

## CATHEDRAL OF ST. PAUL

ST. PAUL, MINNESOTA

QUIMBY PIPE ORGANS INC. ♦ WARRENSBURG, MISSOURI

BY T. DANIEL HANCOCK

**T**HE CATHEDRAL OF ST. PAUL in St. Paul, Minnesota, is a striking study in early 20th-century French Classicism. Constructed from 1906 to 1915 in the best of the Beaux-Arts tradition, the building is sited atop Cathedral Hill, a commanding point overlooking the Mississippi River, where its dome, together with the nearby state capitol dome, constitute two of the most recognizable icons in the St. Paul skyline. The structure is the magnum opus of French-American architect Emmanuel Louis Masqueray (1861–1917), who was also chief of design for the Louisiana Purchase Exposition held in St. Louis in 1904. In addition to its status as Co-Cathedral for the Archdiocese of St. Paul and Minneapolis, the cathedral is also the National Shrine of the Apostle Paul. Despite this designation and the building's liturgical and artistic significance, the cathedral has never had an organ equal to its status nor to match the vast size of the inte-

rior, which has one of the largest cathedral seating capacities in the United States.

In 1927, Ernest M. Skinner completed the installation of Opus 518, a modest instrument of three manuals and 30 ranks, situated behind the high altar above the sacristy. While representative of the work of one of the foremost organbuilders of the day, and artistically distinct in its own right, this organ was designed primarily for liturgical accompaniment of a subdued nature.

In a matter of decades, the Skinner organ was joined by a medium-sized gallery instrument, completed by the Aeolian-Skinner Organ Company in 1963. Opus 1398 is comprised of three manuals and 42 ranks, and was located in “temporary” semi-symmetrical cases flanking an immense rose window. Installed during the advent of the Second Vatican Council, the instrument was intended to expand the tonal palette and resources of the Skinner organ accord-

ing to more recent tonal ideals developed by Aeolian-Skinner. The Swell Mixture V of the Skinner organ was revised by Aeolian-Skinner at this time, in an effort to make the two instruments more compatible. The sanctuary organ was made playable from the new gallery console, and the gallery organ was playable from the 1927 sanctuary console via blind pistons.

The scaling of the Aeolian-Skinner was quite ordinary, with the chorus work being typical of the builder's approach for a much smaller space. During tonal finishing on site, the voicing of the mixtures was increased in proportion to the whole in an attempt to help fill the vast space of the cathedral. In some ways, it succeeded in this regard. Over time, however, the combined instrument proved to be harsh and tiring to the ear for any duration, coupled with an evident lack of tonal variety. In addition, as the reforms of the Second Vatican Council filtered into mainstream ecclesiastical practice, the role of the organ broadened from "a more subservient liturgical accompaniment" to "a leader and animator of the singing of the assembly." In this expanded role, the combined organs proved unable to support a capacity congregation in the singing of hymns.

Even though the combined instruments were modest in size relative to the volume of the cathedral, they nevertheless deservedly gained a reputation as distinctive examples of the work of two of the most notable 20th-century organbuilders, due to the reverberant and flattering cathedral acoustics. When the time came for the cathedral to consider how to address aging mechanisms and limited tonal capabilities, a consensus emerged that the instruments should be expanded while also protecting their characteristic identities. Quimby Pipe Organs was ultimately selected to do this work because of the firm's extensive expertise in working with Skinner and Aeolian-Skinner pipe organs.

The work on Skinner Opus 518 included reversing the Swell Mixture V changes made in 1963 by Aeolian-Skinner; the new mixture is based on the Willis model that Skinner originally used. The remainder of the pipework was fully restored and returned to its location on its original windchests behind a decorative wooden grille at the rear of the sanctuary apse behind the high altar. The only addition to the specification was the extension of the Swell 16' Fagotto in order to allow it to play at both 16' and 8' pitch in the Pedal. According to Michael Quimby, "If Mr. Skinner were to hear this organ today, he would immediately recognize that this was one of his creations."

