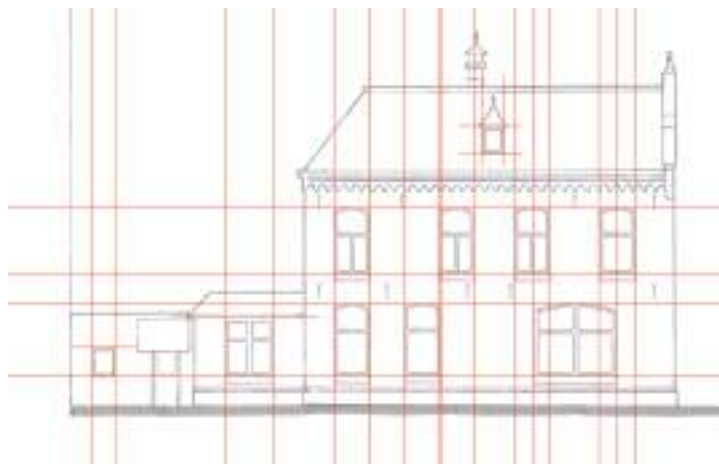


Materials. Side facade, 2019 (1:35)

- Old brickwork
- Decorative brickwork
- Natural stone
- Slates
- Rooftiles
- Painted wood
- Painted wooden frames
- Glass

SIDE FACADE: RHYTHM OPENINGS

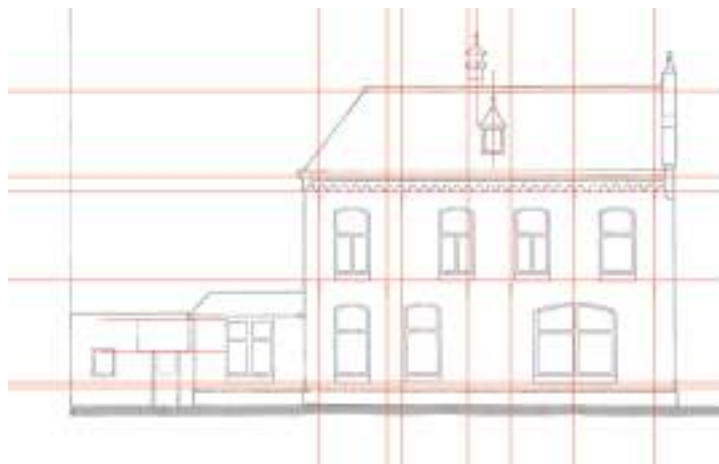
Similar as the front facade the large vertical windows also divide the rhythm by the openings on the side facade of the rectory. These windows are rhythmically positioned in the facade plane and are mirrored over the middle line centrally running over the dormer, which is exactly the line created by a drainage pipe. The two otherwise mirrored windows on the left bottom corner of the plane are replaced by a double window on the right bottom corner of the facade plane. This window disrupts the literal vertical rhythm created by the large windows, however its position in the facade balances this disruption. The windows on the smaller volume of the rectory and the extension do not further contribute to the rhythm of the facade openings.



Rhythm by openings: Side facade, 2019 (1:35)

SIDE FACADE: RHYTHM ELEMENTS

Aside from the rhythm of the openings that copy the system used for the rhythm of the front facade, the rhythm by elements in the facade is also copied. Applying to the side facade of the rectory the accentuation of the vertical direction is merely created by the floor anchors. The horizontal direction balancing the verticality of the facade rhythm is identically created by the natural stone window sills, the decorative brickwork under the roof and the ending line of the height of the plinth.



Rhythm by elements: Side facade, 2019 (1:35)

SIDE FACADE: RHYTHM MASS

The rhythm of the facade by mass clearly shows the separation of the three volumes composing the side facade. Since the facade of the extension is placed too far backwards, the volume only takes part of this rhythm when the viewer is standing on a distance right in front of the side facade. From the Misterstraat the rhythm will merely be created by the original volumes of the rectory. From this position the contrast created by the extension will not be visible.



Rhythm by mass: Side facade, 2019 (1:35)

BACK FACADE

The back facade consists merely of the first and second floor of the rectory and its smaller volume on the right. The left side of the facade is closed by the extension connection the rectory to the church. The back facade of the rectory is only visible for the visitor walking back from the church to the Misterstraat, but does not form a dominant presence in the sight of the visitor through the routing. The view of these windows from inside watch over the bitumen roofing onto the brick walls of the church.



Back facade, 2019 (1:35)



BACK FACADE: OPENINGS

The back facade only contains openings on the first floor of the rectory through two of the large vertical windows that also appear in the front and side facade, and a door that matches these two windows.



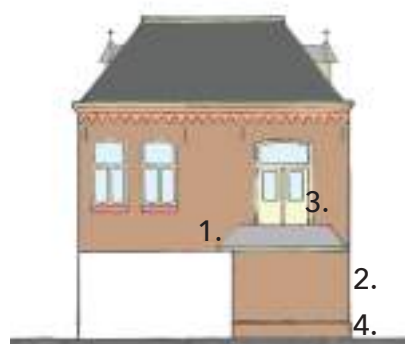
Openings. Back facade, 2019 (1:35)



BACK FACADE: MATERIALS

The materials and the positioning composing the front and side facades are continued to the back facade of the rectory. Therefore, the materiality and its implementation of the facades of the rectory are in unity. As the materials of the rectory are similar as the materials composing the facades of the church, the individual unity of the rectory is also in line with the church, especially in the direct relation between the rectory and the front facade of the church.

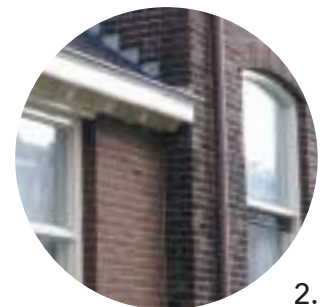
- Old brickwork
- Decorative brickwork
- Natural stone
- Slates
- Rooftiles
- Painted wood
- Painted wooden frames
- Glass



Materials. Back facade, 2019 (1:35)



1.



2.



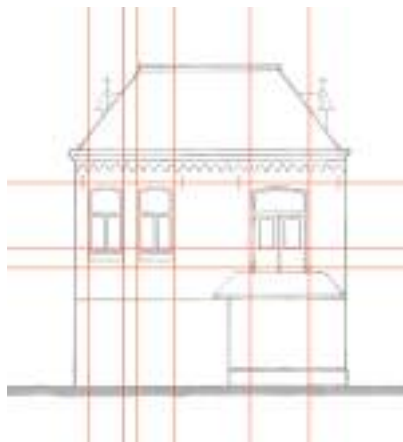
3.



4.

BACK FACADE: RHYTHM OPENINGS

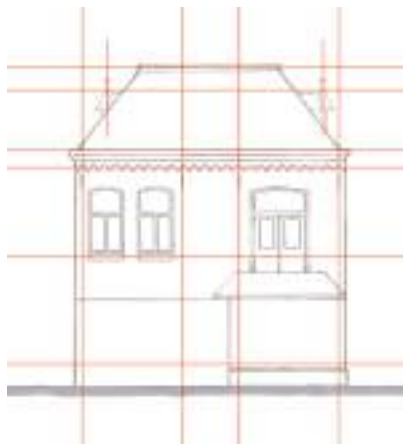
Similar to the side facade the facade openings are positioned on the sides of the facade plane leaving the middle of the facade a blank face of brickwork.



Rhythm by openings: Back facade, 2019 (1:35)

BACK FACADE: RHYTHM ELEMENTS

The facade elements that accentuated a rhythm in the front and side facade do not apply for the back facade. Because of the floorankers not being visible for the floor of the first level and the windowsills not reaching over the entire plane by the positioning of other window openings in the facade, the rhythm of the facade by elements is not strongly present.



Rhythm by elements: Back facade, 2019 (1:35)

BACK FACADE: RHYTHM MASS

The rhythm of the facade by mass merely exists of the main volume of the rectory and the smaller volume. The roof of the smaller volume reaching until almost exactly the half of the facade plane of the main volume behind it balances the horizontal direction of the facade.



Rhythm by mass: Back facade, 2019 (1:35)

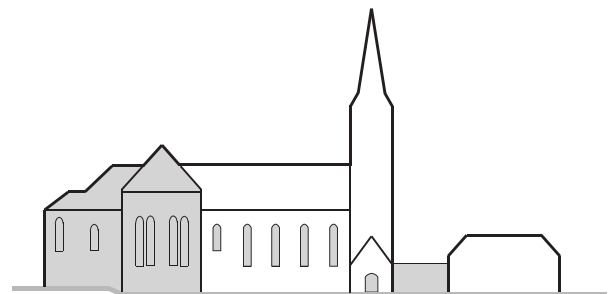
CONCLUSIONS SKIN

This chapter provides an overview on how the facades have developed through the use period of the building regarding the extension of the tower in 1920 and the expansion by Koldewey in 1952 and how this has impacted the original building of 1868 and its intentions by Wennekers. From the answers to the research questions formulated for this chapter can be concluded that the developments by Koldewey in 1953 and 1956 have heavily impacted not only the original exterior functioning of the facade but also the interior through the capacity of daylight infiltration and the central functioning of the floorplan, which both form key characteristics in the originally intend neogothical atmosphere and functioning of the 1868 church. Overall the contrasts by materials and compositions are clearly visible and clearly express the developments through time.

Conclusion #1

'What is the impact of the development of the facade of the Jacobus church through time?'

The eventual impact of the developments of the expansion by Koldewey in 1952, together with the implementation of smaller windows and the replacement of the entrance in 1956 has changed most of the exterior expression as originally intended in the 1868 design by Wennekers, and heavily impacts the exterior functioning of the facade towards the interior regarding the capacity of daylight infiltration and the central functioning of the floorplan through the entrance.

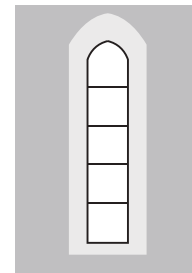


Conclusion #2

'What is the relation of the materials composing the skin of the Jacobuskerk and its rectory?'

The influences by Koldewey throughout time have resulted in contrasts in materials between the original 1868 building part and the extensions and replacements by Koldewey. This contrast applies mainly for the brickwork. Although materials of for example the roofing and the replaced windowframes create a certain coherency in the facade, the neogothical expression has been neglected throughout the developments.

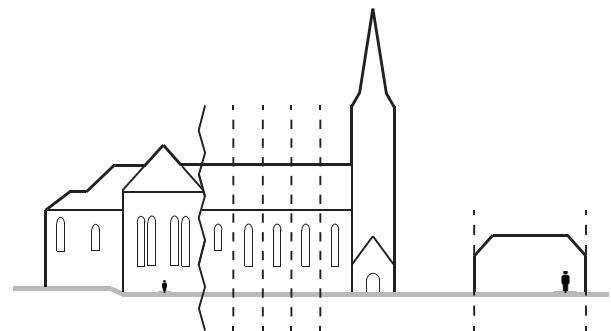
The materials in the facades of the rectory strongly relates to the materials of the front facade of the church causing the rectory to acknowledge the visual connection with the church from the important street in front of the site.



Conclusion #3

'What is the relation of the composition of the skin of the Jacobus church and its rectory?'

The developments throughout time have resulted in large contrasts in rhythmical compositions between the original 1868 building part by Wennekers and the extensions by Koldewey. The influences by Koldewey heavily ignores the originally intended neogothical rhythms of the 1868 church. Where the facades of the church are high planes, the composition of the rectory is based on a more human scale suitable for the domestic expression of the building.





STRUCTURE

INTRODUCTION

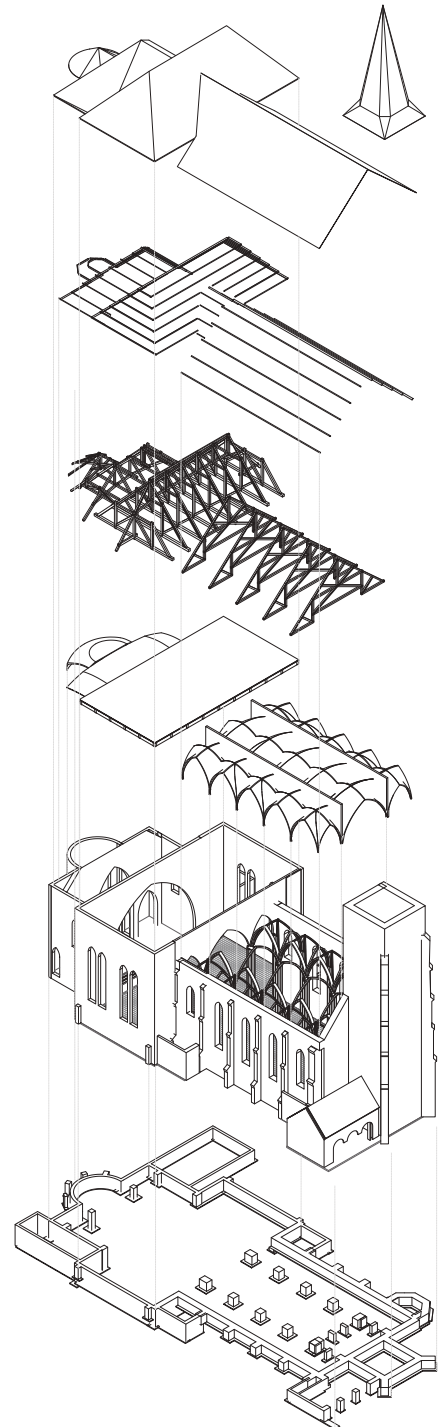
The structure is one of the defining elements that determine the space and the building. Changes in structural elements are usually risky, costly and difficult. Every structure is designed with a certain lifespan in mind and with certain standards.

Brand sets specific time limits for each layer but modern developments in building techniques come to make time even more relative on how we use the structure of a building and the elements it consists of. Reusable and demountable structures become the trend in the modern times, deriving from a sustainable approach.

This chapter explores a different type of structure, that of an old church building in the center of a city. It analyses the different structural elements in order to understand their role and function in the overall structure, and in order to get a better understanding of the structural principles. The condition of the structure can offer important information about the capacity it has and its future possibilities.

This analysis begins with a recap of the different building stages in which the current building was constructed. In order to be understood for this analysis, it is divided into two parts. The 20th century part where the big empty mass is added and the 19th century part that consists of the old building and the tower. Specific building parts and elements that make up the structures are described and explained.

New and old create an interface where the two structures come in contact and work together. Different techniques and materials from two very different time periods combine to create the Jacobuskerk in Winterswijk.

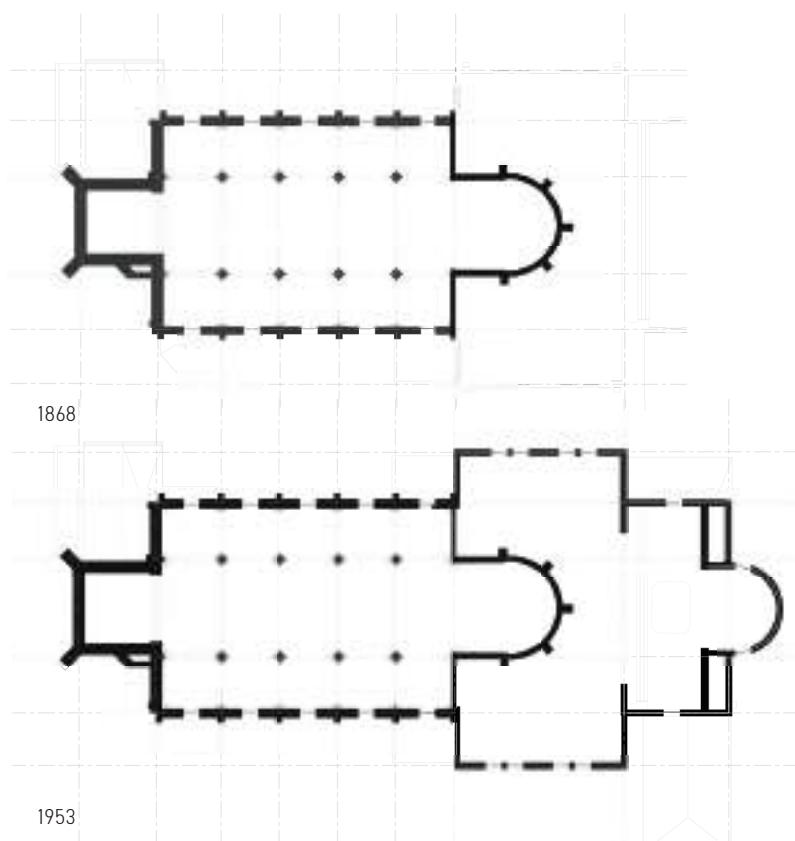


CHRONO-MAPPING

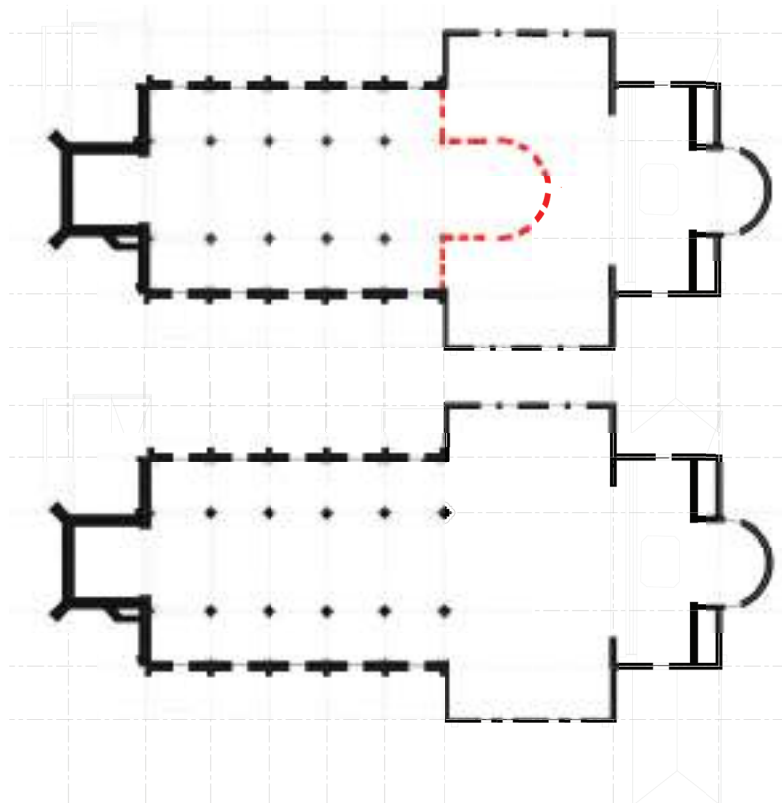
In order to reconstruct and analyze the structure of the building the archive drawings were used. Due to the age of these sources certain information appears unclear and is not inaccurate. With the use of photos and by comparing information, the structure was reconstructed is presented for this report. Both parts of the church were constructed gradually, after long delays between conception, approval and construction but the structures that we have today form a new structure together. The original building of

the church is partly demolished to make space for the new part. The main volume of the church undergoes a large extension with the 20th century addition. A new structure is added with the use of the existing support that follows the same principal but is different in many structural aspects.

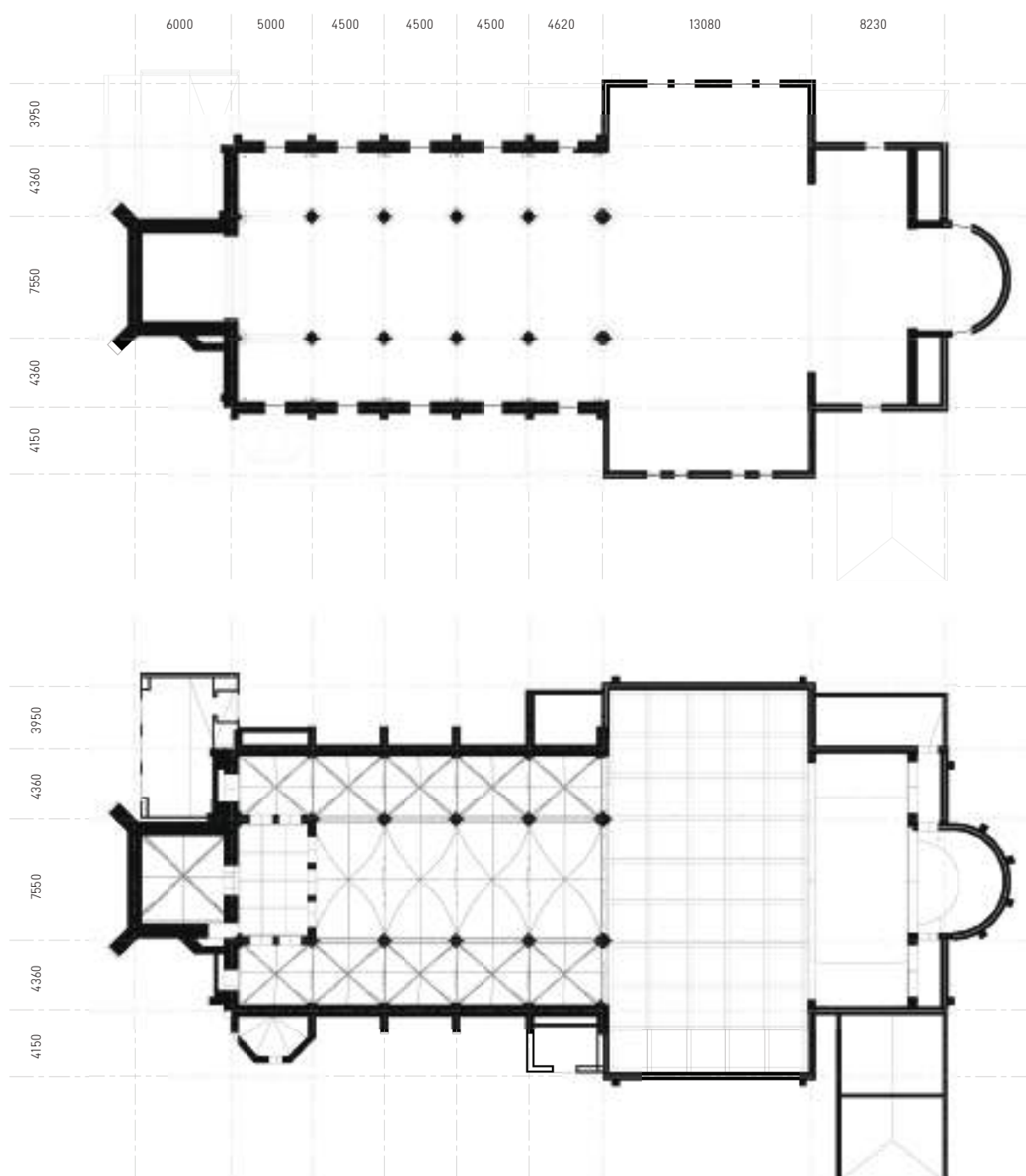
Developments in building techniques and material science took place between the two construction times. Masonry structures were made using different techniques and the quality of the brick had increased a lot. The two different wall structures in this building are an example of this. Different mortars with



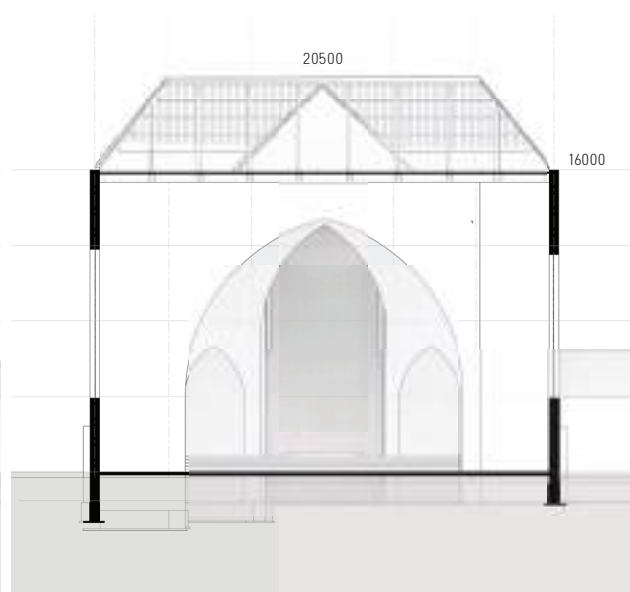
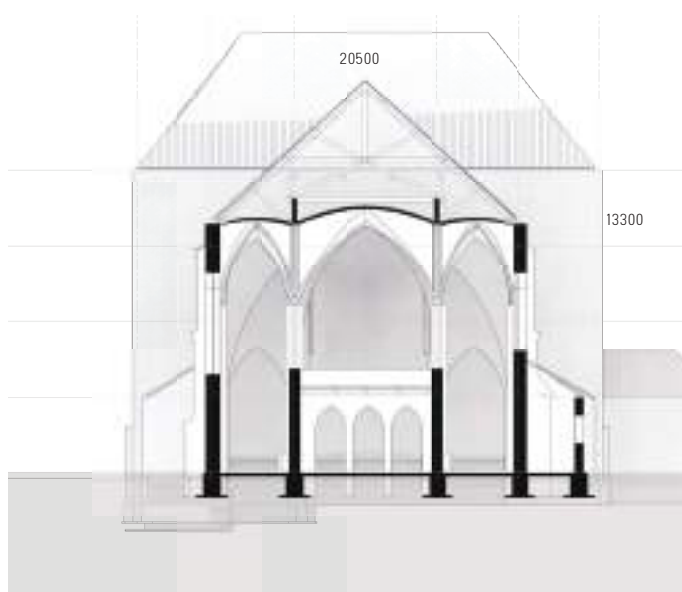
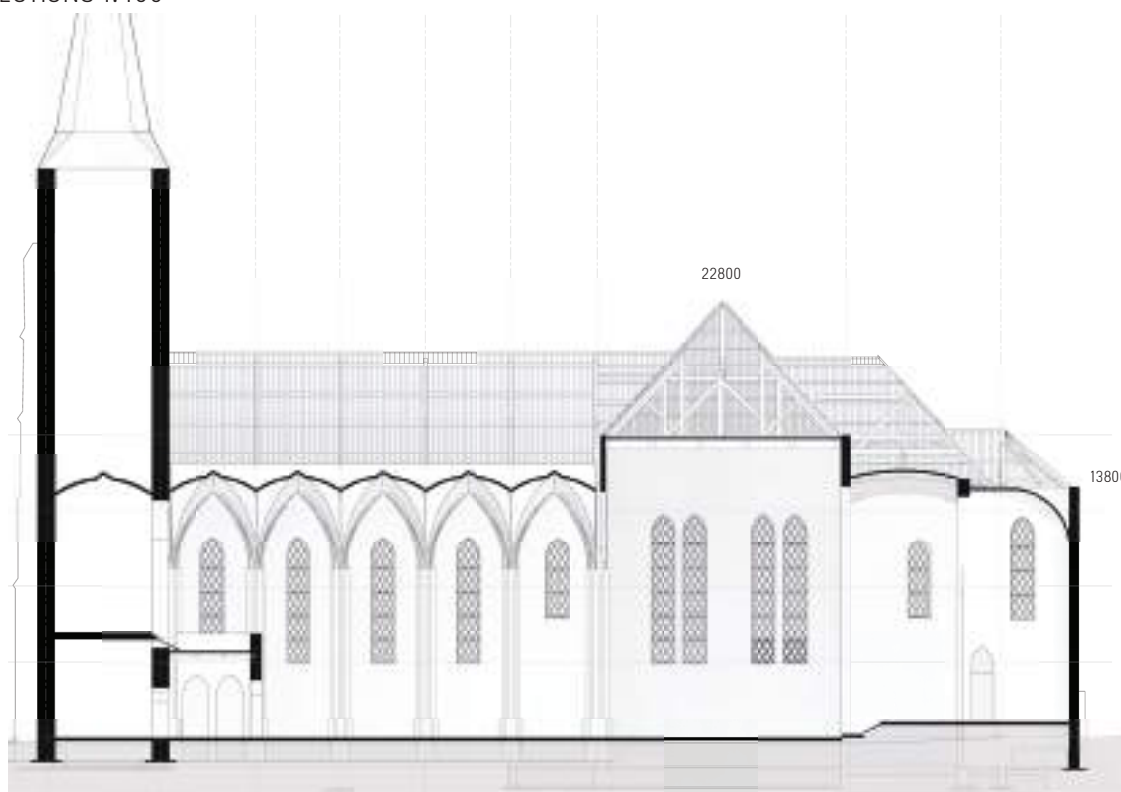
higher connecting abilities were created and the use of concrete and steel became extensive. Being able to make better calculations, structures became bigger, more stable and more efficient. The reuse of a part of the old building was done due to financial restrictions but the design already indicates a specific approach on dealing with existing buildings.



FLOOR PLAN-CEILING PLAN 1:400



GENERAL SECTIONS 1:400



Section across altar side

STRUCTURE IN THE 19 CENTURY

Architect : H.J. `Wennekers

Style : Neogothic

The original church was built in 1868 and was realized in different phases. The original building materials and techniques are still visible in the building. The tower that used to form the entrance of the building was typical for church buildings in that time. A main nave with two aisles, one on each side leading to a choir. The remaining parts of the building help us suggest the original structure.

The architect had worked on several other church buildings before he designed this one. Although the masonry vaults were for the first time applied in this building. The shape of the original building was much more simple and the structure followed the same principals like we can see in the remaining parts.

Some elements like the buttresses on the exterior, the ornamented columns and the ribs supporting the vaults are elements of the style that also have structural function and are not simply decorative.



Buttresses (by authors)



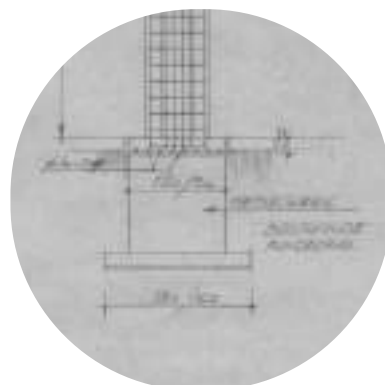
Column (by Juliette)



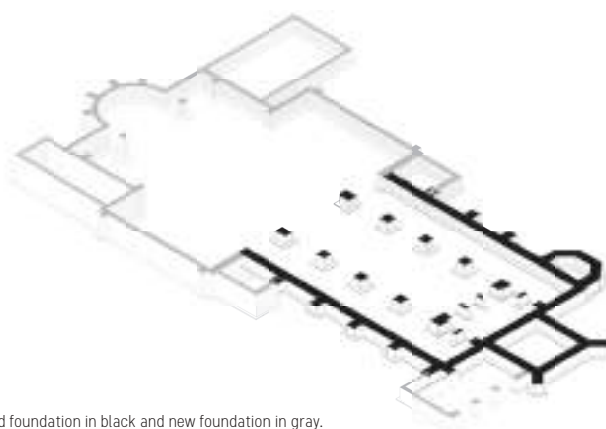
Vaults and Ribs (by authors)

FOUNDATION 19TH CENTURY

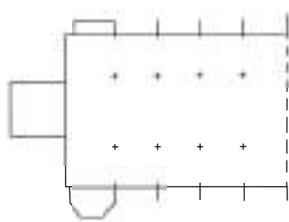
Information about the 19th century foundation only appears in drawings about the new foundations but is not detailed, the old foundation could also possibly be suggested according to the new column detail. The text reads “MASONRY EXISTING FOUNDATION”, but doesn’t contain any vertical dimensions. The foundation in the old building was made of bricks like the walls of the building. Masonry elements that run along the facade walls, the buttresses and the columns form the foundation. It is a typical type of foundation used in the Netherlands “fundering op staal” or “fundering op zand”. The names indicate that the foundation lies on sand pockets in the ground that have load bearing abilities. This corresponds to the sand layers in the substrate of Winterswijk.



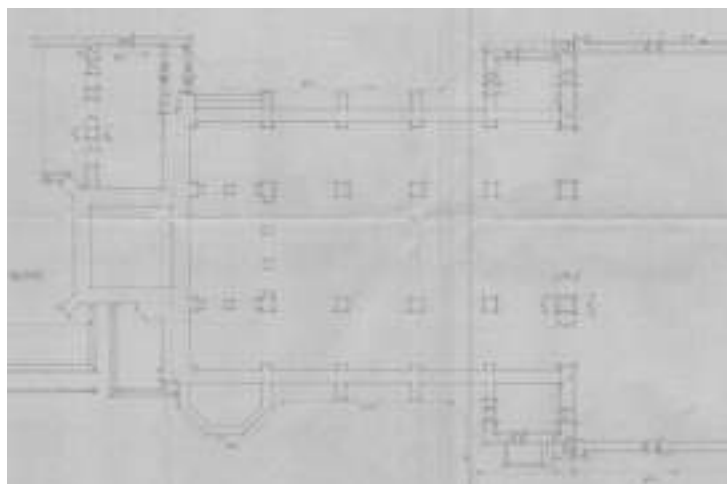
Column detail (archive drawing)



Old foundation in black and new foundation in gray.



Old foundation scheme



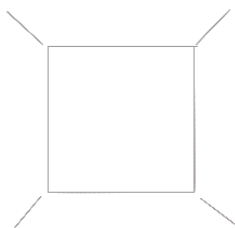
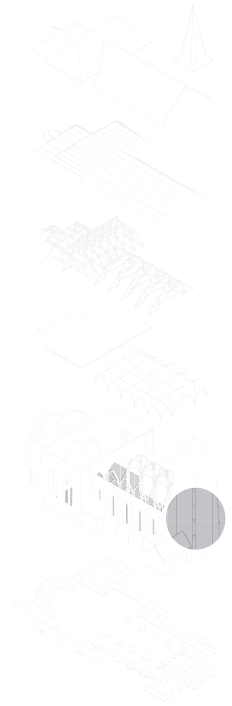
Foundation Plan from the 20th century extension. (archive drawing)

TOWER

The tower is the first interior space of the church. Due to its height, it's also the most visible part of the church, while the rest of the building is quite hidden between the neighboring buildings. The tower was constructed in two phases. The first part, visible in old photos of the building, was built in 1868 and it was heightened in the beginning of the 20th century to its current height. On the lower level the thickness of the masonry is 1000mm but it seems to be thinning the higher it gets. The position of the buttresses grants structural stability to the element.



New (by authors)



Force direction



Decreasing volumes



Thinning masonry



Heightened roof



Old (erfgoedcentrum Achterhoek)

OLD NAVE AND AISLES

ROOF

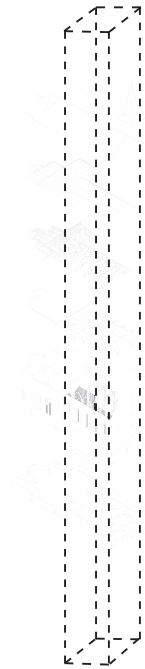
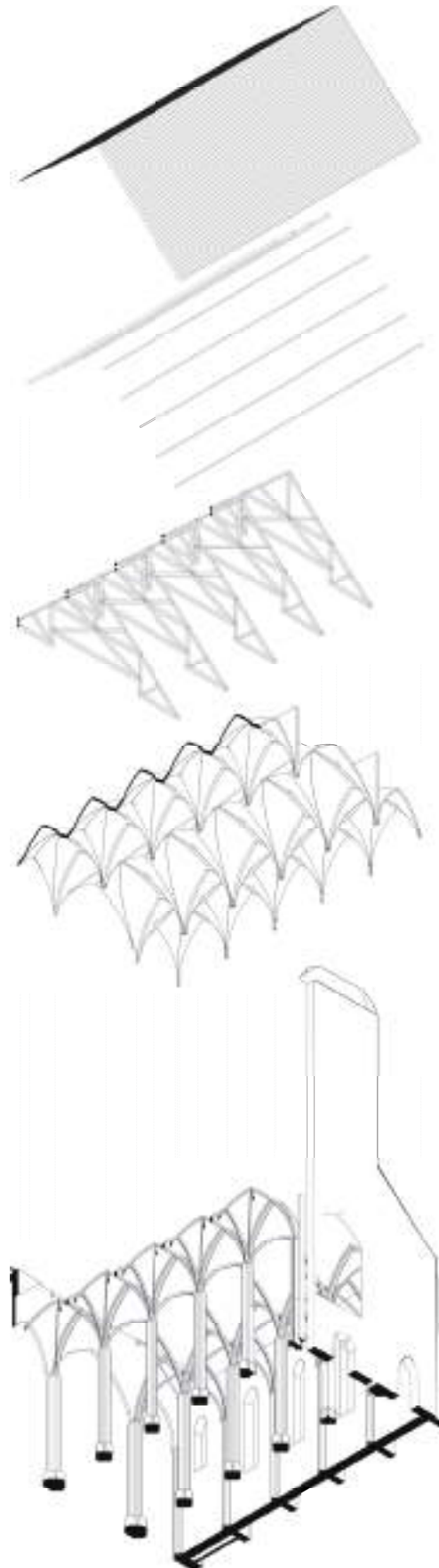
VAULTS

RIBS

COLUMNS

BUTTRESSES

WALLS



STRUCTURAL WALLS 19TH CENTURY

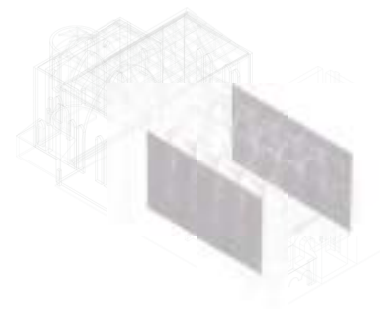
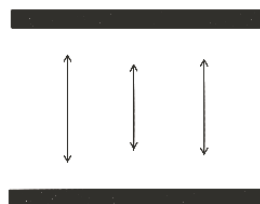
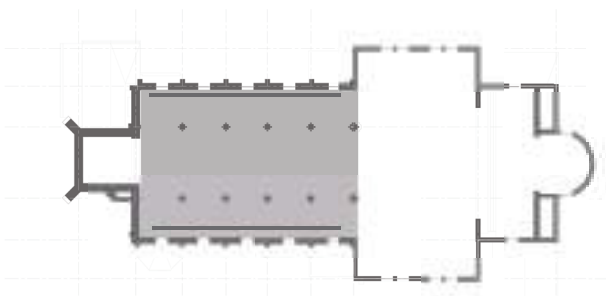
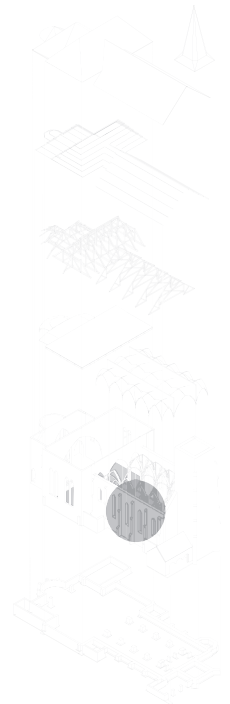
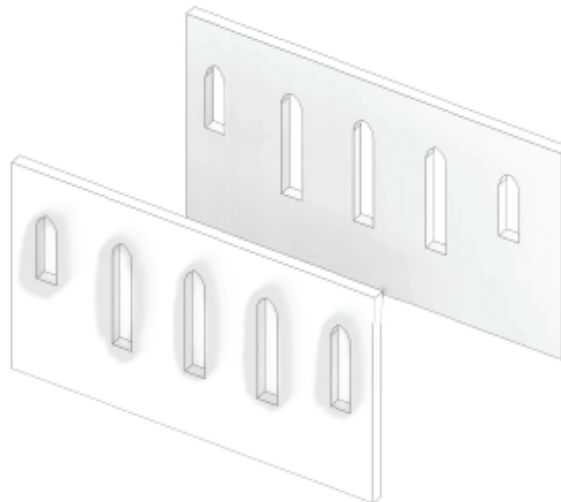
Functions : Bearing-Structural, Facade

The masonry walls of the 19th century part are partly original but have been altered through the years. This changes are not extensively recorded or archived, but can be very easily observed on the exterior of the building. The interior doesn't offer any information about the condition of the masonry due to the layer of paint on top of it. The areas around the windows are altered to a brick with different color and striking. These walls are connected to the buttresses and each has five windows



(source: wikipedia.com)

Length :22.7m
Thickness :900mm
Height : 13.3m



The 19th century walls (Plan view, Span, Axonometric)

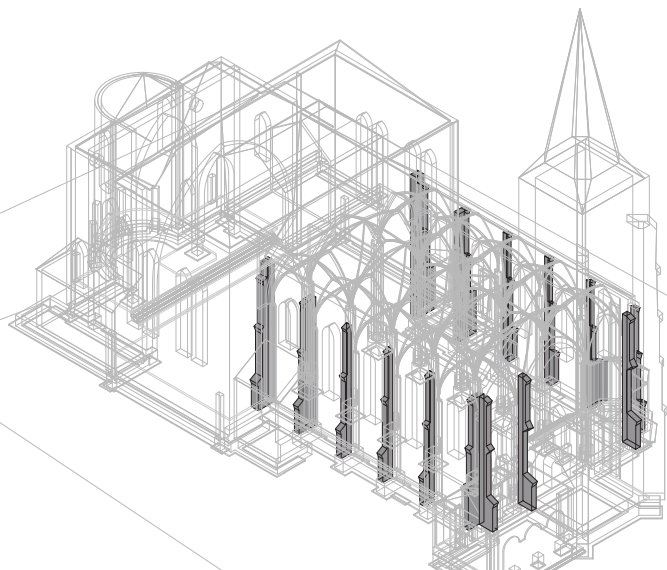
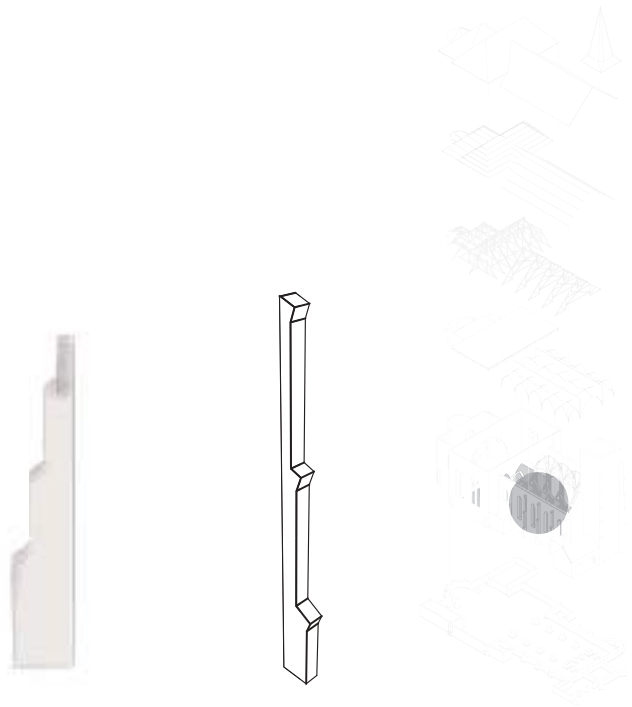
BUTTRESSES

The buttresses have a main role in the structure of the building. Together with the walls they carry the wind forces and the roof structure. The buttresses also seem to have been altered in the top part. The same brick type of masonry means it was most probably altered when the windows were altered as well.

Height : 12m



Buttresses (by Ariane)



Axonometric view

COLUMNS 19TH CENTURY

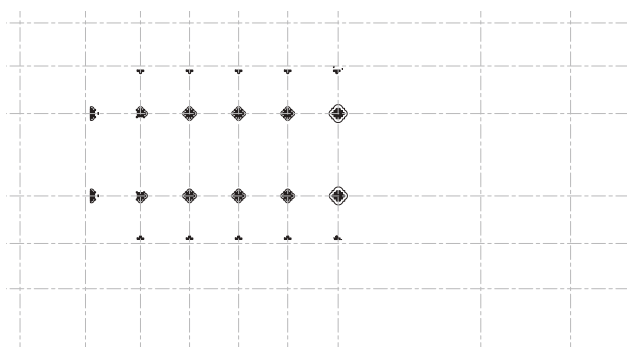
Height : 8,9

The columns even though they are heavily ornamented, they have a functional role for the construction. They carry the weight of the ribs and the vaults.

