

Gothic

Architecture

The three structural inventions that let Gothic churches be tall, thin and glazed.

A structural system, roughly 1140 to 1500, in which pointed arches, rib vaults and flying buttresses concentrated load into piers so the wall between them could be glass.

SAINT-DENIS CHOIR
from 1140

BEAUVAIS VAULT
48 m

- Begins at the choir of Saint-Denis, Paris, from 1140.
- Abbot Suger wanted light as a theological argument.
- The pointed arch steers thrust more steeply downward.
- Rib vaults let bays be built one at a time.
- Flying buttresses take the outward thrust clear of the wall.
- Beauvais choir reached 48 m, and collapsed in 1284.

LOOK FOR IT

Chartres, Amiens and Notre-Dame de Paris all use the same three devices at different heights.

Against Romanesque: thick walls, small windows, round arches and dark interiors. Gothic traded mass for geometry.