English Summaries

On Ecclesiastical Geography and Medieval Urbanisation

By Ebbe Nyborg

The article takes as its point of departure the Swede, Anders Andrén's dissertation of 1985, "Den urbana scenen" with the subtitle, "Städer och samhälle i det medeltida Danmark" (The Urban Scene. Towns and Society in Medieval Denmark) – an investigation which consistently employs ecclesiastical geography as a basis for the determination and periodization of urban development. The subject is submitted and discussed, from which it is concluded that the material – with its limitations – is definitely useful for making a rough quantitative analysis of urbanisation (fig. 6 a-d). On the other hand, to utilise parochial structure (fig. 8) as a kind of qualitative definition of different "town types" is mistaken, as well as over-estimating the strength of ecclesiastical geography as testimony. A similar tendency to press too hard the ecclesiastical evidence of towns is shown by excessively schematic theories as to whether certain towns were planned as a "sacral space" (preferably cruciform) and in modern interpretations, by the German (and Scandinavian) "patrozinian research", establishing certain "church types" such as the so-called merchant churches.

The article will be published in French in full under the title: "Topographie ecclesiastique et urbanisation medievale" in the periodical Storia della Città.

A Map of Medieval Parish Churches in Denmark

By Anemette S. Christensen

Reflections and problems concerning the preparation and interpretation of the map published in *Historisk Atlas Danmark (1988)* are presented.

Ravnkilde Church and its Predecessor

By Birgit Als Hansen

In the course of a major restoration of the parish church of Ravnkilde (Himmerland, Jutland) the somewhat unusual history of the building was revealed.

The present church, which is mainly built of granite ashlars in the traditional romanesque manner, has had a predecessor of calcareous tufa – presumably quarried locally, but not previously found in medieval buildings in this part of the country.

Part of the nave of this small building has survived as the chancel in the present church, and a modest excavation east of the present apse revealed the foundations of the chancel of the earlier church. (fig. 8).

An Excavation in Gundsømagle Church

By Birgit Als Hansen

In 1988 the National Museum undertook an excavation in the parish church of Gundsømagle north of Roskilde. The church was undergoing a major restoration and while mural paintings from two different periods were uncovered on the walls, remnants of at least four older floors and stone-built furniture from different periods were unearthed under the present floor-level. A number of samples of timber from beams and roofing were submitted to dendrochronological analyses, and the results made it possible to date the erection of the original parts of the building and some of the later alterations and additions.

The original church consisting of nave, chancel and apse was built of calcareous tufa about 1100. The chancel, chancel-wall and presumably the later demolished apse were embellished with mural paintings of very high quality. Apart from the main altar (which must have disappeared with the apse) the furniture was sparse and

consisted of two small altars in the nave north and south of the chancel arch, a circular platform for the font in the middle of the nave and stone benches along the walls to the west of the doors (fig. 4 and fig. 6). Later the number of seats was multiplied with brick-built benches along the walls east of the doors and with detached benches parallel with the wall-benches. This new arrangement of the nave may be contemporary with the erection of the tower around 1320. The stone-furniture has certainly been in use after the tower was built and its vaulted lower storey made accessible from the nave through an elegant brick arch. It is suggested, that a square brick structure in the tower might be an altar and the room could have functioned as a chapel (fig. 11 and fig. 14). The murals on the north, south and west walls of the nave were probably painted in this period. About 1450 the chancel was vaulted and the apse demolished. The nave was probably vaulted a little later, but here no roof-timber was left to give an exact date. There is reason to believe that the font by this time was placed in the tower on a platform close to the western wall. At the beginning of the seventeenth century the renaissance pulpit and alter-piece were installed, and remnants of wooden beams and joists indicate, that the interior by this time must have looked more or less as it does today (fig. 15). Covered by the original mortar-flooring from about 1100 a few older Christian burials were located, but no traces of an earlier building were found.

The Romanesque Tower of Lihme Church

By Morten Aaman Sørensen

Since the middle of the 19th century the church of Lihme in Salling (Jutland) has been of special interest to the architectural historians because of its peculiar building technique, its English-Norman character – and the large romanesque tower (fig. 1).