The actual composition is unknown and there are no drawings about it, but we can assume they are constructed by massive pieces of stone due to the lack of horizontal joints. The building spirit of that time would ask for brick or wood, due to the scarcity and the high costs of stone in that time.



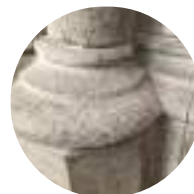
Columns and half columns



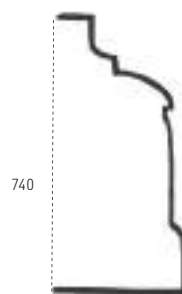
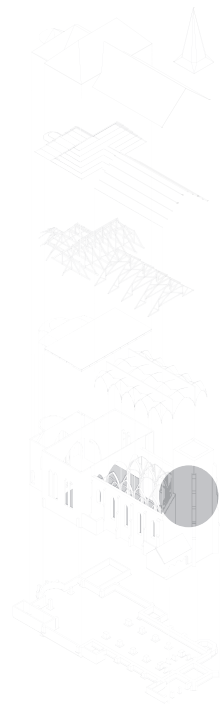
System (grid) of the column structure.



Capital (by Chen)



Bottom (by Ariane)



740

Capital and bottom details

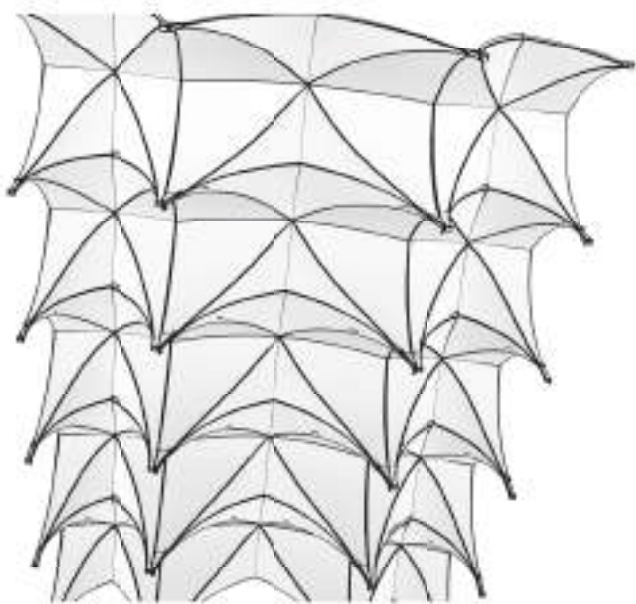
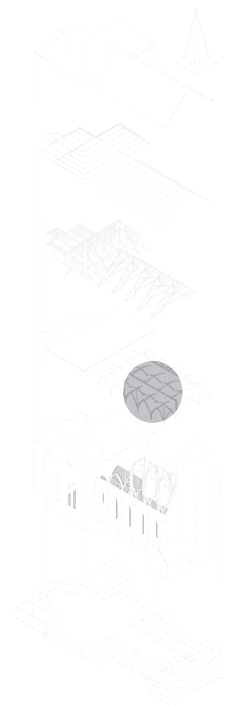
VAULTS 19TH CENTURY

The masonry vaults are part of the whole structure and form an important part of the original design.

They form the ceiling of the old part but have only self bearing abilities. There are three different sizes and they rest on the columns and the ribs. On the upper side the vaults are covered with a cement material, to increase their integrity, while on the inside they are covered with paint.



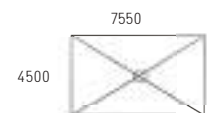
Bottom (by Chen)



The vaults are spanning over the whole 19th century part

4300-
5100

Big vault



4500

7550

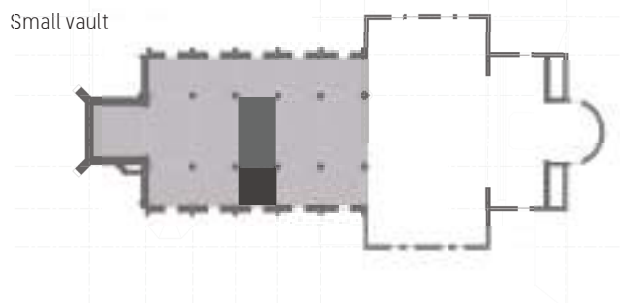
3500-
4500

Small vault



4500

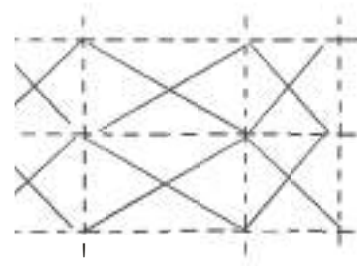
4360



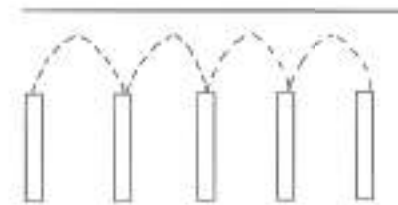
System (grid) of the vaults.

RIBS 19TH CENTURY

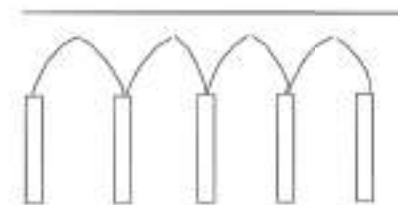
The ribs are part of the original church and are made of stone. On top of the ribs of the middle columns there are walls that extend up to the roof structure. These masonry walls connect the columns forming an beam like element. The ribs are covered with a layer of paint .



--- main — secondary



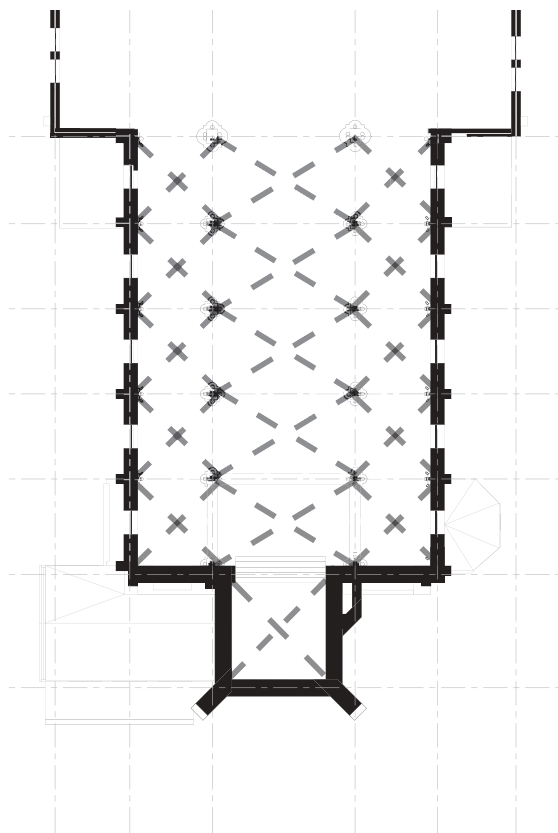
Ribs along the aisles connect the columns



The wall along the aisles that is in the roof.



Ribs (by Seong)



Ribs in plan

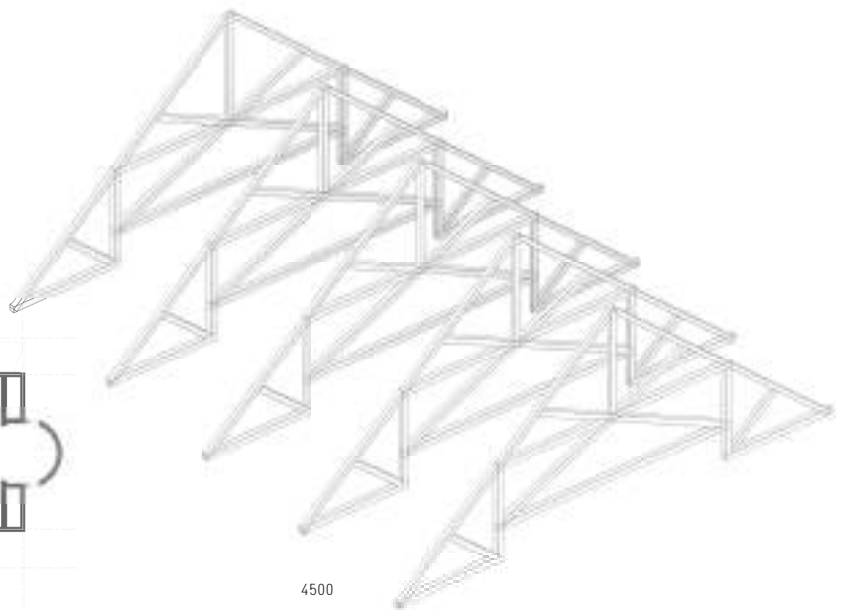
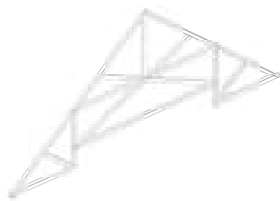
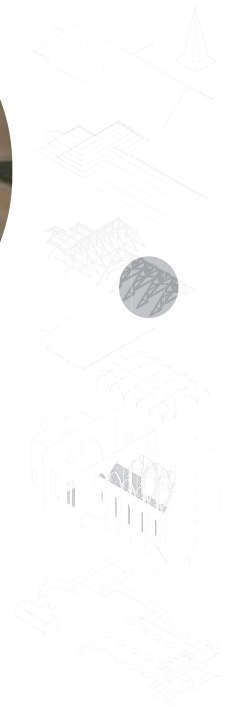
ROOF 19TH CENTURY

The main roof structure consists of five "Hollandse spanten". This structure is a variation of the original with enhancements. (improved and stiffened) The roof rests on the exterior walls-buttresses and on the walls on top of the columns.

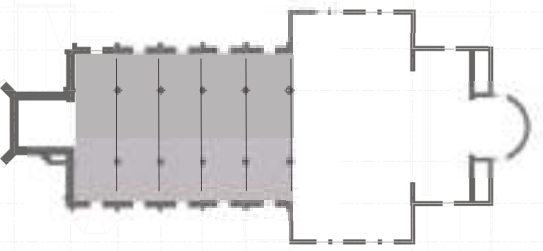
The secondary structure is connected on one end to the exterior wall connecting the church to the tower. The roof is covered in stone tiles. The exterior tiles have been replaced and the rest of the structure functions properly.



Roof trusses (by authors)

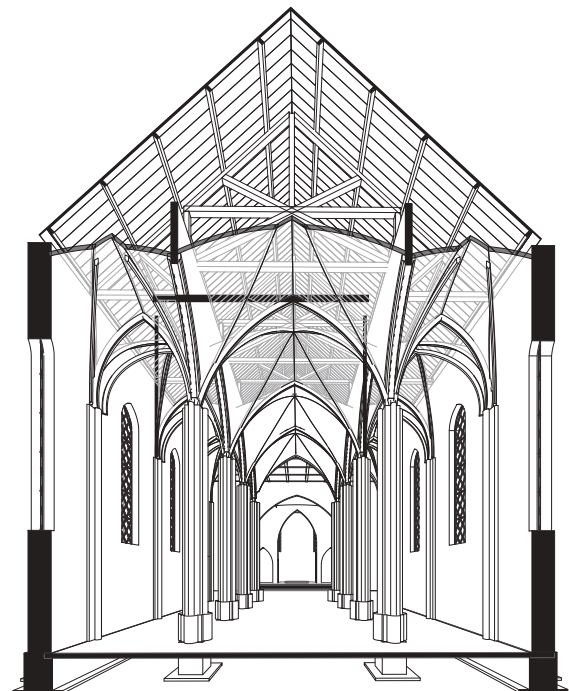
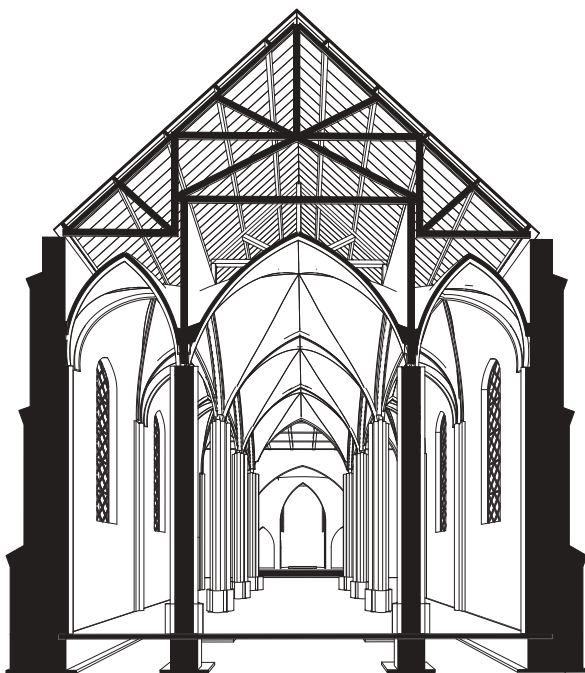
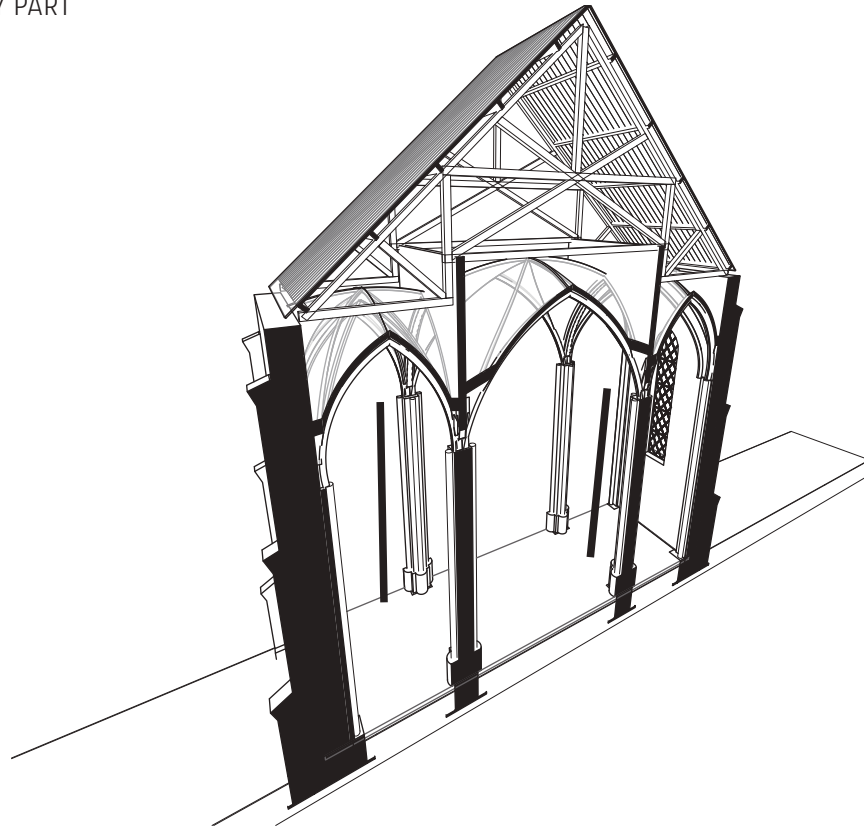


4500



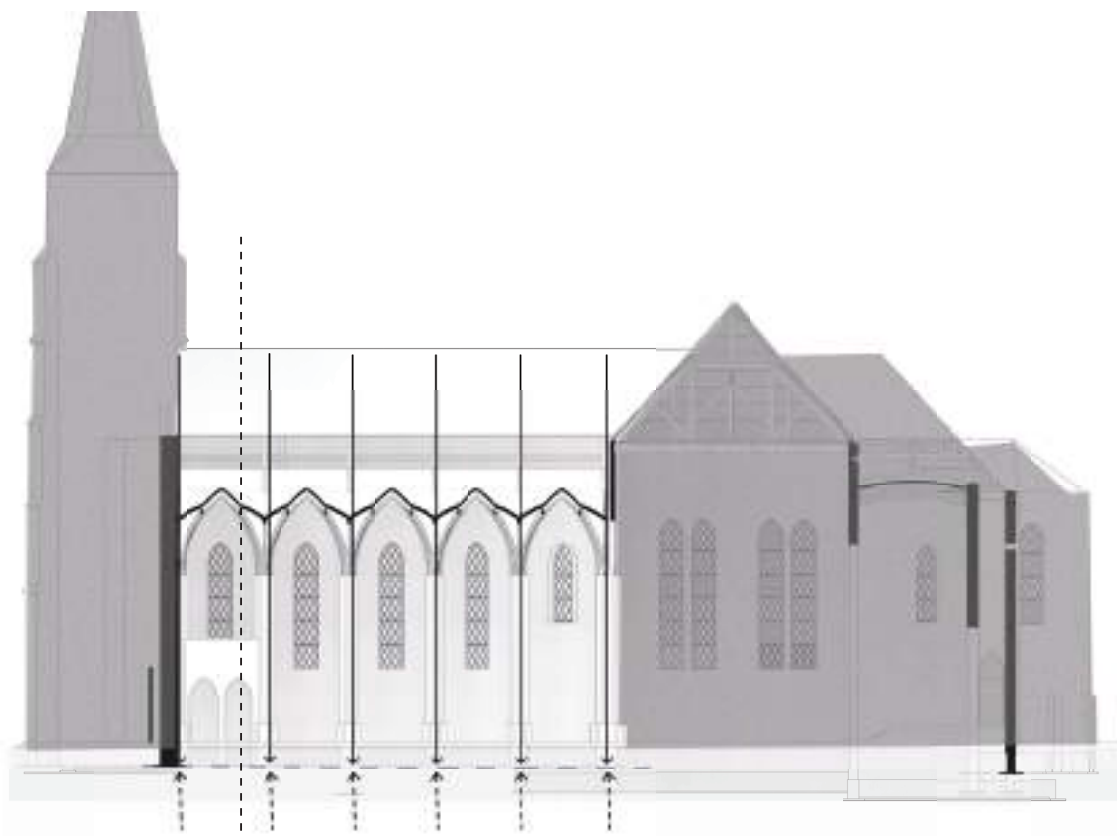
Roof structure elements, dimensions and positions

SECTIONS 19TH CENTURY PART

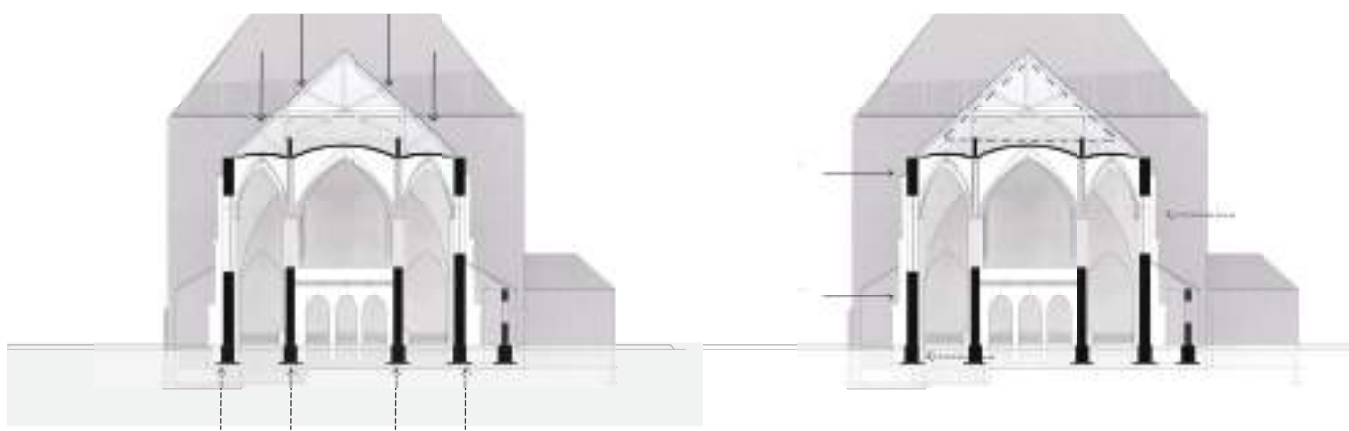


3D - 2D Sections of the 19th century part

STRUCTURAL SCHEMES – 19TH CENTURY PART



Vertical forces transmission scheme



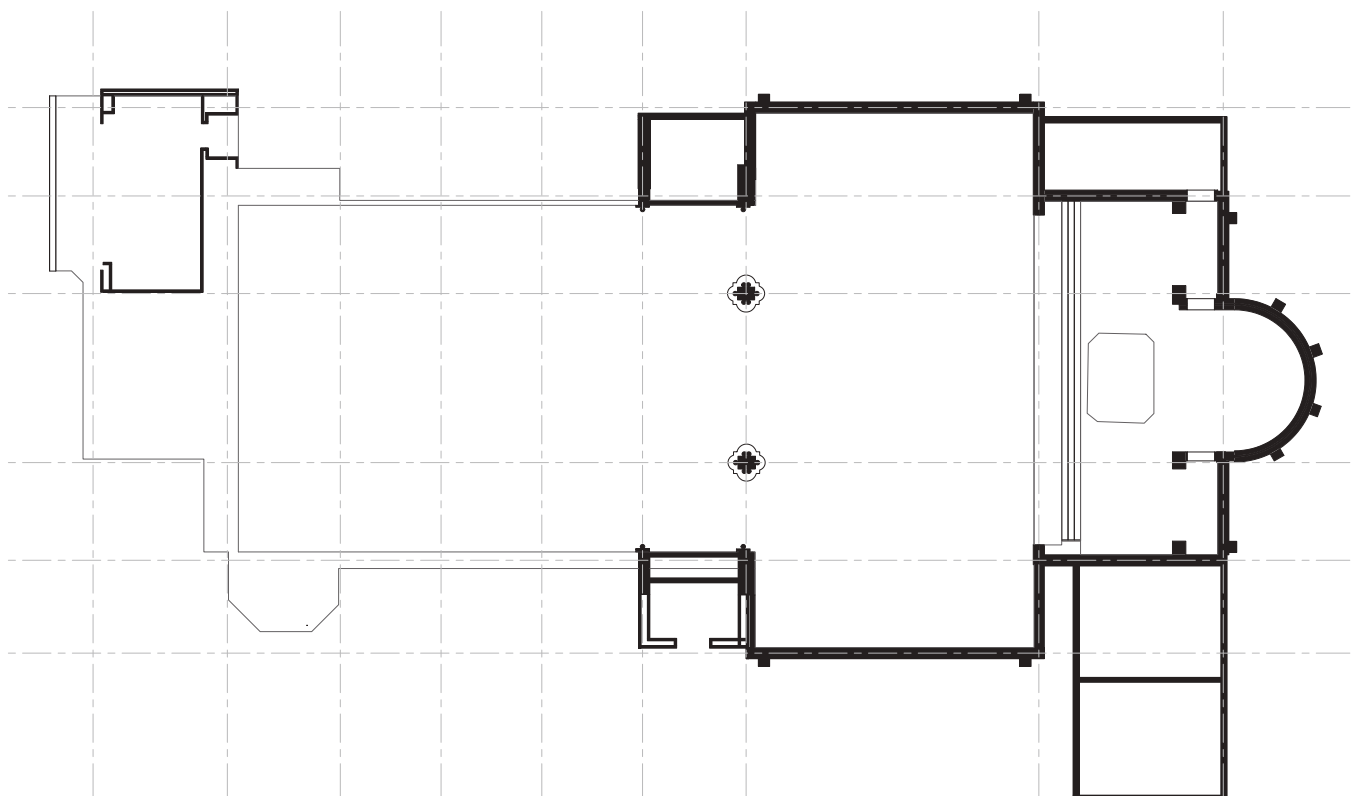
Vertical and horizontal forces transmission scheme
Structural sections, force transfer scheme

20TH CENTURY

Architect : Koldewey
Style : Delftse School

The second part of the church was built in the 20th century under a different style and with a different approach to structural problems. The more strict use of brick, even for decorations characterizes the style of the architect but also his structural approach. Using the same principals on the structure of the roof and of the walls, but applying mod-

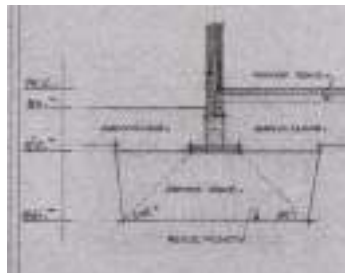
ern to him techniques he manages to extend the building to the current form. The new part forms a new structure that connects to the remains of the old one.'



20th century addition plan

FOUNDATIONS 20TH CENTURY

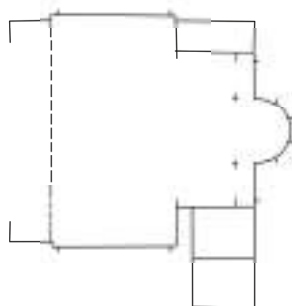
The foundations runs along the walls of the new part of the building.
 The foundation is a meter high and rests on a layer of pure sand (bearing sand).
 The sand layer is 3,4 meters deep.
 The concrete foundations have different thicknesses that correspond to the wall thicknesses above them. The difference is between the main church space and the smaller spaces around it.



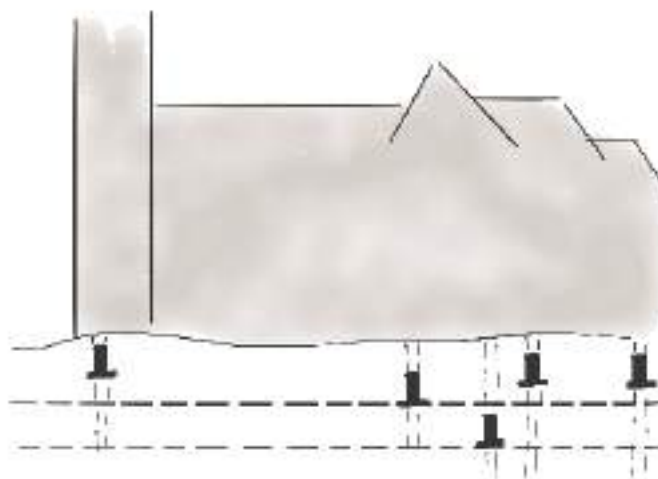
Foundation example 1
(archive drawing)



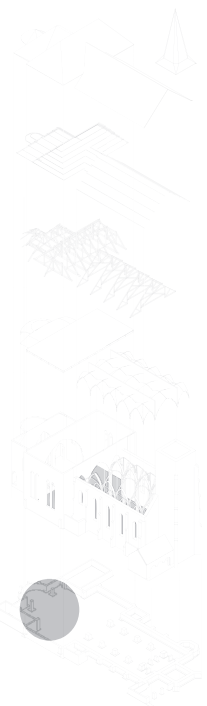
Foundation scheme



Foundation example 2
(archive drawing)



Section with foundations in different heights



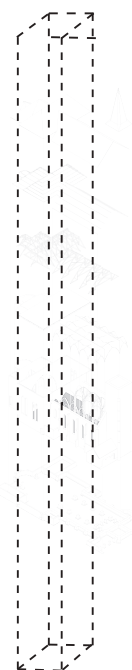
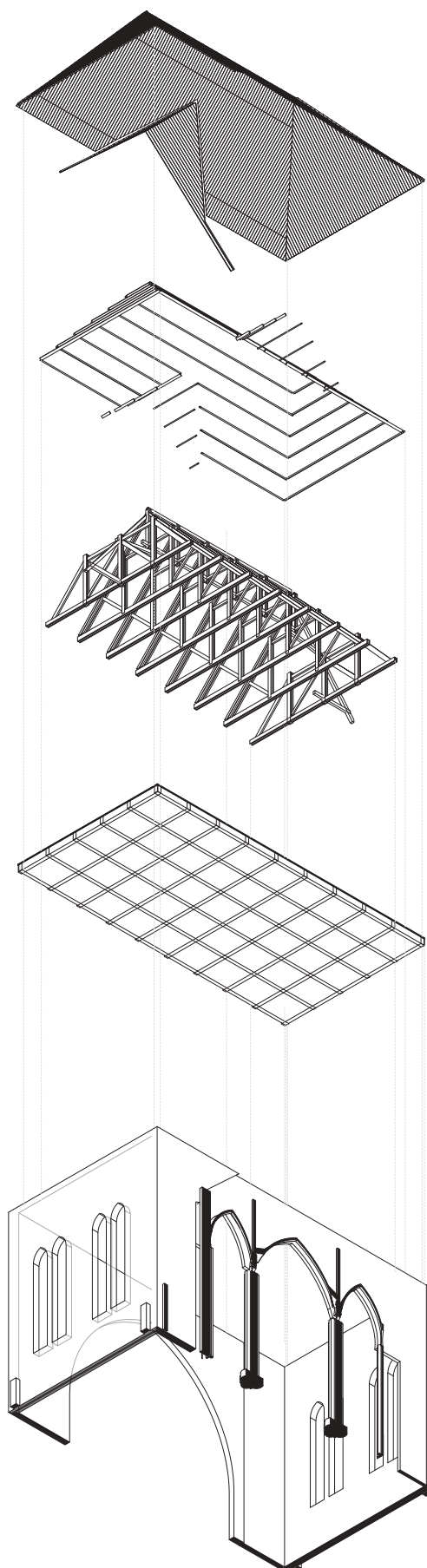
NEW NAVE

ROOF

CEILING

COLUMNS

WALLS



STRUCTURAL WALLS 20TH CENTURY A

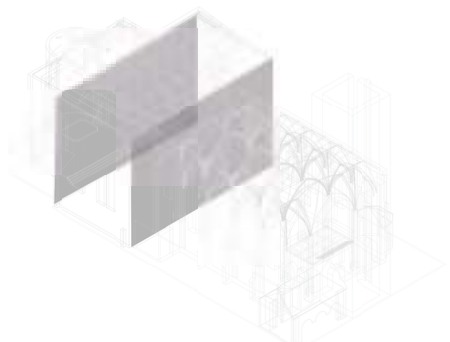
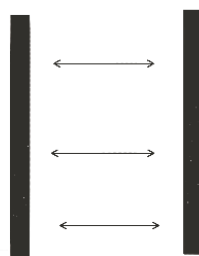
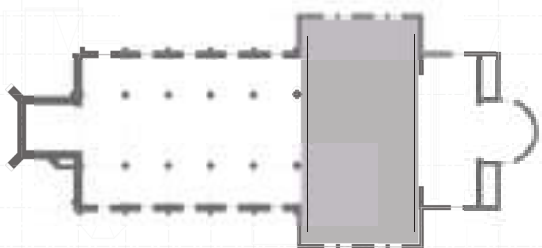
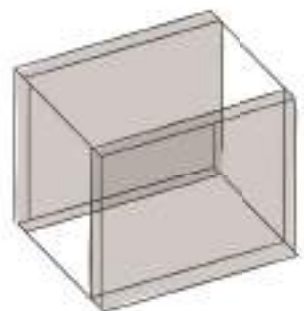
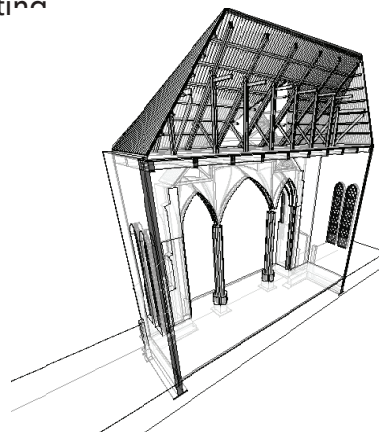
The new walls add a new nave to the building with a width of 13 meters.

These walls are structural and they carry the weight of the roof. They have very big openings and they rest partly on columns. They are constructed out of two layers of bricks, 220mm each, separated by a 80mm air layer. These walls together with the roof structure introduce a new span direction to the building.

The walls next to the vaults forms the interface between the old and the new part with not only the two styles mixing together but also the two constructions working together. This wall was created around the existing buttresses and it also forms the meeting point of the two roof structures.

Height :16m

Length :24.4m



Structural walls of the new part (Plan, Span, Axonometric view)

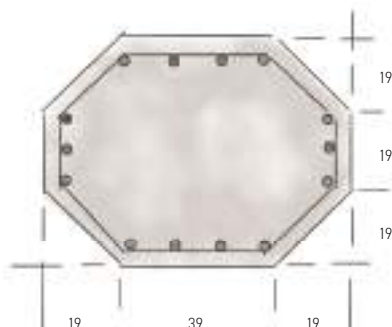
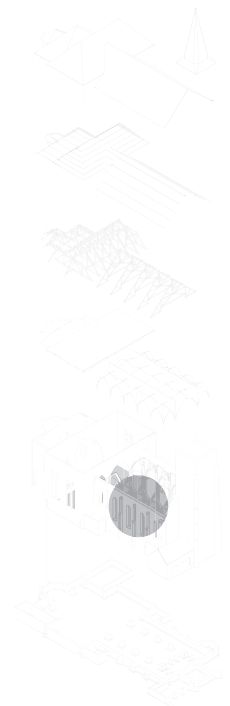
COLUMNS 20TH CENTURY

The new columns bridge the two structures of the building and could be easily mistaken as part of the old building. Their material matches that of the original but their size and design are different. These two columns are resting on the remaining foundation of the old building.

The columns on the new part are constructed from reinforced concrete and are covered with stone elements contrary to old columns that are from massive stone. They carry the vaults and they are part of the new wall between the two parts. These two columns are resting on the remaining foundation of the old building.



New column (by authors)



New column structural section

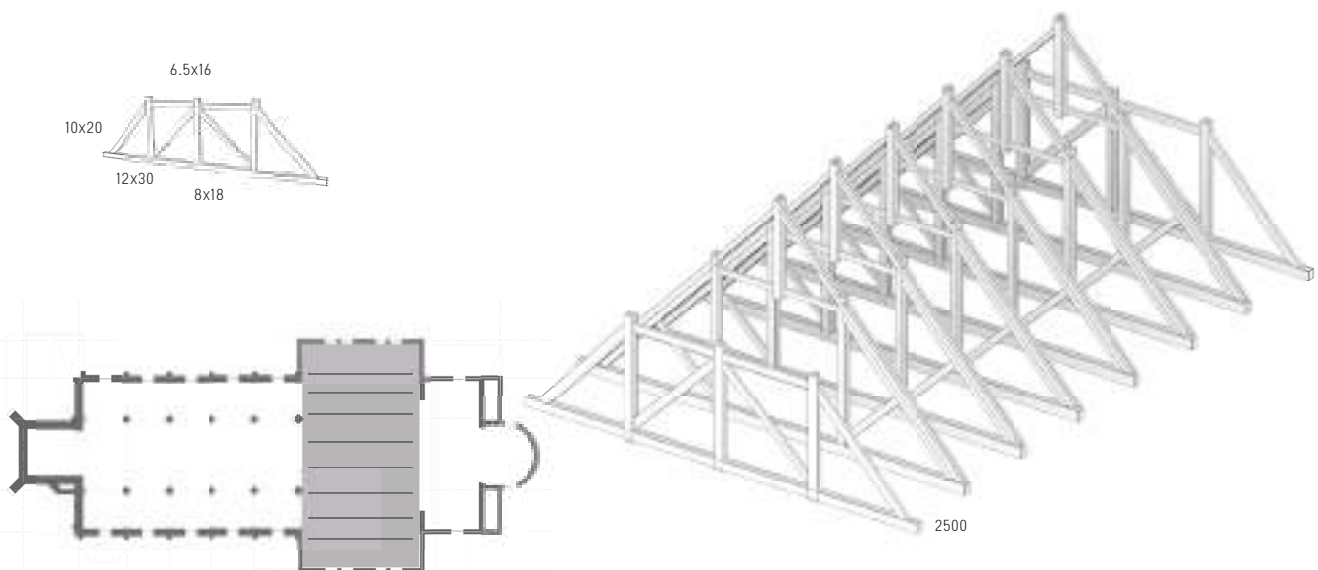
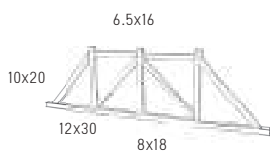
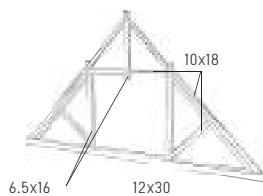
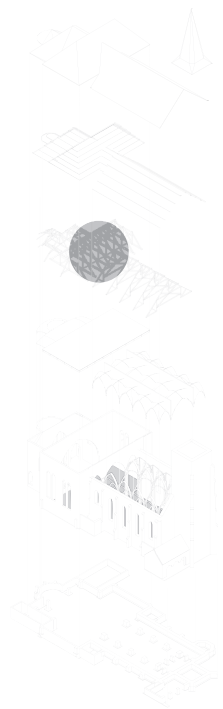


ROOF 20TH CENTURY A

The roof structure of the extension matches the original roof structure in materialization and shape but it spans on a perpendicular direction relative to the old roof span. It is logical, considering the dimensions of the building are changing in the new volume. The new roof is constructed much lighter not only due to the smaller span but also due to different use of the material, with wooden elements getting thinner. The space between the elements is also much smaller. The first volume has two different types.



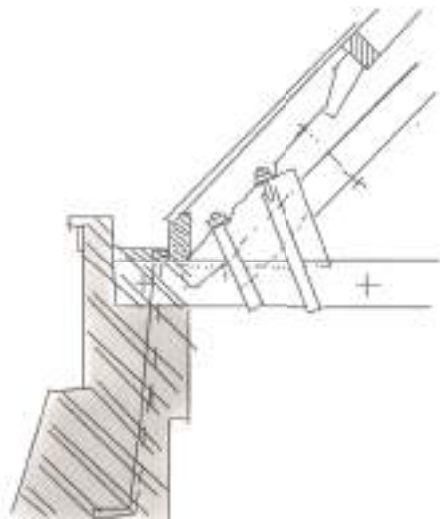
The roof of the extension
(source: wikipedia.com)



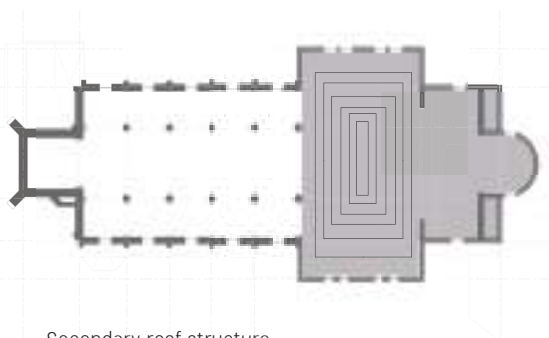
System of the roof in the new part

SECONDARY ROOF STRUCTURE 20TH CENTURY

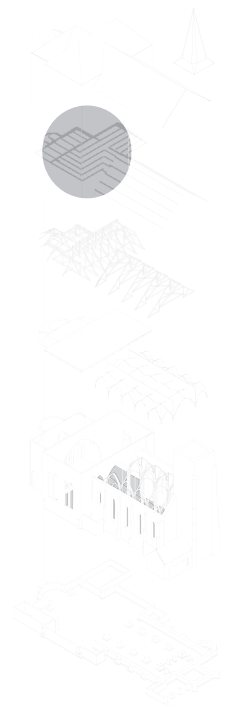
The secondary structure of the roof is constructed of wooden purlins that are 80x180mm with roof boarding of 200mm. There is no insulation between the structure and the building.



Roof-wall connection detail

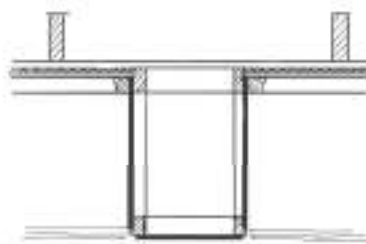
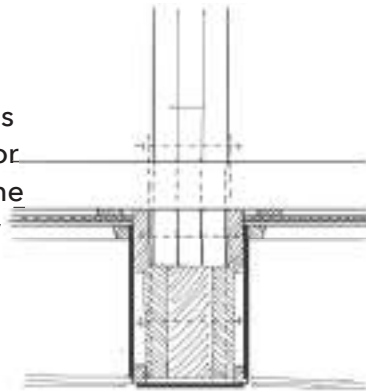


Secondary roof structure

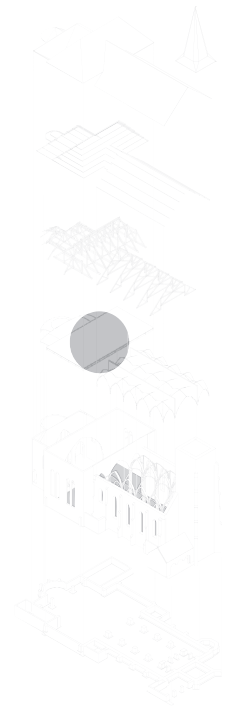


CEILING 20TH CENTURY

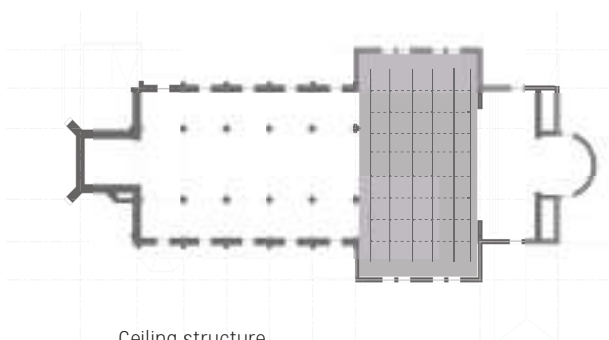
The main roof structure also carries the ceiling above the new nave. The tie beams or ceiling joists, form the main structure for the ceiling of the volume. On the top of the ceiling there is insulation but not in a very good state.



Details of ceiling



3d view of the ceiling with the roof structure

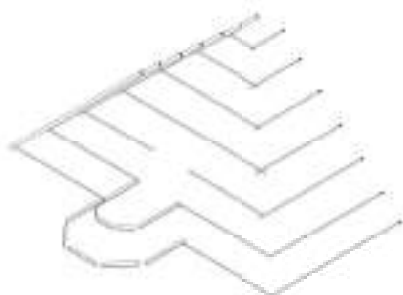


Ceiling structure

CHOIR



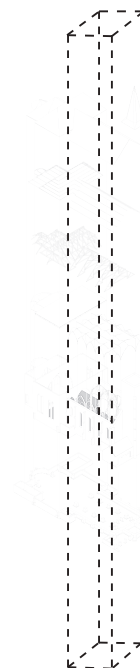
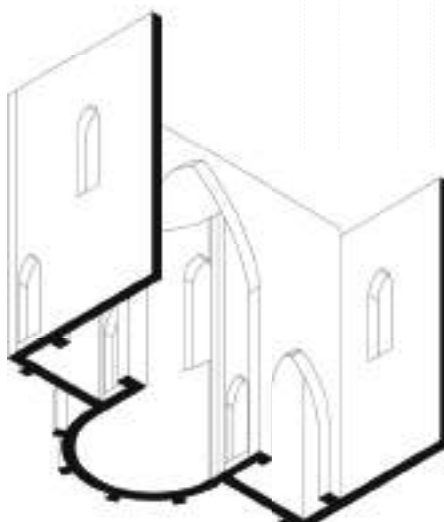
ROOF



CEILINGS



WALLS



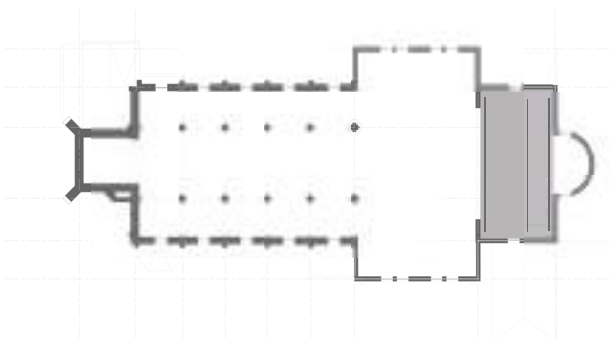
STRUCTURAL WALLS B

These walls make up the last volume of the church that forms the choir. On this part of the building the masonry is visible and its not painted on top.