The work on Aeolian-Skinner Opus 1398 was more extensive. Models for expansion and tonal work were Quimby's restoration of Aeolian-Skinner Opus 150A (1954) at the Cathedral of St. John the Divine in New York City, and its complete mechanical restoration and significant



*Above:* detail of carved angel atop gallery organ casework; *opposite page:* new gallery casework surrounding the rose window at west end of cathedral

tonal refinishing of Aeolian-Skinner Opus 1309 (1959) in the Community of Christ Auditorium in Independence, Missouri.

One of the most distinctive additions is of a fourth manual division, the Bombarde, which is comprised of new flues and reeds in period Aeolian-Skinner style. The Bombarde principal chorus is a commanding ensemble that supersedes the Great principal chorus and is based on the Great choruses at St. John the Divine and the Independence, Missouri Auditorium. The Mixture V–VII has three drawknobs; one for the five-rank composition, and two others that successively add the 17th and flat 21st harmonics. Two new cho-

rus reeds, the 16'–8' Trompette harmonique and the 4' Clarion harmonique add distinctive fire to the ensemble, while at the same time becoming cohesive members of the ensemble.

The crowning glory of the Bombarde division, and indeed of the entire organ, is the 8' Pontifical Trompette, which is playable from each of the Bombarde, Swell, and Pedal divisions. When drawn in any of these divisions, any other stops drawn with it are canceled within the division, but may be still coupled to other divisions. The Pontifical Trompette does not couple. It is voiced on 30" of wind pressure and is a synthesis of two noteworthy stops from the Skinner tradition: Mr. Skinner's 1910 Tuba Mirabilis and the later 1954 Aeolian-Skinner State Trumpet, both at the Cathedral of St. John the Divine. It is a commanding solo voice that can stand above the full organ of both instruments combined.

The composition of the other manual divisions remain largely as Aeolian-Skinner left them in 1963, but with revoicing and rescaling as appropriate to achieve optimum tone production while removing any sense of forced speech or harshness.

Additions to the Great include an extension of the 16' Violone to play at 8' pitch and the addition of an independent 1<sup>3</sup>/<sub>5</sub>' Seventeenth. The Swell 4' Spitz Principal was relocated to the Choir, where it replaced a 4' Fugara. A 4' Octave from a period Aeolian-Skinner organ was placed in the Swell. The Choir 8' metal Gedeckt (named "Flute ouverte") was replaced by an Aeolian-Skinner wood Gedeckt of larger scale, and the Choir 8' Spitz Gedeckt and 8' Spitz Gamba were replaced by a vintage Aeolian-Skinner Viola Pomposa and Celeste. A new Mixture III was added to complete the chorus, and a new 8' English Horn was added to provide another solo reed color.

The Pedal division was augmented through the extension of the new Choir Viola Pomposa down to 16' pitch with new full-length pipes, which replaced a 1963 extension of the Choir 8' Spitz Gedeckt as a 16' Quintaten. In addition, a 4' Nachthorn and Mixture IV were added, along with extensions of other manual stops. The most



