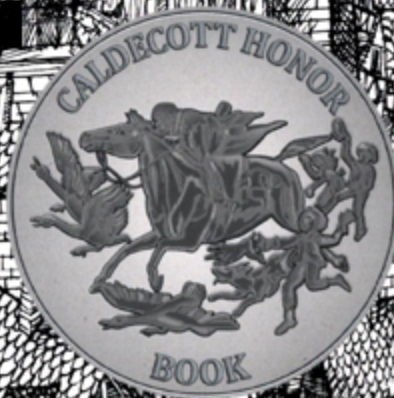
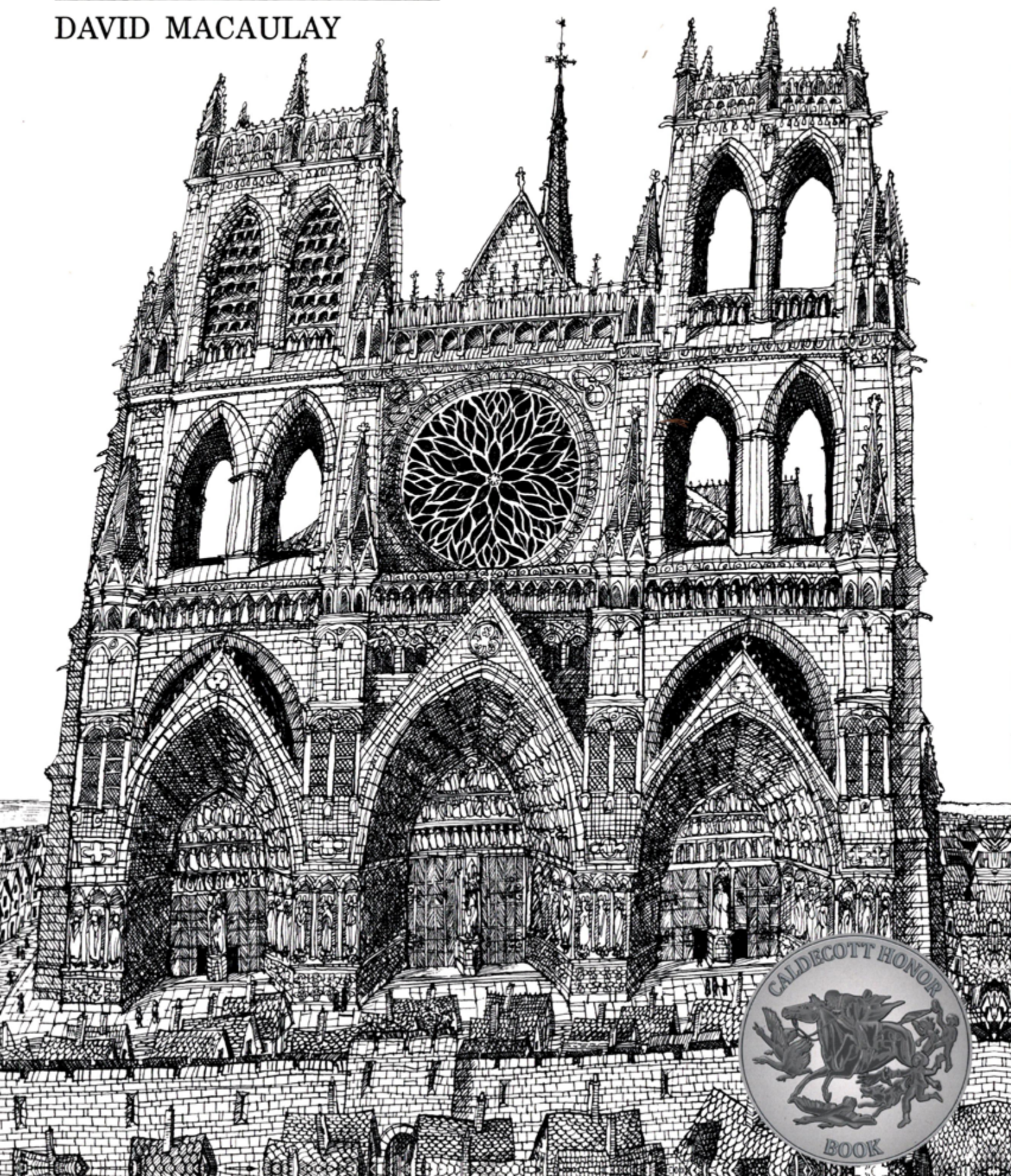