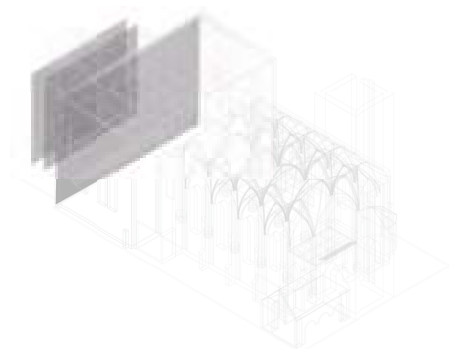
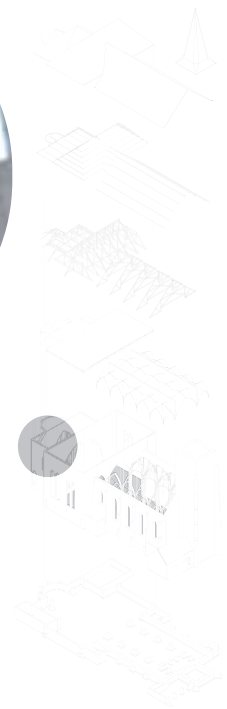
The walls support the roof and the masonry ceilings above them. Part of these walls are the two concrete columns framing the last part of the choir.



View of the altar (by Seong)



Plan and axonometric views of the altar

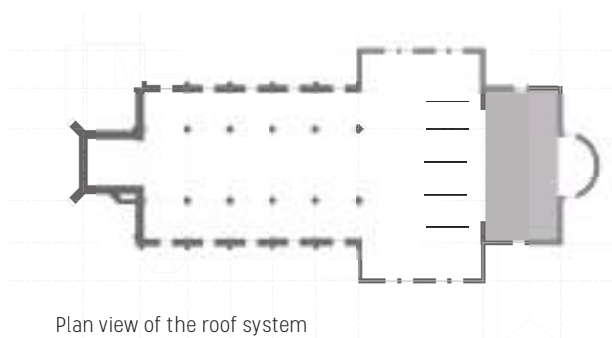
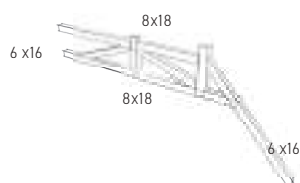
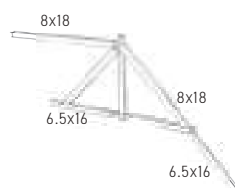


ROOF 20TH CENTURY B

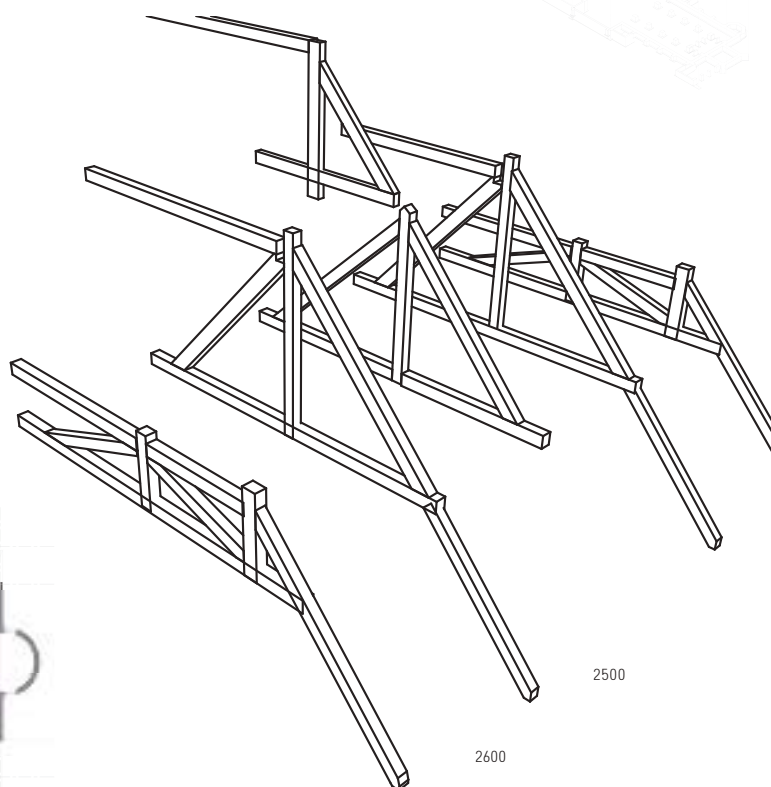
This part of the roof is constructed on the same principle but is much smaller. These parts of the roof span on the same direction with the first part. It has a masonry vaulted ceiling thought.



Section across altar side



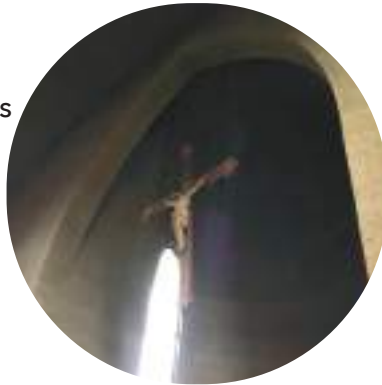
Plan view of the roof system



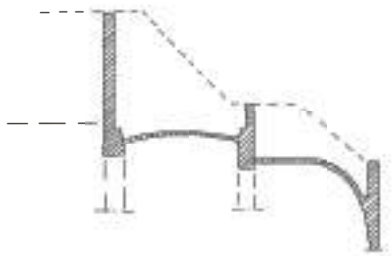
Timber roof structure

ROOF 20TH CENTURY C

On the half-circle part of the choir the roof structure has a radial span. This part also has a masonry vaulted ceiling.



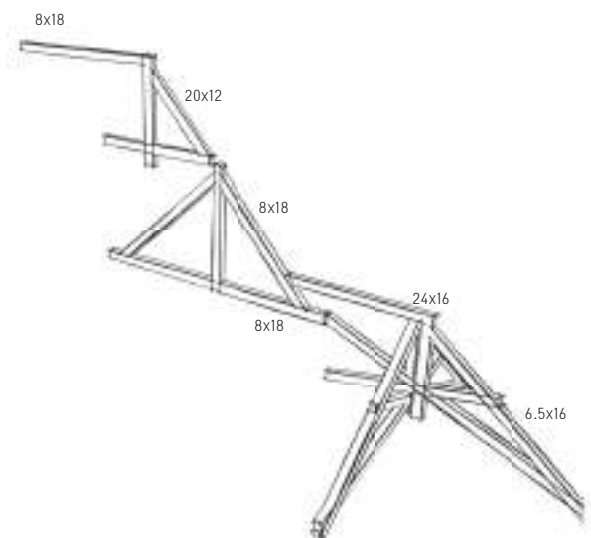
View of the cylindric part of the altar
(by Ariane)



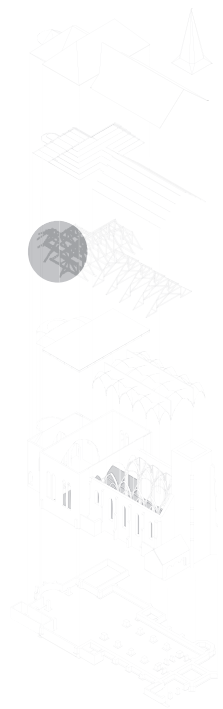
Section across altar middle



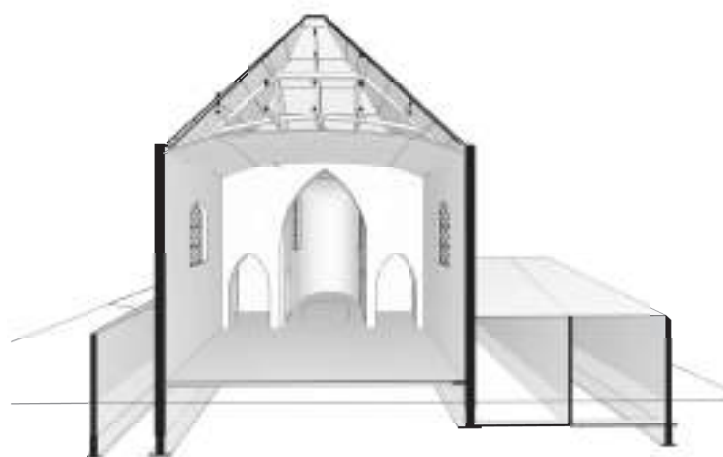
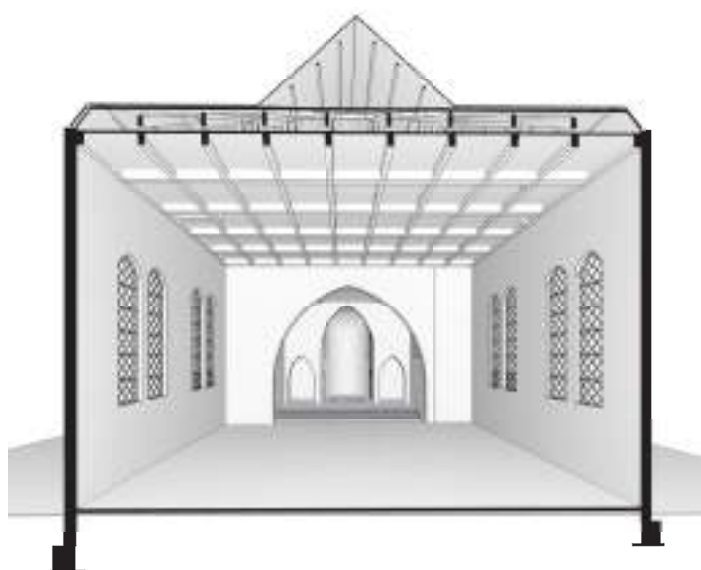
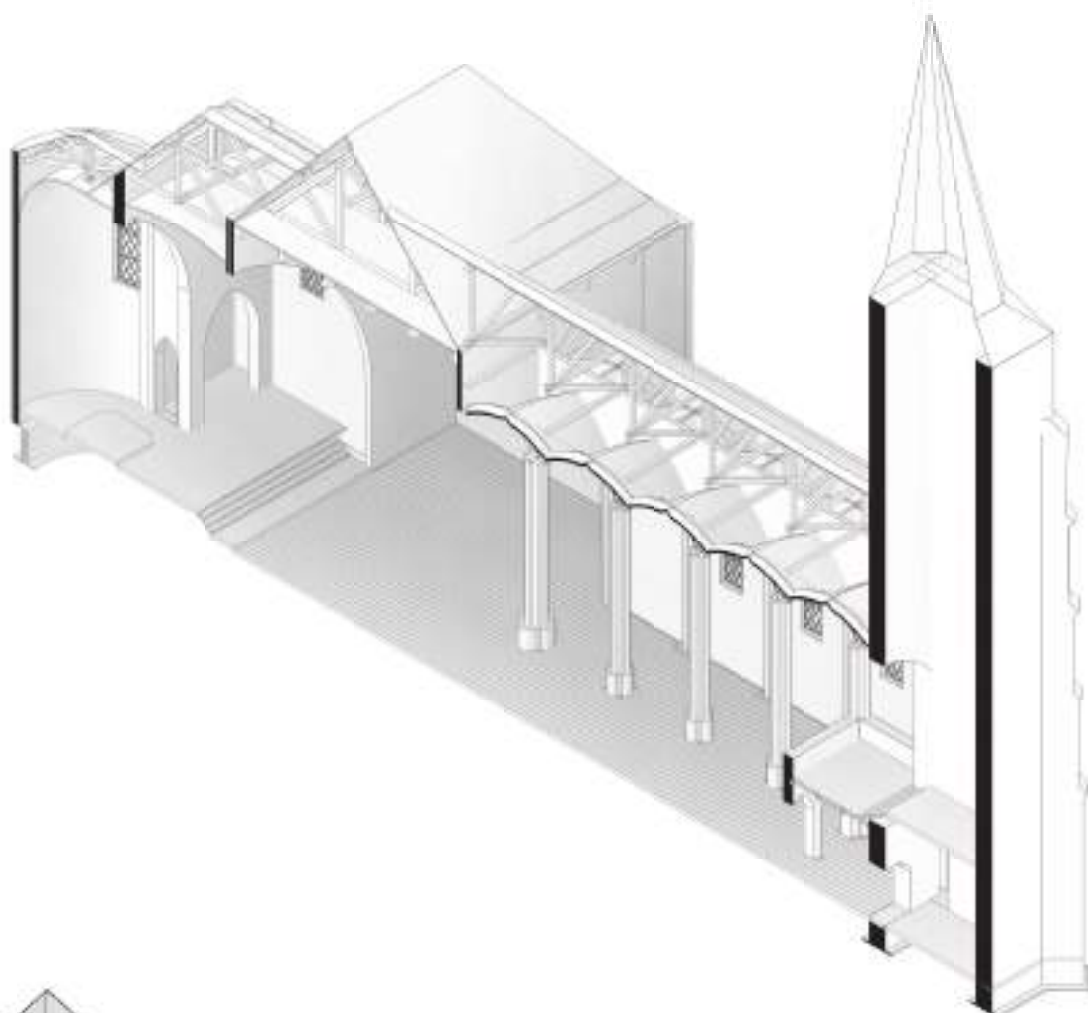
Plan view of the roof system



Timber roof structure

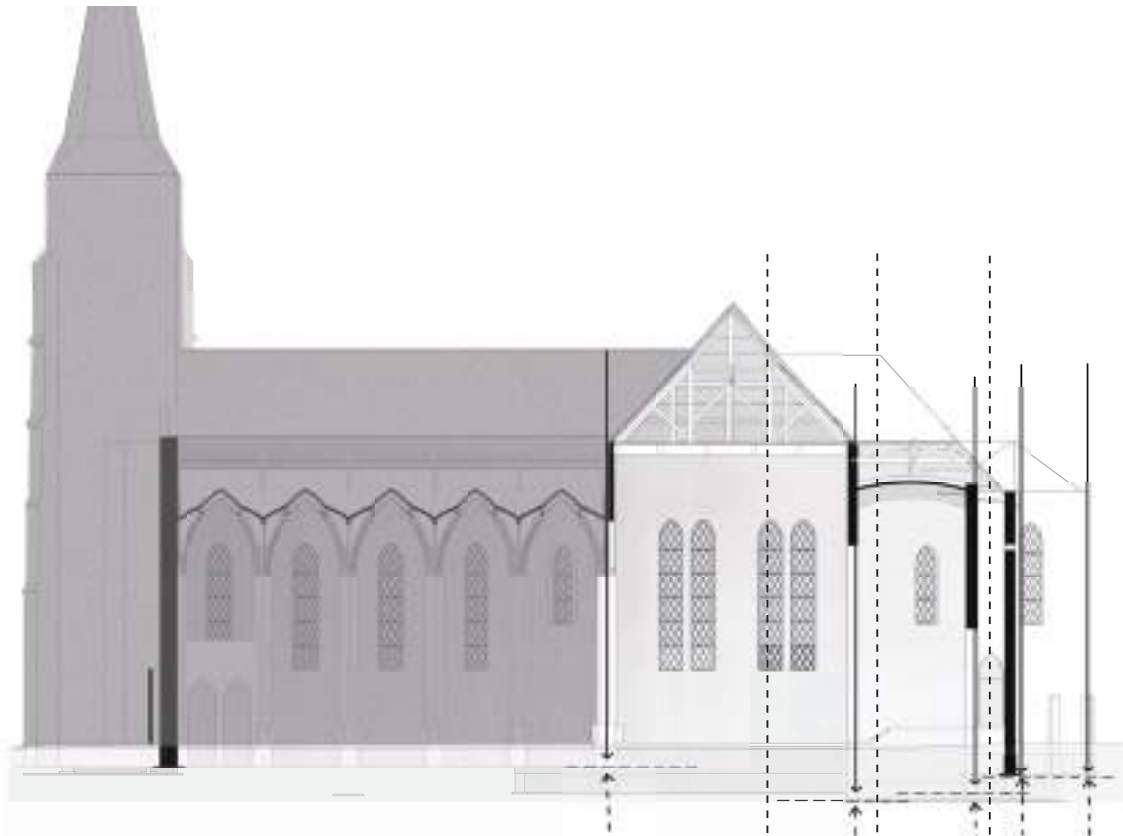


SECTIONS 20TH CENTURY PART

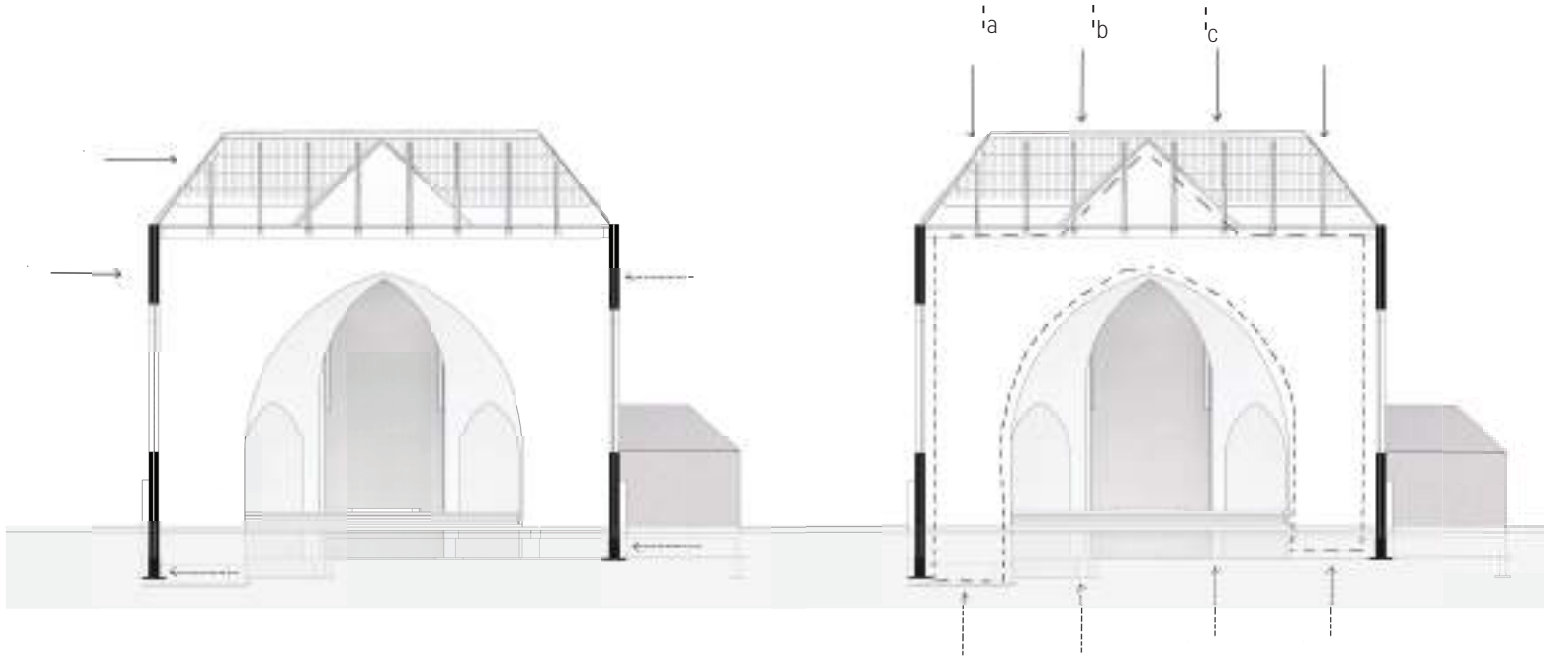


3D - 2D Sections of the 19th century part

STRUCTURAL SCHEMES – 20TH CENTURY PART

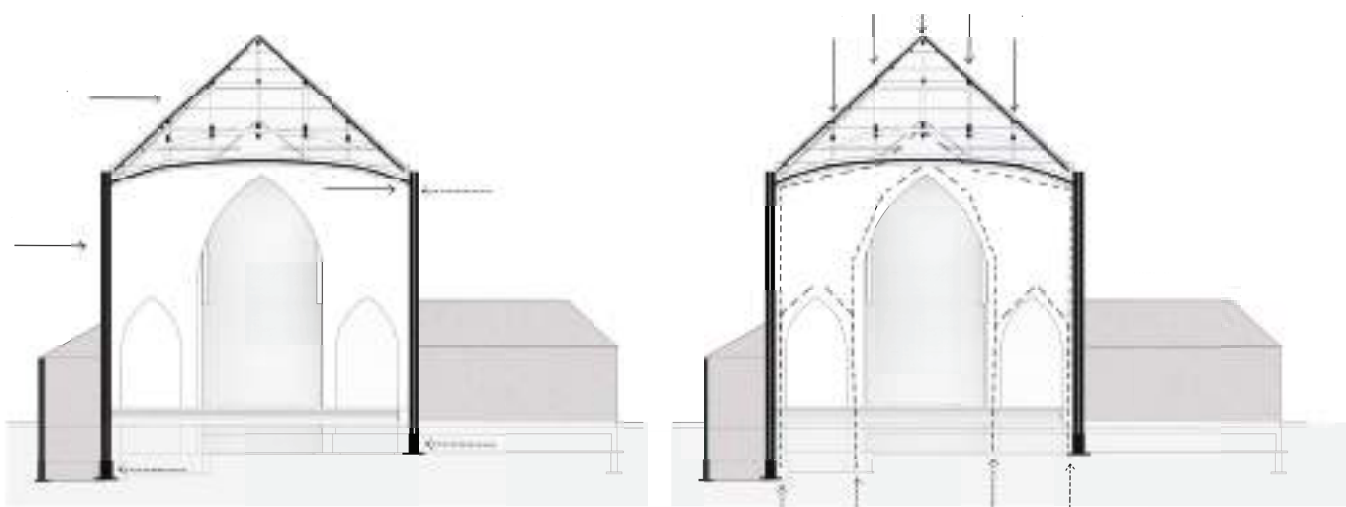


Vertical forces transmission scheme



Vertical and horizontal forces transmission scheme section a

STRUCTURAL SCHEMES – 20TH CENTURY PART



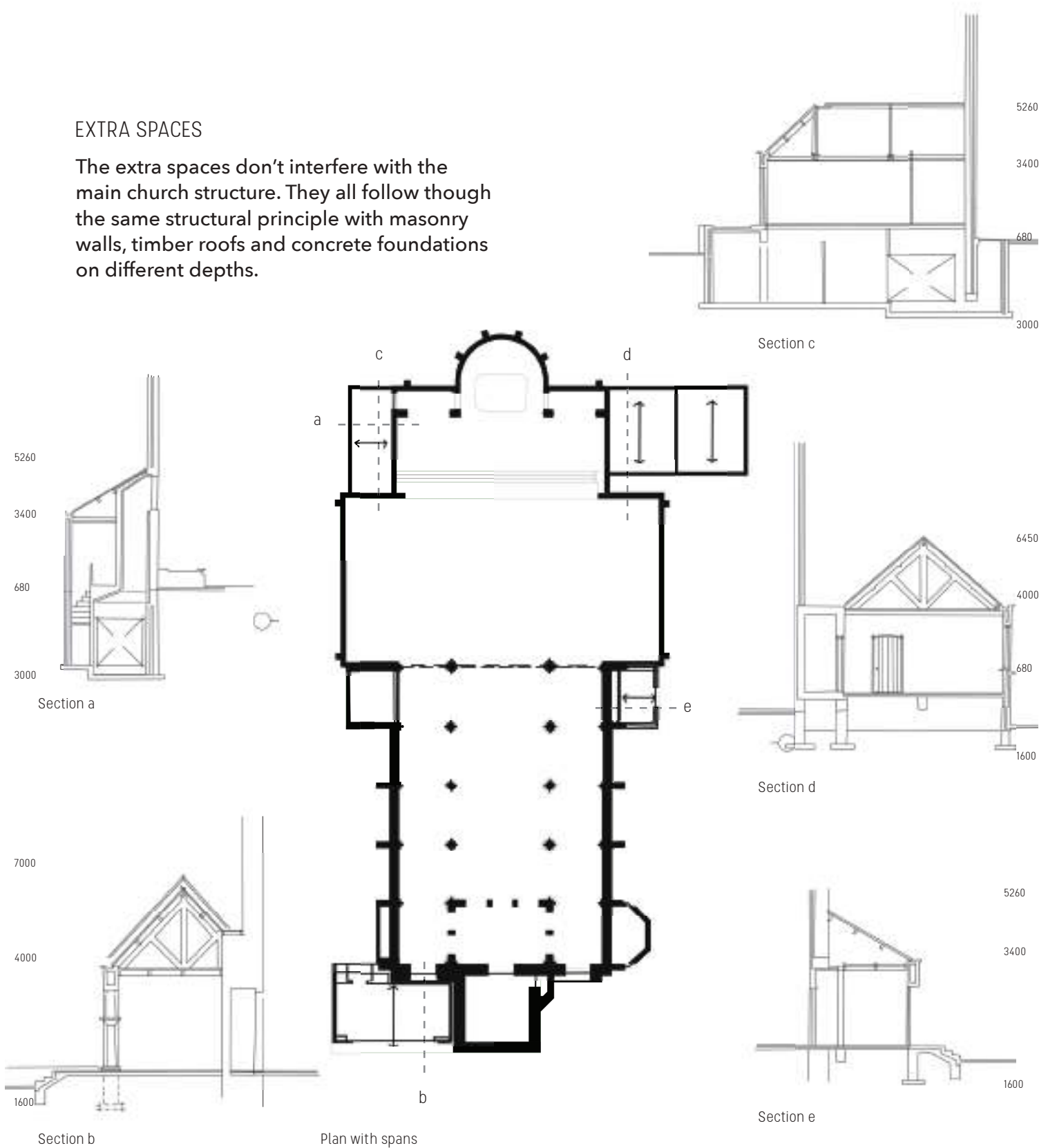
Vertical and horizontal forces transmission scheme section b



Vertical and horizontal forces transmission scheme section c

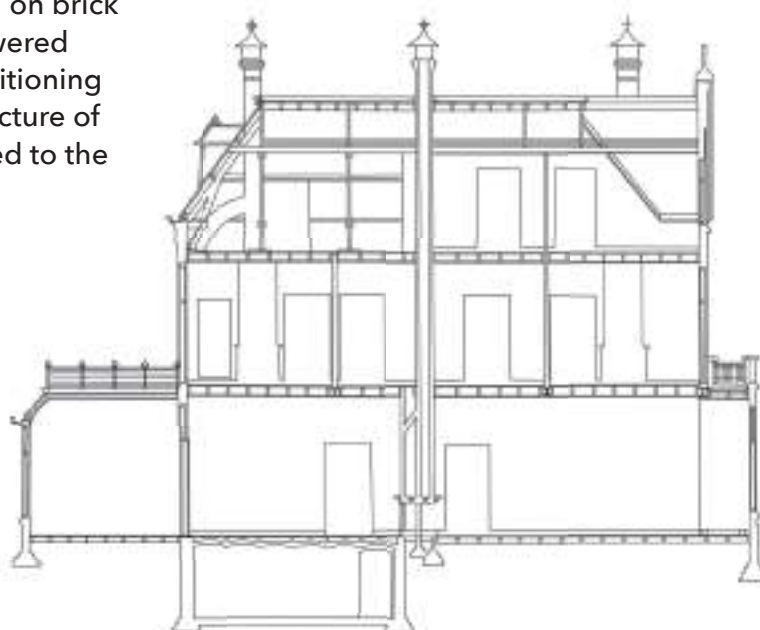
EXTRA SPACES

The extra spaces don't interfere with the main church structure. They all follow though the same structural principle with masonry walls, timber roofs and concrete foundations on different depths.

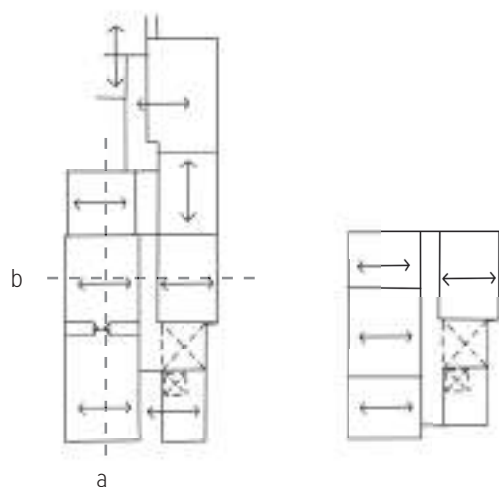


RECTORY BUILDING

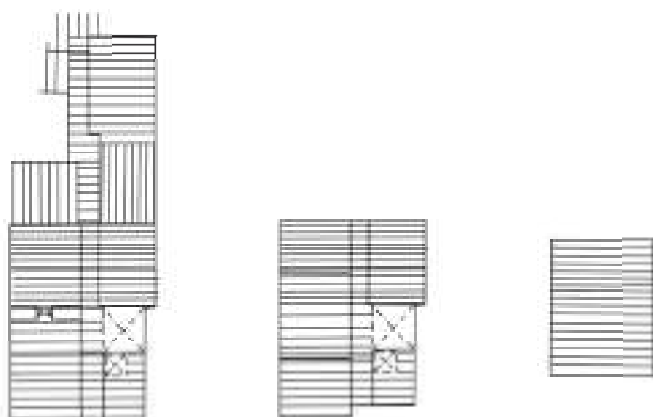
The rectory building is constructed on brick walls and wooden floors with a lowered ceiling. The building's internal partitioning has been changed but not the structure of the building, which is not connected to the church.



Section a



Spans in Pastorie building



Beam system (1st, 2nd, 3rd level)



Section b

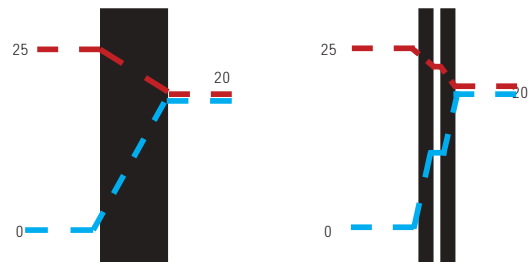
WALL COMPOSITION

The walls of the old building are massive masonry walls while the 20th century walls are constructed with a cavity. They have different thickness and the bricks are from different time periods resulting in varying properties.



CLIMATE

The use of the cavity in the masonry creates a small barrier between the outside and inside surfaces. This results in a difference in the thermal behavior and the moisture infiltration.



DAMAGE

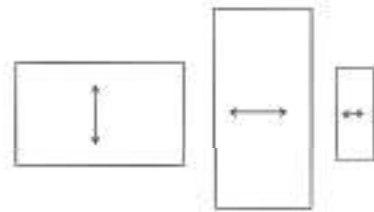
In the interior of the church the wall between the vaults and the new nave has two cracks that are visible. The cracks get thinner towards the arches, indicating that the problem is due to the load it receives from the roof and the thermal contraction and expansion.



Structural damage on the wall of the new nave (by Seong)

CONCLUSIONS STRUCTURE

The two structures have the same structural principle applied in two different directions, in two different time periods and by two different architects. The common materials create a unity between the two parts that work together as one structure.



The building structure has a lot of similarities between the two parts in how it looks and works but is very different in how it is constructed. Difference in materials and techniques are seen not only on the different ceilings but also on the columns.



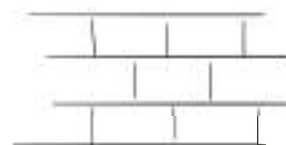
The change in architectural style and building spirit is also expressed on the structure. The old part is heavy and massive while the new structure is designed considering the economics but without giving up the architectural or structural principle.



The lack of any consistent insulation exposes the building to thermal losses. The principle of thermal mass can not work due to the fragmented use of the space during the week. The floor of the building has no structural function and lacks any type of insulation. It opens the building up to thermal losses to the substrate.



The masonry plays an important role for the structure of the building. The different structural elements are connected to each other and form a whole. Each part plays a different role but the fact that they are connected in this way is what gives the overall strength and stability to the structure. It also restricts the possibilities of change.



The different historical layers that built up the structure of this building should be considered when wanting to transform the church. The connection between the two layers in the structure is visible in small details like the design of the columns and the difference can be easily defined. At the same time, part of the last buttresses are embedded in the new wall of the extension, making it very hard to clearly distinguish old and new.



SPACE PLAN – CHURCH

INTRODUCTION

In this chapter, themes related to the space plan will be analyzed. Brand defines the space plan as the interior layout, where walls, ceilings, floors and doors go (Brand, 1994). This includes all spatial topics which affect how the interior space is experienced, such as routing, scale, lighting and the spatial transition. An understanding of the space plan is necessary to know how the interior space can be used and adapted for future use.

The central question of this chapter is: how is the interior space of the church experienced and how has this changed over time?

To answer this question it is important to first know exactly what changes have been made to the space plan and why. Then, it is investigated what features are valuable for the experience of the interior and how the changes that have been made over time have impacted this experience. The comparison will be made between the characteristics of the original design of the church and the current church after renovations.

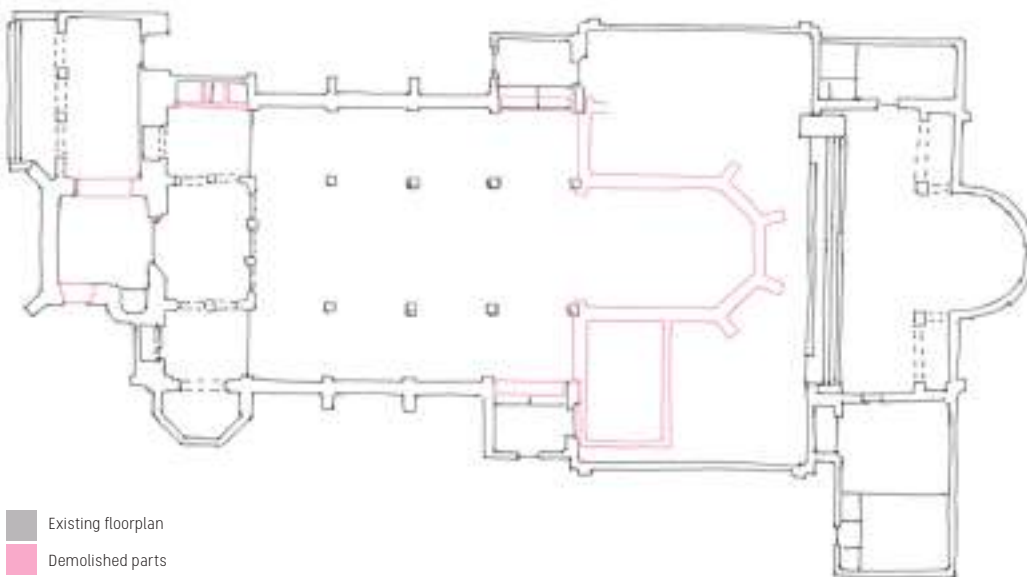
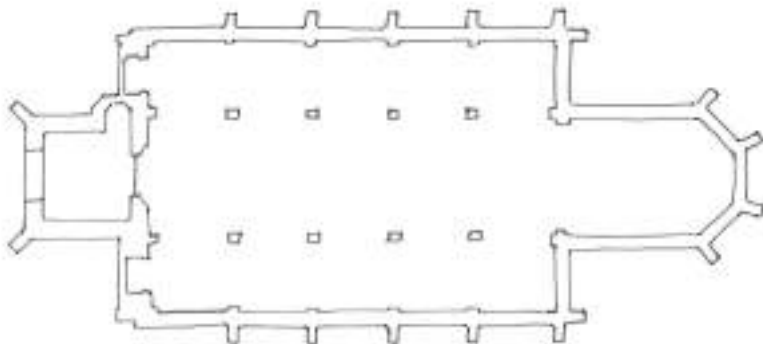
The chapter ends with conclusions which will form the input for the values related to the space plan which will be mentioned in the value matrix (N. Clarke, M. Kuipers, H. Zijlstra. 2016).

DEVELOPMENT

The first map shows the original design of the church. This second map indicates the existing situation in black and the pre-existing situation in color. During the renovations in the 1950s, the original choir was demolished and the church was extended to the rear and on both sides.



Figure 165 Picture of the demolished choir around 1945.



Existing floorplan
Demolished parts

Figure 166 Floorplan of the original design of the church and map showing the demolished parts 1:400.

The development of the church is summarized in the different colors used in the map. The church building has been changed over time, it has grown, which is common for church buildings. The original design of the church was built in stages because of economic reasons. Especially the renovation during the 1950s has changed the original design, making the church twice as big. Besides that, in different time periods smaller extensions were made, such as the baptistery and the loggia next to the tower.



Figure 167 Picture of the church in 1960.

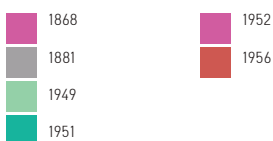
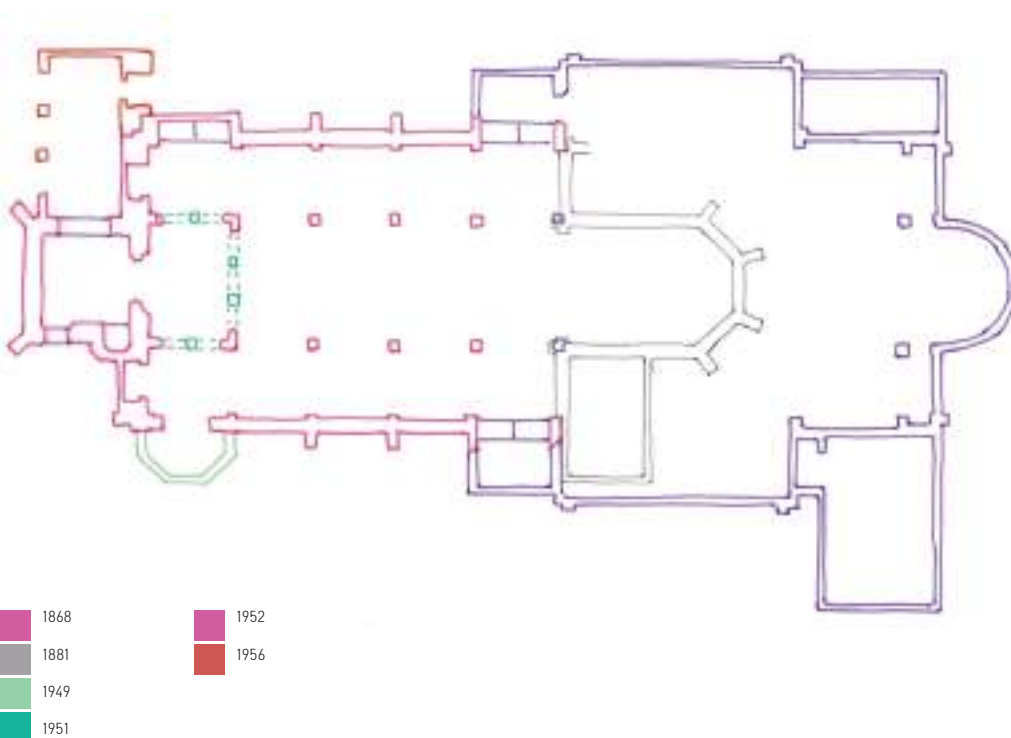


Figure 168 Map indicating the different building periods of the church 1:400.

USE

In this church there has never been another function besides a religious function.

The floorplan consists of the following parts: the portal, which is the entrance to the church. The narthex, the front hall of the church. The nave, this is the long space which is continued by the choir. In this space people attending the church service will be seated. In this church, the nave can be divided in two parts: the old nave and the nave (or transept like space) built during the 1950s. The aisles are the spaces parallel to

the nave. The choir, which is the place where the main altar is located. And lastly the apse, which is a closure of the choir. Besides this main sequence of spaces, there are also the sacristies, where the liturgical crockery and the parament are kept. There are church services once in two weeks. The benches in the old part of the church are not used, as there are much more seats than there are people attending the church service and the space is too far away from the choir. The confessionals are not in use anymore and are now used for storage.

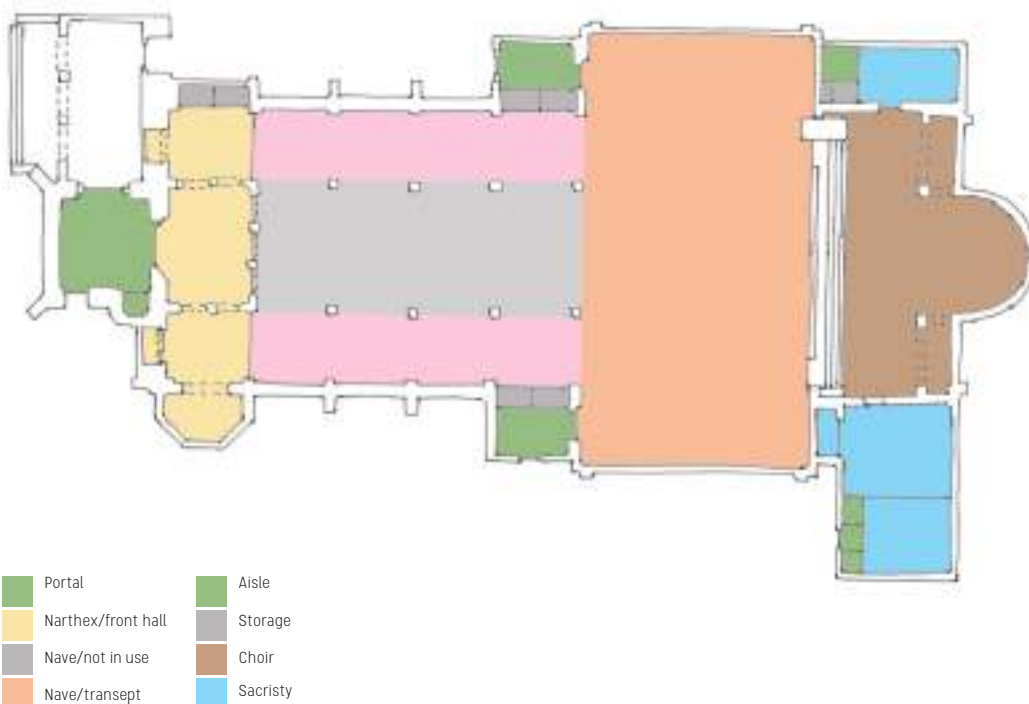


Figure 169 Different uses of the spaces in the church 1:400.

PUBLIC – PRIVATE

The degree of privacy is indicated in the shades of gray, darker meaning more private.

The front part of the church, the narthex, is publicly accessible during opening hours, making it possible for people to pray when there is no church service. A fence separates this space from the nave, which is only accessible during church services. The most private spaces are the sacristies, storage rooms and the private portals. The choir is indicated as more private than the nave, because this is the place only the pastor and the choir will be.

Historically, the narthex was a room used by those who do not have access to the church itself, for example people who have not yet been baptized or who are doing penance for whatever reason. It was originally a lobby and was part of the gallery around the atrium of early Christian churches. Later it acquired the character of a portico. The narthex became part of the church itself and became more of an enclosed meeting place.

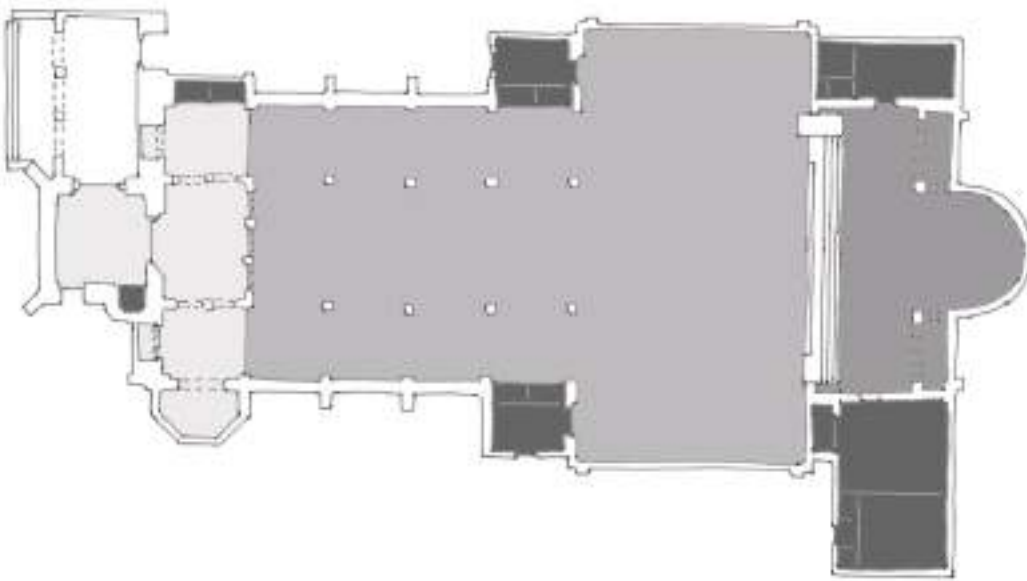


Figure 170 Public & private spaces in the church 1:400.

