

AHST 2331-001 (21414)  
Understanding Art  
Dr. Charissa N. Terranova  
Tuesdays and Thursdays 11:30-12:45  
ATC 1.102

Thursday February 15

Quiz #5

Romanesque to the Gothic

# Understanding Architecture Romanesque into Gothic

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February 15, 2018

After viewing Cathedral, we will look at a history of church architecture to understand how they are constructed and remain standing today.

After a brief review, we will take the short quiz.

This quiz is about being innovative, what did we learn from the movie, how could it have been constructed differently to avert disaster?

What we know about the imaginary cathedral:

It was built in the Romanesque style, a style different from the new cathedral, Gothic.



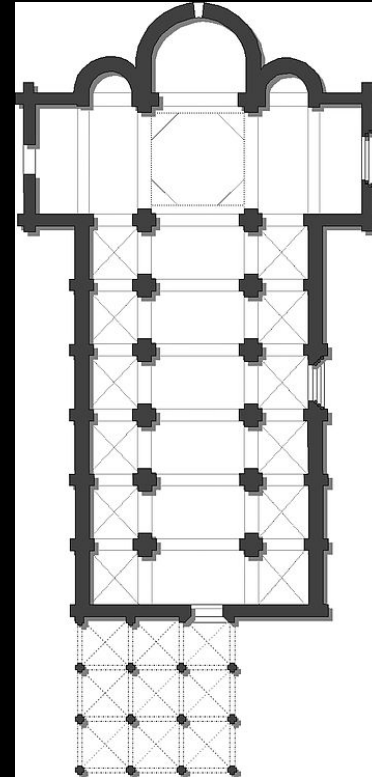
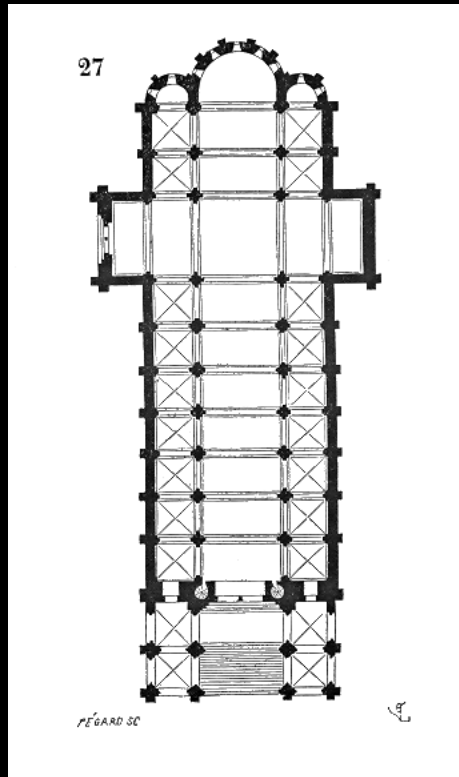
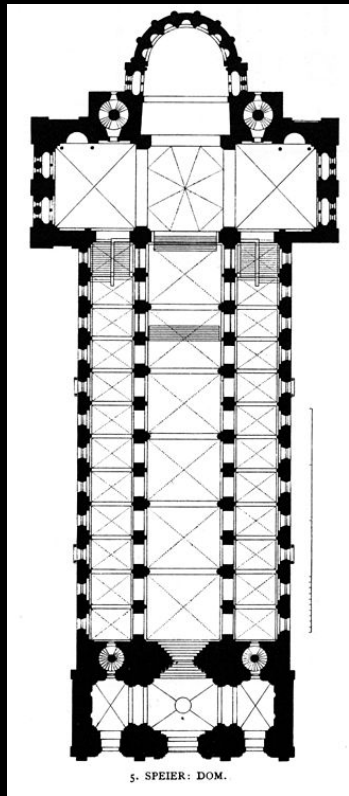
# Characteristics of a Romanesque Cathedral



