

TABLE OF CONTENTS

Introduction	1
The Norwegian Stavkirker	2
Approximation to stave churches	2
Background.....	4
The remaining stavkirker.....	7
Stave churches: Architecture and construction.....	9
Origins and evolution	9
Architecture and construction.....	12
Construction: steps and elements	13
Types of stavkirker.....	18
Type A construction	18
Type B construction	21
Ornamentation in stavkirker.....	26
The outside	27
The inside	32
Worshiper's rituals and liturgical layout.....	35
Stave churches along the years.....	37
Conclusions	40
Bibliography.....	42
Annex.....	44

INTRODUCTION

During these years of studying Art History I have acquired a global vision of how art has developed throughout history, and despite the approach to different periods, movements and trends, the art of the Middle Ages, and particularly its architecture, caught especially my attention.

Throughout the degree, I have been approximated to a wide variety of topics mainly focused in Mediterranean Europe. This has given me a very broad knowledge of the art, history and religion, developed in its territories. Therefore, I thought it would be enriching to base my project in a synthesise of a concrete architectural typology far from the Mediterranean trend and that is not precisely documented: a study of the Norwegian Stave churches.

Norwegian Stave churches are unique buildings because of their innovative architecture and construction, plus the fact that only twenty-nine of them are currently preserved; this makes these churches exceptional and are a treasure to the Norwegian heritage.

This project approaches the reader, through a synthetic but concise documentation, to the context of the churches, their origin and their architecture, and justifies their exceptionality.

A first historical approximation helps to understand the historical frame in which they were built, together with a brief explanation of the antecedents of these churches. This introduction leads to the definition of these churches, as well as to an explanation of their construction and their particular architectural elements, their décor and their significance to Norwegian's heritage.

To do so, I travelled to the Norwegian capital to research. There, I visited the Gol Stave Church, the Norsk Folkemuseum and the Historical Museum. These sources, together with the authors collected in the Deichmanske Bibliotek and the Oslo Public Library, provided me enough information that, after selecting, revising and classifying it, allowed me to finally construct this discourse.

THE NORWEGIAN STAVKIRKER

APPROXIMATION TO STAVE CHURCHES

There has always been certain controversy regarding the origins and the emergence of the first stave churches. Even though their existence goes back to the 12th century it is not until the 19th century that the first studies of stave churches appear. The lack of original and primary sources, plus the absence of early and intact staves standing, make it quite difficult to affirm with sureness the precise origins of the early churches, as well as the provenance of their influences; together with the number of these primitive wooden buildings. Nevertheless, the emergence of those studies, –which appear mainly from the 18th century– created an outstanding discourse that has elucidated and clarified the unanswered questions about Norwegians Stave churches history.

Twenty-nine stave churches are currently preserved in Norway of the approximately thousand churches that once existed. They appeared during the Middle Ages in Norway between the first half of the 12th century and they were still built during the 14th century. Their architecture and construction technique, besides the lack of their survival and presence around the world, make Stave churches –in Norwegian *stavkirker*¹– unique buildings that not only complete Norway’s wooden architecture tradition but are also fundamental to their heritage.

It’s quite difficult to find the perfect definition of what a *stavkirker* is. Not because of a lack of exactness nor absence about what they are, but the opposite: *Stavkirker* aren’t just wooden Medieval buildings: they constitute a valuable part of Norwegians heritage, they illustrate Norway’s native art in a delicate background where Christianity was strongly arising and are architecturally exceptional.

We can start by defining a *stavkirke* in architectural terms with the definition Peter Anker exposes in his study *The Art of Scandinavia Volume 1*: “the stave church can be defined as a wooden building constructed with timber barks and posts linked to frames, the frames being put together into three-dimensional cubic structures, with the covering materials –

¹ *Stavkirke* is Norwegian for Stave church, meanwhile *stavkirker* is Norwegian for Stave Churches

the wall planks – fitted into the frames”.² Sheldon Gwendolyn adds: “it’s not surprising the word “frame” appears in many researchers’ definitions of a stave church, for the stave church can be distinguished from other timber-frame constructions by the fact that it is built on a structure of at least one cubic frame”.³

It is not only the innovating constructive technique that make *stavkirker* special, but also the complex background in which they emerge and expand. During the 12th century, Christianity was slowly establishing in Norway affecting the traditional native art and culture by the increasing innovations this new European sacral art was bringing.⁴ Even though there was this big pressure of Christianisation, *stavkirker* were capable of introducing new elements, such as the Romanesque basilica form among others, but always maintaining the traditional essence of Norwegians wooden architecture.

Roar Hauglid, an excellent Norwegian art historian,⁵ dedicates some lines in his far-reaching work *Norwegian Stave churches* to talk about this confrontation between new and old or tradition and innovation: “two parallel lines run through mediaeval art in Norway, maybe more clearly than in any other country. One derives essentially from old native traditions; the other is based on an art whose inspirations are exclusively European”.⁶

Aside from all this, *Stavkirker* because of their exceptional architecture and history they contribute in a determinant way in the construction of Norwegians heritage. After Christianity’s establishment in the country, Norway’s traditional expression decreased – even though it never disappeared completely– because of the big influences the new European art was introducing. Stave churches however, combined some of the features this incoming art was bringing, but never renounced to their traditional expression despite the delicate background. It is thanks to the maintenance of their native manifestation and everything it entails, that *stavkirker* became a patrimonial element for Norwegians, especially along the years.

² (ANKER, 1970) Pages 377-378.

³ (GWELDOLYN, 2008) Page 2

⁴ (HAUGLID, 1990) Page 5

⁵ There are two works I particularly want to highlight because of their great contribution to my project: *Norwegian Stave Churches* (1990) written by Roar Hauglid (1910-2001) and *Stavkirker: The Stave Churches of Norway* (2017) by the historian Tadeusz W. Lange (1952-).

⁶ Ibidem Page 23

Given these points, we can exemplify this patrimonial importance with what Thomas Thiis-Evensen well says in her essay: “[...] this dark, small building is our entire history, lying dormant in a juxtaposition of the Viking Era and Christianity”.⁷ Another interesting intervention is what Roar Hauglid exposes: “[...] the Norwegian stave church stands as possibly the most national expression that has ever been created of Norwegian art”.⁸

BACKGROUND

In order to understand the emergence of stave churches it is important to comprehend their context and what prompt them to arise. Therefore, there are two important factors to consider.

On the one hand, it is essential to point out the presence of the Vikings⁹ in Scandinavia throughout the Middle Ages to appreciate the large amount of influence they brought on Norway’s culture, both in art and architecture along with the heathen faith they preached.

On the other hand, the role kings played in the developing of stave churches is fundamental: they spread Christianity into Norway which influenced and modified the traditional Norse art and culture. Furthermore, some kings promoted building churches, among them, stave churches.

Norway’s Christianisation wasn’t immediate, in fact, “stretching over a hundred years or so, people coexisted somewhat peacefully as gradually more people adopted Christianity”.¹⁰

During Håkon the Good’s reign, or Haakon I (935-961), the Norwegian king but raised in England, started to introduce Christianity in the country even though it didn’t establish as a church organisation until the reign of Olav Kyrre (1067-1093) who did settled three dioceses in different locations in Norway: Trondheim, Bergen and Oslo.¹¹

⁷ (VALEBROKK & THIIIS-EVENSEN, 2001) Page 7

⁸ (HAUGLID, 1990) Page 23

⁹ Vikings were “seafarers” who, during more than 270 years raided across the northern, central and eastern seas with their magnificent wooden boats. The Viking age starts around 793 and ends in 1066.

¹⁰ (SCHJEIDE, 2015) Page 99

¹¹ (WOJCIECH LANGE, 2015) Page 15

Harald Bluetooth, first, king of Denmark (958-986) and later, king of Norway (970-975), Christianised Denmark successfully at the time Håkon the Good was attempting to introduce Christianity in Norway together with its cultural traditions and artistic expressions. Norway, which had the chance to implement that European culture preferred to maintain its traditional culture.¹²

Håkon the Good's successor, Harald Greycloak or Harald II, who reigned from 961 to 970, allied to his uncle Harald Bluetooth against Haakon I who was wounded and ended up dying hours later at the Fitjar Battle (961).¹³ A later successor, Olav Trygvason (995-1000) tried to end up with Norway's heathenism in a brutal way with his "heathen cleansing" by destroying any heathen material or practitioner.

Olav II (1015-1028) continued with Trygvason's method and moved to the valleys to convert all the farmers and their surroundings by death threats and church burnings. Seeing this brutality, farmers had no other choice than conversion to Christianity.¹⁴ The *Heimskringla*¹⁵ mentions: "[...] the king arose and said that the people at Lesjar, Lóar and Vági had accepted Christianity and had destroyed their heathen houses of worship [...]".¹⁶

It is important to point out that the amount of buildings destroyed or highly damaged during this period meant a significant patrimonial loss which has also hindered us the opportunity to study, know and write about these old constructions.

It was especially during the Viking king Harald Sigurdsson's reign (1047-1066) that the country was in a highly unstable transitional state. The king refused to ally to the Roman Church, and he tried to invade England in 1066 but got defeated. His failure marked the end of the long Viking Age and consequently, it facilitated the abolishment of the heathen faith, which was slowly getting replaced by Christianity, not only in worship terms but

¹² (HAUGLID, 1990) Page 6

¹³ The battle of Fitjar took place in Fitjar (Hordaland, Norway) in 961 and was led by Harald Bluetooth in order to end up with Haakon I and gain more power.

¹⁴ (SCHJEIDE, 2015) Page 100

¹⁵ *Heimskringla* is a saga written by the historian Snorri Sturluson (1179-1241) that tells the chronicles of Norwegians kings from the 9th century till the 12th century.

¹⁶ (SCHJEIDE, 2015) Page 100 retrieved from (HEIMSKRINGLA, 1964) Page 372

also in art and culture. Even so, while he was reigning, he founded Oslo where he constructed some churches and he lifted some more in Trondheim.¹⁷

All these years of instability finished when Olav Kyrre (1067-1093) raised power. During his reign “the Norwegian Church was organised on more permanent lines”.¹⁸ It’s the most peaceful and stable reign not only because of the established organization of the church, but because a church building programme gets going together with great cultural changes and innovations. Even though the first stone churches were built by the king himself, he always kept lifting wooden buildings as well. Roar Hauglid refers to this period as the “new golden age” of construction of stave churches.¹⁹

Throughout Kyrre’s reign, stave churches were built directly on the ground. However, it is at the end of the 11th century that this method is replaced by the new technique of adding stones at the foundation of the building, protecting them from damage. During Sigurd the Crusader’s reign (1103-1130) together with Eystein I, they developed this innovation in the construction of new stave churches.

This wasn’t the only innovation during this period: around the 12th century, the *basilical* shape is starting to take place in some stone buildings, and is slowly translating into stave churches, together with the introduction of columns inside the naves and the raised central section in the apse. Thus, slowly approaching stave churches into a Christian type of church.²⁰

As it has been noted, the establishment of Christianity in Norway wasn’t either fast or easy. Since its first appearance in the 10th century until its organisation about a hundred years of instability went by. During this period Norway’s culture was in between two lines completely different: one was their native culture and expression totally linked to heathenism while the other line was this new European culture full of artistic innovations that had a heavy load of the Christian belief.

¹⁷ (HAUGLID, 1990) Page 8

¹⁸ Ibidem

¹⁹ Ibidem

²⁰ Ibidem

In either case, it must be kept in mind the important role the kings played then: they were not only the ones who propagated Christianity, but they were also promoters of buildings that were slowly imbued with this new European line, which subsequently took place into the following *stavkirker*.

“The Norwegians easily substituted the excitement of ass worshipping with Christian services. Gradually, Christ was considered the more powerful deity although old gods still existed in popular belief and superstition”.²¹

After all, even though the new European art made a change in Norway’s original expression and culture, this traditional art remained active and present. In fact, these two lines coexisted throughout the Middle ages until they somehow unified creating a new artistic expression: *folk art*.