VOLUMETRIC COMPOSITION BEFORE 1953

Figure 9 shows the volumetric composition of the interior space of the original church before 1953, which in terms of the sequence of spaces was much simpler than it is now. There was a front portal, the nave and the aisles and at the end the choir. It was a well proportioned church according to Koldeweij (1954), the architect who made the extension in 1953.



Figure 171 Illustration of the church before 1953.

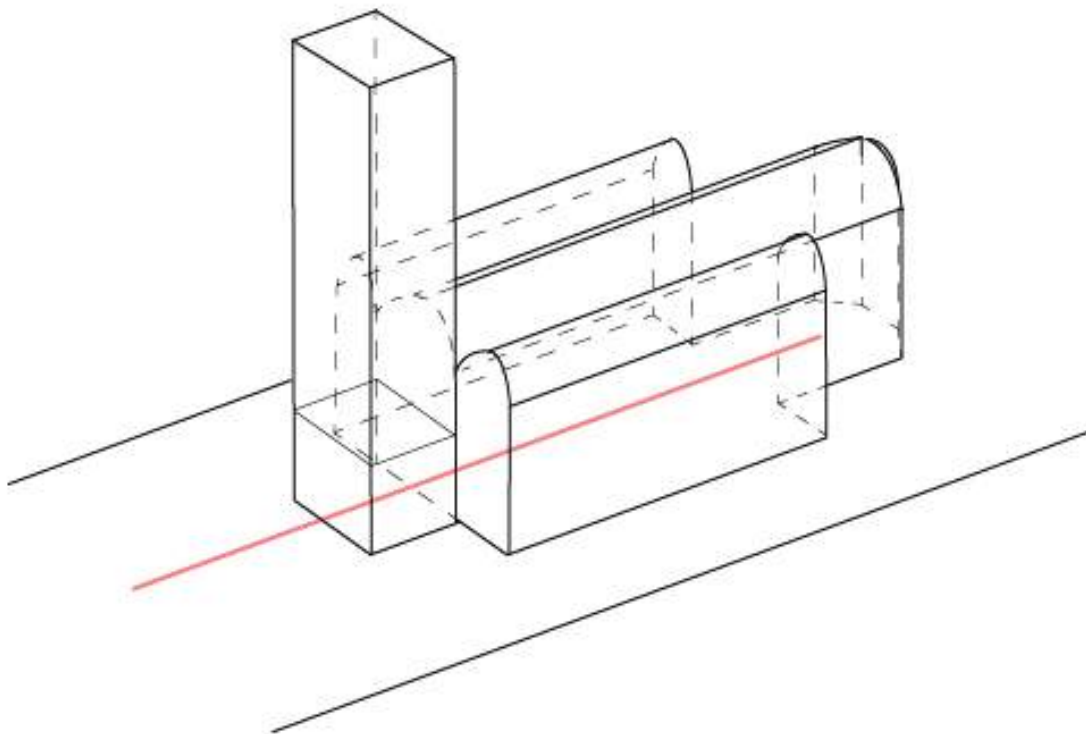


Figure 172 Volumetric composition of the interior of the church before 1953.

AFTER 1956

When looking at the volumetric composition of the interior of the church in the current situation, it is noticeable that there is a big difference between the original part and the part built after 1953. Different proportions and shapes have been used. The sequence of space became much more complex. One goes through different spaces with different characteristics and atmospheres. The next chapters will focus on this spatial sequence and the characteristics of these spaces. The comparison will be made with the original design.



Figure 173 Illustration of the church after 1953.

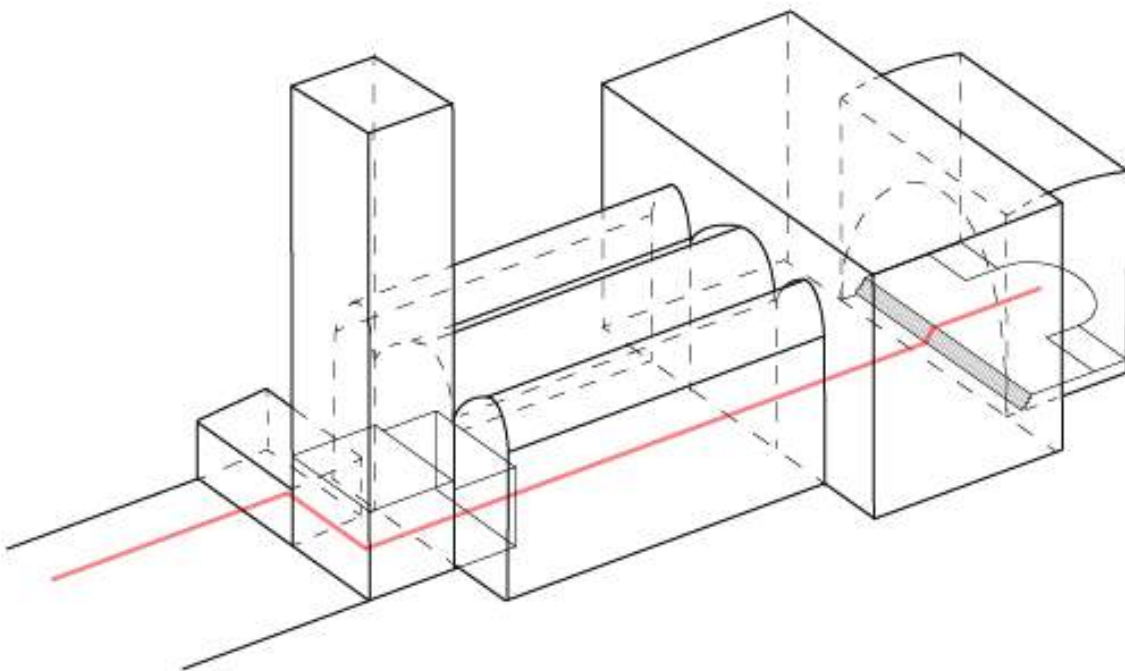


Figure 174 Volumetric composition of the interior of the church after 1956.

ENTRANCE

In 1956 a loggia was built on the west side of the tower, with a new entrance to the portal. The original entrance in the front of the tower was bricked up. The reason for this was, according to Schuurmans (1995), to "get the church in the heart of the street". It changed the frontal approach to the entrance of the church.

ROUTING

In the original design of the church the linear routing continued from the entrance to the choir and the altar. People entered through the front door and through the tower portal to enter the nave directly. In the current situation, there are several corners and spaces one goes through before entering the nave.



Figure 175, 176 Perspective drawings of the entrance.

First, people pass through the front garden, enter the loggia and go right. They enter the tower portal through the door, go around the corner and through a door again, to enter the narthex. Lastly, they go through a fence to enter the nave. From this point the routing will be explained through different users of the church: the visitor, people attending the church service and the pastor.

People attending the church service will walk to the end of the church to sit on the benches closest to the choir. The rest of the benches are empty. People who want to pray with-

out attending a church service can do that in the front of the church. They will enter in the same way, but will go to the right in the narthex. The pastor will enter the church in the portal through the door that is connected to the rectory. Before the church service, the sacristan lays out the robes for the pastor in the sacristy. The pastor then only needs to put on the robes. After the service, everything is stored away again in the sacristy.

On page 214 the spatial sequence will be addressed in which the routing will be visualized in perspectives.

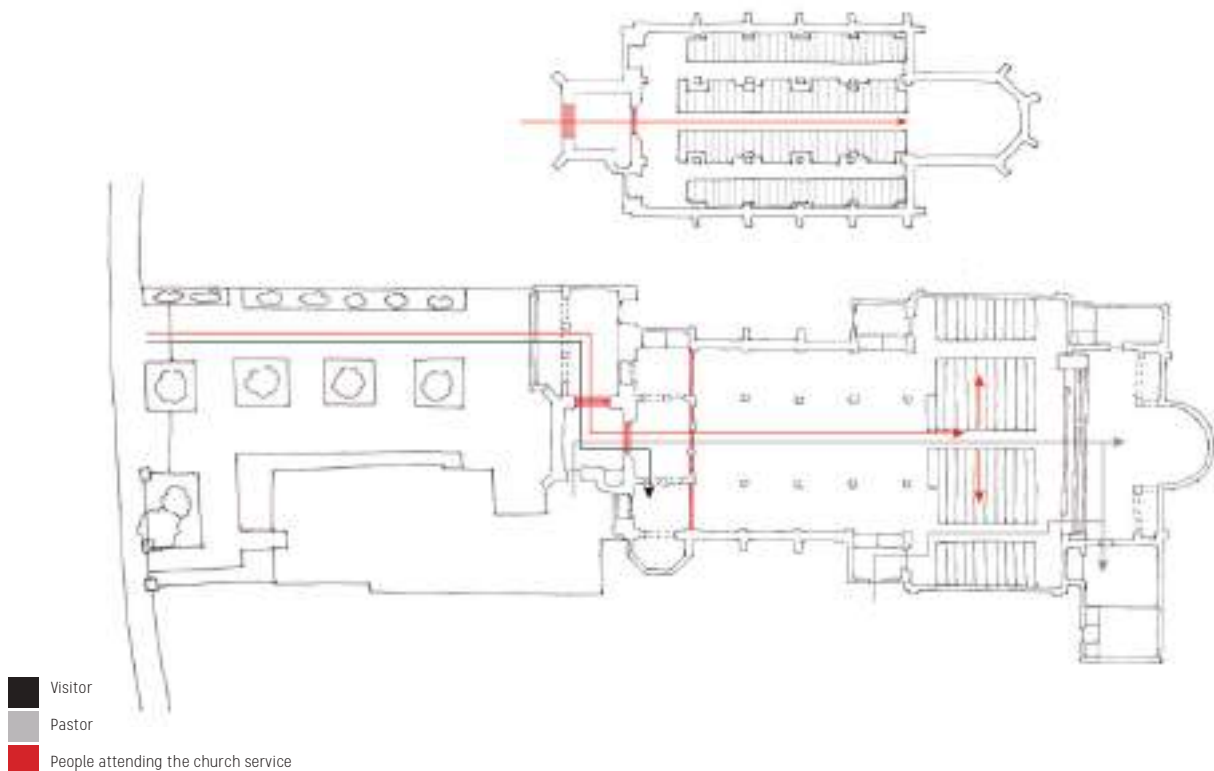


Figure 179, 180 Routing before in the original design and after 1956 1:600.

COMPOSITION BEFORE 1953

Important aspects of (neo-)Gothic architecture are the linear orientation, suggestion of movement, focus on verticality and the strong rhythm resulting from the repetition of columns.

Before 1953 there is was a clear linear orientation towards the altar. In the nave of the church built in neo-Gothic style, the high walls closely confine the visitor on two sides, restricting their possible movements. This suggests going forward along the free space of the nave towards the altar. It also forces

the visitor to look upward to the vaults and the light overhead, which causes an uplifting experience of the space (Encyclopaedia Britannica, 2019).

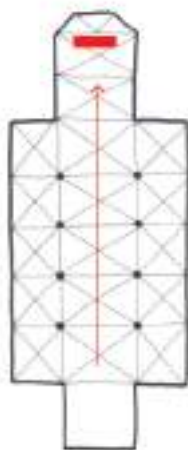


Figure 181 Direction of the pre-existing and existing situation.



Figure 182 Illustration of the church interior in 1910 showing the demolished choir, from an archive picture (Beeldbank Erfgoedcentrum Achterhoek en Liemers).

AFTER 1953

The shape of the church was changed from a hall church to a cross church. The new choir and extension of the nave were built in Romanesque style. Unlike the older part, this part has no clear direction since it is a wide open space with no columns. This is emphasized by the round arch opening up the choir. The linear orientation is still present since the new choir was placed opposite the entrance of the church, but when walking into the new part there is no feeling of a clear orientation. It therefore intercepts the linear orientation from entrance to choir and altar.

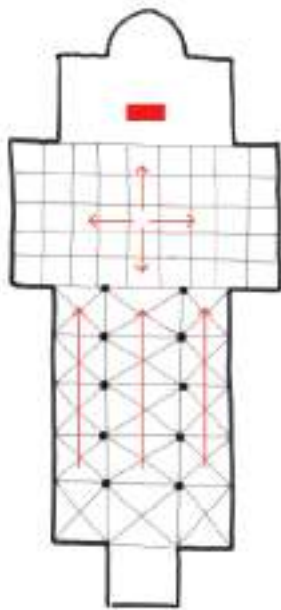


Figure 183 Rhythm in the floorplan and sections.



Figure 19 Illustration of the current church interior.



Figure 184 Illustration of the current church interior.

RHYTHM

The strong rhythm in the neo-Gothic part is not continued in the extension from 1953. However, the new design did take into account the grid of the old church, as can be seen in the choir which is in line with the old nave.

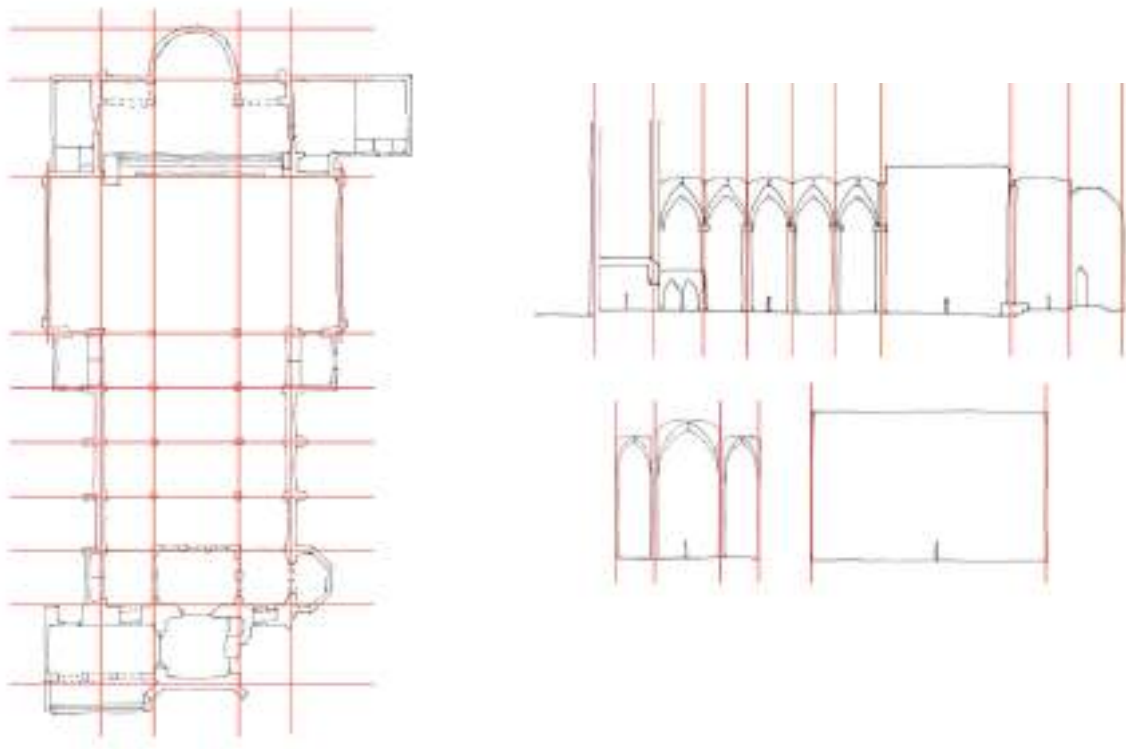


Figure 185 Rhythm in the space plan resulting from the construction 1:600.

SCALE

The scale of the spaces is very important for the experience of the visitor.

The neo-Gothic part of the church has a lot of verticality, in which the visitor is closely confined by the high walls on two sides. The detachment from human scale evokes the experience of the sublime (Böhme, 2017). The part built in the 1950's has a very wide and open space, which is emphasized by the triumphal arch.

There are also spaces with a much smaller scale, making them more intimate, such as the space beneath the organ loft, the front portal and the spaces in the apse. On page (number), the spatial transition is addressed, in which also the transition in scales will become clear.

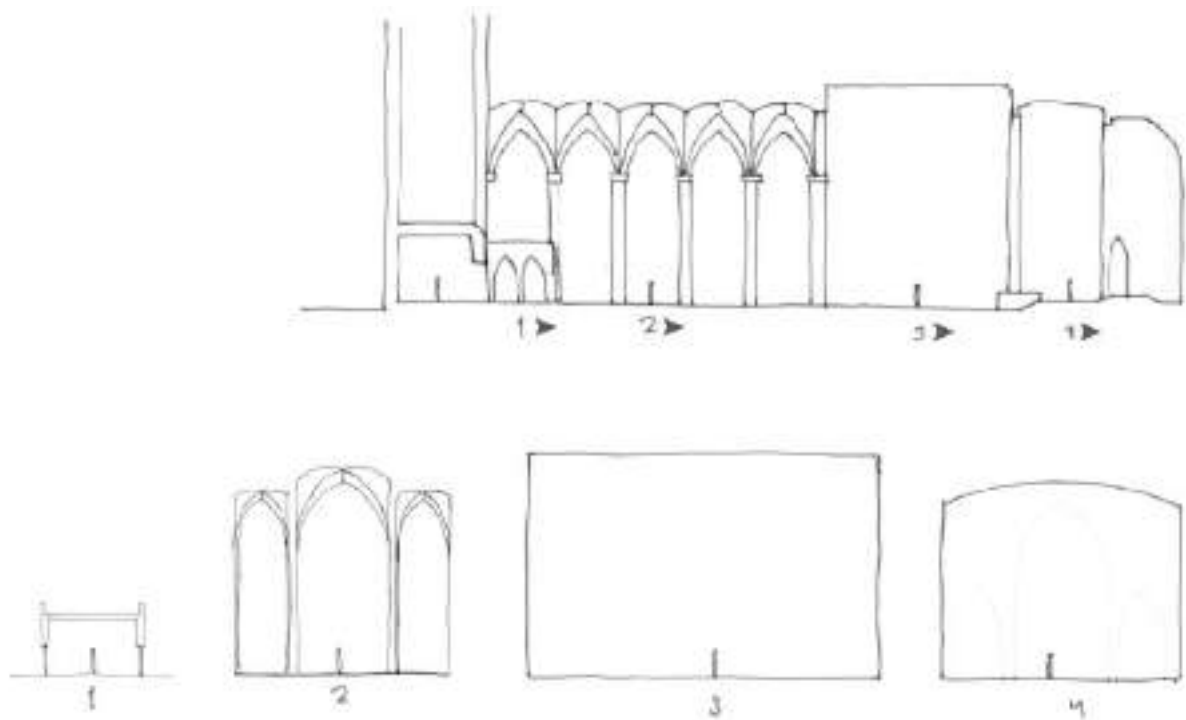


Figure 186 Scales of the different spaces in sections 1:400.

LIGHT AND DARKNESS BEFORE 1953

Lighting has an important place in the staging of atmospheres in churches. The church building was originally focused on a sublime experience of height and light from the interior. When looking upward to the vaults and the light overhead, it can cause an uplifting experience. The choir would have been a very light space because of the big windows, which enhanced the orientation to the choir.



Figure 187 Picture of the old choir.

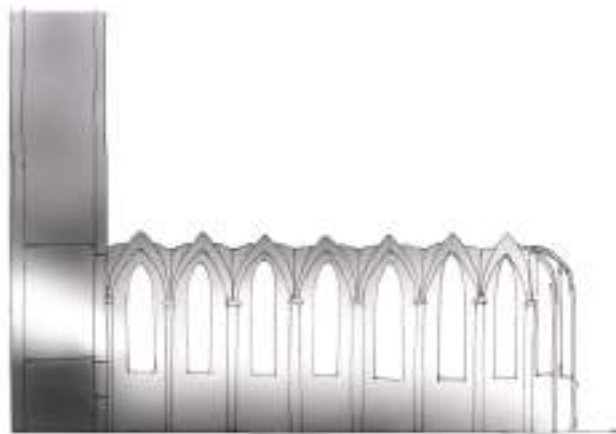


Figure 188 Shadow study in the section of the original design of the church, based on own imagination 1:400.

AFTER 1953

In comparison with (neo-)Gothic churches, this church space is very dark, especially in the top of the church. It is possible that this is because the windows were made smaller in the 1950s. This affects the experience of the visitor. However, because there are spaces which are darker and lighter there is a transition through spaces with different atmospheres, which gives the church a new experience of light and darkness.



Figure 189 Picture of the

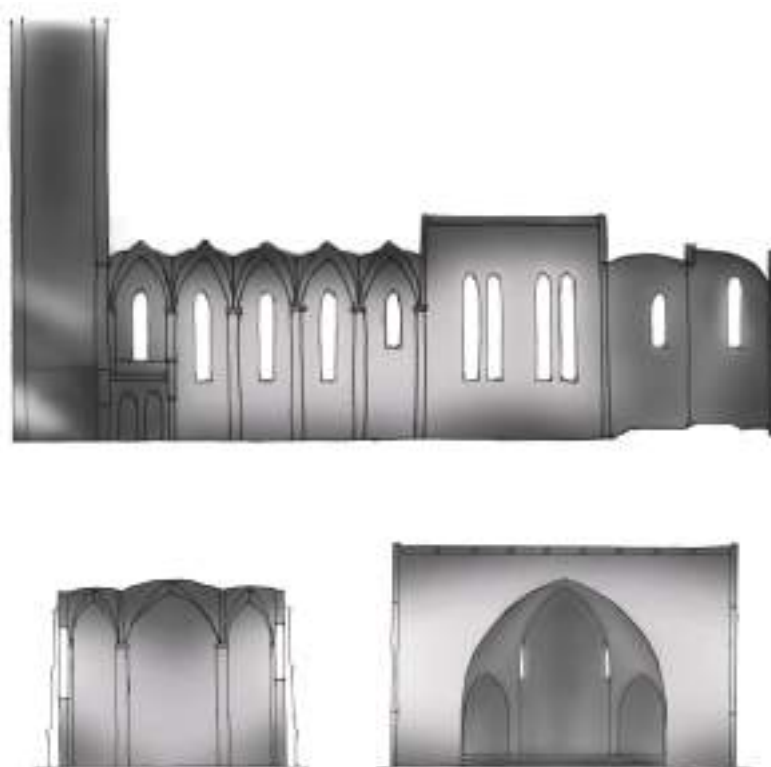


Figure 190 Shadow study in the sections of the current situation 1:400.

SPATIAL TRANSITION



View 1 The entrance of the church is approached through a transitional area in front of the church. In this front garden, enclosed by buildings on both sides, it is much more quiet than in the adjacent shopping street. This space already forms the transition from the busy street to a space of silence and contemplation.



View 2 The original entrance is closed off. Visitors now enter the church through the loggia on the west side of the tower. The visitor enters the loggia by going up a few stairs.



View 3 Inside the loggia, there is a double door to the right, leading to the tower portal, which is a small space with a door leading to the church space.

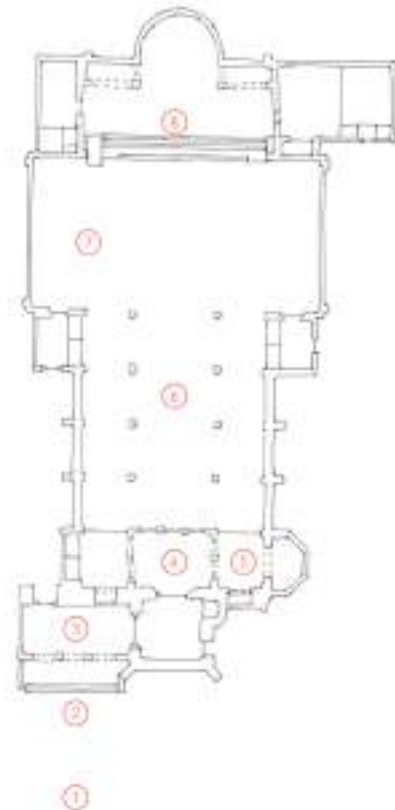
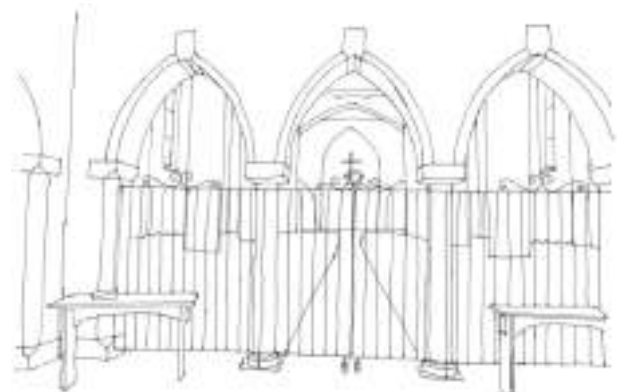
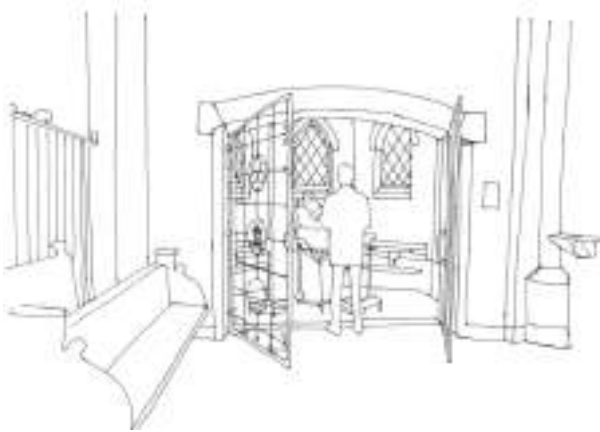


Figure 26 Floorplan indicating the places of the views 1:600.



View 4 The visitor enters in the narthex, the front hall of the church. The narthex is a space that forms the transition from the secular to the spiritual; one can relax for a moment or prepare spiritually. Because of the organ loft above, this space has a small scale and therefore feels more intimate. When there is no church service, the nave is closed off by a fence.



View 5 Going to the right, the visitor sees a small chapel, which used to be the baptistery. People can come here to pray and light a candle.



View 7 The extension of the nave from the 1950s has a wide, open space. This space doesn't have the verticality and suggestion of movement that is present in the old nave. This is the place people attending the church service will sit.



View 6 When passing the fence, the visitor enters the nave of the church. Since the old part of the nave of the church is not in use and the seats are sealed off by a rope, visitors of the church service walk along the path to the benches closer to the choir. The characteristics of (neo-)Gothic architecture, the suggestion of movement, focus on verticality and strong rhythm, are apparent in this space.



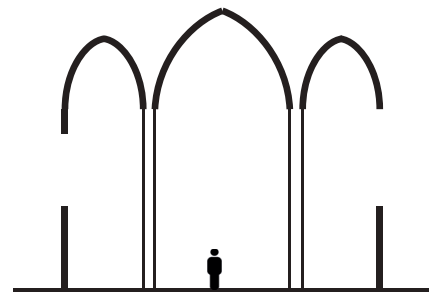
View 8 When standing on the platform in the choir, one looks back at the nave. The organ has a prominent place in the front of the church.

CONCLUSIONS SPACE PLAN CHURCH

These conclusions are the result of the analysis of the space plan. Being a church, the building has specific characteristics that can't be found in other types of buildings. The research question asked in the introduction of this chapter was as follows: how is the interior space of the church experienced and how has this changed over time? The overall conclusion is that different elements that are typical for churches, such as the spatial transition, height, verticality, rhythm of the

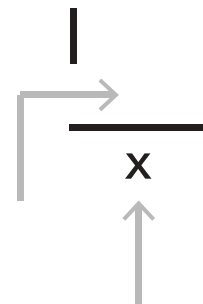
columns and light, all together result in an atmosphere that is specific for church buildings. Because the church has been drastically changed during the renovation, this church atmosphere has been affected, which will be illustrated by the following diagrams. Since the spaces of the church are built in different years, in different styles and with different characteristics, there is no feeling of unity and clearness.

There is no connection between the interior and outside because of the high plinth.



<< Image 191 Diagram showing the high plinth.

The entrance is closed, unclear and uninviting. It is not visible from the street as it is on the side of the tower, inside the loggia. Originally, it was in front of the tower portal.



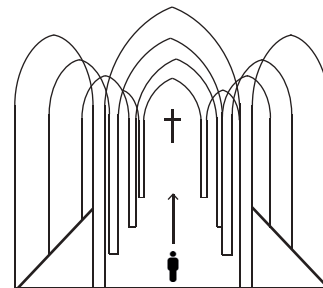
<< Image 192 Diagram showing the uninviting entrance.

The church shows layers of time, it has grown.



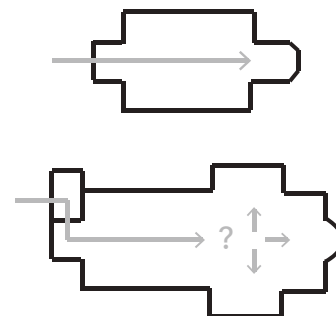
« Image 193 Diagram showing that the church has layers of time.

There is a focus on verticality in the neo-Gothic part. The high walls closely confine the visitor on two sides, restricting their possible movements. It forces the visitor to look upward to the vaults and the light overhead, which causes an uplifting experience of the space. The detachment from human scale evokes the experience of the sublime.



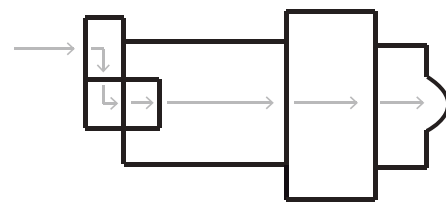
« Image 194 Diagram showing verticality, suggestion of movement and scale.

The linear orientation of the church towards the altar has changed because because the space built during the renovation disrupts the linear orientation. It is still somewhat present.



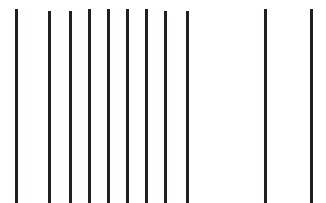
« Image 195 Diagram showing the change in orientation.

From the street to the altar there is a spatial sequence of spaces with different scales, lighting and other characteristics, which give the spaces different atmospheres. It forms the transition from busy to quiet and from secular to the spiritual.



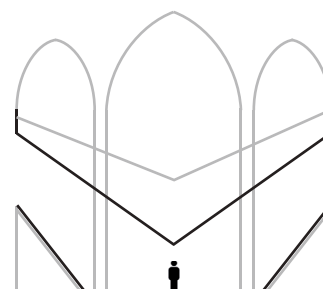
<< Image 196 Diagram showing the spatial sequence.

In the neo-Gothic part there is a clear grid resulting from the repetition of columns which causes a strong rhythm. This is intercepted by the new part.



<< Image 197 Diagram showing the change in rhythm.

Church buildings were originally focused on a sublime experience of height and light from the interior. When looking upward to the vaults and the light overhead, it can cause an uplifting experience. This church is very dark compared to other catholic churches, possibly because the windows were made smaller during the renovation of the 1950s. This affects the uplifting experience of the visitor.



<< Image 198 Diagram showing the change in light.



SPACE PLAN – RECTORY

INTRODUCTION

In this chapter, themes related to the space plan will be analyzed. Brand defines the space plan as the interior layout, where walls, ceilings, floors and doors go (Brand, 1994). An understanding of the space plan is necessary to know how the interior space can be used and adapted for future use.

The central question of this chapter is: how is the interior space of the church experienced and how has this changed over time?

The focus lies on the changes that have been made over time and why, on understanding what features are valuable for the experience of the interior and how the changes have impacted this experience.

The chapter ends with conclusions which will form the input for the values related to the space plan which will be mentioned in the value matrix (N. Clarke, M. Kuipers, H. Zijlstra. 2016).

DEVELOPMENT

The development of the rectory is summarized in this map. During the 1950s renovation of the church an extension was made to the rectory to make a connection with the church. During this also extra spaces were created. Of some parts it is uncertain when they were adjusted. Nothing is known about the basement since it was not accessible.



Figure 199 Map indicating the different building periods of the rectory 1:400.

These maps show the changes that were made to the original floorplan. The most notable change is the extension that was built in the 1950s. Besides that, multiple partition walls have been demolished to create bigger spaces. In some spaces sliding walls are placed, making them flexible. Another visible change is the suspended ceiling that is applied in several rooms. There are still a couple of rooms with the original ceiling height, in which the decorated ceiling is visible.

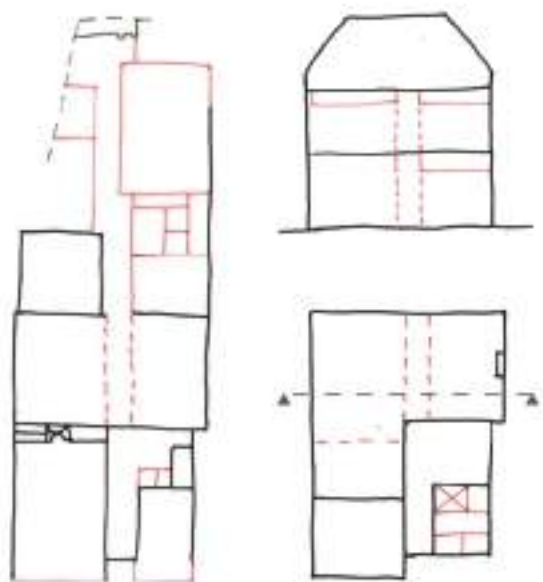


Figure 202 Changes made in the floorplan of the ground floor, first floor and section 1:400



Figure 200 Picture of the partition wall in the communal space on the ground floor.



Figure 201 Picture of the communal space on the first floor, in which the walls have been demolished.



Figure 203 Picture of the hall connecting with the church.

USE

This series of maps show how the functions in the rectory have changed over time.

The rectory used to be the official residence of the pastor. On the ground floor, the living room, dining room and kitchen were located. In the front of the rectory the consulting room was located, which is still there, although not used much anymore. Behind the rectory there was a conservatory and storage room. On the first floor the bedrooms were located. On the attic there were another bedroom, a storage room and technical space.

During the 1950s the extension was made. A storage room, communal room, toilets and scullery were added. The conservatory was changed into a bedroom.

The last pastor who lived here probably lived there until 2001-2002. After that the spaces were rebuilt as communal spaces (Stotteler, 2019). This was done during the internal renovation in 2004/05. Another change in function made during this renovation was the daycare center that was placed in the spaces in the back of the rectory. Later these spaces were changed back to communal rooms.

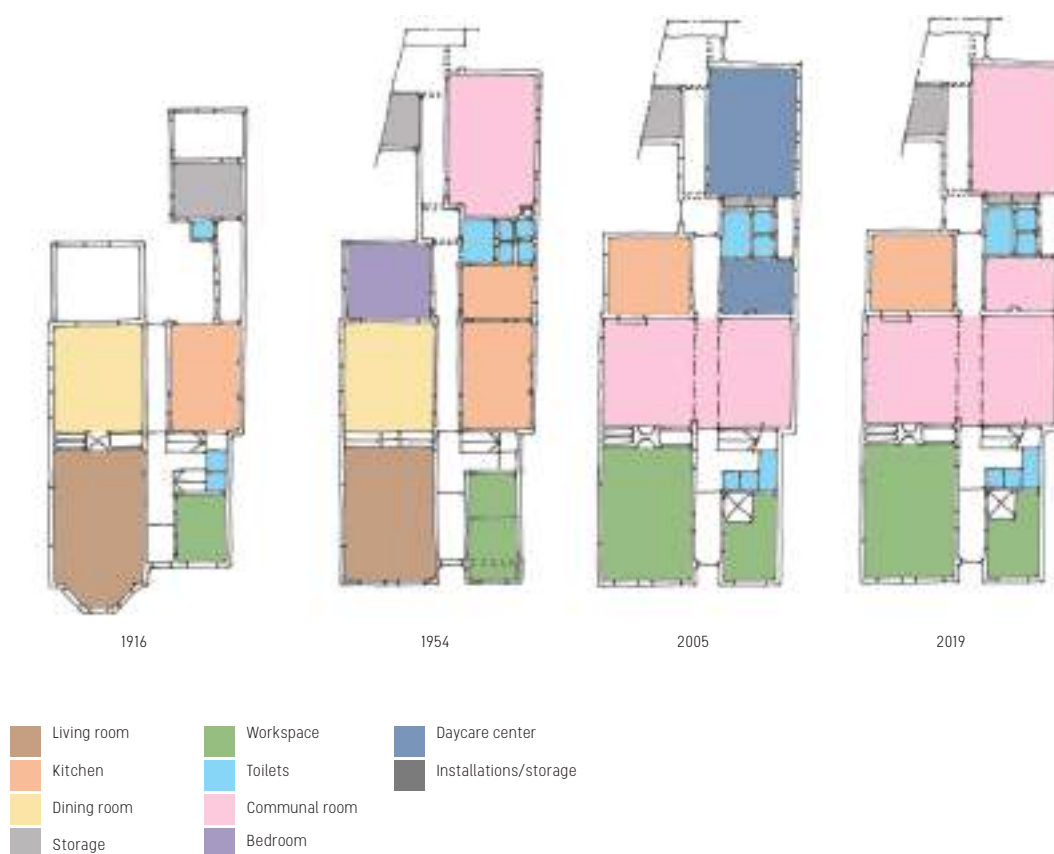


Figure 204 Functions on the ground floor in 1916, 1954, 2005 and 2019 1:400.

On the first floor, the rooms were also given another function. The small toilet was removed and the new toilets were placed in one of the bedrooms. In another bedroom the kitchen was made. The rest of the rooms became communal spaces.

On the attic used to be a guest room, bathroom for the servant and storage room. It was later also used as space for installations, which now have moved to the basement. Nowadays it is used for the archive and storage space. The bathroom isn't used anymore and is empty.

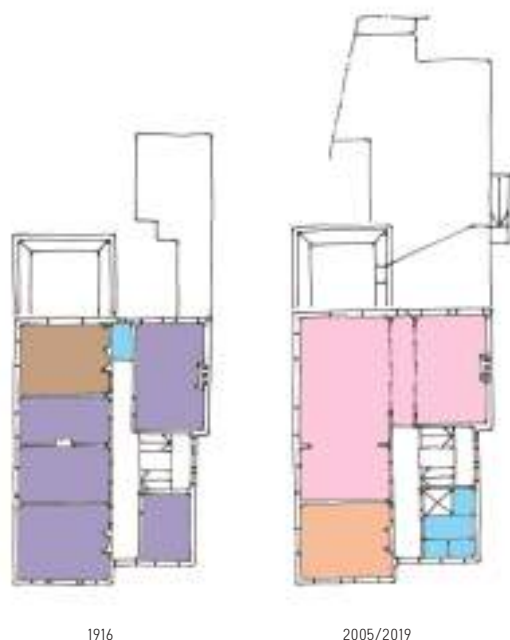


Figure 205 Functions on the first floor 1916 and 2005/2019 1:400.

The basement is used as installation space. The former use of the basement is unknown, but most likely it was used as storage room.

The rectory is used once every two weeks on Saturday afternoon for the meeting of the shopkeepers association. The senior citizens association also meets in the rectory and there are groups playing cards (Stotteler, 2019). The secretariat of the parish is located in the room in the front of the rectory.

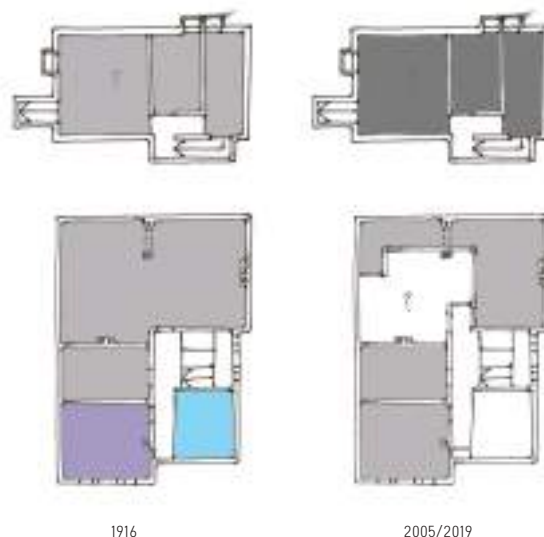


Figure 206 Functions in the basement and attic in 1916 and 2005/2019 1:400.

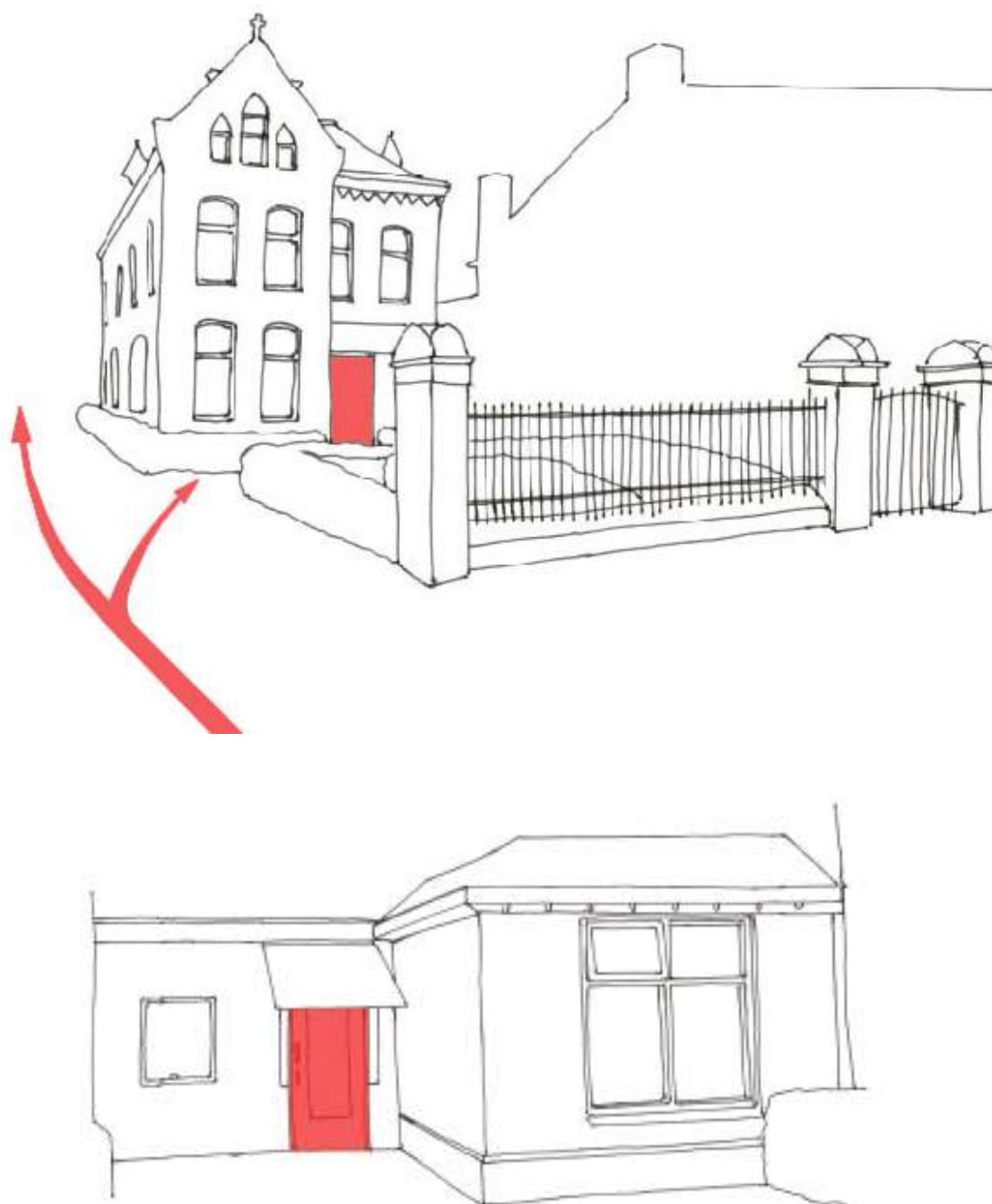


Figure 209, 210

Perspective drawings of the entrance.