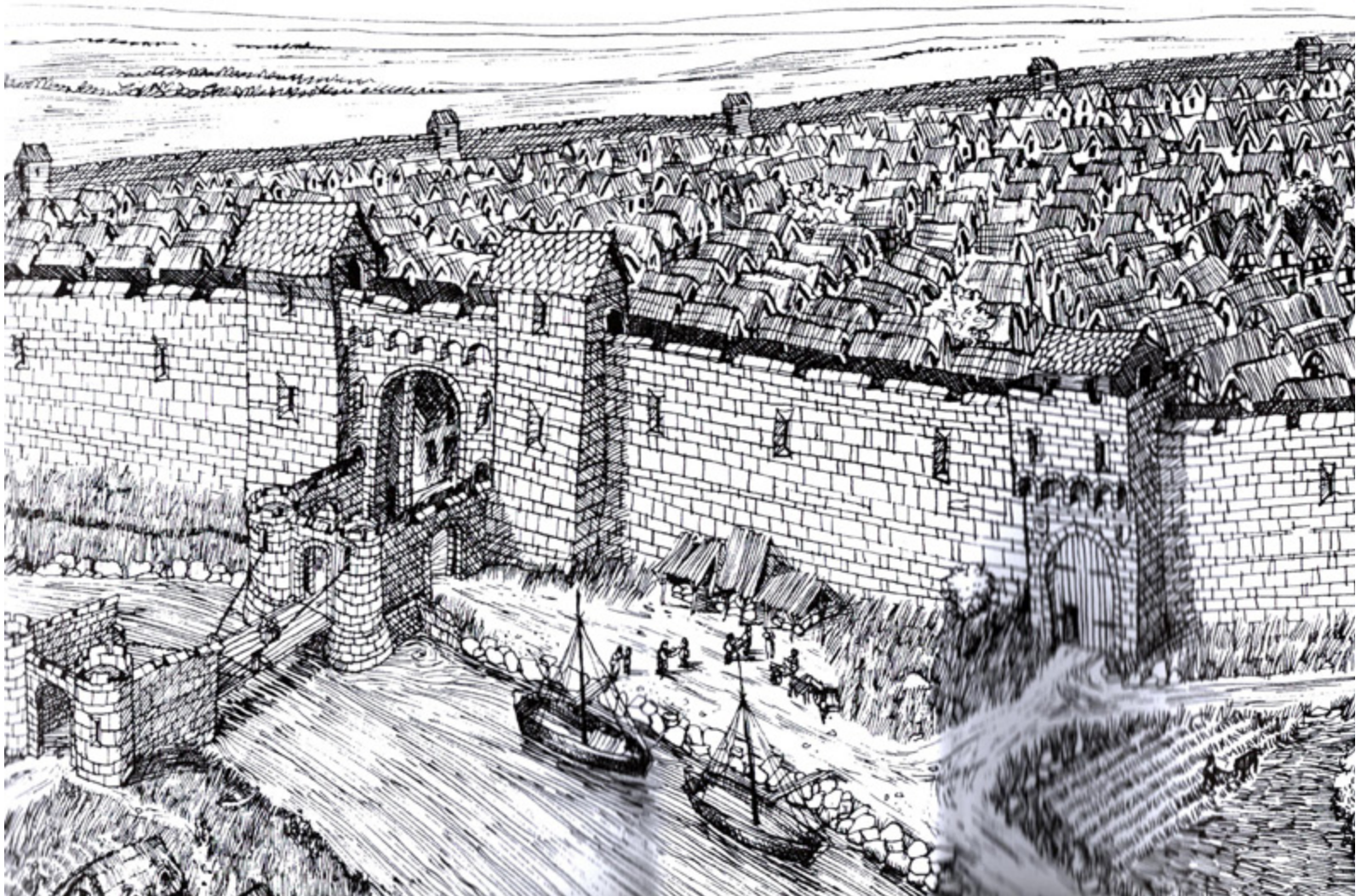
# CATHEDRAL

The Story of Its Construction

DAVID MACAULAY



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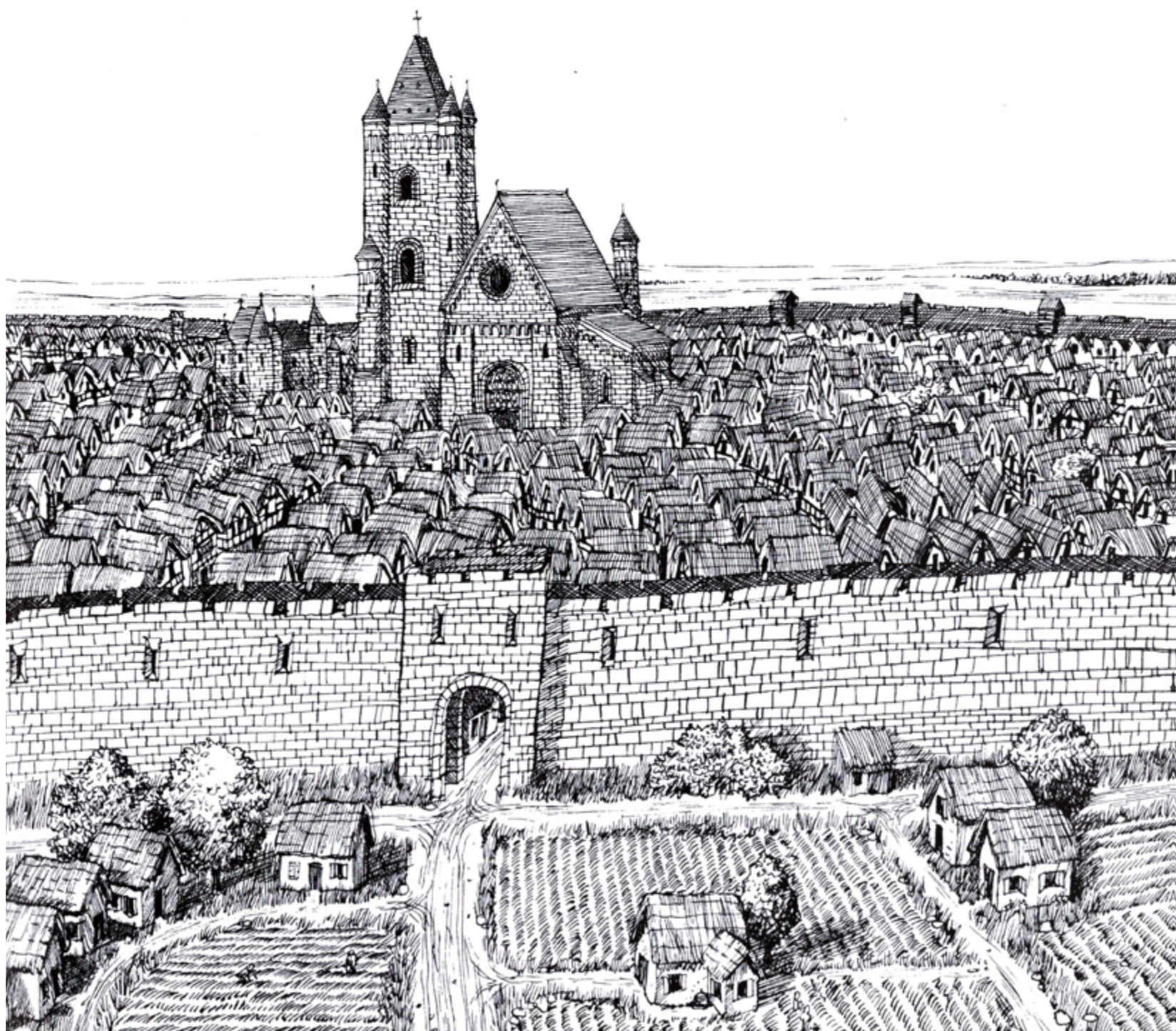