“In the Romanesque (1050-1250) and Gothic (1250-1550) periods in Norway, works of art were influenced by motifs from both the Christian and pre-Christian worlds. [...] Thus, Norwegian art was influenced by both newer European trends and the more ancient Norse traditions. Folk art would derive its inspiration from both sources in the centuries to follow.”²²

THE REMAINING STAVKIRKER

Before entering in the constructive method and architecture itself, I believe it is important to mention which are the twenty-nine remaining stave churches, locate them and know if they belong to the *Type A* or *Type B* constructive method – I will develop that in another section–. In addition to know them, it will help us to get an idea of the artistic distribution and architectural panorama in Norway.

²¹ (HOLAN, 1990) Page 103

²² NORSK FOLKEMUSEUM (Permanent exhibition) *Folk art: Middle ages*. Oslo.

Remaining stave churches: their locations and type

1. **Borgund**, Lærdal, Sogn og Fjordane (Type B)
2. **Eidsborg**, Lårdal, Vestfold (Type A)
3. **Flesberg**, Flesberg, Numedal (Type B)
4. **Garmo**, Gudbrandsdalen, Oppland, now part of the Maihaugen Collection, Lillehammer (Type A)
5. **Gol**, Hallingdal, Buskerud, now moved to the Norwegian Folk Museum at Bydøg, Oslo (Type B)
6. **Grip**, Grip, Møre og Romsdal (Type A)
7. **Holtålen**, Gauldal, Sør-Trøndelag, now moved to the Trøndelag Folk Museum in Sverresborg (Type A)
8. **Hedalen**, Hedalen, Valdres (Type A)
9. **Heddal**, Heddal, Telemark (Type B)
10. **Hegge**, Østre Slidre, Valdres (Type B)
11. **Hopperstad**, Vik, Sogn og Fjordane (Type B)
12. **Høre**, Vang, Valdres (Type B)
13. **Høyjord**, Andebu, Vestfold (Type A)
14. **Kaupanger**, Sogn, Sogn og Fjordane (Type B)
15. **Kvernes**, Averøy, Nordmøre (Type A)
16. **Lom**, Lom, Oppland (Type B)
17. **Lomen**, Vestre Slidre, Valdres (Type B)
18. **Nore**, Numedal (Type A)
19. **Øye**, Vang, Valdres (Type B)
20. **Reinli**, Sør-Aurdal, Oppland (Type A)
21. **Ringebu**, Gudbrandsdalen, Oppland (Type B)
22. **Rødven**, Romsdal, Møre og Romsdal (Type A)
23. **Røldal**, Røldal, Hordaland (Type A)
24. **Rollag**, Rollag, Numedal (Type A)
25. **Torpo**, Hallingdal, Buskerud (Type B)
26. **Undredal**, Sogn, Sogn og Fjordane (Type A)
27. **Urnes**, Luster, Sogn og Fjordane (Type B)
28. **Uvdal**, Uvdal, Numedal (Type A)
29. **Vang**, Gudbrandsdalen, Oppland (Type B)

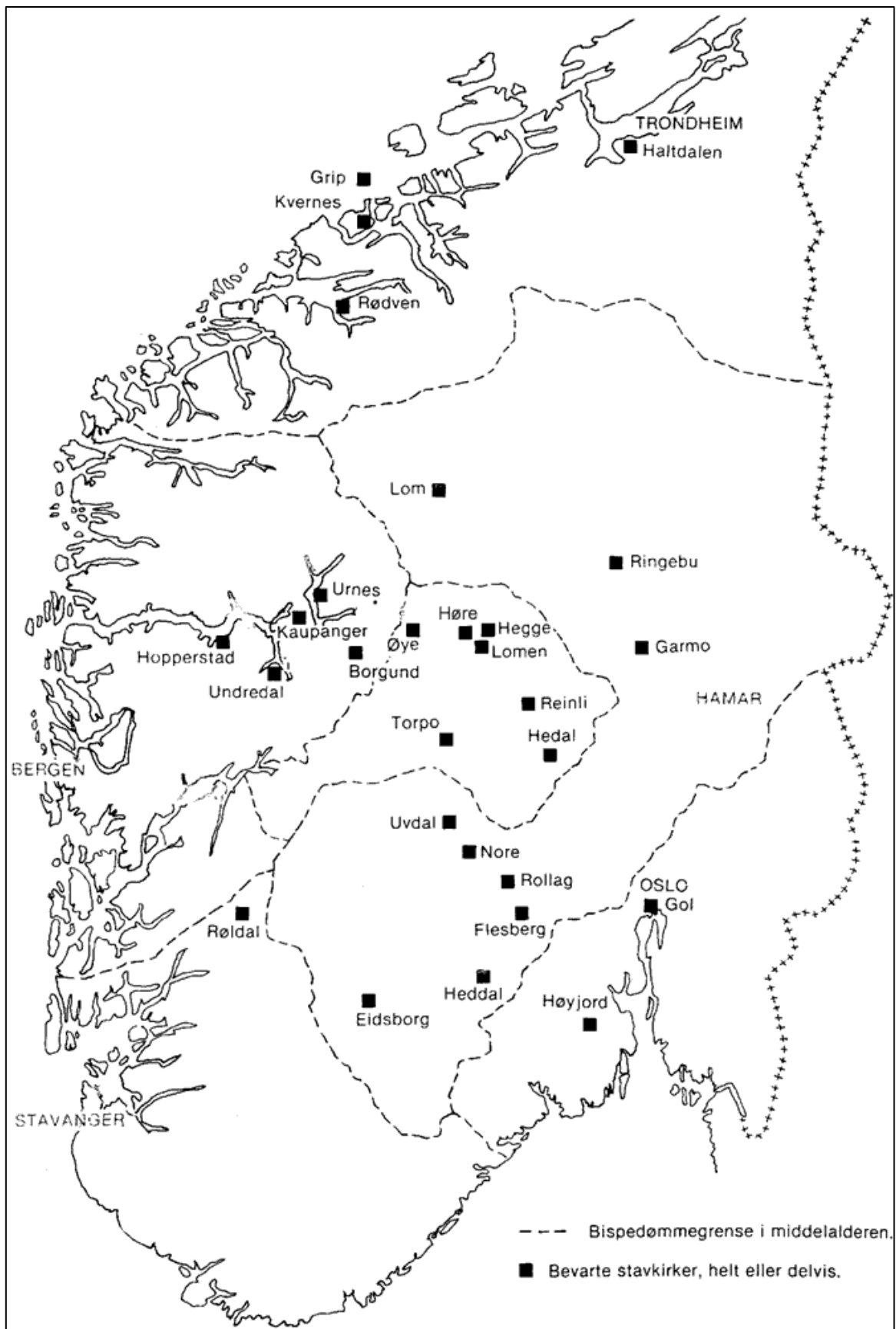


Figure 1. Map of the current stave churches in Norway. Retrieved from: Stavkirker Norge Kart (2018) <https://www.tllichttechnik.nl/stavkirker-norge-kart.html>

STAVE CHURCHES: ARCHITECTURE AND CONSTRUCTION

ORIGINS AND EVOLUTION

Even though the development of wooden architecture tradition was already established in Scandinavia and northern Europe, especially due to vernacular architecture and palisade buildings, as well as the wooden legacy left by the Vikings, we can affirm that this wooden tradition culminates with the construction of *stavkirker*.

In the 7th century the most common technique of wooden construction was by using posts. However, *stabbur*²³, houses, storage houses, lofts, among others, stood on stacks of wood or stone to avoid animals to get in. The rest of the structure was made with posts of wood combined, giving place to a strong structure.²⁴

Unfortunately, these original edifices of the 7th century have not been preserved to our days. However, this type of constructions kept evolving and were used throughout the middle ages until the 18th century.²⁵

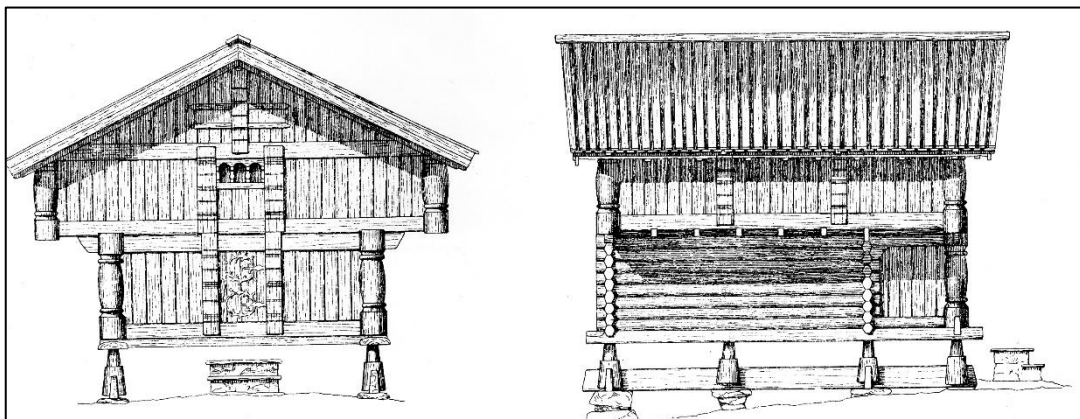


Figure 2. Example of loft architecture in Numedal [Digital image]. (n.d.). Retrieved from: http://www.wikiwand.com/en/Vernacular_architecture_in_Norway

²³ A *stabbur* traditionally consists of a main, cube shaped room for storing food, which was usually grain. On top of that there is a slightly larger room used for more storage of food, usually fruits and vegetables as well as furniture, spare living quarters, or meat. Retrieved from: <https://www.washingtonislandapp.com/blog/2016/6/27/den-norske-grenda-little-norwegian-village-on-washington-island>

²⁴ SUNNHORDLAND MUSEUM (2017). *Stabbur*. Retrieved from: <https://digitaltmuseum.no/021057114891/stabbur>

²⁵ *Ibidem*

The Norsk Folkemuseum in Oslo exposes *The Setesdal farmstead*²⁶, a reconstructed farm from 1739, as an example the use of this structures in the 17th century. Despite the age difference between the original buildings the posterior ones, the latter follow the same construction method – evolved and improved– and help us to understand how the old ones were.²⁷

The rest of buildings that were not standing on top of a stone or wooden base, were constructed with posts dug directly into the ground and created the skeleton of the whole structure, but didn't last long because “the wood, when inserted to the ground decayed quickly”²⁸. The oldest example preserved of this type of buildings is the stave church at Greenstead in Essex, England²⁹, built around the 7th century.³⁰

This technique evolved especially during the 10th century with the so-called palisade buildings where the walls, previously constructed with posts, were now replaced by wall planks facilitating the construction. Wall planks allowed free-standing posts to appear to support elements of the roof structure and reinforce the whole skeleton.³¹

Despite this innovation, wood had a problem with rot. The direct contact of the ground with the wood degraded it, causing damage to the buildings or even their collapse. A first solution for this problem is a square base made of beams placed on the ground protecting vertical elements from the direct contact with it. Even though this new method helped, as the years went by, the lower beam suffered the same problem with rot, and buildings were again unstable.³²

It is important to point out the influence of the Vikings in stave churches. Vikings developed an excellent technique of building in wood with their boat constructions that had an impact in stave churches.³³ Furthermore, local nobles erected stave churches in

²⁶ Refer to Annex (*Figure 1*)

²⁷ NORSK FOLKEMUSEUM (2019) *The open air museum: Setesdal (1739)*. Retrieved from: <https://norskfolkemuseum.no/en/setesdal-1739>

²⁸ (WOJCIECH LANGE, 2015) Page 15

²⁹ Refer to Annex (*Figure 2*)

³⁰ (GWELDOLYN, 2008) Page 5

³¹ (HAUGLID, 1990) Page 13

³² Ibidem

³³ (ANDERSON, 2014) Page 105

local places where Viking families were living, evidencing even more their influence. It is believed that they represent Norway's most important contribution to European architecture.³⁴

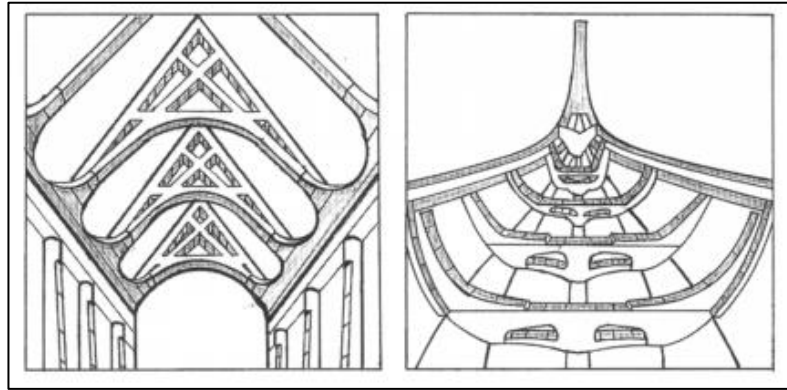


Figure 3.