ROUTING

There are several entrances to the building. First, the original entrance in the front of the building. Secondly, the entrance in the 1950s extension. Third, the entrance accessible via the portal of the church and lastly, an entrance on the other side of the 1950s extension. The original entrance is still used as main entrance.

A linear hallway in the middle of the building gives access to the rooms. Because multiple walls are demolished, in some rooms, such as the communal space in the middle and the

communal space on the first floor, the hallway disappeared.

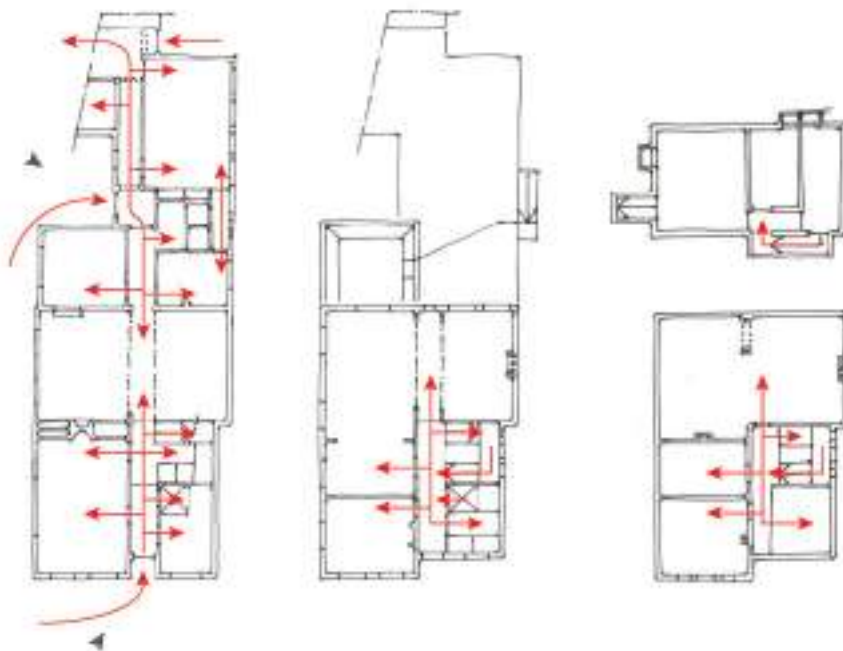


Figure 211 Routing in the building on the ground floor, first floor and attic.

INTERIOR GROUND FLOOR

The interior surfaces and textures can influence the character of a place. In the rectory not many different materials have been used. On the ground floor and the first floor, the walls are plastered white and in all rooms there is the same red-brown linoleum floor. It is unknown what the interior used to look like, but it is clear that the interior has been changed during renovations, as linoleum floors weren't used in 1916. This makes it feel less like a historic building.

An interesting element in the interior is the decorative plaster which is visible in the ceilings that are not covered by a suspended ceiling. This is visible in three rooms in the rectory: in the communal space and the hall on the ground floor and the kitchen on the first floor.



Figure 212 Communal space.



Figure 213 Office.

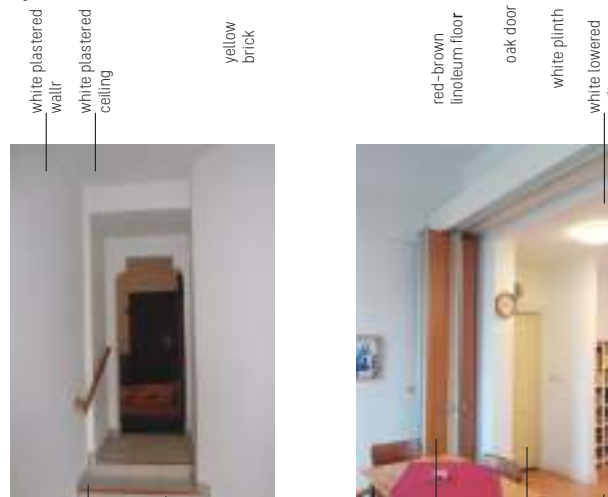


Figure 214 Hall.



Figure 4 Communal space.

INTERIOR FIRST FLOOR

The spaces on the first floor are materialized in the same manner as on the ground floor. Figure 5 shows the suspended ceiling in the communal space on the first floor. This lessens the atmosphere of the room. The kitchen and toilets were placed in 2005, so they are materialized in a modern way.

The staircase is the original wooden staircase built in 1916. It is beautifully decorated and shows a lot of craftsmanship in the detailing. It is covered with red carpet.

Another significant element of the interior is the stained glass, used in the stairwell. Yellow stained glass figures have been incorporated: a rooster, a sun and an eagle. These figures are described in the bible. When the sun rises the rooster starts crowing. The rooster is the sign of a new beginning, and if someone believes in Jesus, the church calls it a new beginning. The eagle is the most described bird in the bible. he symbolizes that god will take care of us. in addition, he is also a symbol for sanctifying and cleansing our lives.



Figure 215 Communal space.



Figure 216 Kitchen

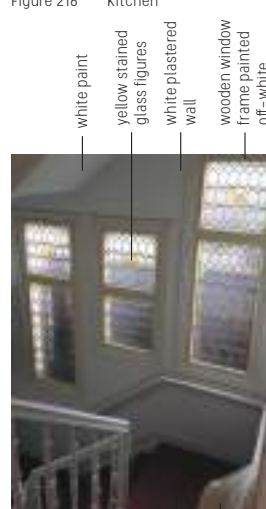


Figure 217 Staircase

rec carpet
wooden
handrail
painted white



Figure 218 Toilets

INTERIOR ATTIC

Other than the other floors in the rectory, the walls in the attic are painted in a light blue color and there are unfinished wooden floors. It is possible that this is the original color that was used for the walls of the rectory, since the attic has not been used for a long time, but this is just a hypothesis. The rooms show signs of neglect, the surfaces are in a bad condition.



Figure 219 Storage/former bedroom.



Figure 220 Wallpaper.



Figure 221 Storage room.



Figure 222 Former bathroom.



Figure 223 Hall.

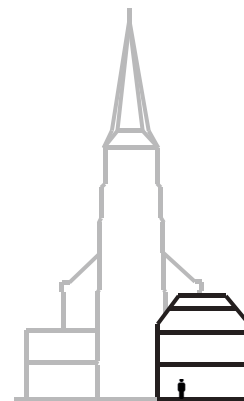


Figure 222 Storage room.

CONCLUSIONS SPACE PLAN RECTORY

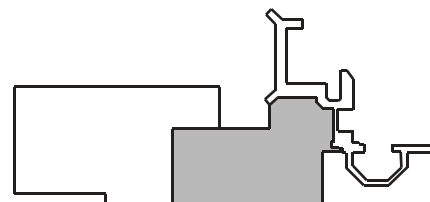
These conclusions are the result of the analysis of the space plan. The research question asked in the introduction of this chapter was as follows: how is the interior space of the church experienced and how has this changed over time? The rectory is the house where the pastor used to live. Compared to the church, it has a much smaller scale, giving the spaces a very different atmosphere. A number of changes have been made to the rectory over time, some of them being positive for future interventions, such as removing partition walls, and some of them being negative for the experience of the interior, such as the installation of suspended ceilings.

Unlike the church, the rectory has a human scale, giving the spaces a very different atmosphere.



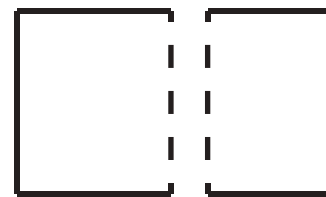
<< Image 1 Diagram showing the scale of the rectory in relation to the church.

The overall layout of the rectory has remained the same over the years. An extension has been made to the back to connect it to the church.



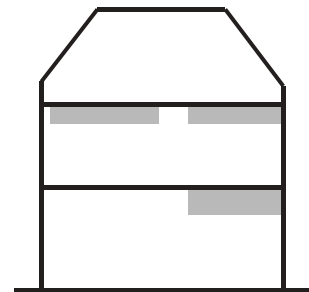
<< Image 2 Diagram showing the connection with the church.

The spaces have been made larger by demolishing separation walls and sliding walls have been applied which makes the spaces more flexible. This is convenient for a new use.



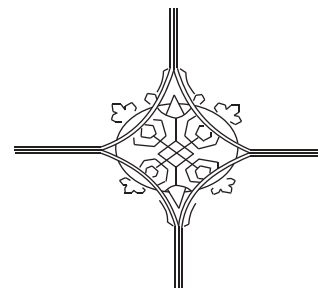
<< Image 3 Diagram showing the demolished walls.

The suspended ceilings have a negative influence on the experience of the building, as they cover the original decorated ceilings showing historic details.



<< Image 4 Diagram showing the suspended ceilings.

There are some original elements still present in the interior, such as the stairs and the ceiling decoration in some rooms. It is important to preserve or in the case of the ceilings bring back these elements, as they bring about an atmosphere.



<< Image 3 Diagram showing showing a decorative element.



SURFACES – CHURCH

INTRODUCTION

In the previous chapter of Skin the Jacobus church and its rectory are analysed from the exterior to the interior from a larger to a smaller scale. From the exterior the materials and the positioning of the materials both in the facades of the different building parts of the church and the rectory are analysed from an technical and architectural angle. The facade section eventually provides an overview of how the different materials technically comes together in the skin and explain how the skin expresses itself towards the exterior and the interior in a representational facade fragment of both the 1868 and the 1952 building part. However, the surfaces of the interior reach a far greater complexity and variety of materials and implementations. To get a grip and overview on these materials it is essential to learn the understanding of why the different materials are implemented as they are and what role these materials have in the functioning of the interior. The research questions for the chapter of Surfaces can therefore be formulated as:

‘What materials compose the interior of the Jacobus church and the rectory?’

‘What role do the materials have in the interior of the church?’

‘Is there a relationship between the interior materials and the exterior of the building?’

‘What is the relation between the interior of the 1868 building part by Wennekers and the 1952 expansion by Koldewey?’

‘What is the relation of the materials of the Jacobus church and its rectory?’

To provide answers to these questions, this chapter captions the inventarisation of materials of both the Jacobus church and its rectory through a devision of catagories. For each catagory the different materials throughout the building are inventorised, described and related to the location in the floorplan.

In this chapter, the surfaces in the interior will be analyzed. The focus lies on the most significant of the buildings’ interior surfaces, such as the different types of flooring, walls, doors, windows and ceilings.

Understanding how the surfaces are related to each other and and how they were formed will be helpful for future interventions. Also, the surfaces are very important for the interior experience of the building and the atmosphere. Surfaces deal with light, sound, echo, touch, smell and more. For this they form an essential part of the building.

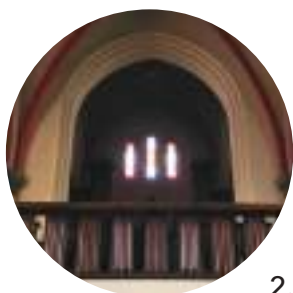
WINDOWS

All the windows in the main church body and the tower are constructed of stained glazing set into lead frames placed together in a steel frame. Some of the lead frames are structurally supported by steel tubes. The different colors of the stained glass enhance the typical effect of daylight entering the church. Aside from the windows on the north side of the church, all the long vertical windows of both the 1868 section and the 1952 expansion,

together with the rounded windows in the choir, all have a single layered window screen placed in front of it on the outside. This screen is likely to function mainly as improvement of thermal insulation of the stained glass. It is less likely for the window screens to be placed for sound insulation from outside or physical protection of for instance vandalism since these factors do not apply on the building site.



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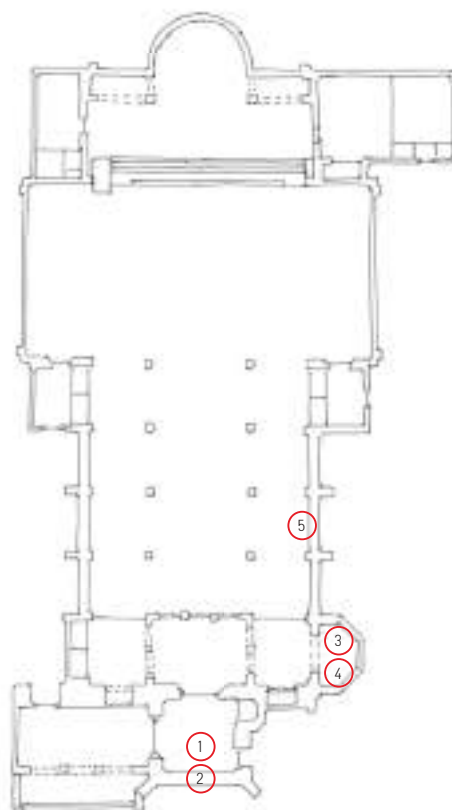
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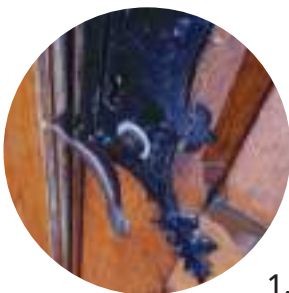
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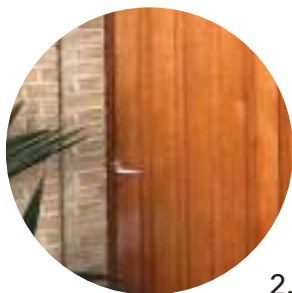
DOORS

All the doors inside the church are made of wood with the locks and hinges made of steel. Depending on the importance of spatial function and the hierarchy of the spaces within the floorplan of the church, the doors contain a certain decorative detailing. This expands from engraved patterns and rounded edges in the wood of the door to the craftsmanship in the metal work, which is nicely decorated. Some of the locks and hinges of for instance

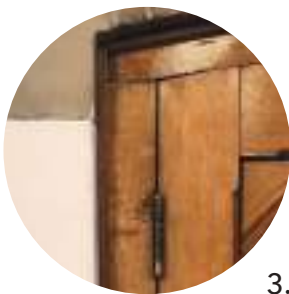
those of the main entrance door leading from the tower to the narthex, are highly decorated and are painted black to express its presence from the contrast on the wood. Doors of the less important spaces in the hierarchy of the floor plan like the confessional spaces, do contain some engravings and decorative rounding in the woodwork but the metal work is less present and is more simplistic. The expression of the wood as material used for the doors is in harmony with the wood of the church pews.



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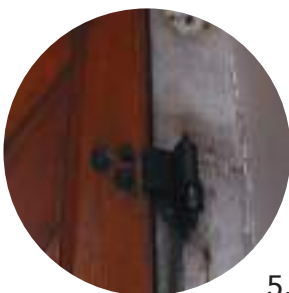
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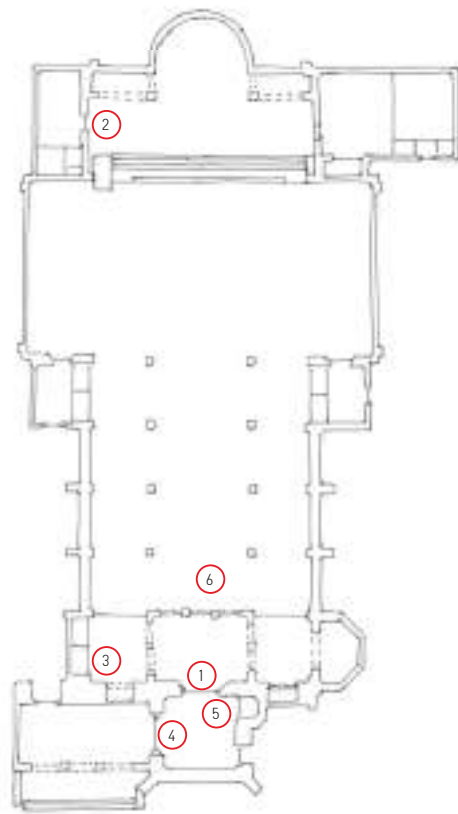
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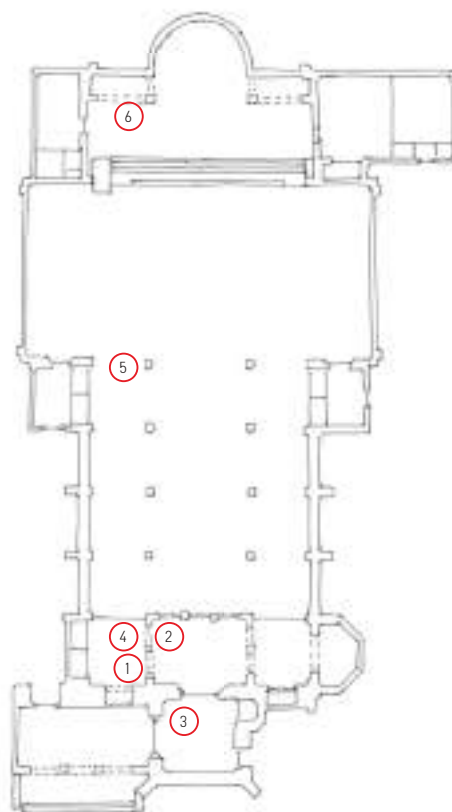
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COLUMNS

All the columns in the church are made of natural stone massive blocks stacked on top of each other, given away by the joints and slight color differences in the material. The purity of the joints and the color difference together with the unprocessed rougher texture of the material result in a very natural expression of the stone. The columns that connect the rib vault to the wall and the exterior buttresses are painted white and by doing so merging

the column with the identity of the wall instead of the other columns of the nave. The capitals of the columns in the nave contain Corinthian decoration, similar to the Corinthian decoration remaining around the original entrance at the front of the tower. The capitals of the two interior columns of the 1952 expansion placed in the chorus however have a Romanesque cushion capital. The difference in capitals show an important and typical contrast between both the interior and exterior of the neogothic 1868 section by Wennekers and the neoromanesque 1952 and 1956 expansion by Koldewey.



WALLS

All wall surfaces are mainly covered in a layer of white painted plaster. Around openings in the walls formed by windows, doors and niches, the walls are left open of plasterwork showing a yellow colored brick outlining the opening. Placed in the corners or the middle above the opening, some of these frameworks of brick contain decorative natural stone elements. At the walls of the chapel and the space of the 1952 extension perpendicu-

lar on the 1868 nave, the plaster only reaches to a height of ca. 70 cm above the floor creating a plinth of the wall surfaces by the yellow interior brick. The wall surfaces of the complete choir of the 1953 extension are fully constructed of yellow brick. The white paint also covers some of the religious artwork that is part of the interior surfaces such as the 14 stages of the cross in the walls of the aisles.



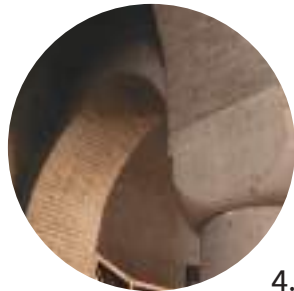
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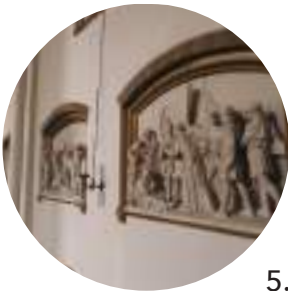
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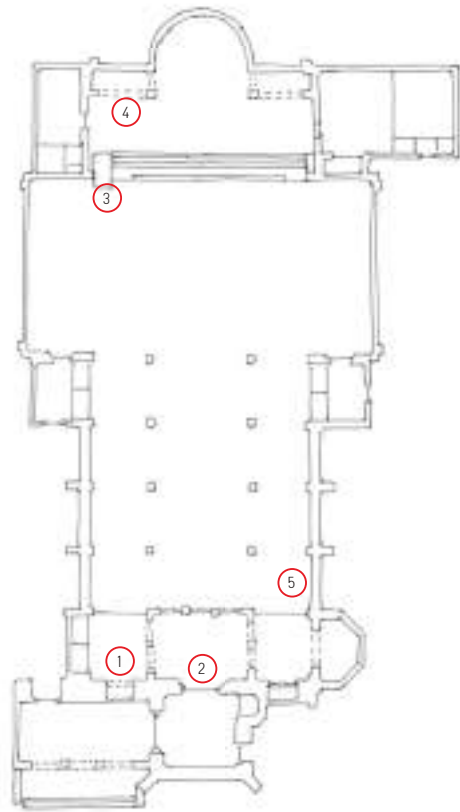
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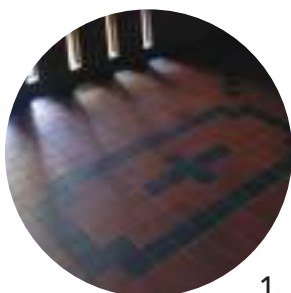
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FLOORS

Throughout the church there are several different types of flooring, but there is coherence in the characteristics of the materials. The flooring is either made of ceramic or marble tiles of a similar light ivory yellow color. This with exception of the floor tiles in the tower entrance which match better with the color

of the brick flooring of the outside entrance. Because the flooring is of a stone type material with a polished and smooth surface it is highly reflective of light. The hard and smooth surface also cause the resonance of sound. A typical example would be the sound of someone entering the benches, changing the footsteps echoing on the floor tiles to the squeaky sound of the wooden church benches.



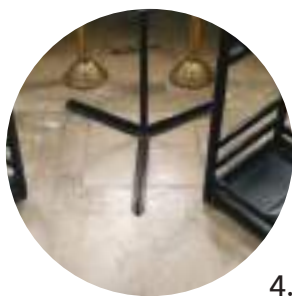
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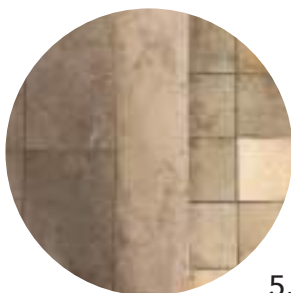
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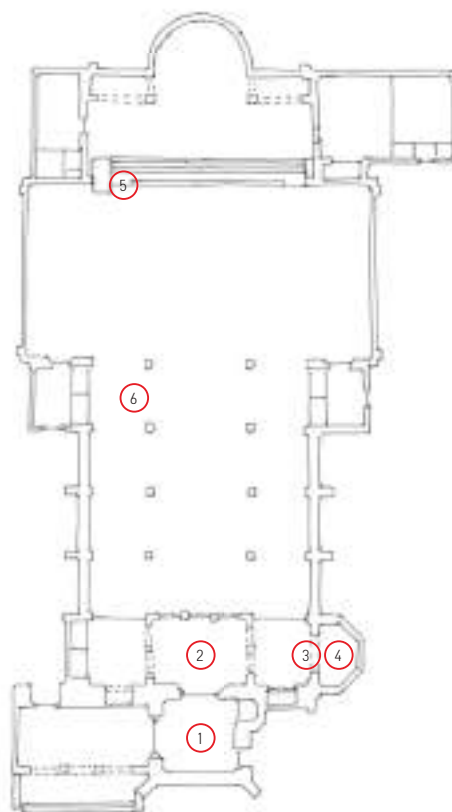
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CEILINGS

The main routing from the outside of the church until the chorus follows a sequence of spaces, each with a different ceiling type. The ceiling of the entrance space in the tower is a rib vaulted ceiling of which the ribs are covered in bright red paint and the bricks of the web are painted white. The ceiling of the narthex below the choir is a lowered ceiling made wooden beams left in sight. The chapel on the side has a vaulted ceiling fully covered in white painted plaster forming one

continuous surface with the wall. The rib vaulted ceiling of the original 1868 nave and aisles has its ribs again covered in bright red paint. The web however is not covered in paint, unlike the ceiling of the entrance space in the tower, and shows the web to be constructed of the yellow interior brick. The vaulting stops at the space of the 1952 extension placed perpendicularly onto the 1868 nave. The ceiling of this space is slightly higher and has a flat ceiling separated in squared raster of beams. The bottom side of these beams are painted in the same red color as the ribs of the vaulted ceiling.



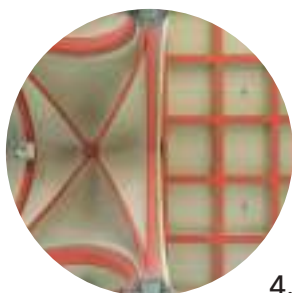
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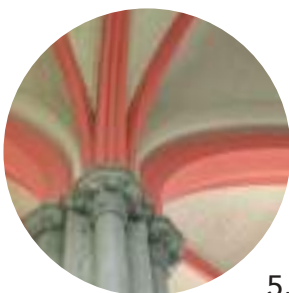
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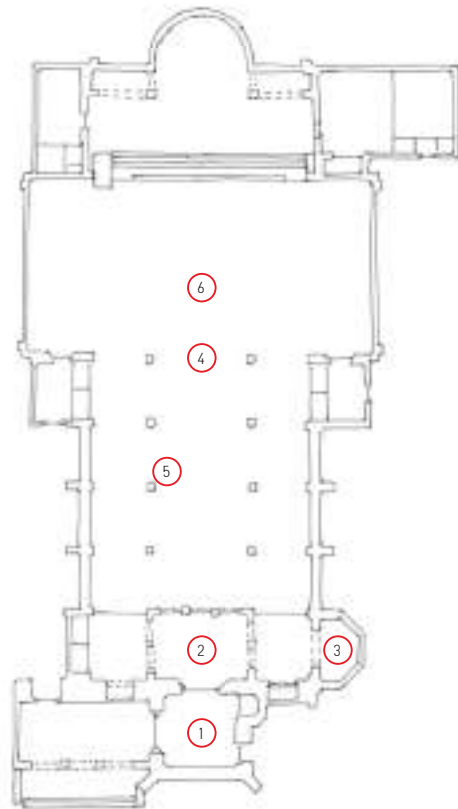
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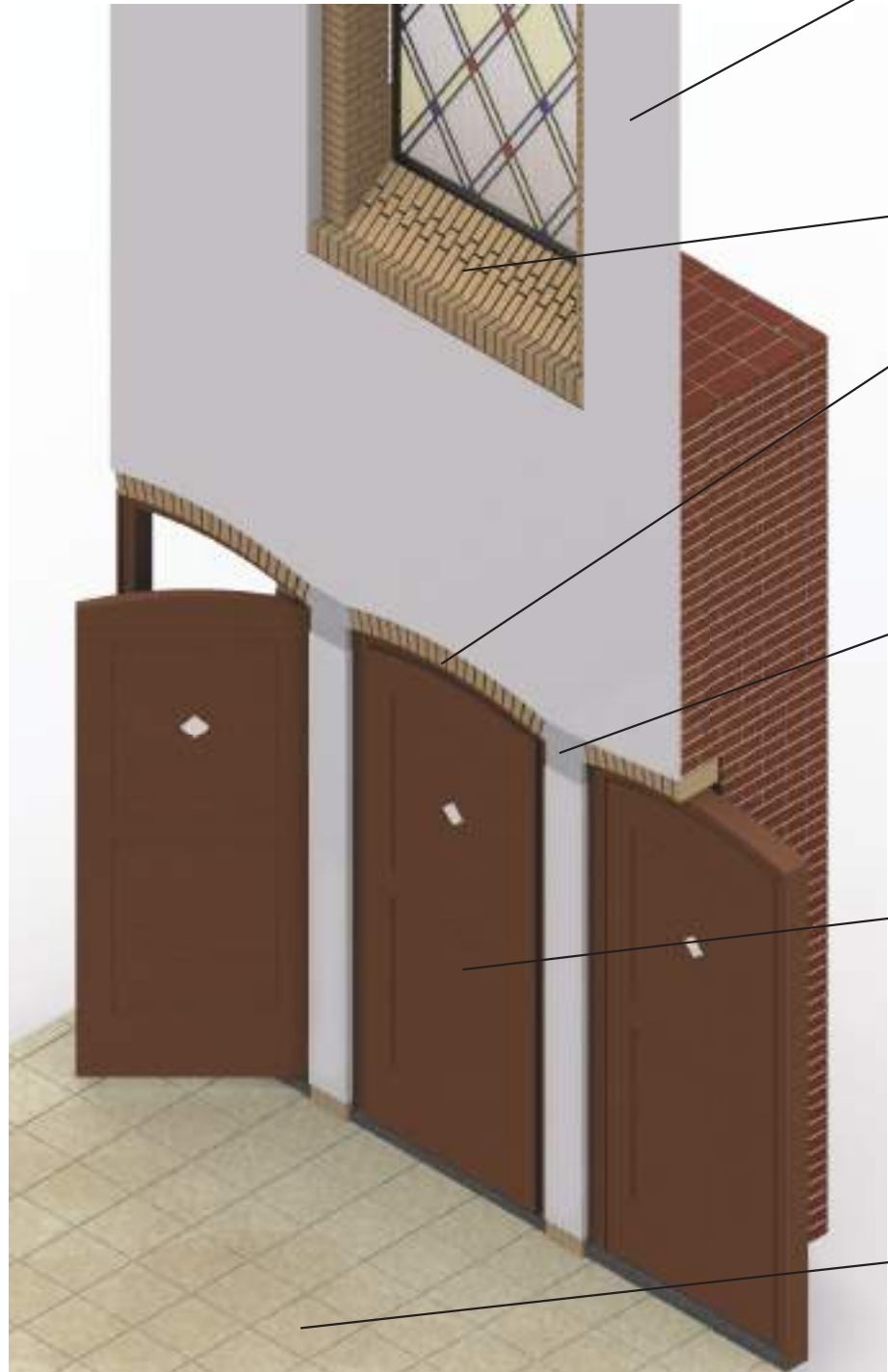
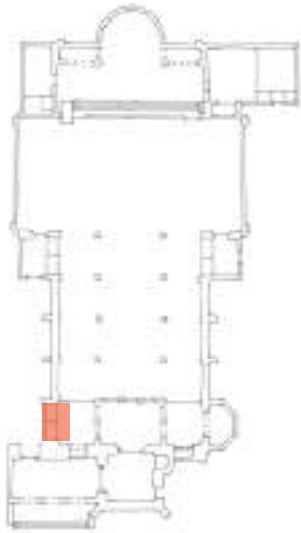
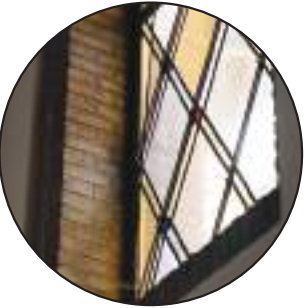


Figure 223 Representational application of materials. Isometrical section of the current interior of the original 1868 building part.



White painted plaster

Stained glass framed
by yellow brickNatural stone elements,
columns and vaulting.

Oak wooden doors



Floor tiles

The general implementation and expression of materials throughout the church is visualised in this representational model. Although there is a slight diversity of material implementation present throughout the interior of the church, forming an exception on the representational model, the model succeeds to represent the generally coherent atmosphere throughout the whole church created by the most dominantly implemented materials.



SURFACES – RECTORY

INTRODUCTION

In this chapter, the surfaces in the interior will be analyzed. The focus lies on the most significant of the buildings' interior surfaces, such as the different types of flooring, walls, doors, windows and ceilings.

Understanding how the surfaces are related to each other and how they were formed will be helpful for future interventions. Also, the surfaces are very important for the interior experience of the building and the atmosphere. Surfaces deal with light, sound, echo, touch, smell and more. For this they form an essential part of the building.

FLOORS

There are several types of floor finishes in the rectory. The most common is the linoleum floor in a red brown colour (1). This is placed in all of the spaces on the first and second floor. The spaces in the attic have an unfinished wooden floor (2). The floors of the toilets, which have been placed in 2004, are finished with large black ceramic tiles (5). The hall in the extension of the 1950s has a creme ceramic tile floor (4). Lastly, the wooden staircase is covered with red carpet (3).



1.



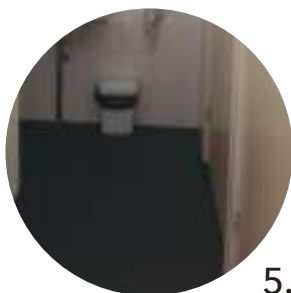
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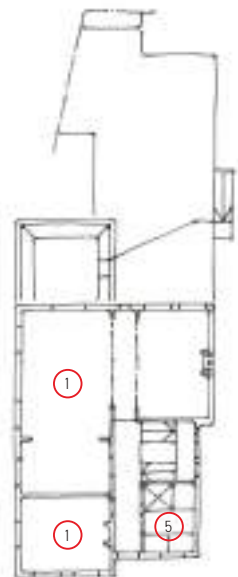
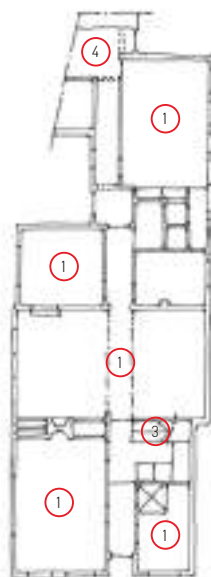
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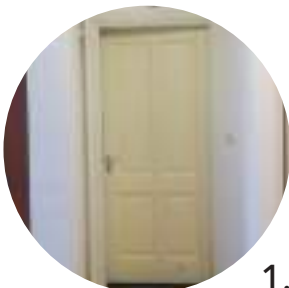


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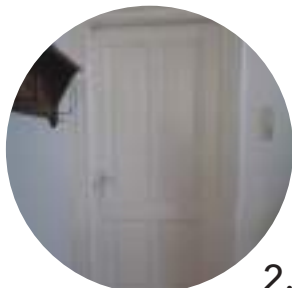


DOORS

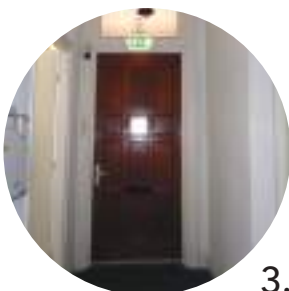
Different types of doors are present in the rectory, all made of timber. They are mostly panel doors painted in either a white or off-white colour (1, 2). On the ground floor there are three oak doors without paint finishing (5). The door in the communal room on the ground floor is the only door with glass openings (4). The front door is varnished, giving it a luxurious appearance (3). The doors that are placed most recent are simple and painted in an off-white colour (6).



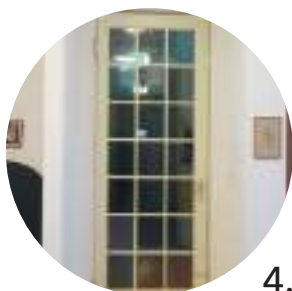
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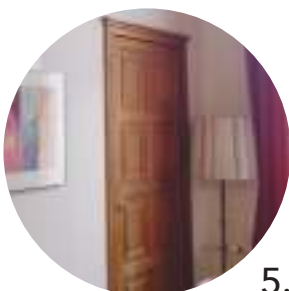
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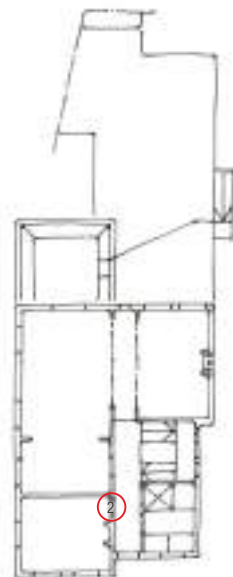
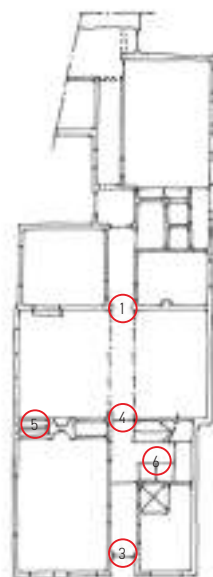
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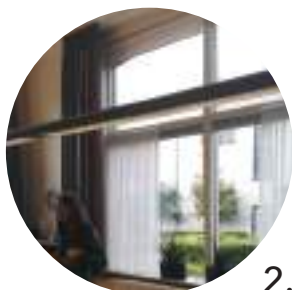
WINDOWS

All window frames in the rectory are made of timber and painted white. A number of different types of windows can be distinguished, which are used per room, but they do look coherent together. There are stained glass windows in the stairwell (1). Yellow stained glass figures have been incorporated: a rooster, a sun and an owl. The joints are made of zinc. On the ground floor windows with double glass have been applied (2). Ventilation grilles are incorporated into the window.

The windowstills are presumably made of travertine, based on the colour and the pattern. On the first floor and attic, the windows have single glass (4,5). These windows can be opened. Some windows show nice detailing, for example in the brass handle for opening the window which can be seen on the first floor (6). The windowstills are made of wood. In the extension of the 1950s another style of window is applied, which can also be opened (3).



1.



2.



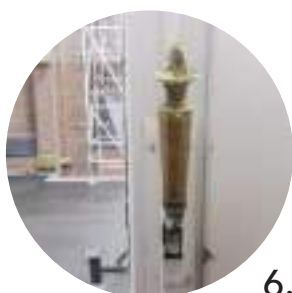
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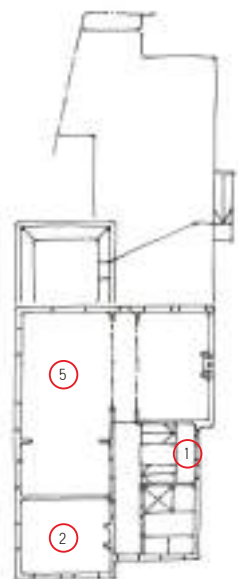
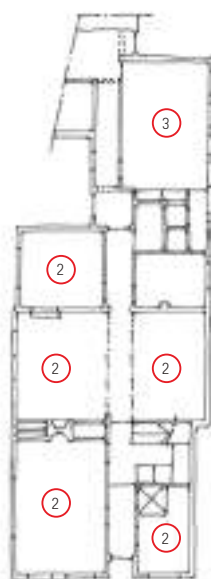
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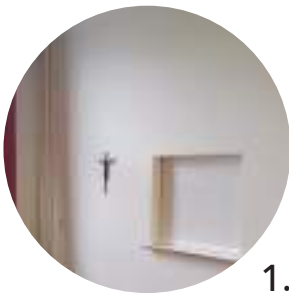
6.



WALLS

The interior of the rectory is fairly neutral. The walls are plastered white in all rooms on the ground floor and the first floor (1, 2). The kitchen and toilets have white ceramic wall tiles up to a certain height, and plastered white walls above it (5). Other than the other floors in the rectory, the walls in the attic are painted in a light blue color (3). In the storage room that used to be a bedroom, there is a wallpaper on the walls in light blue colour with a flower pattern (4).

Both the paint and the wallpaper are in poor condition, it shows that the rooms are old and haven't been used for a long time. In the former bathroom the walls are covered with creme ceramic wall tiles up to a certain height, with light blue paint above (6).



1.



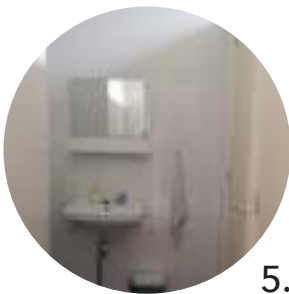
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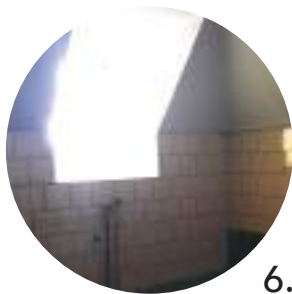
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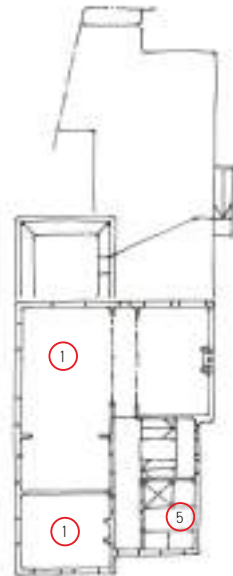
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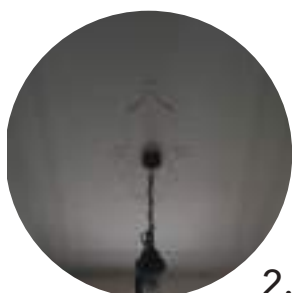


CEILINGS

There are three rooms where the original ceiling with decorative plaster is still visible: in the communal space on the ground floor (1), in the hall (2) and in the kitchen on the first floor (3). In most rooms a lowered ceiling is used (4, 5). In the attic the timber roof construction is visible, which presumably is made of pinewood, based on the look of the woodgrain (6).



1.



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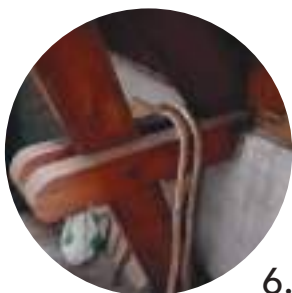
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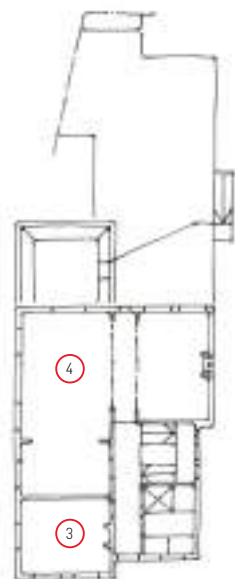
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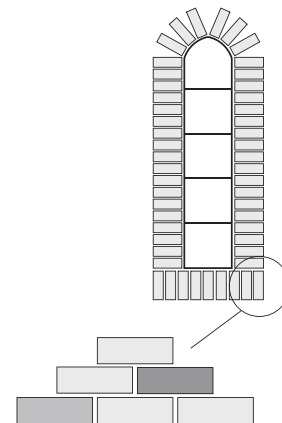
CONCLUSIONS SURFACES

This chapter provides an overview of the interior materials and the implementations in the Jacobus church and its rectory. From the answers to the research questions formulated for this chapter it is to be concluded that the exterior contrast that exists between the original building part by Wennekens and the expansion by Koldewey and the separate character of the rectory is likewise visible in the interior of the building through the slightly different implementation of similar materials. Despite this slight diversity a coherency through material characteristics is reached for the entirety of the church and the entirety of the rectory. The interior of the church is separated from the interior of the rectory as they both contain very different functions.

Conclusion #1

'What materials compose the interior of the Jacobus church and the rectory?'

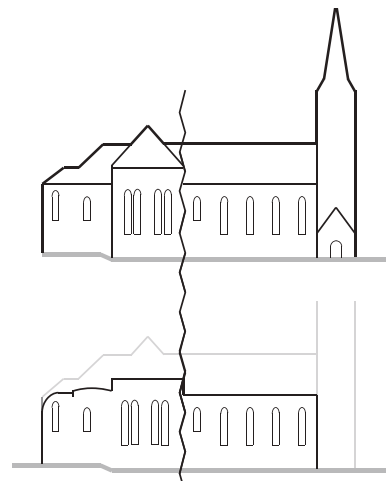
There is a general implementation and expression of materials throughout the church, the interior is mainly plastered white, with red ribs and details in natural stone. There are slight differences in how the materials are used between the two parts, but a coherency throughout the entirety of the church is reached through material the unity in materials.



Conclusion #2

'What role do the materials have in the interior of the church?'

The materials contribute strongly to the very specific atmosphere in the church through entrance of daylight, reflection of light and sound, and the lightness of material colors. Also the implementation of materials acknowledges hierarchy of spaces and functions, which is important in the functioning of the floor plan of a Catholic church.



Conclusion #3

'Is there a relationship between the interior materials and the exterior of the building?'

The exterior contrast between the neogothical influences of the original part by Wennekens and the neoromanesque influences of the expansion by Koldewey is also present in the interior of the church. But nevertheless both exteriors have mainly clean brickwork and both the insides have white plasterwork, creating a contrast between inside and outside.