# CATHEDRAL

The Story of Its Construction

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DAVID MACAULAY



## PREFACE

The cathedral of Chutreaux is imaginary, but the methods of its construction correspond closely to the actual construction of a Gothic cathedral. The story of its almost uninterrupted construction, however, represents a somewhat ideal situation. For owing to either financial or structural problems or both, the completion of many such undertakings was delayed for as long as two hundred years.

Although the people of Chutreaux are imaginary, their single-mindedness, their spirit, and their incredible courage are typical of the people of twelfth-, thirteenth-, and fourteenth-century Europe whose magnificent dreams still stand today.

for Janice  

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with special thanks  
to Mary and Hardu

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For hundreds of years the people of Europe were taught by the church that God was the most important force in their lives. If they prospered, they thanked God for His kindness. If they suffered, they begged for God's mercy, for surely God was punishing them.

In the thirteenth century God was good to the people of France and especially to the people of Chutreaux. They had no wars to fight and the plague was gone. The weather was good for the farmers so there was plenty of food to eat, and business was good for the city's merchants. For these blessings and to help insure that He would continue to favor them, the city of Chutreaux wished to thank God. The people began to dream of building Him a new cathedral.

A new cathedral would offer a worthy resting place for the sacred remains of Saint Germain, a knight of the First Crusade whose skull and forefinger had later been sent back from Constantinople by Louis IX. Such relics as these were worshipped by people throughout Europe. And a new cathedral was an attractive idea for yet another reason. At the time the people of nearby Amiens, Beauvais, and Rouen were building new cathedrals. The people of Chutreaux did not wish to be outdone, on earth or especially in heaven.

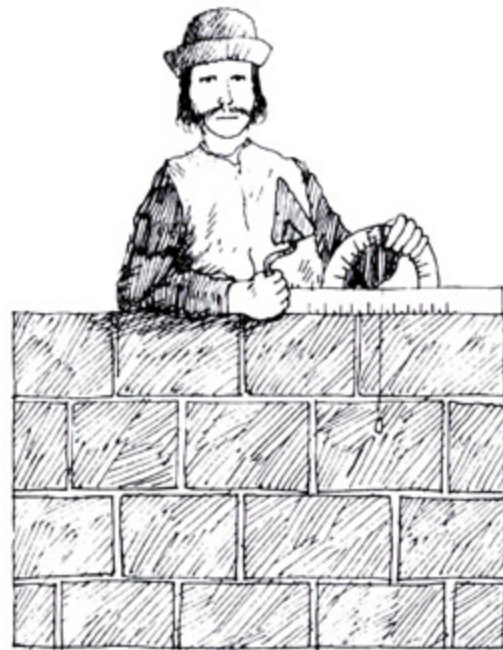
The final decision to build a new cathedral was made in the year 1252, after lightning struck and severely damaged the old cathedral. The people of Chutreaux wished to build the longest, widest, highest, and most beautiful cathedral in all of France. The new cathedral would be built to the glory of God and it mattered little that it might take more than one hundred years to construct it.





Although the bishop was the head of the church in Chutreaux, it was the group of clergymen known as the chapter who controlled the money. It was the chapter who hired the Flemish architect William of Planz. William had gained his knowledge of architecture and engineering by visiting and working on many cathedrals not only in France but also in England and Germany. His reputation as an excellent master builder had reached Chutreaux through the returning crusaders. So he was summoned by the chapter to design and supervise the construction of the new cathedral, and to hire the master craftsmen who would work under him.