In the publication "Sallinglands Kirker" from 1884 the architect J. F. C. Uldall describes the tower as divided by a tall arch into a hall to the east and to the west a two-storeyed part with arcades leading to the nave.

In 1983, during an investigation of the interior of the tower the base of the arcade-pillar was found, and it could be established that late in the Middle Ages this pillar had been taken down and the materials used for the pillars of the tall arch which now divide the tower. In the walls were found traces of the beams of the original gallery as well as remnants of two pew galleries which had been built in at a much later date. In the south-east corner of the tower were found remnants of a newel stair with steps of granite (figs. 2-3).

On the basis of these observations it has been possible to make a graphical reconstruction of the tower, and to establish the fact that initially the tower did not serve as a hall (figs. 5-6).

Danish Tower Clocks from 1400-1850

By Hans Stiesdal

Up to the middle of the 19th century the works of tower clocks were made in the same way, apart from one small but useful alteration: The verge was replaced by the pendulum from about 1700.

The earliest mentioned tower clock in Denmark was placed in the cathedral of Ribe (Jutland) 1401, and the earliest traces are seen in St. Mikkels church of Slagelse (Sealand) from about 1450.

As the works are technically so alike it is difficult to date them. The article gives a survey of the means of dating (written sources, decorations etc.), and of the distribution og the works, the owners, the repairmakers, the position in the church or, later on, in the towers, of the time-indicators (bells and dials), and of the clock-makers.

The Usefulness for Dating Purposes of Late-medieval Coins found in Churches

By Jørgen Steen Jensen

The main thesis of the author is that several late-medieval coins, commonly found in Danish churches, had a very long period of circulation. This applies to the oldest *witten* from Lübeck and Hamburg (struck from 1365 till c.1379, but still found after 1424). This is also the case of the Danish *hvid* with a cross, which was struck from c.1444, and which is found in hoards from the 1530s and 1540s and known from 'paper-hoards' even as late as 1580. Maybe there were non-economic motives for the hoarding of this coin?

It is also possible that some widespread Mecklenburg bracteates from the second half of the 15th century were still used a hundred years later.

There are, however, also instances of late-medieval Danish coins with a very restricted circulation period. The best example is probably the *klipping* of Christian II, which was struck in enormous quantities of decreasing degrees of fineness 1518-1522, and which was later restruck as a *søsling* under Frederik I c.1524. The latter coin, which is more commonly found in stray finds than its predecessor, is only rarely met with in hoards.

Medieval Burial Customs in Denmark – an archaeological survey

By Jakob Kieffer-Olsen

The first Danish general survey on medieval burial customs was written in 1873 by J. Kornerup and the second in 1931 by V. Gay. Both are thorough works and still valuable today, but partly out of date. The subject was treated in an encyclopedia ("Kulturhistorisk Leksikon for Nordisk Middelalder") in 1960 by E. Skov – a good introduction but also partly out of date. The 11th century was examined in 1980 by E. Roesdahl, who gives a short survey and raises some questions about the transitional period between paganism and Christianity.

Articles concerning excavations in churches or churchyards are numerous. At the beginning, around 1900, the burial customs were treated fair and comprehensively, but in the following period the archaeologists handed the examination of ordinary graves over to the anthropologists. Since about 1960, perhaps inspired by Swedish colleagues, the Danish archaeologists have studied ordinary graves and burial customs, but unfortunately often in a brief and preliminary way due to lack of time or money. The modern studies have not been linked to the individual excavation of a church or churchyard, but in several cases have dealt with common features, for instance P. K. Madsen's work on gravepots. At present a number of excavations are under examination/publication: The churchyards round St. Drotten in Lund and Löddeköpinge in Scania, Tirup in eastern Jutland, Skt. Nicolai in Holbæk, the Franciscan friary in Svendborg and the churchyard under the town hall square in Slesvig.

