



LUND UNIVERSITY

From Wood to Stone

Church Building in the County of Kalmar

Wienberg, Jes

Published in:
Europeans or Not?

1999

Document Version:
Publisher's PDF, also known as Version of record

[Link to publication](#)

Citation for published version (APA):

Wienberg, J. (1999). From Wood to Stone: Church Building in the County of Kalmar. In N. Blomkvist, & S.-O. Lindquist (Eds.), *Europeans or Not? : Local Level Strategies on the Baltic Rim 1100-1400 AD. transactions of the local level-symposium of the Culture Clash or Compromise (CCC) project held in Kalmar May 7-10 1998* (Vol. 1, pp. 91-114). (Reports; Vol. 1), (CCC papers; Vol. 1). Centre for Baltic Studies, Gotland University College.

Total number of authors:
1

General rights

Unless other specific re-use rights are stated the following general rights apply:

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Read more about Creative commons licenses: <https://creativecommons.org/licenses/>

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

LUND UNIVERSITY

PO Box 117
221 00 Lund
+46 46-222 00 00

Europeans or Not?

Local Level Strategies on the Baltic
Rim 1100-1400 AD.

(Eds.) Nils Blomkvist & Sven-Olof Lindquist.
CCC - papers 1.

Transactions of the *local level*-symposium of
the Culture Clash or Compromise (CCC) project
held in Kalmar May 7-10 1998.

Gotland University College
Centre for Baltic Studies
Visby

Kalmar County Administrative Board
Kalmar

1999

From Wood to Stone: Church Building in the County of Kalmar

Jes Wienberg

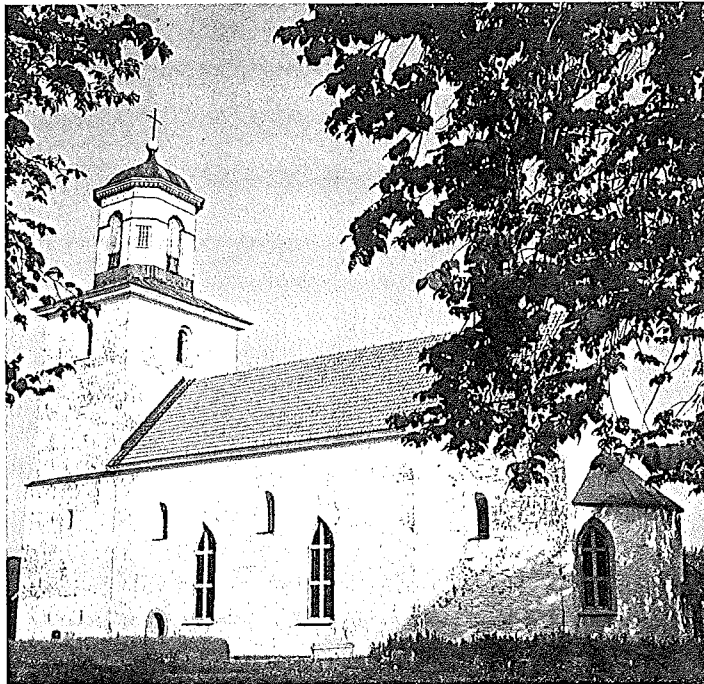


Figure 1. Resmo on Öland dated by dendrochronology to the latter part of the 11th century. Photo Jes Wienberg 1984.

The Middle Ages Built in Stone

Like “mushrooms in the night”: this is how Richard Morris describes the way churches sprang up in 11th and 12th century England¹. There was a boom in church-building. Wooden churches were replaced by stone churches, and new churches were built in stone from the outset. The same “Great Rebuilding” can be seen in Scandinavia, where thousands of stone churches were erected between 1100 and 1300. The boom demanded new technical knowledge of stone, mortar, timber, lead and glass. The stone building could only be erected with the help of a skilled workforce, originally of foreign craftsmen. The building, the furnishings and the wall-paintings must have represented an enormous investment.

The very first stone building in Scandinavia was erected in Roskilde in Denmark in the years after 1026-27, when, according to the Roskilde Chroni-

cle, Estrid, sister of King Canute, had a wooden church rebuilt in stone in memory of her husband Ulf Jarl, whom Canute had killed². From written sources and archaeological investigations we also know of a small number of Danish stone churches erected later in the 11th century³.

The earliest profane stone building known in medieval Denmark is probably the royal palace uncovered immediately west of the cathedral in Dalby in Scania. The palace must be contemporary with the standing church dated to c. 1060. The palace and church were built on the initiative of King Svend Estridsen, son of Estrid⁴.

¹ Morris 1989 p 140ff.

² Olsen 1961 p 29ff.

³ Krins 1968; Johannsen & Smidt 1981 p 14ff.

⁴ Cinthio 1983.

Where and when the new stone-building technique was first used for a Danish castle is uncertain. It might have been for the now ruined round keep at Bastrup on Zealand, probably connected with a certain "Ebbo de Bastetorp", mentioned around 1130. "Ebbo" could be identical with Ebbe Skjalmesen, of the so-called "White" family, which produced several magnates; archbishops and bishops⁵.

According to the chronicle of Snorre Sturlasson the first stone building in Norway was a hall at the royal manor in Trondheim, built on the initiative of King Magnus the Good (1035-47) but not completed until after his death. The hall was later converted into a church dedicated to St. Gregor. The first stone church to be built was probably St. Mary's, also at the royal manor in Trondheim. The church was built on the initiative of King Harald the Hardruler (1045-66), who was buried there after the fatal battle at Stamford Bridge. After this, more than 100 years passed and many stone churches were erected before Sverre built the first Norwegian castles in stone, at Bergen, Trondheim and Sunne in Jämtland, in the 1170s and 80s⁶.

In medieval Sweden, where the pace of both the state-formation process and Christianization was slow, we lack early chronicles. The first stone buildings were probably cathedrals and royal churches in places such as Husaby and Skara, both in Västergötland; Linköping and Vreta, both in Östergötland; and then Gamla Uppsala and Sigtuna, both in Uppland. But the oldest known with certainty are small churches in the countryside, dated with the aid of dendrochronology. A number of parish churches, still standing, have been dated to the decades around 1100. The first stone stage of Resmo (fig. 1) on Öland has been provisionally dated to the 1070s-80s⁷. In Östergötland, the churches of Herrestad, Örberga and Hagebyhöga have been assigned to the decade 1110-20⁸. And Hossmo, in Möre, is believed to have been built c. 1120⁹. The oldest known profane stone building is probably the royal castle on the island of Visingsö, now half collapsed into Lake Vättern. The castle has been dated to the 12th century¹⁰. Gradually stone (including brick) became more popular for profane buildings - starting with castles, palaces, manors and town houses and ending with the houses of the peasants¹¹.

Thus most of the early stone buildings were found in the political, religious and economic cen-

tres or core areas of the recently Christianized kingdom. The innovation was promoted by the king, members of the royal family, allied magnates and bishops. And the novelty of the stone buildings made them worthy of mention in the chronicles of the age.

Despite these early examples of stone building the changeover from wood to stone in Scandinavia was a long and complex process. Strictly speaking the process has never been completed, because wooden churches are still being built today. Most of medieval Denmark, together with central parts of Norway and Sweden, was "petrified" in the Romanesque period, while in more marginal regions the changeover took place in the Gothic period, e.g. in the controversial case of the Finnish stone churches, which seem to belong to the 15th and early 16th centuries¹². However, large areas of both Norway and Sweden remained mixed, with a tradition of wooden architecture existing alongside building in stone. The building material could vary from parish to parish, and even between different parts of the same church.

Normally we expect an early stave church to have been replaced by a Romanesque stone church, but there were other possibilities. The stave church might be replaced by a timber-frame church. The church built in stone might be the first one on the site. And after the Reformation there are examples of stone churches with wooden extensions. The wooden architecture could influence the stone architecture. Or vice versa. Some parts of the church could be built of wood and others of stone. And of course, all stone churches used timber in the roof. In fact, timber was an important element of every stone church¹³.

As my contribution to the project "Culture Clash or Compromise? The Europeanisation of the Baltic Sea Area 1100-1400 AD", I start with a closer look at the process of building in stone in the County of Kalmar; a region which includes two of the earliest

⁵ Stiesdal 1977.

⁶ Ekroll 1997 p 24f, 41, 148f.

⁷ Boström & Bartholin 1990; Boström 1997.

⁸ Bonnier 1996a; 1996b p 197.

⁹ Andersson & Bartholin 1990 p 185ff.

¹⁰ Lovén 1996 p 57f.

¹¹ Augustsson 1992; 1996.

¹² Cf. Hiekkänen 1994 and the discussion which followed.

¹³ Cf. Sjömar 1997.

stone churches known in Sweden. The aim of the investigation is to study the use of stone at a local level, namely the level of the parish church: When and where did stone first appear as a building material in the Kalmar region? What was the local context of the innovation? And why were wooden churches rebuilt as stone ones?

At a time when many building archaeologists follow a narrow track of single buildings or technical and stratigraphic details, I insist here on a general view. As in my previous investigations into church archaeology I intend to interpret architectural differences between the buildings both against the background of a critical review of earlier research traditions and by relating the differences to other sources reflecting the local context of the churches¹⁴.

Perspectives on "Petrification"

Was the "petrification" of the churches an important development? According to Johnny Roosval in his "Den baltiska Nordens kyrkor" (1924) it was more than important, it was "a change in mode of expression, which surely corresponds to the revolution in the soul, which the change of religion implied." And he elaborates: "To choose stone as a material expression instead of timber; mass, cube, weight, instead of the lines, the light elevation, and the picturesquely complex ornamentation of the staves; to prefer the pale colour of stone or plaster to the dark tones of tarred oak - that is a step in style of incredible importance."¹⁵

Other researchers have called the introduction of stone "epoch-making", a "revolutionary break" and "tremendously bold"¹⁶. "Petrification" has never actually been labelled a "Europeanisation", but views very close to this appeared in the national agenda of the 1930s: Anders Bugge, for example, wrote that the Norwegian princes followed the "national line" by using timber in their own buildings, and left it to monks and priests to build in stone, which came from "outside"¹⁷. And Vilhelm Lorenzen saw wooden architecture as a "national" architecture in contrast to stone buildings, which represented a "more perfected European church culture"¹⁸. Much later Hugo Johannsen has stated that stone building was "brought here as a part of the rulers' endeavours to adjust to the norms of Christian Europe"¹⁹.

But important though the transition from wood to stone may have been, this is not reflected in the literature. Most literature deals with either wooden buildings, or stone buildings. The different materials are often covered in separate volumes or chapters. Only in three fields of church studies do wood and stone meet, namely in excavations, in the landscape and in the stylistic influences.

Investigations of stone churches have revealed post holes, walls and timber reused from earlier wooden churches. The first staves of a wooden church were uncovered at the excavation of St. Maria Minor in Lund in 1911-12. The first post holes identified as traces of a stave church were found under the floor of Jelling, in Jutland, in 1947. Since then, mainly in the 1950s, a number of early wooden churches has been found in Northern Europe²⁰. These experiences confirm the view that churches went through a whole series of changes, in which the replacement of wood by stone was a natural development.

Churches of wood and stone meet in the landscape. In both Norway and Sweden many regions are mixed: they have churches of different materials in adjacent parishes. This poses the question of the possible social or economic explanations for the variations and a discussion which hardly occurs at all in Denmark, where stone churches totally dominate.

Finally, there is a discussion of the interaction of the architecture associated with the two materials. Early stone architecture, e.g. that of St. Jørgensbjerg in Roskilde from c. 1100, has rounded pilasters reminiscent of the corner posts of a stave church²¹. And stave churches could imitate stone architecture. A hitherto unique example is Lisbjerg, in Jutland, where recent archaeological excavations have shown that the interior of a stave church from the late 11th century has been covered with painted lime plaster in imitation of the architecture and

¹⁴ Cf. Wienberg 1986; 1993; 1999.

¹⁵ Roosval 1924 p 24f.

¹⁶ Langberg 1955, I p 41; Johannsen & Smidt 1981 p 13; Bolvig 1992 p 64.

¹⁷ Bugge 1934 p 217.

¹⁸ Lorenzen 1934 p 96.

¹⁹ Johannsen & Smidt 1981 p 14.

²⁰ Ahrens 1982; Liebgott 1989 p 170ff.