Conclusion #4

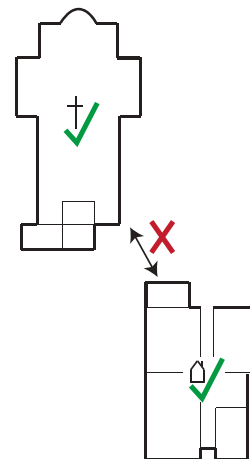
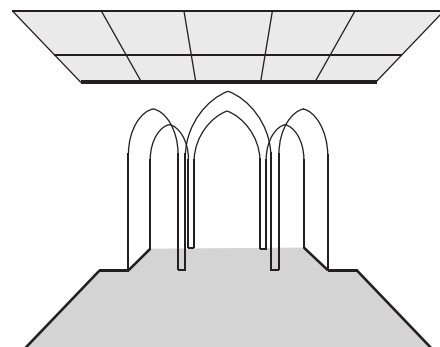
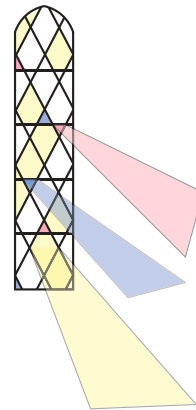
'What is the relation between the interior of the 1868 building part by Wennekens and the 1952 expansion by Koldewey?'

Although the materials are overall similar the implementation being slightly different separates the 1868 building part by Wennekens from the 1952 expansion by Koldewey. This is for instance visible through the floortiles that continue but the ceiling is completely different. The differences acknowledges the clear difference of neogothic and neoromanesque such as the difference in capitals.

Conclusion #5

'What is the relation of the materials of the Jacobus church and its rectory?'

The materials of the church are materials that are typical for the function and atmosphere of a church. The materials of the rectory result in a more domestic atmosphere which is suitable for the current use of the rectory. Therefore there is no direct relation of interior materials by literally copying the materials and the implementation, but similar materials are used in the church and the rectory, creating a unity from the outside.





SERVICES – CHURCH

INTRODUCTION

In this chapter, themes related to the services will be analyzed. Brand defines services as the working guts of a building. With this he means the communications wiring, electrical wiring, plumbing, fire sprinkler systems, HVAC and moving parts like elevators and escalators. (Brand, 1994, p. 13).

The central question of this chapter is: what services are present in the church and are they useful for future interventions?

The present services, heating, ventilation, lighting, sound installations and water drainage, will be analyzed in this chapter. This information can be helpful for future interventions. In general, old churches don't have many services and most of the time the present services are not valuable or of use in a future function, which is also the case for the Jacobuskerk. Brand (1994) states that each seven to fifteen years the services wear out or become outdated. The services in the church need to be updated to meet current requirements.

HEATING

In general, the heating of churches starts in the 19th century. The first heating installations in churches consisted of one or more column stoves that were fired with wood. Central heating was first applied in the Dutch churches around 1900. These systems had open pressure vessels and were fired with coal. This system can be seen in this church on an archive drawing from 1952. From around 1950, these stoves and boilers were converted on a large scale to be fired by oil. Around 1960 the contemporary variant on gas made its appearance (Koldeweij, 2018).

For the heating of this church a boiler is used in combination with air heating. The boiler is located in the cellar. The warm air blows in through an air vent on the left side of the choir. Lower at the floor the air is extracted. Besides that, electric radiator fans are located on the ceiling. The current heating is very inefficient. Because the church is no longer heated daily and the construction is cold before heating, it takes a lot of time for the church building to get warm and it costs a lot of money.

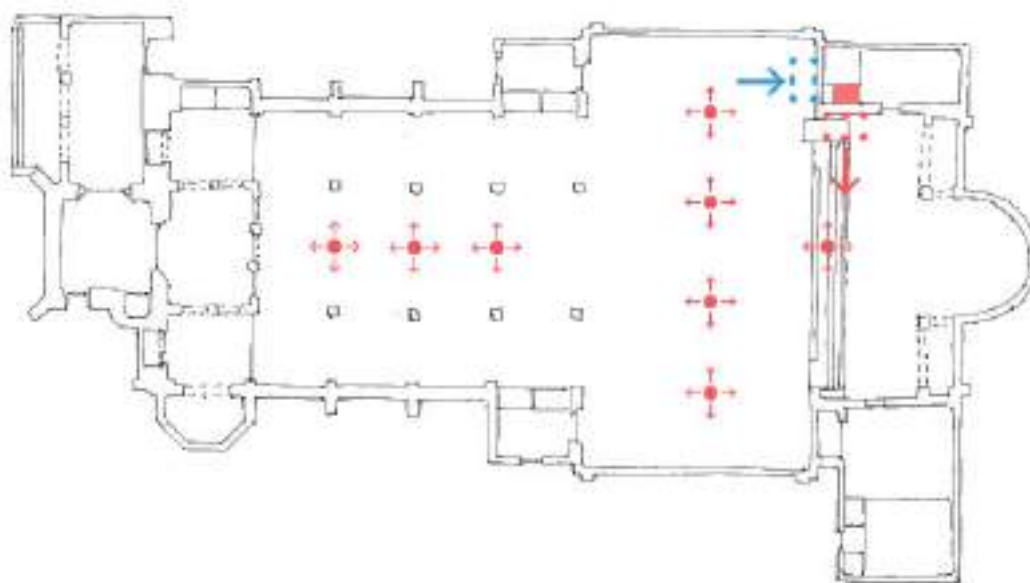


Figure 224 Map of the heating installations in the church 1:400.



Figure 225 Air vent for warm air.



Figure 226 Grille for the extraction of cold air.



Figure 227 Electric heating fan.

VENTILATION

The ventilation present in the building is natural ventilation by opening windows, illustrated in figure 5, and through the front door. Some windows are covered by a window screen making it no longer possible to ventilate. No mechanical ventilation is present. Because so little people visit the church, at the moment the ventilation is sufficient. However, in the new function mechanical ventilation will be required, due to the large building content. The fresh air must eventually reach the people and not remain in the room.



Figure 228 Illustration of the openable window.

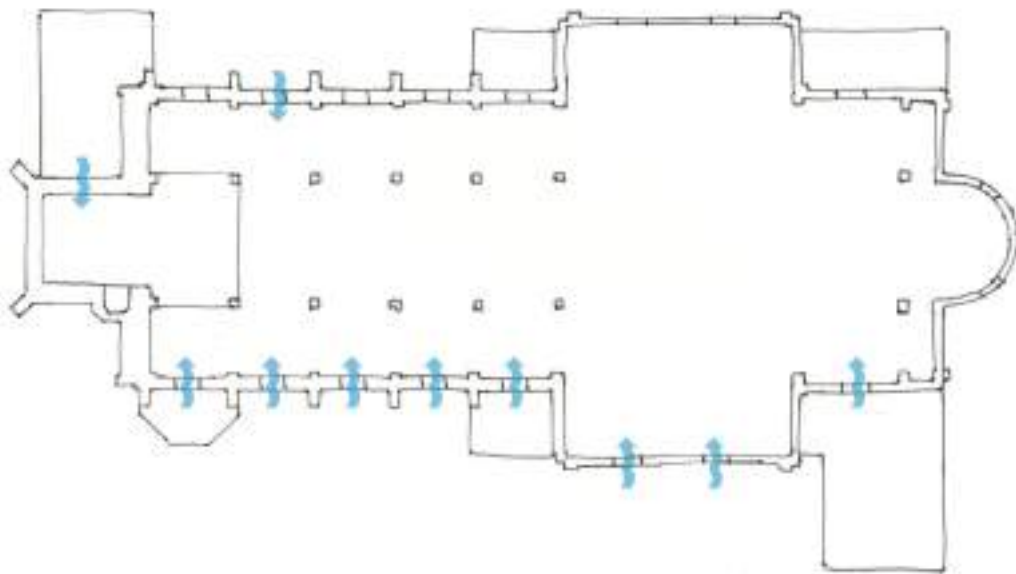


Figure 229 Map of the ventilation in the church 1:400.

SOUND

This map shows the applied sound system. The red line shows the audio induction loop, which is a system that ensures that hearing impaired can listen to the sound in a church building without disturbing ambient noise. A listener with a hearing aid or cochlear implant can use the loop by setting the device to the T position. The audio signal is connected to an amplifier, which sends the sound signal through a wire that is laid in loops along the plinth. The hearing aid receives the signal from the loop through induction.



Figure 230 Picture of the sound installation.

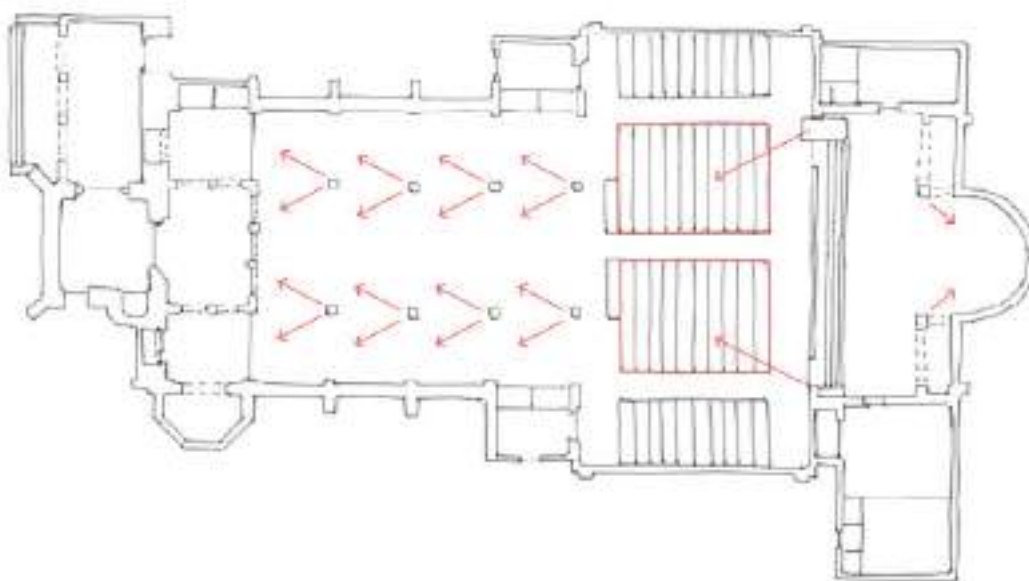


Figure 231 Map of the sound installations in the church 1:400.

LIGHTING

This map gives an overview of the different kinds of light fixtures that have been used in the church interior, none of which are original.

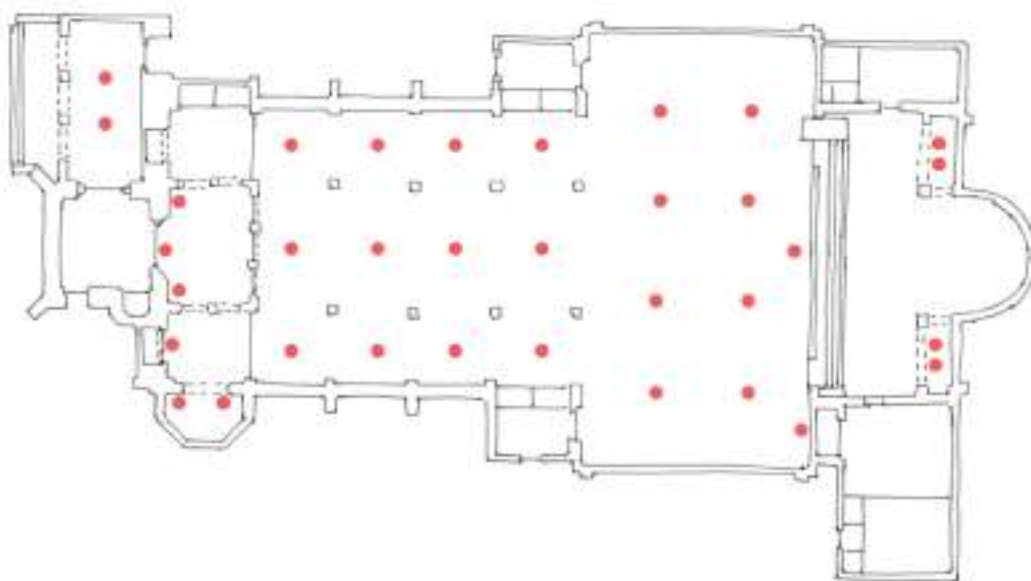


Figure 232 Map of the location of light fixtures in the church 1:400.



Figure 234 Light fixture in the brick vault.



Figure 235 Emergency exit light.



Figure 236 Light fixture in the chapel.



Figure 237 Chandelier in the nave.



Figure 238 Light fixture next tot the entrance.



Figure 239 Light fixture in loggia.

RAINWATER DRAINAGE

This map shows the rainwater drainage from the roof of the church. In the tower no rainwater drainage is present.



Figure 240 Downspout.

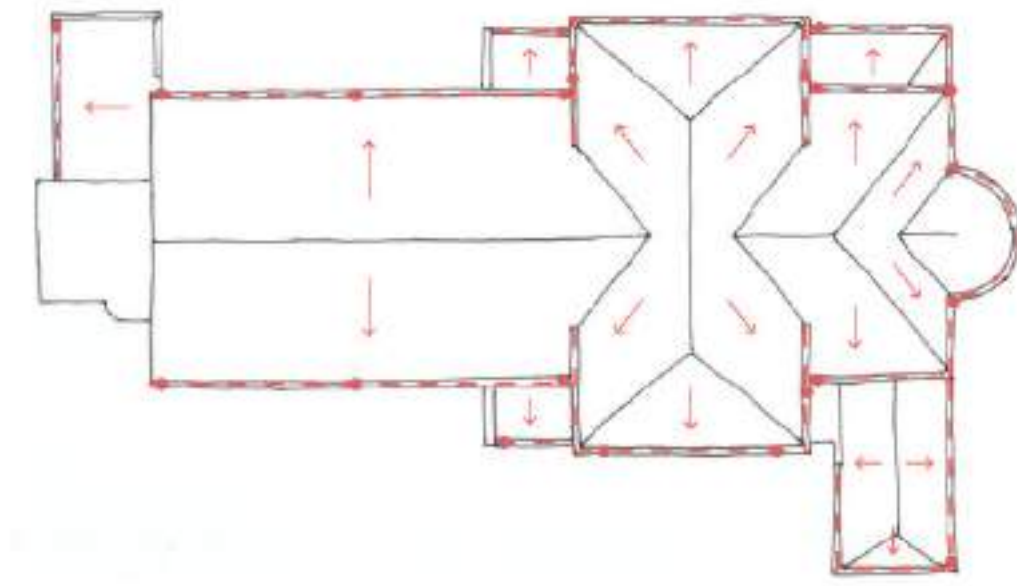
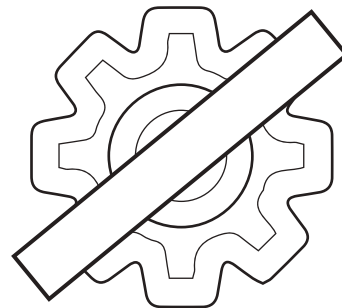


Figure 241 Map of the rain water drainage.

CONCLUSIONS SERVICES CHURCH

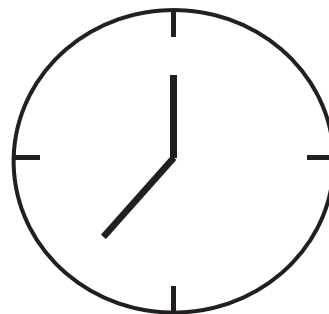
These conclusions are the result of the analysis of the services. In general, old churches don't have many services and most of the time the present services are not valuable or of use in a future function, which is also the case for this church. The research question asked in the introduction of this chapter was as follows: what services are present in the church and are they useful for future interventions? The overall conclusion is that no valuable services are present in the church. The services that are present are not aesthetically pleasing, not efficient and have a negative influence on the experience of the space. When the church is given a new function, more installations will be needed, especially for heating and ventilation. There is an opportunity to apply floor heating since the floor finish is not original and can be adjusted.

Almost no services are present in the church, and the services that are present are not of use in future functions. They not efficient, not aesthetically pleasing and therefore have a negative influence on the experience of the space.



<< Image 241 Diagram showing that services are not present.

The present services are outdated. When the church is given a new function, more installations will be needed to meet the current requirements, especially for heating and ventilation.



<< Image 242 Diagram showing that the services are outdated.



SERVICES – RECTORY

INTRODUCTION

In this chapter, themes related to the services will be analysed. Brand defines services as the working guts of a building. With this he means the communications wiring, electrical wiring, plumbing, fire sprinkler systems, HVAC and moving parts like elevators and escalators. Each seven to fifteen years, they wear out or become outdated (Brand, 1994, p. 13).

The central question of this chapter is: what services are present in the rectory and are they useful for future interventions?

The heating, ventilation, lighting and other services will be analysed. This information can be helpful for future interventions. Brand (1994) states that each seven to fifteen years the services wear out or become outdated. The current services work fine for the current function, but there is an opportunity in making them more efficient and sustainable.

HEATING

For heating a central heating system is used. There is a boiler situated in the basement. There used to be an expansion vessel, which was first located on the attic and later in the basement, but it isn't used anymore. Rooms are only heated when being used to reduce costs. The heating can be regulated separately for each room with a thermostat. Radiators are placed underneath windows to prevent the cold draught. There is no heating in the basement and attic since these spaces are only used for storage and installations.

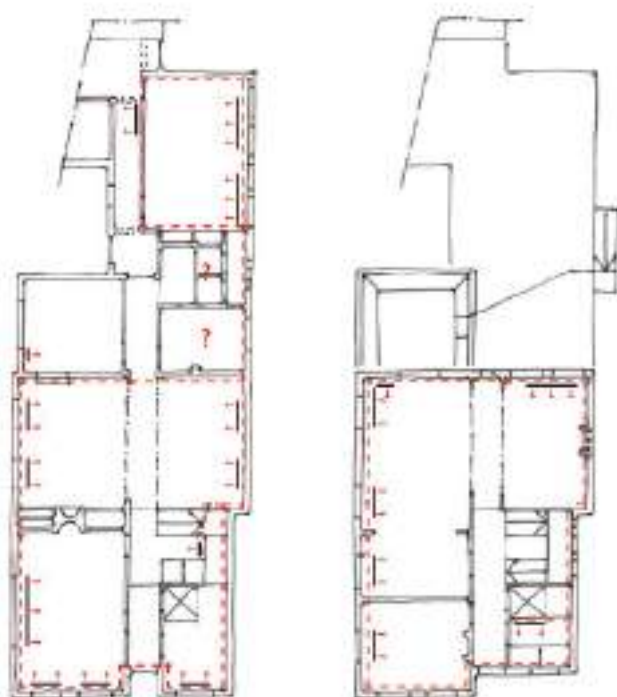


Figure 2.43 Heating installation in the rectory.



Radiator in the communal space on the first floor.



Radiator in the communal space on the first floor.



Radiator in the communal space on the ground floor.

VENTILATION

Both natural and mechanical ventilation is applied. Fresh air goes into the rooms through grilles in windows or by opening windows. The used indoor air is removed mechanically. Most of the windows have a ventilation grille. The older windows are openable.

In some spaces, a suspended ceiling has been applied. Here the air is extracted. It conceals the air ducts, but it has a lot of influence on the experience of the room and also conceals the original decorated ceiling.

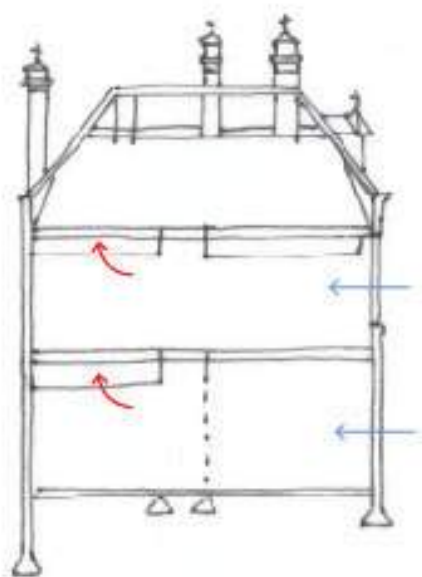


Figure 5 Ventilation in section.



Ventilation grille above the window.



Openable windows.



Suspended ceiling.

LIGHTING

The spaces where a suspended ceiling is applied are illuminated by fluorescent tube lighting which are placed in this ceiling. In some spaces, no suspended ceiling is applied and the original ceiling is visible. One of these examples can be seen on picture 2.



Fluorescent tube lighting.



Chandelier in the communal space on the ground floor.



Light fixtures in the communal space on the ground floor.

OTHERS

During the renovation of the interior in 2004/05 an elevator was placed, also making the first floor of the rectory accessible for everyone. The elevator does not go to the attic.

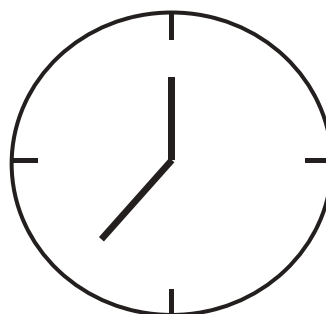


The elevator in the rectory.

CONCLUSIONS SERVICES RECTORY

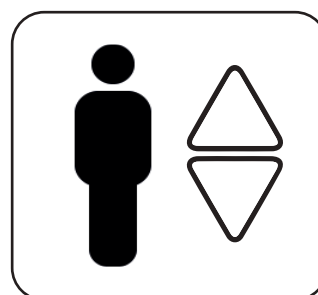
These conclusions are the result of the analysis of the services. The research question asked in the introduction of this chapter was as follows: what services are present in the church and are they useful for future interventions? The present services in the rectory function well in the current situation. There is heating, ventilation, good lighting and an elevator present. However, the services are outdated and in a new function more installations might be needed. There is also an opportunity in making the building more sustainable.

The services are outdated. For future functions more services will be needed to meet the current requirements. There is an opportunity in making the building more sustainable.



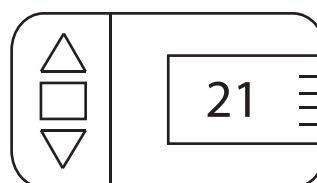
<< Image 244 Diagram showing that the services are outdated.

There is an elevator, so the rooms are easily accessible for everyone.



<< Image 245 Diagram showing the elevator.

The heating can be regulated separately for each room with a thermostat, making it possible that rooms only need to be heated when being used.



<< Image 246 Diagram showing that the heating can be regulated.



INTRODUCTION

Every building contains stuff. As stuff generally isn't connected to the structure, it often has a short lifespan of only year or a few decades. In a church it is different. Some stuff is actually connected to the building, like the church pews and the stages of the cross. Also, some items have a religious value and for that they are usually kept very long.

In this report, the stuff in the Jacobuskerk in three different time periods is dealt with. Firstly the interior of 1881, so the complete church with old choir, then 1956 which is just after the extension and then 2019 or the current situation.

Objects are put in the maps of the years when they first arrived in the church, if they stay the same, they are not pictured again in the later maps.

This is the case for the church pews of 1881, the church pews of 1953, the old organ and the 14 stages of the cross. Those are all still there in the current situation. For the earlier situations we don't know if there were more artifacts, this was all we could find in sources, but it is very plausible that there were also statues and paintings in the earlier situations. For example, the Maria and Joseph statues that are now located on the edge of the choir level at the beginning of the nave are older and were also in the church before, but we don't know where. We have chosen to just show what we know for sure.

The rectory used to be the house of the pastor. The pastors lived here until about 2001 (Stotteler, 2019). In 2004-2005 there was an internal renovation where the internal walls were changed to better suit the community function for the church it has now. About most of the stuff there is hardly any information. Some furniture looks quite old but it is hard to tell if it was from the construction period in 1916 or if it was added later. There are also less items of religious value here. In this analysis we inventoried the most important stuff in the building in the current situation, as we hardly have any information about the stuff of in the previous phases.

STUFF IN THE JACOBUSKERK IN 1881

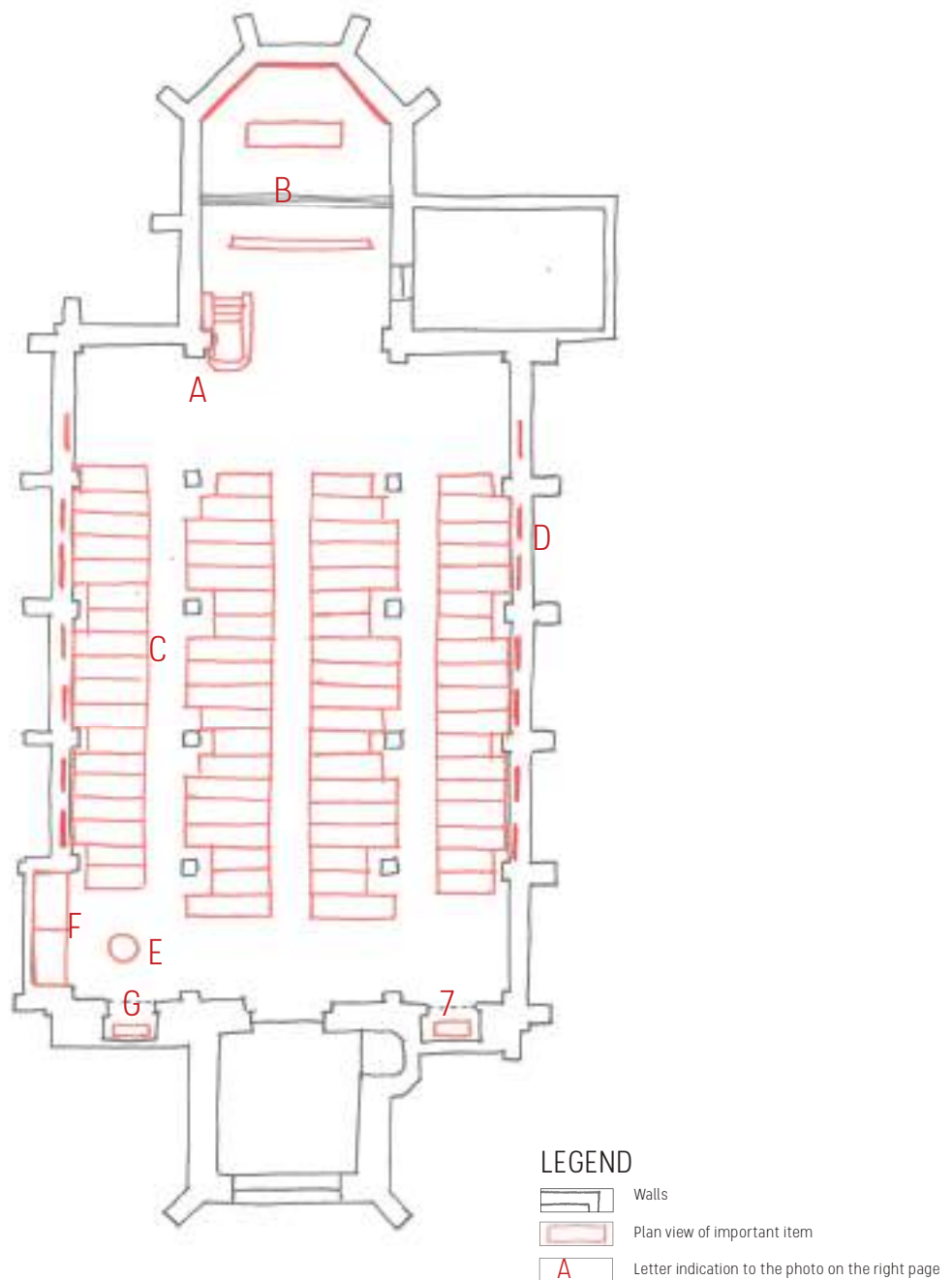


Figure 248 The floor plan of the Jacobuskerk of 1881 with in red drawn all important items.

STUFF IN THE JACOBUSKERK IN 1881



A. Figure 249 The old choir with its neoclassical windows, on the left the pulpit and in the front the communion bench are visible (Meerdink, 1995, p. 48)



C. Figure 251 The original church pews are still there, they are probably from mid 19th century.



B. Figure 250 The old choir was richly painted and the altar stood on a pedestal (Meerdink, 1995, p. 57)

Items that we have no photos of:

- D. The 14 stages of the cross used to be richly colored just as the walls of the choir. They were painted white in the 1950's. It is said that they come from the former Jacobuskerk.
- E. The baptismal font stood here until it was moved to the new-chapel in the 1950's.
- F. Wooden confession chairs in the corner.
- G. There were small altars in these niches but how these looked we do not know.

STUFF IN THE JACOBUSKERK IN 1956

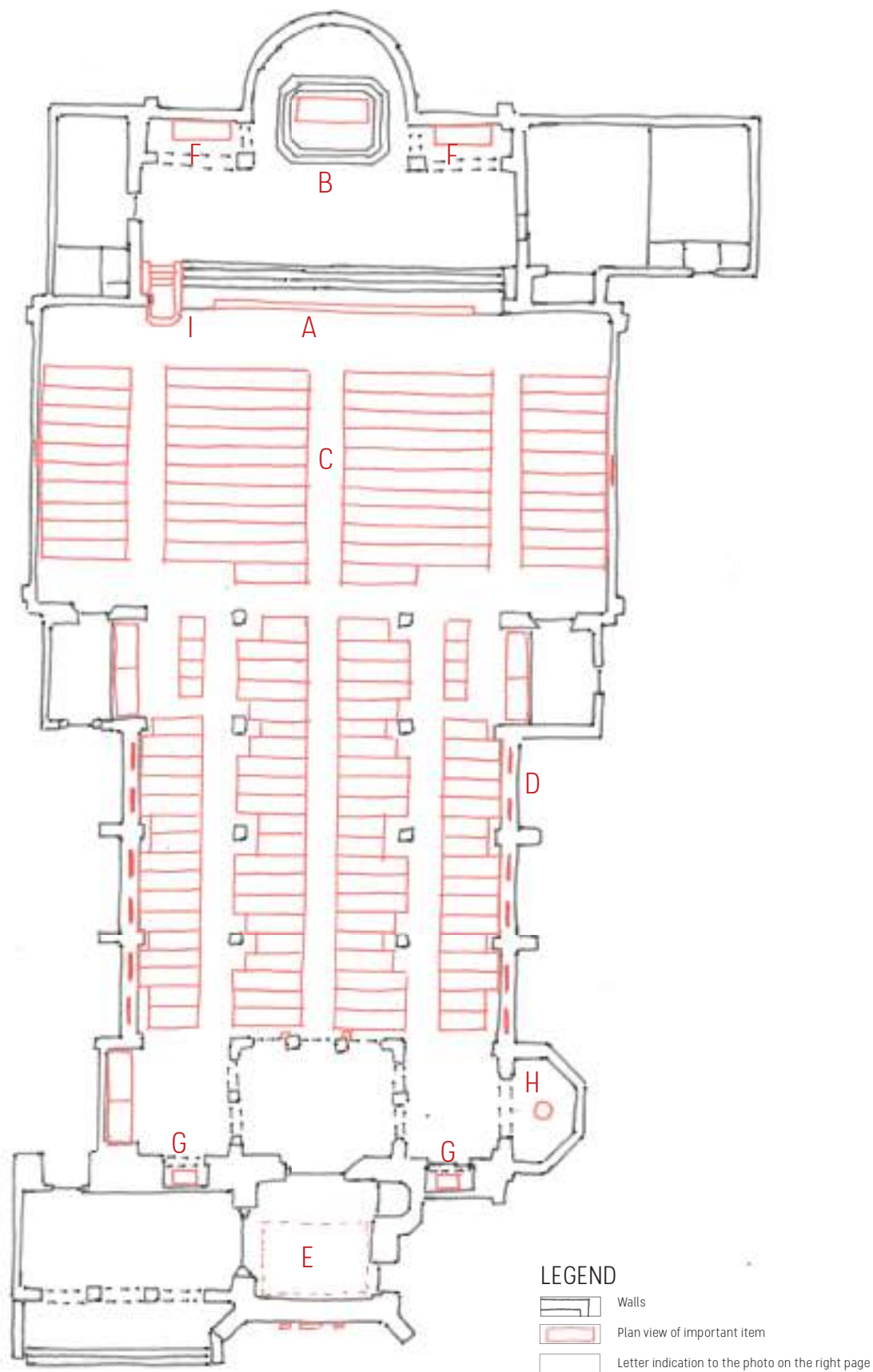


Figure 252 The floor plan of the Jacobuskerk of 1956 with in red drawn all the important items

STUFF IN THE JACOBUSKERK IN 1956



A. Figure 253 The new choir was way wider and could house about 400 people. (Meerdink, 1995, p. 53)



B. Figure 256 The altar was put on a pedestal and stood in the rounded vault at the end of the choir. This altar was made in the 1950's of natural stone. (Meerdink, 1995, p. 158)



D. Figure 258 The 14 stages of the cross were painted white in the 1950's. They were originally polychromated, and made of gypsum in 1911.



C. Figure 257 The new church pews are also made of wood but more simple in decoration



E. Figure 5 The organ was built in 1905 by the firm Maarschalkerweerd and was pneumatic. It is located in the tower on the same height as the choir floor.

Items that we have no photos of:

F. The two side altars next to the main altar

G. The two small chapels.

H. The baptism chapel that was constructed in 1951.

I. The pulpit

STUFF IN THE JACOBUSKERK IN 2019 NEAR THE CHOIR

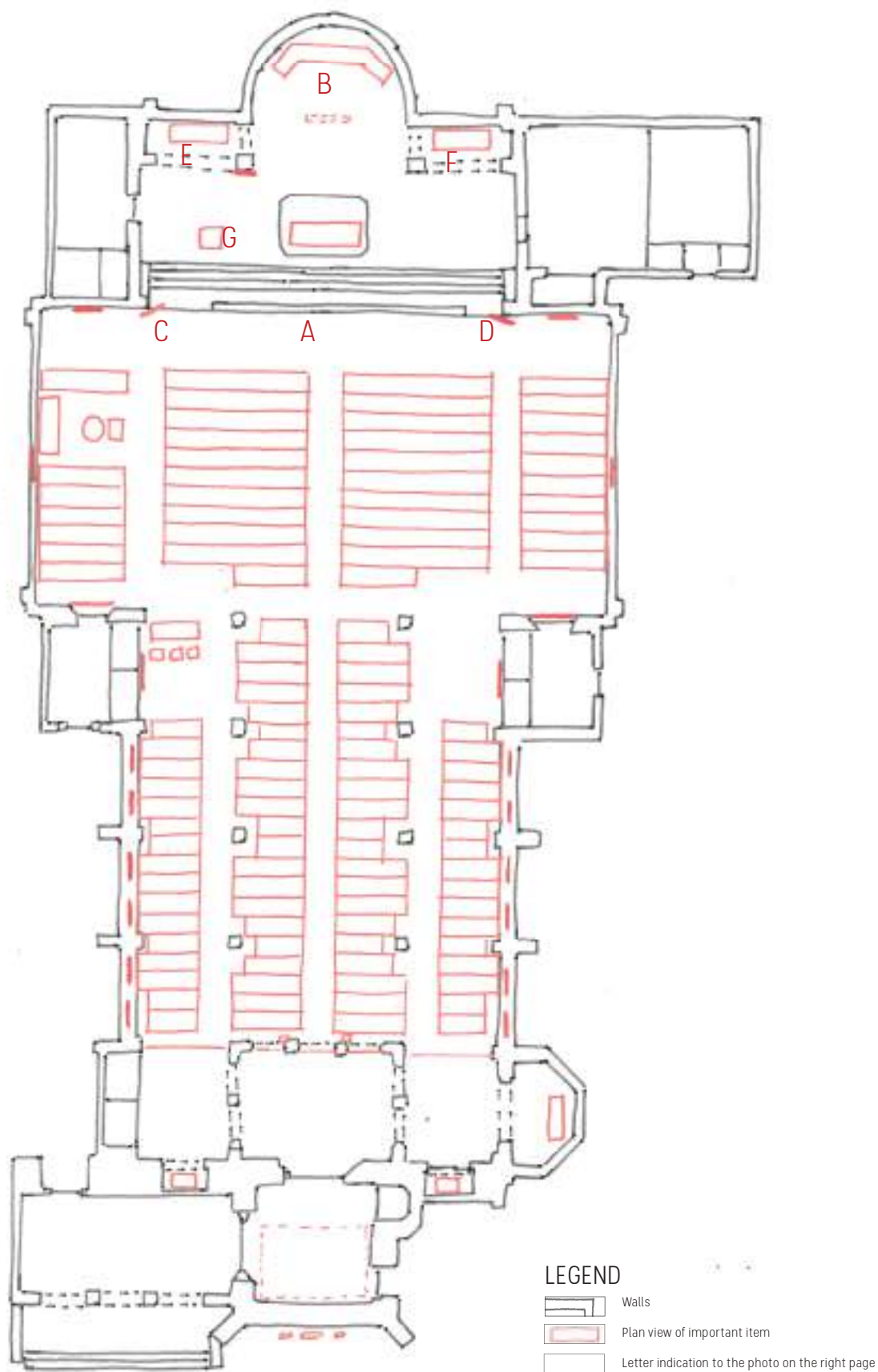


Figure 259 The floor plan of the Jacobuskerk of 2019 with in red drawn all the important items. You can see the important lithurgical change of the location of the altar: from the back of the choir more towards the people, so that the priest would give the masses facing the people instead of with their back to them.

STUFF IN THE JACOBUSKERK IN 2019 NEAR THE CHOIR



A. Figure 260 Nowadays the altar is more in the front than the original position. It is still on a pedestal. The altar table weights 40 tons. The cross is from 1953.



E. Figure 264 The Joseph Altar. It houses the tabernacle, a catholic relic in which the hosties are kept.



B. Figure 261 The old organ is still there but during most masses this smaller organ is used. It is closer to the church visitors in the front of the church.



F. Figure 266 The Maria Altar. It used to be used for ceremonies for women who had just given birth and it is still used for wedding ceremonies. The polychromated wooden Mary statue is from 1898.



C.&D. Figure 262 & 263 Banners of the Holy Jacobus parish in Winterswijk. The left one is older than the right one.



G. Figure 267 Probably a reading desk for reading texts during masses. Behind it is a banner of the Saint Lutger parish, to which the Jacobuskerk belongs.

STUFF IN THE JACOBUSKERK IN 2019 IN THE TRANSEPT

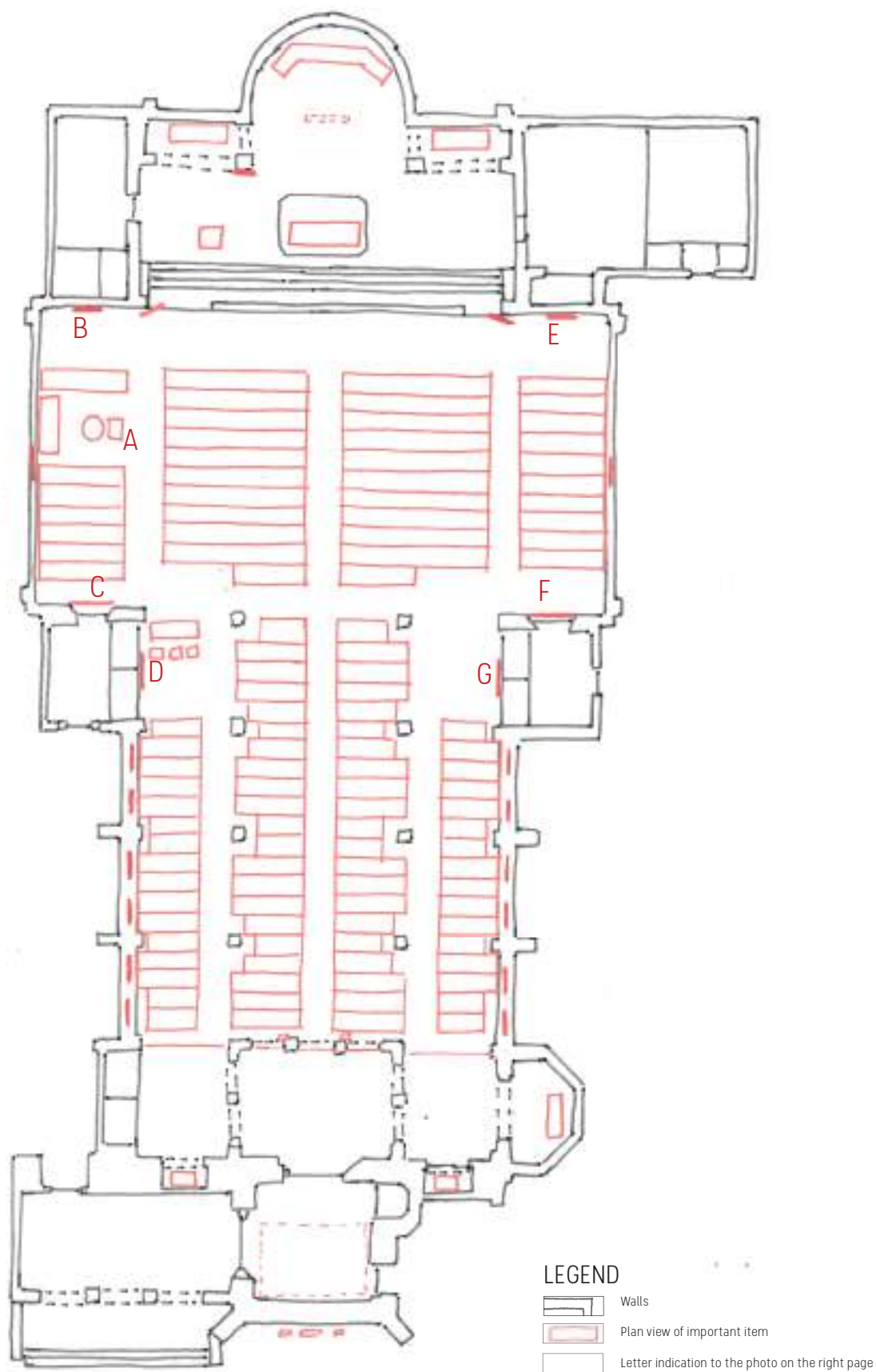


Figure 268 The floor plan of the Jacobuskerk of 2019 with in red drawn all the important items

STUFF IN THE JACOBUSKERK IN 2019 IN THE TRANSEPT



A. Figure 269 The baptismal font is now located more towards the choir, with church pews around it. Next to it are candles and a crucifix.



B.&E. Figure 270 & 271 These two tapestries are made by mrs. Hildegard Brom-Fischer in 1954-1955. The left is Mary portrayed as a queen and the right one depicts the escape to Egypt of Mary and Joseph with little Jesus.