L. Redin has shown, that the position of the arms of the corpse changes along the centuries. The oldest position is with the arms along the body (type A); hands crossing over the pelvis (type B) is the dominant position in the 13th century, while arms over the stomach (type C) and over the chest (type D) seem to dominate at least the 15th century. The medieval graves can be divided into three groups: stone coffin-graves, wooden coffin-graves and graves without coffin. These main groups can be subdivided into several groups, of which the dating, the distribution, the social status of the deceased etc. is varying. Throughout the medieval period groups of artifacts are found in the graves: the bishop's dress, swords, seals, pilgrim signs, gravepots etc.

There is a widespread interest in the study of medieval churchyards in Europe today, and several projects are on their way.

He rests under a Blue Stone. On funeral practise in the Middle Ages, described by written and archaeological evidence

By Per Kristian Madsen

The article aims at contrasting the various evidence, which is given by written and archaeological sources concerning medieval burial practice. It gives a brief description of the development of the Christian burial practice, which was founded on the habits and legislation of the Romans. The compromise between the ideals of the Canon Law and the demands of the people – and not least the clergy – is clearly demonstrated by the composition of the sentences in the Decretum Gratiani from the middle of the 12th century. On this background a series of Danish written sources, i.a. the Manuals and some medieval wills, are presented. It seems to be common for almost all kinds of sources, that they contain very little direct information on the subjects, with which archaeologists are mainly concerned, that is the dating and the type of grave, the position of the body, and so on. Therefore, a thorough picture of this important and fascinating part of every-day life in the Middle Ages has to be created from all sorts of available sources. In the present situation it seems most urgent to try to work out some guidelines for the dating and grouping of the main part of the burials found in excavations, although this task may at first seem difficult to carry through, mainly because of the homogeneous, rather anonymous character of the material.

A Historical Review of Anthropological Studies Based on Mediaeval Skeletons from Denmark

By Pia Bennike

About the middle of the last century when "revolutionary" thoughts on human and racial evolution were born, an interest in human skeletons found in archaeological excavations arose. At that time emphasis was mainly laid on traditional craniological studies dividing skulls into groups, types and subtypes by means of a number of measurements and indices. Only prehistoric skeletal remains were discussed in such studies. Mediaeval skeletons were not drawn into the investigations until the interest in palaeopathology increased at the beginning of this century. Professor of anatomy Fr. C. C. Hansen studied Norse skeletons from Greenland and finding common pathological changes in the bones he concluded that the extinction of the Norsemen was caused by degeneration. His conclusion was, however, later criticizied by his colleague K. Fischer-Møller.

The physician K. Isager was the first to carry out a palaeopathological study on the basis of several hundred skeletons from Denmark (Øm monastery). His work was later followed up by professor of medical history V. Møller-Christensen who for many years completely dominated the field of palaeopathology in Denmark. He became internationally known for his studies on the effects of leprosy on mediaeval skeletons from Næstved.

In the last decades the interest in the Mediaeval population has increased and various analytical and interdisciplinary research methods have evolved. J. Boldsen has been studying several aspects of population genetics and structures, and with a number of newly developed statistical models he has been able to elucidate several interesting and until now uninvestigated aspects of the mediaeval population and their society.

B. Sellevold studied the non-metric traits of the Eskimos, Norsemen and the mediaeval Danes, and she found, as expected, greater similarity between Norsemen from Greenland and Danes than between Norsemen and Eskimos. Her results confirmed the results of an earlier study by J. Balslev Jørgensen.

A number of dentists have been studying the dental condition of the mediaeval population. Some of the most important work has been performed by the dentist V. Alexandersen. N. Brøndum, also a dentist studied the teeth of mediaeval skeletons from Svendborg on Funen while the anatomist I. Tkocz studied the bones.

Mediaeval skeletons were included in a comparative palaeopathological study by P. Bennike: Diseases and lesions in bones and teeth from all periods. She is now working on nutrition and the ageing process with a special interest in osteoporoses in ancient populations, the Middle Ages and other periods. Several modern methods, e.g. scanning (BMC), histomorphometry, x-ray, chemical analyses are being employed in this study.

In the last decades, the number of excavations of mediaeval cemeteries has increased considerably. This has resulted in the existence of a number of "collections" consisting of several hundreds of skeletons from different areas of Denmark e.g. Ålborg, Viborg, Næstved, Odense, Horsens, Holbæk and Randers. Many of these "collections" have, however, not yet been published or even studied and are waiting for anthropology to get a higher priority among the sciences in this country.