²¹ Olsen 1961 p 4p.

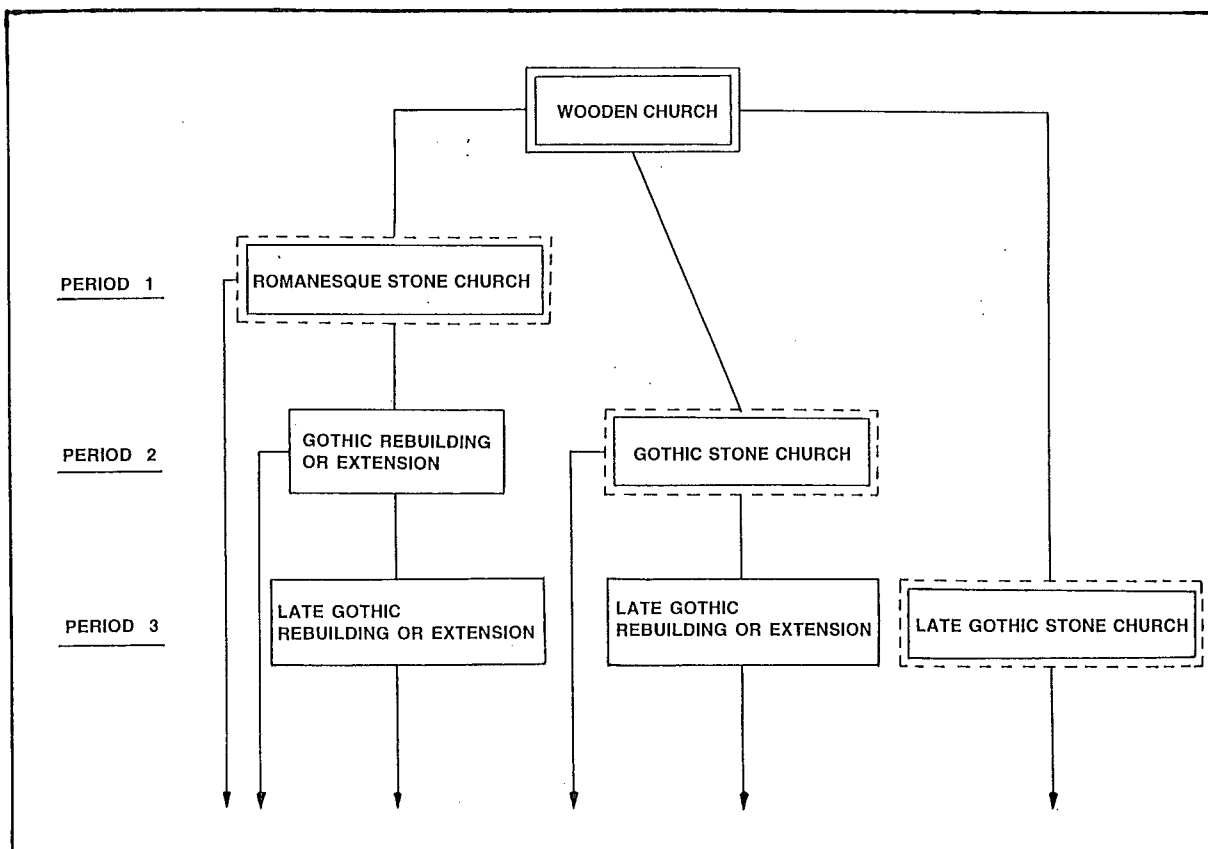


Figure 2. Model of the development of church building in Uppland during the Middle Ages. Redrawn after Bonnier 1981.

decoration of contemporary stone churches²². More common is the imitation of the Romanesque basilica with its three aisles and its columns with decorated capitals and bases, although the origin of the stave church and the extent of the imitation are highly controversial²³. And the timber-frame church of the High and Late Middle Ages probably imitates the stone architecture²⁴. From these observations might come a discussion of the ideal form and appearance of a church.

If we continue to the related question of *why* there was a change from wood to stone, I would discuss the research and the literature from three main perspectives: those of 1) progress, 2) socio-economy and 3) symbolic meaning.

Process of Progress

The changeover from wood to stone has been understood as a progressive step, a natural development, with a wooden building being replaced by a superior stone one. In an early phase of Christianization a wooden church was sufficient, but as soon

as possible it was replaced by a more durable one of stone. The stone building was built for eternity. It did not rot, it was solid and fireproof and in particular it represented the classical tradition, to which the Church itself belonged. The development is seen as so self-evident as to need no further comment. The process is simply not a problem requiring research.

The literature demonstrates that the first churches were built of wood and were later replaced by stone churches, without giving any real explanation. Thus the latest volume in the history of Swedish art, "Den romanska konsten" (1995), does not contain a sentence on *why* wood was replaced by stone and describes wood and stone in separate chapters²⁵.

That wooden churches were normally replaced with stone churches is a fact, but although it is usual, it is not "natural". The evolutionary perspective is

²² Jeppesen & Madsen 1997.

²³ Christie 1981 p 203ff, 243ff; Qvale 1993; Anker 1997 p 212ff.

²⁴ Christie 1981 p 176f; Ullén 1995 p 45f.

²⁵ Lindgren 1995; Ullén 1995.

teleological, in other words it presupposes knowledge of later developments, and the fact that most churches were eventually "petrified". And it neglects the fact that the subsequent course of history could well have been different.

It is often stated that medieval churches had to be built in stone to comply with canonic regulations. This is asserted by, for example, Olaf Olsen in "Viking og Hvidekrist": "The Catholic Church demanded that churches should be of stone. Therefore wooden churches were gradually succeeded by stone buildings, and in Denmark and Sweden there were not a great many wooden churches left 200 years after Christianization. It was otherwise in Norway, where the canonic rules were ignored and churches continued to be built in wood"²⁶. But this is a misconception.

Jørgen Jensenius has recently shown that there were no official directives regarding the material to be used for building a church in the Middle Ages. Formally churches of wood and of stone were regarded as equal. It is only architectural tradition that has accorded the latter a higher status, together with awareness of practical reasons such as the threat of fire²⁷.

Social Structure and Economy

If the natural course of development was from wood to stone, what then might promote or hamper the process? The answers are, of course, the social structure and financial resources. The development depended on the resources of the church builders, whoever they were. As soon as resources were available, a church was erected in stone. Wealthy aristocrats (often assumed to be "noblemen" in the patriarchal discourse) built churches in stone, and poor peasants built them in wood. This is a widespread viewpoint in the literature, from which I shall present a few representative titles.

An economic interpretation of the choice of building materials is already to be found in Francis Beckett's "Danmarks Kunst" (1924): "People probably continued to build or temporarily to use wooden churches in poor or impoverished parishes throughout the early Middle Ages"²⁸. Most examples, however, date from the 1980s, when socio-economic models were influential in many fields²⁹.

An article by Ann Catherine Bonnier on Uppland during the Middle Ages combines an evolu-

tionary and an economic perspective. Bonnier correlates church-building with stages in the development of the cultural landscape (fig. 2). The erection or rebuilding of a church was connected with prosperity and/or an increase in population. The Romanesque stone churches are said to have been built in the "earliest developed areas", or more precisely in areas with good access to arable land according to a modern survey at the parish level. The first stone churches are assumed to have been episcopal churches or churches built on the initiative of the king. And the new technique was probably accepted most rapidly in areas with stone which was easy to quarry and to work, whereas wooden churches continued to be built in poor and well-wooded areas³⁰.

Hans-Emil Lidén has in two articles discussed the relationship between wood and stone in the church-building of South-West Norway. He begins by stating that stone buildings were more expensive than wooden ones. Building in stone required professional craftsmen, and the transport was both heavy and difficult. Thus stone building was dependent on an economic surplus. Stone churches are therefore to be expected in densely populated areas, where such institutions as the kingdom, the nobility and the Church were firmly established, while wooden churches may be expected in more isolated districts. He finds that Norwegian stone churches are in fact often to be seen in areas with the highest density of churches - around towns and cathedrals. On closer investigation he concludes that most stone churches were erected by kings, ecclesiastical institutions and aristocrats. Even a market place could generate the necessary economic surplus for a stone church³¹.

Eivind Claesson comes to almost the same conclusion in his thesis on Romanesque churches in

²⁶ Olsen 1992 p 157.

²⁷ Jensenius 1997a; 1997b.

²⁸ Beckett 1924, I p 22.

²⁹ Cf. Wienberg 1993 p 122ff on the economic perspective.

³⁰ Bonnier 1981 p 75, 79ff; also 1987 p 219ff; the extent of arable land was measured in 1927.

³¹ Lidén 1986 on Hordaland; 1987 on Hordaland, Rogaland and Agder; Lidén 1986 published a dot map of all known medieval churches in present Norway divided into wooden churches and stone churches. He said that the map should ideally have been presented to show five different situations: at c. 1100, c. 1200, c. 1350, after c. 1350 and at the the Reformation c. 1530. See also Anker 1997 p 205ff.

Västergötland in Sweden. After relating the church architecture to later written sources on land ownership he concludes that the stone churches in the central area of the landscape were erected by "noblemen", whereas the wooden churches on the periphery were built by peasants. The main argument is that in the central area the ecclesiastical and secular nobility dominated, while freehold farmers formed a majority only in some peripheral areas, where wooden churches occurred. The written sources that Claesson uses, and which hopefully might be typical of an early medieval situation, are cadastres from the 1540s and the 1570s³².

The socio-economic perspective has been very successful in explaining variations in churches and settlement. The perspective offers concrete methods of relating archaeological or architectural sources to written sources, e.g. churches with information on manors, ownership and taxation. But we must not forget that the sources are fragments from an ambiguous past, that the sources are seldom synchronic, that it is almost impossible to separate social structure from economy, and that socio-economic explanations are seldom convincing at a specific local level. Finally, the social and economic perspective can never alone explain *why* a church was built.

Symbols in Action

The perspective of buildings as power symbols has been frequently considered during the 1990s. In the shadows of Marxism, where religion represented false ideology, and French philosophy, where power was everywhere, several archaeologists have argued that monumental buildings such as churches should be seen as symbols of political power and, as such, a part of an ideological strategy³³. Churches in general, regardless of their architecture, have been seen as manifestations of the power of the king, the Church or large landowners³⁴. But sometimes it is specifically the stone church that has been interpreted as an architectural symbol in action. The stone church is associated with the establishment of a feudal kingdom or with the formation of parishes.

Leif Gren has proposed that the Swedish parish came into being simultaneously with the Romanesque stone church of the 12th century. The stone church was a symbol of the Christian parish, which was now made visible in the landscape. The eter-

nal stone architecture was to promote a new hierarchical and territorial order. The message was intended to convince reluctant chieftains and peasants, who were more loyal to family, farm and burial mound than to the Church³⁵.

The hypothesis is interesting, but should not stand unchallenged. Even when the church and the parish are related, it is not so certain that the building of the church and the formation of the parish are contemporary. The first stone churches were erected long before the establishment of a parish. The concept of a parish is mentioned for the first time in Denmark in 1170, roughly 150 years after the first stone building, and it only becomes common in the 13th century³⁶. Furthermore, churches with the status of parish churches were built in timber during the Middle Ages and have been up to the present day.

A well known example from Southern Jutland in medieval Denmark illustrates that there was no synchrony between the process of church-building and that of parish formation: The chapel of Enge was made an independent parish church by detaching a part of the parish belonging to the mother church of Leck as late as 1359, but both churches were Romanesque stone churches³⁷.

Dichotomies and Questions

To summarize the research so far, "petrification" may have been seen as a process which took place first and foremost in densely populated agrarian regions, where easily worked stone was available, and on the initiative of the aristocracy. The tradition of wood continued in sparsely populated forest regions, where workable stone was difficult to obtain, and where peasants dominated.

³² Claesson 1989 p 93ff. He observed that wooden churches often correlate with small parishes. The reason could be the poor finances of the parish, the absence of a powerful nobleman or the low status of the wooden church, which made it more difficult to create a larger parish: Claesson 1989 p 116. See also Dahlberg 1998 p 140ff.

³³ E.g. Larsson & Saunders 1997 on the Archbishop's palace in Trondheim and Landmark 1998 on the competitive building activity of the king and Church in medieval Oslo.

³⁴ Cf. Brendalsmo 1991; 1999.

³⁵ Gren 1989.