Amato, D (1999). Construction of a stave church roof and a Viking ship. From: (REED, 1997)

Thanks to these developments that in 1100 the first stave churches emerge. It is believed that 750 churches were built during this period. The stability that these new constructions have, allows the internal structure to introduce more elements, mainly vertical ones (such as staves³⁵ or columns) giving place to an inner cubic skeleton.³⁶

Finally, in the 12th century that the adequate constructive method appeared: a stone foundation was placed on the ground as the base of the building, holding and protecting the beams and the vertical elements, decisively solving the older problem³⁷. “This technique persisted throughout the Middle Ages and well into the 18th century was firmly established as a system”.³⁸



Figure 4. *Uvdal stavkirke [An example of an early stave church. We can observe the stone foundation that lies under the church.] (2018) Retrieved from: Fortidsminneforeningen: <https://fortidsminneforeningen.no/avdelinger/nyheter-buskerud/uvdal-stavkirkes-850-arsjubileum>*

³⁴ (HAUGLID, 1990) Page 9

³⁵ Rectangular wooden pieces used in construction

³⁶ (HAUGLID, 1990) Page 9

³⁷ (WOJCIECH LANGE, 2015) Page 15-16

³⁸ (HAUGLID, 1990) Page 10

ARCHITECTURE AND CONSTRUCTION

Stave churches were built in the 12th century and their structures have resisted the wear and tear of centuries. That is thanks to two main factors: one, is their stone base that has kept them from rot and external damage; and the second factor is the way the elements were joined. They were embedded, rejecting the need of glue or nails, so that the structure was flexible and could adapt to the weather by contracting or expanding.³⁹

The historian of art Lorentz Dietrichson⁴⁰ described how a stave church remained still and unbreakable the middle of a storm:

“In the Afternoon the Weather changed, and suddenly an entire storm raged outside. It creaked in the old church walls, as if they were going to fall apart, it was as if each and every plank in the stave construction would slide out of its placement, break its very framework of masts and sills and bury everything beneath the vacillating columns... but little by little the raging wind blew more fitfully, became constant...although the storm increased rather than declined, soon no sound was to be heard in the church walls, wherein the entire structure had settled and was now steeled and strengthened in the midst of the storm”.⁴¹

Considering these two essential characteristics in the construction of the churches, we must keep in mind the constructive material. The natural building material used by Norwegians was timber: “[...] they almost exclusively used pine core from pristine forests that grew untouched for several hundreds of years. In addition, the trees were left to dry on the root for several summers before they were felled. Core pine contains a high concentration of resin, which is a natural impregnating agent”.⁴² The same technique was used by craftsmen with portal carvings.⁴³

³⁹ (VALEBROKK & THIIIS-EVENSEN, 2001) Page 9

⁴⁰ Lorentz Henrik Segelcke Dietrichson (1834–1917) was a Norwegian poet, historian of art and literature born and raised in Bergen, Norway, who, among others, studied Norway’s stave churches.

⁴¹ Lorenz Dietrichson, year unknown. Retrieved from: (VALEBROKK & THIIIS-EVENSEN, 2001) Page 9

⁴² (HAVRAN, 2010) Page 4

⁴³ Ibidem

As to the constructive method, even though there are different types of stave churches, they all had the same skeleton: a strong framework structure⁴⁴ which is totally fundamental in these churches. To understand this structure, it is important to explain all the previous steps in the construction that give place to it.

Construction: steps and elements

Before entering in the constructive method, it's important to point out where were stave churches lifted. They were normally built in an open location, near a fjord, a river, or on a peninsula, because of the religious belief that stave churches are "God's house", and therefore, they had to be in contact with nature.⁴⁵

That being said, we can proceed to the explanation of the constructive stages and its elements.

As said before, the first step is to place a square base made of stones. It is on top of this base that the first horizontal beams lay, "intersecting one another at the corners and continuing outward to support any adjacent galleries or transepts"⁴⁶, forming as well, a square shape. With this, we have a first square frame that works as a base and gives place to the important three-dimensional framework.⁴⁷ (Figure 5).⁴⁸

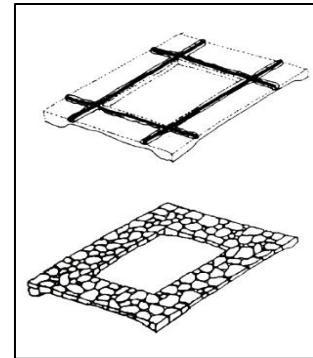


Figure 5. The stone foundation and the sill beams, both bases of the structure.

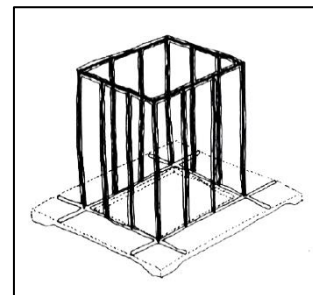


Figure 6. Staves and upper beams erected.

This lower structure holds the upright staves and wall planks which lift and frame the nave and are joined again on an upper square horizontal section of beams (Figure 6). This

⁴⁴ An essential supporting structure of a building. Retrieved from: Oxford Dictionary.

⁴⁵ (VALEBROKK & THIISE-ENSEN, 2001) Page 11

⁴⁶ Ibidem Page 10

⁴⁷ (GWELDOLYN, 2008) Page 3

⁴⁸ All the figures from this section are retrieved from (VALEBROKK & THIISE-ENSEN, 2001) Page 10.

second square structure supports the triangular roof trusses⁴⁹ and between them, the structure of the bell tower straddles.⁵⁰ (Figure 7)

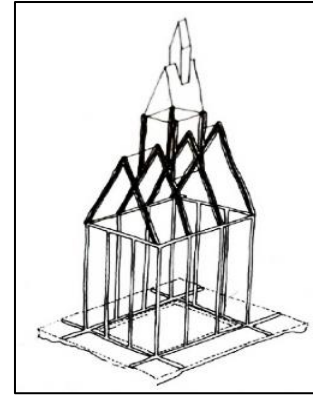


Figure 7. Roof structure.

Thus, we can differentiate two parts and functions in this framework skeleton: on the one hand, the lower horizontal beams, the upright staves and the upper horizontal beams, form a cubic framework that holds the weight of the building and it frames it; on the other hand, the roof and the walls rest on this framework and enclose the building.

Although this is the basic structure and it is used in the most primitive stave churches, the *Type A*, such as Haltdalen, in the second generation of stave churches, this structure would collapse if it wasn't for some additional elements that reinforce the cubic frame. That is because the churches begin to grow and need more elements.

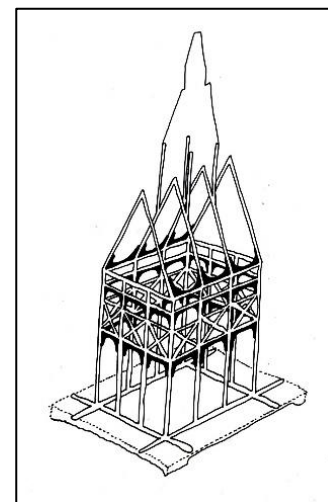


Figure 8. Belt of cross braces

So, in the 12th century new innovations appear, especially in the *Type B* churches that aren't found in the posterior churches.

One of these elements is the so-called "belt" (Figure 11: A): a longitudinal provision of cross braces that surround and embrace the cubic frame, strengthening and fortifying the whole framework (Figure 8). The crosses that form this belt have been named as *Saint Andrew Crosses* (Figure 11: B) and they not only fulfil this structural and architectural function, but they also become decorative elements.⁵¹

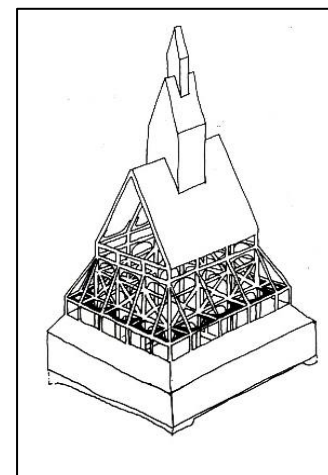


Figure 9. The rest of elements added into the framework

⁴⁹ A truss is a framework, typically consisting of rafters, posts, and struts, supporting a roof, bridge, or other structure. Retrieved from: Oxford Dictionary.

⁵⁰ (VALEBROKK & THIIIS-EVENSEN, 2001) Page 10

⁵¹ (HAUGLID, 1990) Page 16

Another reinforcement to the skeleton is the addition of curved arches (*Figure 11: C*) between the staves also to reinforce the skeleton. With this, the upper section of the cubic frame was totally fortified and was strong enough to support the higher part of the building.⁵² (*Figure 9*)

The lower section, however, was still weak and needed additional support. To do so, aisles (*Figure 10*) (*Figure 11: D*) were added outside the framework, which had pitched roofs; this structure (*Figure 11: E*) provided support to the inner beams. By doing this, the aisles become an inner part of the church, but they are totally distinguishable to the central nave (*Figure 11: F*). However, aisles are more common in *type B* churches than in the *type A* stavkirker.



Figure 10. Hopperstad: nave and ciborium visible [Aisle visible] (n.d). From: (WOJCIECH LANGE, 2015) Page 221

Another structure added outside the nave, so, outside the aisles, is the pentice, or ambulatory, an openwork that only protects of rain or snow because of its roof, but it's totally open to the exterior. "This structure was loosely connected with the rest of the building and therefore has rarely been preserved in its original form".⁵³

Even though its exact function is unclear, it is believed that it was used for processions and "it gave the chance of participation in religious services to the excluded from the church community on account of being anathemised, non-baptised, "unclean" or afflicted with leprosy, which was a common affliction in medieval times. In the Polish language, the term used in reference to a similar ambulatory is "soboty" (literally: Saturdays). The name refers to the day of the week when parishioners from afar arrived at the church; they would spend Saturday night in the pentice to take part in the early Sunday Mass".⁵⁴

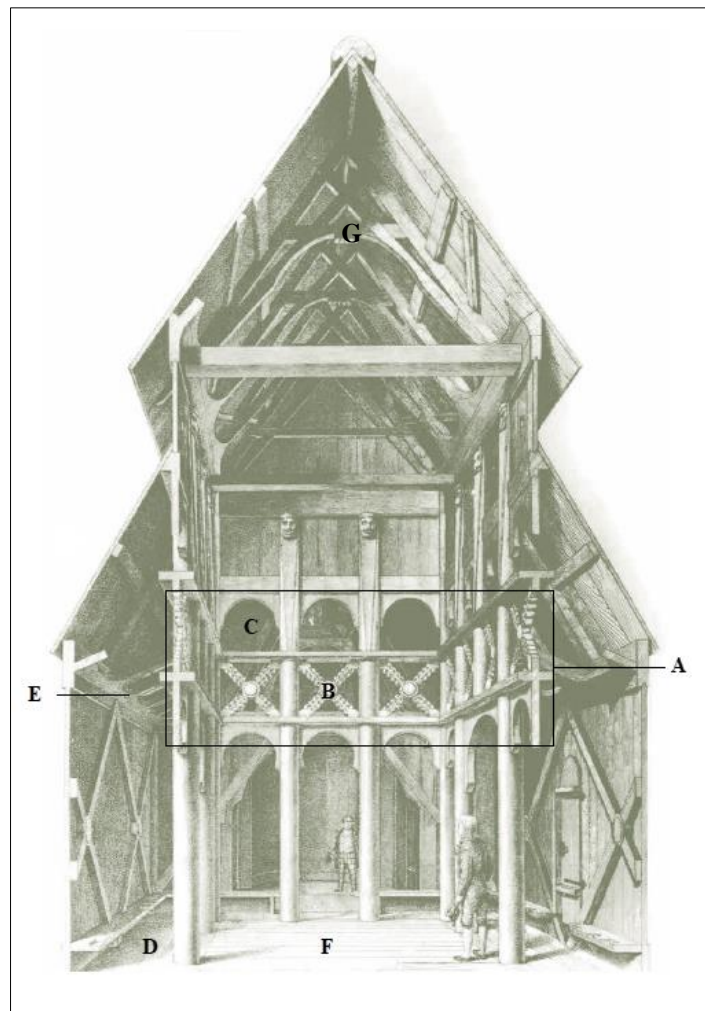
⁵² (VALEBROKK & THIIIS-EVENSEN, 2001) Page 10

