

What is a ‘Gothic’ acoustic?

By Benjamin Bagby (Paris)

Each of the many different repertoires of medieval sacred music was intended for a particular resonating space in which music, voice and acoustics work together in a unique and harmonious synergy. From our perspective, almost 900 years removed from our distant musical ancestors, we tend to think today in terms of a generalized ‘medieval’ church acoustic, when in fact these spaces were created in a wide variety of forms and dimensions, highly differentiated, reflecting local and regional styles. Similarly, in the Middle Ages there was no such thing as ‘medieval music’ and there was never a singer who thought of himself as singing early music in a historical acoustical space.

Sacred spaces do not resonate alone — they respond to the voices within them, and in the Middle Ages these would have been both site-specific and varied: voices of an entire monastic community (men or women, but never both together), voices of canons, voices of highly-trained cantorial soloists or the *schola cantorum*, and voices of boys. Each of these vocal configurations and registers resonates within a given space in a different way. The sound of today’s ubiquitous mixed-gender choir was unknown, and the sound of women’s voices was only heard in an all-female monastic context.

For example: when we speak of a ‘Gothic’ acoustical space, we automatically fall under the shadow of prejudices and expectations which we have inherited not from the Middle Ages but from the intervening centuries. The Gothic cathedral, especially in its 19th and 20th century manifestation, is a clean and soaring space, a vast, light-filled and resonant cavern. And in my own experience as a vocalist, the performance of 13th century sacred music, especially polyphony, in such a space has almost always been a challenge and sometimes a source of frustration. In the great cathedrals such as the Kölner Dom or Notre Dame de Paris, the singers of my ensemble and others have often felt lost, miniaturized, disconnected and ineffectual in concert, almost as if we were not able to make the space resonate properly. Why did we — living in Köln and therefore used to singing in the more intimate acoustics of the city’s twelve Romanesque churches — feel like fish out of water in the iconic space of the Kölner Dom? What has happened to make ‘Gothic’ music sound so lost and muddled in a ‘Gothic’ acoustic?

In the late 12th and 13th centuries, when great cathedrals were being built all over Europe, they were not the vast Gothic monuments we know today, but rather modern works-in-progress, multi-generational construction sites in which the only musical utterance was vocal (no large organs were in use at that time). They were filled not only with the everyday comings and goings of the clergy and the faithful, but also with a mix of working artisans and clerics celebrating the liturgy: the sounds of hammering, hauling, of masons shouting orders and warnings, merged with the sounds of preaching and chanting, with processions glimpsed through clouds of dust. How did 13th century music sound in this 13th century context?

To give one famous example which will serve for many: when the art of liturgical polyphony (*organum duplum* of Magister Leoninus and later *organum triplum* and *quadruplum* of Perotinus) was being developed in Notre Dame de Paris, in the period between the dedication of the high altar in 1182 and the end of the main work on the nave in ca. 1230, the singing of this virtuoso polyphonic music took place largely in the isolation of the newly-finished choir, surrounded by stone walls, and behind a high stone rood screen. The nearby nave was without a roof and the

previous, much smaller church of Notre Dame was being slowly dismantled as the new cathedral was built around it. The new structure was literally ingesting the old one in a slow, stone-by-stone recycling process, a chaotic scene which continued for many decades. But the acoustical properties of the sacred space in the finished choir were very specific at that time, and specific for that music, quite unlike those we know today. As the musicologist Craig Wright describes it:

Today a visitor to a Gothic cathedral such as Notre Dame is accustomed to seeing vast expanses of bare, stone walls around which musical sound can endlessly swirl and rebound. The open choir and the unadorned walls allow sound to travel long distances without impediment and to reflect back with a relatively low loss of intensity. The long reverberation time which results can cause the ‘muddled’ sound usually associated with such churches. But the final architectural form of Notre Dame of Paris took shape in the 17th and 18th centuries, when the medieval choir walls were dismantled, the sanctuary rebuilt, the stained glass windows removed and replaced with clear glass to conform with the aesthetic tenets of the Enlightenment. Accordingly, the present acoustical properties of the church are not the same as those that obtained in the Middle Ages. Not only did the medieval cathedral have a full enclosure around the chancel and sanctuary, but the Parisian clergy of the earlier period furnished their church, especially in the area of the choir, with curtains, tapestries, tents, rugs, banners and paintings, and these materials affected the way in which sound was transferred and perceived.

Craig Wright, *Music and Ceremony at Notre Dame of Paris, 500-1550* (Cambridge University Press, 1989), p.13.

Today, like almost all cathedrals, the choir of Notre-Dame is an open space, fully visible from the nave, the rood screen replaced by a simple railing and the post-Vatican-II altar on a large raised area in the transept. This newly-created liturgical and performance space, where music was rarely sung in the Middle Ages, now serves as a podium not only for the liturgy but for countless concerts of church music, including the organum of Leoninus and Perotinus. In the 13th century the soloists in the enclosed choir were always men — usually very young men, the so-called *machicoti* — offering up their voices to heaven in the presence of the canons and other clerics, and also boys; they were distantly heard (but not seen) by the faithful standing or kneeling in the cathedral. In our time, the demands of the daily liturgy and the conventions of 21st century concert life dictate the placement of the singers — often women as well as men — in the transept, fully visible in front of a seated audience. The proscenium format of the modern church has become a kind of concert stage in an open space, but that space is generally not ideal for singing medieval music — it is diffuse and ‘muddled’. We have traded the more intimate acoustics — and the mystery — of the hidden medieval choir for the openness and visibility expected by today’s listeners. Yes, the ‘Gothic Cathedral’ is an impressive historical performance space, but it is no longer a medieval acoustical space which serves the music to which it gave birth.

This article was written for publication in *Musica Sacra* (D) and will appear in a German translation in winter, 2013.