³⁶ Wienberg 1993 p 20 with note 46.

³⁷ Nyborg 1986 p 32f.

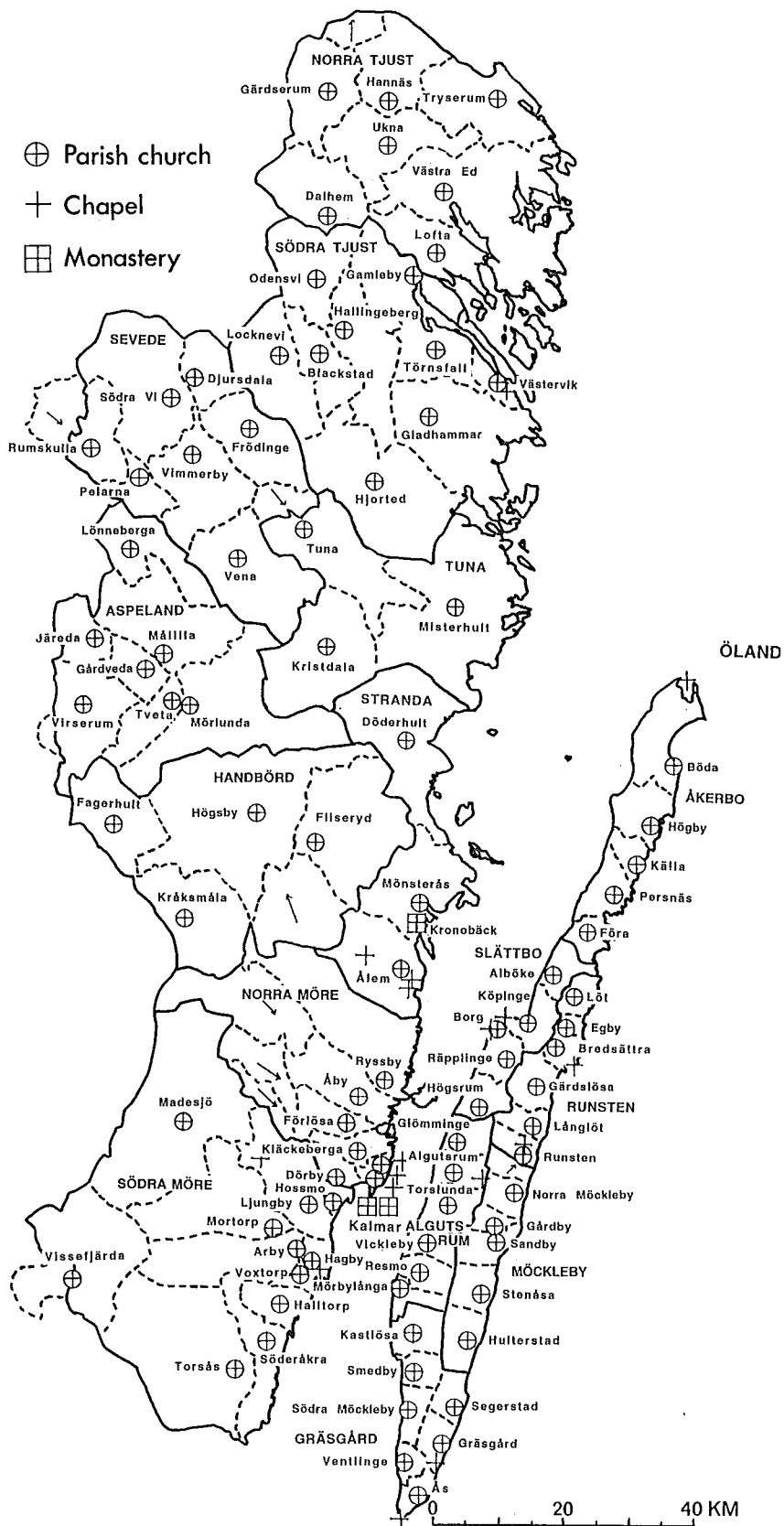


Figure 3. The county of Kalmar with its medieval churches: 92 parish churches, 17 chapels and 3 monastery churches. The parish boundaries according to C.P. Hällström 1818 in Hermelin 1807-18.

From the literature the relationship between wood and stone can be expressed in a series of dichotomies:

Wood - Stone

National - International
Scandinavian - European
Stagnation - Development
Forest - Open land
Deficit - Surplus
Poor - Rich
Peasant - Aristocrat
Impotence - Power
Family - Parish

Is it so simple, or are we just ordering the chaos of the past with the aid of simplistic either-or models reflecting modern views? Well, research carried out up till now at least gives us plenty of ideas, perspectives and methods for investigating and discussing the relationship between churches and their context, which I can test in my own study of the County of Kalmar.

When and where was the technique of building in stone introduced into the Kalmar region? Did this "petrification" represent a natural development? Did the process depend on a surplus belonging to the king, to local aristocrats or to a community of peasants paying tithe? Was the stone church a symbol of parish formation? And in what way is the process of building in stone a part of Europeanisation?

Now let us turn to the County of Kalmar.

Churches in the County of Kalmar

The area of investigation is the County of Kalmar, defined as Öland and the medieval districts of Møre, Handbörd, Stranda, Aspeland, Tuna, Sevede and Tjust. In the Middle Ages the churches of these districts all belonged to the diocese of Linköping, whereas they are now divided between Linköping and Växjö. The County of Kalmar is a post-medieval unit. It was first formed in 1634, since when its area has been adjusted several times, although the present-day boundaries differ only a little from the original ones³⁸.

Within the area 92 medieval parish churches are known - 34 on Öland and 58 on the mainland (fig. 3). There are also 3 known monastery churches and 17

chapels - 8 of the chapels being on Öland and the 3 monasteries and 9 chapels on the mainland. Of the 92 parish churches only 13 (14 %) are fully preserved, 32 (36 %) are partially preserved and 47 (50 %) have disappeared (fig. 4). A majority of the churches have been renewed in the 18th and 19th centuries, but the medieval architecture is relatively well known from older drawings by Johannes Haquini Rhezelius in 1634, archaeological investigations and research carried out since the 1960s, primarily by Karin Andersson, Ragnild Boström and Marian Ullén.

The inventory "Det medeltida Sverige" gives short descriptions of the medieval churches, often with illustrations, together with historical information on the parishes of Öland, Møre, Handbörd and Stranda. A volume on Aspeland, Sevede and Tuna is in press, and has been available to me³⁹. Thus, of the districts in the county, only Tjust is missing from "Det medeltida Sverige". And this lack is atoned for by the series "Linköpings Stifts kyrkor", which consists of booklets on single churches by various authors⁴⁰.

Detailed descriptions of many churches, especially on Öland, have been published in the art-historical inventory "Sveriges Kyrkor"⁴¹. Special projects within the context of this inventory have included the description of all medieval wooden churches, as well as of churches from the period 1760-1860, with the many "Tegnér barns"⁴²

The churches on Öland and in Møre have attracted great interest and have been described and discussed in many articles and books. The reason is their special character as defensive or multi-functional churches⁴³. Finally, all the churches in the present county are presented briefly in a programme for the preservation of the county's cultural heritage⁴⁴.

³⁸ Since 1974 the county has included Algutsboda, Hälleberga and Långasjö in Varend and excluded Broddebo, Gärdserum, Hannäs, Tryserum and Östra Ed in Tjust: Hammarskiöld 1985 p 223ff.

³⁹ DMS 4:1-3 with further references.

⁴⁰ Linköpings Stifts kyrkor 1958ff.

⁴¹ SvK 108 Öland introduction, 116 Böda, 117 Kalmar Castle, 119 Högby, 128 Källå, 133 Persnäs, 142 Föra, 151 Långlöt, 158 Kalmar Storkyrka, 162 Kalmar old cemetery etc., 163 Löt and Egby, 170 Köping, 177 Gärdslösa, 183 Bredsättra, 188 Runsten, 193 Vickelby, 203 Resmo, 207 Arby, 209 Kalmar Cathedral, 222 Mörbylånge.

⁴² SvK 192, 216.

⁴³ E.g. Tuulse 1955; Anderson 1960; Borelius 1969; Boström 1982; 1983; Andersson 1983; Anglert 1993.

⁴⁴ Hammarskiöld 1985 p 258ff.

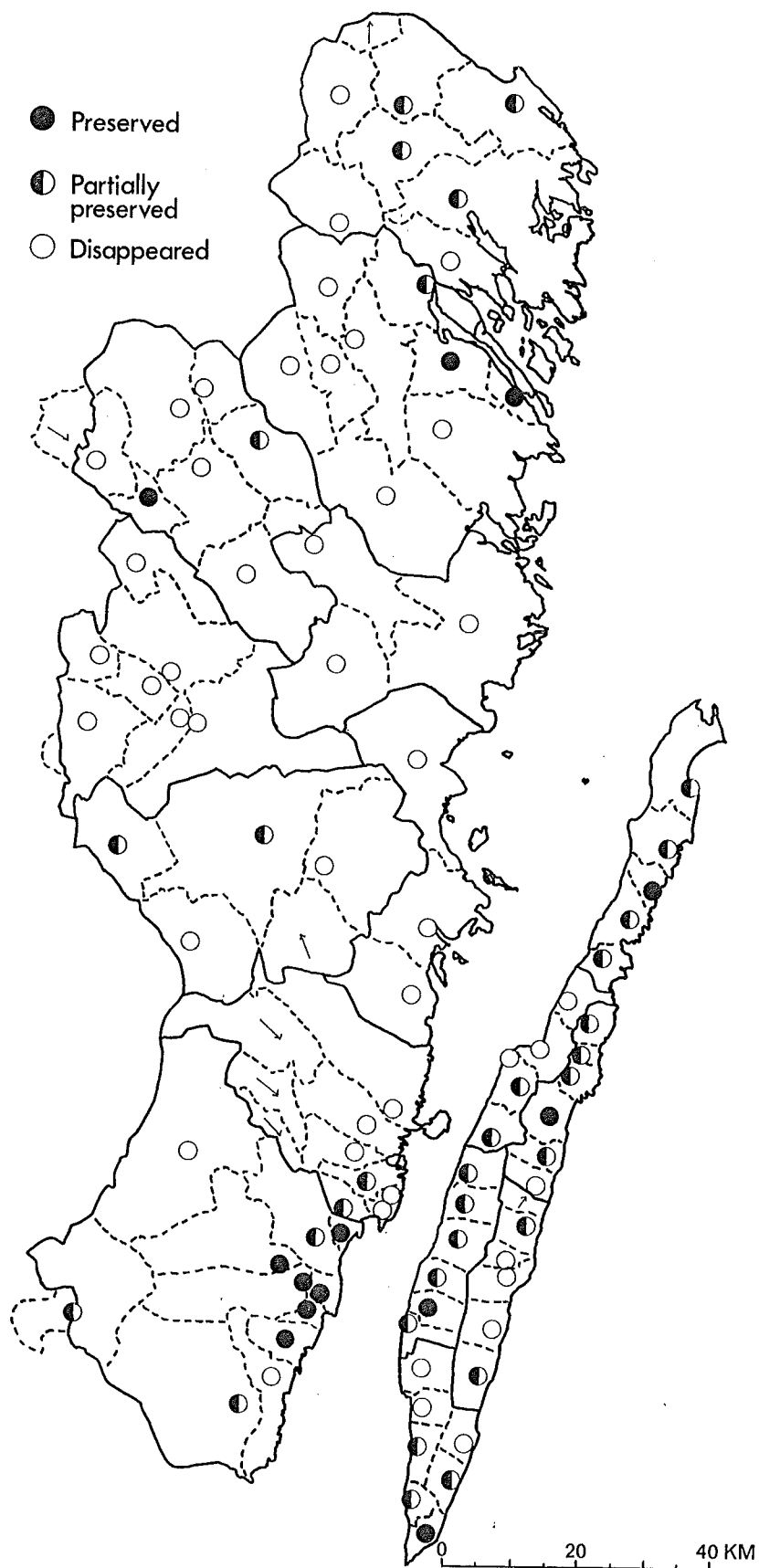


Figure 4. The preservation of the medieval parish churches in the County of Kalmar.