⁵³ (WOJCIECH LANGE, 2015) Page 38

⁵⁴ Ibidem Page 37

In short, this excellent wooden skeleton, made by intersected beams, arches, brackets and braces embedded between them, is what makes stave churches so resistant, resilient and outstanding.⁵⁵

As to the roof; the characteristic roofing structure in *Type A* stave churches is the use of cross beams (*Figure 11*), while in the *Type B* churches a scissor-beam structure is used, (*Figure 12: G*) because of its capacity to hold weight. On the outside, “roofs were originally covered with boards running lengthwise, later on, clapboards or shingles, which are such a remarkable feature of most stave churches. This was a type of roofing known in Europe as far back as Roman times.”⁵⁶



*Figure 11: Cross section of a Type B stavkirker (n.d)
From: (WOJCIECH LANGE, 2015) Page 340 and own
intervention.*

⁵⁵ (GWELDOLYN, 2008) Page 3

⁵⁶ (HAUGLID, 1990) Page 17

When it comes to the enclosure of the stavkirker, “the walls are composed of vertical planks set into the ground beams at the bottom and into the wall plate at the top.⁵⁷ They are joined without any additional support other than joints and grooves.

It is interesting to point out that despite original churches did not have windows, during the Reformation in the 16th century, some windows were added later in stavkirker. They cut the wall planks and inserted windows to give light to the churches even though it was not necessary because congregations did not use books.⁵⁸

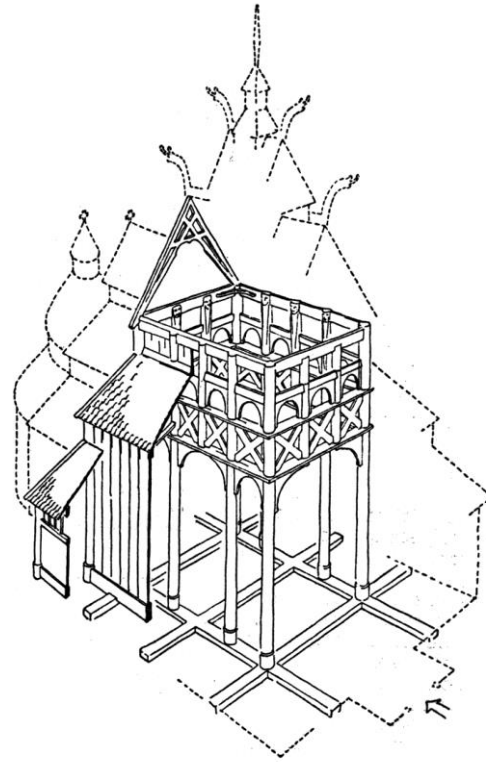


Figure 12. A. Berg (n.d). Cross section of Gol stave church. Retrieved from: Norsk Folkemuseum (2018): <https://norskfolkemuseum.no/hva-er-en-stavkirke>

Even though each stave church is totally unique, this is the common and fundamental constructive method. It is true that along the years stave churches evolved; in the beginning they were much simpler, but they progressed giving place to bigger constructions with new elements.

Taking into consideration the constructive method explained previously, we can now proceed to distinguish two types of churches: these earlier and simple stave churches, the so-called *Type A* and the later *basilical* ones, the *Type B*.

⁵⁷ (WOJCIECH LANGE, 2015) Page 35

⁵⁸ Ibidem Page 36

TYPES OF STAVKIRKER

Along the years, we can distinguish two types of stave churches based on their constructive evolution: the first stave churches that appear around the 12th century are simple and austere and are called *Type A*; while with the influences Christianity brought, churches kept evolving and improving in architecture and construction, giving place to the second generation of churches, the so-called *Type B*.⁵⁹

However, it is important to point out that the twenty-nine current stave churches, over the years, have been reconstructed and modified. So, even though the architectural structure is indeed authentic and effectively resistant, and some alterations may have been produced both aesthetically and architecturally to them.

TYPE A CONSTRUCTION

The *Type A*, as mentioned before, was the simplest type of stavkirker: a single-nave and square or rectangular building. The constructive method in these churches was the same as seen already: a succession of horizontal beams and upright staves, lifted on top of a stone foundation, formed the fundamental inner square skeleton. In some churches, the wall planks were reinforced by braces which are visible inside the nave. This structure formed the principal nave and another structural square, built the same way, was added to the eastern part of the church and worked as a chancel⁶⁰.

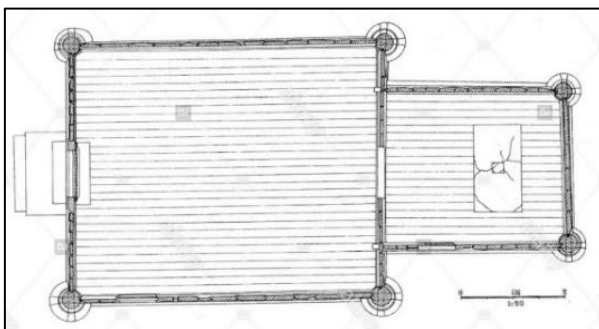


Figure 13. Haltdalen stave church footprint [Digital image]. (n.d.). Retrieved from: <https://www.alamy.com/265-haltdalen-stave-church-footprint-image213898871.html>



Figure 14. Haltdalen stave church, Trondheim [Digital image]. (2015, March 13). Retrieved from: <https://imgur.com/gallery/e19eaUk>

⁵⁹ Ibidem Page 16

⁶⁰ As seen in *Figure 6*

The roofing structure is quite different in *Type A* stave churches. The structure is much simpler, and it doesn't need as much elements as the *Type B* churches do. We can take the stave church of Haltdalen as an example of an early single-nave church with a chancel, built around the 1100s, to explain the roofing structure. (Figure 13 and 14)

In this church, the collar beams (Figure 15: A) rest on a purlin⁶¹ (Figure 15: B) that holds the whole roofing structure. Furthermore, “[...] the timber walls provided the structural support for the roof”.⁶²

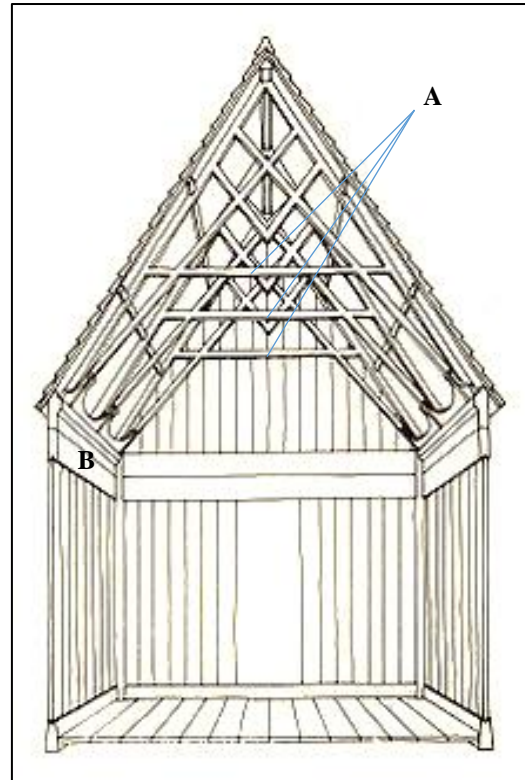


Figure 15. H, Christie (n.d) Holtålen stave church drawing. [Digital image]. Retrieved from: Wikipedia https://es.m.wikipedia.org/wiki/Archivo:Holt%C3%A5len,_H%C3%A5kon_Christie.jpg

So, unlike the *Type B* churches, who used scissor beams as a roofing technique; the *Type A* stave churches used crossed beams.

However, the actual church is a reconstruction of the 18th century and in 1884 it was moved to the Trøndelag Folk Museum in Trondheim, Norway. Even so, the constructive method was the same in the 12th century when it was built, so it works as an example of how the most primitive *Type A* stave churches were built.

Out of the twenty-nine remaining stave churches, ten of them are built in this *Type A*: Haltdalen, Undredal, Rollag, Grip, Uvdal, Eidsborg, Garmo, Hedalen, Høyjord, Kvernes, Nore, Reinli, Rødven and Røldal.⁶³ Even though they are all single-nave churches, the inner distribution works differently in some of them, and therefore, we can distinguish three more groupings in this classification.

⁶¹ The upper beam of the square structure

⁶² (FOX, 2018) Page 36

⁶³ The stave church of Fantoft, Bergen, was also a *Type A* stavkirke but was burnt down in 1992 by the black metal band *Burzum*. A new church was lifted and was finished in 1997 based on Borgund's architecture so it probably lost its original aspect.

In the first place can classify the simplest constructions of *type A* churches. These buildings consist on a rectangular plant with a narrower chancel with no additional posts in the walls. Haltdalen, Undredal, Rollag, Reinli, Hedalen and Eidsborg are built this way. This simple type of construction was the most used in the early 12th century. (Figure 16)



Figure 16. Nave and chancel (n.d) From: (WOJCIECH LANGE, 2015) Page 216.

A second classification of churches are the ones with intermediary posts, beams or other elements, inserted into the longitudinal walls to reinforce the skeleton. Kvernes, Grip, Rødven, Garmo and Røldal are examples of these “wall type” churches. (Figure 17)

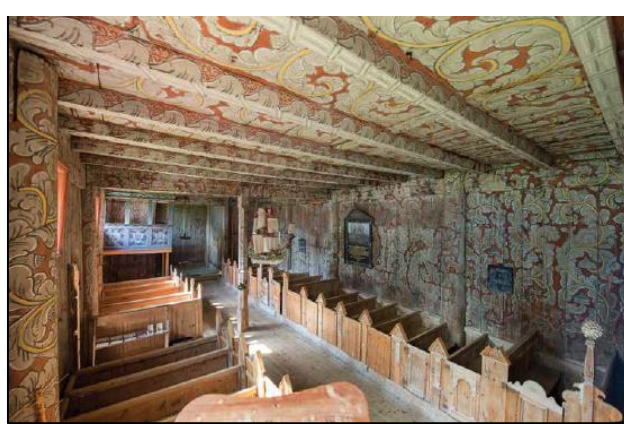


Figure 17. Three visible intermediary staves of the north wall (n.d). From: (WOJCIECH LANGE, 2015) Page 70.

Finally, we can distinguish a last type of churches that consists on inserting a central mast column in the main nave to reinforce the whole structure. Nore, Uvdal and Høyjord are the only *type A* stave churches with this feature.⁶⁴ (Figure 18)

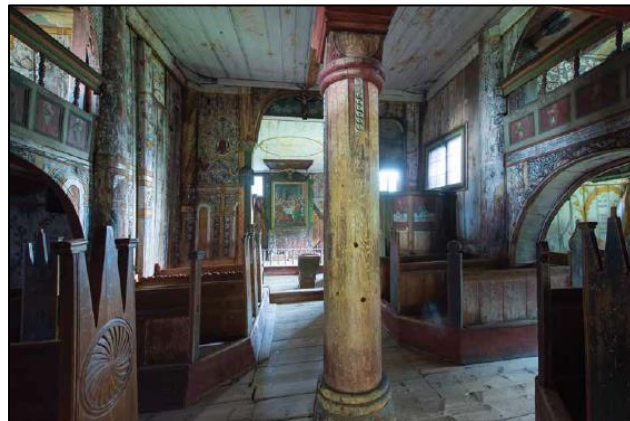


Figure 18. Nore: central mast, nave, chancel. (n.d) From: (WOJCIECH LANGE, 2015) Page 70.