C. Figure 272 Painting depicting a religious scene. We haven't found any information about the paintings.



F. Figure 273 Painting depicting a religious scene. We haven't found any information about the paintings.



D. Figure 274 Painting depicting a religious scene. We haven't found any information about the paintings.



G. Figure 275 Painting depicting a religious scene. We haven't found any information about the paintings.

STUFF IN THE JACOBUSKERK IN 2019 IN THE ENTRANCE ZONE

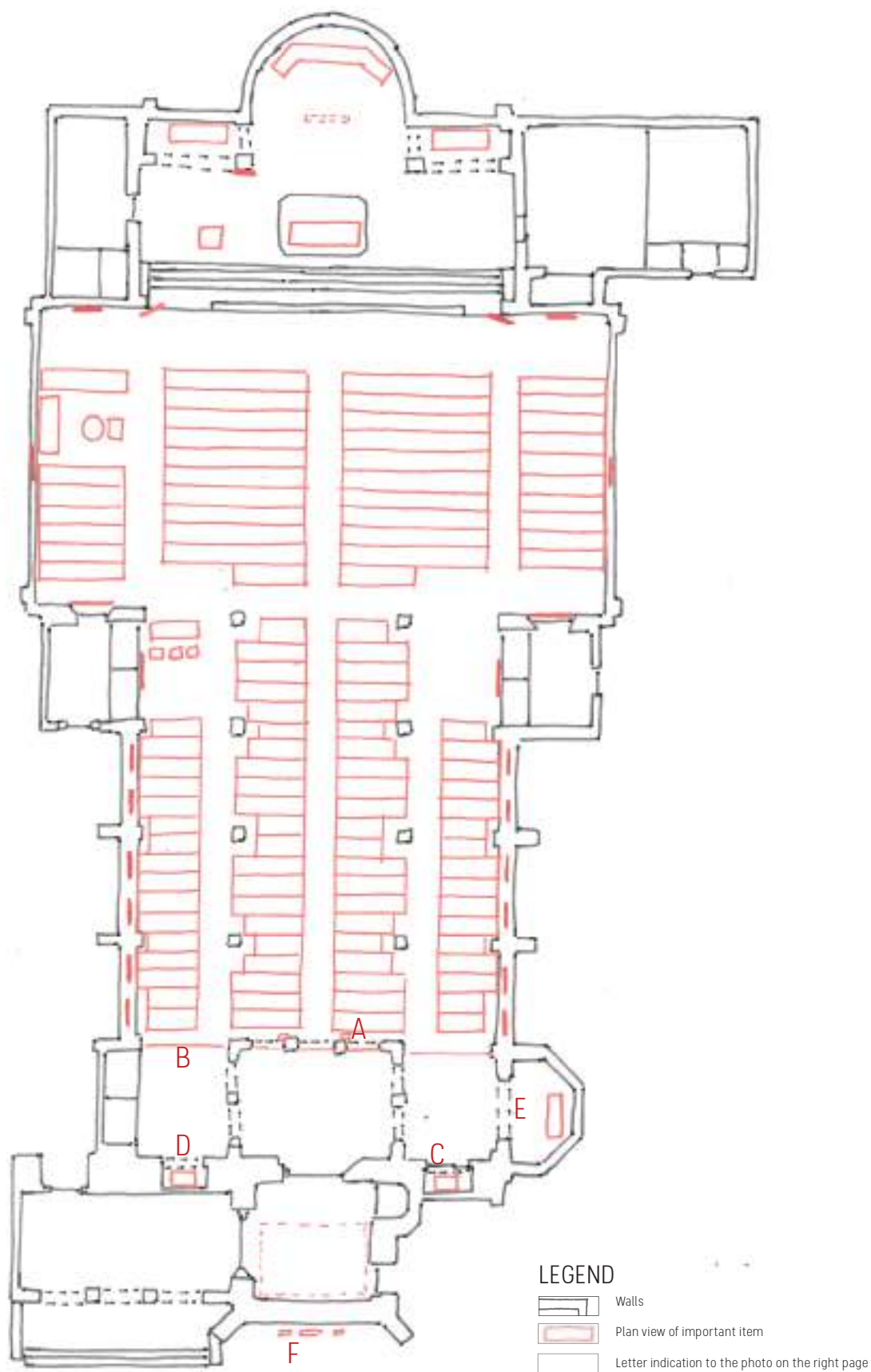


Figure 276 The floor plan of the Jacobuskerk of 2019 with in red drawn all the important items.

STUFF IN THE JACOBUSKERK IN 2019 IN THE ENTRANCE ZONE



A. Figure 277 These wooden polychromated statues depict Mary with Jesus, and Joseph. They were made in 1898. The polychromy is largely original.



B. Figure 278 The iron fence is added in 1994 to prevent people from entering the nave during the day when there is no one to watch. The church is open every day for personal prayers.



C. Figure 279 In this chapel one can see a reproduction of an icon of Mary with Jesus. Its theme is the mother of perpetual help. The age is unknown. It is used for daily worshipping.



D. Figure 280 This sober altar for saint Anthony was made in 1958. St. Anthony is holding a book and the background depicts plants and birds. It is used for daily worshipping.



E. Figure 281 In the commemoration chapel, for daily worshipping is a Pietà, a reproduction of the one by Michelangelo. In the fence are still baptism symbols as it used to be the baptism chapel. The two wooden polychromated statues of Joseph and Mary are from 1889.



F. Figure 282 These wooden statues represent Jesus at the cross with John at his left and Mary at his right. They were made in the 1930's by furniture firm Lichtenberg and were probably originally part of the scene behind the main altar.

STUFF IN THE RECTORY IN 2019, GROUND FLOOR

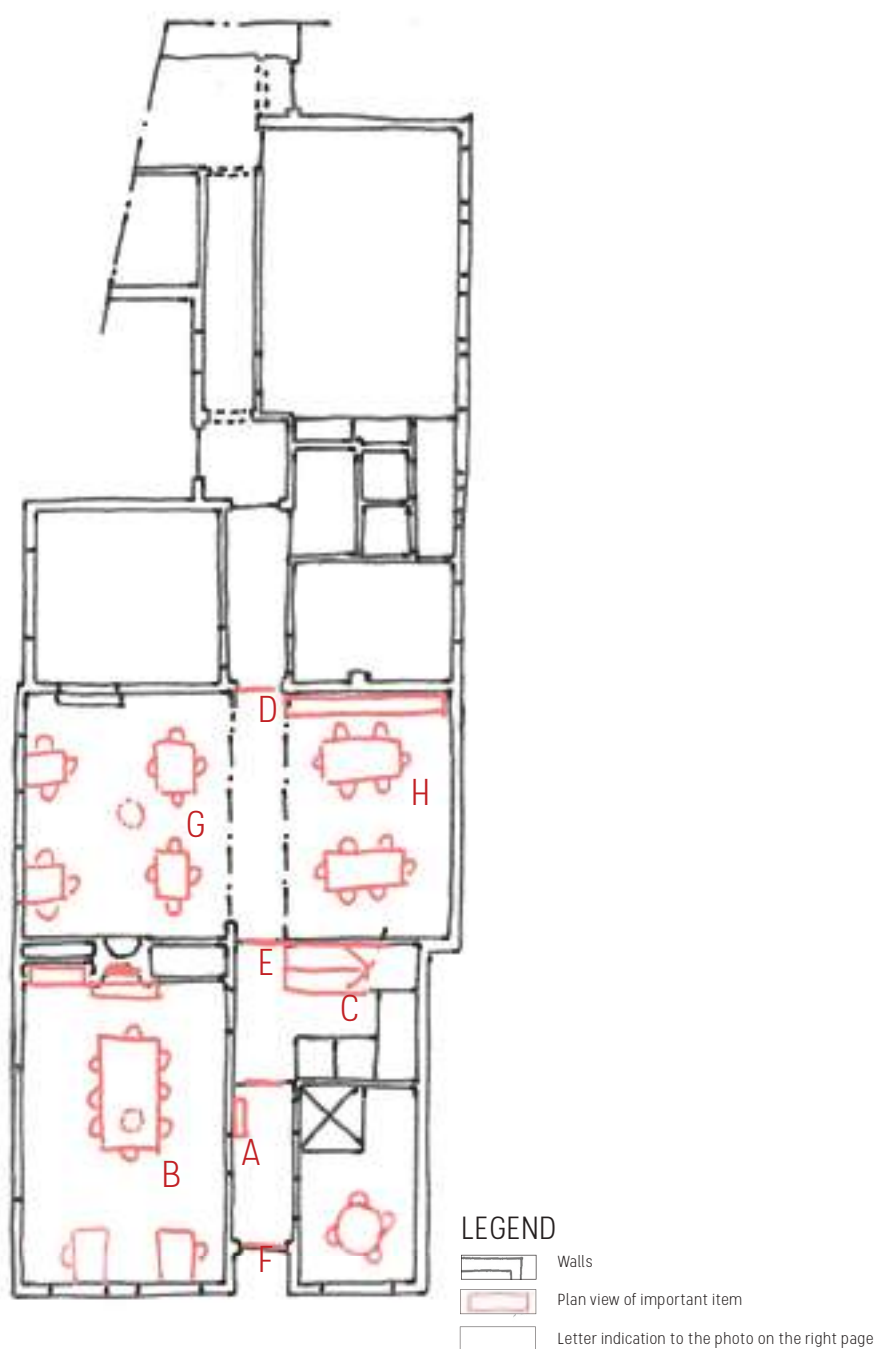


Figure 282 The floor plan of the ground floor of the rectory of 2019 with in red drawn all the important items.

STUFF IN THE RECTORY IN 2019, GROUND FLOOR



A. Figure 283 A wooden coat rack with nice detailing and metal hooks. It looks old but unfortunately we don't have any information about it



E. Figure 286 The chairs from the construction period with their nice detailing in wood are one of the main elements of this building.



B. Figure 284 The chimney is probably from the construction year 1920. There is a nice wooden table with old chairs, but we don't know the age. The text that hangs on the wall is in latin and probably religious. We don't know the origin of these objects. the original ceiling is preserved here.



D., E. & F. Figure 287 There are several doors, probably from 1920, of wood, with nice detailing. Maybe the yellow is not the original colour. D is the closed light yellow door, E the glazed door and F the front door.



G. Figure 285 The original ceiling is here preserved and a nice chandelier is hanging from it. The wooden furniture looks nice but not very special.



E. Figure 288 The parish has quite a nice library, to be used by the members of the parish. The books are mainly related to Catholicism or Christianity in general. There are also some books about other religions.

STUFF IN THE RECTORY IN 2019, FIRST FLOOR

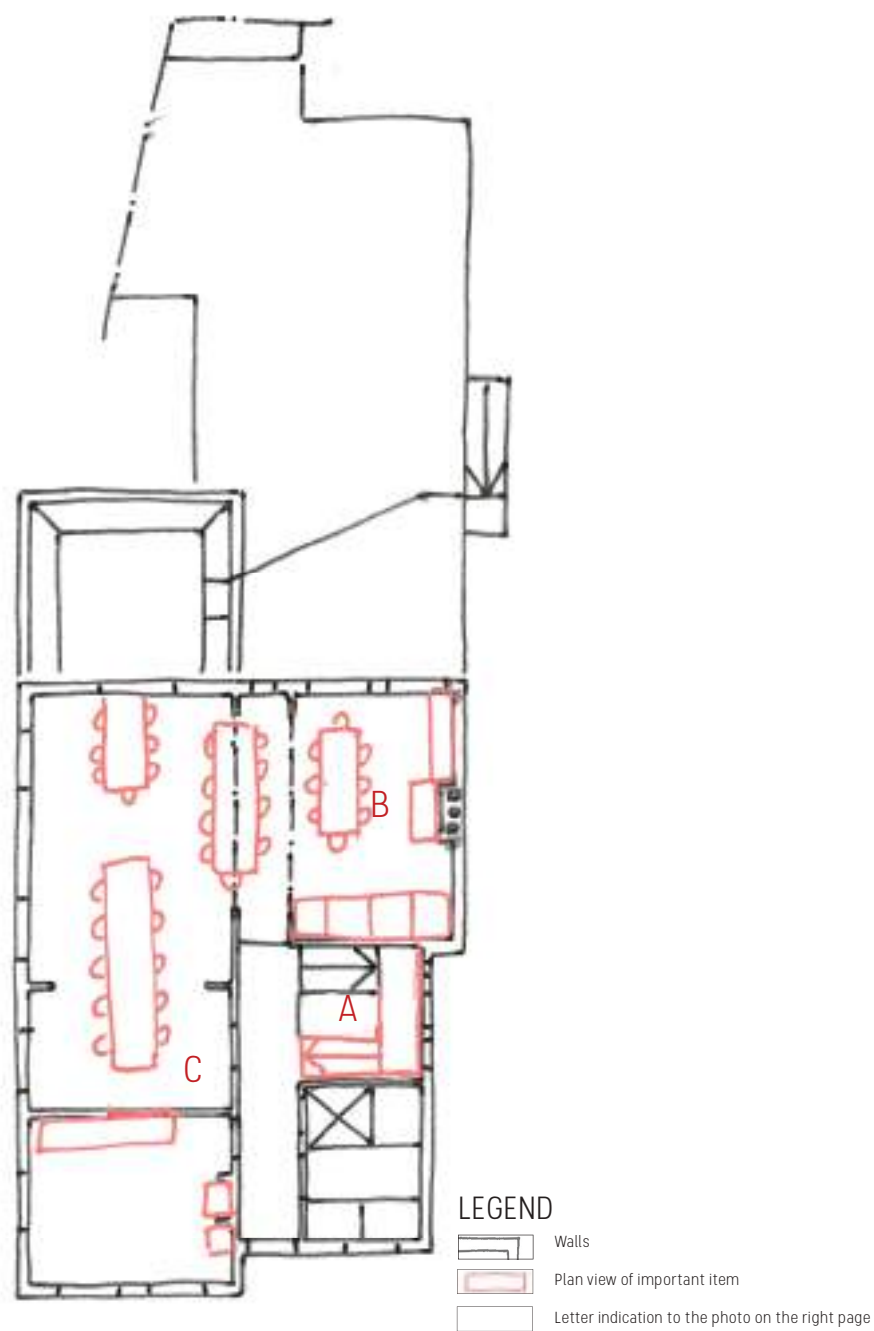


Figure 289 The floor plan of the first floor of the rectory of 2019 with in red drawn all the important items.

STUFF IN THE RECTORY IN 2019, FIRST FLOOR



Figure 290 Halfway the stairs, there are very nice stained glass windows that have been there since construction.



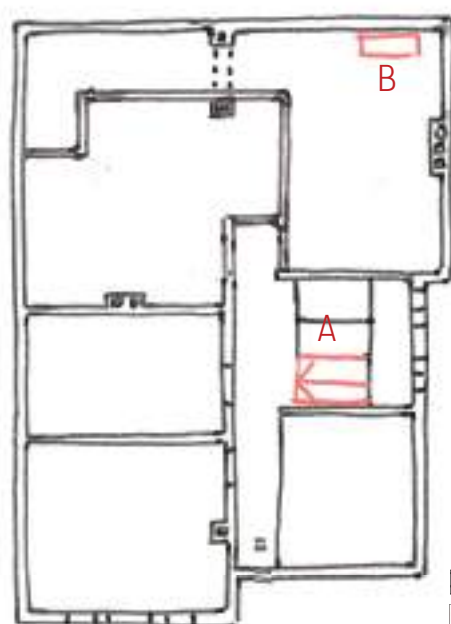
B.

Figure 291 In the biggest room of the rectory there is a small organ, that can be used for example the choirs that practice in this room. The cupboards provide a lot of storage worked away in the wall.




C. Figure 292 The furniture here is not very old and not very special. The photos on the wall have special memories to the users of the rectory. For example for Harry the photo with his choir.

STUFF IN THE RECTORY IN 2019, ATTIC



LEGEND

 Walls

 Plan view of important item


 Letter indication to the photo on the right page

Figure 293 The floor plan of the attic of the rectory of 2019 with in red drawn all the important items.

STUFF IN THE RECTORY IN 2019, ATTIC

G Figure 294 Here the stairs are seen in total. they are really the central element of the building.



G Figure 296 On the attic was mainly storage of stuff that was not very special. However there were two seemingly original doors stored there, but we did not find out where they were used.

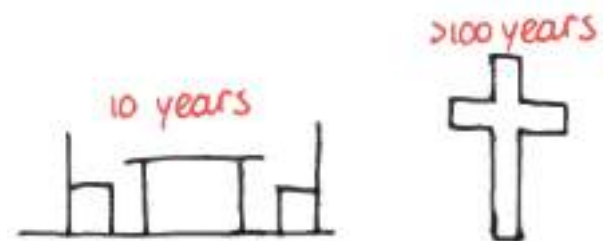
CONCLUSIONS STUFF

Generally, stuff has quite a short lifespan, of years of maybe some decades. This is not typically the case for the stuff in the Jacobuskerk. As the Jacobuskerk is a church, lot of the stuff are religious items and tend to stay longer in the building. Valuing religious items is not an easy task. An object may seem quite ordinary to us, but for a Catholic it can have a symbolic meaning. If the church would get another function, it is important to think thoroughly what to do with the stuff in the church.

What we want to do with the stuff in the church depends on the function it is going to have. If (a part of) the church is still going to be used as a church, (some of) these items will probably stay in that place. If it is going to have another function, most of the religious items can maybe be given back to the catholic church, to be used in other churches. For big items like the church pews we can imagine that it is hard to reuse those or donate them to another church so for that a tailor made solution has to be sought.

RELIGIOUS STUFF

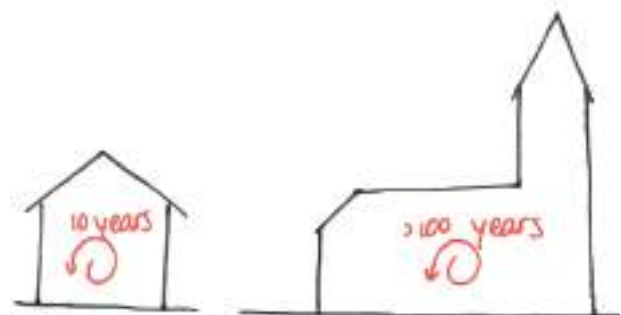
Special stuff is everything with a religious value, for example the tabernacle, the 14 stages of the cross or the altar. They are part of the church services and are maybe even consecrated. Especially those objects will be used as long as possible, whereas with normal furniture the use period is way shorter. The same counts for statues of saints, they are seen as extra special if they are older.



<< Image 297 Religious objects have a way longer lifespan than for example furniture

NON RELIGIOUS ITEMS

Also some non-religious items in the Jacobuskerk are already very old, for example the church pews from the mid 19th century. In contrast to for example house and office furniture that has a lifespan of years or decades, these pews have been around for about 150 years, and they are still in a good condition. Sometimes they are still used, but only when the church is really full. Usually they are closed off with ropes so that people will sit in the front.



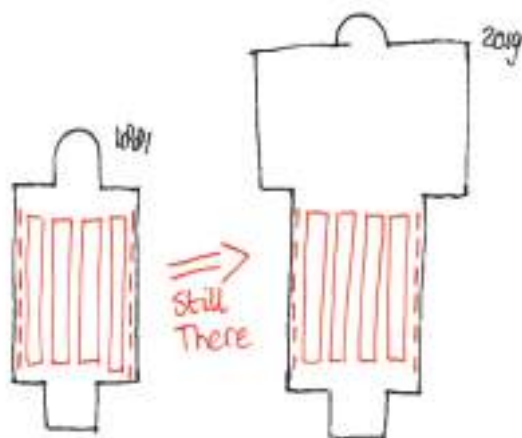
<< Image 298 Generally the stuff in a church has a longer lifespan than the stuff in profane buildings

HARD TO MOVE

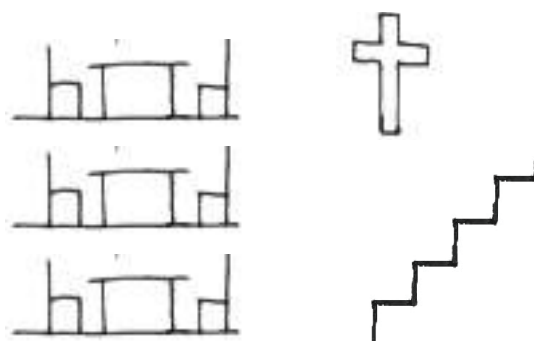
The stuff is all very specific for the religious function and maybe even obstruct the use for another function if they stay in place. A good example are all the church pews that are connected to the ground and the altar that weights 40 tons and is very hard to move. For another function it is an important question to solve, how to deal with all the stuff. For the smaller items like statues and painting it is easier as they are easier movable.

STUFF IN THE RECTORY

In the rectory the stuff is mostly less important. There are hardly any religious objects and the stuff is mainly furniture. A part of the furniture is nice and old so it is worthwhile to reuse. The stairs are the main eye catcher of the rectory so they should be kept if possible. The more modern furniture like in the coffee room is not that valuable, but it is still in good condition so if it can be reused for the new function that is nice.



<< Image 299 A lot of the stuff is very specific, already there for a long time and hard to move



<< Image 300 In the rectory most of the stuff is furniture, there are little religious objects. An important object is the staircase



SPIRIT OF PLACE

INTRODUCTION

The building except for the material layers also has an immaterial layer. Very specific parts of the building, architectural expression, spatial organization, light, memories and sensory experiences are only a few of the aspects the spirit of place includes.

Each building creates different emotions to its visitors. Usually, it is the combination of small elements that together compose an atmosphere. The atmosphere can not be very easily defined, but the individual elements are easier to distinguish. This layer is analysed across scales with main goal to discover the elements that compose the spirit of place for this building. In this chapter, the most prominent aspects of this layer are illustrated.

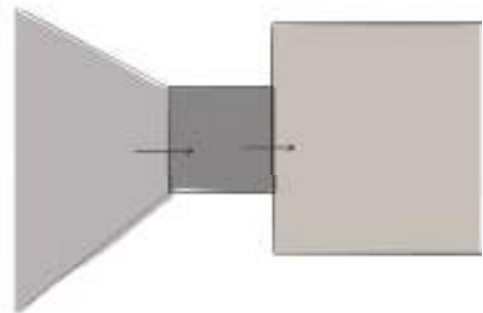
Due to the religious function of the building the spirit of place has a very important role. The goal of these elements is to increase the devoutness of the people visiting the church. Usually a special procedure is required before the building could be used for a different function. A strong belief that matter can acquire spiritual properties and lose them through certain ceremonies.

The church has been an inseparable part of our societies through the years. Ceremonies mark the most important milestones in the life of a Christian and the building is an

important part in these events. The building, often, also represents a community of people that are visiting the church on a regular basis.

To understand the spirit of place a mindmap of the church was made, naming and trying to approach the building from different angles.

The church is approached through a sequence of spaces that all have a different feeling. The visitor becomes smaller as he moves through the spaces while the massive building unfolds.



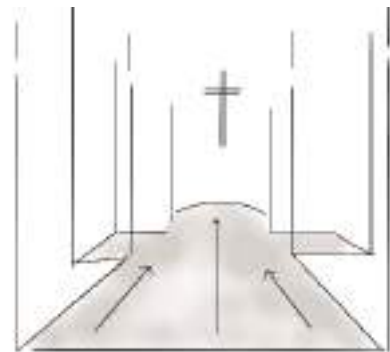
The height of the spaces and the opening give in the interior a very dominating look. The sight is attracted upwards where elements become thinner to express and highlight the size of the spaces.



The windows deliver sunlight for the spaces but due to their high position the space becomes very "closed" on a human scale. This attribute responds directly to the function of the building where introversion is required.



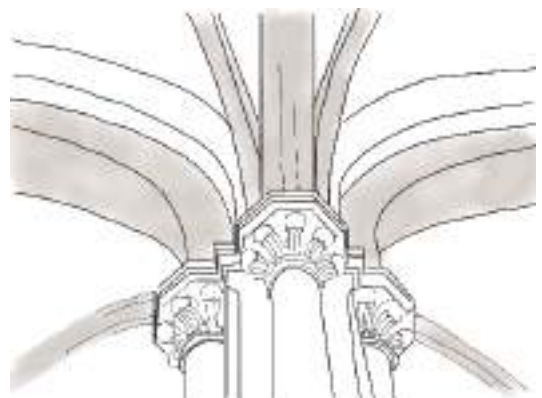
There is a clear direction in all elements of the main building. The altar becomes the focal point and everything directs towards what is happening there.



Due to the size and the materialization of the spaces the acoustics are very interesting. The building itself, invites silence and peace even though there is music playing on the background. High calamity helps during the use of the building.



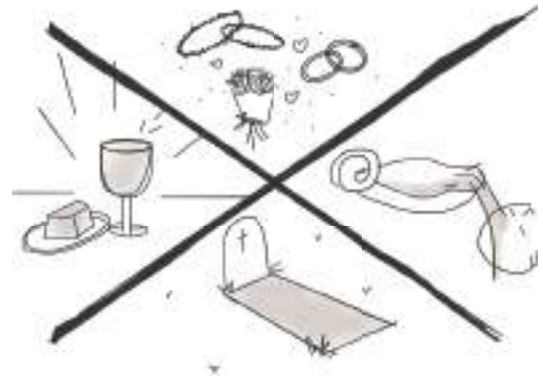
The decorations are very impressive. Not only elements like paintings or statues but also the structure is "decorated". It emphasizes the importance of the place and is a clear indication of the attention and the detail that a spiritual building required in those times.



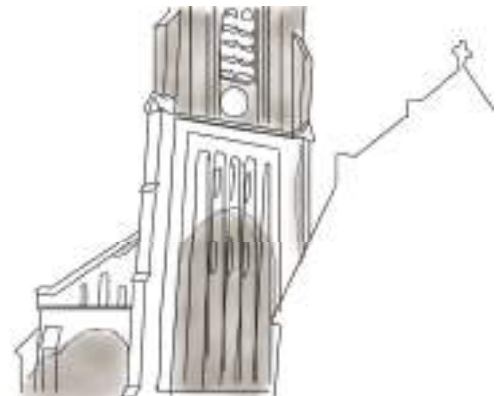
The little garden in front of the building has a very intimate feeling due to the position of the surrounding buildings. The space becomes even more relaxing due to the presence of green and public seating. It creates an impression of escape from the busy street by the time you enter the site.



Different users experience the building in different ways. This place is connected to happy and sad memories of the folk. Weddings, baptisms and deaths are important events and they are all marked by the presence in the church.



The building has obvious signs of change on the exterior. On first sight, it makes you think that it's really old and has been repaired and extended many times, because the different brick patterns are not easily readable.



The presence of a lot of religious items close to the entrance of the main space adds a special layer on the front hall. The separation from the main space is strong due to the fence which drives the visitor to choose one of the religious practices or observe the big space from further away.

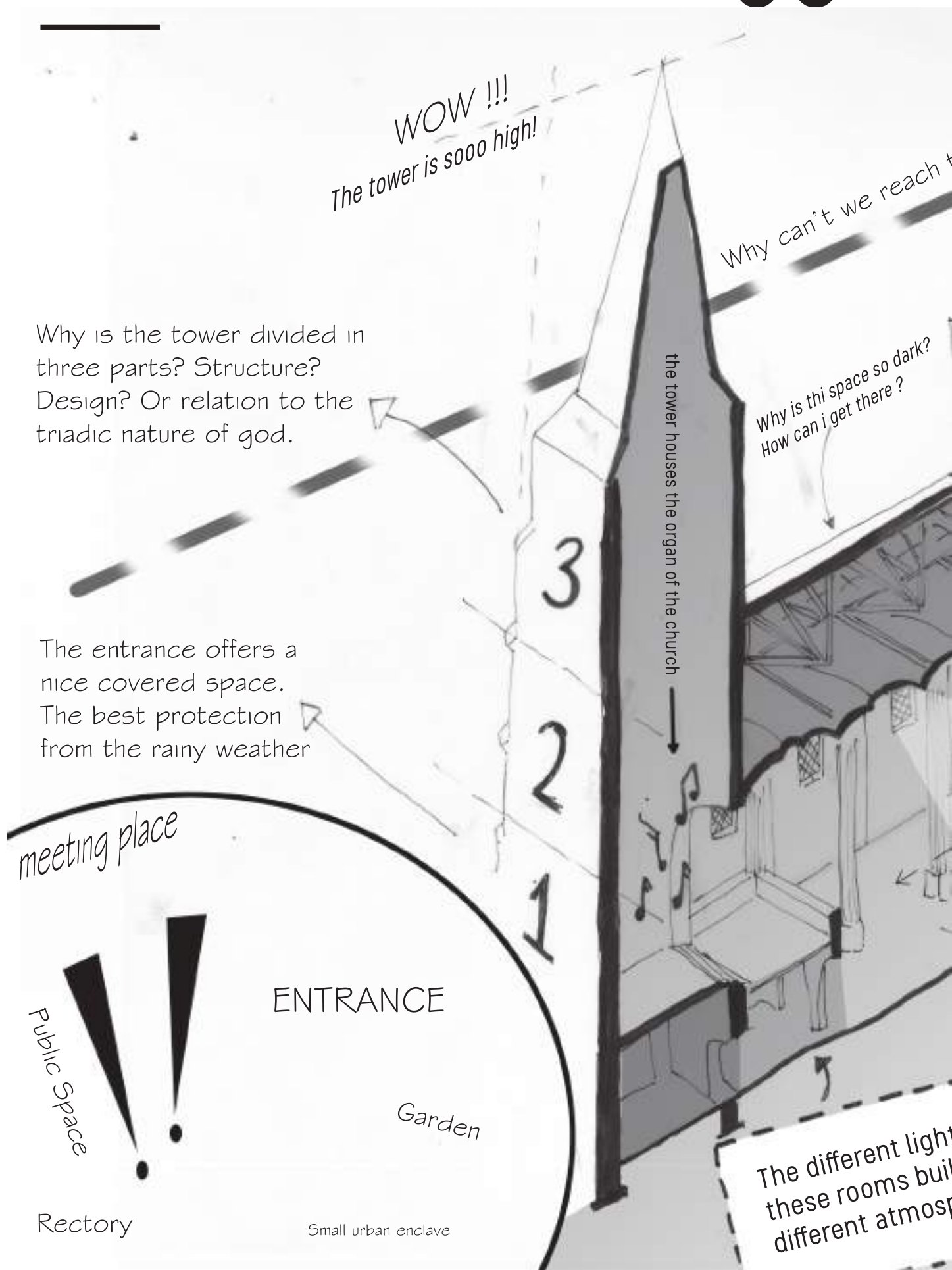


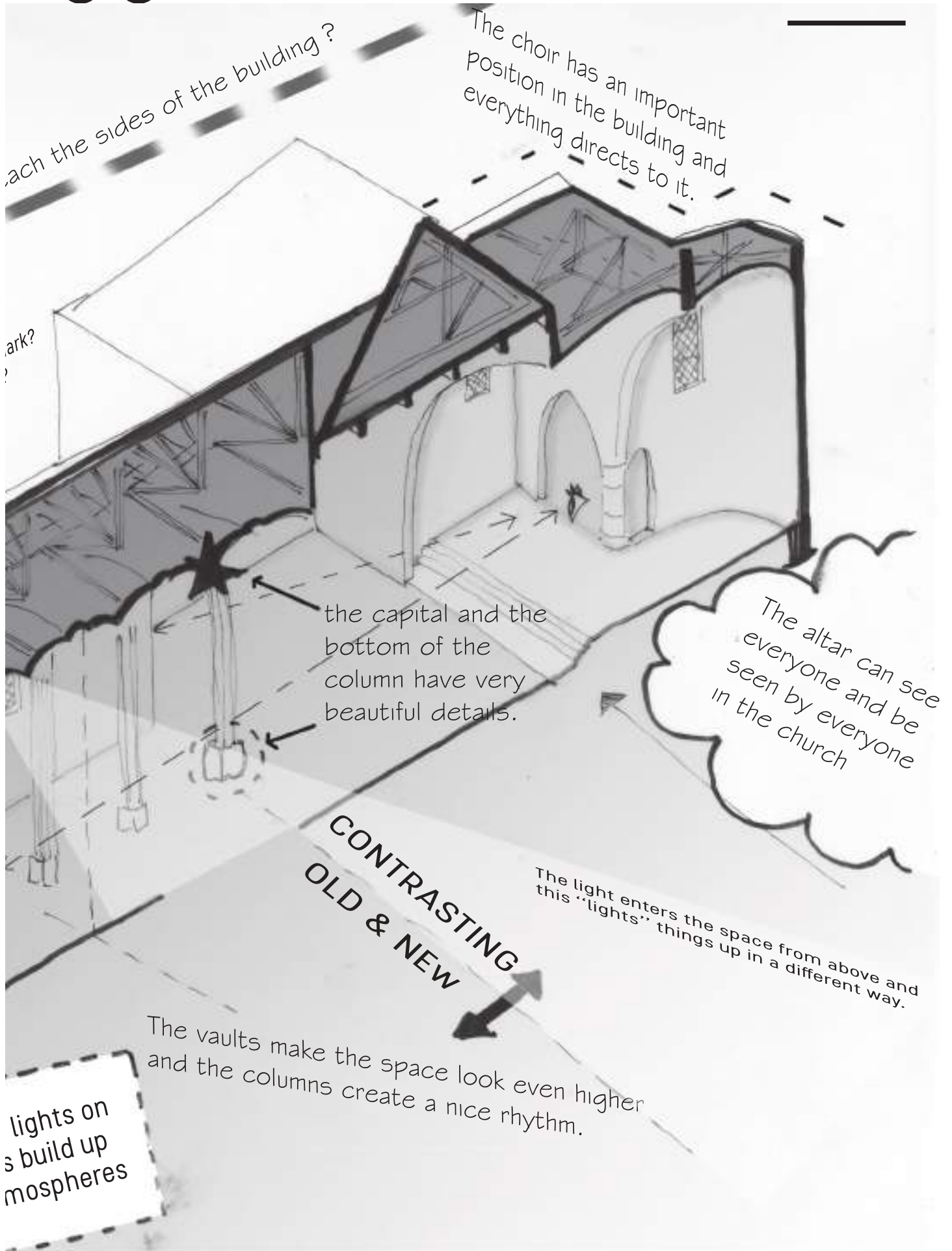
The pastorie building also has a lot of memories which are strongly related to the commissions of the church and the priests. The older members of the community of the church still make use of this space for recreation and meetings. The building has a completely different sphere than the church. It is much more informal and of a very different scale.



The religious function of the building adds automatically a layer of feelings and emotions. The mystical character of the religious function requires respect and introspection. The building can be experienced but it could never be used. The spirit of this function is on a different level. The building becomes a house to a very immaterial function.









OVERALL CONCLUSION

For the conclusions we brought all the information together. There are a lot of different factors involved in the history of the Jacobuskerk, and there were changes on all aspects of the building. Our main question was "Why and how did the Jacobuskerk become how it is now?" This question can be answered for all the brand layers and chapters of our analysis and that forms the sub conclusions of each chapter.

The overall conclusion can be summarized in saying that the Jacobuskerk became the way it is now through various changes, mainly done in two construction periods, and that these contrast with each other. The time line on the next page will explain this from a big to a small scale.

On the bottom there is Winterswijk developing and growing over time. Above that is the development of the site, showing the location of the smaller church of 1799, that had gotten too small, and then the trading of the plots to obtain the site where the Jacobuskerk is located. After that, the buildings on the site became larger, filling up the space.

The layer above shows the development of the church building and the rectory. It first shows the former church, which had become too small, which lead to the building of the Jacobuskerk. Next is the Jacobuskerk with its first construction phases of the 19th century, and the second main construction phase

of the 1950's because of the rise of visitors. This layer ends with the church now, getting more and more empty because the number of churchgoers is decreasing. An important event during the development was the bombing, in which the neo-gothic windows were destroyed, as this gave cause for the size of the windows to be reduced during the renovation.

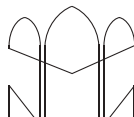
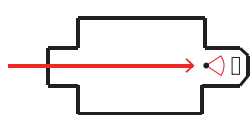
Then the main architectural styles are shown of both periods: neogothical in the first construction phase designed by Wennekens and the Delftse School around the second construction phase designed by Koldewey. These styles were decisive for the way the buildings were built and therefore a reason why there is such a difference between the two parts.

The top layer consists of schemes explaining essential elements of the church of the 19th century and the church after the 1950's extension. After the 1950's elements of the church of the 19th century, such as the paintings and the windows, were changed because in that time they were not valued. There is a clear contrast between the elements of both churches because they were built in different styles, neo-gothic and neo-Romanesque.

This conclusion is the starting point for forming an investigation to find a new purpose for the Jacobuskerk.

OVERALL CONCLUSION

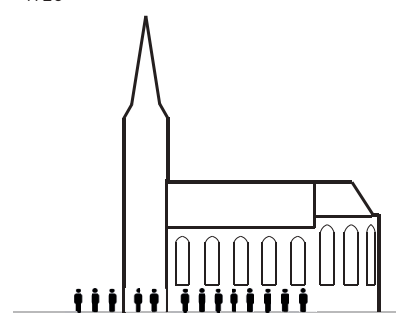
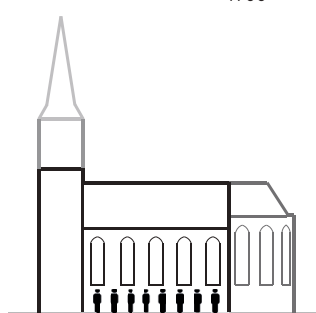
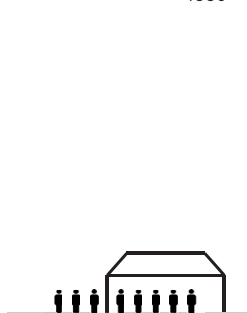
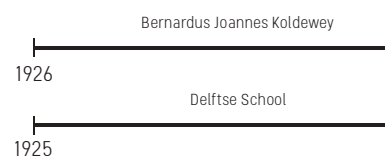
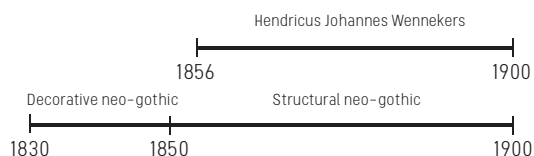
CA AA TA



First brick vaults of Wennekers



Paintings in the choir before 1953. (Meerdink, 1995, p.57)



1799

The former church was too small. Plans were made for a new church.

1869 1881 1901 1911

The church was built in stages.

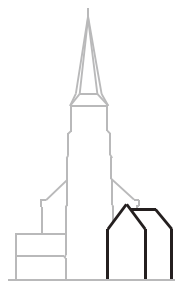
1945

1944

The church became too small. Plans for an extension were made already in 1944.



Former rectory building. (Meerdink, 1995, p.25)



1916

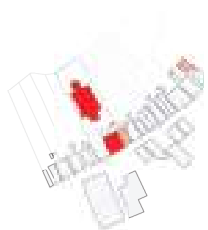
The new rectory is built.



The windows were destroyed by a bomb impact.



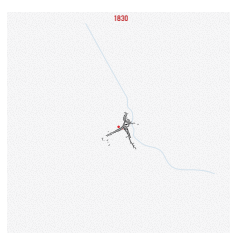
1860



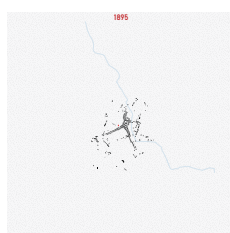
1881



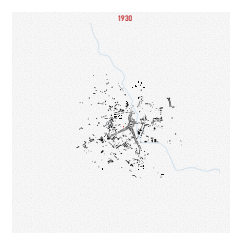
1916



1830



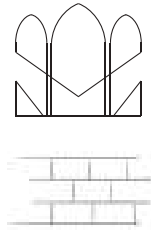
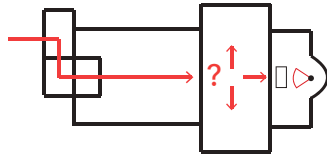
1895



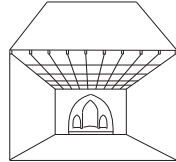
1930



The choir after 1953.
(Meerdink, 1995, p.53)

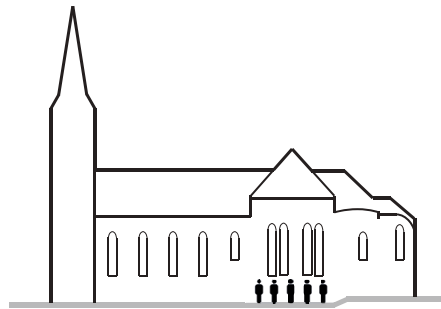
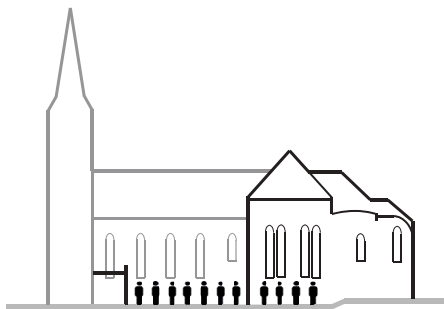


Colors in the church in 2019.



1958

1955

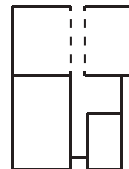
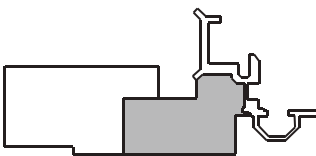


1953 1956

The choir was demolished and the church was extended.

2019

The number of churchgoers is decreasing.



New function?

1953 1956

The rectory was extended to connect to the church.

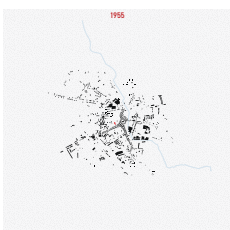
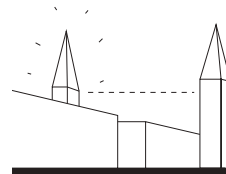
2004-05

The rectory was renovated.

2019



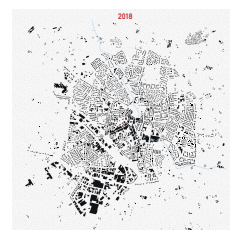
1956



1955



1975



2019



VALUE ASSESSMENT

INTRODUCTION

To be able to design an intervention, you have to find out what is important, what has value. These values can be divided in cultural, architectural and technical values. Making a value assessment is not easy. Values are not objective and dependent on personal opinions. Categorising values can help defining the values as it is more specific on what is it exactly in an object that gives it value. By working with our group of five students together, we discussed the values and tried to make a good value assessment together. Because we are with five, it is already a bit less subjective, because often we didn't agree and we tried by talking to find out what was the best answer.

The method used for defining the values was the value matrix proposed by Marieke Kuipers and Wessel de Jonge. (Kuipers & de Jonge, 2017, p. 85-91). Here seven types of values are used, coming from the system of Riegl. In 1903 he formulated a dialectic system of values. This twofold system separated commemorative values from present day values. Commemorative values remind us of something in the past and therefore add value, to this belong age value, historical value and intended commemorative value. The present day value shows what we value today in the society we live in now, to this belong use value and newness value and relative art value, both belonging to art value. (Kuipers & de Jonge, 2017, p. 65-69)

They are put next to the shearing layers of

Steward Brand. These are site, structure, skin, services, space plan and stuff. These six layers each have a different lifespan. The site is forever, the structure usually lasts decades, the skin a bit shorter. The services don't have a long life span, just as the space plan and the stuff which usually last some years. Next to these layers he adds a seventh layer, the person using it, named spirit of place. Then surroundings are added to name the broader context of the building, as a building never stands on its own. The last one added is surfaces, being the interior component of skin and related to things like materiality, colors, tactility and smell. (Kuipers & de Jonge, 2017, p. 33-34)

Using the values of Riegl makes us look at the building from different perspectives and define each value more clearly. The layers of Brand make sure we think about each aspect of the building and its surroundings. With these two measures a broad overview of the values can be made.

Then they need to be prioritized. Some values are more important than others, and prioritizing can help defining that, and in the future help making choices in the design regarding certain values. If something has value, it doesn't mean that you cannot touch or change it, but you have to give good arguments and the value matrix can help with that.

INTRODUCTION TO THE VALUE ASSESSMENT

1. DESCRIPTION OF THE BUILDING

The Jacobuskerk is located at Misterstraat 20, in the town center of Winterswijk. This Roman Catholic church was built after a design of H.J. Wennekers in 1869 in phases for financial reasons. The nave and tower were finished in 1869 and the choir and sacristy in 1881. The tower was a low one that barely exceeded the roof. The tower was made higher by two levels in 1901 and the spire was added in 1911. Originally it was a neogothical church in a hall shape with brick cross rib vaults, buttresses and pointed arch windows.

In the 1953 an extension after a design of B.J. Koldewey was built, for which the old choir is demolished. This extension of a transept and a choir in neoromanesque style, together with the replacement of the former big windows with smaller windows really altered the church. Also a small side chapel was built and a canopy with the new entrance under it so that the entrance sequence was altered. Nowadays the church is still used, but only once every two weeks there is a service in the weekend which is visited by about 40-50 people.

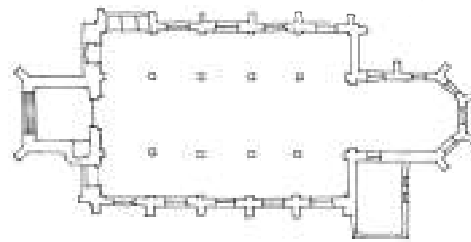


Figure 1 The original floor plan of the Jacobuskerk with the old choir and the big neogothical windows.