From Wood to Stone in the County of Kalmar

Of the 92 parish churches in the County of Kalmar all 34 on Öland and 33 on the mainland, in total 67 (73 %), were built of stone, 13 (14 %) were built partly of stone and partly of timber, 11 (12 %) were timber churches, and in one case (St. Gertrud in Kalmar) the building materials are unknown (fig. 5). However, to understand the transition from wood to stone we have to break up this static picture into categories of different churches and to scrutinize the chronology.

Traces of an early generation of stave churches from the 11th century are known from timber reused in later church buildings (Föra, Hulterstad and Långlöt) and from archaeological excavations (Arby and perhaps Källa). Indirectly the existence of "Eskilstuna monuments", that is early Christian grave monuments with decoration in Ringerike or Urnes style, as well as an inscription on a runic stone, might indicate where wooden churches have preceded Romanesque stone churches (Hossmo, Mörbylånga, Köping, Resmo, Runsten, and Sandby). The gradual erection of a church in phases, starting with the stone chancel, might also indicate the existence of an older wooden church (Hossmo, Resmo and Stenåsa)⁴⁵. At Hjorted a stave church was demolished in 1778. And at Gårdserum the nave of a stave church was pulled down as late as 1854⁴⁶.

The group of stone churches is very heterogeneous. On Öland and in Møre we have Romanesque churches, which in many cases began as or were later transformed into multifunctional churches with towers at both the east and the west end, known as "pack-saddle" churches, or with several storeys. There are two preserved round churches (Hagby and Voxtorp) and there have been three basilicas (Hulterstad, Kalmar and Köping). The building material is mainly sandstone around Kalmar and limestone on Öland⁴⁷.

North of Møre we find more ordinary stone churches with a chancel and a broader nave or with a rectangular plan. In these districts the building material was often granite boulders. We also find many late medieval timber churches, of which Pelarna (fig. 6) is the only survivor. Pelarna also represents a group of churches with mixed building materials⁴⁸. Timber churches had a stone sa-

cristy added to the chancel in 10 cases - Fagerhult, Frödinge, Gladhammar, Gårdveda, Hallingeberg, Kråksmåla, Misterhult, Pelarna, Rumskulla, Södra Vi⁴⁹. Such stone sacristies at wooden churches, in the interests of better security, are well known from other parts of Sweden and from Finland⁵⁰. Finally the demolished churches of Gårdserum, Vena and Virserum had a stone chancel added to the old wooden nave⁵¹. Half of timber and half of stone, they illustrated the process of building in stone in apparently unfavourable circumstances in the forested landscape of Småland.

Some of the early phases of the churches have been dated by dendrochronology: Resmo chancel post-1102; Hossmo apse post-1105 +/-5; Hulterstad tower 1168 +/-5; Arby chancel post-1171; Bred-sättra tower 1202 +/-5; Halltorp basement c. 1210; Voxtorp nave post-1241⁵². Even if the precision of these datings must be treated with some caution, we have here a point of departure for the study of the process of building in stone.

It is important to observe, however, that the very earliest datings are *post quem* datings. Ragnhild Boström's conclusion that Resmo may be from the 1080s and the oldest standing church in medieval Sweden is therefore quite optimistic and only to be considered as a hypothesis. And as most of the medieval churches in the county were rebuilt or demolished a long time ago, the possibility of reliable dendrochronological datings is confined to the relatively few more or less preserved churches, mainly on Öland and in Møre. It is within this exclusive group that we identify some of the earliest stone churches, but in these circumstances we cannot rule out the possibility that some of the demolished churches were just as old, or even older e.g. the church of Köping.

The churches can in general be dated using the traditional methods of architectural history, includ-

⁴⁵ Cf. Bonnier 1996b p 208.

⁴⁶ SvK 192 p 159ff, 170.

⁴⁷ Boström 1982; 1983; Andersson 1983.

⁴⁸ SvK 192 p 173ff.

⁴⁹ SvK p 167ff, 185ff, 194.

⁵⁰ Tuulse 1951; a beautiful example is visible at Tidesrum in Östergötland cf. SvK 192 p 205ff.

⁵¹ SvK 192 p 159ff, 188, 192f.

⁵² Andersson & Bartholin 1990; Boström & Bartholin 1990; Anglert 1993; Boström 1997.

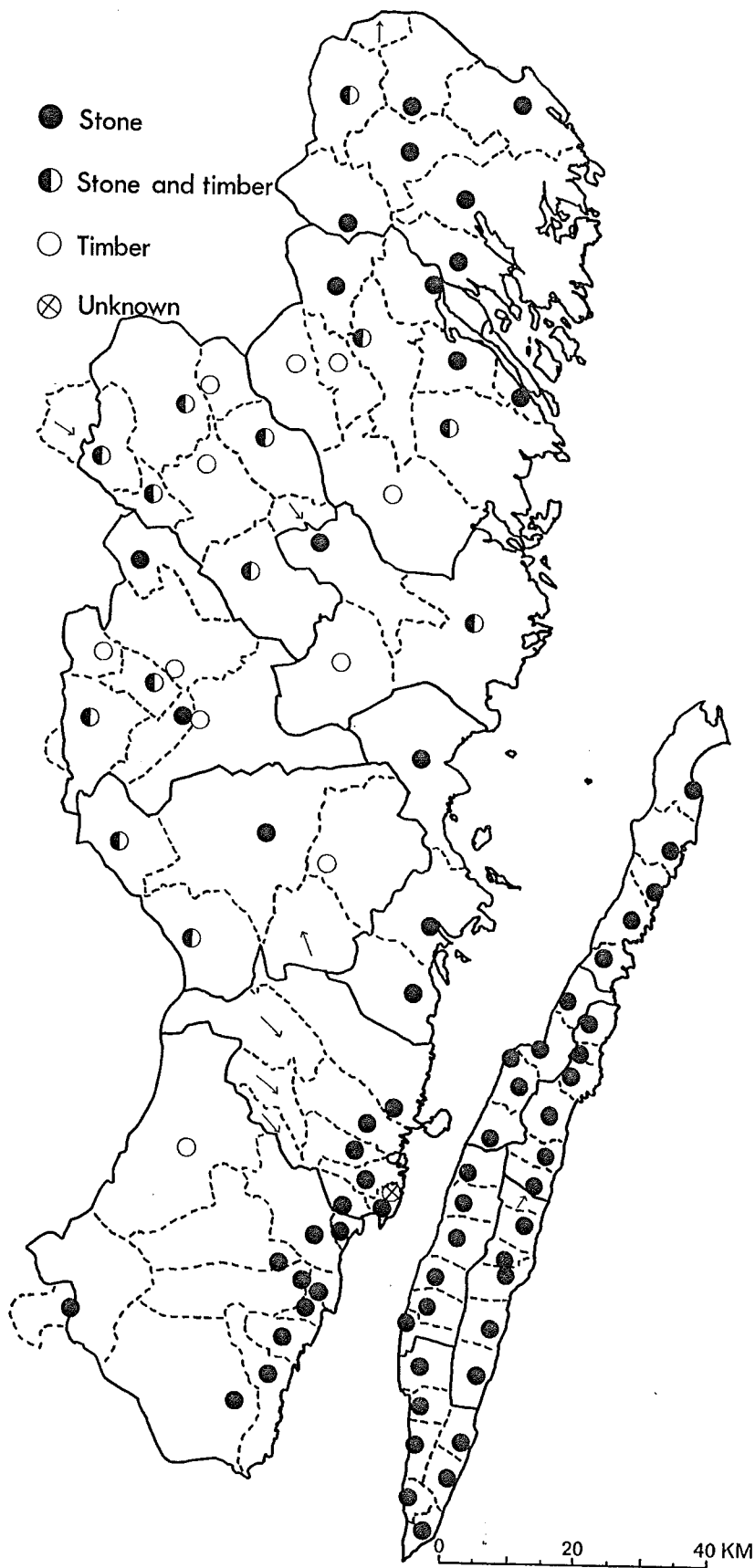


Figure 5. The building material among the medieval parish churches in the County of Kalmar.

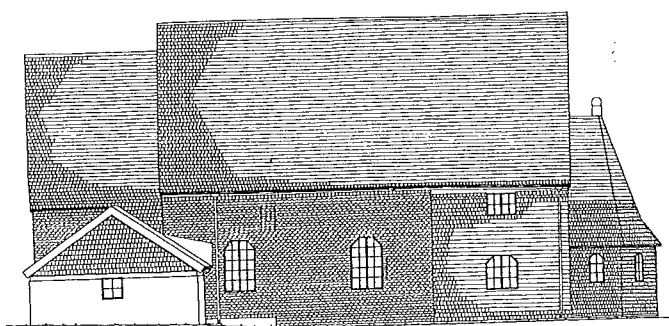


Figure 6. The medieval timber church of Pelarna with its stone sacristy. After SvK 192 p 176.

ing consideration of the building materials, the plan, and stylistic details such as the form of portals, windows, and profiles. To this may be added datings from coins found during excavations in the church floors⁵³.

Now if, and I explicitly say if, we dare to use the datings of the churches presented in the literature, based on some dendrochronological samples and conventional art-historical typology, then we obtain a fascinating picture:

The process of "petrifying" starts on Öland and in Møre around 1100, with Resmo and Hossmo as the earliest documented stone churches (fig. 7). In the 13th century stone churches were built around Kalmar in Møre and further north in the county, near another medieval town, Gamleby/Västervik. In the same century many churches on Öland were rebuilt. Finally a few stone churches were erected along the coast of the mainland and inland in the 14th and 15th centuries.

With regard to the viewpoint in the literature, that the change from wood to stone was a natural progression, we can observe that the direction generally was from wood to stone in the county, but that the process was slow and never completed during the Middle Ages. Many timber churches were not replaced with stone ones until there was another "Great Rebuilding" in the 18th and 19th centuries. Timber churches are still standing and, indeed, still being built. And the process was not without reversions or exceptions: At both Döderhult and Odensvi the late medieval stone churches had timber sacristies and timber porches added. The medieval stone church at Lönneberga was extended in timber in 1690. And the stone church of Tvetå had a timber chancel added in 1726.

As a step towards an understanding of the move from wood to stone in the county we now have to relate the church topography with its variations to the evidence from other sources. We are looking for correlations which can support an interpretation.

Churches in Context

Transport of stone was difficult in the Middle Ages and therefore expensive. Access to local materials was an advantage. So not surprisingly we find the earliest stone churches in areas with accessible natural stone, in Møre with its Kalmar Sound sandstone and on Öland with its limestone. In areas on the mainland with granite and other stones the churches in general came later⁵⁴.

Written sources from the Middle Ages concerning local or regional economic conditions in the area being investigated are few. From the churches on Öland information survives in an annual "cathedraticum" from around 1320⁵⁵. And from the diocese of Linköping as a whole a list from the 1530s mentions an annual tax in Danish marks, which priests were supposed to pay to the king⁵⁶. Unfortunately none of these sources, with their quantitative information, seem of direct relevance to the question of the relationship between wood and stone. There is no correlation between the size of taxes and the choice of building material.

What is of relevance, however, is the density of churches as an expression of demography or wealth. If we measure church density using the size of the parishes in 1834 as a reasonable reflection of late medieval conditions, we find that the stone churches occur in clusters (fig. 8). We also find early stone churches in areas such as Öland and Møre, where the parishes were relatively small.

The bloomery iron production must have been of economic importance in Møre, but we have no stone churches actually in the areas of the ore deposits in the forest. What we can do is to compare the use of stone for building with the pattern of settlement and agriculture. The stone churches cluster in the countryside where settlement going back to

⁵³ Cf. Klackenborg 1992 p 245ff and Anglert 1993 p 150ff.

⁵⁴ Cf. Hammarskiöld 1985 p 7f; Friberg & Sundén 1996 p 17ff, 82ff.

⁵⁵ DMS 4.3 p 32.

⁵⁶ Schück 1959 p 166ff, 179ff.