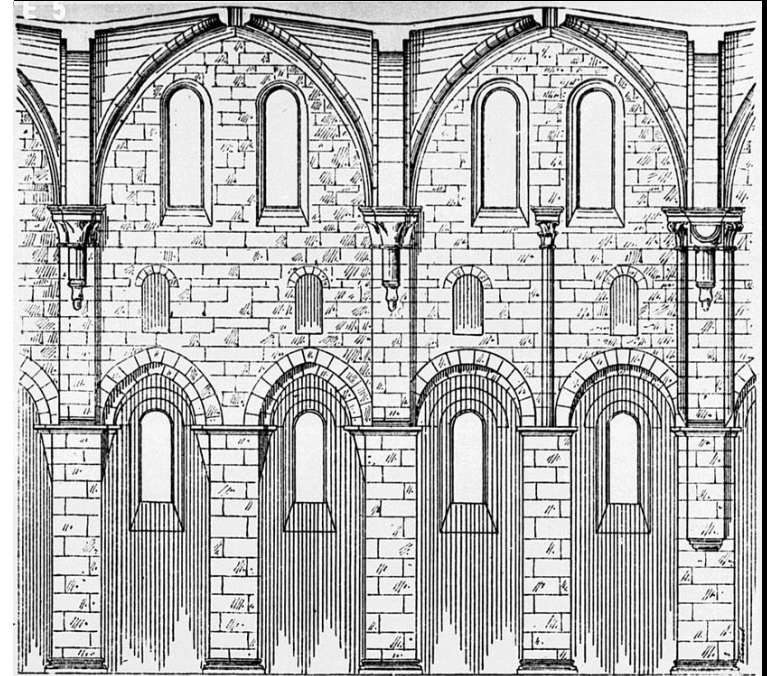
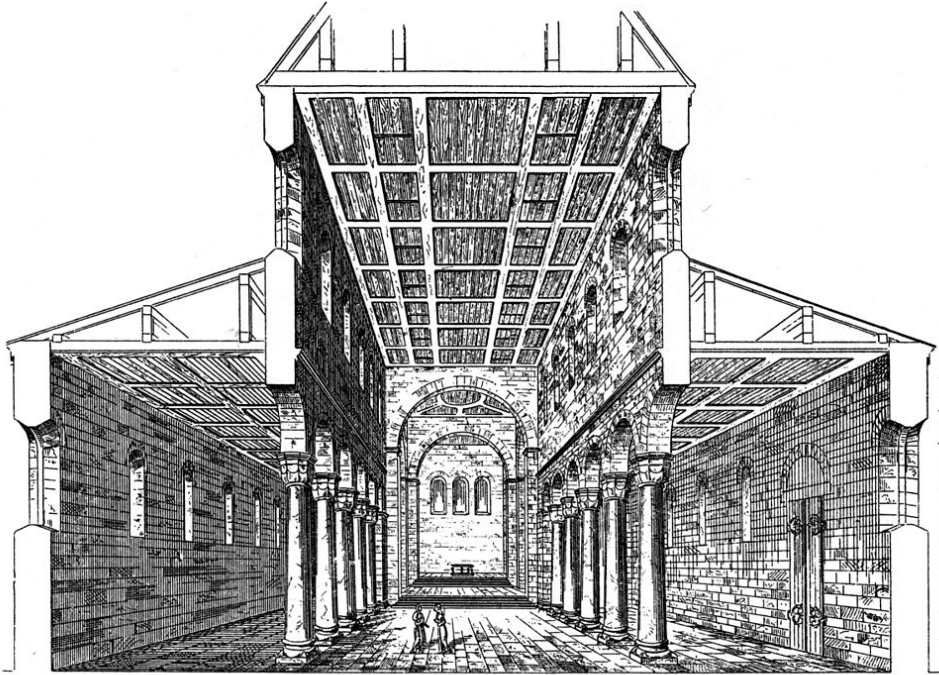
Thick walls, narrow windows, rounded section at the end, weight of the building and the roof travel down the walls. Fortress appearance, with minor buttresses alongside the walls. Arches are semicircular, doors are covered with a horizontal lintel. Arcades are a row of columns with narrow openings. Piers and columns were thick to hold the weight of the cathedral. Capitals are Corinthian, round on the bottom. Vaults and roofs were mainly of wood, a barrel vault, or groin Vault.



What a plan tells you, a plan is a diagram of the cathedral viewed from the top.



A section is a cross view of a building, across the front or of the side walls.



1. 2. KONSTANZ: DOM.

The new cathedral was built in the Gothic style with specific changes that challenged the former building style.

Gothic style is characterized by:

A grand tall designs sweeping toward the sky

Flying buttresses

The pointed arch

Vaulted ceiling

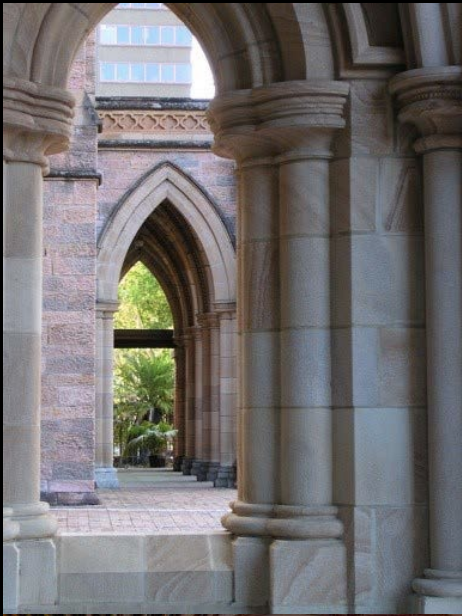
Light and airy interiors

Gargoyles

An emphasis on decorative style and ornamentation.