Even though *Type A* stave churches may seem simple buildings with an easy constructive method on the outside, the inside reveals all the constructive elements that help the structure to remain on foot, like the ones seen previously. However, the

⁶⁴ (WOJCIECH LANGE, 2015) Page 47

remaining churches are proof that their constructive system is totally effective and has been able to survive for more than eight hundred years.

Type B construction

The *Type B* stave churches are the opposite of the first type. They are multiple-nave churches that later, along the 13th and 14th centuries start adopting the basilica churches type, because of the influence Christianity is bringing into Norway by building cathedrals in this new European appearance.

Out of the twenty-nine remaining stave churches, eleven of them are *Type B* stavkirke: Borgund, Flesberg, Gol, Heddal, Hegge, Hopperstad, Høre, Kaupanger, Lom, Lomen, Ringebu, Torpo and Urnes. Øye and Vang are considered an intermediate form of *Type A* and *Type B* stave churches.

Churches such as the stone Cathedral in Trondheim (ca. 1200)⁶⁵, with its octagonal shaped cupola, along with its great Gothic and Romanesque features, inspire and spread this new European model of church that includes apses, galleries and ambulatories in its structure. Throughout this period, stave churches, influenced by this European sacral architecture, reveal a connection between the triple nave Norwegian stave church and the Roman Basilica.⁶⁶

Another contribution of this new European art in stave churches is the roofing system. The old roof covering with boards is replaced by clapboards or shingles, giving place to an innovating roofing system that protects, even more, stave churches from the strong weather conditions. The inner roofing technique in *Type B* stavkirker is using scissor-beams instead of crossbeams, used in the *Type A*.⁶⁷ In the inside, some churches ceilings were fitted with wood planks to keep the temperature inside churches warmer.

This new generation of *Type B* churches introduces new supporting elements like the “belt” of crosses together with the Saint Andrew’s crosses and curved arches, among

⁶⁵ Refer to Annex (*Figure 3*)

⁶⁶ Ibidem

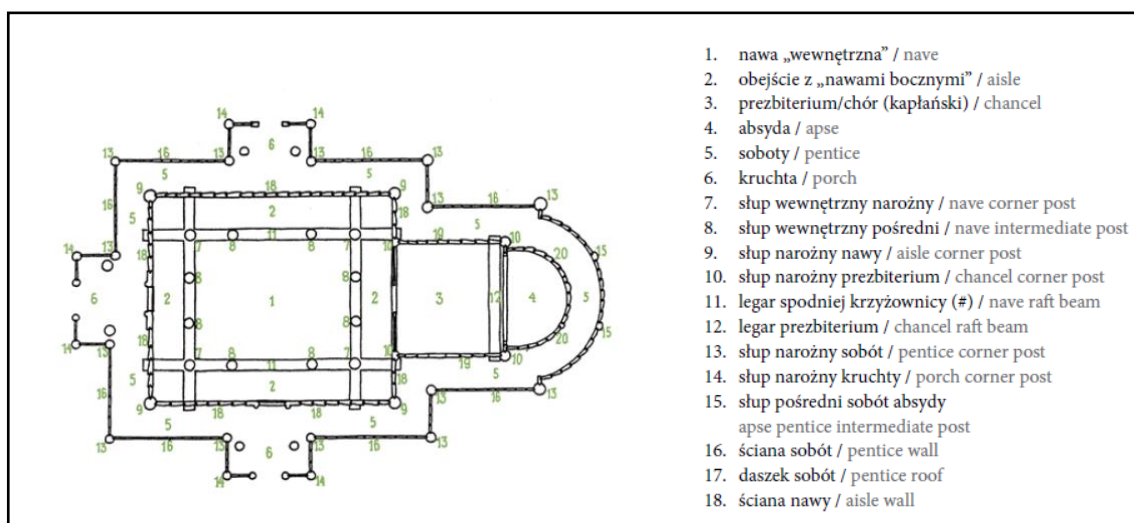
⁶⁷ Ibidem Page 17

others. Apart from these new elements, the quantity of existing elements increase, so they can hold the taller and larger outcoming churches: rafters, posts, cross beams, cross braces, purlins, and a great number of other elements multiply to create a strong framework. Consequently, a resistant and resilient inner skeleton is formed, capable to sustain and support the church.⁶⁸

Unlike *Type A* churches, *Type B* stavkirker have a more complex floor plan. Although some of these spaces were already found in *Type A* churches, they culminate and become characteristic features in these second generation of churches. Therefore, in these latter churches we can distinguish the following spaces:

The church consists on a main nave (*Figure 19: 1*) surrounded by aisles (*Figure 19: 2*) subjected by intermediate posts. The nave culminates with a chancel (*Figure 19: 3*) supported by a raft beam and corner posts, that give place to the apse (*Figure 19: 4*). All this structure is closed by walls; each space distinguishes its own walls, so we can talk about aisle walls, chancel walls and apse walls, giving a total closure to the nave itself.

As mentioned before, an outer structure appears: the pentice (*Figure 19: 5*). Approximately half of the pentice's closing structure consists on wall planks and the other half consists on a succession of arches. Therefore, it is an outdoors structure but has a shed character.



*Figure 19. Stave Church Structure. B-type, "basilica" church [Borgund, after Håkon Christie] (n.d)
From: (WOJCIECH LANGE, 2015) Page 339.*

⁶⁸ To see the each of the elements and the detailed construction, Refer to annex (*Figure 4*)

Another important element to highlight, is the presence of towers known as “riders”, placed in the ridge of the roof. Some of them had a small belfry but it was just a decorative element since the bells were not used. The towers, as well as the rest of the roof, count with the presence of dragon heads, decorative elements with a strong tradition in Norway.

The paradigmatic example of the type B stave churches is the stave church of Borgund in Sogn og Fjordane, Norway (Figure 20). It has been used as a model for many church restorations, such as Gol, Hopperstad or Fantoft because of its preservation; it is the best well preserved stavkirke. Furthermore, the Borgund stavkirke heads a subgroup of churches inside this *Type B* classification.



Figure 20. Borgund Stavkirke [Digital image] (n.d). Retrieved from: Fanpop (2019) <http://images6.fanpop.com/image/photos/41500000/Borgund-Norway-europe-41508438-1003-727.jpg>

Therefore, within this second generation of stave churches, we can distinguish two other subgroups: the *Borgund Type* and the *Kaupanger Type*, depending on their inner columns. This first type includes Borgund, Flesberg, Gol, Hegge, Høre, Lomen, Ringebu, while the second one includes Kaupanger, Hopperstad, Lom and Urnes.

“In the *Borgund Type* churches, the inner posts were at the level of the aisle roofs additionally established by girder beams,

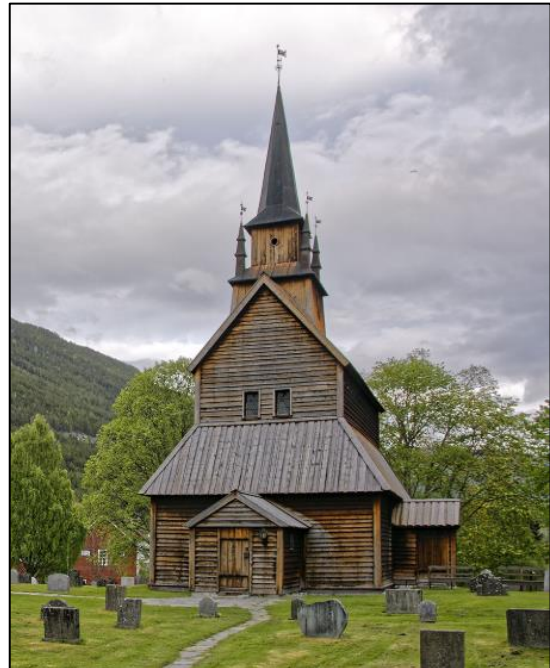


Figure 21. D. Rasmussen (Sogn og Fjordane, 2018): Kaupanger Stavkirke.[Digital image] Retrieved from Stave church com: <https://www.stavechurch.com/kaupanger-stavkirke/>

cross braces between them and bracket arches”.⁶⁹ (Figure 22).

“In the *Kaupanger Type* the posts of the church, oval in the cross-section, with cut off “tops” have no capitals that assure the shape of the columns to such supports and have flared bases. The columns were established without cross braces, and only by consoles, whose pairs make up the arches. [...] St. Andrew’s cross is used here only between two additional posts of the chancel”.⁷⁰ (Figure 23).



Figure 22. Rieser, M. L. (2010, July 15). Interior of stave church Borgund in 2010 [Digital image]. Retrieved from: Wikipedia: https://es.m.wikipedia.org/wiki/Archivo:Stave_church_Borgund_interior.jpg



Figure 23. *Kaupanger: nave seen from above (n.d)* From: (WOJCIECH LANGE, 2015) Page 87

⁶⁹ (WOJCIECH LANGE, 2015) Page 48

⁷⁰ Ibidem Page 85

The stave churches of Vang and Øye, as mentioned before, are an intermediate form of *Type A* and *Type B* churches while Heddal and Torpo aren't classified neither as *Kaupanger* or *Borgund Type*.

Although the main classifications are the between *Type A* or *Type B*, and the latter subdivide churches either in the *Kaupanger Type* or the *Borgund Type*, some historians have distinguished other types such as the *Sogn-Valdres type*, since the churches from these two regions have common features because of the closeness of both territories. Another subtype is the so-called *Møre Type*: churches that share specific characteristics such as truss beams and mid-masts (Kvernes, Grip and Rødven).

However, these two last subgroups are not entirely accurate because they have not been widely investigated and are not entirely precise. Besides, the classification between *Type A* or *Type B*, and *Kaupanger* or *Borgund* already classify them in a precise and distinguishable way.

In either case, it is important to highlight the uniqueness of every single church despite the classifications; each stavkirke is exclusive and exceptional and contributes to the creation and evolution of this church building program that encompasses centuries.



Figure 24. Helgesen, J. (2010, August 07). Øye stavkirke i sommerlig kveldslys [Digital image]. Retrieved from Valdres i bilder: <http://valdresbilder.no/search/121242/picture13489.html>

ORNAMENTATION IN STAVKIRKER

It is difficult to know with accuracy how the interiors of stave churches looked like during the Middle Ages because of the alterations and reconstructions they received along the years. It was especially during the Reformation period that the inventory of stave churches was replaced by new elements, causing a great loss of the original ones. Despite that, enough stave churches have been preserved that have allowed us to know how the first stave churches were decorated, and how they evolved until the last “basilical” churches.

The earliest stavkirker count on the presence of the native ornamentation, which is based on woodcarvings with animal motifs and floral elements, related to Pre-Christian art, as well as sculptures of dragonheads. However, “the influence of the austere older Norman stone architecture [...] provoked a reaction against the native “pagan” animal ornamentation”⁷¹. Because of this conflict, certain stavkirker combine pagan elements in some walls, while at the same time, series of columns inside their naves imitate arches of the Norman stone church. Kaupanger, fortune, Hopperstad or Urnes are examples of this Norman influence that was in favour of abolishing the traditional wood carving.

However, it is over the time, that “the Norman style in Europe sheds its austerity, and the ornamental once again asserts itself”. It is because of this that the decorative traditions of the old stave churches reappear in the new “basilical” stavkirker, bringing back the animal ornamentation together with the characteristic carved portals and dragonheads. In addition, inner decorations appear in the walls and columns of stavkirker.

So, it is important to highlight the variety of ornamentation in stavkirker: while some of them are austere and simple, others are richly decorated and feature a great program of wood carvings. Therefore, each church is totally different to the other so we cannot talk about a solid or particular decorative style.

⁷¹ (HAUGLID, 1990) Page 15

THE OUTSIDE

As the stavkirker were influenced by the European outcoming architecture and were maintaining at the same time their original tradition, both influences can be found in their decorations. In the beginning, animal ornamentation was the main decorative element used in Norway, especially in woodcarving portals. However, the appearance of the Romanesque motifs, such as floral ornamentation and dragons, together with the classical medieval porch, already settled in Europe, were slowly taking place in stave churches.⁷²

When it comes to the exterior ornamentation of stavkirker we can talk about three main elements that are decorated: the porch, the portals and the roof.

