

Gothic architecture in medieval france

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Gothic Architecture in Medieval France As with most modernization, new concepts are often refined versions of previous techniques. Although structural design during the Middle Ages was already advancing at a large scale, distortions of the classical style were not too apparent until the Gothic era occurred. Taking place during a time of turmoil with the Hundred Years' War and the Black Plague, the Gothic age emerged right as European society was forced into a reflective change. With an increase in trade and a growing violation, an associated development of cities also occurred.

Since it was more plausible to centralize churches and monasteries within towns, advancements of stone architecture began in order to meet the needs of the general public. First appearing in Northern France in the mid-12th century, Gothic style began mainly in these newly built or restored cathedrals. The modernization that took place within Gothic architecture directly reflected the changes that were taking place within French society. The two main structural improvements of Gothic architecture were minted arches and ribbed vaulting.

Building upon the design of the intersecting arches of groin vaults (primarily seen within the Romanesque period), Gothic architects created rib vaults as a result of using diagonal and transverse arches that intersected crosswise. By switching from curved to more-pointed arches, builders were able to maximize height-space and have all the arches at approximately the same level, regardless of the arches' widths. This allowed the inside of cathedrals to be very spacious and give the appearance of openness.

Another structural advantage of the pointed Gothic vaults is its downward weight distribution. Because they require less reinforcement to keep them in position, large windows could be placed underneath the arches instead of supports, making it possible to let more light into the room. These areas were often filled with another prominent Gothic feature: stained-glass windows. Although it was not originally produced during the Gothic Era, stained-glass gained its standing with its use in cathedrals.

By taking advantage of the usable space under pointed arches, architects were able to replace walls with stained-glass and transfer natural light into the building, creating a colored ambiance. Abbot Auger, the Abbot at Saint-Denis (a cathedral noted for being a precursor in Gothic architecture) coined the phrase *luz nova*, meaning "new light" to describe the effect of the stained-glass. Aside from transmitting light into the cathedral, the windows acted as a way to present religious illustrations and depictions of Holy Scripture.

Although the glass is much more unstable than the surrounding stone encasement and structure, Gothic architects were able to reinforce the glass with iron and other materials to make it withstand much weathering. A structure combining glass and stone support that became typical within French Gothic architecture was the rose window, a large circular window that combined the designs of the inside and outside of the cathedral. The aim of overstated design of cathedrals was not limited just to the inside of the buildings.

While the stonework within the churches was more minimalist, the outsides were overfed with facades of religious sculptures. Acting as a central point to these facades, rose windows were covered in detailed stone work that was best seen from outside the cathedral. It was also a notable gothic style to have the sculptures of saints in a more unassuming manner. The statues began to have individual personalities and more nonjudgmental postures, showing the separate identities of the saints. Another feature of sculptural design was gargoyles.

Acting as a way to direct rain water away from the building, gargoyles have played a key part in keeping the stone cathedrals from eroding and to minimize other water damage. Although occurring during a time of struggle, the Gothic era depicts the progression of France throughout this time. The advancements and stylistic techniques that were created continued throughout much of France's history and even spilled into English regions. Considering many of the cathedrals of this time have remained in decent condition even 800 years later, it is safe to say that Gothic style has passed the test of time.