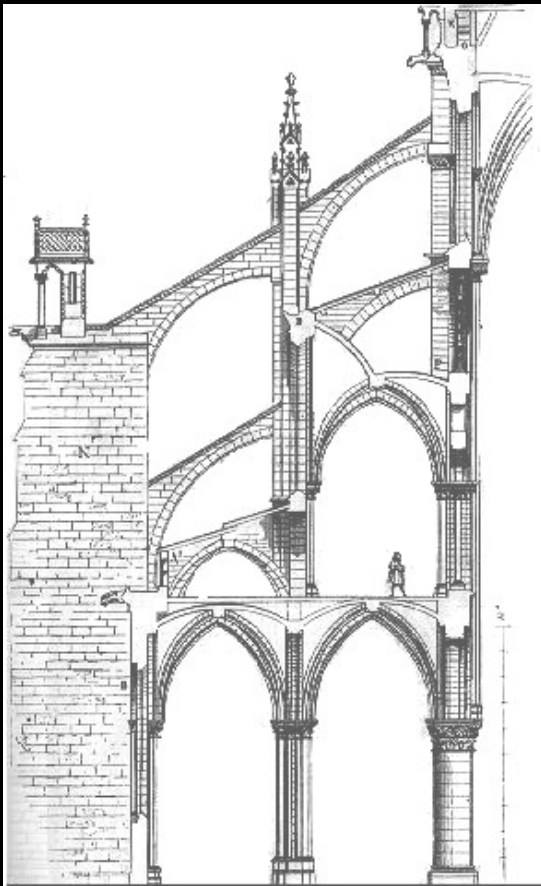
Transition problems:

