



*Architecture in the  
Scandinavian Countries*



*Marian C. Donnelly*



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**The MIT Press   Cambridge, Massachusetts   London, England**

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Open access edition funded by the National Endowment for the Humanities/Andrew W. Mellon Foundation Humanities Open Book Program.

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This book was set in Gill Sans and Janson by DEKR Corporation and printed and bound in the United States of America.

Library of Congress Cataloging-in-Publication Data

Donnelly, Marian C. (Marian Card)

Architecture in the Scandinavian countries / Marian C.

Donnelly.

p. cm.

Includes bibliographical references and index.

ISBN 0-262-04118-9

I. Architecture—Scandinavia—History. I. Title.

NA1201.D66 1991

720'.948—dc20

90-24720

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## *Preface*

In 1958 Thomas Paulsson published his pioneering book *Scandinavian Architecture*. This was the first serious attempt to set forth a unified history of building in Denmark, Finland, Norway, and Sweden from the Iron Age to the years following World War II. Eleven years later I began teaching Scandinavian art and architecture at the University of Oregon, an undertaking that owed much to Paulsson's comprehensive view of the Nordic building arts.

Now it seems appropriate to carry his work a few steps farther. Cities and countryside alike have been enriched with many distinguished new buildings. New investigations and publications have not only synthesized previous studies but have also provided much valuable material for ongoing scholarship. Some points of view have changed, bringing certain areas, especially prehistoric and vernacular building, which were generally left to archaeology and folklore, much more into the realm of architectural history. Now that the age of post-modernism has arrived, bringing with it the question of what terminology can be devised for its successor, a new review of the history

of architecture in the Scandinavian countries may prove useful.

According to the factors of climate, natural resources, and the ever-changing forces of history, periods of greatest vigor in Scandinavian building have varied in time and place. An introduction of the kind offered here is necessarily highly selective. Readers familiar with the Scandinavian countries may well find some of their favorite buildings or favorite architects missing. Some of the author's favorites are missing as well. The effort here has been to achieve a reasonable balance among the accomplishments within the several nations, bearing in mind that the national boundaries have not always been what they are today. Another subject that has been omitted is the activity of Scandinavian architects outside the Nordic countries. This is a very interesting story in itself that deserves much fuller treatment than is appropriate in the present work.

It will at once be evident from the notes and bibliography that some of the examples chosen have been the subjects of extensive investigation and publication, while others have as yet received little attention. I have omitted some references to materials published in local historical society journals, but they are cited by authors quoted in these pages and can be found in Scandinavian libraries. The bibliography is not intended to be all-inclusive but rather to provide guidance to the principal sources of information.

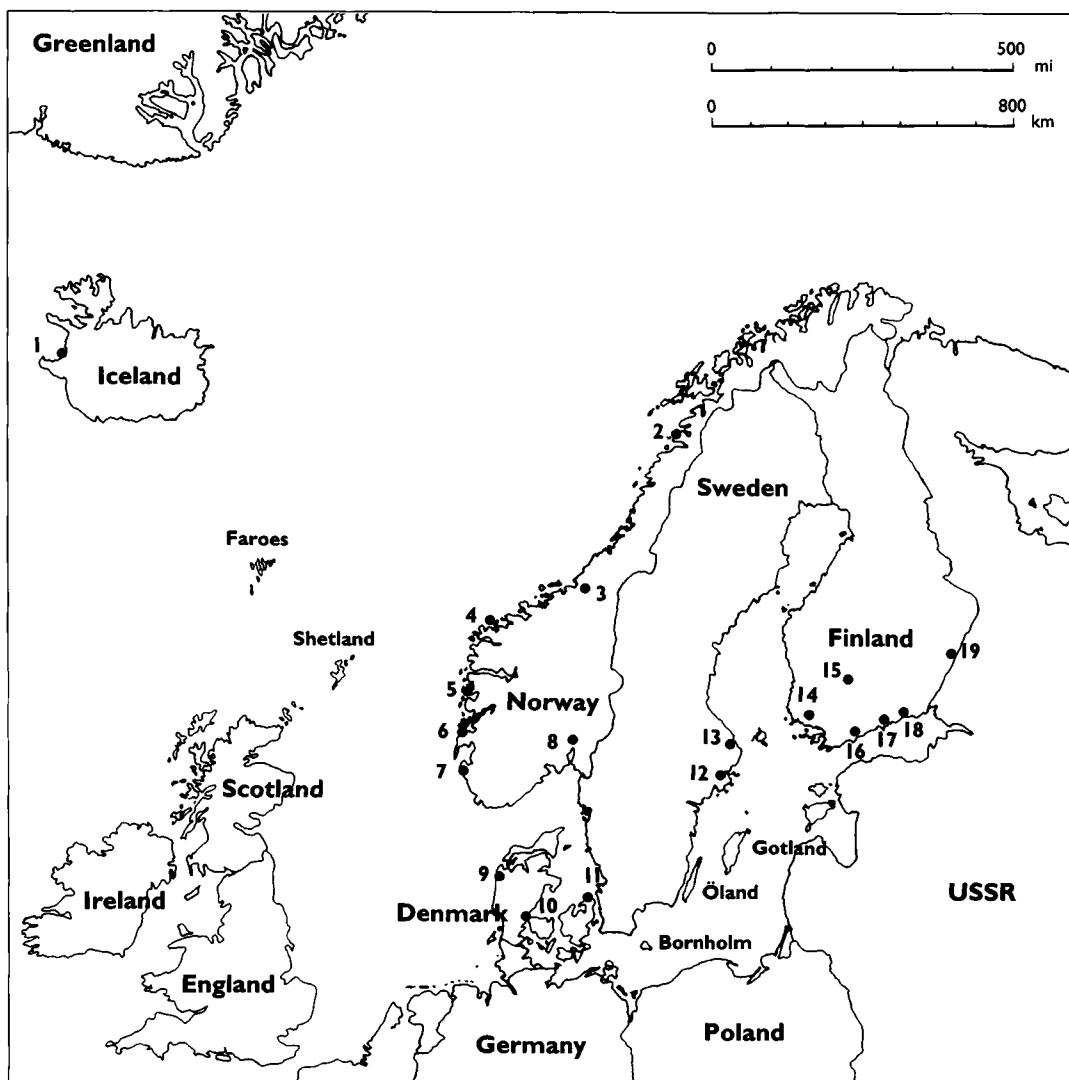
The illustrations have been assembled from a variety of sources. I have been fortunate in being able to travel from Imatra to L'Anse aux Meadows and from Hamburg/Altona to the Lofoten Islands. The skies have not always been friendly, and perhaps it is just as well that the sterner aspects of climate and weather in these countries be represented. For those sites and buildings for which a personal visit has not yet

been possible, the acknowledgments below and in the illustration captions indicate other sources of photographs. For some buildings, contemporary views have been chosen in order to increase the sense of the times in which they were constructed. The drawings that were prepared especially for this book are the work of Sally Donovan and Cheryl S. Martin.

The Graham Foundation for Advanced Study in the Fine Arts has generously provided assistance toward the costs of publication, for which I am very grateful. I also very much appreciate encouragement and good counsel from the editors of the MIT Press.

Finally, there is a debt to scholars in the Scandinavian countries that can never be adequately acknowledged. In Denmark invaluable help has come from Elisabeth Munksgaard and the staff of the National Museum, Hakon Lund and the staff in the library of the Royal Danish Academy of Art, and the staff of the Royal Library in Copenhagen. In Helsinki Kristina Nivari has helped especially with materials from the modern period, and Halldór J. Jónsson has helped with the resources of the National Museum of Iceland. Norwegian materials have been generously made available by Luce Hinsch in the State Archives and Elisabeth Seip in the Norwegian Museum of Architecture in Oslo. In Stockholm much help has come from Ragnar Jonsson in the architect's office of the Royal Palace and also from the staffs of the City Museum, the Historical Museum, and the Nordic Museum. To all of these my warm thanks for much counsel and persistent and good-natured help in finding elusive materials.

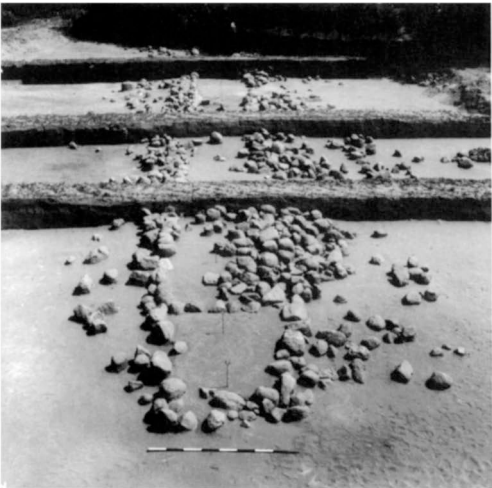
Marian C. Donnelly



- |                    |                      |
|--------------------|----------------------|
| <b>1 Reykjavik</b> | <b>11 Copenhagen</b> |
| <b>2 Bodo</b>      | <b>12 Stockholm</b>  |
| <b>3 Trondheim</b> | <b>13 Uppsala</b>    |
| <b>4 Ålesund</b>   | <b>14 Turku</b>      |
| <b>5 Bergen</b>    | <b>15 Tampere</b>    |
| <b>6 Haugesund</b> | <b>16 Helsinki</b>   |
| <b>7 Stavanger</b> | <b>17 Porvoo</b>     |
| <b>8 Oslo</b>      | <b>18 Kotka</b>      |
| <b>9 Ribe</b>      | <b>19 Imatra</b>     |
| <b>10 Odense</b>   |                      |



*Architecture in the Scandinavian Countries*



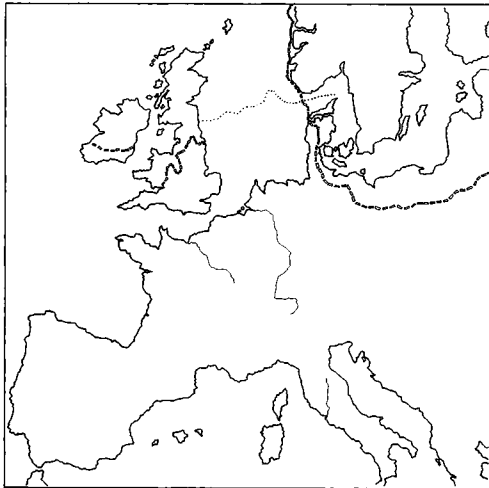
## I *Prehistoric Scandinavia*

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### *The Stone Age*

Long before the present national states of Denmark, Finland, Iceland, Norway, and Sweden began to take form, glacial ice lay deep over the lands of these modern countries. Three times in the Paleolithic period the ice descended here and three times retreated, doing much to shape these territories, which in their turn formed the settings that would have much to do with the nature of buildings upon them for over 10,000 years (figure 1.1).<sup>1</sup>

Flaked tools from c. 250,000–200,000 BC during the next-to-last interglacial period show that hunters were active in Denmark in this warm interlude, but nothing has yet been found of their dwellings. Remains of shelters from later continental European sites suggest huts of poles or even bones set in the ground and lashed together to make a framework for skin coverings, and a hut so constructed might shelter one or two hearths.<sup>2</sup> In the last interglacial period, c. 50,000 BC, people are known to have been hunting on the present Jutland peninsula, but it was not until the ice began to retreat for the last time that a more regular hunting culture could develop.



--- Limits of last inland ice  
 ..... Northern limit of post-glacial tundra

From c. 14,000 BC there was a landscape of tundra over which reindeer grazed and which could support a modest initial human population. By c. 8400 BC the climate had become much warmer, with forests of birch and pine starting to develop. Settlement sites were still not permanent but seasonal, and again no traces of shelters have yet been found.

The retreat of the glaciers did not leave a fixed geological situation. As the lands were relieved of the weight of ice and the seas received water from melting ice, exchanges were made between land and water for several hundred years. In this Mesolithic period, before the introduction of agriculture, Denmark was connected to England and south Sweden by land masses until c. 6000 BC. The Baltic Sea meanwhile was in turn an ice lake, a bay of the Atlantic Ocean, and a fresh water lake until the

opening of the English Channel and the Danish sounds.

Two major concentrations of people from this era have been observed. The earlier, or Maglemose, period, c. 7500–6000 BC, saw hunters and fishers settling at lakeside sites, such as Ulkestrup and Holmegård on Zealand and Ringsjö in Skåne.<sup>3</sup> The Danish examples yielded traces of huts, about 15 by 20 feet, with hearths about 5 feet in diameter in the centers. The walls were made of posts set in the ground and probably covered with rushes or reeds woven into mats, without clay daubing. Birch and pine bark were spread as floor covering (figure 1.2).

The later, or Kitchen Midden, period, c. 6000–4200 BC, saw the growth of the huge rubbish mounds that now give so much information about the diet and implements in these settlements. A few traces of hearths remain, and the shelters were probably seasonal.

With the coming of agriculture and stock keeping, c. 4200 BC, the picture changed dramatically. Hunting and fishing were not discontinued, but food could now be produced at will, comparatively speaking. Forests were cleared to allow for more fields, which could be abandoned when the soil was exhausted. People began to settle together in villages for mutual protection and to share the work of food production, and some traces of their dwellings have been discovered (figure 1.3).

From the foundations of these dwellings, c. 3900–3600 BC, at Stengade on Langeland in Denmark, two proposals have been made as to how the stones might have been used (figure 1.4).<sup>4</sup> Both suppose the houses without side walls, the rafters sloping to the ground and covered with some kind of thatching material. In the one case two internal rows of posts set in stones are indicated, while in the other the rafters are shown as set in dry walls of stone.



2

**1.1 Map of last glaciation.**  
(After Stenberger, *Sweden*, figure 3.)

**1.2 Ulkestrup, Zealand.**  
**Maglemosian hut foundations. c. 7500–6000 BC.** (Knut Andersen et al., “Maglemose hytterne,” figure 6, p. 87.)

**1.3 Stengade, Langeland.**  
**Neolithic house foundations. c. 3900–3600 BC.** (Knut Andersen et al., “Maglemose hytterne,” figure 6, p. 87. Courtesy Langelands Museum, Rudkøping.)

[IMAGE REDACTED]

3



4



5

**1.4 Stengade, Langeland.**  
**Proposals for reconstruction of Neolithic house by Jørgen Skaarup (left) and Peter Brogaard (right). (Brogaard, Lund, and Nørregård-Nielsen, *Danmarks Arkitektur. Landbrugets huse*, p. 16. Courtesy Gyldendal Publishers.)**

**1.5 Hjerl Hede, Jutland.**  
**Conjectural replica of a Neolithic house.**  
**1.6 Pitkäjärvi, Finland.**  
**Neolithic hut. Conjectural drawing of frame. c. 3000 BC. (Helsinki, National Museum of Finland.)**

Remains of a more substantial kind of dwelling were found at Troldbjerg, also on Langeland.<sup>5</sup> Here there was a long multifamily house, the roof carried on posts set in stones. The walls were made of wattle, thin withies woven between slender uprights, and daubed with clay. The reconstruction of a Stone Age longhouse at the Hjerl Hede open air museum on Jutland suggests the appearance of such a building (figure 1.5).

The people of these Danish settlements are associated with megalithic burials, to which we shall return. There are, however, other house types from the Neolithic period. At Vrå in Södermanland, foundations of short rectangular buildings, about 12 by 15 feet, have been found from the Funnel Beaker culture, c. 4000 BC. These have stone floors but no trace of hearths, and whether they were used as houses has been questioned.<sup>6</sup>

In Norway a group of three houses was found at Kråkerøy on the east shore of the Oslo Fjord.<sup>7</sup> One was a large rectangular structure with stone foundations and walls of wattle and daub between posts. Two smaller oval houses were also paved with stone, and posts supported the roofs of all three. This site is associated with the Pitted Ware people, c. 3300 BC.

Farther north, Stone Age cultures persisted much longer than in southern Scandinavia, and at Karlebotn on the Varanger Fjord an orderly village of 250 houses was established.<sup>8</sup> These had walls of earth with openings toward the land side, and most had hearths within. From c. 1250 BC, showing the long persistence of this hunting culture by the Varanger Fjord, comes the site of Grasbakken. This was also a village of oval and rectangular houses, many of the latter with two long hearths.<sup>9</sup> The rectangular houses, apparently of a newer type, were half below level, entered by a sloping ramp.



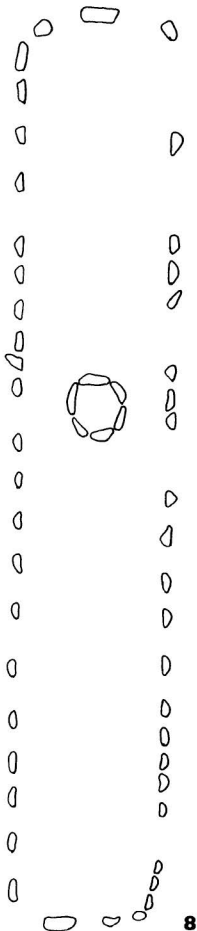
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Other dwellings in Finland were conical tents made with poles leaning against a horizontal frame, then covered with brush, bark, or skins (figure 1.6).<sup>10</sup>

Up to this point we have been concerned with houses for the living. Although the traces are meager and the houses at best very simple, clearly the people who ventured north into the Scandinavian territories in the wake of the glaciers soon found a variety of solutions to their fundamental problems of shelter. But what of houses for the dead? The double row of foundations found at Barkaer on Jutland from c. 3500 BC were long thought to be the remains of row houses, but recent opinion is more in favor of their having been successive burials.<sup>11</sup> This discussion will be confined to the megalithic graves known as dolmens and passage graves that dot the landscape in Denmark and are also found in smaller numbers in southern Sweden. Up to c. 3500 BC the dead had been buried individually in the ground, sometimes in graves lined with stone. These customs, which include the use of grave goods, seem to belong more to the realm of anthropology and will not be elaborated upon here. Dolmens and passage graves are another matter.



7

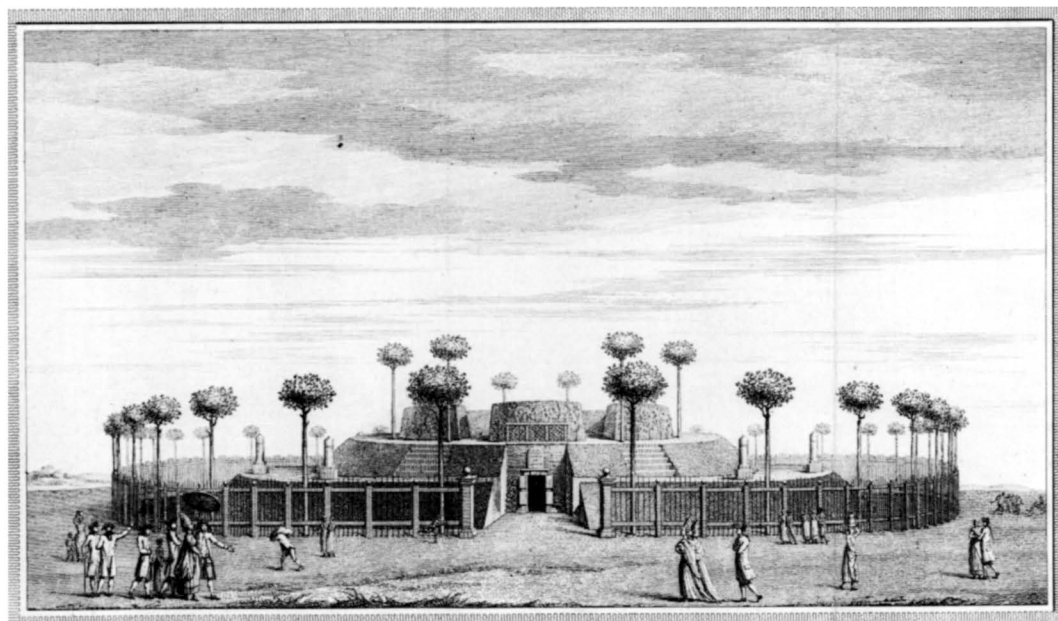


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The hundreds of dolmens that are an integral part of the landscape in Denmark and to a lesser extent in Sweden bear witness to the importance of the cult of the dead in this early population. A dolmen is built as if a house for the dead, characteristically consisting of large flat boulders set upright and covered with another block, forming a chamber over the burial itself.<sup>12</sup> This is then surrounded by a curb of boulders and if mounded over with earth would rise to about 6 feet high (figure 1.7). The burial became a memorial and a sacred place for worship and sacrifice. The glaciers had left abundant material, the heavy stones probably being brought to the site and maneuvered into place with the aid of tree-trunk rollers. This type of tomb is found over the large area extending from the Mediterranean lands to the British Isles and was brought to Denmark by migration and trade.

Even more numerous than the round dolmens are the long dolmens, extending in one case to over 500 feet.<sup>13</sup> More frequently they range from 20 to 100 feet and are 6 to 8 feet wide, often including more than one chamber within a rectangular curb (figure 1.8).

From Saxo Grammaticus to the designer of the Danish 50-kroner note, the dolmens have excited awe and admiration. In his *Danesage* of c. 1200 Saxo wrote: "In the far-distant past there lived giants, an ancient people to whose existence the massive roof-stones over dolmens and burial chambers bear ample witness. Should anyone doubt that these are the work of giants, let him say who else could have maneuvered such enormous blocks of stone into position."<sup>14</sup> An interesting revelation, indeed, of the outlook of a learned man whose contemporaries were using heavy masonry for such churches as Ribe and Viborg cathedrals. In post-Renaissance time growing antiquarianism and romantic tastes led to the adaptation of



JULIANE HØJ

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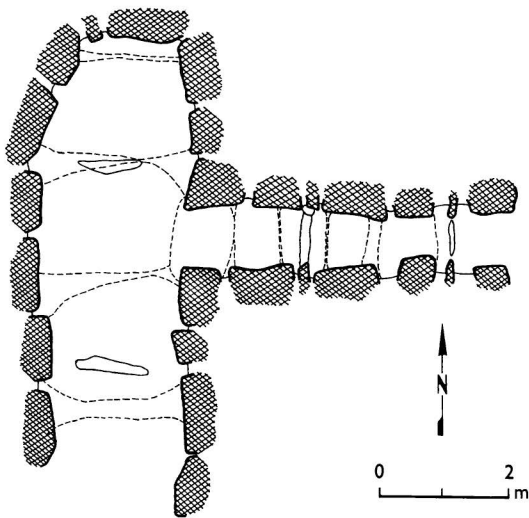
the dolmen form for a monument at Jaegerspris on Zealand, the Julianehøj of 1775 (figure 1.9), and many representations in drawing and painting by early nineteenth-century artists such as Johann Thomas Lundbye (figure 1.10).

A second great period of megalithic building began c. 3000 BC, when the passage graves were introduced.<sup>15</sup> These are also built of enormous upright stones and capstones, set to form chambers about 15 to 18 feet long, 6 feet wide, and 6 feet high, entered by narrower and lower passages (figure 1.11). Some of these are made double and some have additional chambers. In contrast to dolmens the passage graves were usually completely mounded over, with the entrance on the east or southeast side and upright stones placed before the entrance or even all around the mound. The interiors were intended for multiple and successive burials and

- 1.7 St. Elme, Zealand. Dolmen. c. 3500 BC.**
- 1.8 Troldkirken, Zealand. Long dolmen. Plan. c. 3500 BC. (After Glob, *Danish Prehistoric Monuments*, figure 17, p. 60.)**
- 1.9 Jaegerspris, Zealand. Julianehøj. 1776. Print by Wandel, 1783. (Copenhagen, National Museum.)**



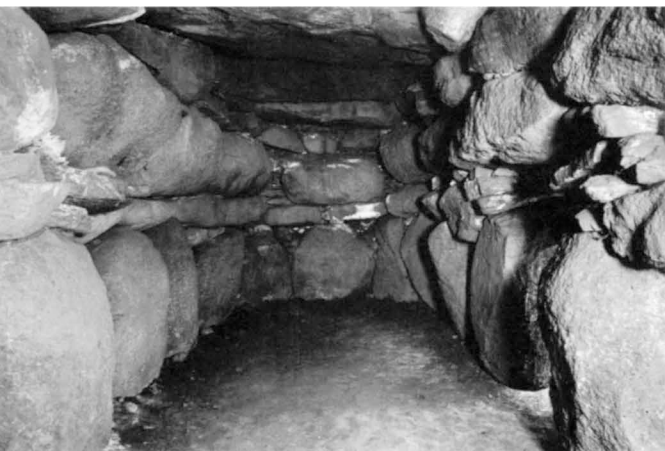
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**1.10 Refsnaes, Zealand.**  
**Painting by J. T. Lund-**  
**bye, 1844. (Copen-**  
**hagen, State Museum**  
**of Art.)**

**1.11 Raevehøj, Zealand.**  
**Passage grave. c. 3000**  
**BC. Plan. (After Glob,**  
**Danish Prehistoric**  
**Monuments, figure 25,**  
**p. 81.)**



12



13

**1.12 Raevehøj, Zealand.  
Passage grave. Interior. (Copenhagen, National Museum.)**

**1.13 Tustrup, Jutland. Ceremonial site. c. 3000 BC. (Højberg, Moesgård Prehistoric Museum.)**

are even more impressive than the exteriors (figure 1.12). Although much less numerous than the dolmens, only about six hundred being known in Denmark and a little over three hundred in Sweden, the passage graves indicate a further development of the cult of the dead, expressed by massive communal undertakings.

One reason to conclude that the emotional energy of these Neolithic people went into reverence for their immediate ancestors and provision for the dead is the scarcity of other ceremonial sites from this period. It is scarcity, however, not absence, because a small number of "temple" buildings have been identified by their contents of pits and vessels for sacrifice. In one instance the foundations are in a horseshoe arrangement with an opening to the northeast and a pit in the middle (figure 1.13).<sup>16</sup> This has been interpreted as the house of a god or goddess.

The perishability of materials for house construction makes it unlikely that we shall learn to what extent the Neolithic builders attempted refinements of construction or even ornament on their dwellings. The elegant pottery vessels and finely worked tools and weapons that have survived from this period suggest that already these northern people wished to surround themselves with objects that were pleasing to the eye. While the full architectural aesthetic of Stone Age Scandinavia may remain unknown, we can at least observe that the builders of this period had developed several distinctive types of housing and had also been purposeful and skillful enough to construct some of the most impressive mortuary structures of northern Europe.

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*The Bronze Age*

The Passage Grave culture did not last. It was overtaken by the Battle Axe people c. 2000 BC, herdsmen who invaded through the Jutland peninsula, with their ultimate origins in Central Asia. Instead of building the megalithic graves just described, they buried their dead in single or mass stone graves. Some of the earliest resembled the dolmens and passage graves in the use of large stones for cists that were then mounded over.

By this time trade with central Europe had already introduced the new materials of copper and bronze into the North, bringing another change in technology and culture as dramatic as that of the introduction of agriculture. Yet while the Bronze Age people of Scandinavia produced tools, weapons, and articles of personal adornment of astonishing brilliance, their structural accomplishments did not, for the most part, equal those of their Neolithic predecessors.

Of dwellings in the Bronze Age little is known. Excavations at Vadgård on the Limfjord in Denmark revealed postholes and stone foundations of several houses.<sup>17</sup> For more enlighten-

ment on houses and settlements we would probably have to consult the evidence from continental Europe of the same period, and then only with caution. Differences in the kinds of timbers available and differences in the kinds of climatic stress to which structures built of them would be subjected could well bring about differences in details of construction, however close the similarities in plan may have been.

For now some note should be made of the most obviously impressive structures of Bronze Age Scandinavia, the large barrows (figure 1.14).<sup>18</sup> As with the dolmens and passage graves, these must have been the work of an organized society. Containing one or more burials, the barrows loom imposingly in the landscape, as they were undoubtedly intended to do. They are found not only in the Scandinavian lands but also in Germany, and taken together they are visible reminders of the extensive north European Bronze Age cultural area. Their survival in such abundance owes much to the careful method of their construction, not random, but of grass turfs built up with internal layers of stone supports. From the oak coffin burials in some of these mounds have come the remarkable garments and accessories that shed so much light on Bronze Age technology and culture.

Another kind of prominent landmark appeared on the coasts of Sweden during the late Bronze Age, the “ship setting” burials (figure 1.15).<sup>19</sup> They were especially popular on the island of Gotland, as might be expected from its seafaring people. The graves are in stone enclosures from 18 to 60 feet long, planned in the outlines of ships. Whether intended for burials or in some cases simply as memorials, they fulfill the latter function admirably, calling attention to the importance of the ship in a visible manner, unlike the later actual ship burials in which the ships were concealed under mounds.



