

Topic Page: [Buttress](#)

Definition: **buttress** from *Philip's Encyclopedia*

Mass of masonry built against a wall to add support or reinforcement. Used since ancient times, buttresses became increasingly complex and decorative in medieval architecture. Gothic architecture often featured marvellously daring flying buttresses.

Summary Article: **buttress**

From *The Columbia Encyclopedia*

mass of masonry built against a wall to strengthen it. It is especially necessary when a vault or an arch places a heavy load or thrust on one part of a wall. In the case of a wall carrying the uniform load of a floor or roof, it is more economical to buttress it at certain intervals than to make the entire wall thicker. Even when a wall carries no load, it is usually buttressed rather than uniformly thickened. For a load-bearing brick wall more than 8 ft (2 m) high a buttress is used every 20 ft (6 m). The decorative possibilities of the buttress were discovered in the ancient temples at Abu Shahrein in Mesopotamia (3500–3000 B.C.), where they were used both as utilitarian and decorative forms. The Romans employed buttresses, which sometimes projected from the exteriors of the walls and were then left as mere piles of masonry, without architectural treatment. But in the large structures, such as basilicas and baths, the buttresses that received the thrusts from the main vaulting were confined to the interior of the building, where they served also as partition walls. The basilica of Constantine in Rome (A.D. 312) exemplifies this arrangement. In the medieval church, the groined vaults, concentrating their great lateral thrusts at points along the exterior walls, required buttresses as an essential element to achieve stability. Beginning with Romanesque architecture about A.D. 1000, a steady evolution of buttresses can be traced, from the simple, slightly projecting piers of the 11th cent. to the bold and complex Gothic examples of the 13th, 14th, and 15th cent. Builders in England, Germany, and N France achieved striking architectural effects. They devised the flying buttress, an arch of masonry abutting against the wall of the nave; the thrust of the nave vault could thus be received and transferred to the vertical buttress built against the outside walls of the side aisles. These flying arches, at first concealed beneath the roofs, began to be exposed outside the roofs in the mid-12th cent. Later they were enriched with gables, stone tracery, and sculpture and were topped with pinnacles to give them extra weight. They constitute, especially in such French cathedrals as Amiens, Beauvais, and Notre-Dame de Paris, the true expression of the elasticity and equilibrium which were the basic principles of the Gothic structural system.

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Buttress. (2018). In P. Lagasse, & Columbia University, *The Columbia encyclopedia* (8th ed.). New York, NY: Columbia University Press. Retrieved from



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