Death-coins from Danish Churches and Churchyards

By Keld Grinder-Hansen

From the Middle Ages up to recent times the use of coins in death-rites is found in large parts of Europe.

The custom is also known from Denmark, but the spread of the practise has never been systematically examined. This paper presents the existing archaeological evidence from Danish churches and churchyards, based on the record of finds of the Royal Collection of Coins and Medals in Copenhagen.

The material shows two main groups of death-coins:

a. The single-found death-coin (Charon coin), placed in or near the dead person's mouth, hand or on or by the body.

b. Small or large sums of money (usually small coins) – the so-called "dead man's treasures", typically placed with the body of the dead in purses or in other kinds of containers.

Unequivocal examples of single-found death coins are surprisingly rare in the material from both the Middle Ages and later. Archaeological investigations of large medieval churchyards usually provide very few death-coins, however, with a couple of exceptions: e.g. *Vordingborg Castle Church* (13th-15th century) with several ex-

amples of probable death-coins among approximately 80 excavated graves; *Löddeköpinge Churchyard* in Scania (1050-1100), 13 graves with death-coins out of some 1200 graves.

The find material produced considerably more examples of "dead man's treasures". Altogether 64 probable dead man's treasures were listed, covering the period from the early Middle Ages up to the end of the 18th century. The chronological distribution of the treasures (Table 1) shows a marked concentration in the 16th and 17th century (51 % of the total number), which suggests a widespread use of this death-coin rite in those centuries.

From popular accounts of traditional customs (mainly collected in the 19th century) several explanations emerge of the function of death-coins: e.g. grave-gifts, fares (payment to St. Peter or for the stay at the inn in the kingdom of the dead "Naboskrog") or ritual payment to the dead in order to prevent him from ghostwalking and other kinds of wickedness.

Both single death-coins and "dead man's treasures" seem to have been used in these death rites.

From more recent times the archaeological evidence can be supplemented with several concurrent observations from gravediggers indicating, that the presence of coins in graves is a familiar sight far into the 20th century.

The Layout of a post-built Church
An analysis of measurements and ratios

By Jørgen H. Jensenius

During the archaeological excavations in Bø church, Telemark, directed by Dagfinn Skre in 1985, postholes were recorded beneath the floor of the medieval stone church. These are interpreted as carrying the uprights of an earlier timber frame church. In this article the range of values for the dimensions of the wooden church is discussed and a hypothetical plan is presented. It is further considered how the measurements can help to demonstrate the geometric form which was used when laying out the building. It is possible to interpret the church as being laid out with the width of the nave as the basic unit of measurement. A square is constructed with sides of this length, and an isosceles triangle is then added to one side. The apex forms the mid-point in the farther side of a smaller square, whose sides are equal to half the height of the triangle. Using the length of the diagonal of the small square, two sides are extended back towards the original square to form the chancel. These dimensions fall within the previously established range of values. Owing to some uncertainty in the original measurements, the geometric figures cannot be specified absolutely. Nor is it possible to calculate the number of possible linear units contained in the basic measurement, nor the length of such a linear unit.

The Stave Church at Björsäter

By Marian Ullén

The wooden church at Björsäter, Östergötland, was demolished in 1800. The main source of information concerning the church is some written records about its size and structure (fig. 1-2). In 1909 a very large number of richly decorated planks from the interior panelling were found in the wooden constructions of the new church (fig. 13-14). These paintings from the middle of the 14th century are of very high quality, and they have been published in 1953 by Andreas Lindblom (see Note 1).