14



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**1.14 Bakkeberg, Zealand. Bronze Age barrows. c. 1500–800 BC.**

**1.15 Boge, Gotland. Ship setting. c. 1500 BC. (Stockholm, Antikvarisk-topografiska arkivet. Photo: Märten Stenberger.)**

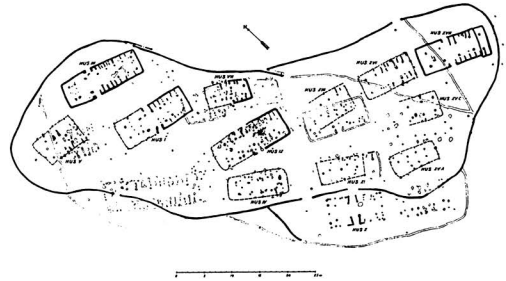
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*The Iron Age*

- I.16 Grøntoft, Jutland. Iron Age village. c. 500 BC. Plan. (Becker, "To landsbyer," figure 1, p. 211. Courtesy the author.)**
- I.17 Lejre, Zealand. Iron Age house. Reconstruction.**

If our efforts to understand the dwellings of the Bronze Age are frustrated by the lack of extensive archaeological materials, such is not the case when we come to the Iron Age. This period of thirteen hundred years is usually regarded as having three major divisions, the Celtic, Roman, and Germanic or Migration, according to the peoples who successively dominated continental Europe from c. 500 BC to c. AD 800.

From the early or Celtic period, up to the beginning of the Christian era, the finds of settlements are scanty in Sweden and Norway but are sufficient in Denmark to furnish considerable information about how houses were built and farms and villages organized. At Grøntoft in Jutland a village lasted about three hundred years by moving itself about from time to time. In one stage it consisted of houses 35 to 90 feet long, several with room for up to eighteen cattle, the group enclosed with a palisade (figure I.16).<sup>20</sup> With the longhouses, including byres, an important farmhouse type was established that was to persist into postmedieval times, being adapted over the years with



16



17

changes of material and refinements of construction until as late as the seventeenth century. The houses were built on stone foundations, with threshold stones for doors on one side and perhaps some stone paving within. Doors on the south sides would admit a maximum of light. The walls were of turf, as much as 3 feet thick. Two rows of posts, about 3 feet from the walls, supported the roofs, which were probably covered with reeds or heather. Hearths were located on the clay floor toward one end of the houses, with holes in the roofs to let smoke escape. Posts and stone curbs marked stalls for animals in the other portions. Thus people and their animals lived under one roof, sharing each other's warmth and protection (figure 1.17). Foundations of such houses were also found in the extensive excavations at Vallhager on Gotland between 1945 and 1950,<sup>21</sup> and this kind of dwelling was characteristic of northern Germany and the Netherlands as well.<sup>22</sup>



Villages were not characteristic of Iron Age Norway, where the individual farm was more often the rule. When a tract of land had been cleared for grazing and cultivation, often by burning, it was usually enclosed with low stone walls. Houses about 25 to 27 feet wide and from about 65 to as much 300 feet long might accommodate more than one family; they had one or more hearths, no chimneys, and rows of posts supporting the roofs. Such a farm dating from c. 350–500 in the late Roman period was excavated at Ullandhaug near Stavanger in Rogaland in 1967–1969, and here three of the four buildings have been rebuilt.<sup>23</sup> The height of the walls has been estimated from portions remaining after the entire complex was destroyed by fire in the late sixth century. Roofing materials and the interior vertical planking are likewise conjectural. The posts supporting the roofs and the rafters are fashioned and joined in different ways from one building to another, providing a good illustra-

tion of the dilemmas involved in attempting reconstructions of this kind. The longest building yielded pottery fragments that suggest that this was the principal dwelling and byre (figure I.18). Two small buildings, probably for storage, and a long building possibly for guest quarters and additional byre space completed the original group.

Some of the villages appear to have been partly fortified, either against flooding or against marauders. The village remains from c. 100 BC at Borremose in Jutland are notable for the road built across the bog to a slightly elevated site, which has an irregular surrounding ditch and walls (figure I.19).<sup>24</sup> The road itself is well constructed on a stone foundation, with borders of large stones and paving of small stones, similar to a Roman-period Iron Age road at Ellemose on Zealand (figure I.20). The houses at Borremose were of the type found at Ullandhaug, oriented east-west, with the dwelling portions in the west ends.



**I.18 Ullandhaug, Rogaland.**

**Iron Age house.**

**c. 350–550.**

**Reconstruction.**

**I.19 Borremose, Jutland.**

**Iron Age village. c. 100**

**BC. (Copenhagen, National Museum.)**

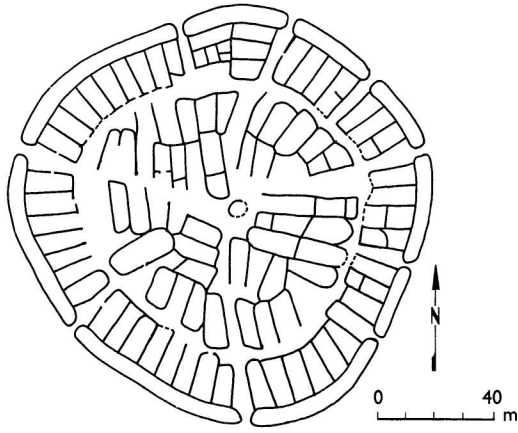
A later and much more strongly fortified site is at Ismantorp on Öland, dating probably from the Swedish Migration period in the fifth century (figure 1.21).<sup>25</sup> Measuring about 350 feet in diameter, it has limestone walls rising as high as 15 feet. More than eighty rectangular foundations have been discovered, arranged radially and divided into four quarters by streets like the spokes of a wheel. Little evidence of prolonged habitation has been found here, and, like certain Viking sites to come, Ismantorp may have been intended to be more defensive than residential.

A third group of buildings shows still another approach, this time in a Norwegian village at Varhaug in Rogaland, c. 100 (figure 1.22).<sup>26</sup> Of a type apparently unique to this area, this consists of about twenty longhouses, radially arranged but here around the perimeter of the site with a central open space. Lack of provision for cattle suggests that, like Ismantorp, its purpose was probably defensive. Several of these camps, if they may be so designated, are known in Rogaland and northern Norway and may have been established to protect the lively trade routes to Denmark and the Continent. We might be reminded of the Neolithic Tripolye villages such as Kolomyszine in Russia and the medieval Wendish villages such as Satemin in Germany.<sup>27</sup>



20

- 1.20 Ellemose, Zealand. Iron Age road. c. 200 BC.**
- 1.21 Ismantorp, Öland. Iron Age village. 5th century. Plan. (After Stenberger, "Öland," p. 236.)**
- 1.22 Varhaug, Rogaland. Iron Age village. c. 100. (Stavanger, Archaeological Museum.)**



21



22

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*The Viking Age*

- I.23 Jarlshof, Shetland.  
Viking house foundations. 9th century.**
- I.24 Jarlshof, Shetland.  
Viking settlement.  
Conjectural drawing.  
(Hamilton, *Jarlshof*,  
figure 51. British  
Crown Copyright, De-  
partment of the  
Environment.)**

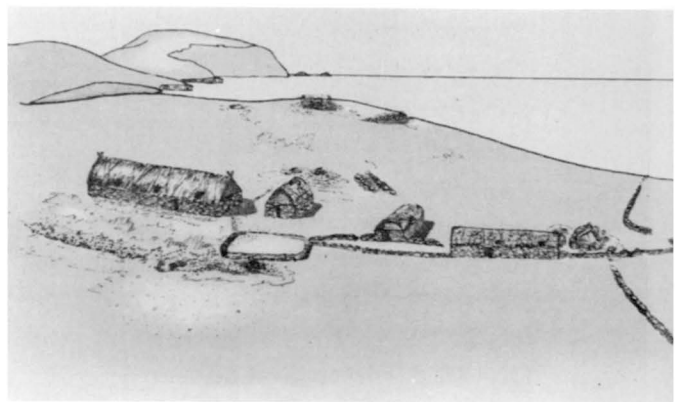
The last two centuries of the first millennium of the Christian era were ones of profound change for inhabitants of the Scandinavian territories. While still not yet writing their own history, and therefore technically prehistoric, these people made such an impact in so many directions that their exploits were recorded by their history-writing contemporaries, especially in France, Germany, and England.<sup>28</sup>

The famous remark in the *Anglo-Saxon Chronicle*, referring to one of the earliest Viking episodes, that “the harrying of the heathen miserably destroyed God’s church in Lindisfarne by rapine and slaughter,” surely reflects the sentiments of many victims of Viking raids. Yet piracy was not all. Search for new agricultural lands and extensive peaceful commerce led to the growth of strong trading centers and settlements far from home. From the remains of both much can be learned about the houses and towns from which the Vikings came.

Remains of dwellings have been found in several places where the Vikings settled as they pushed their activities westward. One of the best known early settlement sites is at Jarlshof



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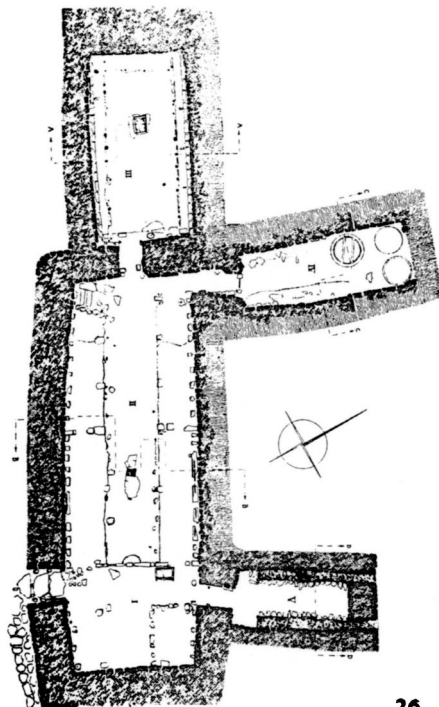
on the main Shetland island, which had already been inhabited since the late Stone Age. For the Vikings, arriving from Norway probably c. 800, the natural harbor and adjacent fields made it as attractive as it had been to their Bronze and Iron Age predecessors.<sup>29</sup> Unlike the latter, however, their first dwelling, while certainly comparatively long (extending to 70 feet), had no byre but consisted simply of a long living room and short kitchen (figure 1.23). The walls were slightly curved, with the house 18 feet wide toward the middle and 12 feet wide at the ends.

The method of walling would be used much later: inner and outer layers of stone with an earth core. Whatever the advantages of the site may have been, no one who has experienced a gale at Jarlshof will wonder why the north wall was made especially secure with alternate courses of stone and turf. The roof was supported by two rows of posts, set about 2 feet from the walls. Together with buildings that have been interpreted as a bathhouse, or possibly a family shrine, a smithy, a byre, and another small building with a hearth, the main dwelling made up the first farmstead at Jarlshof (figure 1.24).

Two hundred miles to the north and west of the Shetlands the Faroe Islands rise, shrouded in rain and fog, where thousand-foot cliffs plunge from treeless slopes and the sheep, for whom the islands are named, outnumber the humans. Many problems arise in the interpretation of the early Icelandic histories of the Faroes, but it seems clear that Irish hermits were taking up their lonely abode there c. 700, to be followed by Viking settlers c. 860.<sup>30</sup> One of their dwellings was found at Kvívík on Streymoy, the largest island, in 1942 (figure 1.25). Several others have been excavated, revealing houses similar to that at Jarlshof, with thick stone and turf or gravel walls, the walls slightly

curved, and stone-lined hearths in the centers. Here also wood was used to line the interiors. The climate of Iceland was enough warmer then to allow for the growth of some birch and willow, and perhaps this was then possible on the Faroes as well. Otherwise timber for the interior posts and paneling would have to be imported or salvaged from driftwood. As at Jarlshof, the byre at Kvívík was a separate structure.

Nearly three hundred miles northwest of the Faroes is Iceland, where Ingólfur Arnarson from Norway was the first to settle, at Reykjavík in 874.<sup>31</sup> By the late ninth century settlement had begun in the Thjórsárdalur valley of southern Iceland, which had developed to a substantial settlement a century later. The disastrous eruption of Mount Hekla in 1104 left about twenty houses covered with ash. Modern excavations have made possible not only a clear





25

**I.25 Kvikvik, Streymoy.  
Viking house  
foundations.**

**I.26 Stöng, Iceland. House.  
9th century. Plan.  
(Stenberger, ed., *Forn-  
tida gårdar*, figure 37,  
p. 78. Courtesy Munks-  
gaard Publishers.)**

**I.27 Stöng, Iceland. House  
reconstruction. (Reyk-  
javik, National Mu-  
seum. Photo: Gísli  
Gestsson.)**



27

idea of how the Vikings built their houses in Iceland but also some clarification of houses described in the later sagas. The house at Stöng is one of the best examples (figure 1.26). Thanks to the studies of Hörthur Ágústsson, a reconstruction based on certain principles of the later Icelandic turf houses was undertaken near the excavations (figure 1.27). The original building differed somewhat from the Viking house at Jarlishof. The walls were over 4 feet thick, built of turfs laid on a stone foundation. The principal room was a long hall, running approximately east-west, entered near the south-east corner. The walls were lined with wood paneling, and there was a long hearth in the center. At the west end there was a smaller chamber with central hearth, while on the north there were two narrow projecting rooms, one evidently a dairy and the other variously identified as a bathhouse or a household shrine. Separate byre, storage, and smithy buildings completed the farmstead group.

**1.28 L'Anse aux Meadows,  
Newfoundland. House  
reconstruction.**

Then by the beginning of the eleventh century the Vikings had carried their attempts at settlements to their westernmost limits. Erik the Red's famous arrival in Greenland in 982 led to the establishment of farms and churches in the Eastern and Western Settlements.<sup>32</sup> The houses were similar to those in Iceland, long halls built of stone and turf, sometimes with interior paneling. In response to the climate they later became more complicated, multiroomed to be compact and give easy indoor access from one part to another. As at Stöng, the byre might be separate and thickly insulated with turf. The storehouses, on the other hand, were built of dry stone walling for ventilation, much like the cliets of the Scottish islands today.

From Greenland, partly by accident, the Vikings made their way to the shore of North America. The first examination in 1960 of low mounds of earth on a terrace at L'Anse aux Meadows off L'Épaves Bay in Newfoundland suggested a Viking settlement there.<sup>33</sup> Helge and Anne Stine Ingstad soon found structural remains and artifacts that are now generally accepted as evidence of a Viking occupation. Subsequent excavations from 1973 to 1976 confirmed these findings, up to now the only reliable evidence for Viking settlement in North America.

Three dwellings of Norse turf-walled construction had been built in a curving line now well back from the shore. Each consisted of a long hall with central hearth and one or more small rooms attached. A reconstruction has been attempted nearby (figure 1.28). Evidence for interior posts and paneling in the original buildings is, however, lacking, and it has been suggested that these were temporary shelters.<sup>34</sup> Five other small structures were found, one of which was a smithy, the sure evidence that this was not an Eskimo settlement. Bog

iron may still be found in the marsh here. Even a brief encounter with the bleak landscape shows that promise for long-term forage and agriculture was limited. Although the climate was probably milder then, the lines back to the homelands were long and the natives increasingly unfriendly; the project was soon abandoned. It would be just over six hundred years before Scandinavian settlers attempted once more to build in North America.

By the time of the settlement at L'Anse aux Meadows, the first Christian church had been built at Brattalid, Erik the Red's settlement in Greenland. No such structures have been found in Newfoundland, and we can only speculate whether the new faith was carried that far. This brings us, however, to another important aspect of the Viking period, that of the gradual appearance of Christianity. Since the remains of early churches in Greenland come from the later or medieval period of settlement, these will be considered with the

early Christian churches of the homelands.

We may also note that while these first settlements in Greenland were the result of organized expeditions, buildings specifically for public assembly were not erected. The Thing, the assembly for consultation and settlement of disputes, met on open ground first at Brattalid and then at Gardar after the first bishopric was established there in 1126. For festive social occasions, however, the long halls of the wealthier farmsteads could accommodate large crowds of people, as the later sagas so eloquently attest.

Another kind of Viking building was the hut built over a sunken floor, such as those at Lindholm Høje in Jutland.<sup>35</sup> These were 9 to 15 feet long and had posts in the middle of each short end to support the ridge poles. Here there were no walls, the roofs sloping directly to the ground. This sunken dwelling, or *Gru-benhaus*, was common on the Continent, in England, and in the Nordic countries. Different



patterns of postholes in the excavated remains of these buildings indicate more than one possibility for superstructures, which is a matter for some debate.<sup>36</sup> The presence of spindle whorls and loom weights in the Lindholm Høje hut indicates that this was a weaver's hut. In other places such huts were for potteries, smithies, bakehouses, and the like, usually in connection with a larger rectangular dwelling.

A structure apparently unique to Lindholm Høje was a nearly square courtyard house, similar at least in plan to the type of farmstead that was to become popular in southern Scandinavia in later years. The use of the several parts remains unknown. It is tempting to think that it was built not so much as a farmstead but as a "villa," possibly in imitation of one that its owner had seen in England or on the Continent.

The dwellings grouped into various kinds of settlements in the Bronze and Iron Ages were built by members of a primarily agricultural society. When the trading enterprises already in operation in these years blossomed into the vigorous and far-flung commercial ventures of the Vikings, more extensive merchant towns accordingly developed.<sup>37</sup> One of the largest about which it has been possible to learn a considerable amount was Hedeby, or Haithabu, on an inlet of the Schlei Fjord, near the modern town of Schleswig.<sup>38</sup> A fort had been built to the north, but the town was also defended by a semicircular rampart enclosing about sixty acres. Fresh water was obtainable from a brook running through the enclosure.

A number of houses have been found in the excavations of the center of the town, some fairly large, about 18 to 45 feet, placed with the gable ends toward the street. Some were walled with wattle and daub, others with halved tree trunks set upright in palisade fashion. Most had central hearths and probably

thatched roofs. Some later smaller houses were hardly more than huts, 10 to 12 feet wide and 12 to 15 feet long, the floors sunken, walling of wattle and daub, and hearths in the corners. Some of the finds included evidence of production of bronze, iron, cloth, and other goods, and a conjectural restoration shows a busy port (figure 1.29).

The trading house types survived into modern times, the rows of gables being a familiar sight in Netherlandish, German, and Danish port cities today. The little houses with corner fireplaces were prophetic of the "Swedish house" type that was transported to America with the early Swedish settlers. Jasper Danckaerts, the Dutch traveler and diarist, described Swedish houses in New Jersey in 1679, saying that "the chimney stands in the corner."<sup>39</sup> The persistence of this arrangement in America is attested by the report of the Swedish scientist Peter Kalm, who saw Swedish houses with the fireplaces "built in one corner" in his travels in America in 1748–1751.<sup>40</sup> This is an especially forceful example of the strength of vernacular tradition over hundreds of years and through profound cultural and political changes.

While Hedeby was a home base town for the Vikings, other urban sites have been discovered farther afield. Some of these have been more difficult to interpret, since, unlike Hedeby, they lie below modern cities. To the east, Viking remains in such places as Staraja Ladoga and Novgorod have aroused much speculation and considerable controversy as to whether some Russian cities had actually been founded as Viking towns.<sup>41</sup> Stronger evidence of Viking urban settlement abroad has come from some western sites, particularly Dublin and York, where excavations over the last twenty years have revealed much of the life of these towns.

The Vikings began raids on Ireland at the end of the eighth century and appear to have

made two settlements at what is now Dublin, one in 841 and a second c. 914–917.<sup>42</sup> Excavations in 1962–1963 and again in 1967–1980 yielded an enormous quantity of artifacts, showing the vigor of the town until the early twelfth century.<sup>43</sup> As at Hedeby, many of the houses found proved to be those of woodworkers, metalsmiths, leatherworkers, and the like. The larger ones, about 6 by 10 meters, had walls of wattle and daub, with four internal posts to support the roof, benches on either side, and a stone-lined hearth in the center. There were also some smaller, nearly square buildings, storage pits, and one small sunken building, walled with vertical planks.

Similar excavations at Coppergate in York from 1976 to 1981 revealed not only the Viking but the Roman, Anglo-Saxon, and Norman predecessors of the modern city as well.<sup>44</sup> From their seizure of York in 866 through development in the tenth century until the departure of Erik Bloodaxe in 954, the Vikings plied their trades, crafts, and industries much as they were also doing at Hedeby and Dublin. A distinctive, though not unique, feature of York's history was the establishing of tenement boundaries, marked by wattled fences. In the early tenth century the buildings that housed the various workshops were walled with wattle, but late in the century some of these were rebuilt with sunken floors and walling of horizontal oak planks.<sup>45</sup> It is apparent that the sunken floor type of small building was in use in the trading towns as it already was in the more agricultural villages in northern Europe. Certainly these buildings were traditional in England.<sup>46</sup>

Again a comparison can be made to similar constructions in more recent times. In 1650 Cornelius van Tienhoven wrote that the Dutch settlers in New Amsterdam “dig a square pit in the ground, cellar fashion, six or seven feet



29



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**1.29 Hedeby, Schleswig. Viking settlement. 9th century. Conjectural drawing. (Århus, Flemming Bau.)**

**1.30 Trelleborg, Zealand. Viking camp. 10th century. (Copenhagen, National Museum.)**

deep, as long and as broad as they think proper; case the earth all round the wall with timber, with the bark of trees or something else to prevent the caving in of the earth; floor this cellar with plank, and wainscot it overhead for a ceiling; raise a roof of spars clear up, and cover the spars with bark or green sod."<sup>47</sup>

The most spectacular and enigmatic kind of construction remaining from the Viking Age is the "fortified camp." Whether built to house troops in readiness for raids, as has long been thought, or to consolidate the power of Harald Blue-Tooth, as is more recently held, each camp that remains is a striking feature in the landscape (figure 1.30).<sup>48</sup> Four are known, one of them, Nonnebakken, now overgrown by the city of Odense on Funen. The other three, Aggersborg and Fyrkat in Jutland and Trelleborg on Zealand, share several characteristics of plan, though they are not all the same size. Each consists of a circular rampart enclosing groups of boat-shaped buildings arranged in squares. The camps are divided approximately north-south and east-west by "streets" paved with timber, leading to four gates. Trelleborg has been recently dated to 980–981 and Fyrkat close to 976.<sup>49</sup> They were laid out geometrically, with evidently some precise knowledge of surveying.

The buildings, which may have been barracks, are long structures with curved walls, comprising a central hall with hearth and a smaller room at each end. A reconstruction attempted at Trelleborg in 1942 has been shown to be faulty, with the exterior postholes now interpreted as evidence for buttresses rather than an exterior gallery.<sup>50</sup> The walls were of vertical planks and the roof of trussed rafters, supported by the buttresses, making these houses similar to the other medieval hall types in northern Europe.

What is provocative about these "barrack" buildings is the regularity of their construction and placement. Harald Blue-Tooth has been described as having a sweeping vision for his reign and the energy to realize much of it.<sup>51</sup> Had he found what today would be called a military engineer who knew something of the precepts of Vitruvius and Vegetius, whose writings were known and used in the early Middle Ages?<sup>52</sup> These Viking sites are distinctive, and perhaps they represent a conflation, so to speak, of the Vitruvian town plan, recommended to be round, and the Vegetian army camp, which could also be round.<sup>53</sup> At Fyrkat the buildings have been discovered to have housed workshops and storehouses as well as dwellings, suggesting other than purely military use. The precision, however, suggests a trained theoretician.

Finally, although much is known about the Viking pantheon, little is known of actual places of worship. Structural evidence for one aspect of Viking belief is, however, abundant. From the Norwegian ship burials have come the dramatic finds of the vessels themselves. These were not meant to be seen except as mounds, as in earlier times. In Denmark, on the other hand, ship settings were again built, from single examples such as the one at Glavendrup on Funen to the great cemetery at Lindholm Høje (figures 1.31 and 1.32). Whether they were erected in conscious imitation of the Bronze Age monuments on the coasts of Sweden in order to invest their builders with the authority of tradition or simply to display the vital importance of the ship we shall probably never know. To the modern viewer they are strong reminders of the vigorous people within whose ranks rose those who led the Scandinavians into the beginning of their historical period.



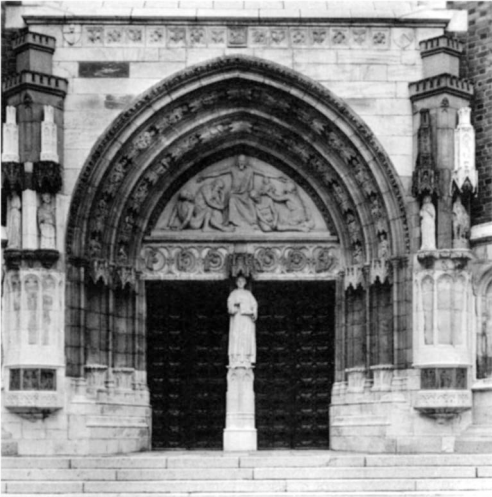
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**1.31 Glavendrup, Funen.  
Ship setting. 9th  
century.**

**1.32 Lindholm Høje, Jut-  
land. Ship settings.  
9th century.**



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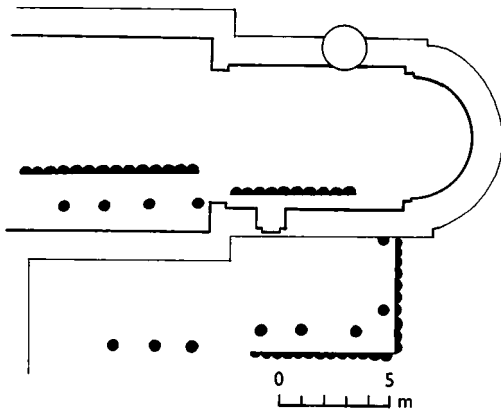
## 2 *The Middle Ages*

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### *The Romanesque Period, c. 1050–1250*

From the raid on Lindisfarne in 793 to the battles of Stamford Bridge and Hastings in 1066, the Norsemen spread their adventures to western Europe and across the Atlantic, leaving buildings in those places where they were able to settle. These first attempts led to permanent settlement in Iceland, whereas in Greenland the Norse colonies were abandoned by the end of the fifteenth century. We have seen how short-lived was the little outpost in Newfoundland. But during the Viking Age the Scandinavian countries were being invaded in their turn by Christian missionaries. These determined churchmen gradually won converts, and as the national states of Denmark, Sweden, and Norway were beginning to form, the Church became established as well.

None of this took place overnight. In 827, early in the Viking period, St. Ansgar of Bremen founded churches in the commercial towns of Hedeby, Ribe, and Birka. No traces of Christian structures remain from this time, but a significant beginning had been made. More than a century elapsed, however, before dioceses were established at Hedeby, Ribe, and Århus in



948, under the Archbishop of Bremen. The baptism of King Harald Blue-Tooth at Jelling, c. 965, brought the secular authority in Denmark into the Christian orbit, as the proud boast on the Jelling Stone asserts that Harald “made the Danes Christian.” King Olav Sløtkuning of Sweden was baptized at Uppsala in 1000, the year in which Iceland allowed Christianity to be adopted along with the worship of the pagan gods. Shortly thereafter another Christian king of Denmark, Knud the Great, became king of England in 1014. The wheel had come full circle. In the late eleventh century the Church was established in Norway under King Olav Kyrre, with dioceses at Bergen, Oslo, and Trondheim, also under the Archbishop of Bremen. Yet it was not until the middle of the twelfth century that the Swedes took the Church to the Finns, nor did the Church become dominant in Iceland until that republic came under the Norwegian King Hákon IV in 1262–1264. By the end of the eleventh century the ecclesiastical system of sees and parishes was in place in Denmark, Sweden, and Norway, resulting in the system of tithes and the obligation of the parishes to build churches.<sup>1</sup>

As a result of these conversions the northern countries put on a “robe of churches” like that which cloaked continental Europe after the year 1000, but the northern robe was at first probably more brown with wood than white with stone. From the hundreds of churches that remain from the Romanesque period, only a modest number can be presented here to illustrate the variety possible among the parish churches of wood, stone, or brick, the larger town churches, the abbeys, and the centralized churches. The early eleventh century began a period of intense building activity in the smaller towns, and by the late twelfth century more ambitious programs were being undertaken in the larger towns and cities.

