Létourneau Pipe Organs, Saint-Hyacinthe, Quebec, Canada
Opus 118 (2010)
The Cathedral of Christ the Light, Oakland, California

From the director of music and organist

In July 2009 I was appointed director of music and organist for the Cathedral of Christ the Light, well after the cathedral was built and the organbuilder had been selected. Unlike similar organ projects, I could not take credit for the new instrument. However, even in the early stages of the design of the cathedral, the pipe organ formed an integral part of the building's design. The cathedral's architect, Craig Hartman, was extensively involved in the design of the pipe façades and the organ console, so that they complement the overall design of the cathedral.

At the time when it became clear that Oakland would be home to a great cathedral, Daniel Whalen and his wife, Katharine Conroy Whalen, thought of her mother, Gerry Conroy. The Whalens soon made the decision to give a custom-made pipe organ in her memory and, as such, all funding for the Conroy Memorial Organ came from the gift of Daniel and Katherine Conroy Whalen.

The organ committee did extensive research and visited several instruments by several different builders before the decision was made to commission an instrument from Létourneau. Because of the layout of the cathedral, it was apparent from the project's inception that a tracker instrument was impossible and that electric action would be necessary. The organ needed to serve both as a liturgical instrument and as a concert instrument. It needed to be capable of accompanying choral repertoire and congregational singing, providing processional fanfares, and playing a variety of organ literature in both liturgical and concert settings.

The instrument has been a great success, serving the Diocese of Oakland and the cathedral parish well in liturgical settings, as well as making the cathedral a sought-after venue for organ and choir concerts.

—*Dr. Rudy de Vos*

From the builder

Létourneau pipe organs are custom-built for their surroundings, and we strive for a good fit, both architecturally and tonally. From time to time, we are privileged to work in some exceptional surroundings. We knew this to be the case from our first contact with the Cathedral of Christ the Light in the spring of 2006. Though the cathedral existed only as a design on paper at that time, the clarity of the worship space's towering architecture was as striking as the use of sunlight filtering through the ceiling's central oculus, and the hundreds of wooden louvers making up the sides of the worship space.

Also striking were the locations set aside for a pipe organ in the architectural plans. Large canopies on either side of the cathedral's central omega window were designed to display a significant instrument, while a discreet organ chamber was provided behind the seating area for the cathedral choir. The lateral and vertical distances between these three locations presented a number of intriguing possibilities but also a number of challenges.

Having agreed to work closely with the cathedral's architect, Craig Hartman of Skidmore, Owings & Merrill, we developed the organ's visual design through a process of discussion, collaboration, and at times, mutual compromise. From the outset, Mr. Hartman wanted the organ's visual aspect to leave an organic impression (no pun intended), with organ pipes arrayed unpredictably, as one might find with trees in a forest or tufts of wild grass. The great majority of the organ's façade pipes were accordingly constructed from clear Douglas fir to match the surrounding ribs and louvers.

The organ and its canopies frame the cathedral's omega window; the image of Christ is made up of perforations in triangular aluminum panels.

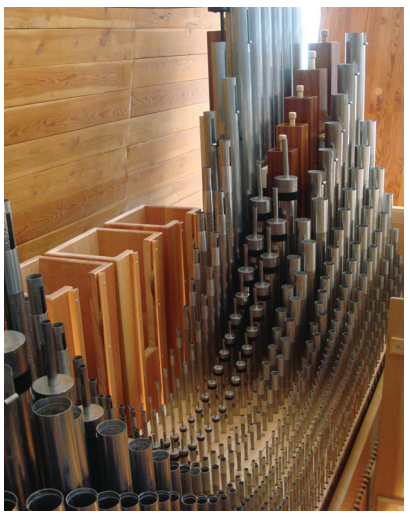
The curvaceous console controls seven divisions and 90 ranks via 157 drawknobs and 30 tilting tablets.

The console's four manuals have bone overlays for the natural keys, with the accidentals in solid ebony. The pedalboard notes are made from maple, with ebony caps for the accidentals.

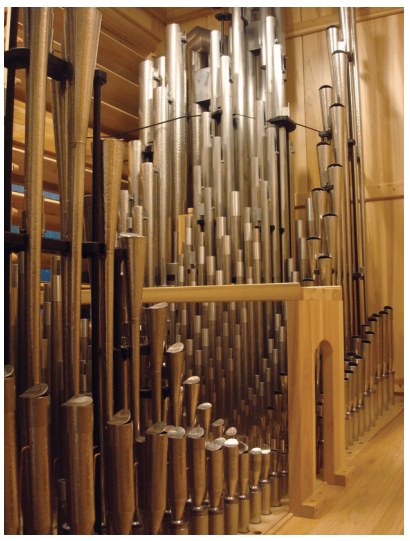
Special narrow scales were developed to provide the wooden basses for the Great and Bombarde 16′ principal ranks, while the Pedal 32′-16′-8′ Contra Bourdon and 16′ Open Wood are more typical, with generous cross-sections. All wooden façade pipes were constructed with wooden skirts to conceal the pipe foot, providing a uniform appearance from top to bottom.

Likewise, the 32′-16′ Trombone and 16′ Bombarde stops were provided with full-length wooden resonators in the bass octaves and appear to sprout up through the organ façades. The number of tin pipes in the façades was carefully limited, while a unique finish was developed to ensure the metal did not appear overly brilliant relative to the surrounding surfaces.

Oakland's previous cathedral, the Cathedral of St. Francis de Sales, was heavily damaged in the 1989 Loma Prieta earthquake and was eventually condemned. The new cathedral's structure



The Great division, with the tops of the wooden 32′ Trombone resonators behind



The Echo Choir division

was consequently designed to absorb large seismic shocks; the entire building sits on isolator pads to resist oscillations in the event of an earthquake. The organ, too, was built to a rigorous standard for seismic reasons. The visible portions of the instrument are built around substantial steel frames, which are anchored to the platform of each canopy. The irregular arrangement of the façade pipes ruled out the usual linear pipe racking, and instead, most pipes are supported independently from behind by steel rods.

The main level of the cathedral has a substantial climate control system inconspicuously built into the nave floor. The system can heat or cool the ambient air to a height of approximately 15 feet above the floor. Being built into the reliquary wall, the organ chamber is likewise controlled for temperature. However, the immense volume of air above this 15-foot height has no climate control at all, and air temperatures can vary greatly depending on internal and external conditions. This is to say that temperatures on the two organ canopies would vary unpredictably from the organ chamber below but could also diverge between the two sides of the building.

Given the disastrous implications this would have on tuning, it was nonetheless with some reservations that we agreed that some form of climate control had to be provided for the organ canopies themselves. After many meetings and discussions, a system was put into place; it is comprehensive and self-regulating. Each organ canopy has its own microclimate control system capable of providing heat or cool air as required. A total of eight sensors per canopy monitor temperatures from strategic locations, and treated air is then directed as needed to twelve diffusers per side. From the outset, it was understood that the system could not provide absolute temperature stability, but would minimize temperature variations among the organ's divisions as much as possible, ensuring the instrument is broadly useable.