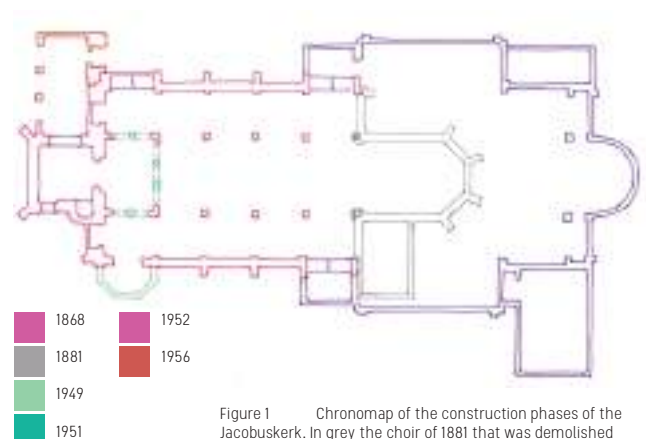


Figure 1 Chronomap of the construction phases of the Jacobuskerk. In grey the choir of 1881 that was demolished for the extension of the 1950's.

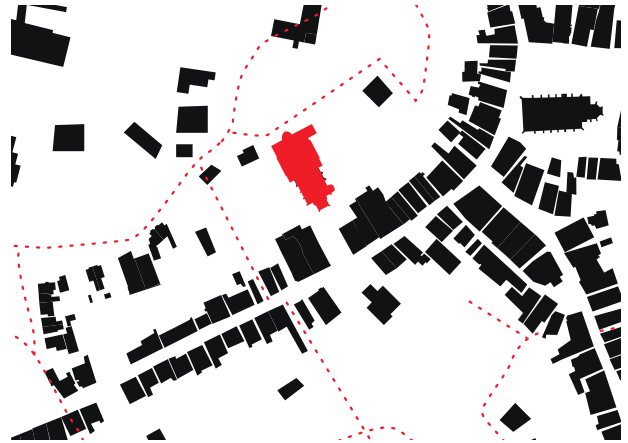


Figure 2 The Jacobuskerk after the extension with the new choir (Meerdink, 1995, p. 39)

2. URBAN CONTEXT

The Jacobuskerk is located in the Misterstraat, a busy shopping street leading to the market in Winterswijk. The market is the center of Winterswijk so the Jacobuskerk is quite close to that. Winterswijk is the busiest on Saturdays, when especially the market is visited by a lot of German tourists. Wednesdays there is also a market so the town is also quite busy then. The rest of the days it is not so busy in Winterswijk.

The most important connections of the Jacobuskerk are the relation of the tower of the Jacobuskerk with the tower of the Jacobskerk, the Raadhuis and the Tricot Factory. These four towers make up the skyline



of Winterswijk and are visible from far away. From ground level the Jacobuskerk has a relation with the Misterstraat, but it is put back with a small square in front so the relation is not immediately visible. Originally there was quite some free space around the church, but nowadays it is on all sides built in by buildings or the parking lot at the back. In general, from the ground level the church is only visible from some specific places, very different from the Jacobskerk that is at the end or beginning of a lot of streets. The Jacobuskerk is also a part in the sequence of green spaces, starting with the Freedom Park, then the Notary Garden and followed by the space around Boogie Woogie.

3. Linking meaning to matter

There are a lot of values to be found in the Jacobuskerk. These can be divided according to the Brand Layers and Riegl values as described in the introduction. In the matrix on the following page the values are named per Brand layer. In the pages after that for each value is explained why it is a value.

Riegl values	Age value	Historical value	Intended commemorative value	Non-intended commemorative value	Use value
Brand layers					
Surroundings		Matches historical street pattern Time layering in buildings			Accessible from town center On a busy street Part of the line of parks
Site		Plot has stayed like this for 150 years			Rectory connected to the church Green/resting space in front of the church
Skin (exterior)	Old bricks are still there	Neogothical facades: buttresses, tower Extension visible: windows, different bricks Facade rectory			
Structure		Rhythm of structure First stone vault of Wennekens			Big span for a flexible use
Space plan		Relation old and new part of the church and development			Wide open space Many people fit in Different atmospheres/shapes of spaces Height Light entrance Use for Catholic services
Surfaces (interior)		Old ceilings of the rectory			Good acoustics
Services		Tower clock			
Stuff	Old church pews	Old organ Old doors in the rectory			Lots of seats Organ
Spirit of place					Meeting place

Red: high value, Orange: positive value, Green: indifferent value

Riegl values	Newness value	(Relative) art value	Rarity value	Religious value	Other relevant values
Brand layers					
Surroundings				The church is visible from far away and a symbol for Catholicism	Landmark Relation tower to Jacobskerk and Raadhuis and tricot factory towers
Site			Only Catholic church of Winterswijk	Transition sequence from profane to religious	Green on the site
Skin (exterior)	Well maintained brick-work				
Structure		Structure brings rhythm to space and facade and is decorated			
Space plan		The stairs of the rectory		Spatial sequence profane to religious	
Surfaces (interior)	Neatly plastered	Ornaments in the church			
Services					
Stuff		Statues Paintings 14 Stages of the cross		Altars, statues of saints, tabernacle, 14 stages of the cross	
Spirit of place				Height Light entrance Verticality	



Figure 2 The historical street pattern is visible here, you can still recognise it.



Figure 2 The location close to the market and at the busy Misterstraat is visible here, it has a positive use value.

Winterswijk.



Figure 2 The fact that the tower of the Jacobuskerk is a landmark has religious value and spatial value.

SURROUNDINGS

In the surroundings of the church, historical, use, religious and spatial values can be defined.

Historical value

The surroundings have historical value because the historical street pattern is visible in the surroundings and in the street names. The typical ribbon development is still visible in the Misterstraat. This refers to the history of Winterswijk and how it was built over time. Also there is a time layering in the buildings around it as they are from different periods. This has value because it shows how the functions in the streets changed over time to more commercial functions.

Use value

The use value of the surroundings is mainly in the specific location of the church. It is located very close to the market what is the center of the town and easily accessible by foot. Also it is in a busy shopping street so a lot of people walk by the church. These two things add to the accessibility of the church.

Religious value

The religious value in the surroundings lies in the fact that the church is quite big and impressive and a symbol for Catholicism. The tower is visible from far away and shows that there is a Catholic church there. In every town you can see in the church towers that there are religious people there.

Spatial value

The other value, a spatial value, is that the tower is a landmark and relates to the towers of the Jacobuskerk, Raadhuis and Tricot factory. The Jacobuskerk tower is one of the 4 main landmarks of Winterswijk and visible from far outside the town.

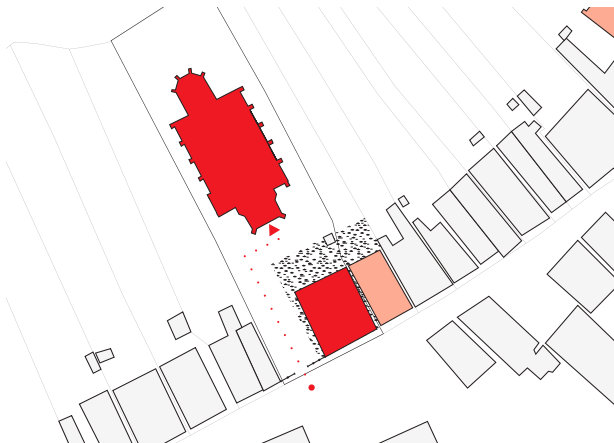


Figure 2 The site has quite a long history of 150 years.



Figure 2 The green elements on the site are the green beds, the trees and the hedges.

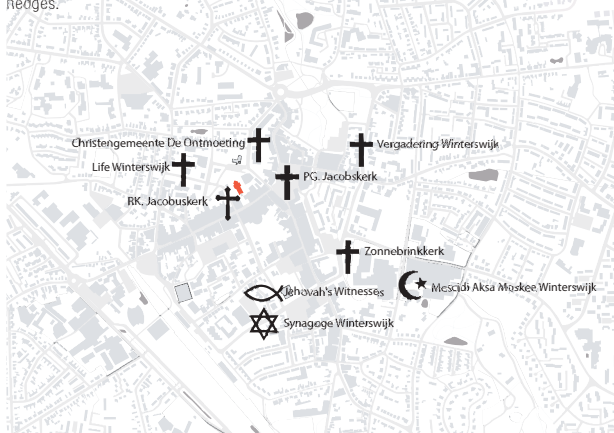


Figure 2 There are quite some churches in Winterswijk but the Jacobuskerk is the only catholic church.



Figure 2 The entrance sequence starts already on the site and has religious value

SITE

The site has historical, use, rarity, religious and an environmental value.

Historical value

The plot of the Jacobuskerk has been there for about 150 years, and in that it is a beacon in a changing environment. The buildings themselves have changed but the space around it is still there and still open space.

Use value

The green space in front of the church has a big use value, it brings green to the people, and the benches in front are used as resting place by many passer by's. The rectory is connected to the church and that also makes the use better as priests and other people can easily walk from the church to the rectory and vice versa.

Rarity value

The Jacobuskerk has rarity value as it is the only Catholic church in Winterswijk, although there are other catholic churches in the region. The rarity value may get bigger as more and more churches, especially churches of >1800, get demolished.

Religious value

The religious value on the site is the transition made from profane to religious on the square in front of the church. First you enter through a fence, you walk through the square, and then enter under the canopy. This sequence prepares for the real entrance in the church.

Environmental value

The green on the site, in the front square as well as the trees around it, form an environmental value as they improve the living qualities in the area.



Figure 2 The patina on the old bricks gives the skin age value



Figure 2 The neogothical elements in the skin have historical value



Figure 2 On the contrary, some of the 1950's parts of the facade have brickwork that looks quite new and gives newness value.

SKIN

The skin has age, historical and newness value.

Age value

In the biggest part of the facade of the old part the original bricks of 1869 are still there. You can see in their patina that they are old and they give age value to the church.

Historical value

The neogothical details still visible in the facade: the tower and the buttresses, give historical value to the building by remembering of the neogothic style. The extension of the 1950's is visible in the different window and colours of the bricks, this adds an extra time layer in the development of the church and so historical value, even though the extension itself has less historical value.

Newness value

The brickwork of the new part looks quite new and well maintained and therefore it has newness value.

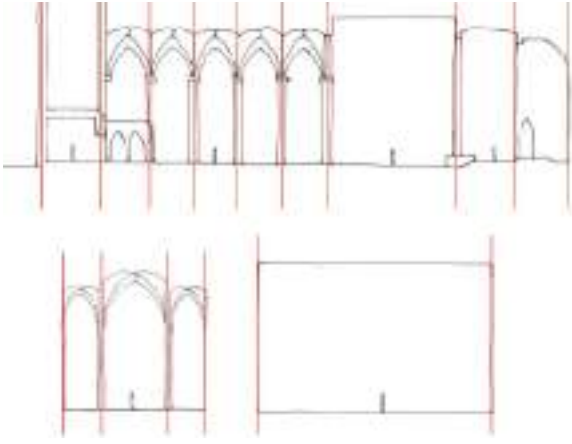


Figure 2 Here the rhythm of the columns can be seen that structures the facade and the space.



Figure 2 The first stone vault of Wennekens has historical value



Figure 2 The use value of the big open space can be seen here

STRUCTURE

In the structure are historical, use and relative art value.

Historical value

The rhythm of the structure and the vaults give historical value as they refer to the construction system of the neogothic style. On top of that, it was the first brick vault of the architect H.J. Wennekens and for that an important design in his oeuvre, and that also gives it historical value.

Use value

The big span of the new part results in a big open space, which gives a lot of flexibility for different uses and for that use value.

Relative art value

The structure of the old part of the church gives rhythm to the space and facade and defines the space. Contemporary appreciation for this gives the structure relative art value.



Figure 2 The relationship between the old and the new part brings historical value as it is a time layer added to the church.

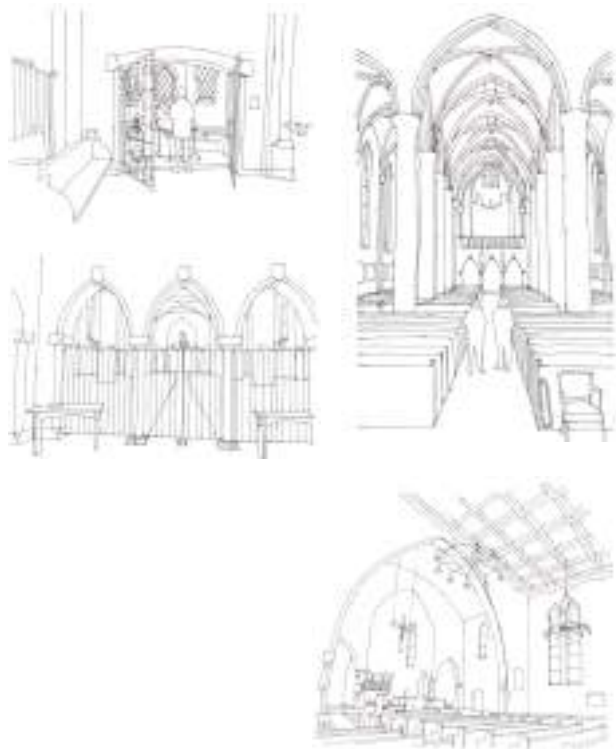


Figure 2 The sequence from profane to religious is a religious value in the church.

SPACE PLAN

In the space plan historical, use and religious values can be found.

Historical value

There is a big difference in spatial experience in the old and the new part of the church. The relation between the old and the new part and the time layers in this give the space plan historical value.

Use value

The high and wide open space of the new part in which fit many people gives this part of the church a big use value as it is very flexible in function, horizontally as well as vertically. The different atmospheres created by the different sizes and shapes of spaces, enlarged by the different spaces in the rectory adds to the use value as different types of activities could happen there. The light entrance also adds to the use value but less as the windows of the 1950's are less big and let less light enter. The suitability for the use for Catholic masses brings a use value. This is however less important for us.

Religious value

The spatial sequence from profane to religious that already started on the site is continued in the church. Via the space under the tower and the space under the choir floor you enter the nave and slowly get used to the atmosphere of the church. This atmosphere gets even more as you proceed to the front of the church. This deliberately designed spatial sequence adds to the religious value of the space plan.



Figure 2 The ceiling of the new part is made of softboard which has good acoustic qualities.



Figure 2 The neatly plastered wall has newness value.

SURFACES

The surfaces carry less values than most of the other layers as the interior surface, the plaster layer, is not original and dates originally from the 1950's. There are stories that there used to be paintings underneath and the plaster reduces the value of these surfaces by covering the paintings that may still be there. However there are use, newness and relative art values.

Use value

The softboard in the choir even as the plaster layer gives good acoustic properties. This suitability for musical events gives it use value.

Newness value

Almost everywhere the plasterwork looks neat and well maintained and that gives the surfaces newness value.

Relative art value

In the surfaces are some ornaments, like the natural stone parts in the walls. These give relative art value.



Figure 2 The clock is not valued a lot because of aesthetic reasons but it has historical value.

SERVICES

In the Jacobuskerk are hardly any services as the heating is quite basic and just enough for the church function and ventilation is hardly there except for open-able windows. There is one service with a historical value.

Historical value

The clocks on the tower add historical value as historically church towers have had clocks. The fact that this is not an old or original clock gives these clocks quite a low rating on historical value.



Figure 2 The church pews have patina and for that have age value.



Figure 2 The old organ has historical value. As there is a new organ closer to the choir it has less use value than it used to have, but it is still working.



Figure 2 The 14 stages of the cross are an example of the many objects in the church with religious value.

STUFF

The stuff in a church is special as it often has a longer life span than general stuff, for example compare the 150 years old church pews with chairs in a dwelling. Also, a lot of stuff contains a religious meaning and for that has religious value. Especially this value can make it harder to deal with this stuff as it is attached to something very personal, a religion. Especially Catholics attribute high religious value to artifacts as relics and statues of saints. The stuff in the Jacobuskerk has age, historical, use, relative art and religious value.

Age value

The church pews in the old part of the church look worn and used over the years. Also their decoration recalls previous times. For that these have age value.

Historical value

The old organ from the beginning of the 20th century has historical value as the organ was historically an important part of the church.

Use value

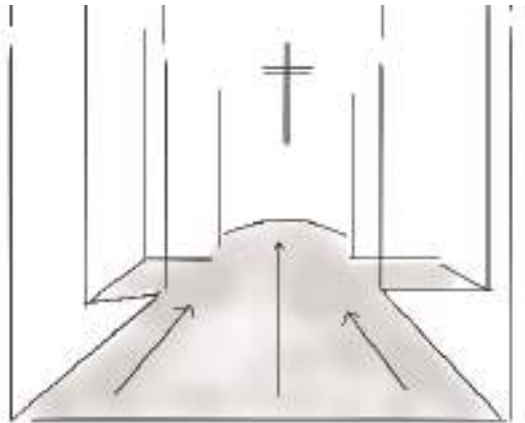
The fact that there are a lot of seats adds to the use value. The new organ in the choir has use value because it is closer to the people that sit in the front of the church so more effective in playing music.

Relative art value

The art objects in the church are also appreciated nowadays and give relative art value. This counts for the wooden statues of saints, the 14 stages of the cross and the paintings.

Religious value

Of course many objects in a church have a religious value, that for religious people is way more important than other values. In this church the altar, the statues of the saints, the tabernacle, the 14 stages of the cross and de crucifixes have religious value.



SPIRIT OF PLACE

This layer is harder to define than the previous layers because it is not material but sensory. The spirit of place is an essential layer in a church, it "makes the church feel as a church". This spirit of place is evoked by material things and sensory experiences like light and sound. The spirit of place here has a use value and a religious value.

Use value

The spirit of place of the Jacobuskerk makes it a meeting place for people who share the same faith. Often after or before masses people gather in or around the church and meet each other.

Religious value

There are various things in the Jacobuskerk that contribute to the church atmosphere. Important ones are the height, the verticality and the light entrance through the highly placed windows. Especially these three together make up the spirit of place where light and dark differ and you feel small under a high ceiling. This adds to the religious experience in the church, so it has religious value.

LEGEND

- High monumental value
- Positive monumental value
- Indifferent monumental value
- Ceilings of monumental value
- Interior element of monumental value

Figure 3 The current situation of the Jacobuskerk with the values indicated. As explained in the text the neogothical parts have the highest historical value, the new windows and difference in bricks have only a indifferent monumental value as they don't do good to the original facade. The new part has a positive monumental value because it adds a time layer to the building and it is an example of church building of the 1950's. The plaster layer on the inside has an indifferent monumental value because it covers the painting that used to be or still is underneath. The ceilings and the stuff is explained on the right page.



I
II
III
Figure 3 Here the relation between the three ceiling types is seen. On the top I, the masonry vault of the choir of the new part, which has a positive monumental value. Under that II, the cassette ceiling of softboard which is in quite a bad state and has a low monumental value. On the back III, the neogothical cross rib vaults. This ceiling is valued the highest for its age and craftsmanship.



A. Figure 1 A lot of the stuff in the choir of the church has religious value: From left to right the Jacob's altar with tabernacle, the crucifix and altar, and the Maria altar.



B. Figure 3 The church pews of the 1950's have positive monumental value.



C. Figure 1 The original church pews have a high historical value as they are quite old and have original details.



D. Figure 4 The 14 stages of the cross were painted white in the 1950's. However they still have a high religious value.



E. Figure 5 The organ was built in 1905 and therefore has a high historical value.



F. Figure 5 The statue of the Pieta, of Joseph and of Mary have a high religious value as they are used for daily worshipping.



G. Figure 4 This altar for Saint Antony has a high religious value as well and is also daily used for worshipping..



H. Figure 3 The icon of Mary of Perpetual Help is used for daily worshipping and because of this of high religious value.

VALUES FRONT FACADE JACOBUSKERK

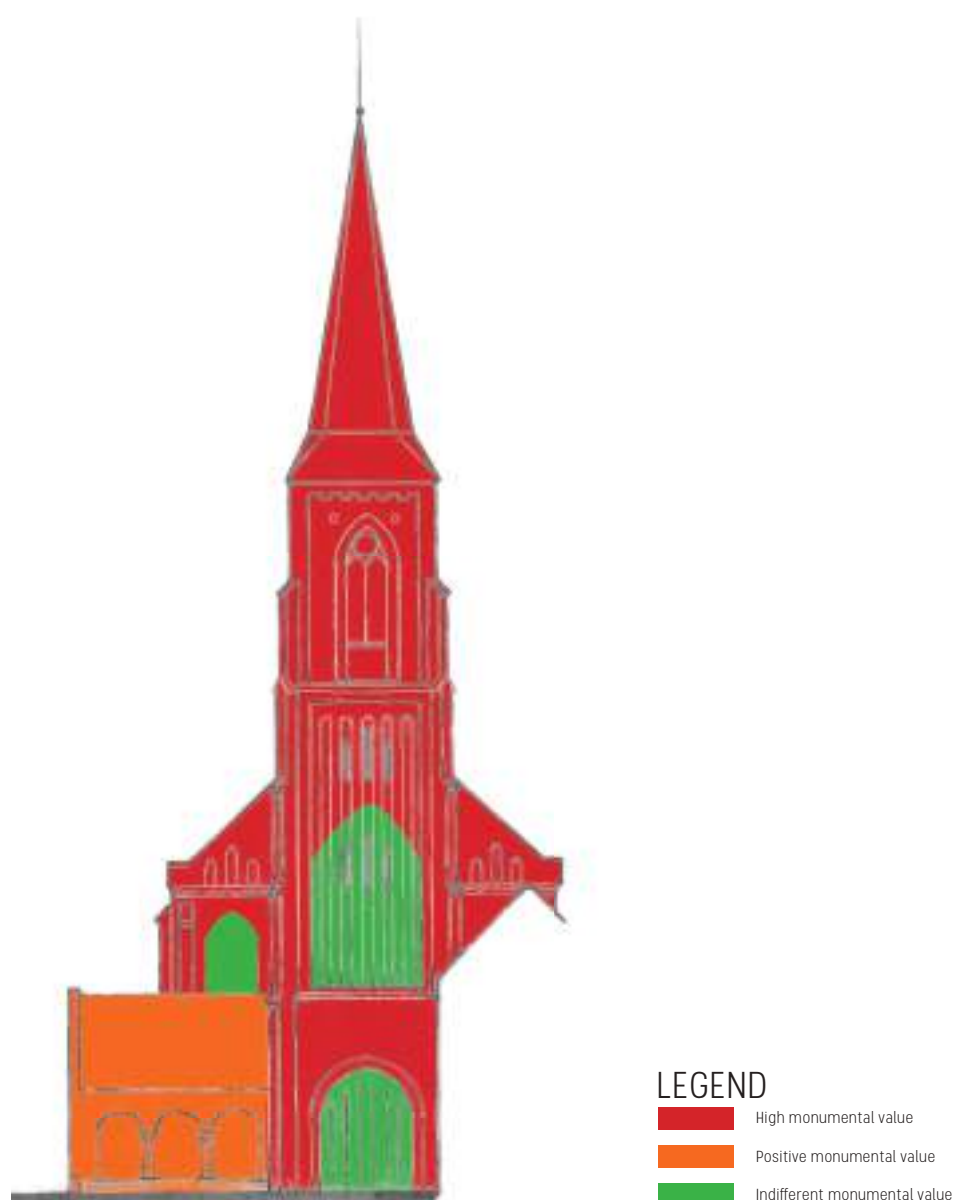


Figure 3 The front facade of the Jacobuskerk shows that the highest valued parts are the original neogothical parts of the facade. The later infills with brick have an indifferent monumental value as they disturb the original design. The 1950's extension has a positive monumental value as that is part of the new idea about the Jacobuskerk in the 1950's with the moved entrance.

VALUES BACK AND SIDE FACADE JACOBUSKERK

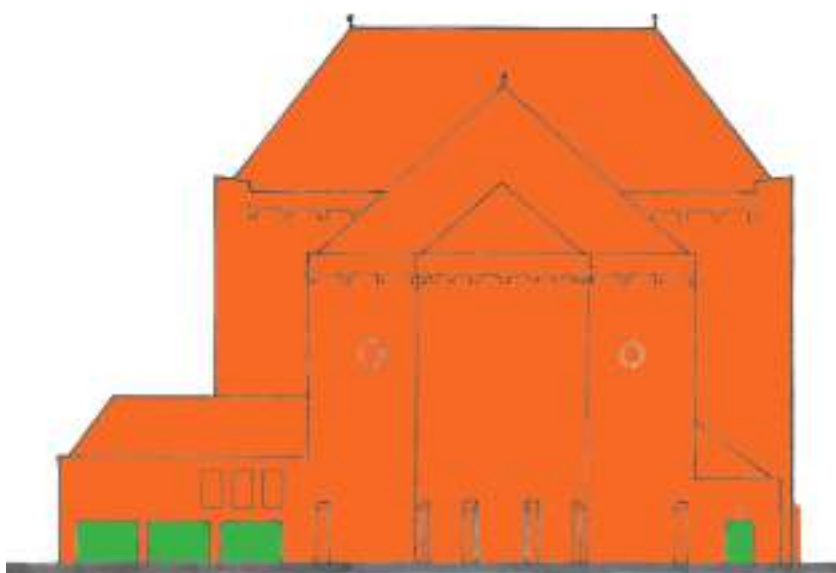


Figure 3 The back facade only shows the 1950's extension which is valued positively. The later added door and car-ports do quite disturb this facade and don't add anything, so they have an indifferent monumental value.



Figure 3 In the side facade the same as in the front facade is seen. All the original neogothical parts have the highest monumental value, then the extension parts and then the smaller windows and new bricks in the existing neogothical facade.

VALUE PLAN RECTORY GROUND FLOOR

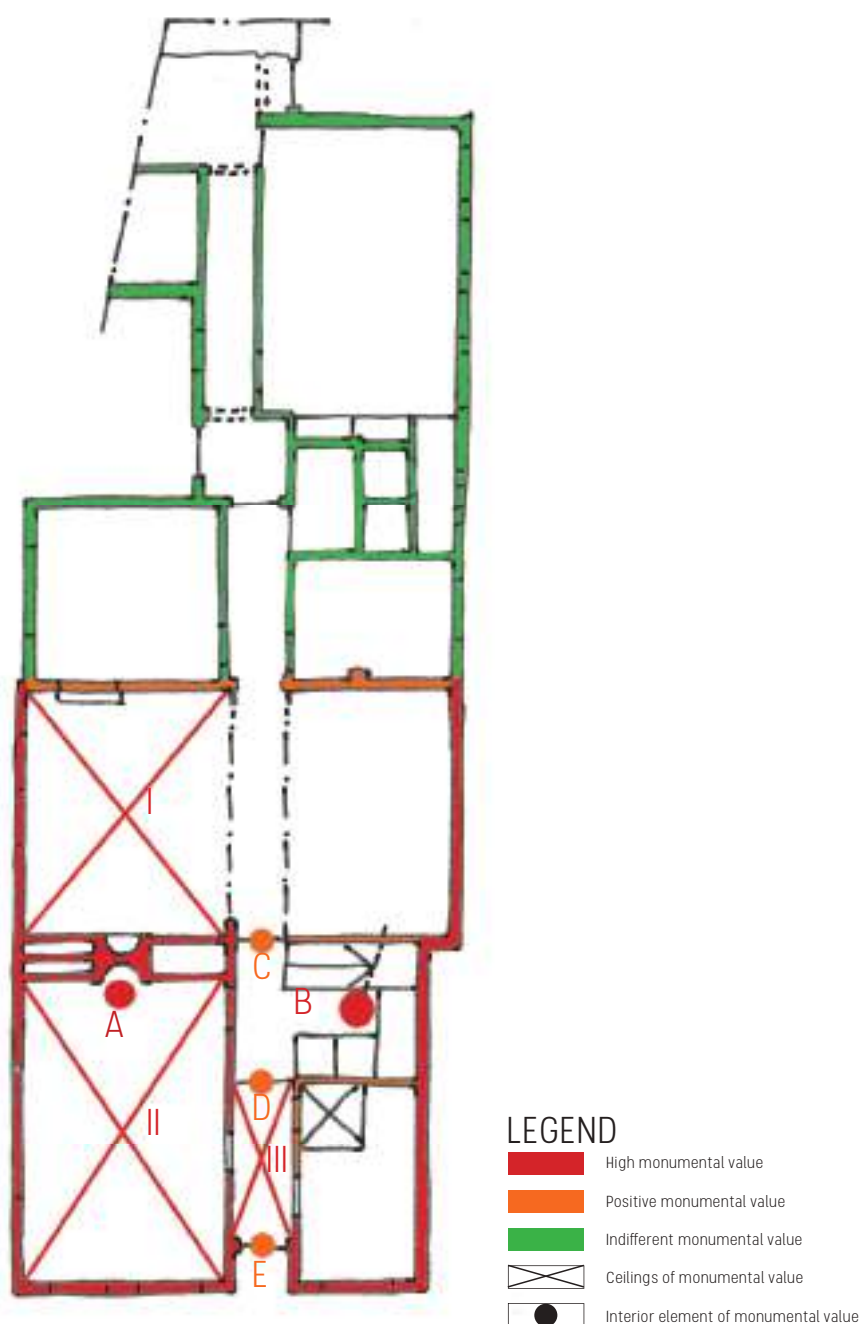


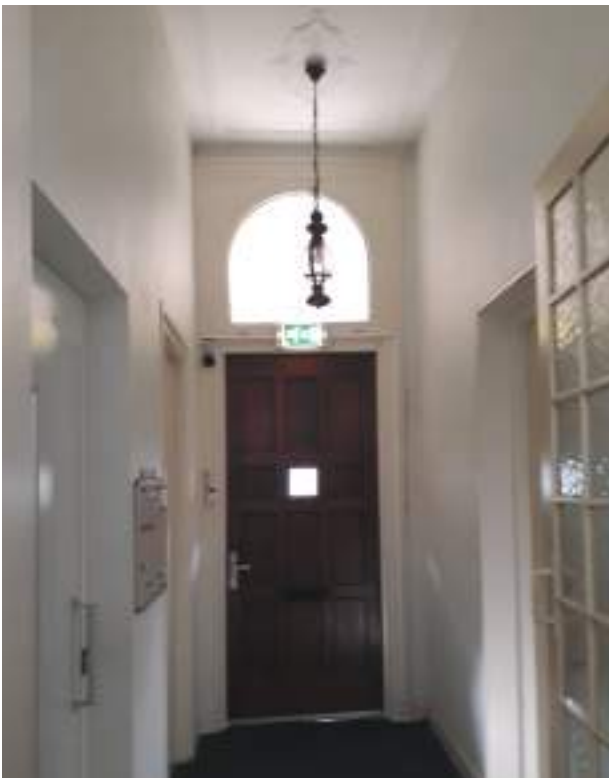
Figure 3 The current situation of the rectory of the Jacobuskerk. The parts from the earliest construction period in the 1920's have the highest monumental value. The interior walls have a positive monumental value as the surface of them is not that special. The extension of the 1950's to connect the rectory with the church has an indifferent monumental value. The ceilings and interior objects with a monumental value are on the right page.



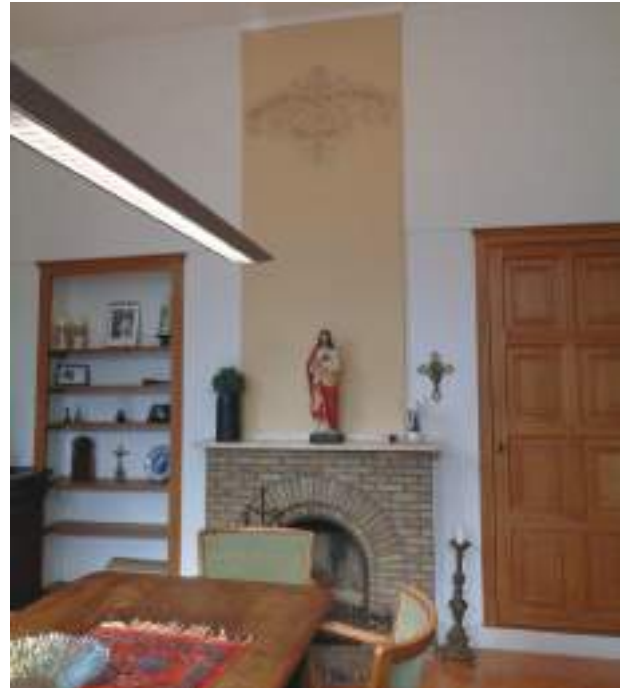
I. Figure 1 This ceiling dates from the construction of the rectory and for that has historical value. It is richly decorated.



II. Figure 1 This ceiling dates from the construction of the rectory and for that has historical value. It is richly decorated.



III, E. Figure 1 The front door has a positive monumental value as it is an old wooden door, the ceiling has a high monumental value being original from the construction phase.



A. Figure 1 This part of the rectory has some religious items like the Jesus statue. The fireplace is quite old and has historical value.



B. Figure 1 The stairs are the most important interior object of the rectory. They are richly decorated, a symbol of craftsmanship with high historical value.



C, D. Figure 1 This ceiling dates from the construction of the rectory and for that has historical value. It is richly decorated.

VALUE PLAN FIRST FLOOR AND ATTIC RECTORY

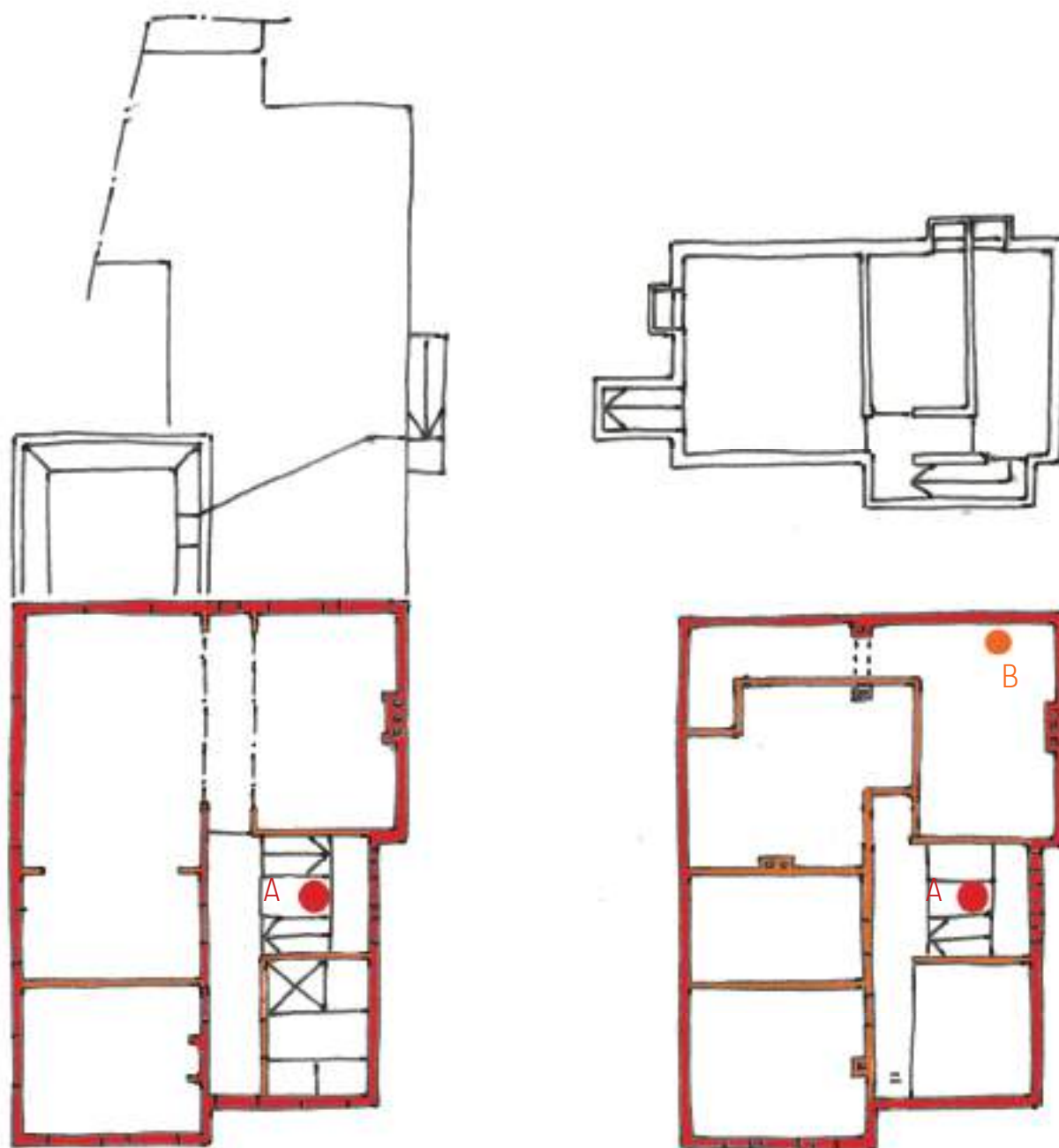


Figure 3 The first floor on the left and the attic on the right. The parts from the earliest construction period in the 1920's have the highest monumental value. The interior walls have a positive monumental value as the surface of them is not that special. There are not that many interior objects of value here except for the stairs, and the doors that are stored on the attic. There aren't any originally decorated ceilings here.



A. Figure 1 The stairs continue all the way from the ground floor to the attic and form the backbone of the rectory.



A. Figure 1 On the height of the first floor there are stained glass windows at the side of the stairs, they have a high monumental value.



B. Figure 1 These doors are in the same style as the doors on the ground floor. We don't know from which rooms they were but they still have a positive monumental value.

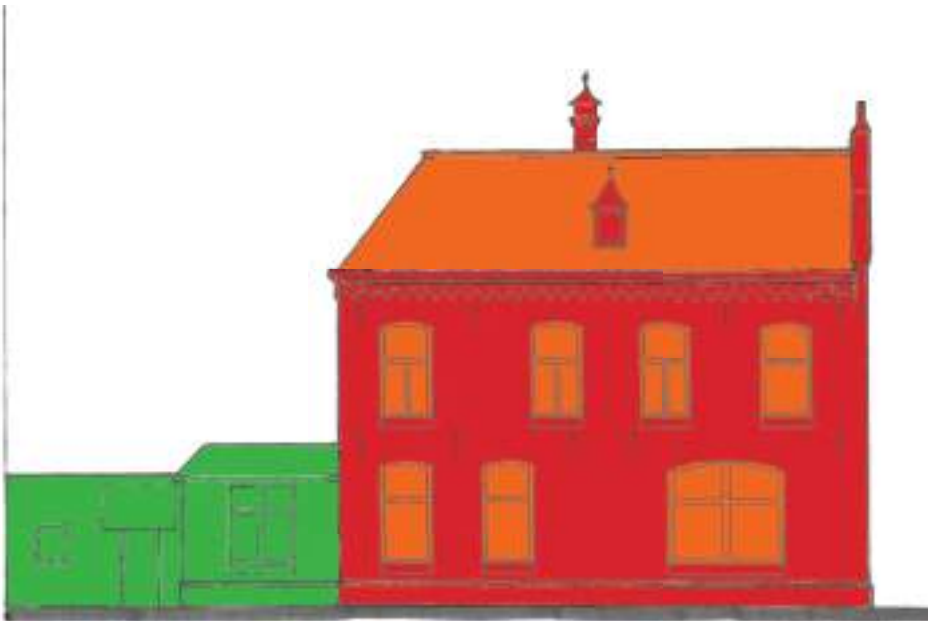
VALUES FACADES RECTORY JACOBUSKERK



The front facade is valued quite positive. The original brickwork is highly valued, just as the dormer windows. The windows positively just as the roof tiles as not s is valued positively as it's1950 all of them are original. The addition on the front of the .matches the existing quite well but it is younger



The back facade shows a mixed valuation. The original brickwork is highly valued, just as the dormer windows. The windows positively just as the roof tiles as not all s that connects the rectory to the church is'1950 of them are original. The extension of the .valued indifferently as it is not a special design



The side facade (the southwest facade) shows a mixed valuation. The original brickwork is highly valued, just as the dormer windows. The windows positively just as the roof tiles s that connects the rectory to the church is valued indifferently as it is not a special design'1950 as not all of them are original. The extension of the

LEGEND

- High monumental value
- Positive monumental value
- Indifferent monumental value

Figure 3 In the side facade the same as in the front facade is seen. All the original neogothical parts have the highest monumental value, then the extension parts and then the smaller windows and new bricks in the existing neogothical facade.

PROBLEMS, OPPORTUNITIES AND DILEMMAS.

The value assessment concludes in problems, opportunities and dilemmas. We have arranged them as well according to the brand layer, and looking at the value assessment. Problems are most of the time `negative values` so something that is there but reduces the value of a certain element of the Jacobuskerk. Opportunities are things that have potential value. There is not yet something but there is quite a lot possible on that place. Where a problem and a value clash, there a dilemma rises. To these dilemmas an answer needs to be sought in a design.

	PROBLEMS
Surroundings	Not well visible Parking behind the church
Site	You cannot walk around the church The front and back side are very closed The entrance is not visible There is a big distance to the street The 1950's extension to the rectory forms an ugly corner
Skin (exterior)	The entrance is not visible Bad quality pointing: not original, and damages the bricks Small and single glass windows Difference between the old bricks and those of the extension Uninsulated facades and roof
Structure	Little capacity for change?
Space plan	New part has no direction or definition and feels too big Columns in the nave offer little freedom
Surfaces (interior)	We don't know what is under the white plaster The bricks and ribs of the vaults are painted over and that is hard to take off
Services	The heating is ineffective, it takes 4 hours to heat and because it is not used so much it cools down quite fast More lighting needed
Stuff	The church pews are attached to the floor and make the space inflexible The altar is very heavy and hard to move
Spirit of place	The spirit was altered by the 1950's extension (it used to be lighter and more neogothical)

	OPPORTUNITIES
Surroundings	<p>Open space around the church</p> <p>It is in the center of Winterswijk: easy accessible and connected to a busy street</p> <p>It is part of the plan of the municipality with the Vrijheidspark, Notaristuin and Culture Park</p>
Site	<p>The square in front of the church</p> <p>Rectory has a lot of usable spaces of different sizes and that results in more variety on the plot</p>
Skin (exterior)	<p>There are already different time layers so it may be easier to add one</p> <p>The tower is empty except for the cell tower of Vodafone</p> <p>The new part has less historical value and it is generally valued lower by the public so it may be easier to make changes there</p> <p>The skin of the nave is not load bearing so possibilities for bigger openings</p> <p>Lot of thermal mass</p>
Structure	<p>Big span, especially the transept</p> <p>Height</p> <p>Capacity columns?</p>
Space plan	<p>There is a diversity of spaces in the church and rectory, bigger and smaller spaces</p> <p>Differences in atmosphere in the entrance sequence</p>
Surfaces (interior)	<p>Maybe you can get the paintings back?</p> <p>Plaster gives a lot of freedom for change as it is already not original</p> <p>Good acoustics</p> <p>Tiles offer possibility for floor heating</p>
Services	
Stuff	Maybe the church pews can be changed for another function
Spirit of place	A church atmosphere can give an extra layer also to other functions

	DILEMMAS
Surroundings	The diocese Utrecht doesn't want a new function in the church but there are less and less visitors
Site	
Skin (exterior)	The skin is typically closed because it is a church but if you want to open it, for example for a public function, you lose that character
Structure	The new part is valued less but if you demolish it you lose a time layer
Space plan	If you divide the open space, the open space value changes and maybe disappears
Surfaces (interior)	
Services	
Stuff	
Spirit of place	The church atmosphere is also made by the church function so when the function changes this atmosphere may disappear

OBLIGATIONS

Obligations are themes or things that have to be taken into account when dealing with the Jacobuskerk. They are connected with very high monumental values, that cannot be ignored. They are somewhat conclusions of the problems, opportunities and dilemmas.

1. Respect the neogothical details: the structure with the columns and the vaults, the buttresses and the original part of the tower. They form the backbone of the design.
2. Define a position towards the 1950's extension, does it have value or not?
3. Deal respectfully with the religious stuff in the Jacobuskerk, as it has religious value and that is very important for the catholic people using the church.
4. In the rectory, keep the stairs, as they are a key element in the design and the main structuring element in the rectory building.
5. Think about the relation of the Jacobuskerk with Winterswijk and its direct surroundings. Now these spatial relations are not that strong but they are very important. Also take the relation of the tower as a landmark into account and the social community function a church usually has for its surroundings.

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