The medieval wooden churches of Sweden have been relatively unknown because so few of them have survived. There is only one stave church – Hedared in Västergötland – and eleven timber churches. Thanks to studies of surviving materials, archaeological investigations and written records it has been possible to confirm the existence of a very large number of medieval wooden churches and, in many cases, also their construction. The investigations concerning the medieval wooden churches in Småland, Västergötland, Värmland and Närke have recently been published in the series *Sveriges Kyrkor* (see Note 3). Using this material as reference it is now possible to understand the construction of the old church at Björsäter. The church was originally a triple-aisled stave church but modernized during the middle of the 14th century, when it got interior panelling, vaults and paintings (fig. 3a-b). Its original size and construction seem to correspond to the church at Gärdserum south of Björsäter. This triple-aisled stave church was demolished in 1854 but is well known from pictures (fig. 6-9) and written records. The churches at Björsäter and Gärdserum are yet the only known triple-aisled stave churches in the area. They may have been built at the latest in the beginning of the 13th century since the earliest timber churches have been dendrochronologically dated to the 1220s.

The modernized church at Björsäter can be compared with another church in Småland, the timber church at Edshult (fig. 11), which was also panelled, vaulted and painted during the first part of the 14th century.

Some Early-Medieval Churches at the Coast of Kalmar as seen in the Light of Dendrochronology

By Karin Andersson and Thomas S. Bartholin

A survey of the early-medieval churches in the Kalmar region with regard to function and dating was published in Hikuin 9 (1983). Since then, dendrochronological analyses have been carried out, yielding interesting results as regards the churches of Hossmo, Voxtorp and Halltorp.

There are now reasons to modify the early history of *Hossmo Church*. According to the dendrochronological analysis, work on the stone church was begun as early as around 1120, whereas the characteristic tower over the eastern part of the nave is younger and not finished until c. 1180. The fortified attic of the nave was completed as late as the 1240s. The Hossmo datings need further confirmation, though, and call for a new thorough investigation of the building.

As for *Voxtorp Church*, the evidence is more conclusive. A large number of samples, taken from the wall plate of the round nave, show that the nave was not completed until the 1240s. The roof trusses of the secondary chancel date from "1301 ±5".

Also the dating of *Halltorp Church*, a typical exponent of the Kalmar coast churches with a remarkable secular ground floor, has to be somewhat altered. The samples were taken from the joists of the ground floor, belonging to the earliest building period. The date obtained was "c. 1210", making this part of the church some 30 years younger than previously assumed. Consequently, the next building period with its considerable change of plan must be adjusted accordingly, making it some decades younger.

The dendro-dating of the churches of Hossmo, Voxtorp and Halltorp leads to several observations. The fact that the latest of the early building phases can be dated as late as c. 1240 is of special interest. On other grounds, similar datings have been proposed for the churches of Arby, Kläckeberga and Söderåkra (see hikuin 9 and Sveriges Kyrkor, vol. 207). If the Kalmar coast churches were fortified so late, we have to find new explanations for this. In the 1240s, there was not the same impending danger of attacks from the Slavs and the Danes as at the beginning of the century. On the contrary, the period was one of consolidation. Kalmar became a centre for the administration of Möre District and a borough. Some decades later, Kalmar Castle was enlarged and surrounded by a wall, making it continental in style. The neighboring peasants had to contribute with labour and provisions. Could it be that goods were amassed and kept in the fortified churches before delivery to Kalmar? Was it the need for storing rather than defense that prompted the remarkable architecture of the Kalmar coast churches?

Dendrochronological Dating of some Öland Churches

By Ragnhild Boström and Thomas S. Bartholin

Resmo church (fig. 1), published by Boström in 1983 and 1988, has 13 original tie beams (fig. 2). Thanks to these beams, the nave can now be dated to one of the first years of the 12th century. (The chancel is somewhat older, but has no old timber left). Resmo church is not only the oldest stone church in Öland, but also one of the oldest stone churches in all contemporary Sweden. The relative chronology of Resmo W-tower (fig. 3) has not been altered through Bartholin's analyses, but apparently has had more building periods than was supposed earlier.

Hulterstad church (fig. 4), published by Boström in 1967 and 1983, consists of a W-tower erected on the westernmost part of a nave of a medieval, three-aisled church (figs. 5, 6) and nave, vestry and tower cupola from 1803 (fig. 4). The original nave – the bottom part of the W-tower – now can be dated to the 1160s or 1170s. Accordingly the rest of the tower can be schematically dated to be c. 30 years younger.