Making the flying buttresses effective

Transition from thick to thin columns

Opening up the walls by diverting the weight

Changing the stresses of weight in the building

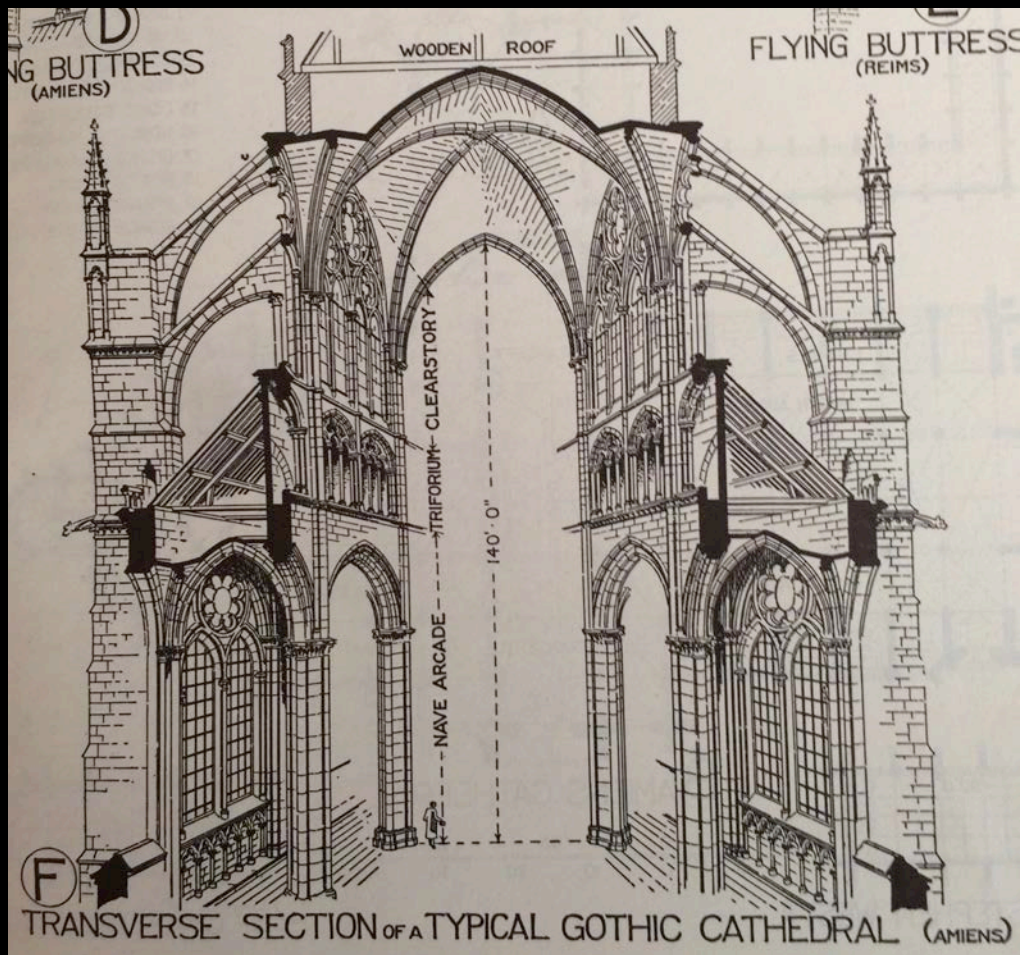


If the weight downward and outward of the Romanesque Cathedral demanded thick walls to support the weight, How did the change of the arch system from rounded To vertical change the direction of force.

Consider these changes and how the workers who were Used to building in the Romanesque manner, could cause problems in building a higher, airer, and more spectacular Gothic cathedral.

## Gothic Architecture Continued

The Gothic style was also present in England, Italy and Spain as well as France.

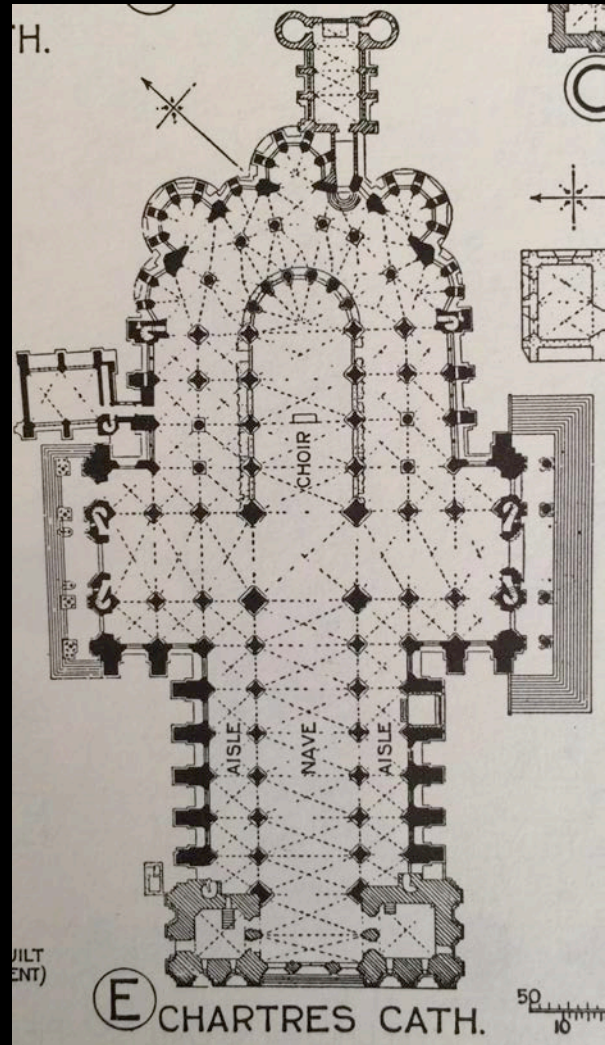
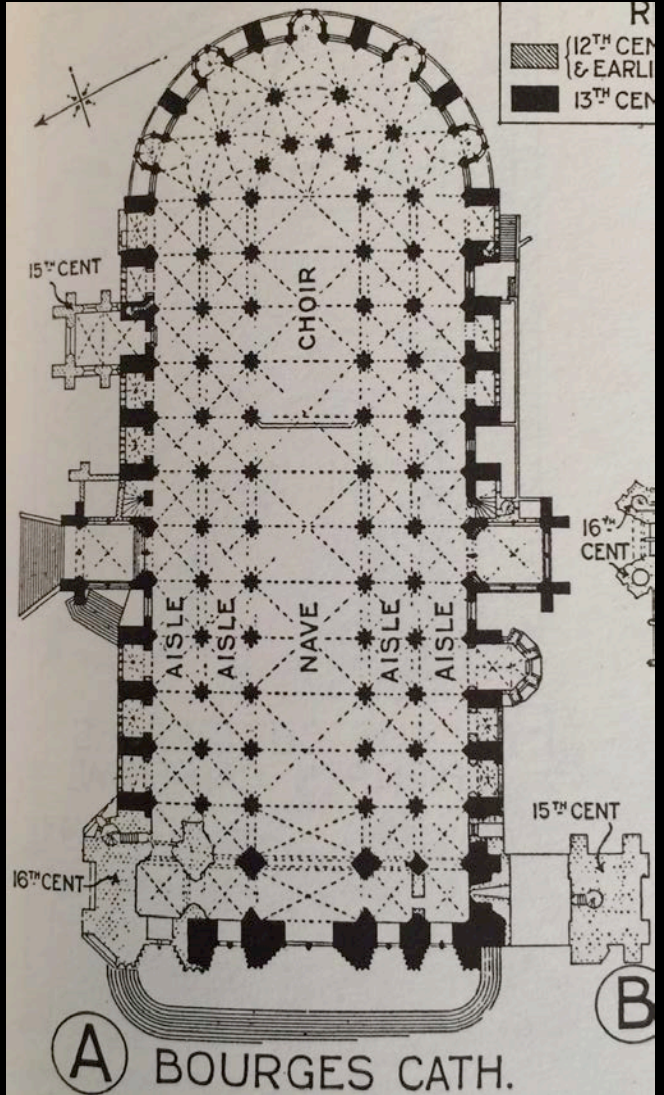