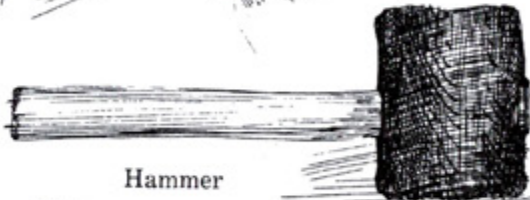
The craftsmen were the master quarryman, the master stone cutter, the master sculptor, the master mortar maker, the master mason, the master carpenter, the master blacksmith, the master roofer, and the master glass maker.



Each master craftsman ran a workshop for his own particular trade. He had many apprentices or assistants who were learning the trade in hopes of one day becoming masters themselves. Most of the heavy work was done by laborers, men with no particular skill. Some came from Chutreaux, some from the surrounding countryside, and some were working their way back from the Crusades.



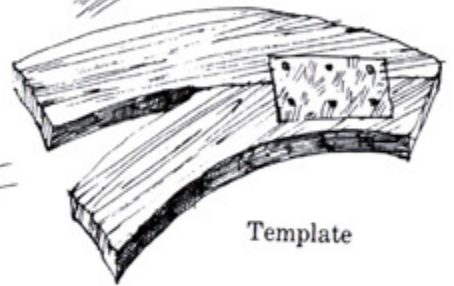
Pickaxe



Hammer



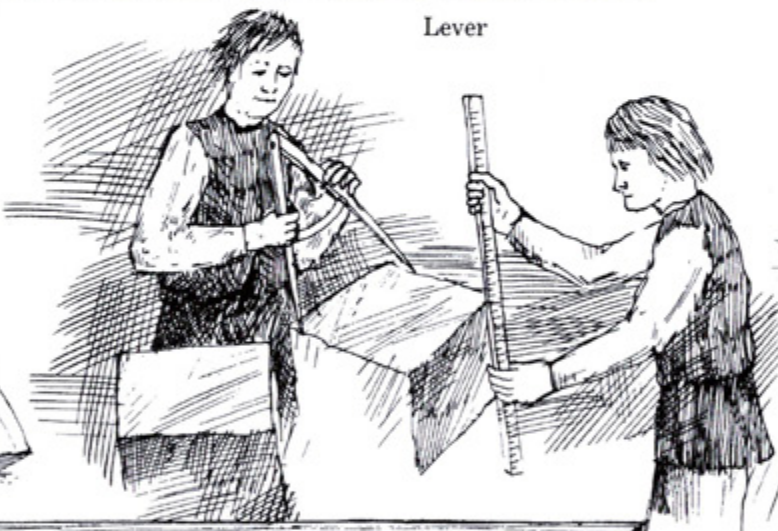
Chisel



Template



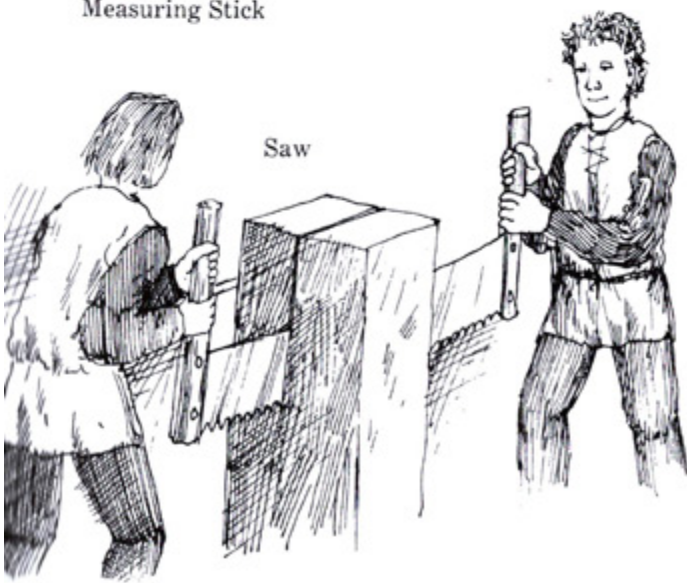
Lever



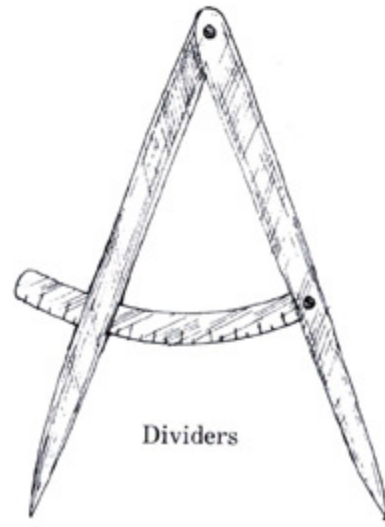
Measuring Stick