Entrance porch

The openwork porches give entry to the church, so that going through them was inevitable. These sheltering structures intermediate stages before entering the nave and are also responsible to protect the portals found right afterwards. Because of their function, in some cases we can find porches with their own carved portal, while others are austere without any type of ornamentation.



Figure 25. H.M. Schirmer (Sogn og Fjordane, 1901-1907) [Digital image] Urnes stave church porch. Retrieved from: Wikimedia: https://commons.wikimedia.org/wiki/File:Urnes_stavkirke,_Sogn_og_Fjordane_-_Riksantikvaren-T284_01_0380.jpg

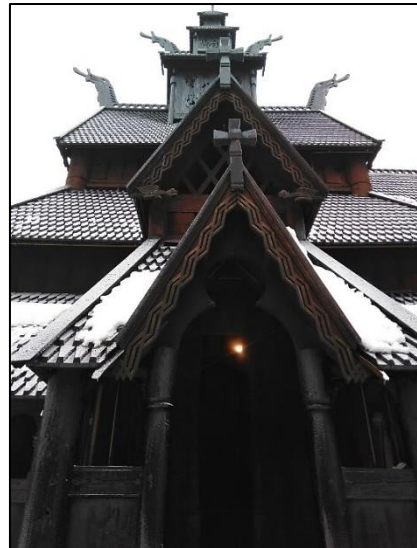
In either case, whether they were decorated or not, they were already built in such way to fled austerity with their constructive elements: triangular arches combined with round arches, columns, pillars, wall planks, etc.

In the ornamented porches, we can find from carved porches to geometrical motifs in structural elements, like arches or columns, or small decorations in the capitals of the

⁷² (HAUGLID, 1990) Page 15

rounded arches of the pentice's exterior walls. A common element in the basilical stavkirker is the presence of a cross or a dragonhead in the upper part of the porch. Gol Stavkirke can be used as an example of these type of porches.⁷³

However, it is important to highlight that not all the stavkirker have a porch or a pentice; in this case, especially in the *Type A* stave churches, the entry of the church leads directly into the nave. Doors are sometimes decorated with metal pieces used as a decoration.



*Figure 26. C. Clare (Oslo, 2018)
Detail of Gol Stavkirker porch.*

Portals

Portals become an ideal place to deploy a great carved iconographic program and end up being the most decorated elements of stavkirker. “The west portal, framing the main entrance to the church, was usually the most elaborate.” Although only twenty-nine stave churches are still standing today, about a hundred of portals have been preserved and are exposed in different museums around Norway, among them, The Museum of Cultural History in Oslo or the Norwegian Museum of Cultural History, also in Oslo.⁷⁴

Despite the developing stone building technique that was spreading to Norway, the wooden tradition, both in architecture and in decoration, never disappeared. It was especially during Viking Age that wood carvings were highly developed: Vikings were craftsmen who became specialist in carving Nordic style ornament, even so they developed the technique in stone. Therefore, the influence of the Viking Art in this tradition of wood carving, inherited later by craftsmen from small villages in Scandinavia, is evident.

Even though the Viking Art influence drove the continuity of wood carving, it was not the only influence that determined the aesthetic of the stavkirker portals. The outcoming

⁷³ (WOJCIECH LANGE, 2015) Page 36

⁷⁴ (WOJCIECH LANGE, 2015) Page 36

European ornamentation bought its own iconographic program determined by figures and monsters as well as floral elements. So, we must understand that there was a coexisting line behind the great iconographic programmes of the portals.⁷⁵

We can distinguish three types of portals in stave churches: the simple portals: the ones that have no decoration; an intermediate form that has more decoration and is characterized by columns, carved capitals, arches and archivolt; and finally, the richest one in decoration: the jambs and the lintel of the door are richly ornamented with sculpted woodwork.

Other styles of porches are distinguished: “the *Sogn-Valdres type* with a preponderance of zoomorphic motifs and winged serpent-dragons, the *Telemark Type* with dominant floral motifs”⁷⁶ (Figure 26) or the “*Urnes style* (Figure 27) characteristic for quadrupeds and delicacy of line, with animals coiled around each other, entwined in broad and narrow bands”.

Despite the classification in different styles, the most common decorations are zoomorphic motifs, such as animals and dragons, together with floral elements and animal imagery. “Imaginary animals are seen as remaining Pre-Christian ornaments “re-interpreted” for the needs of the new time.”⁷⁷



Figure 27. C. Clare (Oslo, 2018) Detail of Gol Stavkirker portal.



Figure 28. The Directorate for Cultural Heritage, Urnes stave church northern wall (n.d) [Digital image]. Retrieved from: Thor News: <https://thornews.com/2017/08/17/the-urnes-stave-church-was-originally-an-old-norse-heathen-hof/>

⁷⁵ (SCHJEIDE, 2015) Page 102

⁷⁶ Ibidem page 37

⁷⁷ (WOJCIECH LANGE, 2015) Page 37

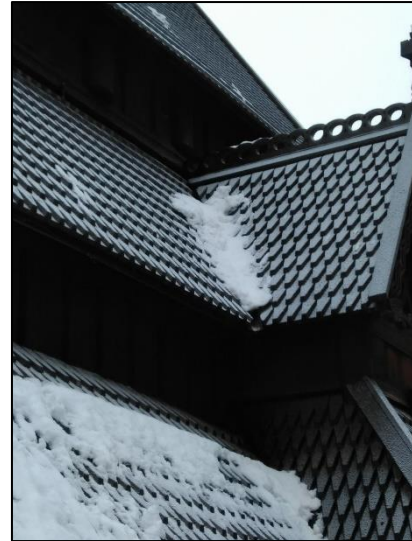
Roofing

The roofs of stave churches were externally covered either with wood planks, like in the rest of the building, or with wood or slate shingles. A roofing covered with the latter, gives certain ornamentation to the stavkirke because it contrasts with its vertical and simple wall planks. The stave church from Eidsborg for instance, is totally covered in shingles differently arranged, giving it an exceptional type of ornamentation.

In addition to the roof itself, there are other elements added to it that bring more ornamentation to the building: towers, dragon heads, roosters and crosses.

Towers were added in some of the stave churches roofs and some of them had small bells. However, both towers and belfries were only decorative elements as the bells were not used back then. It is very common to place in these towers' decorative elements such as crosses, dragonheads and roosters.

On the one hand, in Norse mythology, roosters announce the Ragnarök, the battle of the end of the times, being somehow, an equivalent of the Apocalypse in Christianity. Because of this “apocalyptic” connotation, roosters were placed on top of the belfries to keep the myth alive and warn the faithful. The only original remaining rooster is the one in the Lom stave church and it is believed that the rest of dragon heads



*Figure 29. C. Clare (Oslo, 2018)
Detail of Gol Stavkirker roofing.*



*Figure 30. Hopperstad stave church. [Tower with rooster and dragon heads]. (n.d) [Digital image]
Retrieved from: Historical & Cultural Society of Clay County: <https://www.hcscconline.org/#>*

visible today atop the remaining stavkirker are copies of it.⁷⁸

On the other hand, dragons had always had a great history in Norway and were very frequent for instance, in the prows of ships. “Dragons’ heads have always warded off evil powers, which Christianity warded off differently.”⁷⁹ However, dragons are always represented in an abstract way, fleeing from naturality.



Figure 31. J. Grimshaw (Norway, 2015). Dragon head from Borgund Stavkirke [Digital image]. Retrieved from: Flickr

<https://www.flickr.com/photos/30593522@N05/19797810965>

“To strike a balance between “the old” and “the new”, the dragons were often accompanied by small gable ends in the shape of crosses”.⁸⁰ Therefore, crosses began to be incorporated into the stave churches roofs together with the spread of Christianity.

“The freedom and skill with which the Norwegians blended European traditions with their own rich, zoomorphic Viking art gave the churches their unique ambience: it allowed the builders to match their creations precisely to the vision and forces of their own world”.⁸¹



Figure 32. C. Clare (Oslo, 2018). Gol Stave church. West entrance. Crosses, dragon heads and decorated tower details.

⁷⁸ (WOJCIECH LANGE, 2015) Page 39

⁷⁹ Ibidem

⁸⁰ Ibidem

⁸¹ (HOLAN, 1990) Page 113

THE INSIDE

Originally, stave churches did not have an accentuated interior decoration such as mosaics, frescoes, paintings or furniture. Their decoration was rather subtle and was mainly given by the structural and architectural elements of the church. Components such as crossed beams, arches, or Saint Andrews crosses, among others, contrast with the verticality of the structure providing ornamentation to the whole church.

Runic inscriptions were common elements in the stavkirker's walls, posts or beams. They were messages related to the Norse mythology, to Christ, or to the promoters of the church.



Figure 33. Runic inscription in Borgund stavkirke (n.d) [Digital image]. Retrieved from: Runes Ruins <http://www.runesnrains.com/runes/index.htm>

For instance, in the chancel of the stave church of Lom, the walls feature medieval images, such as a horse's head, and runic inscriptions. In this case the runes are related to the church promotor and his faith: "May Christ support Torstein Toresson, wherever he travels". Another example of runic inscription is the one found in the middle of the south nave wall of the stave church of Ringebu: "He was here and set off from here", together with human figures.⁸²

Originally, some stavkirker featured paintings in the chancel, mainly scenes from the Bible or representations of the Virgin Mary. Due to the destruction of decorations in the 16th and 17th century, very few images have come to our days and few information has reached to our days about them. However, an image of an *antemensale* painted in the 1200s in Heddals stave church has been preserved.

⁸² (WOJCIECH LANGE, 2015) Page 43



Figure 34. Norsk Folkemuseum (Norway, 2014). Antemurale, Heddal stavkirke, Heddal, Notodden, Telemark. [Digital image] Retrieved from: Digital Museum <https://digitalmuseum.no/011013471776/antemurale-heddal-stavkirke-heddal-notodden-telemark>

Throughout the Reformation, the interiors of churches were greatly modified. It is mostly in the 17th century when a big amount of medieval decorations was eliminated, especially those with Catholic scenes. Consequently, it was during the Reformation period that new frescoes were added in the ceilings and walls of the churches, as well as with furniture objects.



Figure 35. Rollag stavkirke. [Chancel decoration from 1683 (n.d). From: (WOJCIECH LANGE, 2015) Page 260.

“The ornaments of the period include biblical elements, but flowers motifs were dominant, as in Uvdal church”. In addition, some of these architectural-decorative elements are decorated, for example corner posts “are often accentuated and are



Figure 36. Uvdal gallery balustrade. (n.d) From: (WOJCIECH LANGE, 2015) Page 279.

heavier and more richly decorated than the other structural elements”⁸³

The use of furnishings and objects was quite reduced because of the simplicity of the congregation: a bench was attached to the nave walls and some members, both man and woman got to sit there, while the rest stood throughout the service; the priest stood behind a wooden altar, often with painted frontals.



Figure 37. The 13th century bishopric in Heddal stave church. [Example of a liturgical furniture, 12th century] [Digital Image] (n.d). Retrieved from: Gravgaver <http://www.gravgaver.no/stavkirke-heddal.htm>

However, churches did have liturgical and religious objects to be used or to decorate in the ceremonies such as crucifixes, candlesticks, baptismal fonts, ciboria, among others. Most of the objects were made of wood, influenced, on the one hand by the wood carving tradition already existing in Norway; and on the other hand, by the outcoming Romanesque and Gothic art from Europe.