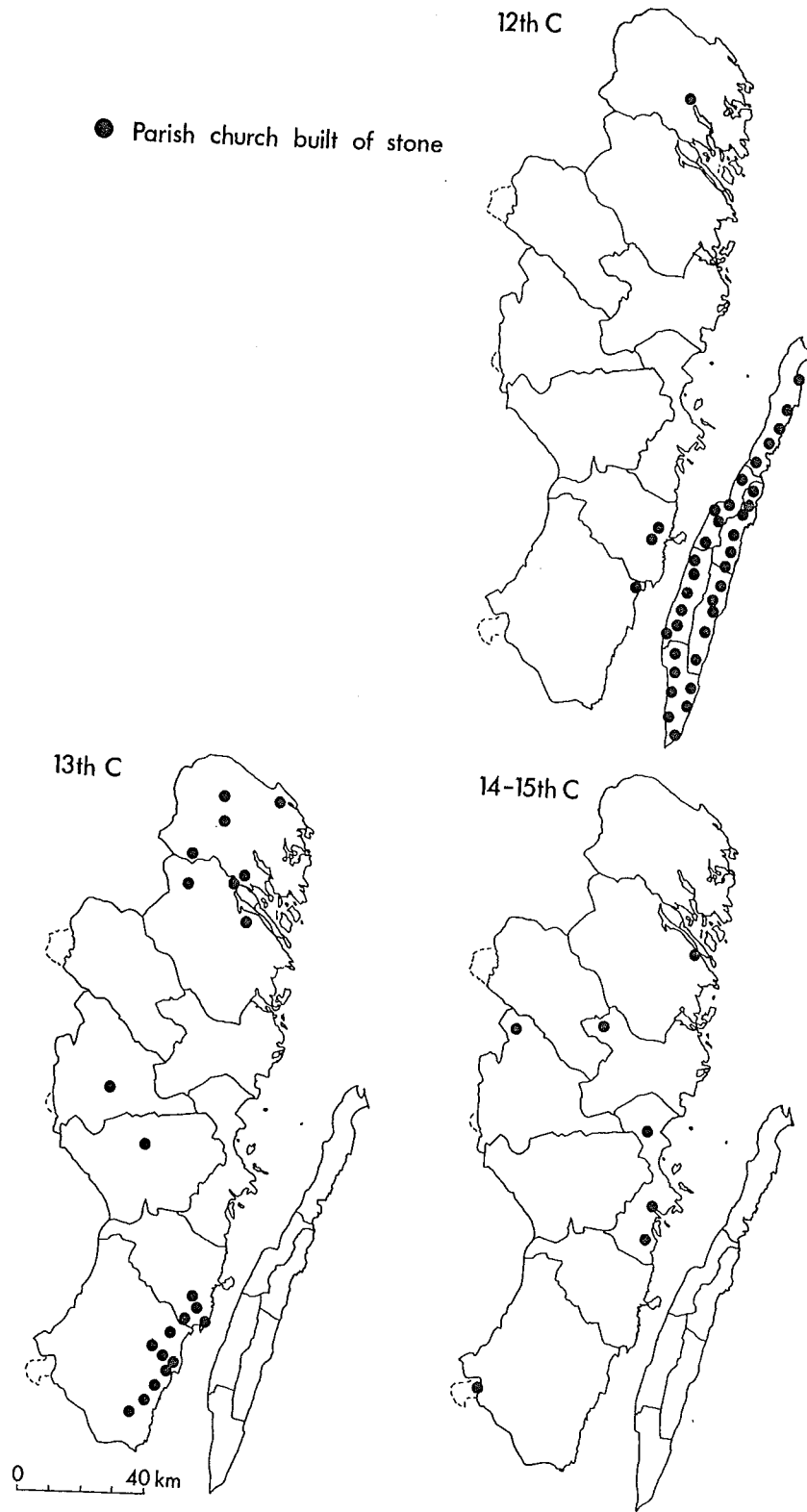


Figure 7. A sketch of the "petrification" of churches in the County of Kalmar: a 12th C.; b 13th C.; c 14-15th C.

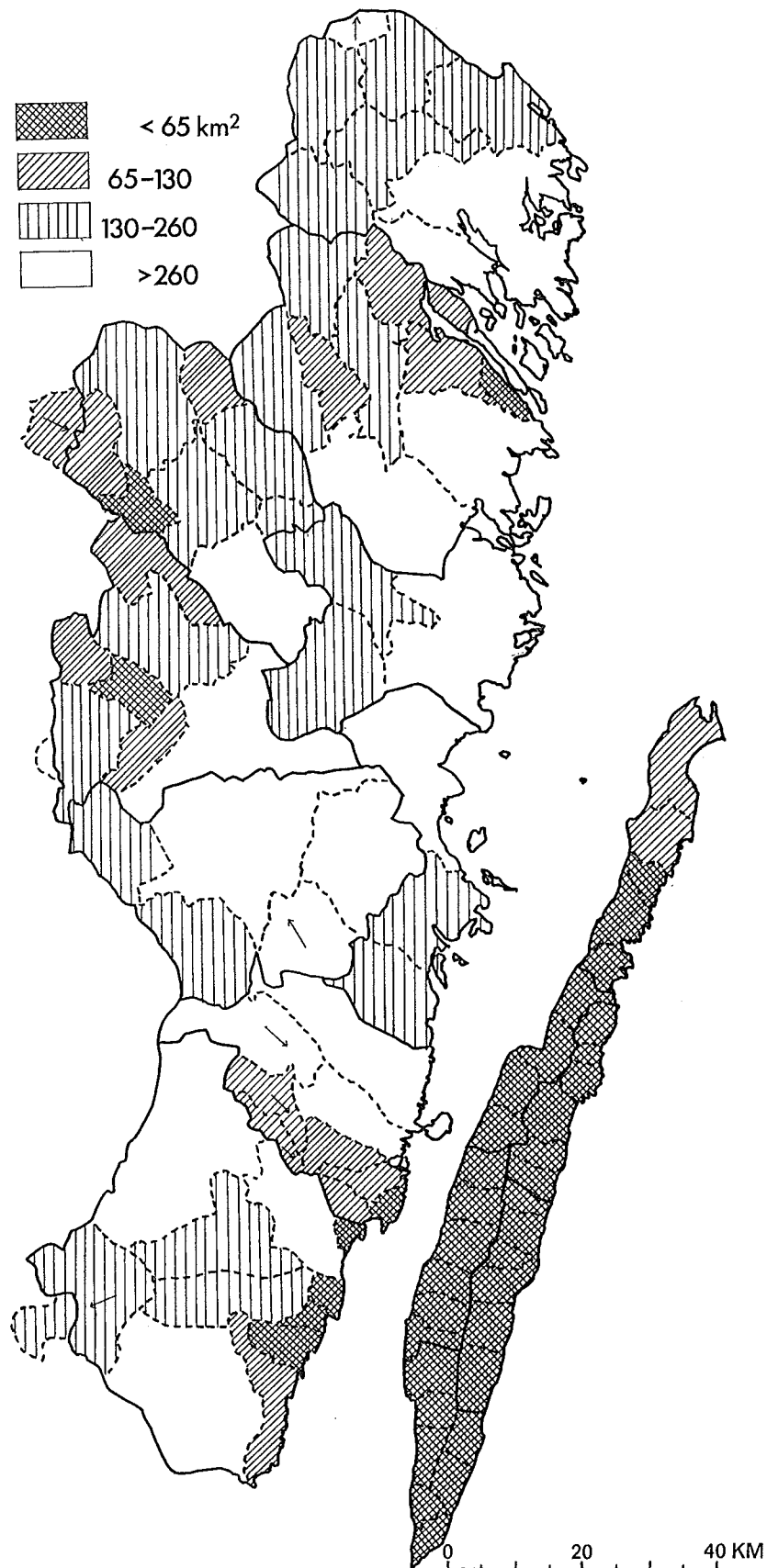


Figure 8. The sizes of the medieval parishes in the County of Kalmar according to statistics in Forsell 1834. The average size was approx. 130 km².

the Iron Age and earlier is documented, that is on Öland, and in Møre and Tjust. These are regions dominated by agriculture⁵⁷.

With respect to changes between the Middle Ages and the present, we have to turn to modern statistics to obtain a more precise picture of the agriculture of the county⁵⁸. When we map the percentages of each parish with arable land in 1927 (fig. 9), we see a correspondence between stone churches and parishes with extensive farming, whereas wooden churches are found in less cultivated parishes. Two extremes can illustrate the tendency. Thus 65 % of the parish was cultivated in Hagby, but only 6 % in Kråksmåla. Not surprisingly, stone churches belong to the plain and wooden churches to the forest.

Between Aristocrats and Peasants

The concept of church building as either aristocratic or democratic has swung between one extreme and the other during the last century. The perception of the past has been influenced by later political ideals, shifting from the elitist to the collective and back again. And as a compromise on the political scale we find the concept of co-operativism, where the landowners each contributed with their share in a community, which did not make up a collective⁵⁹.

After the focus of the 1970s on the suppressed and the collective there has been a backlash, with a return of the aristocracy and the individual. We can note that in our own time the aristocratic initiative has become the predominant interpretation. The aristocrat, or "nobleman", is accentuated everywhere. Archaeologists, general historians and art historians focus on "noblemen's churches" and "noblemen's farms"⁶⁰. The social context of the church building is seen as aristocratic. The only question remaining is *how* aristocratic the landscape was⁶¹.

But the models should not be so rigid as to render the source material superfluous. The aim must not be to fit the sources into a superior interpretation, coloured by our own time and expectations, but to permit the sources to influence our concept of the past. It is easy to overstate the importance of the aristocracy, because it has left behind manifest evidence - both texts and monuments - whereas ordinary landowning peasants remain invisible. And where peasants are mentioned un-

ambiguously, they are regarded as aristocrats, just minor aristocrats, by a reinterpretation of concepts. The fact is that we cannot expect any simple relationship between the social status of the church builder and the choice of building material, as may be shown by the following three examples:

The famous Norwegian stave church of Urnes in Sogn, where the carved ornaments have given rise to the designation "Urnes style", can be traced as a probable private manorial chapel to the rich and politically important Ornes family⁶².

Anga on Gotland is a Romanesque stone church from the 13th century. It has a painted runic inscription on the wall in the nave. The text lists at least nine men, with their sixteen horses, who assisted in the erection⁶³. Such a Romanesque stone church with an apse and a primary tower would in a different context have been characterized as a typical "nobleman's church".

More astonishing is perhaps another Norwegian church, namely the timber chapel of Fløan in Trøndelag, dating from the 1420s, which must have been built on the initiative of Archbishop Eskil on his manor, and not, as may be expected, by poor fishermen and peasants⁶⁴.

Research findings and the examples above might be summarized in one single statement: who had the churches built depended on the distribution of land and capital. Consequently, in regions dominated by estates we may expect aristocrats and individuals to have taken the initiative, and in regions dominated by minor farms we may expect peasants and parish communities to have been active⁶⁵.

⁵⁷ Cf. Hammarskiöld 1985 p 39ff, 96ff, 128ff.

⁵⁸ Sjögren 1931 p 394ff.

⁵⁹ Review of the research traditions in Bolvig 1992 p 26ff and Wienberg 1993 p 147ff.

⁶⁰ Wienberg 1997.

⁶¹ Recent examples of church studies focusing on the landowning aristocracy are Anglert 1995, Dahlberg 1998, Skre 1998 and Brendalsmo 1999.

⁶² Anker 1997 p 45ff.

⁶³ SvK IV: 4, vol. 84, p 556: "... did here this church: Högmund with four horses and Liknvid with two horses and Häggvid with two Botvid with one horse and Agnmund (and Liknvid) with one horse ... and Fairgair with two horses and Rodvald with one horse and Ronvid with two horses and Hallved with one horse and all the people, which here have had work, both named and unnamed, God have mercy on them, both living and dead".

⁶⁴ Information kindly supplied by Jan Brendalsmo, Nov. 1998.

⁶⁵ Cf. Wienberg 1993 p 174ff.