The roof trusses in the first floor of Bredsättra W-tower, published by Boström in 1980 (figs. 7, 8), show that the tower was built in the very early years of the 13th century. In 1848 the present nave and vestry replaced a medieval church.

The church in Löt, published by Boström in 1975, has a medieval W-tower with lantern from 1796 (fig. 9) and nave and vestry from 1842. Most of the tower was dated to two different periods of the

12th end the 13th centuries. Now Bartholin's analyses show, that the top part of the tower can be dated as late as 1390 ± 5 years. The top floor of the tower with its steeple (fig. 10,11) can thus be associated to a third period.

A board, covering a window of 1669 in Källa (fig. 12, Boström 1969), by Bartholin is dated to 1316 ± 5 and therefore secondary, but from what part of the church we do not know.

These analyses are of great value not only for studies of churches on both sides of the Straits of Kalmar, but also for the research of the medieval restoring of the fortresses from the Migration Period in Öland.

The Church, the Cultural Landscape and the Extended Middle Ages

By Jes Wienberg

The study of church buildings is often restricted to the medieval period. However, this paper argues, that archaeologists should explore the whole life span of the churches from the foundations are laid to the present time, crossing all periods.

The church as an institution is closely connected to the Middle Ages as a concept. The Middle Ages are traditionally defined as the period between Antiquity and the Renaissance, and in Scandinavia, as the period between the Viking Age and the Reformation, but other lines of demarcation are possible.

From the Roman empire to the industrial revolution there are structural similarities which define "an extended Middle Ages", going beyond both the Renaissance and the Reformation. This "longue durée" is characterized by its feudal economy, social orders, Christian ideology and its transport system. The Protestant Reformation in the 16th century did not reduce the religious and social importance of the church. The decisive change in the role of the church did not occur until the 19th century, when the clerical power was replaced by the State and its institutions.

Archaeology as a science is not restricted to the Middle Ages or Prehistory alone. The three methodic dimensions of archaeology, viz. typology, stratigraphy and corology are useful tools in analysing churches and other monuments irrespective of context.

The paper emphasizes three reasons to involve the post-reformation period, taking as a starting point some experiences of "The cultural landscape in 6000 years", also called the Ystadproject, and using the parish churches in Sjörup as examples.

The method: Historical church archaeology could study postreformation architecture to search for analogies and to create models. The churches of the gothic revival can be a methodical starting point for a better understanding of their medieval predecessors. Thus, it can be instructive to analyse the relationship between the church architecture and the demographic development in modern time with its abundant sources.

The present: Church archaeology can study a post-reformation period for its own sake. The architecture hides information, which we cannot reach through other sources. The churches show us, what really happened and may expose unconscious motives and conditions. The church architecture of the 19th century tells us about technology in an early phase of the industrialization and about mentalities in a time of change.

The time perspective: Finally, the study of churches in their entire time span makes it possible to detect tendencies, which remain hidden in the study of art historical details or narrow time perspectives. In this way, there may exist fundamental similarities between the periods of the Romanesque, the Gothic and the Gothic Revival, when the building activity was enormous. It can hardly be by chance that the rebuilding of churches in those periods coincided with other changes of the cultural landscape.

The Porch of Frötuna Church

By Anna Nilsén

Frötuna Church in the province of Uppland, Sweden, was built in the second half of the 12th century not far from Tälje, the place of an old fish-market, now the city of Norrtälje (fig. 1). The name Frötuna suggests that the place may have been a pagan cult-center. At least in the 15th century it was also the seat of the law-court of this district (fig. 2). Several roads met where the church was built and in the 12th century it could still be reached by boat from the sea. As early as 1250-80 the church was enlarged towards the east and in the late 16th century towards the west. During the latter construction period a porch was added and asymmetrically placed in front of the south entrance of the church. (Fig. 3-4).