Figure 38. N. Løkka (Valdres, 2018). Madonna figure from the 1200 in Hedalen stave church. [Digital image] Retrieved from: Research gate: https://www.researchgate.net/figure/Madonnaen-fra-Hedalen-datert-til-1160-ble-aldri-en-del-av-universitetsmuseenes_fig2_327038098

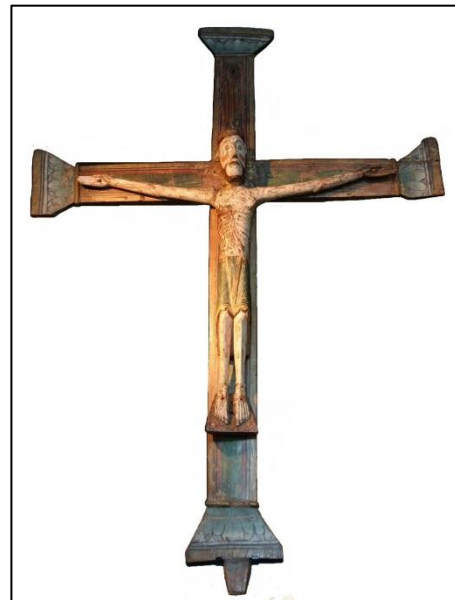


Figure 39. Crucifix from Leikanger stave church, c. 1150; Sognefjord, Sogn og Fjordane, exhibited in Bergen Museum [Digital Image] (n.d). Retrieved from: Pinterest: <https://www.pinterest.co.uk/pin/412783122066672194/>

⁸³ (VALEBROKK & THIIIS-EVENSEN, 2001) Page 11

Nevertheless, as discussed above, during the Reformation period new objects were placed in the churches. Pulpits, altarpieces, chairs, among others, took place inside the churches with the outcoming Baroque art that was spreading together with the Reformation. Because of this, the interiors of the churches changed radically their aesthetic and few original objects have been preserved.⁸⁴

WORSHIPER'S RITUALS AND LITURGICAL LAYOUT

Stavkirker are worship places seen as God's House; they are erected in God's honour and "in praise of the "White Christ" who drove Odin and Tor from their valleys and fjords".⁸⁵ It is because of that that they are not built at anyplace but in a specific location as the message they disclose is important. Stave churches settle in open places, near fjords or in a valley for instance, but always near the nature to remark the character of God the Creator.⁸⁶

In addition to this main concept, another religious connotation hides behind the churches' structure; in the 13th century, a priest discoursed a sermon during the consecration of a church with which he assigned a religious value to some of the architectural elements of the church, changing to a great extent, the perception of the whole church.

The sermon exposed that the roof was thought as a baldachin: "Ever since Antiquity, the baldachin's graphic illustration of the relation between heaven and earth has clearly signified a place of holiness. In this sense the baldachin's form becomes a dramatization of a congregation in prayer, a meeting between the human and the divine".⁸⁷

As to the corner posts, "they represent the four gospels whose teachings are the supporting foundation of all the Christianity".⁸⁸ The beams upon which the columns rest are interpreted as God's apostles while the floor represents "the humble men who bow in

⁸⁴ (WOJCIECH LANGE, 2015) Page 43

⁸⁵ (VALEBROKK & THIIIS-EVENSEN, 2001) Page 7

⁸⁶ Ibidem Page 11

⁸⁷ Ibidem

⁸⁸ Ibidem

honour”. The roof surface that protects the church from the weather represent “the men whose prayers protect Christianity from temptation”.⁸⁹

The sermon emphasizes the holy character of the church and determines at the same time, the user’s experience. The worshiper does not only see the church as a functional place to attend to ceremonies, but enters in a sacred dimension, loaded with different spiritual references.

When the celebrant entered the church⁹⁰ he perceived the hidden messages in the constructive elements; plus, the church’s ambience allowed the user to have a religious individual experience. Thomas Thiis-Evensen writes about *Experiencing a Stave Church in Norway’s stave churches: Architecture, History and Legends*:

“The worshipper was immediately struck by an aura of mysticism as soon as he entered the church. he was confronted by an obtrusive darkness, only slightly alleviated by the shafts of light entering through small circular openings under the roof. [...] The chancel appeared as a reflection of a heavenly play of colour and when entering the church, this was the first visual impression. [...] An intense odour of wood and tar, wool and fur blended with the incense and wafted upwards to the roof beams. This crown of shadowy, interlaced beams was like a dark and distant Nordic sky, brushed with a glow of “stars” entering through the high portholes of light. The church’s interior ring of naked columns have the feeling of being deep in the forest, complete with upright trees and spreading branches”.⁹¹

This fragment helps to understand that the ceremony was not the only spiritual experience for the worshippers; the ceremonies were punctual, but as soon as they were over, the churches’ architecture, decoration, and the whole ambience contributed so that the users kept having their own religious experience.

⁸⁹ Ibidem

⁹⁰ The doors of stave churches were narrow so that only one person could enter at a time inside the church. That was to avoid the evil to come in.

⁹¹ (VALEBROKK & THIIIS-EVENSEN, 2001) Page 7

STAVE CHURCHES ALONG THE YEARS

During the latter half of the 14th century, Norway's situation changed radically: The Black Death devastated the country in 1349, killing more than half the population, and Norway lost its national independence because of its union with Denmark. The Denmark-Norway kingdom supposed a cultural, artistic and identity loss to all Norwegians and lasted until 1914 century. The same year Norway was forced to accept a union with Sweden that lasted until 1905, year that Norway was finally independent. After this event, a national consciousness and an interest for the nation past begins to increase since both unions supposed a cultural and artistic abandonment.

It is especially thanks to two characters that Norway's lost identity was revived through the rediscovery of stave churches: Johan Christian Dahl (1788–1857) and Johannes Flintoe (1787–1870).

The Danish painter Johannes Flintoe was traveling around Norway seeking inspiration for his works, when he came across the stave church of Heddal and painted it; this little gesture became the beginning of the rediscovery of stave churches. His apprentice, Hans Gude (1825–1903) together with another artist, Adolph Tidemand (1814–1876), who also painted Norwegian landscapes, started to introduce stavkirker in the backgrounds of the represented sceneries because of the stave churches he saw in Flintoes paintings.⁹²

Figure 40. Johannes Flintoe (1828) "Stave church of Heddal, Notodden, Norway". [Digital Image] (2010).

Retrieved from:

Wikipedia:

https://es.wikipedia.org/wiki/Archivo:Stave_church_Heddal,_Johannes_Flintoe,_1828.png



⁹² (WOJCIECH LANGE, 2015) Pages 25-31

It is in this context when Johan Christian Dahl (1788–1857), “regarded as the first Norwegian painter of European stature and key figure of Norwegian Romanticism, initiated the protection of historical monuments in Norway”⁹³. His interest in stave churches kept increasing and in 1837 he published a pioneer work on stave churches: *Denkmale einer sehr ausgebildeten Holzbaukunst aus den frühesten Jahrhunderten in der inner Landschaften Norwegens*⁹⁴. The work was a turning point and consisted in three books where three stave churches were detailly explained: Heddal, Borgund and Urnes.

Dahl contributed to the establishment of the Society for the Preservation of Ancient Norwegian monuments (1844) who “seek, study and preserve Norwegian historical monuments, especially those that testify to the skill of Norwegian people and their sense of the artistic, and to promote those buildings through images and descriptions”.⁹⁵ The protection of this Society was fundamental to the maintenance of the remaining stave churches, and still nowadays protects them.

Even though stave churches were slowly arising in Norway’s culture and heritage as well as into the national consciousness, the process was quite slow. They slowly started to appear in Norwegian magazines such as the *Skilling-Magazin*, in newspapers, postcards, posters, etc. which helped to increase their popularity.

The reappearance of stave churches woke up a great interest in historians, architects, painters, etc. and became a matter of research not only in Norway but in other countries around the world; in fact, nowadays are still a topic to researchers.



Figure 41. A 1905 poster of the Norwegian State Rail. (n.d) From: (WOJCIECH LANGE, 2015)

⁹³ (WOJCIECH LANGE, 2015) Page 26

⁹⁴ Can be translated as: *Monuments of a highly trained wooden architecture from the earliest centuries in the inner landscapes of Norway.*

⁹⁵ J.C. KRISTIANIA, *Annual report for 1885: Foreningen til norske Fortidsminnesmerkens Bevaring* (1856) Page 9.

Other historians followed Dahl's line, such as Lorentz Dietrichson, the first Norwegian professor of art history, who published in 1892 a monumental work on the stavkirker where he described all the existing stavkirker of Norway, that "enhanced the perception of their uniqueness and strengthened the need for their protection among Norwegians".⁹⁶ The population slowly realized that these churches were exceptional monuments, not only because of their innovations but because they are inheritance of their culture, art, history and tradition.

Stave churches are currently protected and preserved by the Society for the Preservation of Ancient Norwegian Monuments, and under the Cultural Heritage Act⁹⁷. They receive a great number of visits each year, especially the Gol Stave Church in the Folk Museum in Oslo and their recognition keeps increasing continuedly.

They are recognized as unique buildings that have survived throughout history thanks to their exceptional constructive method and have become a fundamental identity element of the inheritance of the Norwegian past and are essential to Norway's heritage.⁹⁸

⁹⁶ (WOJCIECH LANGE, 2015) Page 31

⁹⁷The purpose of this Act is to protect archaeological and architectural monuments and sites, and cultural environments in all their variety and detail, both as part of our cultural heritage and identity and as an element in the overall environment and resource management. Retrieved from: *Act of 9 June 1978 No.50 Concerning the Cultural Heritage*: <https://www.regjeringen.no/en/find-document/dep/KLD/acts-and-regulations/acts/cultural-heritage-act/id173106/>

⁹⁸ (WOJCIECH LANGE, 2015) Page 25-31

CONCLUSIONS

The Middle Ages were a time of changes and great artistic innovations. This was in fact, due to the strong push that Christianity undertook along with its expansion. Norway is one of the countries that received this new wave of Christianity accompanied by artistic contributions, marking a significant change in its established art and culture.

The legacy of the Vikings determined decisively Norway's art. They developed excellent wooden architectural solutions for their boats, as well as an excellent domain in wood carving. Altogether, it grew into a referent to Norway's art and gave rise to a wooden tradition, where the material became an identity element to Norwegians. To construct the first stave churches, the architectural past was taken into consideration so they could maintain their inheritance; they found innovative solutions to the older problems and continued their constructive legacy.

At the same time, Christianity was growing in Europe. Norwegian kings themselves, especially Håkon the Good, contributed to its introduction and expansion, that not only bought a different belief but also a different artistic tradition. European art was characterized for building in stone and introduced features from Romanesque and Gothic art, which was unknown in Norway.

As a result, these two parallel lines moved within the territory, especially during the 11th and 14th century: the long-established Norwegian art based in a wooden tradition and Norse mythology; and the imminent European art that was bringing artistic innovations hand in hand with Christianity, affected the Norwegian Stave Churches.

Norwegians chose to maintain their wooden tradition as well as the wood carvings, visible in stave churches, and continued to build with this material; however, the outcoming European art did influence their architecture in some aspects: the basilical nave, characteristic in the European architecture, took shape in the later Stavkirker as well as the addition of new elements in churches: apses, chancels, aisles or decorated porches, among others. The church's iconography reflects this coexistence between the Norwegian tradition and the European, for instance, crosses and roosters are together placed in the

roofs, new Christian liturgical objects and furniture are added in the nave but with mythological scenes, among other examples.

Stave churches were capable to introduce aspects of a new language and some of its innovations without giving up to their own heritage and traditions. That together, gives rise to exceptional churches endowed with a unique language that cannot be found anywhere else. As a result, stave churches became and still are a fundamental heritage element for the Norwegians.