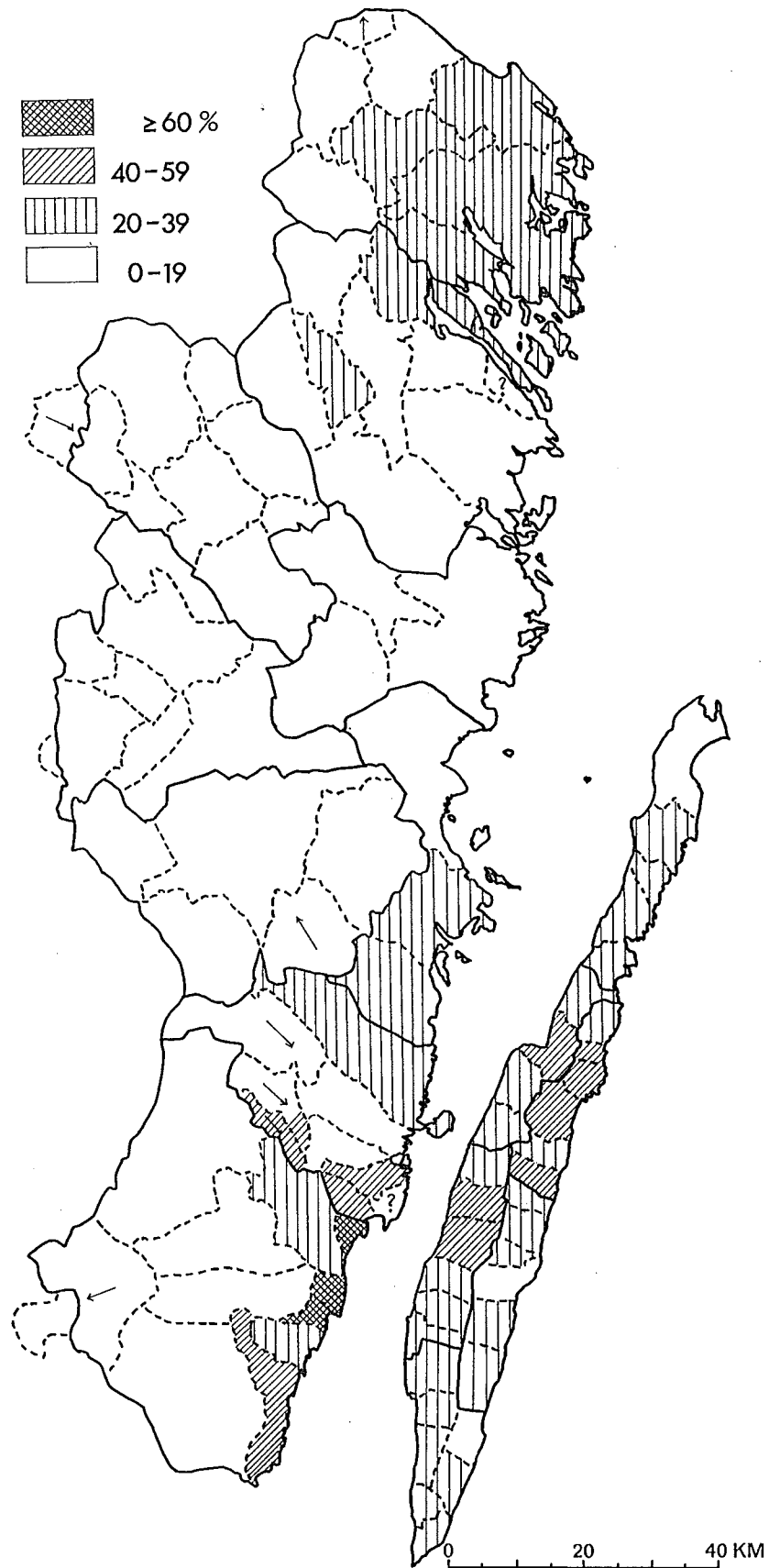


Figure 9. The percentage of arable land in each parish in the County of Kalmar drawn according to statistics from 1927 in Sjögren 1931.

That it was ordinary landowners who together had the wooden church built is evident from the provincial law of Småland from c. 1300, which approximately covered the diocese of Växjö, i.e. the forested districts immediately west of Möre: "Now if peasants would build a church; then they should arrange a meeting for all landowners in the parish, to come there. They should cut timber according to the census and do carting according to the number of draught animals and supply food according to the access to cattle"⁶⁶.

The present County of Kalmar, that is Öland and eastern Småland, was subject at that period to the law of Östergötland. Here the building of churches is mentioned only cursorily with the statement "The king has the church building begun, the peasants carry it out to the end".⁶⁷ The law itself does not reveal any social differences, but treats the landowning peasantry and the parish as one community. And the statement on the king and the peasants is open to various interpretations.

Knowledge of the distribution of land might indicate what is plausible with regard to the building of churches. And conversely, the well-known churches might provide valuable information for an examination of the social structure of a region. But there is a risk of circular argument when models decided in advance are allowed to prevail. The models may obstruct our investigation into national, regional, and local differences as well as into changes through time. We must continue to study specific places and periods, where we might identify church builders along the social scale from the king downwards.

Ever since Klavs Randsborg used runic stones in his innovative study of Viking Age Denmark in a processual perspective, runic stones have been treated as social and political sources⁶⁸. A typical example is the use by Mats Anglert of runic stones in the Ystad area of Southern Sweden as indicators of "noble men" in his study of church organisation⁶⁹.

Now, if runic stones can be used as social indicators, then we can conclude that the stave churches as well as the Romanesque stone churches of the 11th and 12th centuries belonged to the aristocratic settlements. Runic stones, traces of stave churches and early stone churches correlate very well in the

County of Kalmar. Runic stones occur in great numbers on Öland and in Möre, and in smaller numbers in Aspeland, Handbörd and Tjust (fig. 10), where first the stave churches and later also the Romanesque churches were numerous⁷⁰. Furthermore, the "Eskilstuna monuments" are found in places where we also know of early or special churches - at Hossmo, Hulterstad and Köpinge⁷¹. Wherever we have a runic stone in the parish, we see a Romanesque stone church, and at most places with traces of early stave churches, we know of runic stones, although not all parishes with a Romanesque stone church have a runic stone. There is only one clear deviation, namely at Mörlunda, where the church is supposed to have been a timber church, but three runic stones are documented. But in fact, we only know that the church was burned by the Danes in 1567, not that it definitely was built of timber⁷².

The district of Handbörd (fig. 11) might function as a clearcut example of how "petrification" started in an old settlement dominated by an aristocracy. A Romanesque stone church was built at Högsby, a place with an early place name and 3 runic stones. Timber churches were later built at Fliseryd, Fagerhult and Kråksmåla, and at the last two places stone sacristies were subsequently added. The timber churches were built in recently colonised regions characterized by medieval place names and the absence of runic stones. Kråksmåla did not become a parish until the 15th century⁷³. Even when three parishes had to be detached from the old Högsby parish, the parish of Högsby remained the largest in total area and cultivated land.

From a district we turn to a single church. The church of Gärdserum in Tjust was a big three-aisled stave church, where the eastern part, the chancel and sacristy were built in stone, probably around 1300 (fig. 12). The church was pulled down in 1854. But it is known that two gravestones lay in the chancel over Eggard and Margareta, son and daughter

⁶⁶ Holmbäck & Wessén 1946, ser. 5 p 423.

⁶⁷ Holmbäck & Wessén 1933, ser. 1 p 7.

⁶⁸ Randsborg 1980.

⁶⁹ Anglert 1989.

⁷⁰ Or have the researchers given the churches early datings inspired by the existence of runic stones?

⁷¹ Neill & Lundberg 1994 p 150f.

⁷² Cf. SvK 192 p 192.

⁷³ DMS 4:2 p 25ff.

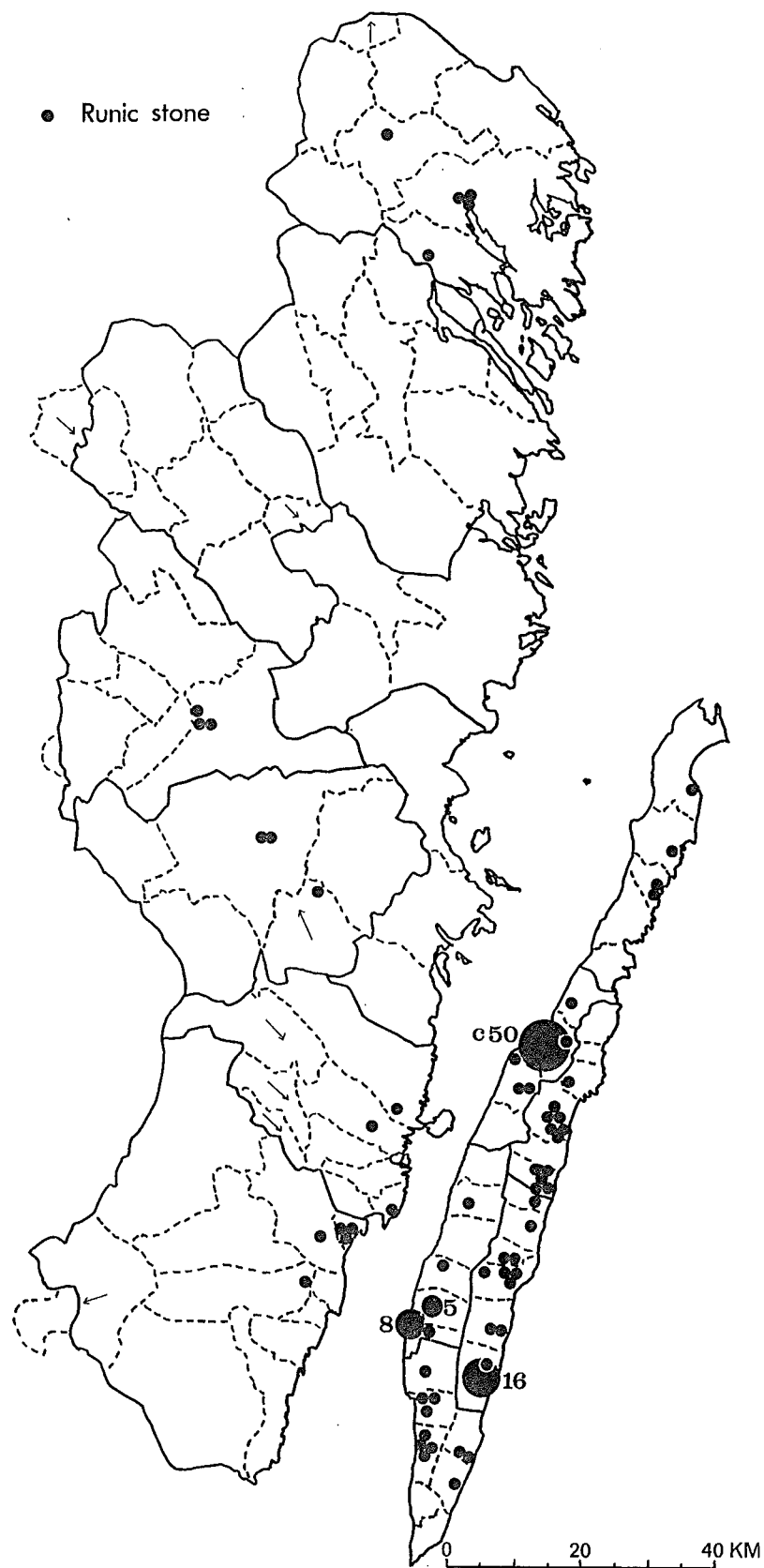


Figure 10. Runic stones in the County of Kalmar. Sources: SR 1, 4; DMS 4: 1-3; Larsson 1996.

respectively of the knight Filip Ulvsson, mentioned between 1296 and 1336. Thus the chancel also functioned as a grave chapel⁷⁴. Again we have indicators of an aristocratic initiative behind the rebuilding in stone, but now less anonymous.

Finally, the ten stone sacristies at wooden churches represent a minor step in the transition from wood to stone. The priority given to the sacristy may reflect in part the wish to protect the treasures of the church against fire and in part concern for the comfort of the rector. Thus the stone sacristy might have come to exist on the initiative neither of aristocrats nor peasants, but of the priest. As pure speculation we may wonder whether the vanished brick sacristy of Hallingeberg was built on the initiative of the rector Ragnar, who died in 1325 and was buried under a gravestone in front of the altar in the old timber church - or of one of his successors⁷⁵.

Aristocrats or peasants? The observations from the County of Kalmar may be summarized as a both-and: The early stave churches were built in established agricultural regions on the initiative of the landowning aristocrats and the larger peasant-proprietors (the difference was probably difficult to define at this stage), who also erected runic stones. The heirs of these aristocrats or peasant-proprietors replaced the stave churches with Romanesque stone churches. Later stone churches and timber churches were erected by the landowners of the parish. Most likely it was the nobility, which was numerous in Småland, who initiated the continuous use of stone, while the peasants had timber churches built. And in some cases sacristies were built on the initiative of the local priest. Stave churches and the first stone churches might initially have been private manorial chapels, but since the early ecclesiastical organisation is almost unknown, it is difficult to decide how the status of the church might have influenced the choice of building materials. But regardless of initiative and status it was obvious that all the people connected with the manor or the parish were forced to carry out the practical work together with craftsmen from outside.