In the preceding chapter it was shown that, largely as the result of excavation, a considerable amount has been learned about housing in the Scandinavian countries in the pre-Christian eras. In spite of the literary traditions concerning the Nordic gods, however, little is known of buildings for worship in pagan times. The new faith brought a new building need. The first chapels built by the missionaries have disappeared, but were probably single cells, furnished with simple altars. The next step would be to differentiate the nave, or place of assembly, from a smaller chancel, or sanctuary, containing the altar, following the axial arrangement characteristic of western European church planning. The remains of S. Maria Minor in Lund show this type of plan, with walls of vertical halved logs and inner rows of posts around nave and chancel (figure 2.1).<sup>2</sup> Built c. 1000–1020, this little church is one of the earliest examples of one kind of “stave” church construction, the uprights set directly into the ground palisade fashion, the posts carrying the roof. The little church from Holtålen in Trøndelag, built in the twelfth century (now in the museum at Sverresborg,

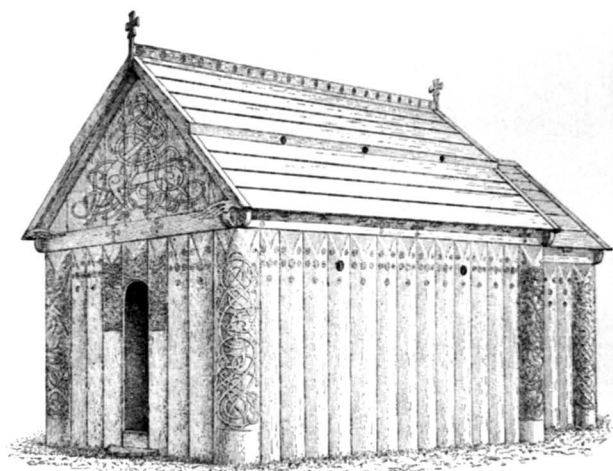


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**2.1 Lund. S. Maria Minor. c. 1000–1020. Plan. (After Ekhoﬀ, *Svenska stavkyrkor*, figure 123, p. 150.)**

**2.2 Holtålen, Trøndelag. Church. c. 1050. (Now in museum at Sverresberg, Trondheim.)**

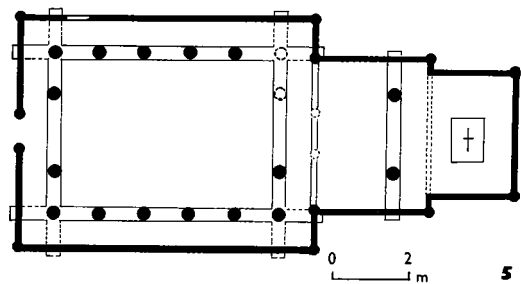
**2.3 Hemse, Gotland. Church. c. 1100. Conjectural drawing. (Ekhoﬀ, *Svenska stavkyrkor*, figure 103, p. 125.)**



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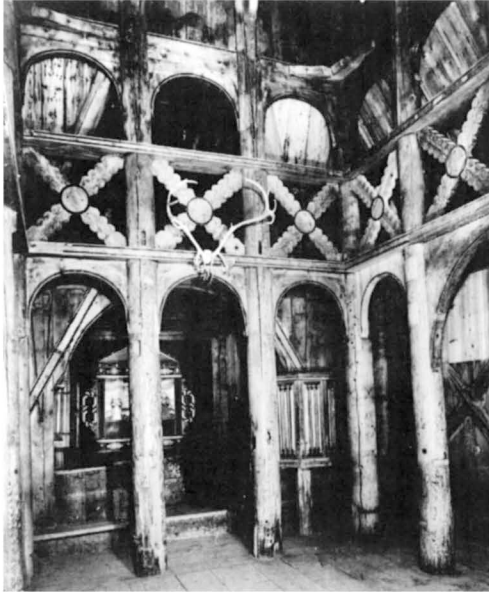


**2.4 Urnes, Sogn. Church.**  
1125–1140. Drawing by  
J. C. Dahl, 1844. (Oslo,  
Riksantikvaren.)

**2.5 Urnes, Sogn. Church.**  
Plan. (After Ekhoﬀ,  
*Svenska stavkyrkor*,  
figure 7, p. 50.)

**2.6 Gol, Hallingdal. Church.**  
Early 13th century.  
(Now in Norwegian Folk  
Museum at Bygdøy,  
Oslo.)





7

Trondheim), has heavy posts set on a sill at the corners of the nave and chancel, with the planks of the palisade wall also grooved into the sill. The sill rests on a stone foundation, which helped to protect the timbers from rot and hence gave the church a better chance for survival (figure 2.2).<sup>3</sup> Fragments from the church at Hemse, Gotland (now in the Historical Museum, Stockholm), show how such timbers might be carved with patterns carried over from Viking times (figure 2.3).<sup>4</sup>

Most of the more than seven hundred wooden churches built in Norway in this period are now gone, about thirty remaining. They were mostly of the type just described, as were the wooden churches of Romanesque Denmark and Sweden.<sup>5</sup> Another kind is the “mast” type of stave church. This is a particularly interesting phenomenon in Norwegian architecture, the significance of which has been a subject of controversy for nearly a century.<sup>6</sup>

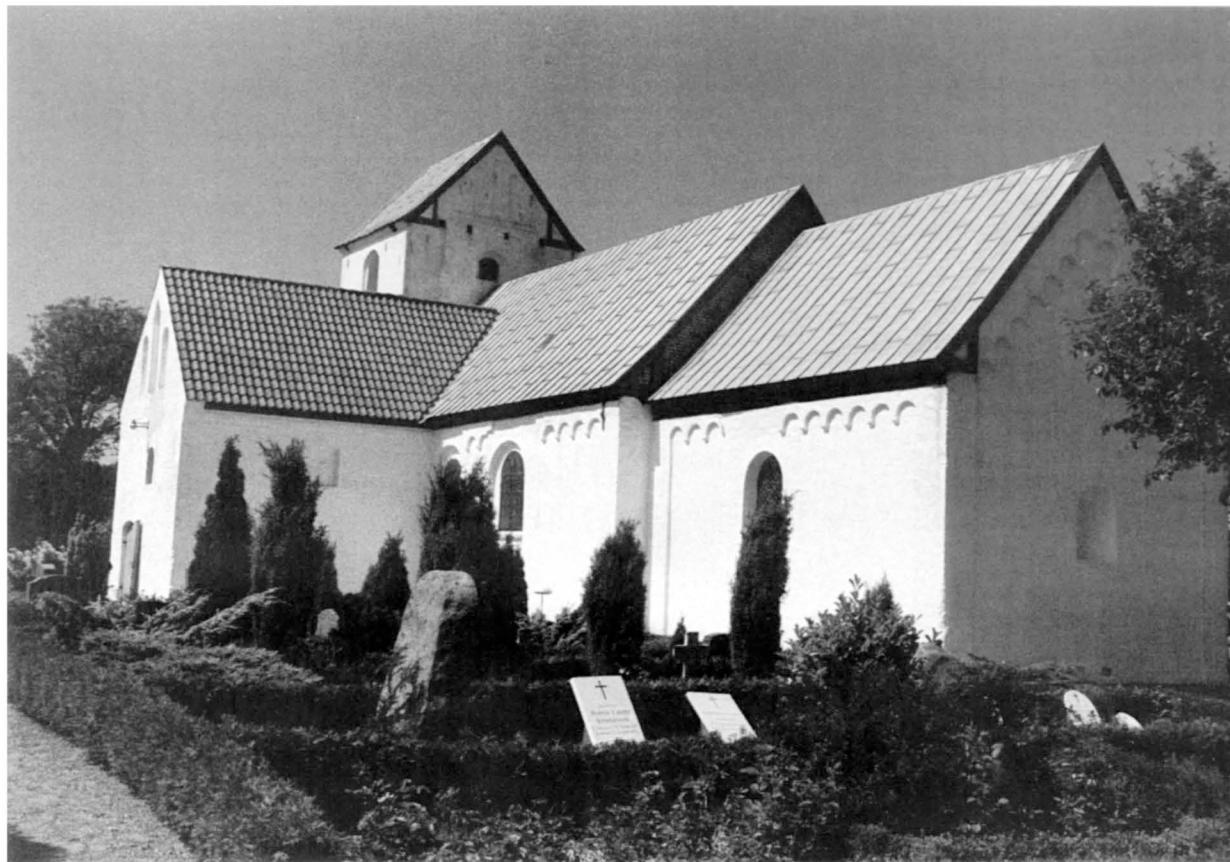
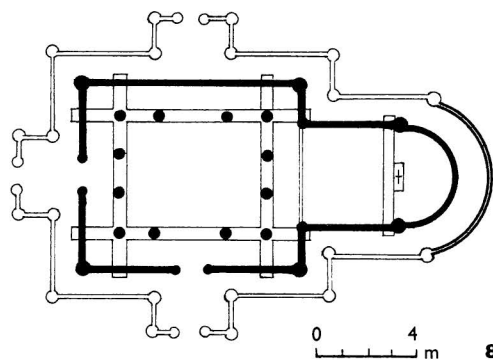
The church at Urnes in Sogn is considered to be one of the earliest remaining of this kind (figures 2.4 and 2.5).<sup>7</sup> The present building, c. 1130, appears to be the third on the site. It is a small structure, about 28 by 21 feet, resting modestly at the foot of a sheltering hill. The basis for its construction is a “raft” of four timbers, two lengthwise and two crosswise, laid on a bed of stones and crossed with their ends projecting about 4 1/2 feet from the points of crossing. The major upright posts or staves, sometimes called “masts,” are tenoned into this raft and joined at the top with horizontal plates. Cross and quadrant braces are used to strengthen the posts. The roof is constructed of rafters and purlins, strengthened by scissors braces and collar beams. Sills for the outer walls are fitted into the projecting ends of the raft to form the basis for an ambulatory. The walls are of vertical planks set into the sills, with a pent roof abutting lower beams between the posts. A short clerestory wall rises above this roof, and the whole assemblage results in the familiar stepped pyramidal appearance of the stave or “mast” church.<sup>8</sup>

To this formula could be added surrounding open porches and turrets or belfries. Two of the grander examples date from the years 1200–1250. The church at Gol was moved from its original location in Hallingdal to King Oscar II’s collection of Norwegian antiquities at Bygdøy near Oslo in 1884.<sup>9</sup> It is now a major attraction of the Norwegian Folk Museum (figure 2.6). The Borgund church remains in its original location in Sogn (figures 2.7 and 2.8).<sup>10</sup> Without artificial illumination these churches are dark, having only the smallest of clerestory and chancel openings. The naves rise cavelike, and the orientation remains toward the altars. The few that are left demonstrate the soundness of well-seasoned timber and the ingenuity of the system with which they were built.

**2.7 Borgund, Sogn. Church.**  
**Early 13th century. Interior.**  
 (Oslo, Riksantikvaren.)

**2.8 Borgund, Sogn. Church.**  
**Plan.** (After Dietrichson,  
*Norske stavkirker*,  
 figure 2, p. 8.)

**2.9 Råsted, Jutland. Church.**  
**Early 12th century.**



Probably more would have survived had they not been razed to make way for larger buildings.

After 1814 a wave of enthusiasm for Norway's cultural heritage arose, otherwise the stave churches remaining then might not have survived at all. Our knowledge of them would have been limited to representations in painting or other arts, which would have been enigmatic at best. Much of the credit belongs to the painter Johan Christian Dahl (1788–1857), who in addition to painting the Norwegian landscape took great interest in the preservation of Norwegian architecture. In order to save the stave church at Vang in Valdres, Dahl



10

**2.10 Råsted, Jutland.**

**Church. Interior.**

**2.11 Volsted, Jutland.**

**Church. 12th century.**



11

persuaded King Friedrich Wilhelm IV of Prussia to buy it, and it was dismantled and reconstructed at Bruckenberg in Silesia (now Bier-tonice in Poland) in 1842–1844.<sup>11</sup> In 1836 Dahl had written an essay on the wooden architecture of Norway, and the widespread interest now being aroused led to the founding of the Society for the Preservation of Ancient Monuments in Norway in 1844. Dahl's view of Urnes has been chosen to illustrate this church as it was in the 1840s.

Since the "mast" type of stave church is so different from the more familiar nave and chancel type that is found also in stone and brick, questions have arisen as to the origins of their design. Opinions range from Lorenz Dietrichson's theory that they are conversions from stone Romanesque basilicas to Kristian Bjerknæs's theory that they perpetuated a now-vanished type of pagan temple, and the matter is not yet resolved.<sup>12</sup>

As for ornament for embellishment or didactic purposes, a few fine examples of carved portals have survived from the stave churches, some now in museum collections. Those now seen at Urnes were saved from the previous building and incorporated in the present church. These are of the so-called "Urnes" style, the last of the great Viking ornamental styles. The mingling of pagan and Christian motifs on these portals shows that the adoption of Christianity in the North was by no means immediate and automatic and that the incoming clergy were wise enough to respect and make use of local traditions.

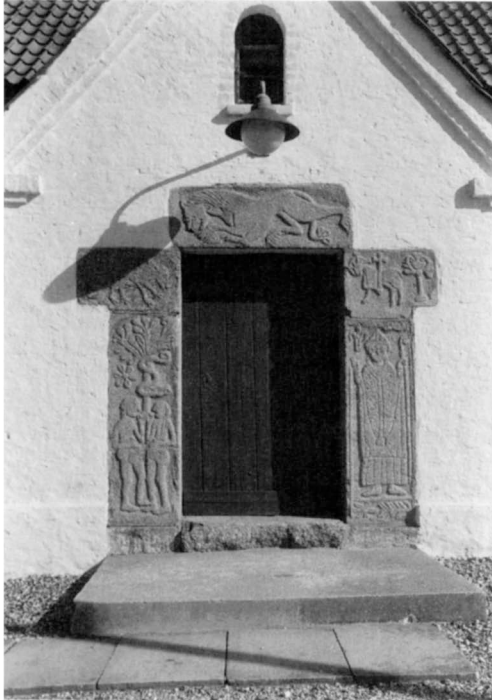
In Denmark and Sweden the church builders turned soon to stone and in the twelfth century to brick. Perhaps the earliest stone church in these countries was that built by King Svend Estridsen at Roskilde on Zealand, c. 1030.<sup>13</sup> Extant foundations indicate that it was a simple nave and chancel structure. It was

built of calcareous tufa, which is abundant on Zealand and widely used for these early stone churches in Denmark. Seventeen to eighteen hundred had been built in Denmark alone by c. 1250, many of which still exist, mostly in the smaller communities.

One notable example in Denmark is the little church at Råsted on Jutland, which still has much of its original character. It was probably built sometime before 1150 as a simple nave and chancel church of limestone, to which the south porch and west tower were added in the Gothic period (figure 2.9).<sup>14</sup> The entrance to the parish church in Denmark and Sweden was normally on the south side, for this side got the most sun and shelter from the wind. The porch gave additional protection by keeping the wind, rain, and snow from entering the nave directly. It is called the *våbenhus* or "weapon-house" in Denmark, because weapons were to be left here before their owners entered the church. If a second door was added, it would be on the north side, since the women sat on the north and the men on the south. The tower was a landmark in the countryside and could serve as a watchtower and a stronghold for church or town valuables.

At Råsted the nave and chancel are still covered with flat wooden ceilings, as were so many of the Romanesque parish churches originally. On the east wall of the nave, the arched entrance to the chancel, and the chancel walls there has survived one of the finest remaining cycles of Romanesque wall paintings (figure 2.10).<sup>15</sup> Such paintings, as we shall see, flourished in Denmark, Sweden, and Finland for nearly five hundred years, giving a colorful *Biblia Pauperum* painted *al secco* with mineral pigments.

We have already noted the carvings on the Norwegian stave churches, with their combination of pagan and Christian symbolism. The



12

- 2.12 Volsted, Jutland.  
Church. Portal.**
- 2.13 Botkyrka, Söderman-  
land. Church. 1176.**
- 2.14 Tingelstad, Hadeland.  
Church. c. 1100. (Oslo,  
Riksantikvaren.)**

portals of stone churches might also receive such carvings, usually in granite. A particularly vigorous tradition developed on the Jutland peninsula, where some of the individual carvers can be identified. One of these was Master Goti, who did the portals for the church at Volsted, built early in the twelfth century (figure 2.11).<sup>16</sup> This is another typical small parish church, set apart from the center of the village in a walled churchyard. Until 1873 the carvings were on the original south portal. Then the *våbenhus* was built and the carvings moved to it (figure 2.12). These are in the typical low relief, depicting an episode from the Creation cycle and here an unusual portrayal of a bishop. Volsted is a simple nave and chancel church, the nave covered still with a timber roof and the chancel now covered with a Gothic half-vault. A similar parish church in Sweden is Botkyrka in Södermanland (figure 2.13).<sup>17</sup>

Although wood predominated for early churches in Norway, some parish churches there were built of stone. The church at Tingelstad in Hadeland as now restored may resemble the first little stone church at Roskilde (figure 2.14).<sup>18</sup> Here is a simple stone building, with nave and rectangular chancel, round-headed doors and windows, covered with a steep wooden roof, which is crowned by an octagonal turret. The east gable is filled with masonry, the west gable with timber.

From this detail of the church at Tingelstad we may turn to a brief mention of the early medieval churches of Iceland and Greenland. Settlement of both places was primarily by the Norse, and it is thought that the earliest churches built in Iceland were probably of wood, similar to the nave and chancel type of stave church.<sup>19</sup> These have disappeared, and the wooden churches and very few turf churches that we see today were built much later. Then in Greenland in the late Viking period Erik the



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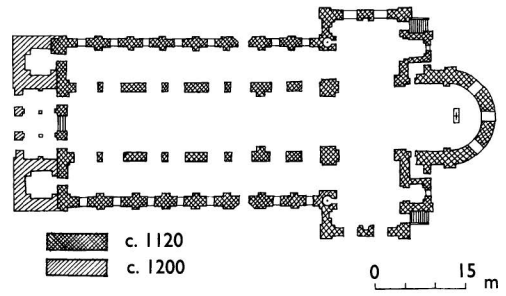
Red's wife Thjodhilde became converted to Christianity and built a little church near the farmstead at Brattalid.<sup>20</sup> No trace of this remains, but traces of several parish churches have been found in the Eastern and Western Settlements. By c. 1100 Christianity was more firmly established in Greenland, the first bishop being appointed in 1126. His residence was fixed at Gardar, where the house and the out-buildings of a major estate were built, including a large festival hall.<sup>21</sup> The cathedral church was more elaborate than the parish churches, having north and south chapels. Like other Norse churches in Greenland, it had a timbered west gable. Most of the parish churches that spread over these territories in the twelfth century were, like their contemporaries in Iceland,



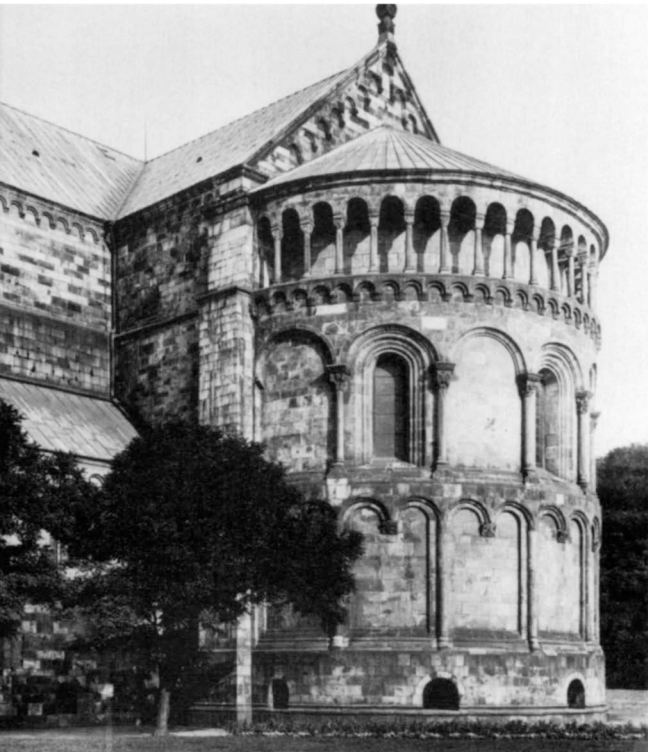
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- 2.15 Tveje Merløse, Zealand. Church. c. 1125.**
- 2.16 Lund. Cathedral. Early 12th century. East end. (Copenhagen, National Museum.)**
- 2.17 Lund. Cathedral. Plan. (After Anker and Aron Andersson, *Art of Scandinavia*, volume 2, figure 13, p. 38.)**

hardly more than private chapels by individual farms.

The more ambitious cathedral at Gardar was characteristic of the trend to more splendid churches as the bishops and their royal and noble patrons reinforced their claims and strengthened the position of the Church in the Nordic lands. By the last quarter of the eleventh century Bishop Svend Normand saw King Svend Estridsen's little church at Roskilde as inadequate and on its foundations built a larger three-aisled church of limestone, which is thought to have had western towers, a transept, choir, and perhaps apses.<sup>22</sup> It probably looked very much like the present church at Tveje Merløse, begun c. 1125, which is about 30 kilometers west of Roskilde on the main road to the medieval town of Kalundborg (figure 2.15).<sup>23</sup> Across the Sound in Skåne a new bishopric had been founded at Lund by King Svend Estridsen, who died in 1074, and under one of his sons, King Knud the Holy, a small cathedral was built in the 1080s.<sup>24</sup> It consisted of nave and aisles, transept, choir, and apse, with its remains now forming the crypt of the present building.

Then in 1104 King Erik Ejegod was able to get Lund elevated to an archbishopric, which was intended to serve all of Scandinavia. Although by this event the Church in the Nordic countries was no longer under direct German control, the artistic ties between Denmark and Germany remained strong throughout the Middle Ages and indeed beyond. We shall see that in Norway, on the other hand, strong artistic impulses came from England.

To celebrate the new status of Lund a great cathedral was begun, for which the consecration of the several altars was not completed until 1145 (figures 2.16 and 2.17).<sup>25</sup> An entry in the cathedral death rolls for the period between 1130 and 1140 refers to "Donatus ar-

chitectus, magister operis hujus obiit," and it is thought that he was an Italian, possibly brought to Lund via Speyer. The original plan of the cathedral consisted of a four-bay nave, separated from the aisles by an alternating system of piers, a transept with projecting chapels and stair towers, choir, and apse, the east end of the building corresponding in part to the predecessor over which it was built. The western tower complex was not part of the original conception but was added under Archbishop Absalon early in the thirteenth century. The aisles were groin-vaulted from the beginning, but the nave had a wooden roof to start, as did probably the transept, and the choir and apse were vaulted. The present vaults were first built over the nave after a fire in 1234 and were rebuilt during restorations in the nineteenth century. So much restoration has been done, in fact, that little of the original surface of the stone is visible.

The exterior of the east end of Lund is justly famous, for apparently here the rich Rheno-Lombardic vocabulary of ornament was introduced into Scandinavia. As extensively restored in the nineteenth century, it has a massive base with round-headed windows opening into the crypt, a story of blind arcades with double arches rising from consoles, a second story of alternating blind panels and round-headed windows, framed by applied colonnettes carrying arches, and a shorter third story of a blind gallery formed by a dwarf arcade. A strong Italian-derived spirit is evident in the portals, with their series of recessed columns and in part classically derived carvings.<sup>26</sup>

Such a magnificent project, unprecedented and the prime ecclesiastical building in Scandinavia until the establishment of an archbishopric in Trondheim in 1152, could hardly fail to have its imitators. The Rheno-Lombardic systems involving applied colonnettes or pilasters, arched



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corbel tables, blind galleries, and the interplay of these elements applied in contrasting scales are to be found on many succeeding Romanesque parish churches. One notable example is the church at Vå in Skåne, begun c. 1140, perhaps under royal patronage, and taken over as a Premonstratensian abbey c. 1160 (figure 2.18).<sup>27</sup> It was begun with a flat east end, but this was changed to a semicircular apse, finished with an arched corbel table and pilaster strips separating the window bays. By 1160 the apse and chancel had been vaulted, and the fine Romanesque paintings on these vaults have survived.

For the western Danish diocese a new cathedral was begun at Ribe on Jutland c. 1130 (figures 2.19 and 2.20).<sup>28</sup> As planned originally it consisted of nave, aisles, transept, and apse. There is no choir, and the transept chapels of Lund are reduced to niches in the east walls. The brick northwest tower was added c. 1250 and rebuilt c. 1620, while the aisles are Gothic and were probably added early in the fifteenth century. The southeast, or Maria, tower was rebuilt in 1896. The Jørgen Roed painting shows how the building once loomed up in the now crowded town. It also shows it in a different stage of color, with the Rheno-Lombardic



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**2.18 Vä, Skåne. Church. Begun c. 1140.**

**2.19 Ribe, Jutland. Cathedral. Begun c. 1130. Painting by J. Roed, 1836. (Copenhagen, State Museum of Art.)**

**2.20 Ribe, Jutland. Cathedral. Interior. Painting by J. Roed, 1836. (Copenhagen, State Museum of Art.)**



20

arcading emphasized by white-washing of the flat walls behind. Today the brown-gray stone is seen throughout the exterior, contrasting with the brick additions.

Roed's painting of the interior (actually a study for a painting now in the Hirschsprung Collection, Copenhagen) shows the triforium above the aisles, which was omitted at Lund. The German-inspired domed-up vaults, added after a fire in 1242, were then white-washed, and Roed was evidently fascinated by the effects of light upon them. Today more patterns have been painted on the transverse arches and ribs. The pulpit of 1597 has been moved from its more central location on the north side of the nave to a position nearer the transept on the south. The altarpiece of 1597 seen in Roed's painting has been removed to make way for the tabernacle and altar installed during restorations in 1884–1904. While there is abundant documentation and some visual evidence for the changes that these Romanesque buildings have undergone, these paintings give us an especially effective set of exterior and interior views by an artist who saw the building over one hundred fifty years ago.

In the early large Norwegian stone churches, we can see some of the same German-derived features as those of the Danish churches just described, and also some more clearly coming from England. St. Mary's Church in Bergen, begun c. 1130, is still much as it was originally built (figures 2.21 and 2.22).<sup>29</sup> Bergen was one of Norway's first cathedral cities, and in the twelfth century it was in effect the capital of Norway. The cathedral church in the center of town is Christ Church, also begun in the twelfth century, and St. Mary's appears to have been built to serve the community around the castle at the mouth of the bay. It is a basilical church, with two towers rising on the west, the west door opening into the first bay of the

nave. The nave and aisles are separated by cruciform piers, and there is a bifora motif in the triforium that recalls the trifora of Ribe. Also as at Ribe, there is a shallow apse within the wall at the end of the north aisle. The church is vaulted throughout, with groin vaults over the nave. These may have been constructed after a fire in 1198, since they obstruct the clerestory windows of the south wall. The choir was originally only one bay deep, and it was probably lengthened during the rebuilding after another fire in 1248. The builders of St. Mary's may have been brought from Lund or Ribe, but the spiral colonnettes and geometrical patterns on the archivolt suggest that the designers of the south portal may have come from England.

A closer link with English Romanesque architecture can be seen at the cathedral of St. Swithun in Stavanger (figure 2.23).<sup>30</sup> Built under Bishop Reinald, who was brought to Stavanger from Winchester c. 1125, it was damaged in a fire of 1272, after which the present Gothic choir was constructed. The original western



- 2.21 Bergen. St. Mary. Begun c. 1130. (Oslo, Riksantikvaren.)**
- 2.22 Bergen. St. Mary. Portal.**
- 2.23 Stavanger, Rogaland. Cathedral. Nave. c. 1130. (Oslo, Riksantikvaren.)**



22



23

tower was also pulled down and replaced by a broad vestibule. The nave, however, remains separated from the aisles by five sets of cylindrical piers carrying a broad arcade. There is no triforium, and the clerestory consists of simple round-headed windows. The cushion capitals with sharply projecting abacus blocks are close to those remaining in the north transept of Winchester Cathedral, 1079–1093.

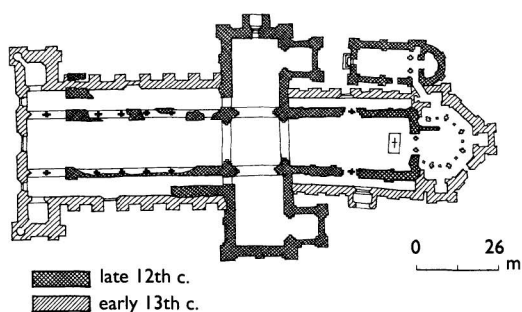
By far the most impressive undertaking in twelfth-century Norway was the transformation of the old church at Trondheim, then called Nidaros, upon the founding of the archbishopric there in 1152.<sup>31</sup> The town and its church grew from the residence established there by King Olav Tryggvasson in 997. After the battle of Stiklestad in 1030 St. Olav was buried at the second church, which he had begun c. 1016. This was rebuilt as a cathedral church under King Olav Kyrre and called Christ Church. Under the first archbishop, Eystein Erlandson, this building was pulled down and the present one begun, preserving the shrine of St. Olav (figure 2.24). Only the transept was completed during the Romanesque period, but the lower portions that remain are eloquent of the Norman style, with massive walls decorated with wall arcades, rich use of colonnettes with cubical capitals, and zigzag and billet moldings (figure 2.25). Throughout the Viking period Norsemen had carried their culture to England, and now English ideas were being received in Norway.