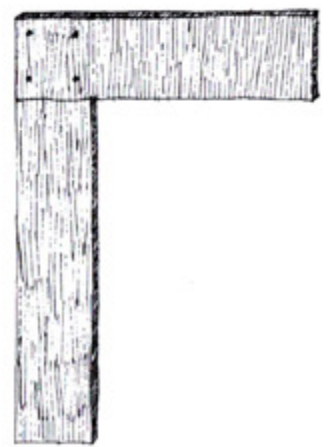
Square

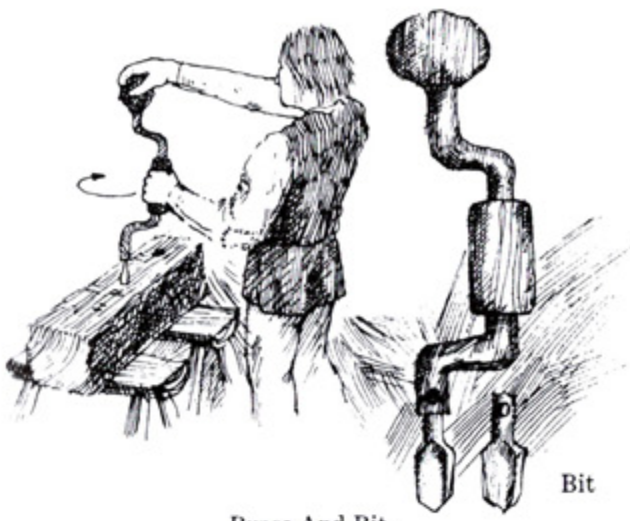


Saw



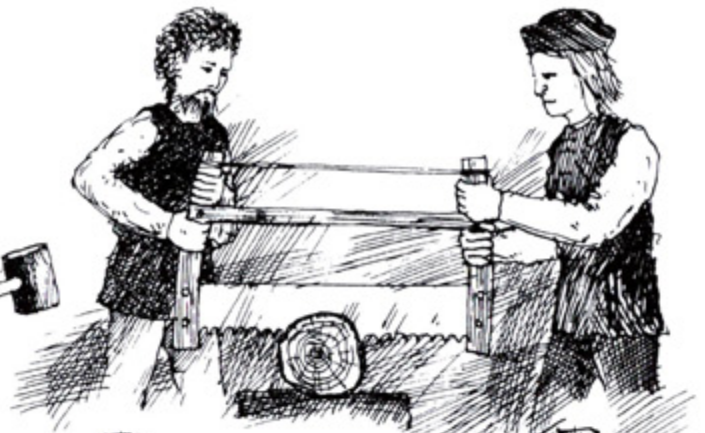
Dividers



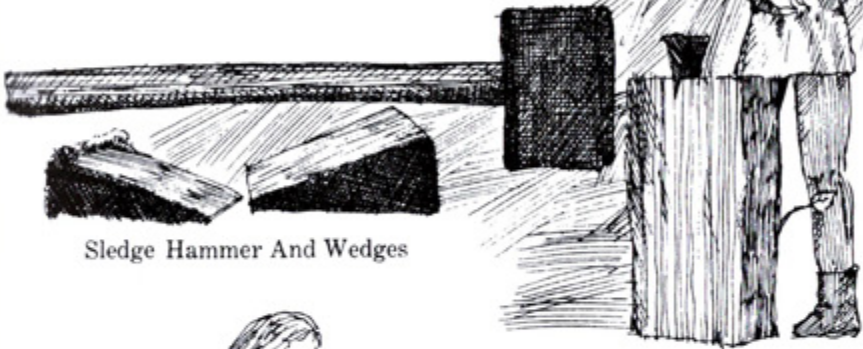


Brace And Bit

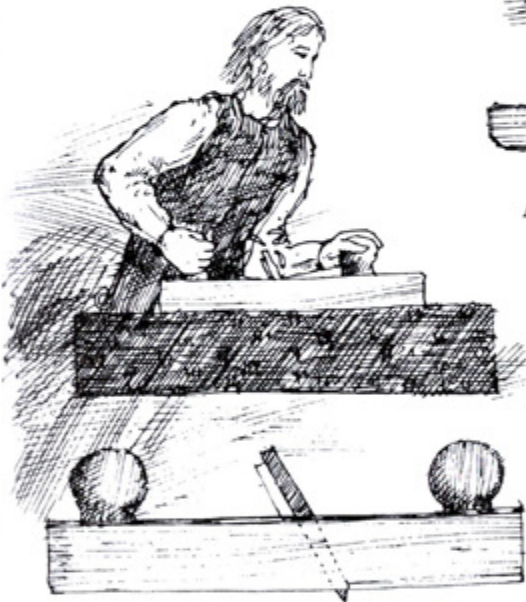
Bit



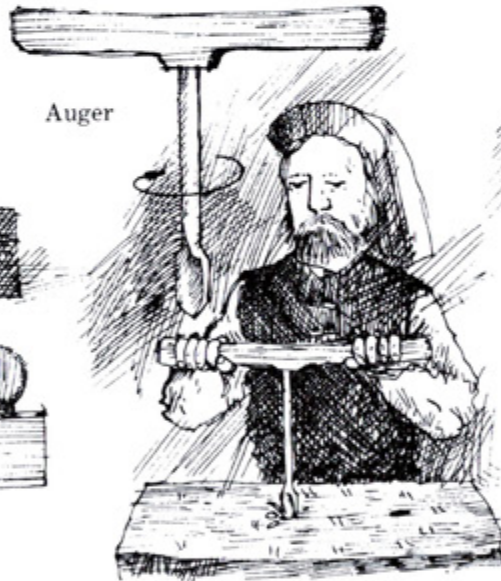
Saw



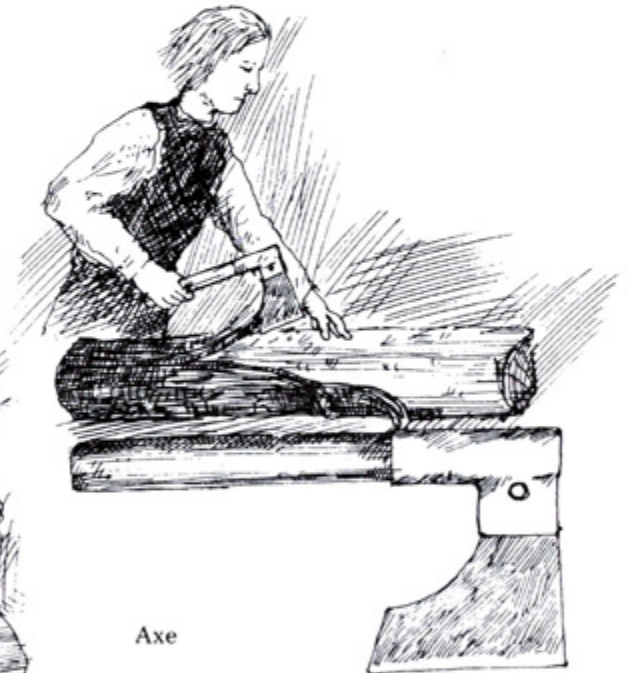
Sledge Hammer And Wedges



Plane

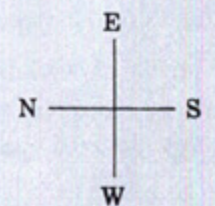
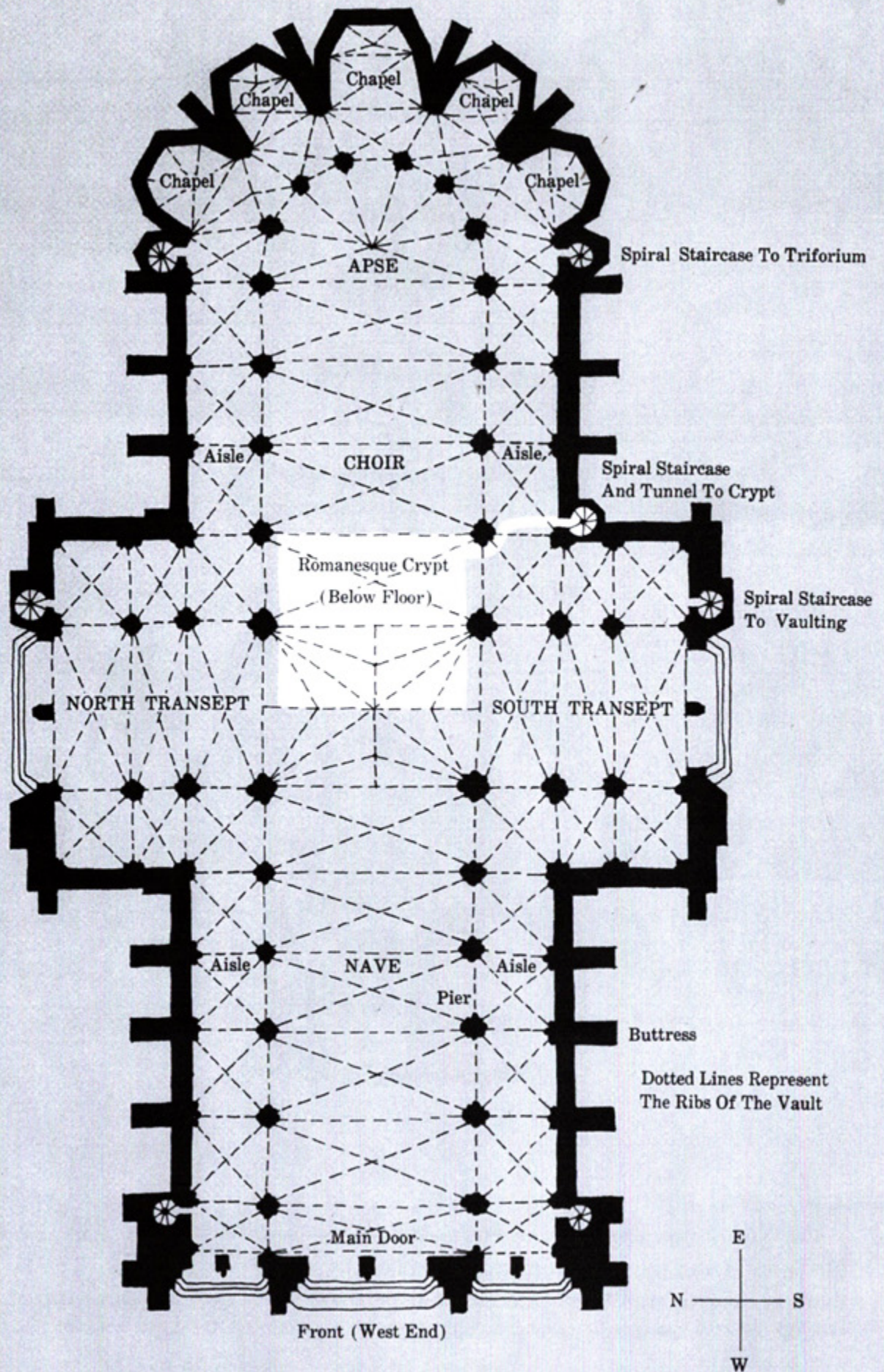