Clash or Compromise?

All the churches in the county - stave, stone and timber churches - represented a "Europeanisation" in the sense that the different building techniques

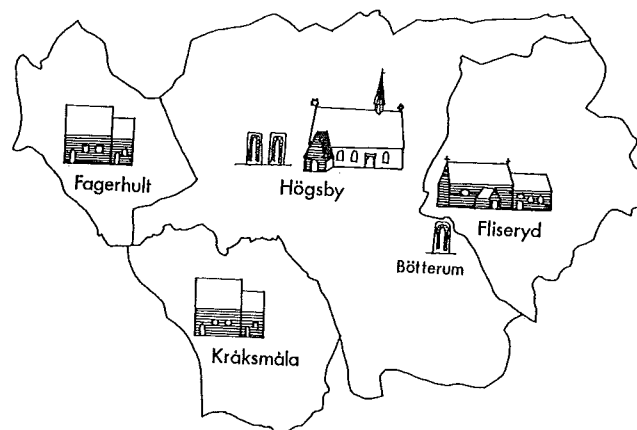


Figure 11. The district of Handbörd with 4 medieval churches and 3 runic stones.

were imported into Scandinavia from other parts of Europe. But did these new building techniques, including "petrification", result in clash or compromise?

Stave churches had their models abroad, even though today we associate stave churches with Scandinavia, especially Norway. Continental Europe was dotted with wooden churches in the early Middle Ages, from which the first models might have been fetched by missionaries. Later a special type of stave church was created in Norway in the 12th century as a compromise between foreign stone ideals and local timber traditions. The developed stave church became almost eternal, as did the stone church, when it was placed on a stone foundation⁷⁶.

Even the stone churches involved a compromise: between foreign ideals and local possibilities. The churches were built in local conditions using local stone and adjusted to local demands with regard to size and splendour. Thus there was a long journey of compromises from the mosaics of Byzantium to the painting on wood at the village of Kråksmåla.

The timber churches themselves were an interesting example of a technical compromise on a local level. The timber technique, which was probably imported from Russia around 1000, allowed churches to be built in forested areas using local

⁷⁴ SvK 192 p 159ff; Gardell 1945-46, I p 197f; Ullén 1990 p 174ff.

⁷⁵ SvK 192 p 169f; Gardell 1945-46, I p 239.

⁷⁶ Anker 1997 p 212ff.

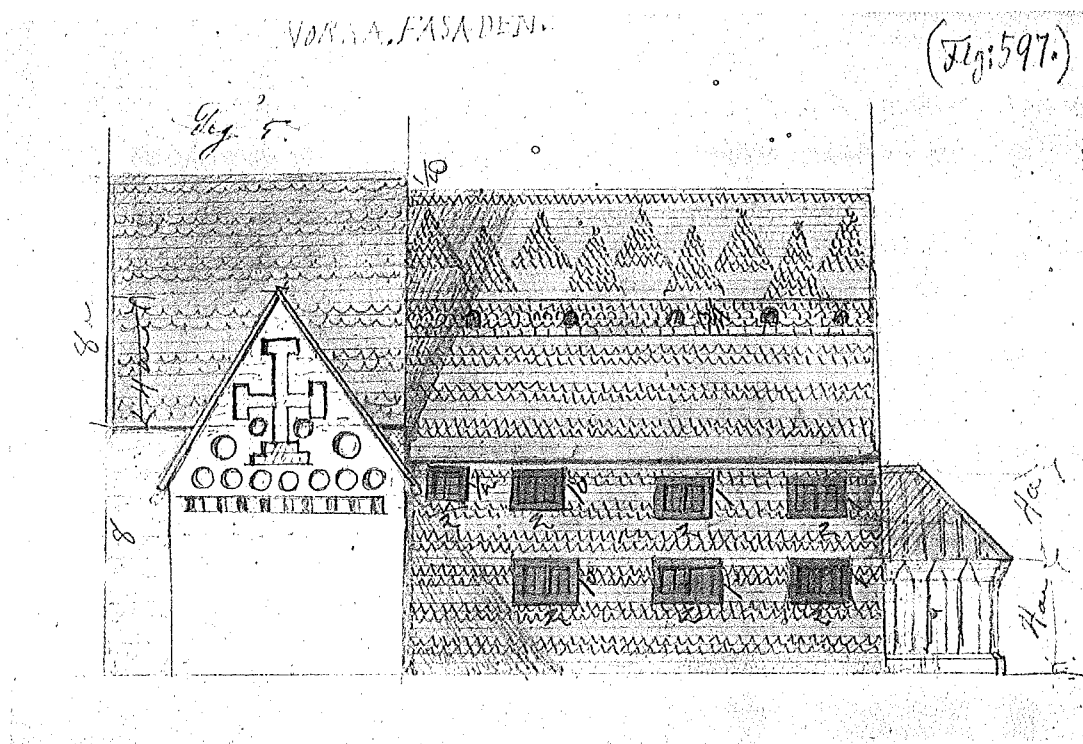
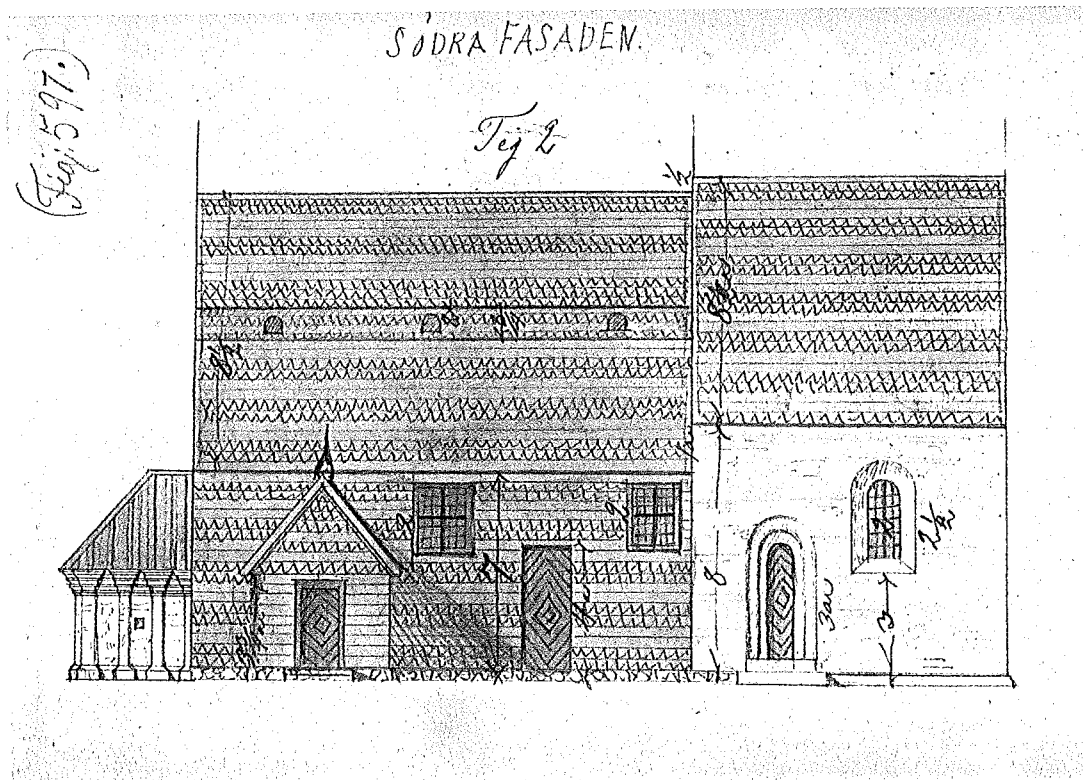


Figure 12. The church of Gärdserum, half a stave church and half a stone church. Drawings by Nils Månsson Mandelgren 1847. Photo the Folk Life Archives in Lund.

materials, but still with the stone church as an architectural model⁷⁷. After the first generation of stave churches and stone churches on the initiative of the aristocracy and large peasant-proprietors, more churches were needed in the parish organization. The timber technique already used in the town was a proper answer.

Why, then, did the standard material for building churches change from wood to stone? Here it is not sufficient just to refer to the short life span of a stave church. The developed Norwegian stave church and the Swedish timber church have stood for up to 800 years. Nor are ecclesiastical demands for a church to be built of stone a convincing answer. And stone churches were built long before the existence of parishes - just as parish churches can be built in timber up to this day.

Weighed down by all the evidence of aristocratic initiatives I reluctantly have to admit that religious piety and political ambition seem to be interwoven. We are dealing with a mixture of religion and power, where the concept of "conspicuous consumption" is of relevance, even when "conspicuous production" would be more correct. The use of stone for church-building was in itself a manifestation. Or to quote Harry Fett writing nearly a century ago on the politics of church building: "They wanted to impress with a mighty architecture"⁷⁸.

From the law of Frostating in Norway, dated to the 12th and 13th centuries, it is known that the choice of building material could be controversial: "The peasants should let all the men in the county build the county church and have it done in 12 months, or pay a fine of 15 marks to the bishop if it is of timber. But if people want to build a church of stone, then they should decide, who want the best and who are most clever, if there are some who do not want it and there is dispute about it."⁷⁹

The local resistance is better known from post-medieval periods. From Sweden as well as Norway we have evidence of local resistance to building in stone in the 17th and 18th centuries. The authorities wanted new churches in stone, but the parishioners had greater reverence for timber - and maybe for their own purses. Then by a royal decree of 1776 it was prescribed in Sweden that churches were no longer allowed to be built of wood⁸⁰.

So if the stone church represents hierarchical aristocratic boasting, the timber church represents an answer at the local level - a compromise. We are Christians, of course, but we do not have to erect a church in stone like the knights and priests. We peasants build in timber.

Apart from this, the only real or symbolic conflict to be observed is represented by the fortification of churches on Öland and in Möre in the 13th century, but that is another story.

⁷⁷ Rosander 1986 p 123ff on the timber or cross-jointing technique.

⁷⁸ Fett 1909 p 21.

⁷⁹ Anker 1997 p 208f.

⁸⁰ SvK 192 p 12f; 199 p 133; also Christie 1981 p 174f.

Acknowledgements

I am grateful to the main editor of DMS, Sigurd Rahmqvist, who kindly gave me copies of the descriptions of churches from the volume on Aspeland, Sevede and Tuna, which is in press. Thanks also to Anders Andrén (Lund), Nils Blomkvist (Visby), Jan Brendalmo (Oslo) and Bodil Petersson (Lund) for critical and constructive comments on the manuscript.