The porch (fig. 4) was unusually large and its eastern part consti-

tuted a chapel with an altar at the eastern wall and a niche above it. In the romanesque western part of the church-wall (the northern wall of the chapel) was made an opening into the church (figs. 9-10). Especially interesting is the separating wall between the two parts of the porch. It consists of a wooden framework, the lower part of which is filled with brickwork. In the centre is an opening with a door, probably not original, which can be locked. The upper part of the screen has original beams covered with new (1932) slabs of wood. But the open-work is reconstructed as well as parts of the door-frame. The screen is kept erect by wooden wedges on both sides. It is not likely that this was its original place. Maybe it once separated the chancel of the church from the nave or formed part of a medieval screen around the altar. In the former case it may have been constructed in the second half of the 16th century. Possibly it was moved to the present place at the end of the 17th century, when this type of screen was out-of-date and when the eastern part of the porch was taken into use for storage and needed a wall. There are parallels of similar proceedings though not concerning porches. During the following centuries the screen was covered with slabs of wood (fig. 14), which were removed during the restauration in 1932.

A theory that the porch with its special arrangements was erected to be used by the governor Sten Sture the elder during his periods of excommunication is less probable and is refuted from several points of view in this study. For example it is unlikely that the governor, who had no close connection with this district, would erect a building of this kind just to be used when he passed the church on his way to Finland. Nor is it likely that under these circumstances the governor would have exposed himself to the prying eyes of people passing through the porch. The arrangements are furthermore far too primitive for a governor. This study suggests that the porch may have been used by the Saint Olavus guild of Frötuna. The opening in the wall (fig. 10) may have been made to make it possible to see the Olavus-altar with its statue (fig. 18) in the western part of the church even at times when the church was not open. Since Saint Olavus was the patron of feasts, the brethren of the guild may sometimes have been in too high spirit to behave with due respect in the sacred premises of the church. It is also likely that the opening may have served people passing the church and wanting to pay the saint due reverence e.g. before a journey at sea. There must have been a good deal of people passing at times of fishing-season, law-court sessions and fish-market and besides these occasions all people travelling to Finland not least from Stockholm passed the church. Saint Olavus was not only the patron of feasts. His legend tells that he was an excellent sailor, a quality certainly appreciated by fishermen and travellers on the sea.

If Sten Sture did not use the porch as described above, he may have contributed to its decoration with paintings – perhaps also to its construction, since his arms and also those of his consort are among the paintings in the vault of the porch.

The Medieval Town Church in the Town Plan and in the General Aspect of the Town

By C. J. Gardberg

The paper deals exclusively with Finnish material; it discusses the Åbo (Turku) cathedral and the Borgå (Porvoo) parish church. The cathedral, founded at the end of the 13th century, was the focus of the ancient town, which was situated on a hill directly beyond the oldest houses by the river Aura. Probably these houses were built by German merchants in the middle of the 13th century, as the older trade places farther up along the river could not be reached by boat. A cathedral chapter was founded at Åbo in 1276, and the church was enlarged to become a cathedral. On its southern side was a marketplace, the oldest of the town.

After the conflagration of the town in 1318 the rebuilt settlement was divided into two parts, one around the church, the other around a new rectangular marketplace with a town hall. However, the central place of the church in both the town plan and the general aspect of the town still existed, none the less, as it had been changed to a cathedral with a western tower and a high nave in the middle of the 15th century. Its dominating role in the townscape can be seen from the washdrawing made by Carl von Kügelgen 1818 (see picture).

In Borgå three factors co-operated to create a town in the beginning of the 14th century; these were the castle, the church and the town hall, in that order. The role of the church appears clearly in the town plan. The oldest streets all lead to the church from the four cardinal points. The oldest marketplace was situated north of the church. It was not until the town was firmly established with the church as a focus that a new quarter with a town hall and a new marketplace was founded farther south.

The octogonal Church of Renko and other polygonal Buildings of Late-medieval Finland

By Markus Hiekkanen

In the medieval churches of Finland the plan of the nave is always rectangular, without angles of over 90 degrees. The only known exception to this rule is the cathedral of Turku, the main church of the diocese of Turku. Its earliest chancel dates from the late 13th century. This was followed by the enlarged main chancel built in the second half of the 14th century or the beginning of the 15th century. These were all of polygonal plan. The Chapel of All Saints, constructed on the east side of the main chancel in the 1460s, was built in octagonal form. The church of Nousiainen, built in the late 13th century for the tomb of St. Henry has a polygonal chancel and west end. There are no churches differing from rectangular form in the rural areas and the polygonal types occur in buildings high in the hierarchy of the diocese.