BIBLIOGRAPHY

- ANDERSON, R. C. (2014, November 10). *Authenticity and architecture: Representation and Reconstruction in context* (Doctoral dissertation). Tilburg, Netherlands: Tilburg University. Retrieved from: <https://research.tilburguniversity.edu/en/publications/authenticity-and-architecture-representation-and-reconstruction-i>
- ANKER, P. (1970). *The Art of Scandinavia Volume 1*. London, United Kingdom: Paul Hamlyn.
- FOX, F. (2018). Urnes and Norway's Stave Church Preservation Programme. *Historic churches: The conservation and repair of ecclesiastical buildings*, 36-40.
- GWELDOLYN, S. (2008). *The origin of the Norwegian Stave Church*, Paper presented at the Third Annual North American Interdisciplinary Conference on Medieval Icelandic Studies. Ithaca, United States: Cornell University. Retrieved from: https://www.academia.edu/7871324/_The_Origin_of_the_Norwegian_Stave_Church_at_the_Third_Annual_North_American_Interdisciplinary_Conference_on_Medieval_Icelandic_Studies_Cornell_University_May_2008
- HAUGLID, R. (1990). *Norwegian Stave Churches*. (R. I. CHRISTOPHERSEN, Trans.) Oslo, Norway: Dreyers Forlag A/S.
- HAVRAN, J. (2010). *Norwegian stave churches: a guide to the 29 remaining stave churches*. (T. CHALLMAN, Trans.) Oslo, Norway: ARFO.
- HOLAN, J. (1990). *Norwegian Wood: A Tradition of Building*. New York City: Rizzoli International Publications.
- JENSENIUS, H. J. (2000). Research in medieval, Norwegian wooden churches, relevance of available sources. *Nordic journal of architectural research*. Vol. 13, No 4. Retrieved from: <http://arkitekturforskning.net/na/article/view/390>

- NORSK FOLKEMUSEUM (2019). *What is a stave church?* Retrieved from: <https://norskfolkemuseum.no/hva-er-en-stavkirke>
- NORSK FOLKEMUSEUM (Permanent exhibition) Folk art: Middle ages. Oslo.
- NORWEGIAN ENVIRONMENT AGENCY. (2018, March 19). *Stave churches*. Environment.no. Retrieved from: <https://www.environment.no/topics/the-cultural-heritage/architectural-heritage/stave-churches/>
- REED, M. F. (1997). Norwegian Stave Churches and their Pagan Antecedents. *RACAR: Revue d'art canadienne (Canadian Art Revive)* 11 Pages. Retrieved from: https://www.jstor.org/stable/42631152?read-now=1&refreqid=excelsior%3A9fc6e8ba424a0faafaf6af1c41b4ca62&seq=2#page_scan_tab_contents
- SCHJEIDE, E. (2015) *Crafting Words and Wood: Myth, Carving and Húsdrápa*. (Doctoral dissertation) Berkeley, United States: University of California. Retrieved from: <https://escholarship.org/uc/item/1017z7d7>
- SUNNHORDLAND MUSEUM (2017). *Stabbur*. Retrieved from: <https://digitaltmuseum.no/021057114891/stabbur>
- VALEBROKK, E., & THOMAS, T.-E. (2001). *Norway's Stave Churches: Architecture, History and Legends*. (A. CLAY ZWICK, Trans.) Milan: Boksenteret AS.
- WASHINGTON ISLAND APP (2019): *Den Norske Grenda (Little Norwegian Village) on Washington Island*. Retrieved from: <https://www.washingtonislandapp.com/blog/2016/6/27/den-norske-grenda-little-norwegian-village-on-washington-island>
- WOJCIECH LANGE, T. (2015). *Stavkirker: The Stave Churches of Norway*. (T. MARCIN, Trans.) Gdańsk, Poland: Muzeum Narodwe w Gdańsk.

ANNEX



Figure 1. H.M. Harri (Norsk Folkemuseum). Loft from Ose in Setesdal Haakon [Digital Image](n.d). Retrieved from: <https://norskfolkemuseum.no/en/setesdal-1739>



Figure 2. Garbutt, S. (2009). Stave church at Greenstead in Essex, England. [North wall and west wall originally from the 9th century]. [Digital Image] Retrieved from: https://en.wikipedia.org/wiki/Greensted_Church#/media/File:Greensted_Church_North_Side.jpg

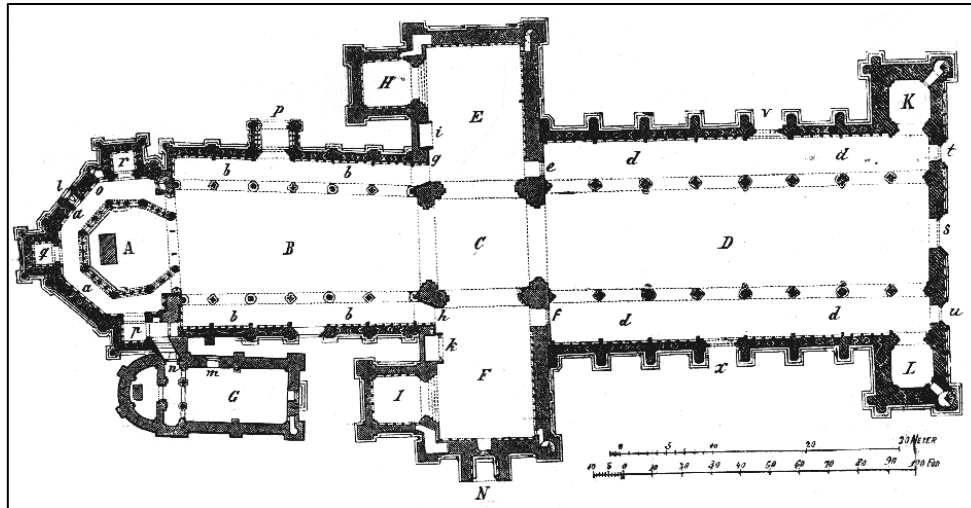


Figure 3. O.Krefting (2005), Plan of Nidaros Cathedral, Trondheim, Norway [Xylograph published on "Om Thronhjems Domkirke" (1885)] [Digital Image] Retrieved from: Wikimedia: https://commons.wikimedia.org/wiki/File:Nidarosdomen_plan.png

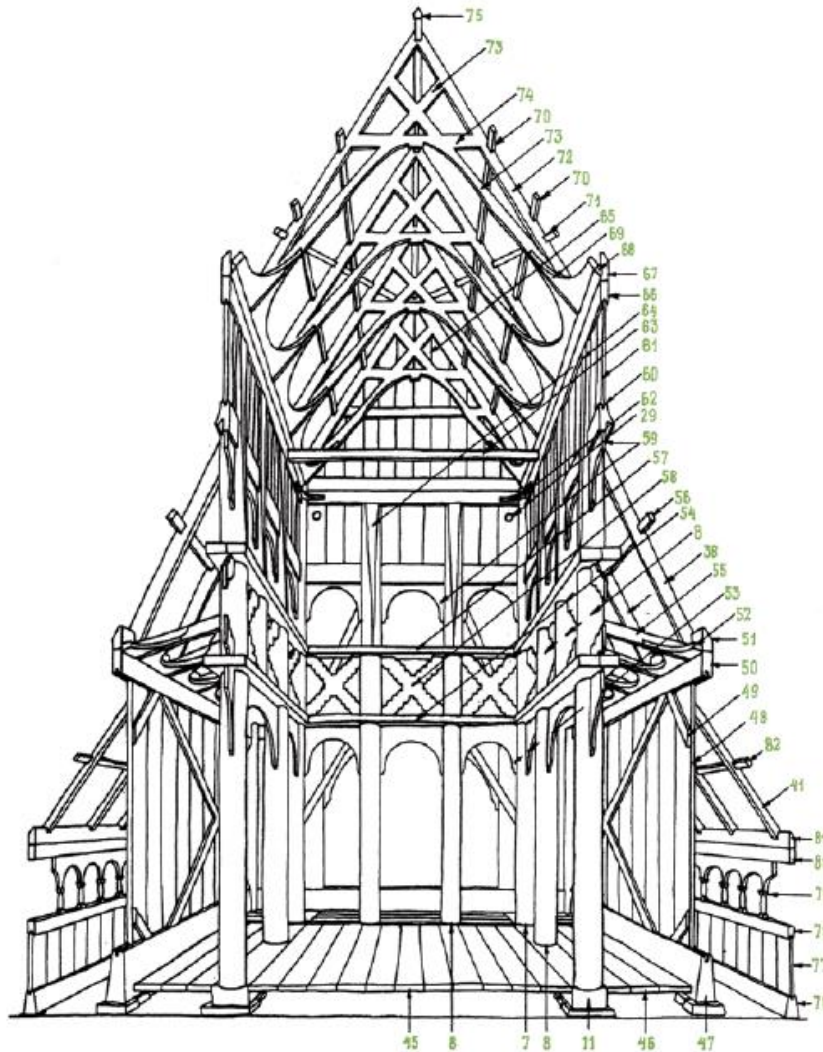


Figure 4. Cross section of a B-Type stavkirke after H. Christie. From: (WOJCIECH LANGE, 2015) Page 340

1. nawa „wewnętrzna” / nave
2. obejście z „nawami bocznymi” / aisle
3. prezbiterium/chór (kapłański) / chancel
4. absyda / apse
5. soboty / pentice
6. kruchta / porch
7. słup wewnętrzny narożny / nave corner post
8. słup wewnętrzny pośredni / nave intermediate post
9. słup narożny nawy / aisle corner post
10. słup narożny prezbiterium / chancel corner post
11. legar spodniej krzyżownicy (#) / nave raft beam
12. legar prezbiterium / chancel raft beam
13. słup narożny sobót / pentice corner post
14. słup narożny kruchty / porch corner post
15. słup pośredni sobót absydy
apse pentice intermediate post
16. ściana sobót / pentice wall
17. daszek sobót / pentice roof
18. ściana nawy / aisle wall
19. ściana chóru / aisle wall
20. ściana absydy / apse wall
21. daszek obejścia nawy / aisle roof
22. daszek obejścia prezbiterium / aisle roof
23. daszek absydy / apse roof
24. ściana wieżyczki absydy / apse turret wall
25. hełm wieżyczki absydy / apse turret spire
26. ściana nawy „wewnętrznej” / nave wall
27. ściana prezbiterium „wewnętrznego” / chancel wall
28. słup narożny wewnętrznej części prezbiterium
chancel inner post
29. okrągłe okienko / port hole
30. dach nawy „wewnętrznej” / nave roof
31. dach prezbiterium „wewnętrznego” / chancel roof
32. sygnaturka / bell turret
33. iglica / spire with wind vane
34. kalenica narożna daszka sobót / pentice hip capping
35. kalenica narożna daszka nawy / aisle hip capping
36. deska czołowa (wiatrownica) / barge board
37. kalenica / capping
38. krokiew obejścia / aisle rafter
39. krokiew narożna obejścia / aisle hip rafter
40. krokiew koszowa obejścia / aisle valley rafter
41. krokiew sobót / pentice rafter
42. krokiew narożna sobót / pentice hip rafter
43. krokiew koszowa sobót / pentice valley rafter
44. krokiew absydy / apse rafter
45. podłoga nawy „wewnętrznej” / nave floor (planks)
46. podłoga obejścia / aisle floor (planks)
47. podwalina / aisle sill beam
48. ściana nawy (obejścia) / aisle wall (planks)
49. łąta-krzyżulec ściany nawy / aisle diagonal brace
50. oczep / lower aisle wall plate
51. płatew / upper aisle wall plate
52. wspornik łukowy / quadrant bracket
53. wsporniki konsolowe / lower arcading
54. ściąg dolny / lower girding beam
55. belka wiązarowa obejścia / aisle cross beam
56. łąta daszku obejścia / aisle purlin
57. ściąg górny / upper girding beam
58. „krzyż św. Andrzeja” / cross brace
59. wspornik łukowy górny / upper arcading
60. podwalina ściany nawy „wewnętrznej”
nave bressummer
61. ściana nawy „wewnętrznej” / aisle wall (planks)
62. wspornik konsolowy narożny / quadrant/knee bracket
63. belka wiązarowa nawy „wewnętrznej” / tie beam
64. ozdobne ścięcie słupa wewnętrznego / nave post splay
65. ściana szczytowa nawy „wewnętrznej”
nave gable wall (planks)
66. oczep ściany nawy „wewnętrznej”
lower nave wall plate
67. płatew ściany nawy „wewnętrznej”
upper nave wall plate
68. murlata ściany nawy „wewnętrznej”
nave roof bearer
69. wspornik łukowy / scissor bracket
70. łąta dachu nawy / nave purlin
71. krzyżulec dachu nawy / wind brace
72. krokiew dachu nawy / nave rafter
73. krzyżulec wiazara nożycowego dachu nawy
nave scissor brace
74. jętka/bant dachu nawy / nave collar beam
75. płatew kalenicowa dachu nawy / nave ridge piece
76. podwalina sobót / pentice sill beam
77. barierka sobót / pentice wall
78. oczep barierki sobót / pentice rail
79. arkadki sobót / pentice arcade
80. oczep sobót / lower pentice wall plate
81. płatew sobót / upper pentice wall plate
82. łąta daszku sobót / pentice roof purlin

(WOJCIECH LANGE, 2015) Page 341