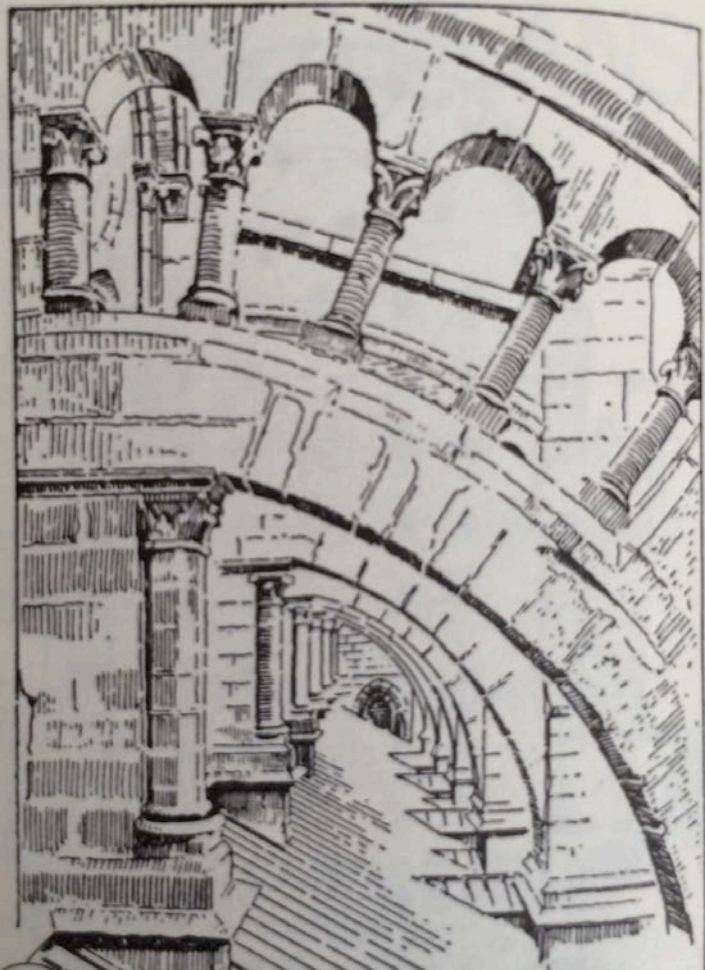
How to "read" a plan.