In addition to the parish churches and cathedrals there were of course the abbeys, and as the different orders established houses in the Scandinavian countries they built their churches according to their own particular traditions. Early in the twelfth century English Benedictine monks were invited to Odense by King Erik Ejegod, but they did not at first build their own churches. Soon after, however, c. 1125, other

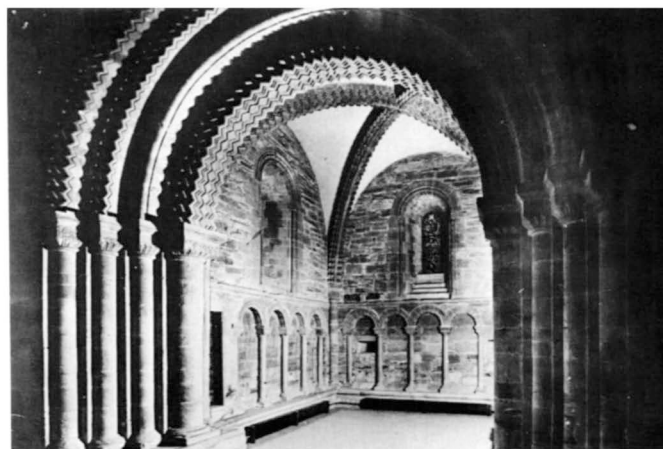
English Benedictines built the abbey church at Venge near Skanderborg on Jutland (figure 2.26).<sup>32</sup> It is a small building, with a single nave, transepts with eastern apses, choir, and apse. The semicircular apses are characteristically Benedictine, and the narrow openings into the transepts and choir are in the Anglo-Norman tradition. The church is built of sandstone and originally had wooden roofs over nave and choir. The exterior decoration of the apse is also in the Anglo-Norman manner.

At Venge the rest of the monastic buildings are gone, but from a reconstruction based on foundations remaining at Alvastra in Östergötland we can see the program of the typical monastic establishment (figure 2.27).<sup>33</sup> On the south side of the church there was built a covered passage surrounding a square courtyard. Opening off this on the east side was the meeting room or chapter house, with the dormitory built above. Kitchen and refectory were on the south side, with barns, warehouses, and storage on the west. Alvastra was founded in 1143 by Cistercian rather than Benedictine monks, one of the expressions of this reformed order being the flat east walls of the eastern chapels, as had been established at the original church of the Order at Clairvaux.<sup>34</sup>

While these developments were taking place in stone, a new building material was introduced in the Scandinavian countries, one that was to have a leading role in the architecture of the next several centuries. Earlier, under King Godfred, c. 808, a fortification had been dug across the south end of the Jutland peninsula to protect the Danes from the armies of Charlemagne. In the reign of King Valdemar I (1157–1182) this was further strengthened by a facing of brick, a new manufactured material for which the technology was imported from Lombardy.



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**2.24 Trondheim. Cathedral.  
Begun 1152. Plan.**

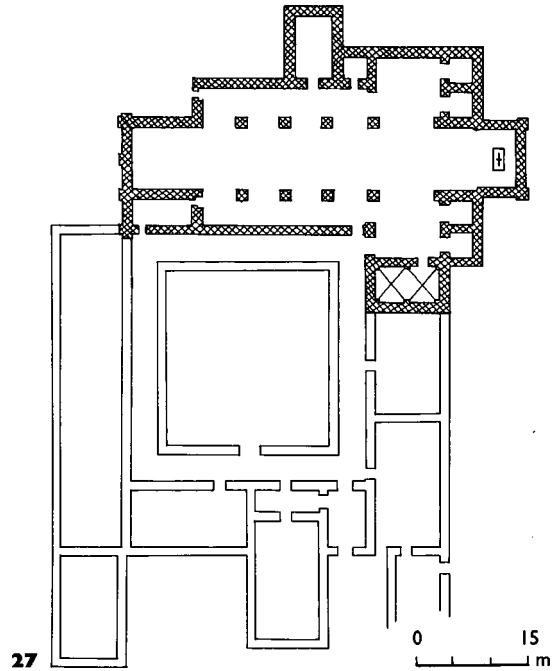
(After Lundberg, *Byggnadskonsten*, p. 200.)

**2.25 Trondheim. Cathedral.  
South transept chapel.  
(Oslo, Riksantikvaren.)**

The Benedictines had built an abbey of tufa at Ringsted in Sorø County on Zealand c. 1080. Here St. Knud Lavard was buried after he was murdered in 1131. A new brick church was begun c. 1160 over the remains of the old, and the nave was nearing completion by the death of Valdemar in 1182.<sup>35</sup> The church has undergone fires and restorations, the fire of 1241 resulting in the Gothic vaulting. In plan it resembles Cluny III, begun 1088, with its broad transept carrying four eastern chapels in addition to the choir and apse (figure 2.28). Although the exterior walls have little surface decoration apart from the arched corbel tables, the plan resulted in a rich complex of masses at the east end. We may well suspect that the builders thought that the application of pilasters, blind arcades, etc., would have created an undesirably busy surface. The interior has breadth of effect, the wide round-headed arches of the nave rising from rectangular piers. There is no triforium gallery, and the nave wall is now punctuated by the corbeled supports for the vaulting ribs.



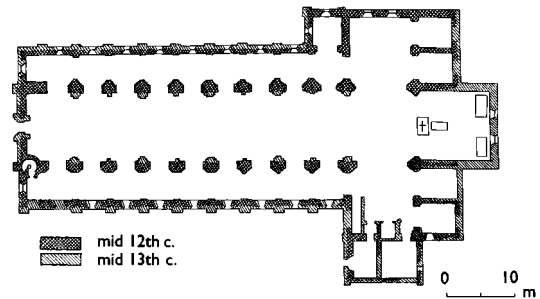
- 2.26 Venge, Jutland. Church.**  
**c. 1125. (Copenhagen,**  
**National Museum.)**
- 2.27 Alvastra, Östergöt-**  
**land. Abbey. 1143.**  
**Plan. (After Anker and**  
**Aron Andersson, *Art***  
**of *Scandinavia*, volume**  
**2, figure 87, p. 177.)**
- 2.28 Ringsted, Zealand. St.**  
**Bendt. Begun 1160.**



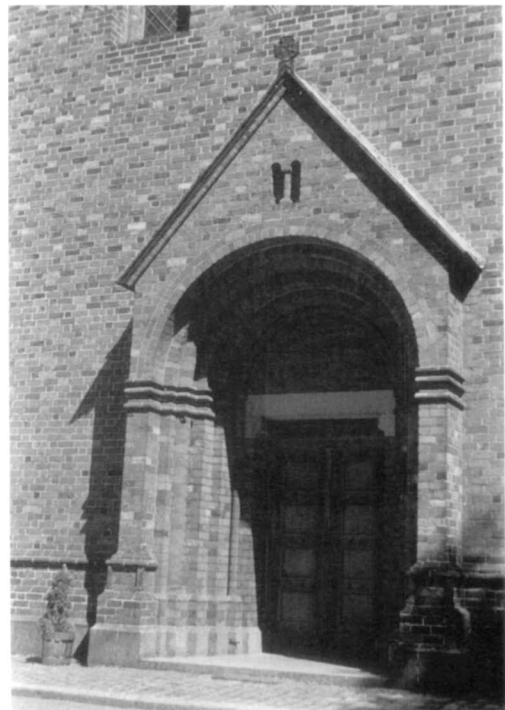
At nearby Sorø a new Cistercian abbey was founded in 1162 as a private church for the powerful Hvide family.<sup>36</sup> In some respects the plan resembles that of Ringsted in having nave and aisles, transept, chapels, and apse (figure 2.29). In the nave, however, the bays are square rather than rectangular, and the bays of the side aisles are also square, the whole system based on the Roman rather than the Greek foot used at Ringsted. The transept chapels and apse have flat east walls in the Cistercian manner. The nave was originally covered with a wooden roof, and the vaults were constructed after a fire in 1247. At both Ringsted and Sorø the colonnettes, capitals, and moldings for the ornaments of door and window openings were executed in specially molded brick rather than stone (figure 2.30).

The parish churches, cathedrals, and abbey churches that we have been considering were all planned longitudinally, whether simply with nave and chancel or with the full basilical complex. While this was the most widely adopted plan in Romanesque Scandinavia, another approach was also occasionally used. This was to construct a church around a central vertical axis, using the circle or the Greek cross as the basic plan. A dozen or so were built in Denmark and Sweden, evidently as defensive structures. The southern and eastern shores were menaced by attacks from across the Baltic, and some of the round churches were fortified after the manner of Continental towers.<sup>37</sup>

The most interesting group is that of the four round churches on Bornholm, Østerlars being the most dramatic (figure 2.31).<sup>38</sup> It is a massive building, three stories high, with the roof resting on thick outer walls and also supported by a central pillar. This pillar is actually hollow, a round room formed by six heavy posts that are the inner supports for the annular vault of the surrounding aisle. This room is



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used as a baptistry, and the choir and apse, also circular, project off the main building. The staircase to the upper levels rises through the wall of the choir. The heavy buttresses that make the exterior so picturesque were added in the sixteenth and seventeenth centuries. Hoardings and machicolations provided the defenses of these churches. Lines drawn on a map of Bornholm will show these churches zigzagging up the island toward the stronghold of Hammershus on the north. The churches are no more than nine miles apart, and signal flares could send quick warning of impending invasion right across the island.

The round churches of Bornholm are all built with a central pier, and there is no conventional nave, only a surrounding corridor. Another approach was to support the vaults of a round church with four central piers, which left comparatively more assembly space at the ground level. The piers rise to five four-part vaults in a Greek cross plan, with triangular vaults to fill out the circle. This system was adopted at Bjernede on Zealand c. 1160 and also at Thorsager on Jutland c. 1200.<sup>39</sup> At Bjernede the church was begun in granite and finished in brick (figure 2.32). The upper portion underwent some changes, and the present pyramidal roof and also the apse date from reconstructions in 1890–1892.

The most spectacular and intriguing of the Romanesque centralized churches is at Kalundborg on Zealand (figure 2.33).<sup>40</sup> It was begun c. 1170 on a Greek cross plan, with an octagonal tower at the end of each arm and a square tower over the crossing. This central tower fell in 1827 and was rebuilt in 1871.<sup>41</sup> The church was probably built by Bishop Esbjørn Snare, brother of the great Bishop Absalon. The massive brick walls and the fortresslike character of the stairs to the towers are appropriate signs of Kalundborg's site on the fjord coming off the

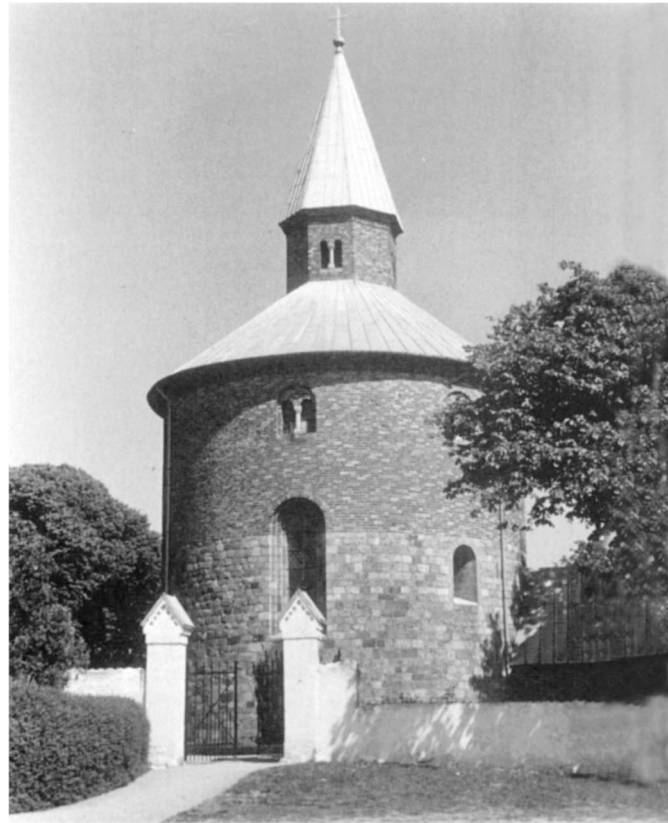


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- 2.29 Sorø, Zealand. Abbey Church. Begun 1165. Plan. (After Hermansen and Nørlund, *Danmarks Kirker. Sorø Amt*, volume 1, figure 4, p. 24.)**
- 2.30 Ringsted, Zealand. St. Bendt. Portal.**
- 2.31 Østerlars, Bornholm. Church. c. 1150.**

Great Belt. Modern commercial buildings now dominate the view from the water, but in the twelfth century the great church must have been an impressive landmark. Although the plan appears to be centralized in outline, the interior is arranged with the altar on the east wall, opposite the west entrance, creating the effect of a short basilica with chapels projecting on north and south. The piers as rebuilt after a fire in 1314 are more slender than the original, and the first appearance of the interior (figure 2.34) must have been much like that of Bjernede, which was built by Bishop Absalon.

With Kalundborg the great age of Romanesque building in Scandinavia was drawing to a close. A new style was already developing in France, and with the next major building project in the North, Roskilde Cathedral, the Gothic would overtake the earlier style.



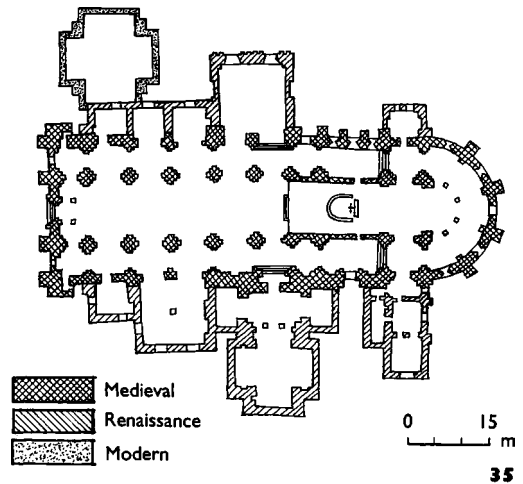
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- 2.32 Bjernede, Zealand.**  
**Church. c. 1160–1180.**
- 2.33 Kalundborg, Zealand.**  
**Church. Begun 1170.**
- 2.34 Kalundborg, Zealand.**  
**Church. Interior. (Copenhagen, National Museum.)**






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*The Gothic Period, c. 1250–1530*

By the turn of the thirteenth century the Gothic style in architecture was approaching its maturity in France and England. In the Scandinavian countries the new style was sometimes adopted for new construction and sometimes for alteration to existing buildings. Influences came from Germany as well as from France and England. No clear-cut division into regional or national groups is entirely appropriate, but certain tendencies can be observed. In Denmark and southern Sweden brick was especially popular and also to some extent in Finland, with strong relations to German building. Stone was used more in central Sweden and on the island of Gotland, in a mixture of French, English, and German ideas. In Norway and the Atlantic islands building in stone with strong preferences for English details seems to have predominated.

Before turning to some examples of churches from these groups, we should note the transitional character of one of Denmark's most important churches, the cathedral at Roskilde. A campaign to replace Svend Normand's church with something grander was begun by Bishop Absalon c. 1170.<sup>42</sup> He planned it to be a

three-aisled basilica of granite, as some fragments in the present church indicate. The work was begun at the east end in the Romanesque style, but fashion changed the plans. Almost at once the examples of the churches at Ringsted and Sorø caused a change from stone to brick. Then when Bishop Absalon was succeeded by Bishop Peder Sunesøn in 1193 the work was continued in the Gothic style which the bishop had encountered in travels in France and the Low Countries. By 1300 the nave was finished as far as the west wall, and from then until 1924 no less than eleven additions were made to the basic plan (figure 2.35). After the court of Denmark moved from Roskilde to Copenhagen in 1416, Roskilde Cathedral continued to be the royal burial place, which accounts for its many chapels. The earlier Romanesque portions are visible at the east end, and in the clerestory the windows are still round-headed. The twin towers that rise at the west end did not receive their slender spires until 1635 (figure 2.36). The Gothic work becomes apparent in the interior, where the nave is separated from the aisles by compound brick piers that rise 78 feet to the domical vaults (figure 2.37). Gothic vaults also cover the aisles and choir. The major furnishings are sumptuous and include the oak gallery or pew of Christian IV (1610), the sandstone and alabaster pulpit (1609), the gilt wood altar (c. 1580), and the organ (1550 and 1654, rebuilt 1957). These fortunately survived the fire that broke out during repairs to the eastern roof in 1968.

We should also note one other great transitional church in Denmark, the Cistercian abbey church of Løgumkloster on Jutland,<sup>43</sup> built on the so-called "Bernardine" plan like that of Alvastra. Only the chancel and eastern chapels were promptly ready for use after the building was begun c. 1200. The remainder of the church was not completed until c. 1350, which

**2.35 Roskilde, Zealand. Cathedral. Begun 1190. Plan. (After Moltke and Elna Møller, *Danmarks Kirker. Københavns Amt*, volume 3, figure 26b, p. 1327.)**

**2.36 Roskilde, Zealand. Cathedral. (Copenhagen, National Museum.)**



accounts for the appearance of pointed arches in the upper portions and the differences in vaulting from one end to the other. According to Cistercian rule a western tower complex like that of Roskilde was omitted. By the time of its completion, however, some of the austerity of the Order was relaxing, and the gable ends were evidently inspired by north German or Netherlandish fashion with their groups of window panels and stepped edges. In contrast the interior is characterized by plain surfaces, with no ribs on the piers and no articulation of the nave wall (figure 2.38). Upon the Reformation in Denmark in 1536 the monastic buildings were largely destroyed and the church itself seldom used until it became a parish church in 1739. Therefore the present altar, pulpit, and font, which the red brick sets off so effectively, are not the original furnishings.

The gables of Løgumkloster bring us to those buildings that may be viewed as belonging to a larger regional group that transcends national boundaries: the “Baltic brick Gothic,” which includes the Netherlands, north Germany, and the eastern Baltic countries as well as Denmark and south Sweden.<sup>44</sup> Two cathedrals and two city churches can be noted to demonstrate the vigor of this style in south Scandinavia.

Odense on Funen was the seat of one of the oldest bishoprics in Denmark, founded in 988. In 1086 King Knud the Holy was killed in the small wooden church of St. Alban near the cathedral. He had already begun a new granite cathedral, to which his remains were transferred in 1095 and which was renamed in his honor after his canonization in 1101. This church burned in 1247, some parts now remaining as a crypt, and the present building was begun in the new brick Gothic style.<sup>45</sup> The first five bays of the nave were completed by 1300, then the chancel bays were added, then c. 1450



37

**2.37 Roskilde, Zealand. Cathedral. Interior. (Copenhagen, National Museum.)**

**2.38 Løgumkloster, Jutland. Abbey Church. Begun c. 1200. Interior. (Copenhagen, National Museum.)**



38

the two parts were connected without a conventional transept. The west front was given its single tower under Christian III in 1558, and the building was restored in the eighteenth and nineteenth centuries. Unlike the unpainted walls at Løgumkloster, the brick interior has been whitewashed (figure 2.39). The compound piers of the nave carry an arcade with continuous moldings, and these are echoed in the moldings of the triforium and clerestory openings. Vaulting shafts are carried up across the nave wall to the springing of the vaults. The more steeply pointed arches give a stronger



39

**2.39 Odense, Funen. St. Knud. c. 1247–1301. Interior.**

**2.40 Århus, Jutland. Cathedral. Begun c. 1197. (Copenhagen, National Museum.)**

vertical emphasis than at Roskilde and Løgumkloster. The whitened brick of the nave provides a setting for the pulpit of 1751–1754 and the royal pew of 1894. The organ in the west end retains its case of 1752, but the most striking furnishing is the great altar by Claus Berg, c. 1520, originally carved for the Gray Friars' Church, and now dominating the raised chancel.

The exterior of St. Knud is comparatively modest, with the plain walls of nave and aisles, simple clerestory windows, and plain salient buttresses. A much grander effect was achieved on the cathedral at Århus on Jutland (figure 2.40).<sup>46</sup> Begun c. 1197, it is the longest church in Denmark, measuring over 300 feet. It started as a late Romanesque church with nave, aisles, a projecting transept with eastern chapels, choir, and apse, similar to Ringsted. The plan as it is now reflects a change at the west front in the fifteenth century, when it was decided to build two chapels flanking a central tower instead of the two towers originally planned. This was followed by raising the nave and changing the vaulting system from three bays to six. The transept was then heightened and the choir rebuilt as a hall church by c. 1482. These changes brought the high stepped gables that give the cathedral its rich exterior. Alterations in the transept included provisions for the religious dramas that were enacted in the cathedral, and the new choir was a fitting stage for the permanent drama of Bernt Notke's great altarpiece of 1498. The building underwent restorations in 1867–1882 and again in 1921–1927.

Copenhagen's old brick Gothic Vor Frue Kirke, or the Church of Our Lady, no longer exists. Under Bishop Absalon a church had been built in Copenhagen c. 1200, probably of limestone.<sup>47</sup> This burned in 1316; a new church was built in brick with granite details.<sup>48</sup> It was a

three-aisled basilica with eight bays in the nave, no projecting transept, and five chapels surrounding the apse. In plan therefore it resembled Roskilde Cathedral, of which it was then a collegiate dependency. Representations of two coronations give us some idea of the interior. In a print of 1593 commemorating the coronation of Frederik II in 1558, the church was shown in a cutaway view that includes the altar of 1559 and indicates salient buttresses, traceried windows, cylindrical piers, and pilasters on the aisle walls rising to domical vaults (figure 2.41). For the coronation of Christian IV in 1596 the church was shown without the aisle windows and pilasters and with a new altar of 1569, plus the little "swallow's-nest" organ now installed in the southeast corner of the choir (figure 2.42).

Across the Sound in Malmö, Skåne, St. Peter's Church has survived as a fine example of the now fully developed brick Gothic, some-

times called the "Hanseatic" style (figure 2.43).<sup>49</sup> It is basilical in plan, with five chapels ringing the apse and additional chapels on north and south. While the transept does not appear as an independent element on the plan, the exterior view shows it rising to the height of the nave. The original west front with its tower collapsed in 1420, its successor in 1442, and yet another burned in 1560. The present tower and spire were built in 1890, and the gables on the transept and chapels were probably rebuilt at the same time, repeating the medieval features of brick paneling and stepped gables. As at Odense, the brick of the interior is white-washed. The piers are without capitals, in the late Gothic manner, and the vaulting shafts are corbeled, beginning at the springing of the nave arcade. The white interior is generously lit by the large windows of the nave and choir, so that there is a fine setting for the richly carved pulpit of 1599 and the altar of 1611. While



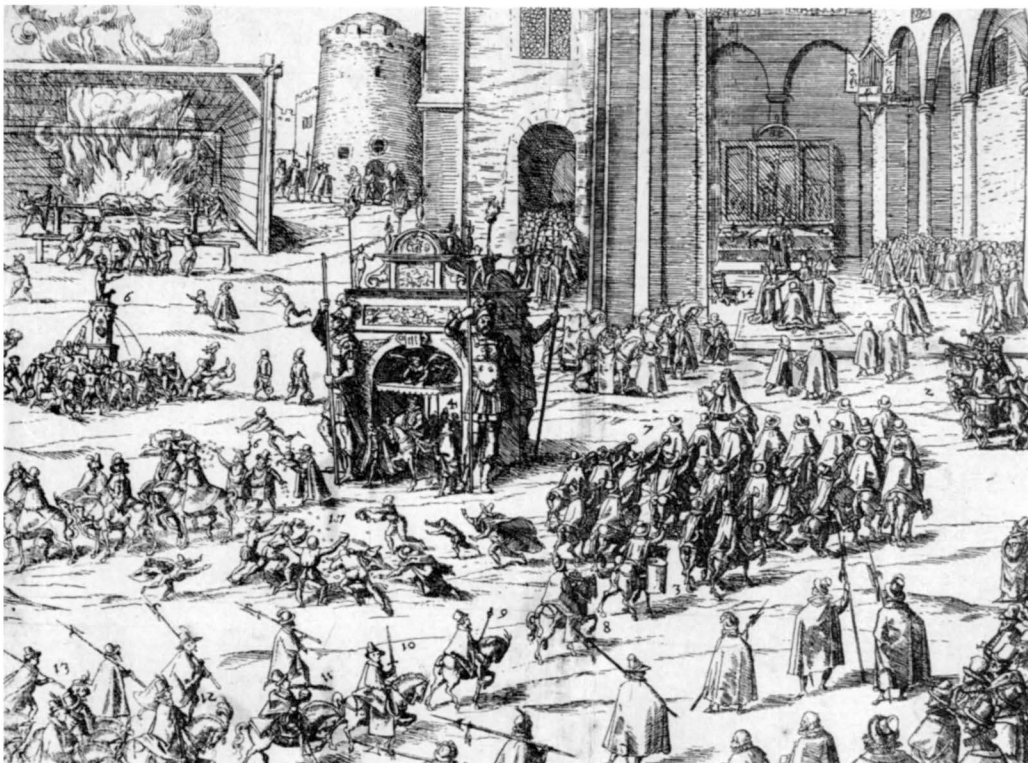


**2.41 Copenhagen. Vor Frue Kirke. 1316. Print by Gaspar Ens, 1593. (Copenhagen, Royal Library.)**

**2.42 Copenhagen. Vor Frue Kirke. Print, 1596. (Copenhagen, National Museum.)**

**2.43 Malmö, Skåne. St. Peter. 1313–1319.**

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nearly all the paintings that once decorated the church were lost in nineteenth-century restorations, those of the present baptistry (originally the Merchants' Chapel) have survived and show the delicacy of the late medieval style of c. 1520.

For a major building in the northern extension of this brick Gothic style we can turn to Turku (the Swedish Åbo) in Finland. The bishop's seat was established here in 1229 and a cathedral begun that was not completed until c. 1290. Not long after, in 1318, it was largely destroyed by the Russians and rebuilt in brick as a hall church. Chapels were added on the north side beginning in the fourteenth century. The nave was heightened and the vaults completed c. 1460. The west tower was damaged by fires in 1681 and 1827, after which it was rebuilt in the neo-Gothic fashion (figure 2.44).<sup>50</sup> After the repairs of 1976–1977 we can now see some of the thirteenth-century stonework in the lower parts, particularly in the base of the tower. The later brickwork has the characteristically Finnish whitened decorative panels. The cathedral's growth by addition is evident from the irregularities of the plan (figure 2.45). When the nave was heightened, it was covered by the then popular "star" vaults, springing from corbels in the otherwise plain nave walls (figure 2.46). Corbels for the earlier vaults remain at the springing of the nave arcade. The light and spacious interior created by the rebuilding has also a sharp intellectual quality, fitting perhaps for the cathedral of Mikael Agricola (1508–1557), who brought the Reformation to Finland and made the first Finnish translation of the Bible.