Literature

- Ahrens, Claus (ed.) 1982, Frühe Holzkirchen im nördlichen Europa. Veröffentlichung des Helms-Museums Nr. 39. Hamburg.
- Andersson, Karin 1983, Kalmarkustens kyrkor under tidig medeltid. Hikuin 9. Højbjerg. Pp. 189-202.
- Andersson, Karin & Bartholin, Thomas S. 1990, Några medeltida kyrkor vid kalmarkusten i dendrokronologisk belysning. Hikuin 17. Højbjerg. Pp. 183-200.
- Anderson, Iwar 1960, Kyrkorna i Stenåsa och Halltorp. Antikvariskt arkiv 14. Stockholm.
- Anglert, Marit 1993, Kyrkorna i Möre. Möres kristnande. (Ed.) Henrik Williams. Projektet Sveriges kristnande, Publikationer 2. Uppsala. Pp. 145-170.
- Anglert, Mats 1989, Den kyrkliga organisationen under äldre medeltid. By, huvudgård och kyrka. Studier i Ystadsområdets medeltid. (Eds.) Hans Andersson & Mats Anglert. Lund Studies in Medieval Archaeology 5. Stockholm. Pp. 221-242.
- Anglert, Mats 1995, Kyrkor och herrevälde. Från kristnande till sockenbildning i Skåne. Lund Studies in Medieval Archaeology 16. Lund.
- Anker, Peter 1997, Stavkirkene - deres egenart og historie. Cappelen Kunstfaglige Bibliotek. Oslo.
- Augustsson, Jan-Erik 1992, Medeltida husbyggande i Sverige. Bebyggelsehistorisk tidskrift 23. Stockholm. Pp. 55-85.
- Augustsson, Jan-Erik 1996, Den profana arkitekturen. Den gotiska konsten. Jan-Erik Augustsson et al. Signums svenska konsthistoria 4. Lund. Pp. 134-155.
- Beckett, Francis 1924-26, Danmarks Kunst I-II. København.
- Bolvig, Axel 1992, Kirkekunstens storhedstid. Om kirker og kunst i Danmark i romansk tid. København.
- Bonnier, Ann Catherine 1981, Uppland under medeltiden - kulturlandskapets utveckling och det konsthistoriska materialet. Bebyggelsehistorisk tidskrift 2. Stockholm. Pp. 74-88.
- Bonnier, Ann Catherine 1987, Kyrkorna berättar. Upplands Kyrkor 1250-1350. Upplands fornminnesförenings tidskrift 51. Stockholm.
- Bonnier, Ann Catherine 1996a, Kyrkorna i Dals härad. Några av landets äldsta kyrkor. Östergötland 1996. Linköping. Pp. 67-84.
- Bonnier, Ann Catherine 1996b, Kyrkor, dopfuntar och gravmonument. Kristnandet i Sverige. Gamla källor och nya perspektiv. (Ed.) Bertil Nilsson. Projektet Sveriges kristnande. Publikationer 5. Uppsala. Pp. 181-214.
- Borelius, Aron 1969, Öland. Fornborgar, väderkvarnar, kyrkor och slott. Lund.
- Boström, Ragnhild 1982, Ölands kyrkor. Svensk fornminnesplatser 53. Stockholm.
- Boström, Ragnhild 1983, Ölands medeltida kyrktorn. Hikuin 9. Højbjerg. Pp. 163-188.
- Boström, Ragnhild 1997, Är Resmo den äldsta stenkyrkan i det dåvarande Sverige? Hikuin 22. Højbjerg. Pp. 157-170. (Official, but incorrect, year of print is 1995)
- Boström, Ragnhild & Bartholin, Thomas S. 1990, Dendrokronologisk datering av några Öländska kyrkor. Hikuin 17. Højbjerg. Pp. 201-210. Pp. 99-112.
- Brendalmo, A. Jan 1991, Å ta trua. Religion og makt under statsdannelsen i Norge. Gunneria 64. Trondheim. Pp. 331-345.
- Brendalmo, A. Jan 1999, Trøndelags middelalderske kirkesteder: Hvor aristokratisk var landskapet? Hikuin 24. Højbjerg. Pp. 99-112.
- Bugge, Anders 1934, Norge. Nordisk Kultur XXIII. Kirkebygninger og deres Udstyr. København/Oslo/Stockholm. Pp. 189-270.
- Christie, Håkon 1981, Stavkirkene - Arkitektur. Norges kunsthistorie. Bind 1. Fra Oseberg til Borgund. (Eds.) Knut Berg et al. Oslo. Pp. 139-251.
- Cinthio, Erik 1983, Dalby kungsgård. Medeltidsarkeologien som historisk vetenskap. Kungl Vitterhets Historie och Antikvitets Akademiens Årsbok 1983. Stockholm. Pp. 89-100.
- Claesson, Eivind 1989, Cuius ecclesiam fecit. Romanska kyrkor i Västergötland. Licentiate dissertation in medieval archaeology, Lund University. Lund.
- Dahlberg, Markus 1998, Skaratraktens kyrkor under äldre medeltid. Skrifter från Skaraborgs Länsmuseum 28. Skara.
- Det medeltida Sverige, 4 Småland, 1-3. (Ed.) Sigurd Rahmqvist. Stockholm 1987ff. (Abbreviated DMS)
- Ekroll, Øystein 1997, Med kleber og kalk. Norsk steinbygging i mellomalderen 1050-1550. Oslo.

- Fett, Harry 1909, Norges kirker i middelalderen. Gammel norsk kultur i tekst og billeder. Kristiania.
- Forsell, Carl af 1834, Socken statistik öfver Sverige. Stockholm.
- Friberg, Gunnel & Sundnér, Barbro (eds.) 1996, Jönköpings, Kronobergs, Kalmar och Blekinge län. Natursten i byggnader. Stockholm.
- Gardell, Sölve 1945-46, Gravmonument från Sveriges medeltid, I-II. Stockholm.
- Gren, Leif 1989, Platon mitt i byn. Kyrsocknens uppkomst från monumentologisk synpunkt. Mänsklighet genom millennier. En vänbok till Åke Hyenstrand. Stockholm. Pp. 63-71.
- Hammar skiöld, Britt-Marie 1985, Ett läns utveckling. Kulturminnesvårdprogram för Kalmar län. Etapp I. Översikt. Länsstyrelsen informerar. Meddelanden 1985:18. Kalmar.
- Hermelin, Samuel Gustaf 1807-18, Geografiska kartor öfver Sverige. Stockholm.
- Hiekkanen, Markus 1994, The Stone Churches of the Medieval diocese of Turku. Finska fornminnesföreningens tidskrift 101. Helsinki.
- Holmbäck, Åke & Wessén, Elias (eds.) 1933-46, Svenska landskapslagar. Tolkade och förklarade för nutidens svenskar. Ser. 1-5. Stockholm.
- Jensenius, Jørgen H. 1997a, Fra tre- til stenkirke, Bø i Telemark. Hikuin 22. Højbjerg. Pp. 121-126. (Official, but incorrect, year of print is 1995)
- Jensenius, Jørgen H. 1997b, Var det krav om høye stenkirker i middelalderen? Viking 1997. Oslo. Pp. 85-93.
- Jeppesen, Jens & Madsen, H. J. 1997, Trækirke og stormandshal i Lisbjerg. Kuml 1995-96. Årbog for Jysk Arkæologisk Selskab. Århus. Pp. 149-171.
- Johannsen, Hugo & Smidt, Claus M. 1981, Kirkens huse. Danmarks arkitektur. (Ed.) Hakon Lund. København.
- Klackenberg, Henrik 1992, Moneta nostra. Monetarisering i medeltidens Sverige. Lund Studies in Medieval Archaeology 10. Stockholm.
- Krins, Hubert 1968, Die frühen Steinkirchen Dänemarks. Dissertation der Philosophischen Fakultät der Universität Hamburg. Hamburg.
- Landmark, Torbjørn 1998, Makt, ideologi og materiell kultur. En studie av arkitektur i Oslos middelalder og renessanse. Dissertation in Nordic archaeology, Oslo University.
- Langberg, Harald 1955, Danmarks Bygningskultur. En historisk Oversigt. I-II. København.
- Larsson, Maria 1996, Ölands kristnande. D-thesis in medieval archaeology. Institute of Archaeology. Lunds University.
- Larsson, Stefan & Saunders, Tom 1997, Order and Architecture in the Age of Transition: A Social Analysis of the Archbishop's Palace in Trondheim, Norway. Norwegian Archaeological Review Vol. 30, No 2, 1997. Oslo. Pp. 79-102.
- Lidén, Hans-Emil 1986, Tre eller stein? Bidrag til en kulturgeografisk analyse av forholdet mellom tre- og steinarkitekturen i Hordaland i middelalderen. Hikuin 12. Højbjerg. Pp. 93-100.
- Lidén, Hans-Emil 1987, De sørvest-norske steinkirkene. Et forsøk på en kulturgeografisk analyse av steinkirkene på Sørvestlandet i middelalderen. Kyrkja i lokalsamfunnet: om kyrkjebygninger som historisk kjelde. (Ed.) Bjørn Slettan. Agder distriktshøgskole, Skrifter 1987: 1. Kristiansand. Pp. 7-40.
- Liebgott, Niels-Knud 1989, Dansk Middelalderarkæologi. København.
- Lindgren, Mereth 1995, Stenarkitekturen. Den romanska konsten. Lennart Karlsson et al. Signums svenska konsthistoria 3. Lund. Pp. 52-115.
- Linköpings Stifts kyrkor. Linköpings Stiftsråd Kyrkodeskrivningsnämnd. Linköping 1958ff.
- Lorenzen, Vilh. 1934, Danmark. Nordisk Kultur XXIII. Kirkebygninger og deres Udstyr. København/Oslo/Stockholm. Pp. 94-188.
- Lovén, Christian 1996, Borgar och befästningar i det medeltida Sverige. Kungl. Vitterhets Historie och Antikvitets Akademiens Handlingar, Antikvariska serien 40. Stockholm.
- Morris, Richard 1989, Churches in the Landscape. London.
- Neill, Tom & Lundberg, Stig 1994, Förnyad diskussion om "Eskilstunakistorna". Fornvännen 1994, årg. 89. Stockholm. Pp. 145-159.
- Nyborg, Ebbe 1986, Kirke- sognedannelse - bebyggelse. Nogle overvejelser med udgangspunkt i et bebyggelsesprojekt for Ribeområdet. Hikuin 12. Højbjerg. Pp. 17-44.
- Olsen, Olaf 1961, St. Jørgensbjerg kirke. Arkæologiske undersøgelser i murværk og gulv. Aarbøger for nordisk Oldkyndighed og Historie 1960. København. Pp. 1-71.
- Olsen, Olaf 1992, Kristendommen og kirkerne. Viking og Hvidekrist. Norden og Europa 800-1200. (Ed.) Else Roesdahl. København Pp. 152-161.
- Qvale, Wencke 1993, Stavkirkeproblemet i forskningshistorisk belysning. Kunst og kultur 1993 Nr. 2, Årg. 76. Oslo. Pp. 66-88.
- Randsborg, Klavs 1980, The Viking Age in Denmark. The Formation of a State. London.
- Roosval, Johnny 1924, Den baltiska Nordens kyrkor. Föreningen Urds skrifter II. Uppsala.

- Rosander, Göran (ed.) 1986, Knuttimring i Norden. Bidrag till dess äldre historia. Falun.
- Schück, Herman 1959, *Ecclesia Lincopensis*. Studier om Linköpingskyrkan under medeltid och Gustav Vasa. *Acta Universitatis Stockholmiensis, Stockholm Studies in History* 4. Stockholm.
- Sjögren, Otto (ed.) 1931, Sverige. Geografisk beskrivning. 2: Östergötlands, Jönköpings, Kronobergs, Kalmar och Gotlands län. Stockholm.
- Sjömar, Peter 1997, Romanskt och gotiskt - takkonstruktioner i svenska medeltidskyrkor. *Hikuin* 22. Højbjerg. Pp. 207-230. (Official, but incorrect, year of print is 1995)
- Skre, Dagfinn 1998, Herredømmet. Bosetning og bebyggelse på Romerike 200-1350 e.Kr. *Acta Humaniora* 32. Oslo.
- Stiesdal, Hans 1977, Die ältesten Danischen Donjons. *Chateau Gaillard. Etudes de Castellologie médiévale VIII*. Caen. Pp. 279-286.
- Sveriges Kyrkor, konsthistorisk inventarium Iff. Stockholm 1912ff. (abbreviated SvK)
- Sveriges Runinskrifter Iff. Stockholm 1900ff. (Abbreviated SR)
- Tuulse, Armin 1951, Träkyrkor med stensakristia. *Fornvännen* 1951, årg. 46. Stockholm. Pp. 159-181.
- Tuulse, Armin 1955, Hossmo. En försvarskyrka med östtorn. *Kungl. Vitterhets Historie och Antikvitets Akademiens Handlingar, Antikvariska Serien* 2. Stockholm.
- Ullén, Marian 1990, Stavkyrkan i Björsäter. *Hikuin* 17. Højbjerg. pp. 171-182.
- Ullén, Marian 1995, Bygga i trä. Den romanska konsten. Lennart Karlsson et al. *Signums svenska konst-historia* 3. Lund. Pp. 34-51.
- Wienberg, Jes 1986, Gotiske kirkehvelvinger - et økonomisk perspektiv. *Medeltiden och arkeologin. Festskrift til Erik Cinthio. Lund Studies in Medieval Archaeology* 1. Lund. Pp. 213-225.
- Wienberg, Jes 1993, Den gotiske labyrint. *Middelalderen og kirkerne i Danmark. Lund Studies in Medieval Archaeology* 11. Stockholm.
- Wienberg, Jes 1997, Stormænd, stormandskirker og stormandsgårde? *META, Medeltidsarkeologisk tidsskrift* 1997: 4. Lund. Pp. 53-61.
- Wienberg, Jes 1999, Enten-Eller. *Apsidekirker i Norden. Hikuin* 24. Højbjerg. Pp. 7-44.