Auger

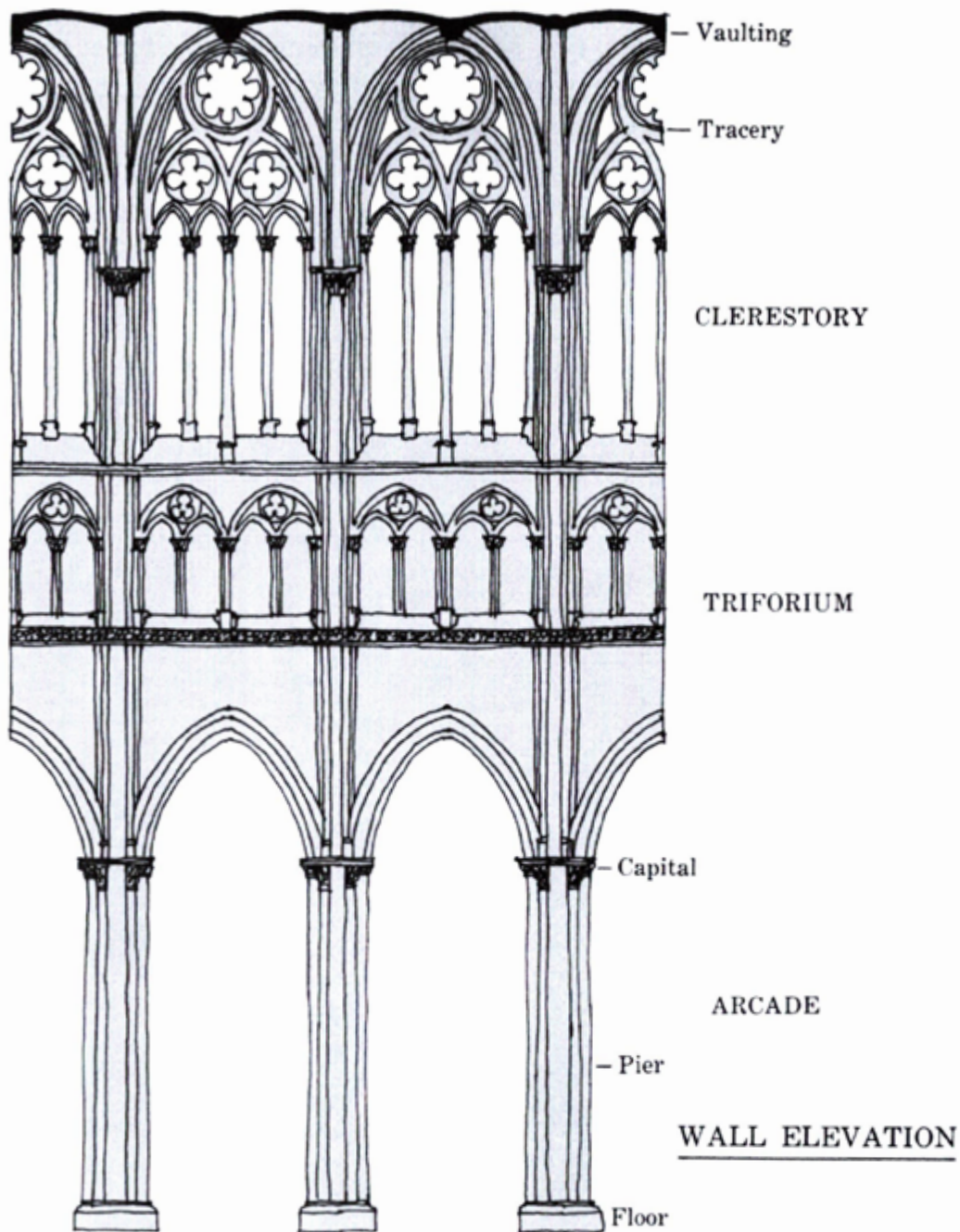


Axe

Each workshop required specific tools. All the metal tools were made by a blacksmith, and the wooden pieces were made by skilled woodworkers. The two main workshops, and those that required the most tools, were the stone cutters' workshop and the carpenters' workshop.