A more varied response to the Gothic styles is visible at the cathedral church of Sts. Lawrence, Erik, and Olav at Uppsala in Sweden, begun c. 1271 (figure 2.47).<sup>51</sup> This is the third cathedral of the archiepiscopal diocese, the first



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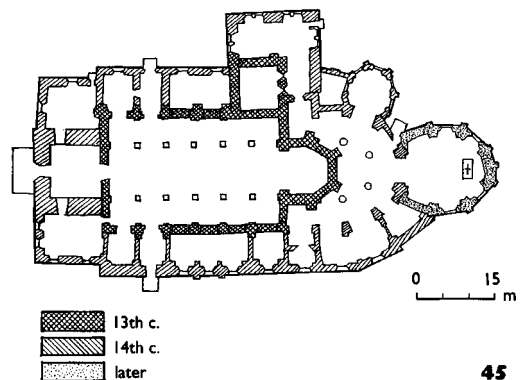
**2.44 Turku. Cathedral. Begun mid-13th century. (Helsinki, National Museum of Finland.)**

**2.45 Turku. Cathedral. Plan. (After Rinne, *Åbo Domkyrka*, figure 2, p. 13.)**

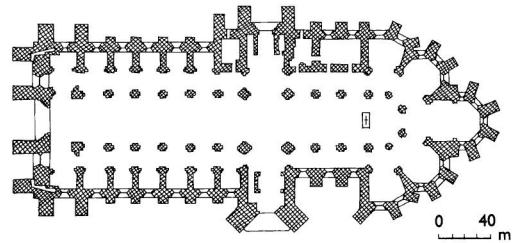
**2.46 Turku. Cathedral. Interior. (Helsinki, Museum of Finnish Architecture. (Photo: Havas.)**

**2.47 Uppsala. Cathedral. Begun 1273. (Uppsala, Upplands Museum. Photo: Tommy Arvidson.)**

**2.48 Uppsala. Cathedral. Plan. (After Boëthius and Romdahl, *Uppsala Domkyrka*, figure 250, p. 203.)**



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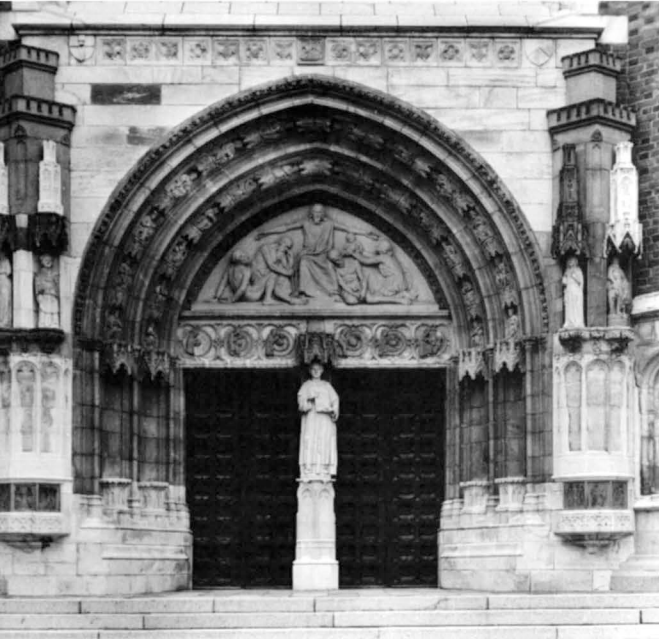


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- 2.49 Uppsala. Cathedral. South portal. (Uppsala, Upplands Museum. Photo: Tommy Arvidson.)**
- 2.50 Stockholm. Storkyrkan. 1468–1496. Interior. (Stockholm, Antikvarisk-Topografiska Arkivet.)**
- 2.51 Visby, Gotland. St. Mary. Begun late 12th century.**

having been St. Peter at Sigtuna c. 1100 and the second St. Lawrence at Gamla Uppsala, consecrated 1156. The latter was chosen for the burial place of St. Erik after his martyrdom in 1160. By the middle of the thirteenth century, however, it was thought wise to move the site of the cathedral to the trading center of Östra Aros (now named Uppsala). The foundations for the new building were laid probably in 1271, and enough had been constructed for the relics of St. Erik to be moved there in 1273. As originally planned the church had a nave of seven bays with aisles and chapels, a transept, aisled choir, and five eastern chapels, in the tradition of the French High Gothic (figure 2.48). The nave walls are pierced with small roundels, however, the vaults are slightly domical, and the buttressing system does not allow for a full triforium, all of which suggest influence from German brick Gothic in the actual construction.

For continuation of the work after 1287, a letter of appointment (apparently still extant when published in 1719) named “Estienne de Bonneuill, tailleur de pierre,” as master builder at Uppsala Cathedral, hence the strong French character of carving in the choir and on the south portal (figure 2.49).<sup>52</sup> Extensive restorations were needed after a great fire in 1702, and then restoration programs were carried out from 1885 to 1893 and again from 1971 to 1976. The cathedral is the largest in Scandinavia, over 380 feet long, and is the national shrine of Sweden, a pilgrimage and coronation church, and a place of burial for monarchs and honored citizens.

One other great brick cathedral that should be mentioned is that of St. Nicholas, or Storkyrkan, the oldest church in Stockholm.<sup>53</sup> The first church of the early thirteenth century burned in 1303 and was rebuilt. Then a major enlargement took place beginning c. 1468, re-

sulting in the present plan with western tower, nave, and double aisles, but no transept. The interior is rather dark, since the brick piers of the nave and aisles are not whitewashed, and there is no clerestory (figure 2.50). The domical star vaults of the nave spring from vaulting shafts on the piers, and their ribs are sunk into the nave walls without wall ribs. The aisles are covered with square four-part vaults. The liturgical furnishings are the most elaborate in Scandinavia and include the royal pews by Nicodemus Tessin the Elder, designed in 1684 and built by Burchardt Precht, who also designed and built the pulpit of 1698–1701. The central section of the ebony, silver, and gold altar was made in Hamburg in 1652–1654, while the side sections were built in Stockholm. And then there is Bernt Notke's great sculptural group of St. George and the Dragon and the Maiden, 1489.

In other parts of Scandinavia there was extensive building in stone. As the round churches of Bornholm are a distinctive feature of the Romanesque period, the churches of another principal island, Gotland, occupy a special position among the stone buildings of the Gothic period. Long a center of trade between Europe and Asia, in the thirteenth century its major town, Visby, reached its height of power in association with the Hanseatic League. This came to an end in the fourteenth century, but the time of greatest prosperity left Visby with no less than sixteen churches and nearly one hundred parish churches were spread across the island.

In Visby only the cathedral church of St. Mary remains in use, the rest being in ruins (figure 2.51).<sup>54</sup> It was begun as a three-aisled basilica at the end of the twelfth century. The choir was enlarged c. 1230–1250 and the nave c. 1250–1260, changing the cathedral to a hall church with tall eastern towers, the masons



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coming from Saxony, Westphalia, and the Rhineland. The large south chapel was added c. 1300. Although in disuse for many years after the decline of Gotland's fortunes, the cathedral now again serves the diocese and has recently been carefully restored.<sup>55</sup>

The churches of the countryside fared better. Most have survived to serve their parishes, although changed many times, as for example at Tingstäde (figure 2.52).<sup>56</sup> The church here was begun in the late twelfth century with a wooden roofed nave, a barrel-vaulted choir, and a half-domed apse. Then c. 1230, very likely in imitation of St. Mary in Visby, the nave was divided into four bays by a central pillar and covered with vaults. Having the vaults spring from within the heavy thick walls made buttresses unnecessary, hence the outward simplicity of these churches. Later additions to the church at Tingstäde were the western tower and sacristy, c. 1250–1260. Also characteristic of the parish churches of Gotland are the carved portals, with Biblical scenes and foliage motifs on the capitals.

On the mainland at Linköping in Östergötland the Romanesque cathedral of c. 1130 became outgrown and enlargement was begun c. 1230.<sup>57</sup> The original sanctuary was broadened to form a transept, to which was added a wider choir surrounded by an ambulatory. The slender untraciated windows, shafts banded in the English manner, still rise above the south transept door. Then the nave and aisles were widened and covered with simple four-part ribbed vaults. The work proceeded slowly, resulting in the changing styles of the nave piers (figure 2.53). Viewed from the west end, the clustered piers in the English style are followed by the polygonal piers of the eastern nave bays, and this plainer area forms an introduction to the complex of chapels at the east end. A new ambulatory with three chapels by a German

builder, Gerlach von Köln, was begun c. 1410. The fashionable star vaults of c. 1498 were completed with the help of another German builder, Adam von Düren.

If we turn westward to the Norwegian churches, we will find that the history of Trondheim Cathedral from the Gothic period onward is different.<sup>58</sup> Under Archbishop Eystein Erlandson the rebuilding of the choir and the building of the octagon were begun c. 1186. The archbishop had been in England for several years previously and was evidently much impressed with the English Transitional and Early Gothic styles that he encountered at Canterbury and Lincoln. The work at Trondheim was not completed in his lifetime, and later delays, fires, alterations, and neglect led to a sorry state by the mid-nineteenth century (figure 2.54). A major campaign of rebuilding was undertaken by Christian Christie from 1872 to 1906. He attempted to restore details of construction and ornament according to the intentions of the original builders as they drew ideas from Canterbury, Lincoln, and Westminster Abbey (figure 2.55).

Farther south on the Norwegian coast, at Stavanger, a fire in 1272 brought about the rebuilding and enlargement of the choir of the cathedral of St. Swithun (figure 2.56).<sup>59</sup> The new choir is an extension of the remaining Romanesque nave, raised over the crypt, vaulted in five bays, and lit by large windows traciated in the English manner. The east window is flanked on the exterior by niches for statuary, then by massive towers, and surmounted by a traciated gable, these elements combining to produce an effect more like a western façade.

From these examples of major attempts to build large Gothic churches in the Scandinavian countries it is clear that in terms of a "pure" expression of Gothic architecture in the French, German, or English sense the northern

builders were less than successful. Their enthusiasm for the elements of Gothic structure and ornament, however, was unmistakable and led to buildings with their own distinction. One of the most surprising and least known of these is the unfinished cathedral of St. Magnus at Kirkjubøur in the Faroe Islands.<sup>60</sup>

While this community is now apparently out of the way, it was a center of activity in the Middle Ages when Bishop Erlend began the cathedral c. 1300 (figure 2.57). Rectangular in plan, it was to have been vaulted in six bays, the two easternmost indicated as the choir by a rise in the floor. A small chapel on the north side was evidently once vaulted, but the main body of the church was not, and it may have been at one time covered by a wooden roof. Carved corbels indicate the intention for vaulting. The walls are built of Faroese basalt, bound with shell mortar.<sup>61</sup> Little is known of Bishop Erlend except that he went to the Faroes from



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**2.52 Tingstäde, Gotland. Church. Begun late 12th century.**

**2.53 Linköping, Östergötland. Cathedral. Begun 1130. Interior. (Stockholm, Antikvarisk-Topografiska Arkivet. Photo: Rolf Hintze.)**



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Bergen. He must have known the sacristy of St. Mary in Bergen, and possibly also the chapter house at Trondheim Cathedral, which might have served as prototypes for the little north chapel at Kirkjubøur. The ornamental details of St. Magnus recall the English-inspired work at Stavanger and Trondheim, but whether they were carried out by local or Norwegian stoneworkers is not known.

A new church was built at Hvalsey in the Eastern Settlement c. 1300, whose walls are the most substantial remains of Norse building in Greenland (figure 2.58).<sup>62</sup> Slabs of fieldstone were fairly well dressed and laid up with shell mortar, which was rarely used in Greenland. The 13-foot lintel over the west door and the arched window in the east gable suggest considerable ambition and grandeur. Remains of the house, a large festival hall, barns, and storehouses are nearby. In 1261 the settlers in Greenland, who had been assembling to govern themselves at the Thing at Gardar, agreed to go under the rule of King Hákon Hákonsson of Norway. The bishop at Gardar was then responsible to the bishop in Trondheim, whence stoneworkers may have been brought for the work at Hvalsey.

The major Gothic churches just described are cathedrals or large parish churches. In the 1220s three religious orders were founded that followed the Gothic style in their buildings: the Dominicans, Carmelites, and Franciscans. For preaching purposes some of the houses chose to build hall churches. In the next century a new order was founded by St. Birgitta, c. 1345, and confirmed by Pope Urban V in 1370. The rules that she wrote for her Order include instructions for buildings. These stipulate limestone for the material, sections for monks and nuns, and prohibition of ornament throughout. After St. Birgitta's death in Rome in 1373, her body was brought to the abbey of Vadstena in



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- 2.54 Trondheim. Cathedral.**  
**Drawing by A. Mayer,**  
**c. 1836. (Oslo, Riksantikvaren.)**
- 2.55 Trondheim. Cathedral.**  
**Interior. (Oslo,**  
**Riksantikvaren.)**
- 2.56 Stavanger, Rogaland.**  
**Cathedral. Choir. 1272.**  
**(Oslo, Riksantikvaren.)**
- 2.57 Kirkjubøur, Faroes.**  
**Cathedral. Begun c.**  
**1300.**

Östergötland which she had founded in 1368.<sup>63</sup> Some of the convent buildings remain and have been restored, while the high broad roof covering the nave and aisles of the church rises above them. The nuns' cloister was built on the north side of the church, and the monks' dormitory and chapter house were put in a wing to the southwest. The interior was built as a hall church, the nave and aisles separated by four pairs of octagonal piers (figure 2.59). The absence of decorative carving and the severity of proportion are in keeping with the rule of the Order, although there was perhaps some concession to contemporary style in the star vaults. The Order attracted numerous members and by the Reformation had increased to about eighty houses all over Europe, which usually followed the building instructions of its founder.

The merits of the fire-resistant vaults being raised over these large churches and also the new fashionable elegance of their appear-

ance were not lost on those whose stone village churches still had wooden roofs, and some of the later Gothic parish churches were vaulted from the beginning. At Hyllestad on Jutland, for example, the Romanesque church was given simple four-part vaults, which were painted with Biblical scenes by the Brarup Master c. 1400 (figure 2.60).<sup>64</sup> Hundreds of these small churches were provided with such paintings, based on manuscript and woodcut illustrations and serving as a *Biblia Pauperum* for those who could not read the Scriptures. These vaults are not high, but could be easily reached by ladders or scaffolding for painting *al secco* and were close in the view of the spectators. A great many were eventually covered with whitewash, and much cleaning and restoration has been undertaken in recent years.<sup>65</sup>

Several references have been made to the "star" vaults characteristic of the late Gothic period, which were especially popular in Sweden. At Almunge in Uppland these were



painted by a follower of Albertus Pictor c. 1490 (figure 2.61).<sup>66</sup> The complex shapes and surfaces of these vaults offered both opportunities and obstacles to the painters. The mineral colors have changed over the years so that the appearance of light and color of these interiors is now deceptive, but where the paintings can now be seen in their entirety the sense of drama, reverent and irreverent, remains.

Mention should also be made of the paintings that were done for the Norwegian stave churches c. 1250–1300. The structural system of these churches was not conducive to painting on the buildings themselves. An ingenious solution to the problem of pictorial cycles was found in the baldachins, or canopies, that were built over the sanctuaries and painted with Biblical or other scenes. Few remain, including one at Torpo in Hallingdal and one from Ål in Hallingdal now in the University Museum in Oslo. They are significant, however, for our understanding of the original appearance of the medieval churches. The fresh reds and blues that have survived on the wooden Norwegian panels are unlike the brown and beige hues and present golden appearance of such paintings as those at Hyllestad.<sup>67</sup>

When Christianity was carried from Sweden into Finland in the early thirteenth century, numerous parish churches were built in the Åland Islands and southwestern Finland. Those built of wood have disappeared. The remaining churches, built of the local granite under the direction of clergy coming from the mainland of Sweden and from Gotland, were usually begun as simple rectangular structures, with single naves and sanctuaries with flat east ends. The first roofs might be of wood, with vaults added later, as were sometimes porches and towers.

An example dating from the thirteenth century is the church of St. Mikael at Finström on Åland (figure 2.62).<sup>68</sup> Here the south porch



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**2.58 Hvalsey, Greenland. Church. c. 1300.**

**2.59 Vadstena, Östergötland. Abbey Church. 1365–1420. Interior. (Stockholm, Antikvarisk-Topografiska Arkivet. Photo: Clareus.)**

and the tower with its odd little turrets were added in the fifteenth century. The sacristy on the north side is actually the earliest part, built onto the original wooden church sometime before the beginning of the present building. The walls of the church are laid up with irregular blocks of the local granite, marked by bands of more carefully dressed large blocks.

On the interior heavy piers were added in the fourteenth century to support low vaults, covered with paintings in the fifteenth century (figure 2.63). The arches over the nave are only slightly pointed, while the arch into the tower is more sharply pointed, almost stilted. As in Denmark and Sweden, the Finnish parish churches carry a wealth of carved and painted altars, pulpits, and other liturgical furnishings.

St. Mikael at Finström will be remarked upon again in connection with the Finnish architect Lars Sonck. It also represents another aspect of medieval Scandinavian architecture, the extent to which building practices were not limited by the national boundaries of today. A comprehensive study of the parish churches alone of north Germany, Denmark, south Sweden, including the islands of Öland and Gotland, the Åland Islands, and southwestern Finland has yet to be made.<sup>69</sup>



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**2.60 Hyllestad, Jutland. Church. 12th century. Interior.**

**2.61 Almunge, Uppland. Church. 12th century. Interior. (Stockholm, Antikvarisk-Topografiska Arkivet.)**



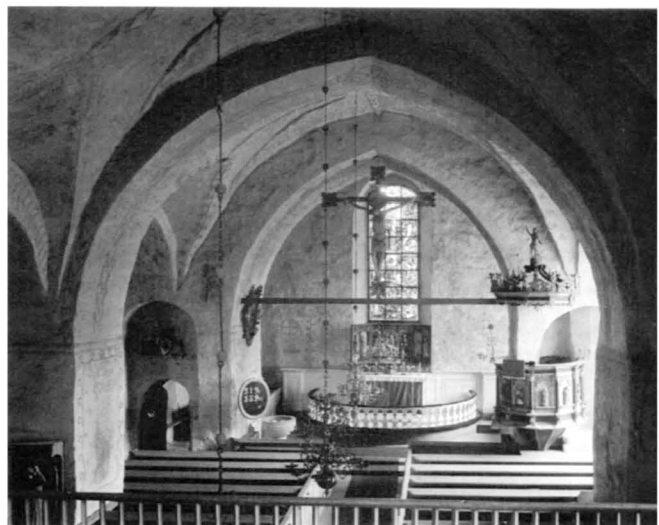
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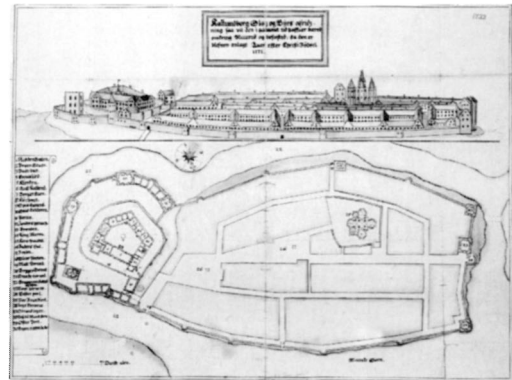
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**2.62 Finström, Åland. St. Mikael. 13th century. (Helsinki, Museum of Finnish Architecture. Photo: Nils E. Wickberg.)**

**2.63 Finström, Åland. St. Mikael. Interior. (Helsinki, Museum of Finnish Architecture. Photo: Rista.)**



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64

### *Secular Building in the Middle Ages*

- 2.64 Kalundborg, Zeeland.**  
**City plan. c. 1170.**  
**Drawing, c. 1600. (Copenhagen, National Museum.)**
- 2.65 Visby, Gotland. Walls.**  
**13th century.**
- 2.66 Copenhagen. Castle.**  
**Begun 1167. Conjectural drawing. (Ramsing, *Københavnshistorie*, figure 10, p. 12.)**

To turn from religious to secular building, we find that few individual houses, as distinct from castles or palaces, have survived from the medieval period in the Scandinavian countries. The sense of tradition has been strong, and some habits of building from earlier years can probably be seen in housing from the sixteenth century that will be considered in a later chapter. Even a brief glance at the history of these countries from c. 1050 to c. 1530, however, will reveal the frequent wars that made defenses for the cities and strongholds for the kings and nobles imperative. Some of the most notable of these will be described to show how the Nordic builders responded to these needs.

The towns themselves grew as market centers for local or international trade as well as centers of ecclesiastical authority. Studies in urban history and archaeology, especially since World War II, have done much to clarify the development of modern cities in Denmark, Norway, and Sweden, even from as early as Viking times.<sup>70</sup> For the towns which that enclosed with walls we may, for example, look briefly at Kalundborg and Copenhagen on Zea-

land and Visby on Gotland.

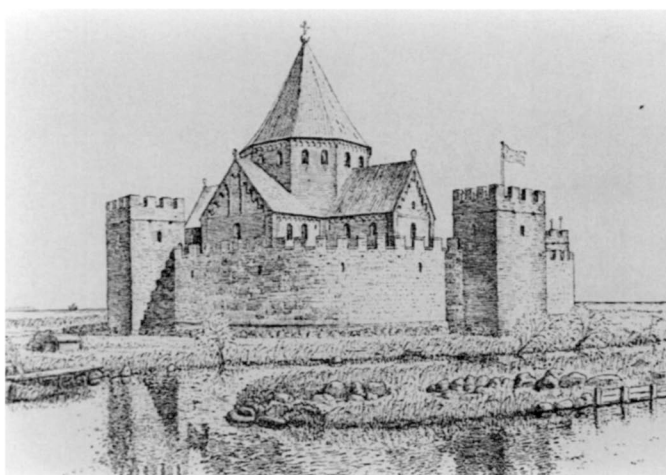
We have already considered the unique church at Kalundborg, begun c. 1170 by Bishop Esbjørn Snare. The bishop also built a castle there, and these with the town buildings were surrounded by a curtain wall with towers and bastions (figure 2.64).<sup>71</sup> The whole defense system took advantage of the waters of the fjord on the south and the Munkesø or lake on the north; today the latter is filled in and the walls mostly gone.

At Visby, on the other hand, the walls built from the early twelfth to the mid-thirteenth centuries have survived and are among the most extensive of such defenses remaining in Europe (figure 2.65).<sup>72</sup> By 1229 Visby was one of the member towns of the Society of Germans Traveling to Gotland, the Hanseatic League, which came to include more than thirty Dutch, German, and Baltic cities. Having been the center of German activity on Gotland for more than half a century, the original town not surprisingly somewhat resembled Lübeck, with which its merchants were in close commercial relation. In both cities the cathedrals were not so much on formal central plazas as they were placed toward the ends of the towns, with long streets proceeding from them.

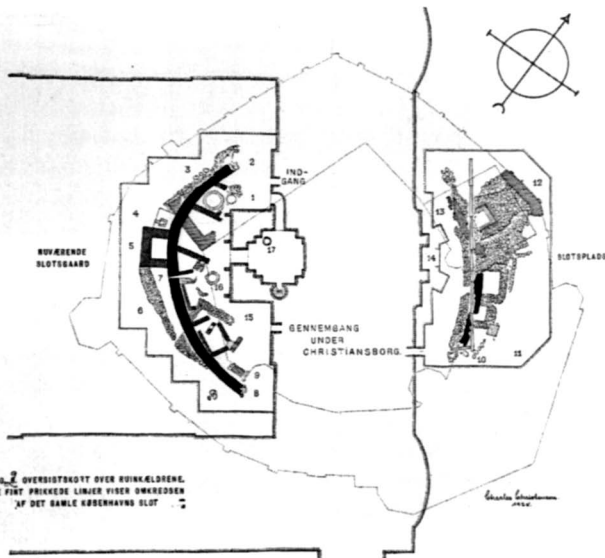
As a third example of how such fortifications could be managed we can look at the walls and castle of Copenhagen, built by Bishop Esbjørn Snare's brother Bishop Absalon in 1167 (figure 2.66).<sup>73</sup> Here he hoped to protect what was then a fishing and trading center from attacks by the Wendish pirates coming from Germany. The castle was built on an island, Slotsholmen, and, although it was torn down in 1369, some ruins are now visible under the present Christiansborg Palace. Some of the old streets of the town itself, notably the present series called Strøget and Købmagergade, lead-



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ing to the old bridge to the castle island, survive in the modern plan of the city.

This brings us to the castles. For the twelfth century in Denmark, figures 2.64 and 2.66 show the castles at Kalundborg and Copenhagen to have been typical of European fortresses of that time. There were two lines of defense at Kalundborg, and then the castle with its own towers, formed by five wings around a courtyard. At Copenhagen the castle consisted of a ring wall with at least one, possibly two towers, and there were then buildings inside the wall, with the baking oven of one still in place today. The oldest known seal of the city, from 1275, shows a crenelated curtain wall and two towers, with a castle rising inside with a high central tower and projecting wings. It has been proposed that this depiction is substantially accurate and that the castle was a striking parallel to the church at Kalundborg.<sup>74</sup> The ruins that survived the building of the first Christiansborg Palace in 1733 were excavated between 1906 and 1922 during the building of the present Christiansborg and are open to visitors (figure 2.67).

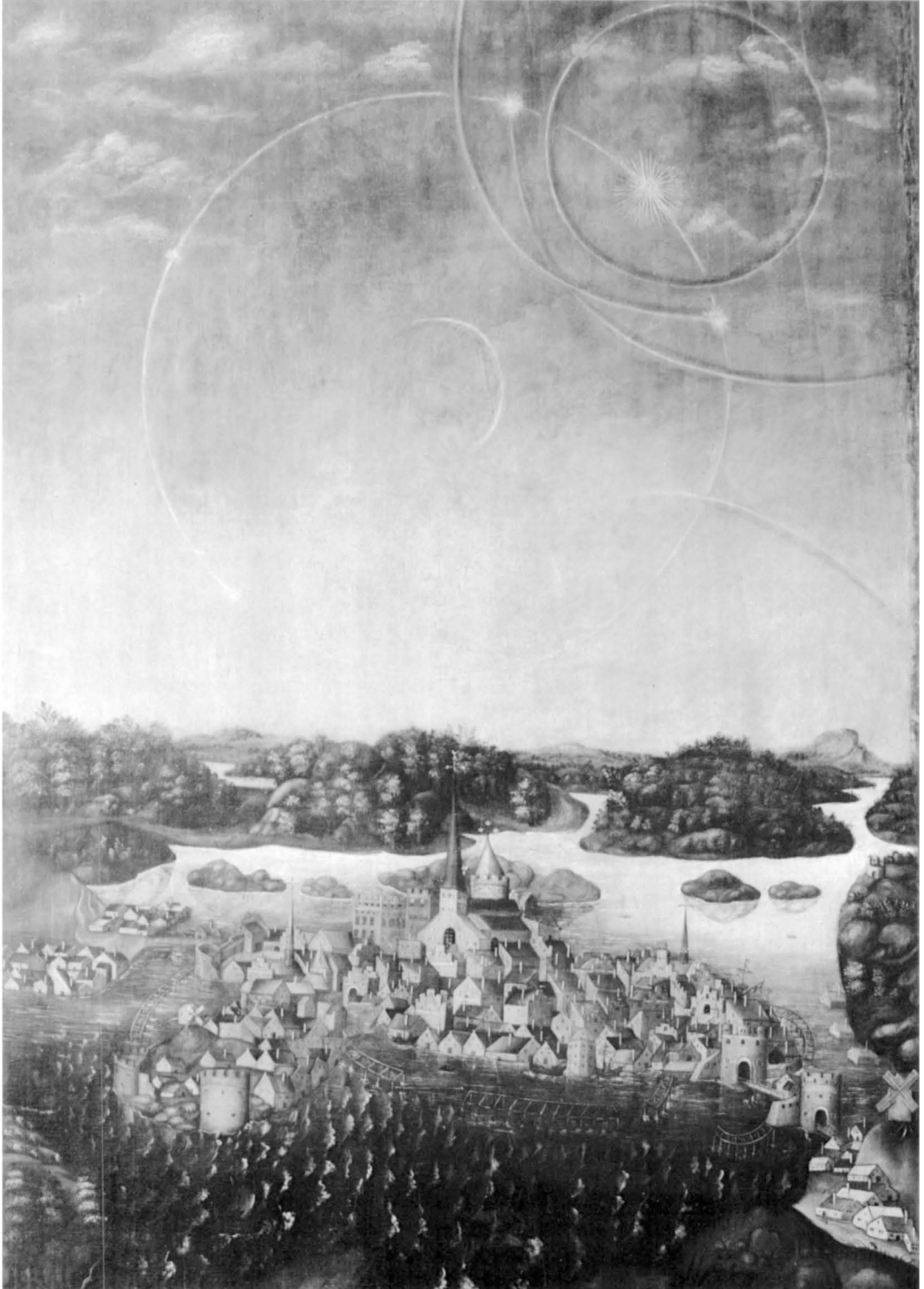


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- 2.67 Copenhagen. Castle. Plan of ruins. (Christensen, *Gamle bygninger på Slotsholmen*, n.p.)**
- 2.68 Stockholm. Castle. 13th century. Model. (Stockholm, City Museum.)**
- 2.69 Vadersolstavlan. Painting, 1535. Stockholm, Storkyrkan. (Stockholm, City Museum.)**

The thick curtain walls, towers, and heavily defended gateways of such castles were by now well developed all over Europe, partly as a result of the lessons in military architecture learned during the Crusades. These elements were continued in use, in various combinations, for several generations until the introduction of gunpowder in European warfare in the fifteenth century made some of these provisions obsolete.

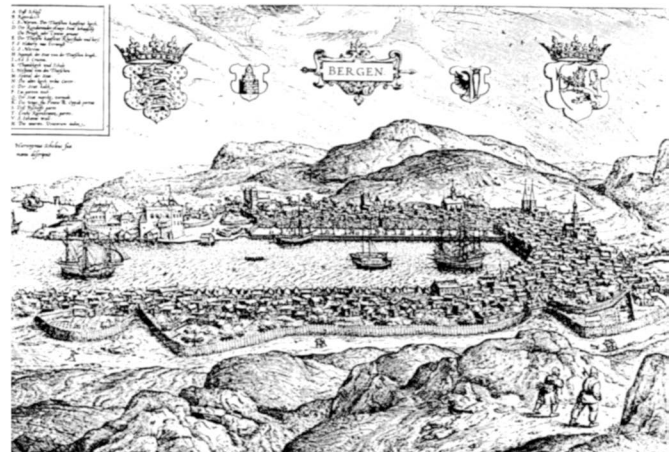
In the thirteenth century Birger Jarl, regent for his son King Valdemar, did for Sweden what Bishop Absalon had done for Denmark, building a fortress at Tavastehus (now Hämeenlinna) in Finland to establish Sweden's overseas empire and also building Stockholm as a major port for the Lübeck trade. Stockholm's site on



the island of Stadholm was strategic because here Lake Mälär drains into the Saltsjö, coming in forty miles from the open sea. Birger Jarl's castle was dominated by the great Tre Kronor tower, as seen in a modern model and also prominent in early illustrations of the city (figures 2.68 and 2.69).<sup>75</sup> This typical keep, with walls 10 feet thick and a 45-foot diameter, was divided into several stories with a defensive platform on top.