# GOthic IN FRANCE

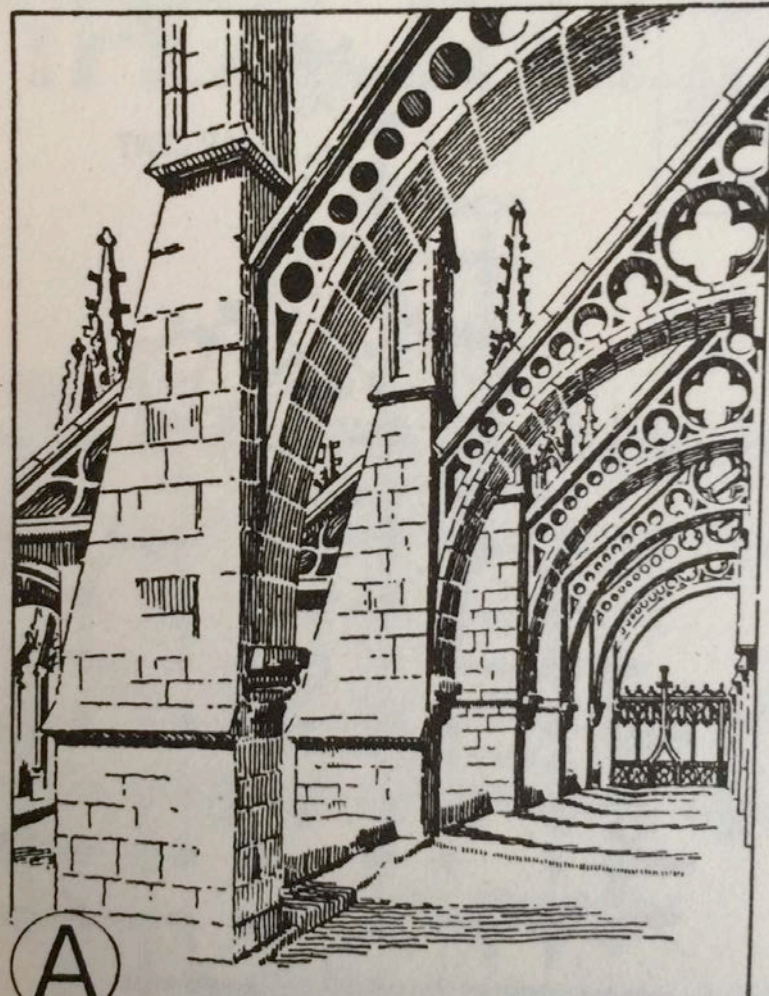
## REFERENCE TABLE

	(12 <sup>TH</sup> CENT. & EARLIER)		14 <sup>TH</sup> CENT.		(15 <sup>TH</sup> CENT. 16 <sup>TH</sup> CENT.)
	13 <sup>TH</sup> CENT.				MODERN

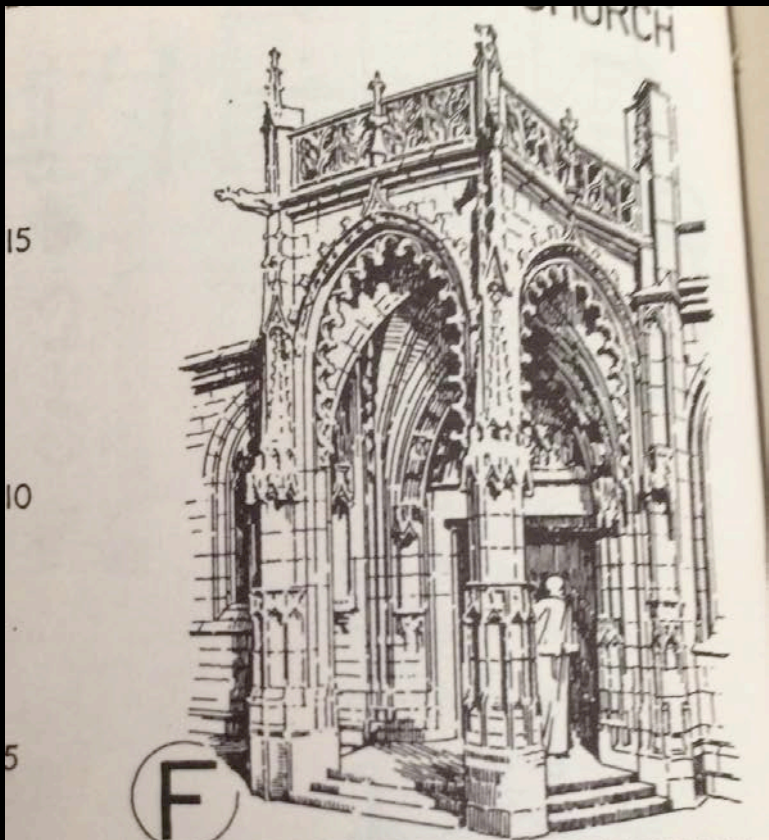




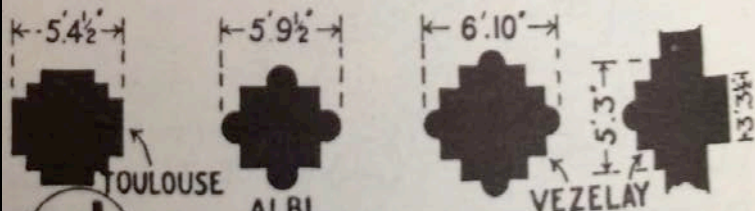
**B** FLYING BUTTRESSES  
CHARTRES CATHEDRAL