In 1984 the author carried out archaeological and architectural studies of the late-medieval church of Renko in the province of Häme. Contrary to expectations, these studies showed that the church had originally been built in octagonal form in the Middle Ages. Earlier studies had assumed an originally rectangular plan, converted in 1779-1783 to octagonal form following a period of disuse in the mid-17th century.

The reasons for applying this special form of architectural articulation in a modest rural parish church are not known. The author suggests that the architectural model or prototype was the Chapel of All Saints in the Cathedral of Turku which was commissioned by dean, later bishop, Magnus Stjernkors (Maunu Särkilahti). Stjernkors was a close friend and political ally of Knut Posse, commander of the Castle of Häme. Posse had been actively involved in the building of churches and military installations in the region of the castle, to which Renko also belonged. It is possible that the church was built as a station along the first pilgrimage route planned for the diocese.

In addition to the church of Renko, structures of acute or obtuse-angled plan were built mainly in military contexts in Finland in the late Middle Ages from 1450 to 1530. These include the polygonal towers of the castles of Turku, Häme and Kuusisto. The author is grateful for any information concerning churches and other buildings of octagonal form of late-medieval date.

The Hanging of Bells in Finnish Medieval Churches

By Marja Terttu Knapas

Medieval church bells, the way they were rung and the development of the office of bell ringers have been treated in the Scandinavian campanological literature. Less attention has been given to the practical question of how and where the bells were hung. In Finland it has been supposed that the bells were hung in a wooden bell tower detached from the church. At several medieval churches, e.g. Ingå, Karis, Lojo, Masku, Pargas, Bjärnå, Sagu and Tenala, there are, however, bell towers which were rebuilt in the 18th century and which have a medieval lower part of stone. Their construction and the way they were built show that they can be compared to the combinations of bell tower and passageway to the churchyard or of bell tower and tool shed which in Denmark were defined and described by Elna Møller.

Also in the Finnish medieval towns of Åbo, Borgå and Viborg bells have been hung in relatively low stone buildings. However, in Sweden similar buildings have been thought to be fortified towers. Referring to Danish examples it can be established that these early bell towers may have had triangular gables and saddle roof or a foursided pyramid roof. In Finland a definite example of the use of a medieval porch as a bell tower is found in Hauho church in Tavastland. Also the church itself may have housed bells. According to an example from Karja church at Ösel, Estonia the apertures giving light to the church loft at the west gabel could also be sound holes for bells. Consequently, the ringing had to be done from the nave.

The Sarchophagus of Saint Henry in Nousiainen Church

By Tove Riska

The patron saint of Finland, english-born bishop Henry, in 1155 followed king Eric of Sweden on the so-called first crusade to Fin-

land, where he remained to consolidate the Church. He was killed, presumably on the 20th January the following year. His remains were buried in Nousiainen north of Åbo (Aboa, fin. Turku), but most of the relics were transferred to the cathedral towards the end of the 13th century. Nousiainen continued to be a center of his grave cult, and about 1415-20 bishop Martinus Olai (Tavast) ordered a tomb of Torquai limestone, covered with costly brasses for the remaining relics. Today it is the only complete tomb of its kind in all Europe. A copy exists in the National Museum in Helsinki.

The engraved brasses are undoubtedly of Flemish origin. On the lid is a large picture of the Saint in an architectonical frame, surrounded by smaller figures of saints and with the kneeling donor at his feet. This arrangement is rather conventional and reminds one of the (now lost) brasses on the tomb of Niels Jepsen Ulfelt in Roskilde (ca. 1395). Eichler has convincingly shown that these and similar brasses were made in the same Flemish workshop.

The brasses on the sides of the tomb are, however, unique. They depict the legend of Saint Henry in 15 scenes, beginning with his arrival in Finland and ending with some of his more spectacular miracles. The programme was of course conceived in Finland, but details reveal a remarkable lack of knowledge about Nordic nature and architecture. At least two engravers have been at work on the pictures.