For a more secure royal residence in another great Hanseatic port in the thirteenth century, King Håkon Håkonsson began a new stone castle and walls at the entrance to the harbor of Bergen after the fire of 1248. His own coronation feast in 1225 had been held in a timber boathouse, hardly a royal setting. By 1261, however, when his son Magnus Håkonsson was married to the Danish princess Ingeborg, the new stone hall was ready for the feast (figures 2.70 and 2.71).<sup>76</sup> A seventeenth-century view shows the castle complex at the edge of the water, with the twin towers of St. Mary's church rising just to the right. The hall itself, now called Håkon's Hall, was built much like a German *Kaiserpfalz* such as the famous Romanesque example at Goslar, c. 1040–1050. The ground floor provided storage, the middle story was divided into three parts for council, reception, and private chambers, and the great festival hall was built on the third level. A history of fires and gradual desertion was changed through the efforts of J. C. Dahl, who also rescued the stave church at Vang, but then a tremendous harbor explosion in 1944 brought down all but the walls.

After 1955 a new restoration was begun, and the hall is now made suitable for social gatherings (figure 2.72). The exterior view of the west side shows the normal medieval slit openings on the ground level, larger divided windows in the middle, and much larger tracer-



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**2.70 Bergen. Scholeus View, c. 1580. (Oslo, Riksantikvaren.)**

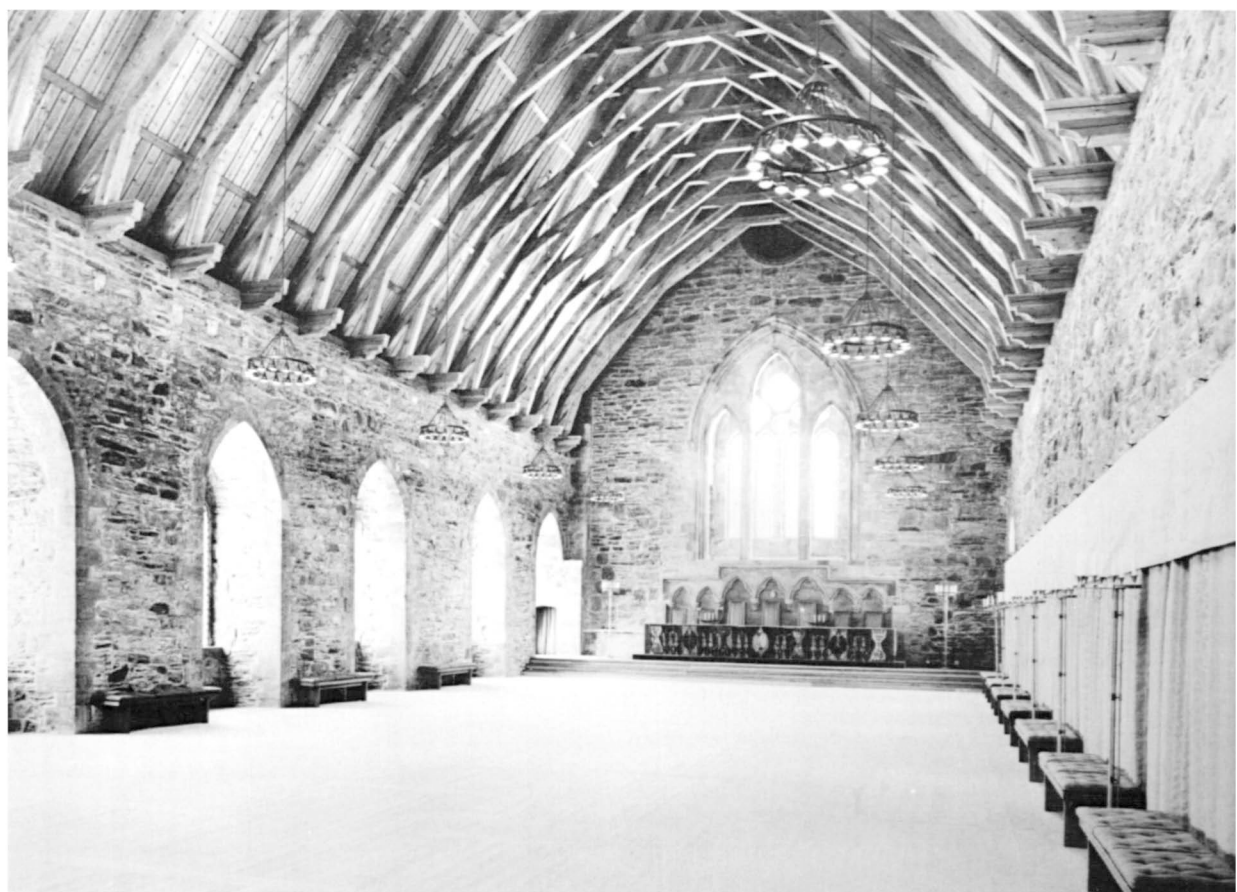
**2.71 Bergen. Håkon's Hall. 1261. (Oslo, Riksantikvaren.)**

**2.72 Bergen. Håkon's Hall. Great Hall. (Oslo, Riksantikvaren.)**

ied windows above; on the interior of the festival hall these window openings come down to the floor, thus providing ample light. The large window in the north wall is built in the English fashion, with three lancets pierced in a thin panel on the inner surface of the wall and four lancets, three quatrefoils, and a roundel in the outer panel. This scheme gave small subdivisions for best support of glass on the exterior and larger openings for better use of light on the interior. A similar double window was built in the east end of St. Mary's church after the fire of 1248, and the same masons may have been employed on both projects.<sup>77</sup>

Magnus Håkonsson built another great stronghold, Akershus, in Oslo. Because of sub-

sequent enlargements, however, we will leave it for later discussion and turn to two important castles of the medieval period in Finland. On high ground overlooking the harbor stands the castle at Turku (figure 2.73).<sup>78</sup> It was begun c. 1280 as two parallel four-story buildings separated by six-story towers at the east and west ends. Among the later additions are the King's Hall built in the top story of the north wing in the fourteenth century, and also the Nuns' Chapel in the east tower, with the first star vaulting in Finland. In the sixteenth century the castle was repaired and embellished to become the center of court life. In later years it housed troops, served as a distillery, was in part a prison, and also housed an embryonic historical



museum. Modern restorations and a full museum installation have followed upon damage by bombing in 1941. These varied uses help point out that this building, while heavily constructed, did not have the curtain walls, towers, and bastions of the other fortresses but was more a massive residence from the beginning.

Probably more satisfying to the romantic mind is the castle of Olavinlinna, founded in 1475 by the Swedish nobleman Erik Axelsen Tott (figure 2.74).<sup>79</sup> It was built as a fortress against the Russians, and, like the old Copenhagen Castle, rises dramatically from a rocky island in the Kyrösalmi Strait. By the fortunes of war it fell twice into Russian hands, and was several times enlarged until finally abandoned after the Napoleonic wars. After some time as a prison it was restored in the 1870s and again since World War II. Originally there were three towers, a

**2.73 Turku. Castle. Begun c. 1280.**

**2.74 Savonlinna. Olavinlinna. Begun 1475.**



main building with living quarters and the Knights' Hall, and ramparts to form a triangular enclosure. Changes in the towers and additions of towers, bastions, and outer walls brought it to its present plan. In spite of many changes and additions since 1475, the castle's basic structure has survived well enough, providing excellent opportunity to observe the heavy outer walls, deep window embrasures, thick inner partitions, and narrow, tortuous spiral staircases with steps of uneven width and depth that characterize such late medieval fortresses.

For the ambitious bishop or nobleman in the late Gothic period a fine stone house could be a matter of pride. One of the best preserved is Glimmingehus in Skåne, begun in 1499 by the mason Adam von Düren for Jens Holgersen Ulfstrand (figure 2.75).<sup>80</sup> The simple blocky building rises above wide moats, with small window openings in the first three sto-

ries, larger windows in the top story, and a steep high roof embellished with stepped gables. The building of such imposing and fortresslike noble dwellings had been hindered by the ravages of the Black Death, which swept the Nordic countries beginning in 1349, and Queen Margaret I's prohibition against fortified houses during her reign, 1387–1412. By the end of the fifteenth century times had changed, and Glimmingehus was prophetic, not only in its comparative grandeur but also in the balance of private living and ceremonial quarters on either side of a central staircase. It was traditional in the vertical disposition of its facilities, with kitchens and storerooms on the ground level, living quarters next, and a large open hall at the top, recalling the original scheme of Håkon's Hall.

Up to this point we have been considering ecclesiastical and residential buildings in their



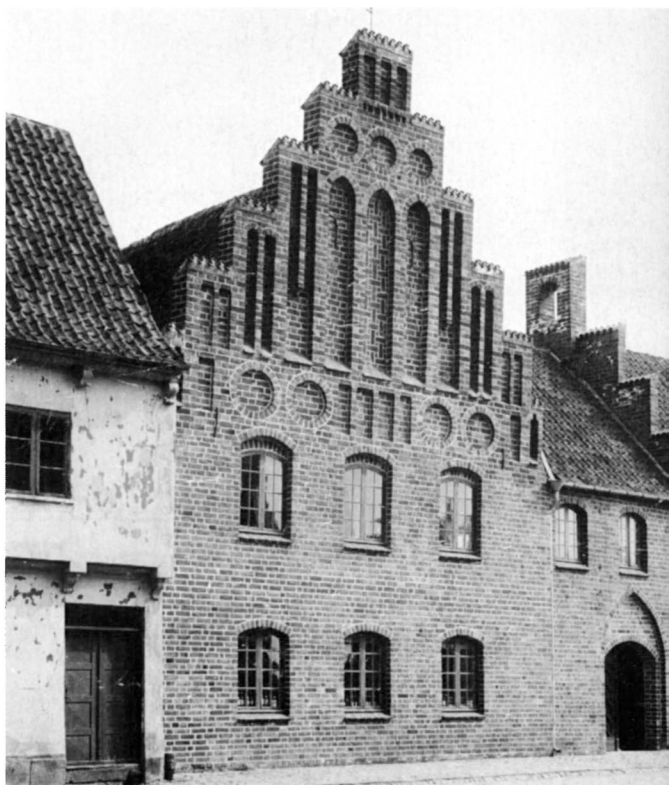


greater or smaller aspects. Growth of towns with their mercantile and civic needs, however, led medieval Europe to the development of the town hall as a separate building.<sup>81</sup> The earliest remaining in Scandinavia is the town hall at Naestved on Zealand (figure 2.76).<sup>82</sup> It now is enclosed with later buildings on either side, and when first built c. 1450 it did not have the steep paneled gable of an enlargement c. 1520. Modest though it is, it too was prophetic, and five centuries later the Nordic countries were to see the construction of some town halls of a much grander nature.

By the time Glimmingehus was built, Alberti had written his treatise on architecture (1452) and Leonardo in the 1490s was making sketches for monumental domed churches in the High Renaissance manner. The Gothic was now outmoded on the Continent. At the same time the voyages of Columbus signaled an immense expansion of geographical knowledge, to be followed by new territorial and commercial rivalries that affected all of Europe. Finally, Savonarola's pleas for religious reform resulted in his death in 1498, less than twenty years before Luther's 95 theses and the beginning of another major religious development. In the next two chapters we shall see how the Scandinavian builders responded to the impact of these events on the ideas of European Renaissance and Baroque designers.

**2.75 Glimmingehus, Skåne.  
Begun 1499. (Copenhagen, National  
Museum.)**

**2.76 Naestved, Zealand.  
Old Town Hall. c.  
1450–1500. (Copenhagen, National  
Museum.)**





### 3 *The Renaissance in Scandinavia*

Less than a decade after Luther's manifesto of 1517, the acceptance of his reforming doctrine became so widespread in Denmark as to add to the already mounting political and commercial tensions. The oppressive policies of Christian II (1513–1523) caused the dissolution of the Union of Kalmar, losing Sweden to the protesting factions led by Gustavus Vasa. Christian's attempts to reduce the power of the Danish clergy and nobility caused him to be forced into exile in 1523, and his attempt to return in 1532 resulted in his imprisonment for life. Under the system of an elected monarchy his Lutheran-sympathizing uncle became king as Frederik I (1523–1533). Upon his death the Catholics supported Christian's great-nephew Count Christopher of Oldenburg, while the Reformers supported Frederik's son. The ensuing Count's War resulted in victory for the Reformers, the election of Christian III (1534–1559), and the abolition of Roman Catholicism from Denmark in 1536. Church property was confiscated for the Crown, but the nobility still had nearly half the country and the power of election in the Rigsråd, or Council. Oppression

of the peasants led to a revolt in Jutland in 1536.

Meanwhile the reign of Gustavus Vasa (1523–1560) brought similarly profound changes to Sweden. Gustavus was elected king in 1523, and in 1544 the monarchy was declared hereditary under the Vasa dynasty. In 1527 properties of the Catholic Church were confiscated for the State, although the Augsburg Confession was not formally adopted until 1593. A smaller proportion of property remained in the hands of the nobility, and a much larger amount was held by the peasants, who also rose in some revolts.<sup>1</sup>

Against this background of conflict and rebellion it is not surprising that building activities in Denmark and Sweden were directed more toward the construction of strong manor houses and castles than toward churches. After all, the Scandinavian countries were by now rich in churches, and the major changes brought by the Reformation were in liturgical furnishings rather than in the buildings themselves. For wealthy landowners, desire for display of wealth and at the same time need for security against frequent turmoil led to the construction of great masonry manor houses having a fortified character. Decorative schemes were now based on Renaissance principles, particularly as they were then being interpreted by imported German and Netherlandish artists. Although technically it is not appropriate to speak of a “Renaissance” in Scandinavia, where classical art and architecture had never existed, the ornamental vocabulary of the “Northern Mannerist” version of the true Italian Renaissance was eagerly adopted, especially in Denmark and Sweden.<sup>2</sup>

Two main approaches to the planning of manor houses can be observed from the first half of the sixteenth century. In Denmark, especially on Funen, the preference was for a

rectangular block with the entrance on one of the long sides and with stair towers and corner towers. An early notable example is Rygård on Funen, built for the Councillor Johan Urne (figure 3.1).<sup>3</sup> The first building was the north wing of the present structure, begun probably c. 1530, while the south, east, and west wings were probably added by 1537. The main residence was the north building, a three-story brick house that originally had a stair tower on the north side. Above the vaulted basement is the main floor, then a great hall with beamed ceiling, and a high attic story above with watch gallery and machicolations along the long sides. The timber work for the latter is particularly fine. Built of red brick with no stone trim to soften its broad outer surfaces, the original building rose above its surrounding moat in a clearly defensive manner, as did Glimmingehus. At Rygård, however, there is a difference. The division between the main floor and the great hall is marked by a shallow corbeled arcade as a stringcourse, and on the long sides the machicolations add a second arcade; the result is a sense of horizontality, of layering, that is absent at Glimmingehus and is indicative of changing taste. Two somewhat curious features may be noted. The gables are embellished with paneling in the brickwork, but in patterns that suggest Romanesque rather than Gothic models, as does the thin corbeled arcade of the stringcourse. Was there a conscious archaizing here? Further, there are rudimentary hood molds above the windows of the great hall at the east end of the building, a feature then becoming popular in England. The builder of Rygård must have had some sound training in military construction and perhaps some experience in travel as well. The details of the three additional wings combine to a nearly symmetrical and harmonious whole.

**3.1 Rygård, Funen. Begun c. 1530. (Copenhagen, National Museum.)**

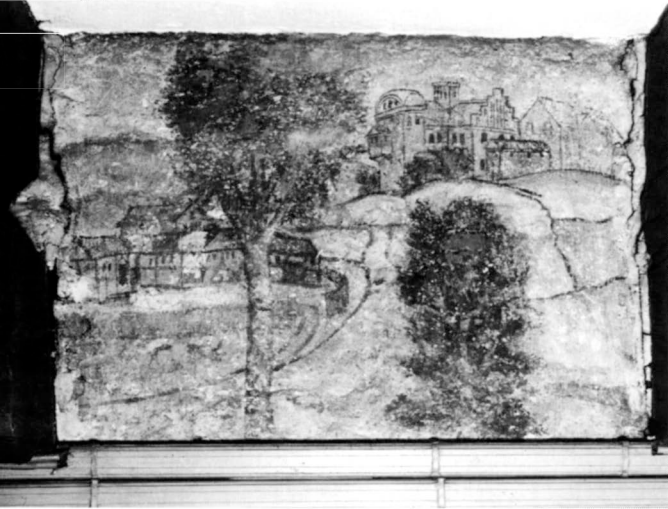
**3.2 Hesselagergård, Funen. North wing. M. Bussert, attr. Begun 1538. (Copenhagen, National Museum.)**



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**3.3 Hesselagergård, Funen.  
Detail of wall painting.  
(Copenhagen, National  
Museum.)**

**3.4 Egeskov, Funen. Begun  
1554.**

In 1538 Christian III's powerful Chancellor, Johan Friis, began his lofty brick manor house of Hesselagergård, also on Funen (figure 3.2).<sup>4</sup> The building consists of a rectangular block with two full stories and an attic story, a square tower on the south, and octagonal corner towers on the north side for effective defense of the walls. Partially surrounded by water and equipped with machicolations, Hesselagergård has a basically medieval aspect. But now the gables are richly ornamented with round-headed window openings and blind arcades divided into four vertical sections separated by applied colonnettes and topped with semicircular pediments, all this being completed c. 1550. The builder was probably the Dutchman Morten Bussert, the royal master builder. For the design of the gables Chancellor Friis may have turned to the painter Jakob Binck. Whether inspired directly from Italy, perhaps via the works of Serlio, or based on gables already appearing on houses such as that of Philip Melancthon in Wittenberg, 1536, which Friis had seen, the medieval stepped and paneled gables of Rygård are here replaced by the distinct motifs of the Renaissance. The new style is also represented in the paintings on the walls of the great "Deer Salon," where a hunting scene and a banquet are shown (figure 3.3). This painting may also be attributed to Jakob Binck.

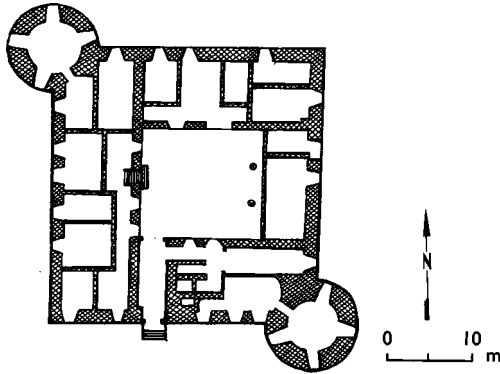
A third fortified manor house on Funen is Egeskov, begun on an old estate by General Frands Brockenhuus in 1554 (figure 3.4).<sup>5</sup> The name means "oak wood" and comes from the forest that was cut to provide the pilings on which it rests. It is a double building with a double roof, the ridges running lengthwise. It rises directly from the defensive lake, with the land connection on the west, where there is an entrance and stair tower. On the east side there is a round tower at each end, and the present bridge linking the castle to the gardens



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was built in 1883–1884. The upper parts of the gables were also restored in the same years. The formal gardens in the French manner were laid out c. 1730, and the elegant parterre on the east side in 1962. Egeskov's service buildings now house a restaurant and a car museum, while the gardens are maintained as exhibit grounds by local landscape firms. These manor houses presided over the farm, grazing, and timber lands that gave them as much self-sufficiency as possible.

In Skåne, then under the Danish crown, the more popular manor house was that built with four wings around a courtyard and two diagonally placed defensive towers. Torup, built in 1545, is one of the best preserved examples (figure 3.5).<sup>6</sup> It was built by the wealthy Gjørvel Fadersdotter Sparre in the middle of an ar-



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tificial lake, since partially drained so that it now rises from a small island. The towers are at the southeast and northwest corners, round at their bases. The southeast tower is octagonal above the first level and is the higher of the two. Steps lead up to the main entrance on the south side, through which one reaches the courtyard. The residential quarters are on the north and east sides, with large windows opening into the court. Here the exterior is more severe than at Hesselagergård and Egeskov, with no machicolations or stringcourses and only simple panels in the stepped gables of the attic stories. An arcade on the east side of the court adds a touch of fashion.

A more deliberate stronghold built under the Danish rule in Skåne is Malmöhus (figure 3.6).<sup>7</sup> The city was at that time the second largest in Denmark and an important port. Erik of Pomerania began a fortress here c. 1434, some parts of which remain, and then a new fortress in the Italian manner with moats and round towers was begun in 1536 under Christian III. It was the first of the Scandinavian fortresses for which the central residential portion was planned in a regular manner, and the builder is thought to have been Morten Bus-

sert. The central long rectangular block is four stories high, containing the royal apartments on either side of a central stair tower, with a firing loft in the top story. The round cannon towers stand forward, linked to the main block by wings. The gables here are not yet as Italianate as those of the later manor houses, but are stepped and paneled in the late medieval manner.

Meanwhile Gustavus Vasa was moving to solidify his new kingdom, ruling over the building of Sweden's mightiest and most picturesque fortresses. He began at Gripsholm, where a castle had been built on an island in Lake Mälaren in the eleventh century. This had burned, and the new building was intended as a fortified royal country residence (figure 3.7).<sup>8</sup> The architect was Heinrich von Cölln from Germany, who built an irregular hexagon of brick around a courtyard, defended with four massive round towers. The king's council chamber was located in the Grip Tower on the north, the queen's apartments in the east range, and the hall of state in the west range. Although the rooms look out into the courtyard, this is not spacious, and at best the castle must have seemed cramped. The addition to the west was begun in 1572 by the Duke of Södermanland, the youngest son of Gustavus Vasa who later ruled as Charles IX. Duke Charles's Chamber in the Prison Tower is a richly paneled Renaissance room with an elaborate painted ceiling.

Gustavus Vasa's ambitions for defense did not end with Gripsholm. In 1545 he started Vadstena Castle in Östergötland, on Lake Vättern (figure 3.8).<sup>9</sup> The abbey, which we have already noted, had been an important place of pilgrimage and the town itself a political center, with assizes and meetings of the Diet. A south-central point of defense against the Danes seemed logical here, and Joachim Bulgerin of Pomerania was given the task of designing the

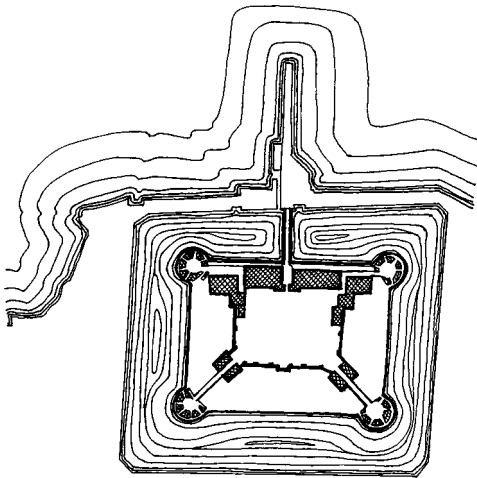
- 3.5 Torup, Skåne. 1545.  
Plan. (After Paulsson,  
*Scandinavian Architecture*,  
figure 49, p. 107.)**
- 3.6 Malmö, Skåne. Malmö-  
hus. M. Bussert, attr.  
Begun 1536.**
- 3.7 Gripsholm, Uppland.  
H. von Cöllen. Begun  
1537. (Stockholm, An-  
tikvarisk-Topografiska  
Arkivet. Photo: Oskar  
Bladh.)**



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fortifications. The scheme consisted of a broad four-sided enclosure with round cannon towers at the corners and the residence block on the north side. This block was laid out symmetrically, with staircases in the central tower, quarters for troops on the ground floor, and the royal apartments above. This building was increased by one story in the reign of John III (1568–1592), at which time the columned portico by Pietro della Rocca was also added. The Netherlandish gables date from the early seventeenth century.

In 1545 Gustavus Vasa also undertook a building project at Kalmar in Småland. Situated on the sound between the mainland and Öland, this had long been a port town, with a castle built in the thirteenth century. The latter was a walled enclosure defended by round and polygonal towers, with the residences built inside the north wall. Gustavus Vasa began a new system of outer ramparts with heavy round corner towers (figure 3.9).<sup>10</sup> These fortifications were also started by Heinrich von Cöllen, but not completed to surround the castle until 1609. Old buildings on the south side were demolished by John III in 1568 and replaced by the present royal apartment block with its massive central tower.

The Chamber of Erik XIV, which he furnished before his reign (1560–1568), shows how the bare castle walls could be concealed with paneling, intarsia work, and a hunting frieze of painted and molded plaster (figure 3.10). It contrasts sharply with the larger, more barren halls. The castle chapel was built for John III by the Italian architect Domenico Pahr (figure 3.11).<sup>11</sup> Begun in 1586, it is located in a large hall of the south building. It is a long narrow room, the altar at the east end and the entrance originally in the west for the benefit of the royal family, who resided in the north suite. This was not the first chapel at Kalmar,



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- 3.8 Vadstena, Östergötland. Castle. Begun 1545. Plan. (After Unnerbäck, *Vadstena slott*, figure 9, p. 23.)**
- 3.9 Kalmar, Småland. Castle. H. von Cöllen. Rebuilt 1545. (Kalmar, Regional Museum.)**
- 3.10 Kalmar, Småland. Castle. Chamber of Erik XIV. (Kalmar, Regional Museum.)**

but it is important because of this last point, its relation to the royal apartments. In the years to come, the court chapels and also the court theaters were to be part of the original plans for new royal palaces rather than, as here, created as well as possible from existing spaces.

For a third project Gustavus Vasa called Heinrich von Cöllen to Uppsala. In 1545 the foundations of a new castle were laid on a high ridge of sand south of the city.<sup>12</sup> This building, which had a characteristic round tower, was still incomplete when it burned in 1572. A new campaign was begun under John III, with Franciscus Pahr the building master (figure 3.12).