**A** FLYING BUTTRESSES  
NOTRE DAME. LOUVIERS



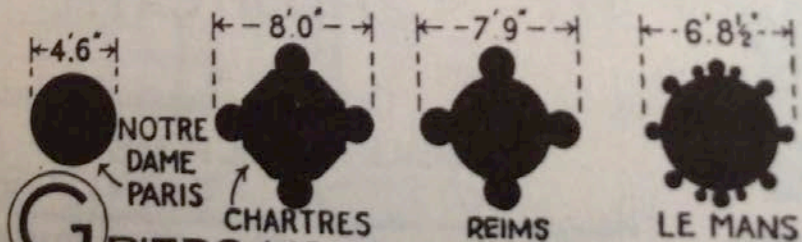
**F** PORCH: S. VINCENT: ROUEN



**J** PIERS: SOUTHERN FRANCE



**E** PORCH: S. URBAIN: TROYES



**G** PIERS: NORTHERN FRANCE

# EVOLUTION OF GOTHIC VAULTING

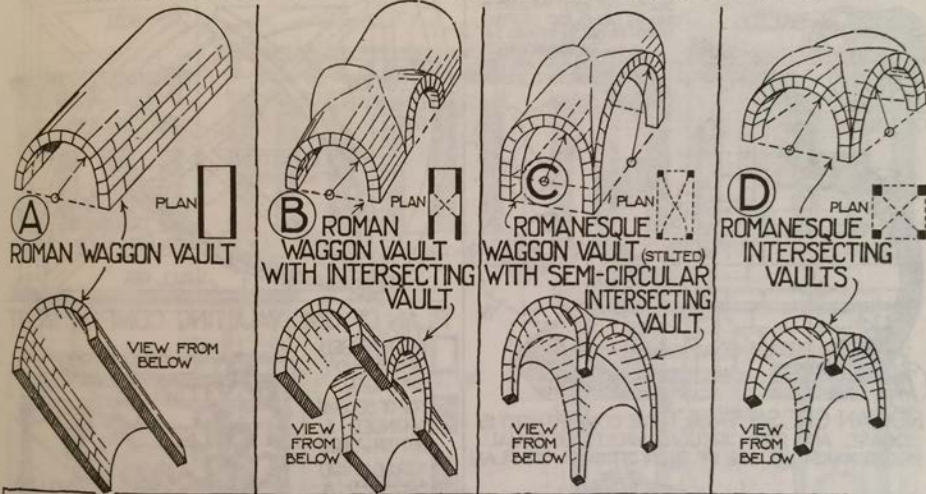
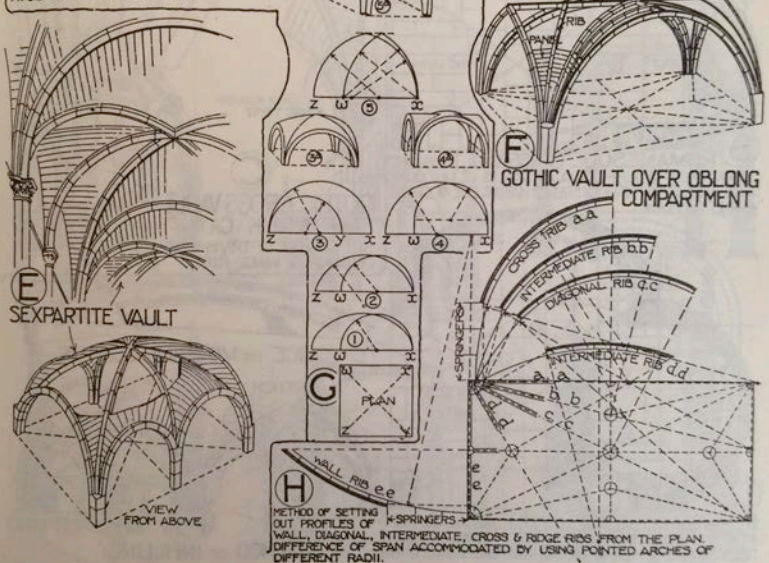


FIG. 'G' IS THE PLAN OF A SQUARE VAULTING COMPARTMENT & FIGS. 1-5 REPRESENT THE TRANSVERSE AND DIAGONAL RIBS, & ILLUSTRATE THE DIFFICULTIES OF REGULATING THE HEIGHT OF RIBS OF DIFFERENT SPAN OVER A SQUARE COMPARTMENT, AS THE PROBLEM IS TO KEEP THE CROWNS OF THE INTERSECTING VAULTS LEVEL.