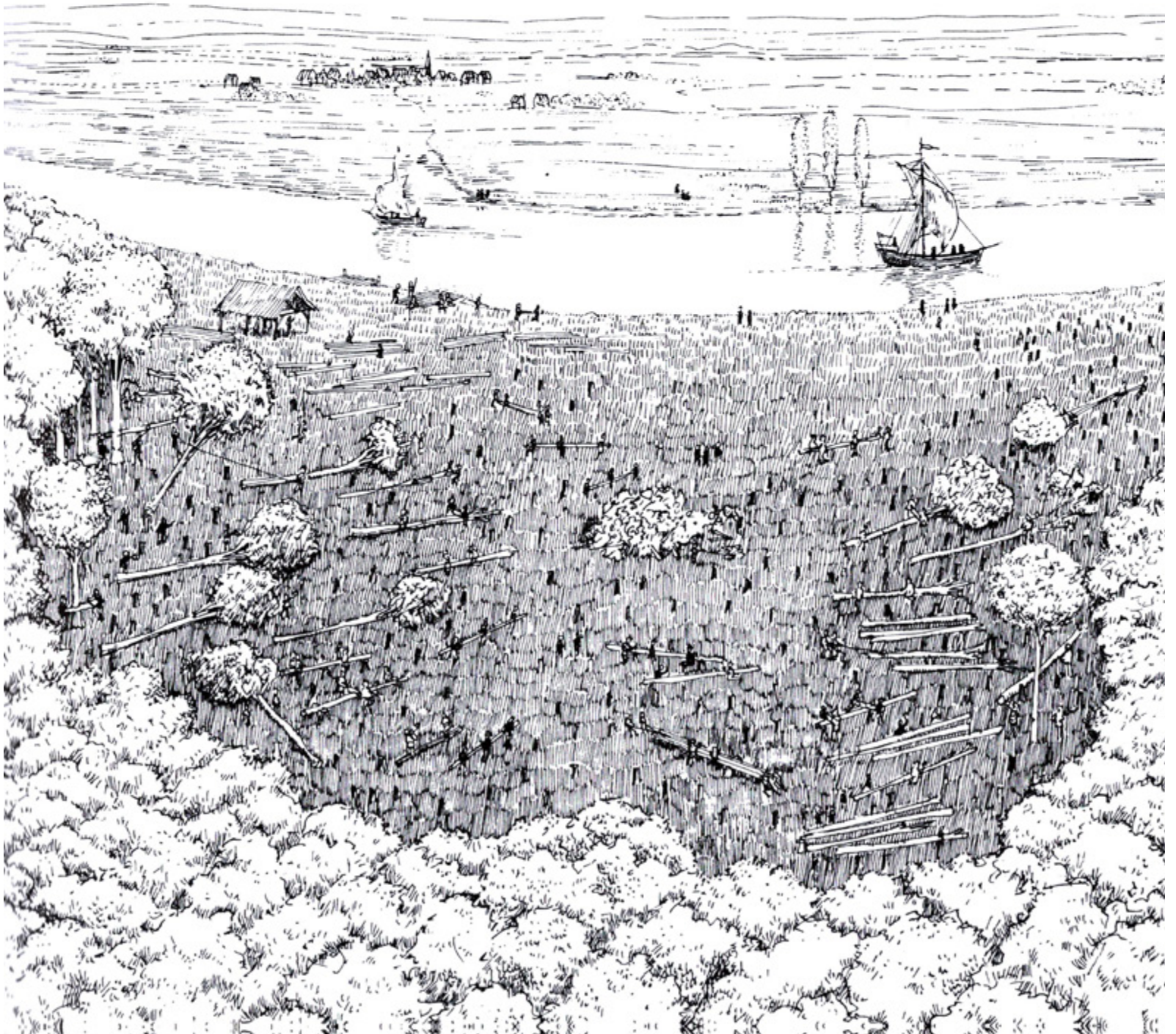


FLOOR PLAN



In the following weeks William planned and sketched and eventually settled on his final design. He combined methods and details from the cathedrals he had seen in his travels with his instruction from the chapter to design the longest, widest, highest, and most beautiful cathedral possible. The final designs were drawn on two sheets of plaster and presented to the bishop and the chapter. On one a floor plan was drawn that showed the layout of the cathedral naming all the different areas. The second had an elevation of one wall showing the different parts of the cathedral from the ground to the top-most vault.

Once the design had been approved, the master carpenter and his apprentices, along with one hundred and fifty laborers, were sent into the forest of Chantilly. Here the master carpenter supervised the cutting of timber for the construction of scaffolding, workshops, and machines.



*Cathedral* received the distinguished German Jugendbuchpreis, was a *New York Times* Best Illustrated Book of the Year, a Caldecott Medal Honor Book, and an ALA Notable Book. Since its publication in 1973, David Macaulay has acquired national and international acclaim. His books have been translated into a dozen languages, and he has been honored by countless awards, including a medal from the American Institute of Architects for being "an outstanding illustrator and recorder of architectural accomplishments."

*New York Times Ten Best Illustrated Books of the Year* "'Clear and fascinating' commentary and 'eye-catching drawings' follow the long, complex construction of an imaginary 13th-century Gothic cathedral."

*School Library Journal Best Books of the Year 1973* "Beautifully detailed and delicate line drawings, cross sections, and diagrams illustrate how a Gothic cathedral was built in 13th-Century France. Though it's an imaginary church, the imagery will inspire."

*New York Magazine* "... David Macaulay has written and illustrated a book totally harmonious with its material. His black-and-white pen studies and architectural diagrams are beautifully drawn and designed on large pages... Neither in words nor illustrations does he ever slight his subject by writing or drawing down. An elegant book."

*Time Magazine* "This marvelous book recreates the building of a French Gothic cathedral, from the hewing down of half a forest to the placement of the last sheet of lead on the spire. Macaulay uses voluminous knowledge and pen-and-ink sketches, accompanied by a brief, clear narrative... By changing his viewpoint, he powerfully conveys the immense rook-filled heights of the cathedral."

*Boston Globe* "... No painstaking labor was too great for the cathedral-builders, nor was it for this author-artist. David Macaulay has created 80 pages of simple text and elaborate magnificent black and white drawings, page after page of monumental overviews in extraordinary exploding perspective... Own this book."

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