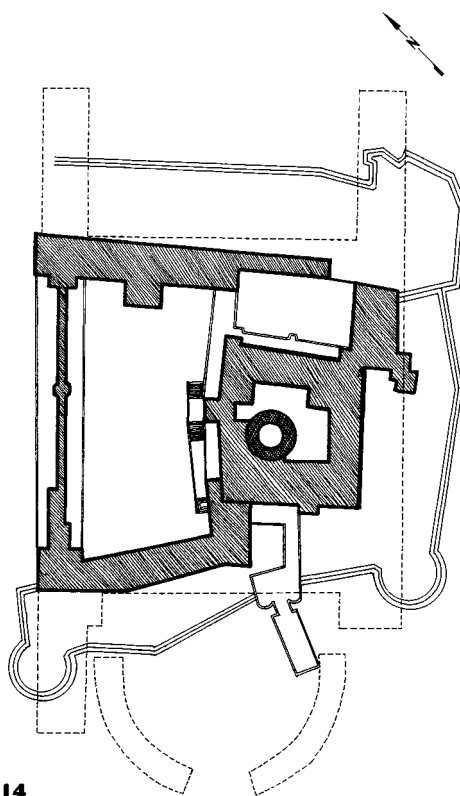


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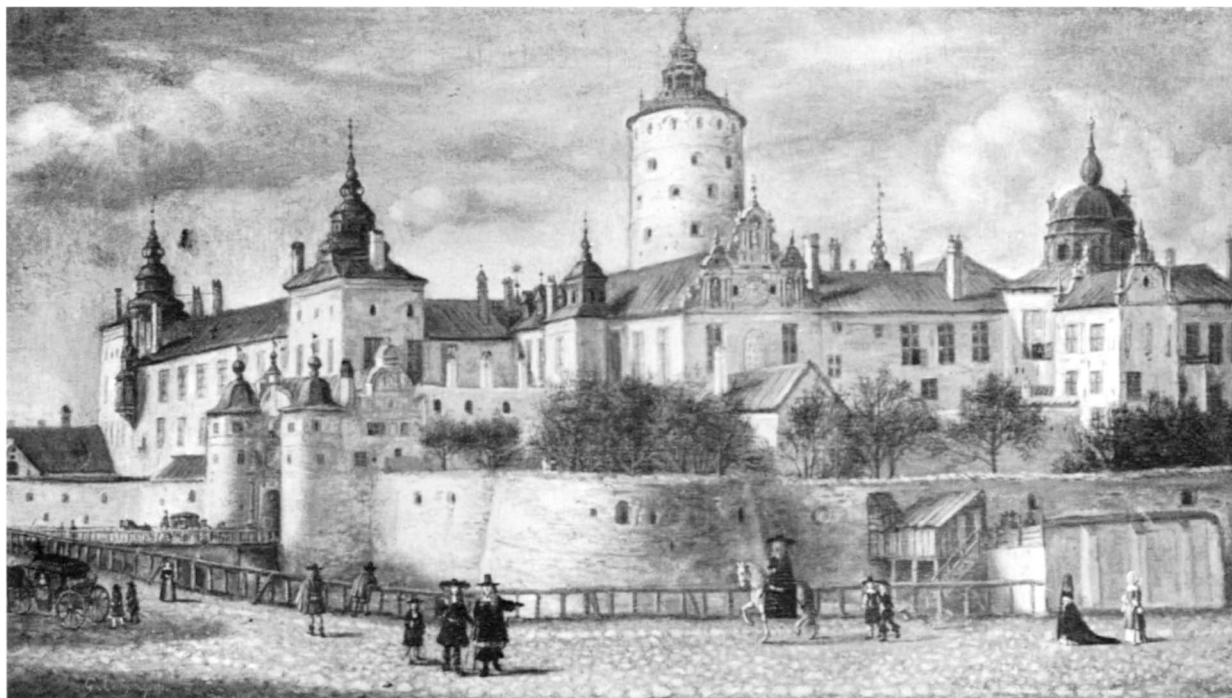


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- 3.11 Kalmar, Småland. Castle. Chapel. D. Pahr. Begun 1586. (Kalmar, Regional Museum.)**
- 3.12 Uppsala, Uppland. Castle. F. Pahr. Rebuilt 1572. (Uppsala, Upplands Museum.)**
- 3.13 Stockholm. Castle. W. Boy. Enlarged 16th century. Painting by Govert Camphuysen, 1661. (Stockholm, City Museum.)**
- 3.14 Stockholm. Castle. Plan, superimposed on outline of Royal Palace. (After A. Lindblom, *Stockholms Slott*, n.p.)**



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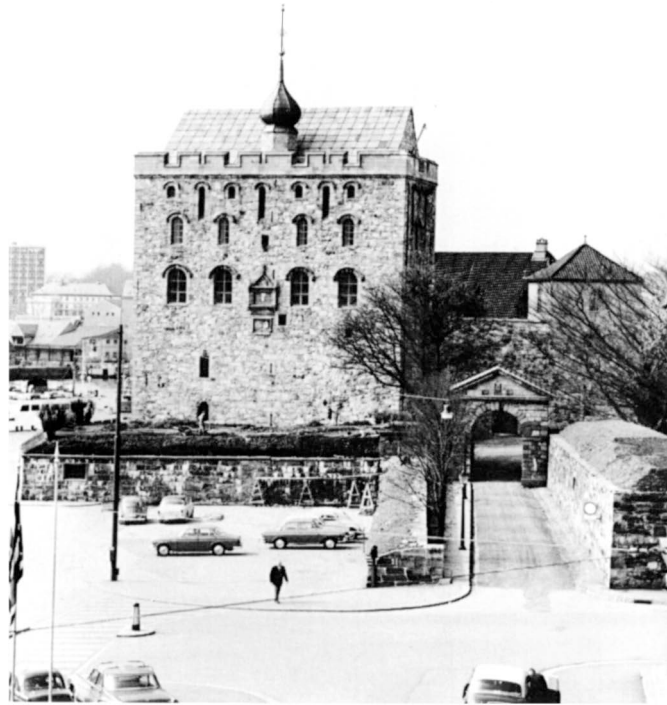


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Royal apartments, chapel, and audience hall were located in the south range, a rectangular block four stories high with round towers at each end of the south facade. A long east wing was added c. 1640, and a north wing and west wall appear to have been intended but never built. Italianate stucco decorative motifs of the exterior were almost entirely lost in another fire in 1702. The present castle is largely the work of Carl Hårleman's rebuilding from 1744, with restorations by Ragnar Östberg in 1930–1940.

Finally, the medieval castle in Stockholm underwent a number of changes in the sixteenth century (figure 3.13).<sup>13</sup> Gustavus Vasa began a curtain wall around it, complete with corner towers, and by 1568 a major western entrance with a drawbridge. Under John III the old Tre Kronor tower was heightened, new apartments were built in the east wing, and a castle chapel in the west wing, the latter a hall church. The enlarged plan is shown superimposed on the plan of the present palace (figure 3.14). From 1577 until his death in 1592 the building master was William Boy, a Dutch master who oversaw the embellishment with arcades, window surrounds, and elaborate gables. A century later Nicodemus Tessin the Younger was already remodeling the north wing when the fire of 1697 set the stage for the present Royal Palace.

In the sixteenth century Norway was still under the Danish crown, and with no resident monarchy it was not the scene of such grandiose projects. Two buildings in Bergen, however, deserve our attention, both dating from c. 1562. On orders from Frederik II the old medieval tower at Bergenhus was torn down and a new one built in its place (figure 3.15).<sup>14</sup> Like Håkon's Hall it was severely damaged in the 1944 explosion and has been rebuilt. It now once more rises in five stories, with a



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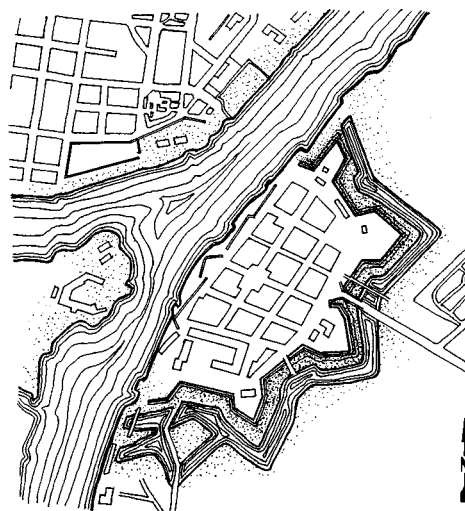


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steep roof and small turret. The restricted window openings in the two lower levels and the battlements at the top indicate its defensive function. Its name comes from the governor who built it, Erik Rosencrantz, who employed Scottish masons. The Renaissance makes its appearance here only in small details. Rosencrantz was also responsible for the Wall House, built as a gatehouse in the walls on the opposite side of the harbor (figure 3.16). The lower portion is still used by merchants.

In another Norwegian city a significant step was taken in the introduction of Renaissance principles in city planning. The Swedes sacked the ancient town of Sarpsborg on the Glomma estuary in 1657, and to replace it Frederik II had Fredrikstad farther to the southwest built as a fortress town (figure 3.17).<sup>15</sup> The part on the east side of the river was laid out in grid fashion with an open plaza, from which streets extend in all four directions. Although the church and barracks now date from the late eighteenth century, their location at this central drill ground and market place is probably original. The plan has been tentatively attributed to Hans von Paeschen, architect to the king, who worked at Oslo on the defenses of Akershus from 1566 to 1570. The exact source of inspiration for the plan of Fredrikstad might be difficult to identify, as the concept of regular grid plans with squares had been published by several architects since the beginning of the century. The ultimate source was probably Vitruvius, of which a German edition had been published in 1548. While modest in size and not provided with the outer defenses seen on the plan until 1665, Fredrikstad nonetheless was an important forerunner of extensive city-planning projects to come.

By 1560 Frederik II had already acquired the manor of Hillerødsholm, located on a marshy island in a forested area north of Co-



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**3.15 Bergen. Rosencrantz Tower. c. 1562. (Oslo, Riksantikvaren.)**

**3.16 Bergen. Wall house. c. 1562.**

**3.17 Fredrikstad, Østfold. Plan. H. von Paeschen, attr. c. 1570. (After Kavli, *Norwegian Architecture*, p. 57.)**

- 3.18 Hillerød, Zealand.  
Hillerødsholm. Begun  
c. 1560. Painting by Th.  
Vibom. (Hillerød,  
Nationalhistoriske  
Museum på  
Frederiksborg.)**
- 3.19 Helsingør, Zealand.  
Kronborg. H. von  
Paeschen and A. van  
Opbergen. 1574–1585.  
(Copenhagen, National  
Museum.)**

penhagen. Like Gustavus Vasa at Gripsholm he wanted a country retreat as an alternative to the old medieval castle in the heart of the city. What resulted, however, was much less a fortress than Gripsholm (figure 3.18).<sup>16</sup> The newly named Frederiksborg did, in fact, more resemble an Elizabethan “prodigy house,” with the latter’s supporting buildings and lands, or perhaps a French château. The manor house itself had been built for the previous owner c. 1550 and resembled Egeskov in consisting of two ranges with parallel roofs and twin gables. This building was little changed. The site was developed into a clear system of three islands by a series of dams and canals, with stables and two round towers on the first, a church and kitchen building on the second, and the manor house on the third. As we shall see, most of this was to disappear not long after Frederik II’s death in 1588, but the stables and round towers on the first island, the long pantry wing beside the road, and nearby *Badstuen* or Bathhouse, begun 1580, remain. The painting gives the impression of a comfortable, thriving royal estate.

Frederik II, however, had other responsibilities, not the least of which was to keep the royal coffers filled. In 1570 a peace was concluded in a war with Sweden, and by then the





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king had already started measures to increase the Sound Dues. These were levied on ships passing Krogen ("The Hook"), a fortress on the promontory that forces the Øresund to its narrowest point, less than three miles from Sweden. Here in 1421 Erik of Pomerania had built an earlier fortress and levied Sound Dues in 1426. Christian III had strengthened the defenses, but it was Frederik II who began the transformation of the old fortress to an imposing castle as a grandiose expression of his royalty (figure 3.19).<sup>17</sup> Kronborg is impressive from the sea, but a view by C. W. Eckersberg shows how commanding it was once from the land side (figure 3.20). As Frederik II developed his new castle from c. 1574 to 1585, his builders followed some of the earlier structures, hence the thicker walls on the west and south

toward the land. From 1574 to 1577 Hans von Paeschen, who had been working at Oslo, served as master mason, and he was succeeded by Antonius van Opbergen, a Flemish builder and military engineer. The chapel, kitchens, and guard rooms were on the ground level, the state apartments containing the king's and queen's apartments in the north wing, and the great Riddarsal, or Knights' Hall, in the south wing. In 1580 the red brick walls built under von Paeschen were refaced in gray sandstone by van Opbergen, and thanks to the leadership of the Flemish master builders the details were carried out by Netherlandish sculptors, especially the north and south portals. The Riddarsal, 206 feet long, is said to be the largest in northern Europe, and it was here that in 1589 the wedding festivities of Christian IV's sister

Anne and James VI of Scotland took place (figure 3.21). Perhaps this even inspired Shakespeare's placement of *Hamlet* in the castle of "Elsinore" (with which the original Hamlet story had nothing to do). Except in the chapel, the original interior fittings were destroyed by a fire in 1629, after which Christian IV undertook restorations and some changes.

One building unique in its purpose was built during the reign of Frederik II. In 1576 the king bestowed the island of Ven in the Sound on the astronomer Tycho Brahe.<sup>18</sup> Although Brahe left for Germany in 1597, having lost the favor of Christian IV and also his funding, he had published illustrations of the observatory that he built on the island, fortunately, for by 1652 the abandoned buildings had all but crumbled away (figure 3.22). Brahe's observatory, which he called Uraniborg, had a symmetrical plan thought to have had a French origin, possibly in a plan by Domenico da Cortona for the château of Blois. The building contained the astronomer's residence in the main block, with guest apartments and student quarters, and a domed observing chamber on top. Towers on the north and south sides carried further observing instruments, and there were also workshops, printing presses, and a library. Some notion of the carvings on doors, windows, and gables may be gained from the contemporary illustrations. Much of the work must have been done under the Netherlandish builder Hans van Steenwinckel the Elder, who studied at Ven from 1578 until he was appointed royal building master in 1583.<sup>19</sup> Uraniborg was surrounded by a formal walled garden, in which were located additional observing rooms. All this was carried out in luxury equaled only by Tycho Brahe's irascibility, and with its many working facilities was prophetic of later scientific establishments. Certainly there was no architectural precedent for Brahe to follow. Though well equipped for



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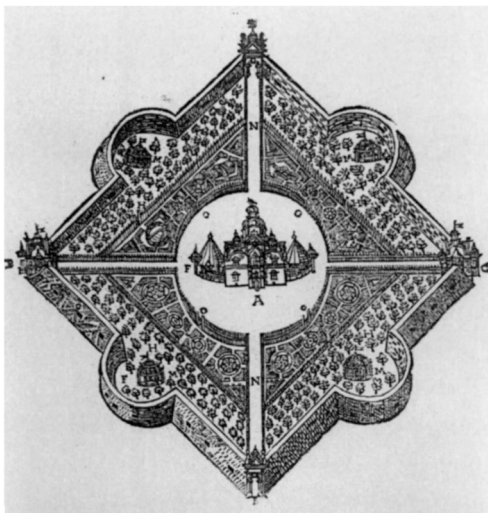
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- 3.20 Helsingør, Zealand.**  
**Painting by C. W. Eckersberg, c. 1810.**  
**(Copenhagen, Hirschsprung Collection.)**
- 3.21 Helsingør, Zealand.**  
**Kronborg. Riddarsal.**  
**(Copenhagen, National Museum.)**
- 3.22 Ven. Uraniborg. H. van Steenwinckel I, attr. 1576. Site plan. Raeder, E. Strömngren, and B. Strömngren, *Tycho Brahe's Description*, n. p. (Copenhagen, Academy of Art Library.)**

its time, Uraniborg set none for the first observatories to use the telescope, invented by Galileo early in the next century.

Up to this point there has been no mention of church building in the Renaissance period apart from the castle chapels. While this may seem surprising in view of the eagerness with which the Reformation was adopted in Scandinavia, several factors made a new wave of church building unlikely. Thousands of parish churches were already built and in use, to which were now added the convent churches. In addition, the Lutheran reform was less iconoclastic than some other strains of Protestantism, Luther in his Preface to the German Mass of 1526 having said that "The Mass vestments, altars and lights may be retained till such time as they shall all change of themselves or it shall please us to change them."<sup>20</sup> One of the few churches of this period was the one at Slangerup on Zealand, begun in 1576 from designs by Hans van Steenwinckel the Elder, replacing an earlier Gothic church that had become too small. Even here the building is still fundamentally Gothic, with its high pointed windows, but the tower and porch gables are in Dutch Renaissance style, probably designed by Steenwinckel as well (figure 3.23).<sup>21</sup> Even more impressive is the great gable added to the Romanesque church at Valløby on Zealand in 1590 (figure 3.24).<sup>22</sup> In this case the architectural motifs are further enriched by coats of arms, herms, and reliefs portraying David and a warrior.

The coronation of Christian IV of Denmark in 1596 ushered in another lively period of building in the Scandinavian countries.<sup>23</sup> For the event the 19-year-old king gave out his first architectural commission, to have the tower of Copenhagen Castle heightened and finished with a spire (figure 3.25).





23

In 1599 he turned to the harbor next to Copenhagen Castle where a timber arsenal from 1560 was already in place. A new rectangular basin was dug on the south side of Slots-holmen, and the brick Arsenal was built on the west side, with its vaulted cannon hall 495 feet long (figure 3.26).<sup>24</sup> As it appears on the left of the basin in figure 3.25, it was approached by ship through an opening in the south range of buildings. Opposite was built a warehouse for provisions, including taxes paid in kind. The basin was filled in 1868, and the Royal Library now occupies the site of the south range. The Arsenal now houses the Armory Museum.

As can be readily seen from the 1611 engraving, Copenhagen Castle, surrounded by a moat, with the busy harbor on the south and the dense medieval city on the north, was unlikely to suit the king as a year-round residence. He did, after all, have Frederiksborg, which he had known from childhood. Its old manor house from c. 1550 did not satisfy his ideas of magnificence, and down it came to make room for a more splendid establishment (figure 3.27).<sup>25</sup> The church and other buildings on the middle island were also razed, but the stables and round tower on the south island were kept. In order to have a residence at Frederiksborg during the years of construction the king built Sparepenge ("Save Money") on the north side of the lake. This was taken down in the eighteenth century.



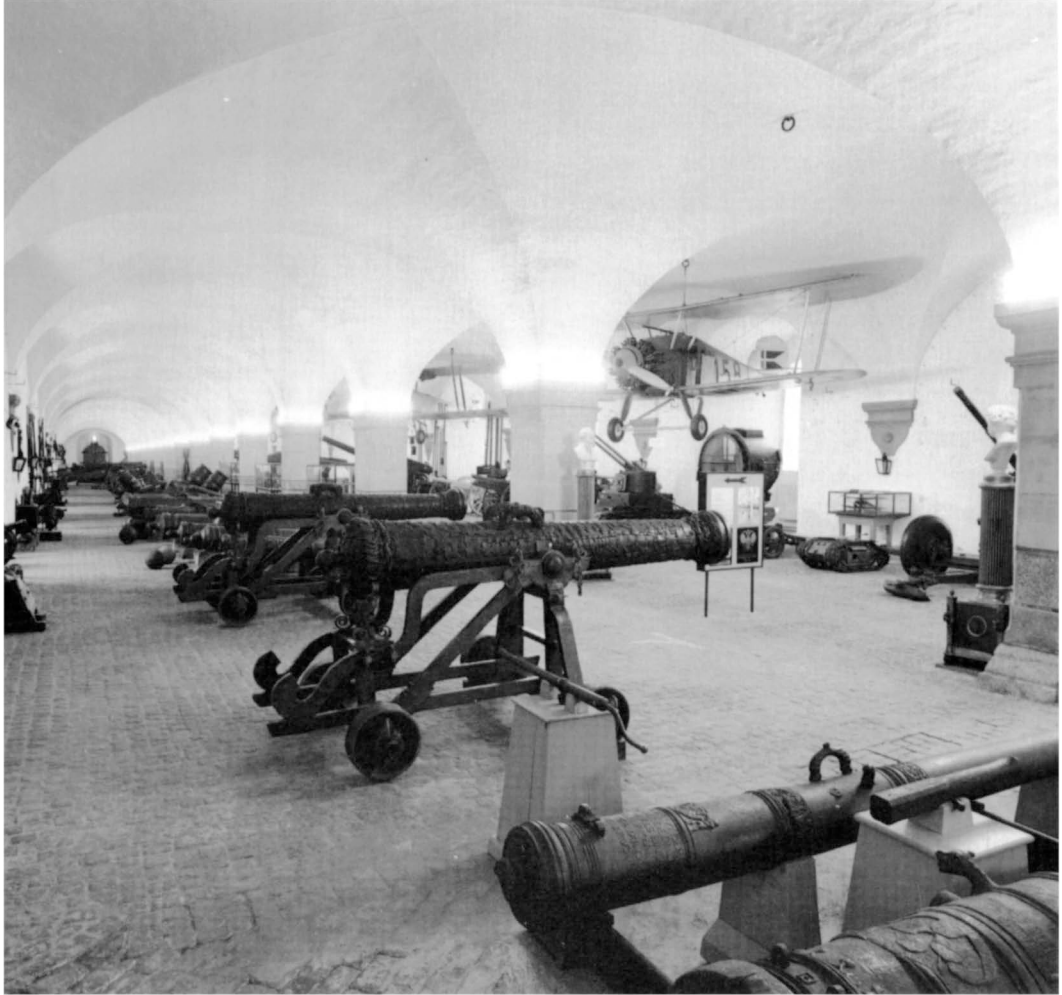
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As the new palace was built, an element of symmetry was introduced that gives a more stately approach than that to the fortress of Kronborg. From the plan of the site we can see how the road through the stables on the south island is linked by a curving bridge to the Barbican Gate on the middle island (figure 3.28). When one passes through the gate the Castellan's House is on the left, the Chancellor on the right, while the courtyard created

by these buildings is dominated by the replica of the Neptune Fountain by Adriaen de Vries, completed in 1624 (figure 3.29).<sup>26</sup> The approach to the palace becomes a drama in itself, as the visitor moves from the comparatively spacious Fountain Courtyard across the narrow bridge over the canal, with terrace arcades on either side of the gateway. Now the opulence to be encountered throughout the palace is clearly stated. The gate by Caspar Boegardt, 1609, is treated as a triumphal arch, with rusticated Tuscan pilasters flanking the arched opening and two sets of armorial bearings above. The arcades rest on Tuscan columns, rising from brackets in the wall of the canal. This somewhat improbable arcade encloses twelve pedimented niches, containing statues of the Olympic gods. The gate, arcade, and niches are in sandstone, contrasting with the red brick walls. The same use of stone and brick is made on the three wings of the palace that surround the inner courtyard. As one enters, the Chapel Wing is on the left, or west, side, the main residence of the King's Wing opposite on the

- 3.23 Slangrup, Zealand. Church. H. van Steenwinckel I. 1576. Portal.**
- 3.24 Valløby, Zealand. Church. 1590. East gable. (Copenhagen, National Museum.)**
- 3.25 Copenhagen. Castle (at center). Detail of Wijk's Prospect, 1611. (Copenhagen, National Museum.)**



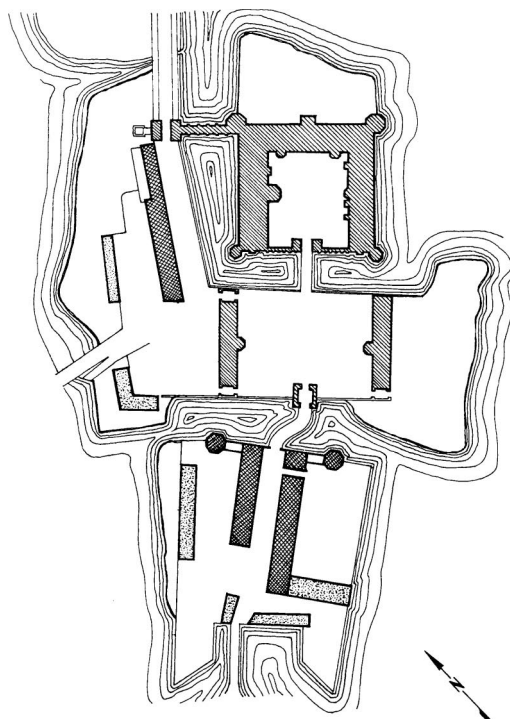


**3.26 Copenhagen. Arsenal.  
1599. Cannon Hall.  
(National Museum of  
Denmark.)**

**3.27 Hillerød, Zealand.  
Frederiksborg. 1602–  
1608. Air view. (Co-  
penhagen, Academy of  
Art Library.)**

**3.28 Hillerød, Zealand.  
Frederiksborg. Plan.  
(After Weilbach, *Fred-  
eriksborg*, figure 12,  
n.p.)**

**3.29 Hillerød, Zealand.  
Frederiksborg.  
Courtyard.**



mid 16th c.  
early 17th c.  
modern

28

29



north, and the east or Princess's Wing on the right. There is a richly ornamented door to the Chapel, and the King's Wing was made splendid by the addition of the two-story Marble Gallery, with its alternating arches and columned niches and statuary. The warm gray color of this gallery now is deceptive, it originally having had red marble columns and black marble moldings.

The change in color was the result of a great fire in 1859. On the interior of the palace, little survived that disaster except the Chapel (figure 3.30). Even here there is some restoration, especially at the north end, where the original organ of 1614 fell. By great good fortune the organ built in 1610 by Esaias Compenius and given to Christian IV in 1617 was on loan to another palace at the time of the fire. Otherwise, its regular place being at the north end of the Great Hall above the Chapel, it would surely have perished. It now stands in the south gallery, where its fine craftsmanship and wide range of possibilities in performance make it one of Denmark's greatest musical treasures. The Chapel was planned as a long high central space, separated from the aisles at ground level by an arcade with coupled columns before the piers and arcaded galleries above the aisles, all surfaces being richly ornamented. The interiors of the other three wings restored after the fire now house the collections of the Museum of National History.

The overall conception of Frederiksborg cannot be attributed with certainty to any one designer. Hans van Steenwinckel the Elder and the king himself have both been proposed, partly because of certain resemblances in plan to Kronborg.<sup>27</sup> Influence from French chateau design is evident, possibly coming from the publication of du Cerceau's *Plus excellents bati-ments de France* in 1559. If the plan of the King's Wing, which was built first, is looked at

singly, however, it is seen to be a long residence block with octagonal corner towers, a central projecting square tower, and additional projecting octagonal towers on the opposite side—in other words an essentially traditional manor house plan. A similar sense of tradition seems to be revealed in the Gothic tracery of the chapel windows. For the details of completion there are the chapel tower by Lorenz van Steenwinckel, the tilting gate by Hans van Steenwinckel the Younger, and the statues in the terrace by Geraert Lambertz from the workshop of Hendrik de Keyser in Amsterdam. The Privy Passage across the west canal and the Mint Gate with Audience Chamber on the second level were added about 1614.<sup>28</sup>

For all its splendor and extensive forest surroundings, Frederiksborg is 22 miles from Copenhagen, then a day's journey. It could not be expected to offer an afternoon's respite from the duties and constraints of Copenhagen Castle. The latter was later described by the English traveler Lord Molesworth as "being for the Situation, Meanness, and Inconvenience the worst in the World."<sup>29</sup> In 1606 Christian IV had purchased land outside Østerport, the eastern gate of the city, and began a summer house that would be more readily accessible. It started out as a two-story brick house with a square tower on the northeast side, and was enlarged with two more towers in 1613–1614 and a fourth in 1633. Hans van Steenwinckel the Younger worked here, but the main plans were probably by another Netherlandish builder, Bertel Lange. The exterior surfaces were made lively by stringcourses, window enframements, quoins, and scrolls of sandstone against the brick. In its park setting, with formal gardens laid out in the new French fashion to the south and west, Rosenborg rises like an architectural jewel in the heart of the city (figure 3.31).<sup>30</sup> The interior rooms are finished



30

with both original and later paneled walls and ceilings and now serve as the museum of the Danish kings.

Christian IV's building activities did not stop with Frederiksborg and Rosenborg. With his encouragement public buildings, churches, and even city plans were begun or redesigned at home and abroad. As early as 1608 he had Copenhagen's old Town Hall, standing between Gammeltorv and Nytorv, rebuilt with an arcade on the ground level facing Nytorv, a turret rising above it in the center, and a large Netherlandish scroll gable on either side (figure 3.32).<sup>31</sup> A larger central tower, also flanked by

**3.30 Hillerød, Zealand.  
Frederiksborg Chapel.  
(Copenhagen, National  
Museum.)**

**3.31 Copenhagen. Rosen-  
borg Palace. H. van  
Steenwinckel II and  
B. Lange, attr. 1606.**



31

gables, rose from the street level on the Gammeltorv side. Now it resembled such Continental buildings as the old Town Hall in Amsterdam, but we are not told which of the Netherlandish builders then in Denmark was responsible for it.

The extant commercial building for which Christian IV contracted in 1619 is the famous Bourse (figure 3.33).<sup>32</sup> Lorenz van Steenwinckel was the first architect appointed when the king decided to have a suitable building for the trading companies that he was promoting.<sup>33</sup> On Lorenz's death in the same year his brother Hans assumed the work, and the building was completed in 1640. The king took much interest in the project, especially in the early years up to the completion of the spire in 1625. This somewhat exotic building was rebuilt as a modern stock exchange by Harald Conrad Stilling in 1857 and has fortunately survived fires and bombing. The ground level was divided into warehouse rooms running athwart the building and entered only from the street sides, while





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- 3.32 Copenhagen. Old Town Hall. Rebuilt 1608.**  
**Thurah, *Danske Vitruvius*, vol. 3, plate 41.**  
**(Copenhagen, Academy of Art Library.)**
- 3.33 Copenhagen. Bourse.**  
**L. and H. van Steenwinckel II. 1619.**

the second level had offices and merchant stalls and was entered at either end. Along each side the bays are divided by sandstone pilasters with herms and strapwork and are further accented by the scroll gables rising at regular intervals. The east and west ends are lavishly ornamented with sandstone carvings against the red brick walls. The unique spire composed of four intertwined dragon tails was apparently based on firework designs and was planned by the sculptor Ludwig Heidritter.

Christian IV's concern for his overseas travelers extended to the families of his naval officers and men. At the north end of town, midway between Rosenborg and the new citadel of Sankt Annae Skanse, 1627, Nyboder were begun in January 1631 (figure 3.34).<sup>34</sup> These were row houses, to be administered by the Admiralty, ranged in twenty blocks with over six hundred apartments. As first built they were single-story yellow brick buildings with common walls and the ridges of the red tile roofs running parallel to the street the entire length of each block. This is different from the more usual town dwellings with their gable ends to the street. Nyboder are attributed to Hans van Steenwinckel the Younger and Leonhard Blasius and are more like workmen's row houses in Germany and the Netherlands in this treatment of their roofs, more economical to build than individual gables and symbolically creating social unity rather than distinction. A vestibule, living room, kitchen, and two bedrooms, with a stairway to attic storage space, constituted the interior arrangements. Later second stories were added, and not all the original number have survived. We are reminded of the multifamily Iron Age house, and similar housing would in years to come be a concern for some of Scandinavia's most prominent architects.