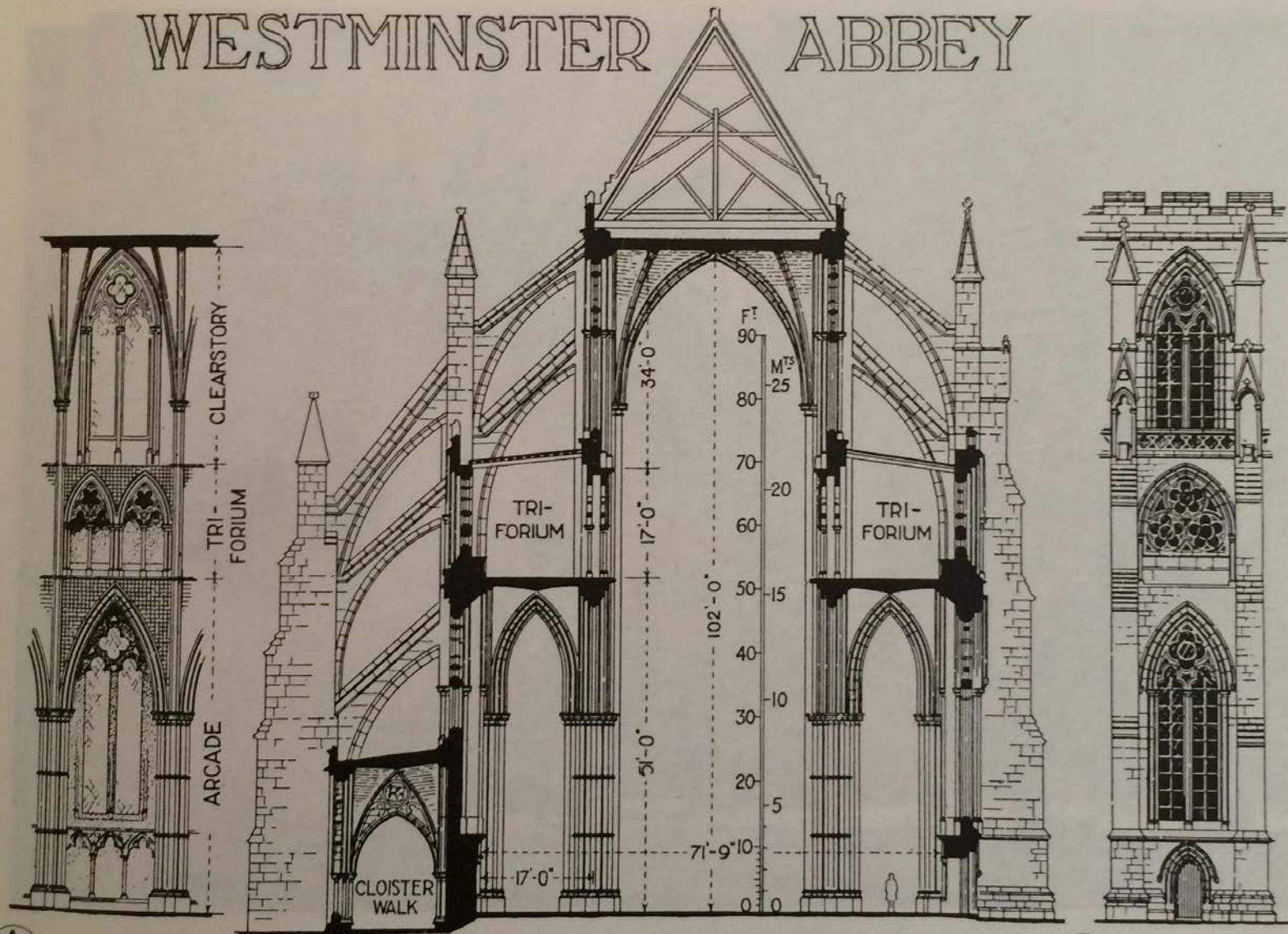
1 ROMAN CROSS VAULT WITH ELLIPTICAL DIAGONAL GROINS. 2 ROMANESQUE RIBBED VAULT WITH SEMI-CIRCULAR DIAGONAL RIBS & TRANSVERSE RIBS RESULTING IN A DOMICAL VAULT 3A. 3 ROMANESQUE VAULT WITH SEMI-CIRCULAR DIAGONAL & TRANSVERSE RIBS, THE LATTER STILTED TO AVOID DOMICAL VAULT AS 4A.

4 ROMANESQUE RIBBED VAULT WITH SEGMENTAL DIAGONAL RIBS. 5 GOTHIC RIBBED VAULT WITH POINTED ARCHES WHICH CAN BE MADE ANY HEIGHT FOR ANY SPAN THUS OVERCOMING ALL DIFFICULTIES AS 5A.



B. Interior looking E.

# WESTMINSTER ABBEY



(A) INT: BAY.

(B) TRANSVERSE SECTION THRO' NAVE Y-Y

(C) EXT: BAY



# The height of fan vaulting