Before turning to the city plans of Christian IV we may note briefly the kind of house

to which a wealthy individual might aspire during his reign. In Copenhagen, Number 6 Amalgertorv was built in 1616 for the alderman Mathias Hansen, who later became burgomaster (figure 3.35).<sup>35</sup> Three stories high, it is impressive in its red brick and sandstone trim, with elaborate gables rising above the large windows of the second and third levels. The ground level has been remodeled for business purposes, but the portal of the passage to the original garden at the back remains. Another well-known example is Jens Bangs House in Ålborg, built in 1623 (figure 3.36).<sup>36</sup> Like the Mathias Hansen House it has its ridge parallel to the street, here finished by three richly ornamented gables that give light to the attic stories. The building is faced with yellow brick and sandstone trim, the ground level quite plain but the three upper stories with abundant strapwork. A stair-

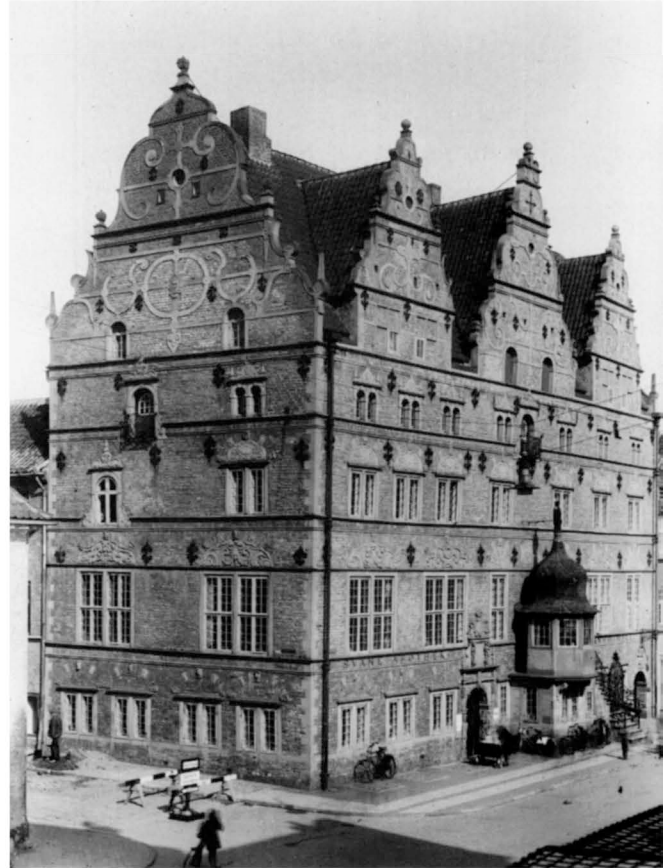
case to an octagonal turret gives access to the main dwelling level, and communication between all four stories is via a conservative staircase tower at the back. For such merchants the lavish exterior ornament of their houses might be matched by that of the interior (figure 3.37). Broad paneling with pilasters, arches, strapwork, biblical or allegorical reliefs, and inscriptions lined the walls, while the ceiling beams were also paneled, a fit setting for the heavily carved furniture of the period.

In connection with the building of Nyboder, reference was made to the defenses that Christian IV had added to Copenhagen. His interest in planning and fortification extended to several other projects, three of which will be described briefly here. An early plan of 1614 was for a new town, named Kristianstad, located on the east coast of Skåne



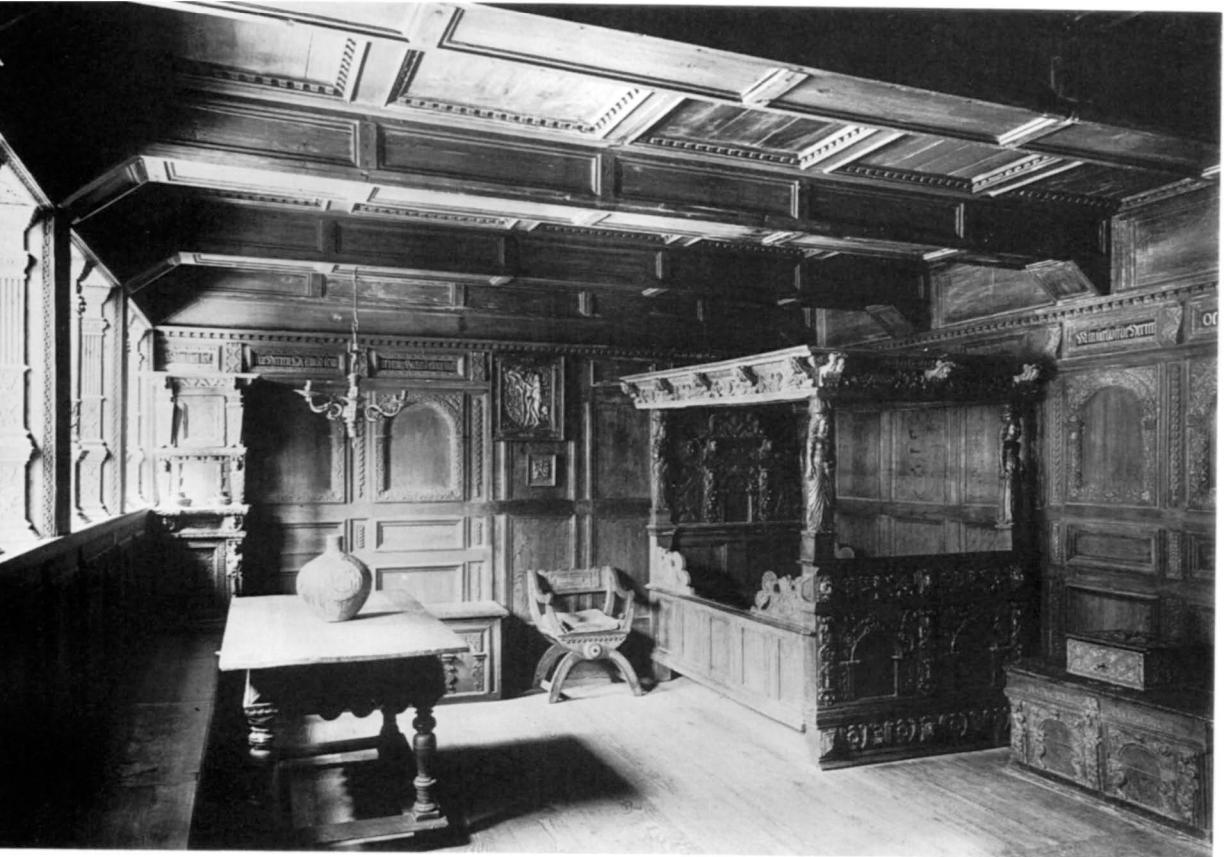


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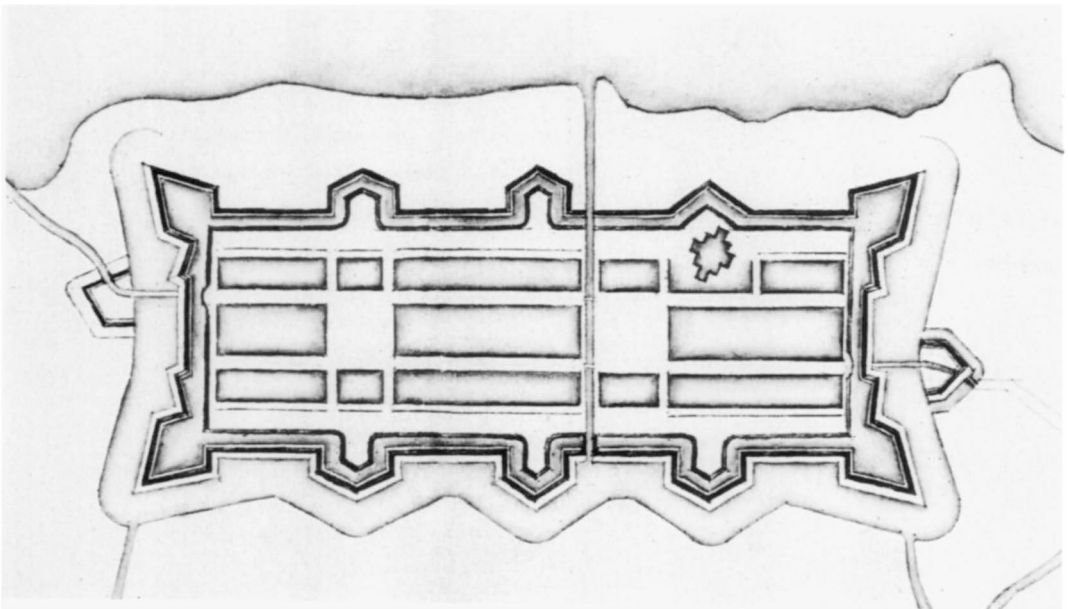


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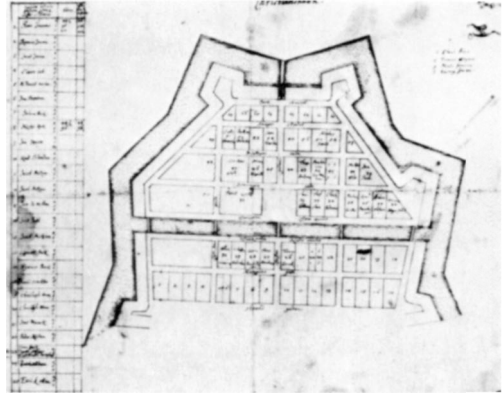
- 3.34 Copenhagen. Nyboder.  
H. van Steenwinckel II  
and L. Blasius, attr.  
Begun 1631.**
- 3.35 Copenhagen. No. 6  
Amagertorv. 1616.**
- 3.36 Ålborg, Jutland. Jens  
Bangs House. 1623.  
(Copenhagen, National  
Museum.)**



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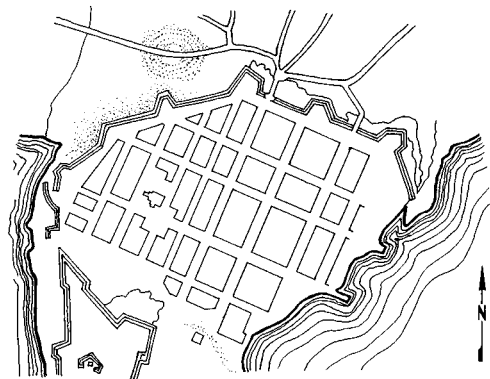


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- 3.37 Room from Ålborg, Jutland. c. 1620. (Copenhagen, National Museum.)**
- 3.38 Kristianstad, Skåne. Plan. 1614. (Copenhagen, National Museum.)**
- 3.39 Christianshavn. Plan. c. 1620. (Copenhagen, Royal Library.)**
- 3.40 Oslo. Plan. 1640s. Akershus at lower left. (After Kavli, *Norwegian Architecture*, p. 57.)**
- 3.41 Oslo. Akershus. Painting by J. Coning, 1699. (Oslo, City Museum.)**



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(figure 3.38).<sup>37</sup> In this case a rectangular plan was chosen, the length parallel to the shore, with moat and bastions and two inner plazas in addition to the space for the church. A canal separates the main plaza with the royal residence, town hall, and church from the burgher district. The diagonal of the larger plaza was planned to be parallel with the traditional east-west axis of the church, begun in 1617. Kristianstad has since grown out and over the original lines of the walls, a few outlines of which remain on the northern edge.

At home Christian IV planned a new town and defense system at the north end of the island of Amager.<sup>38</sup> The first plan, by the royal engineer Johan Semp, called for a symmetrical design based on an incomplete decagon, with streets radiating from a central square with a church on one side and served by a canal. The

final project was based on an irregular octagon, with fewer bastions, the streets on a grid system, a central square, and a canal running across the whole plan in a northeast to southwest direction on the north side of the square (figure 3.39). The basic grid of the plan remains today, including the canal, the square, and the southern portion of the ramparts.

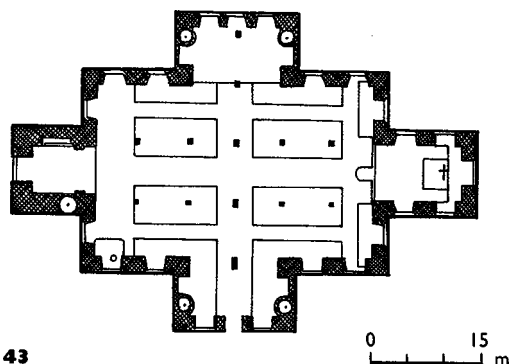
The third town is Oslo, founded in 1048 by King Harald Hardrada on the site of Gamlebyen in the modern city, east of the Aker River. Fires took their toll over the years; after an especially destructive one in 1624, Christian IV set about planning a new and better-defended city which he named for himself, Christiania.<sup>39</sup> He had a residential area laid out on the other side of the river from the old town, where a level site could be walled in and partly defended by the old Akershus on a ridge over-



looking the Pipervik (figure 3.40). An irregular bastioned wall on the north side enclosed a grid plan with blocks of varying dimensions and a plaza for the church that was moved there. Building the new houses in brick and roofing them with tile was, not surprisingly, encouraged, although many were also built of half-timber work.

The key to the whole scheme was Akershus.<sup>40</sup> Begun by King Håkon V c. 1319, it consisted of an irregular series of walls, wings, and courts, with two major towers, the Vågehall and the Jomfru Tower. By the mid-sixteenth century the former was deteriorating; its ruins were incorporated into the east wing during the rebuilding by Christian IV from 1625 to 1648, when two new stair towers crowned with spires were also added (figure 3.41). Coning's painting shows how it appeared at the end of the seventeenth century, rising above the outer defenses and commanding the harbor, as did Kronborg on the Øresund. Extensive changes to convert it to a Baroque palace were proposed in 1756 but not carried out. No longer a residence, it has been restored in modern times and serves as a museum and festival hall. As the visitor climbs up the steep approach and enters through the heavy portals the impression is one of great fortified strength.

Christian IV also sponsored a certain amount of religious building. In 1613 he contracted with Lorenz van Steenwinckel to build a burial chapel on the north side of Roskilde Cathedral.<sup>41</sup> This was richly ornamented outside and in, the windows having Gothic tracery amid the profusion of Renaissance ornament like those of the Chapel at Frederiksborg. The same was done for the church that Lorenz and Hans van Steenwinckel the Younger built for the king at Kristianstad from 1617 to 1628 (figure 3.42).<sup>42</sup> Built in brick with stone trim, its



- 3.42 Kristianstad, Skåne.  
Holy Trinity Church.  
L. and H. van Steenwinckel II. 1617–1628.**
- 3.43 Kristianstad, Skåne.  
Holy Trinity Church.  
Plan. (After Lund and Millech, eds., *Danmarks bygningskunst*, p. 130.)**

generous proportions and Netherlandish ornament give Holy Trinity Church a certain nobility that might seem surprising in a new port town, some distance from the capital. The plan at first glance gives the impression of a centralized structure, but this is not the case (figure 3.43). There is an entrance tower on the west, then a six-bay nave, separated from comparatively wide aisles and terminating in a projecting eastern sanctuary. From the south and north walls project shallow additions, the width of the two central bays of the nave, with columns centered in the gaps in the walls to complete the support for the vaults.<sup>43</sup> The aisles rise to the height of the nave in the traditional hall church fashion, now given a Renaissance expression (figure 3.44). The tall windows seen on the exterior admit abundant light. The vaults are covered with a cross-gabled roof, which accounts for the large ornamented gables on the north and south sides. An especially valuable piece of the liturgical fittings is the organ case by Johan Lorentz, built in 1630, although the works themselves are modern.<sup>44</sup>

For the capital city the king saw to the provision for a seamen's church even before the building of Nyboder.<sup>45</sup> An anchor forge dating from 1563 was converted to a church in 1619 with Leonhard Blasius as the master builder (figure 3.45). The higher of the two forge buildings was converted to the sanctuary of the new church, and three additions were made to make it cruciform in plan. The walls of the church are plain, but the gables are ornamented with applied pilasters and moldings. Its rather curious appearance, rising from the water of Holmens Canal, comes from its origin in an entirely different building.

Another church dedicated to the Holy Trinity was begun in Copenhagen in 1637 after plans by Hans van Steenwinckel the Younger.<sup>46</sup> It too is of brick, apparently a hall church from

**3.44 Kristianstad, Skåne.  
Holy Trinity Church.  
Interior.**

**3.45 Copenhagen. Holmens  
Church. L. Blasius.  
1619.**



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45



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the exterior, but without the gables and Renaissance ornament of the church in Kristianstad. The exterior is rather forbidding, very plain, with wall buttresses between the windows rising to the eaves. The interior gives an entirely different impression (figure 3.46). Whereas at Kristianstad the columns are round and support simple four-part vaults, in the Copenhagen church the columns are octagonal and support star vaults over the nave. The aisles are covered with four-part vaults springing from the nave colonnade and corbels in the aisle walls, as had been done at Kristianstad. A comparison with Storkyrkan in Stockholm might be made here, for in that church the nave is covered with star vaults, and the aisle vaults do not rise from wall shafts either. The difference is that in Storkyrkan the shafts emerge from the walls without brackets to support them, in the disintegration of forms characteristic of the late Gothic period. In the two churches dedicated to the Holy Trinity, on the other hand, the clarity of Renaissance principles demanded that at least token support for the aisle wall vaulting shafts be given visible expression.

At Holy Trinity we find the last of Christian IV's buildings that we are to consider, and the most unusual. This is the Round Tower attached to the church at the west end (figure 3.47).<sup>47</sup> It was not the idea of the astronomer Longomontanus to have an observatory in the heart of the city, but the king wanted it as part of the intellectual center of the capital, across the street from the University, whose library was to be housed in an attic story of Holy Trinity. The church was built to be the student church. The astonishing part of the tower is the spiral ramp that winds to the observing platform at the top in eight whorls. The idea was derived from Continental castles in which such ramps were built for riding or drawing up

**3.46 Copenhagen. Holy Trinity Church. H. van Steenwinckel II. 1637. Interior. (Copenhagen, National Museum.)**

**3.47 Copenhagen. Holy Trinity Church. Drawing by C. W. Eckersberg, 1809. (Copenhagen, National Museum.)**



**47**

gun carriages, and there was already a ramp at the fortress of Varberg in Halland, then under Danish rule. The use of the telescope was then in its infancy, and such towers, without the spiral ramp, were to be the general rule for observatories for many years.

Before Holy Trinity was completed and dedicated in 1656 Christian IV died at Rosenborg Palace in 1648. A map drawn in 1659 shows the legacy he left the city: a new harbor and Arsenal, a Bourse, new defenses for the land side, housing for seamen and their families, a new town on Amager, the palace in the garden that pleased him so much, new churches, and an expanded university quarter (figure 3.48). But old Copenhagen Castle was still there, becoming less comfortable by the year.

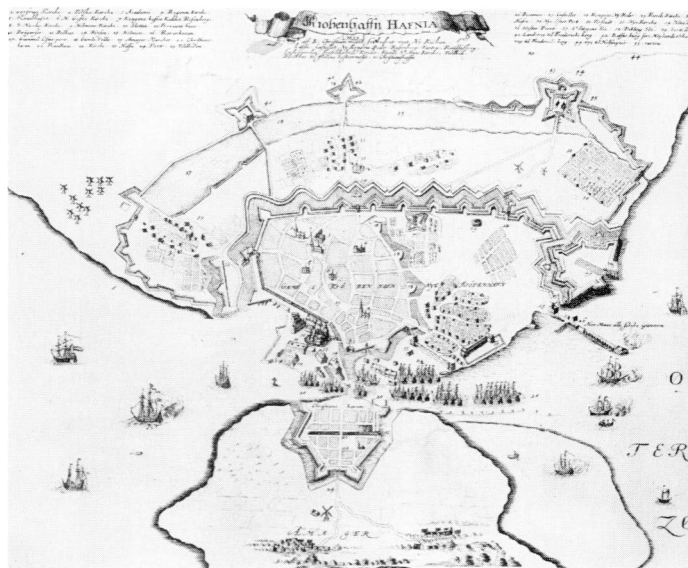
In the meantime notable events were taking place in building elsewhere. Queen Christina came to the Swedish throne at the age of 18 in 1644. The years of regency since the

death of her father, Gustavus II Adolf, in 1626, had seen no leadership like that of Christian IV in the arts, and Swedish involvement in the Thirty Years' War did not encourage many large building projects. An attempt was made to colonize in the New World, to be sure, with the settlement at Fort Christina on the Delaware River in 1638. But the fort was built by a Dutchman, Peter Minuit, then in the service of Sweden, and was taken over by another Dutchman, Peter Stuyvesant, in 1655.<sup>48</sup> While the queen did try to encourage commerce and manufacturing after the Treaty of Westphalia in 1648, she was far more interested in presiding over a brilliant court, to which she invited foreign artists, scholars, and philosophers, including René Descartes.<sup>49</sup> Her extravagance and indifference to her people nationwide led to her abdication and conversion to Roman Catholicism in 1654.

The most important works in Swedish architecture at this time actually belonged to the regency. The Makalös (“Nonesuch”) palace in Stockholm is known to us only from prints and paintings, having been destroyed in 1825 (figure 3.49).<sup>50</sup> It was built for General Jakob de la Gardie by the German architect Hans Jacob Kristler in 1630. Occupying a splendid site on the water across from Stockholm Castle, near Norrbro, it was a rectangular block with steep roof, corner pavilions in the French manner, and a polyglot ornament. A wealthy merchant, on the other hand, might build a residence like the Petersén House in the Old Town of Stockholm. Built by C. J. Döteber in 1645–1649, rising four stories with gable windows lighting the attic, it is rich with German-Netherlandish ornament (figure 3.50).<sup>51</sup>

Of the several noble estates that received mansions during these years, a good example is Tidö in Västmanland, the palace of the regent Chancellor Axel Oxenstierna, begun c. 1620 and finished 1635–1645 under the architects Simon de La Vallée and Nicodemus Tessin the Elder (figure 3.51).<sup>52</sup> Rising on a height above Lake Mälaren, just south of Västerås, it was within easy reach of the capital by water. The main residence is three stories high, flanked symmetrically by two-story wings, with the entrance wing opposite. The palace is especially notable for its rich sculptured doorways by the stonemason Hindrich Blume.

One truly grandiose building for Stockholm was at least envisioned. In 1641 a commission was granted to Simon de La Vallée for the Riddarhus, or House of Nobles, to be their place of assembly in Stockholm.<sup>53</sup> Simon de La Vallée was the son of a French architect working in Paris on the Luxembourg Palace under Salomon de Brosse. The original proposal was for a central rectangular building, with turreted corner pavilions and wings forming large court-



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- 3.48 Copenhagen. Map as of 1659. Resen, *Atlas Danicus*. (Copenhagen, Royal Library.)**
- 3.49 Stockholm. Painting by E. Martin, 1787. Makalös palace at right. (Stockholm, National Museum.)**
- 3.50 Stockholm. Petersén House. C. J. Döteber. 1645–1649.**



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yards on either side. This plan, along with the proposed details of rustications, balustrades, and segmental pediments all reflected French rather than German or Netherlandish taste. Simon de La Vallée died, however, the same year, with construction barely started, and work was delayed for more than a decade.

When building was resumed in 1653, the new architect was Justus Vinckeboons from Amsterdam, and the style of the Riddarhus was changed from French to Dutch. This did not mean a return to Northern Mannerism, however, but to the now flourishing Dutch Palladianism. The wings, courtyards, and corner pavilions were abandoned, Simon de La Vallée's project being reduced to the central building and two pavilions at the north edge of the site

(figure 3.52). The sandstone pilasters of the monumental order ornamenting the brick building are not rusticated, and the central entrance bays are emphasized by low triangular pediments. A vestige of the corner pavilion design remains in the doubling and coupling of the pilasters framing the end bays, but the whole façades on north and south are unified by the nearly unbroken line of the entablatures. After three years of work on the Riddarhus Justus Vinckeboons returned to Holland, and the work was completed by Simon de La Vallée's son Jean. Now a French touch was added in the round attic windows and the shape of the "säteri" roof, rising in two curving parts with a short vertical part between. If we compare the Riddarhus as finally completed in 1674 with



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- 3.51 Tidö, Västmanland.  
S. de La Vallée and N.  
Tessin I. Begun c. 1620.  
(Stockholm, Nordic  
Museum.)**
- 3.52 Stockholm. Riddarhus.  
S. de La Vallée,  
J. Vinckeboons, and  
J. de La Vallée. Begun  
1642.**
- 3.53 Austråt, Sør-  
Trøndelag. Castle.  
1654. (Oslo,  
Riksantikvaren.)**



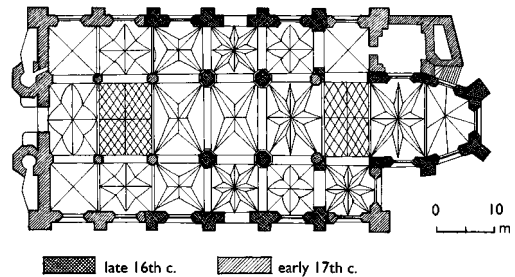
53

Makalös and Stockholm Castle as it appeared in 1661, we can see that a new taste had been introduced, mainly by the nobility.

By contrast the only major Norwegian building at midcentury was not planned on such theoretical principles at all. In 1654 Chancellor Olav Bjelke began the transformation of the medieval church at Austråt in Sør-Trøndelag to a castle at the entrance to Trondheim Fjord (figure 3.53).<sup>54</sup> The owner's journeys to Padua, Madrid, and Vienna probably inspired his conversion of the church to chapel with Riddarsal above and his addition of wings to create a courtyard residence, complete with columned loggia and further Renaissance ornament. Restorations were necessary after a fire in 1916, but it is still an ingenious example of adaptive reuse.

The early seventeenth century was not a time of extensive church building in either Sweden or Norway. In Stockholm a new church of St. Jacob had been started as a nearly square hall church with long choir and apse in 1588. Work was interrupted, and as finished in 1643 by the German architect Hans Förster it was enlarged by several bays and covered with late Gothic star vaults of varying patterns (figure 3.54).<sup>55</sup> The portals were carved by Hindrich Blume, who also did the portals at Tidö (figure 3.55). The church was completed with side aisles lower than the nave and has none of the spacious quality of the Steenwinckels' churches in Kristianstad and Copenhagen.

Another church by Hans Förster was built at Tyresö in Södermanland.<sup>56</sup> Here there is a single nave with a three-sided choir, Gothic windows, and domed-up vaults springing from half columns on the walls (figure 3.56). Once again there was the conservatism in the use of Gothic elements for church building that characterizes the Chapel at Frederiksborg and Holy Trinity in Kristianstad.



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By the beginning of the second half of the seventeenth century, then, the royal and noble patrons of building in Scandinavia had moved from the encouragement of a tentative admixture of medieval and Renaissance elements to a much greater reliance on theoretical principles, and some of their most ambitious projects have survived. The change in color from the often monochromatic brick surfaces of the Middle Ages to the lively contrasts of brick with stone carvings was due largely to the contributions of German and Netherlandish architects and sculptors. Apart from the planning of new cities and their defenses, however, much of this activity had to do with individual buildings rather than with large-scale urban projects. More sweeping changes would be made in the cities of Denmark, Norway, and Sweden during the coming years of the Baroque.

**3.54 Stockholm. St. Jacob's Church. H. Förster. Begun 1588. Plan. (After Lundmark, *Sankt Jakobs Kyrka*, figure 59, p. 256.)**

**3.55 Stockholm. St. Jacob's Church. South portal.**

**3.56 Tyresö, Södermanland. Church. H. Förster. 1638–1640. Interior. (Stockholm, Antikvarisk-Topografiska Arkivet.)**





## 4 *Scandinavian Baroque and Rococo*

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### *Early Baroque, c. 1660–1730*

In the middle years of the seventeenth century a number of political and military events occurred that accompanied and probably hastened changes of direction in Scandinavian architecture. As we have just seen, buildings carrying Renaissance decorative motifs often simply perpetuated medieval ideas of planning; but the later part of the century brought more essential changes, not only for individual buildings but also for city planning.

Before turning to the extensive royal projects of the late seventeenth century, we may find it illuminating to review briefly the personal circumstances of the monarchs of Denmark and Sweden. The Danish kings in the seventeenth century came to the throne immediately upon the deaths of their fathers as young or mature adults. When Christian IV died in 1648 at the age of 71, his son Frederik III succeeded him at the age of 39. Frederik III's son Christian V was 24 years old when he became king in 1670, ruling until his sudden death in a hunting accident 29 years later. In 1699 Frederik IV was 28 years old and lived to rule until 1730.