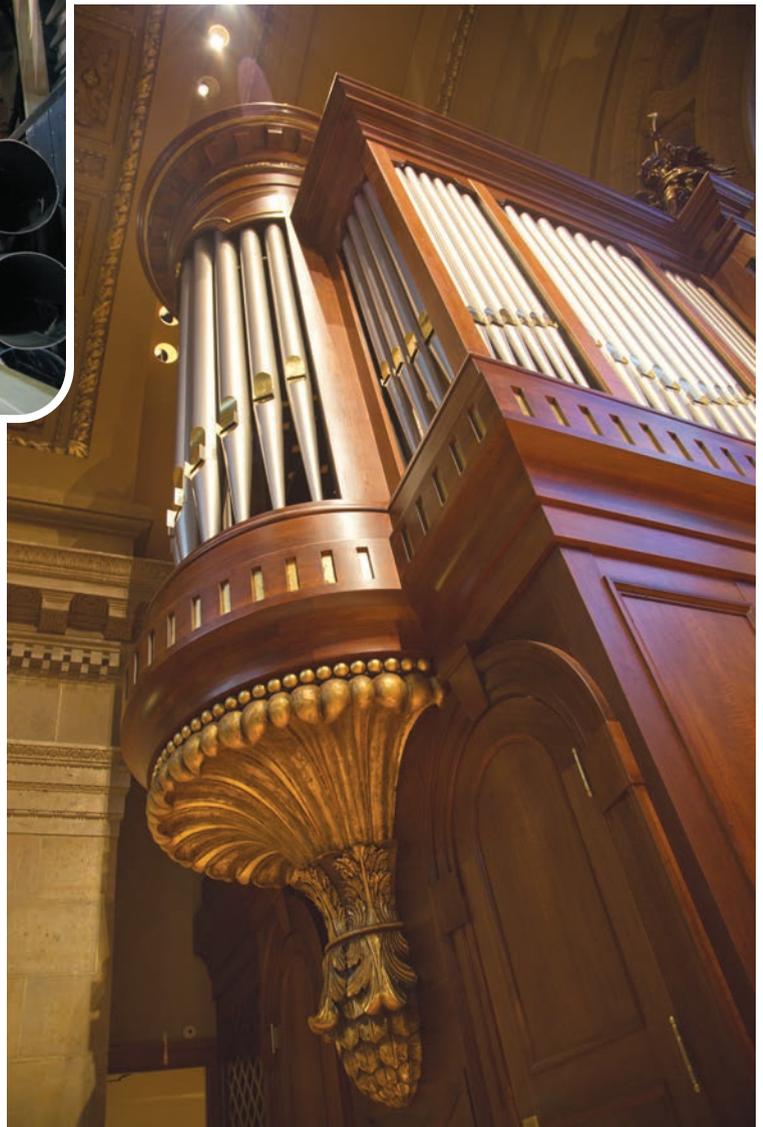
The view looking down into the Great and Bombarde divisions in the gallery organ

telling addition to the Pedal is the extension of the 1963 Aeolian-Skinner 16'-8" Bombarde, which is now extended full-length to 32' pitch.

The windchests, reservoirs, and other mechanical components of the 1963 Aeolian-Skinner were completely re-leathered and restored to like-new conditions. The new Bombarde division was placed on new electropneumatic pitman and unit windchests in the Aeolian-Skinner style.

The "temporary" facades of the 1963 Aeolian-Skinner gallery organ were removed, and a new facade and casework were designed by Duncan G. Stroik, professor of architecture at the University of Notre Dame. Stroik's inspiration for the new facade and casework was a drawing by Masqueray for a gallery instrument that was never realized. The drawing was used as a point of departure, rather than a final design, as it would have placed the bulk of the gallery organ case where it would obscure the rose window. Instead, Stroik adroitly manipulated the formal geometry so that the spirit of the Masqueray case design was discernible while also ensuring that the visibility of the window was maintained. The case was produced by Agrell Architectural Woodworking in walnut with gilded accents, and features two angel figurines and bell-shaped domes atop 35' cylindrical towers. A carved statue of St. Cecilia is positioned on a smaller dome in the center of the case.

Quimby constructed two new identical, movable four-manual consoles able to control the full tonal resources of both organs. Their unique configuration as two fully operational and independent "master" consoles was made possible by Integrated Organ Technologies Inc. (IOTI), who also designed and installed the solid-state switching and control systems. This has never before been achieved, as all other dual console installations operate conjointly in a "master-slave" configuration, rather than the "master-master" attained at St. Paul. IOTI also provided the relay and combination action and piston sequencer; the latter has an unlimited number of memory levels. IOTI founder and president Dwight Jones provided exemplary support and



Detail of new gallery casework

proved to be an invaluable resource throughout the project—especially during installation, when he was frequently on site to assist.

Quimby hallmarks for both new and rebuilt instruments, regardless of the tonal concept, are evident in the work at the Cathedral of St. Paul: commanding principal choruses that are clear and transparent, tonal colors that are beautiful individualists and yet versatile ensemble players, chorus and color reeds built or revoiced in Quimby's shop that exhibit distinction in voicing and tuning stability, and a responsive and reliable action. All of these stem from a great sensitivity to the lessons that are to be learned from the work of our predecessors, and a willingness to always be observing and learning.

Quimby Pipe Organs thanks the Rev. John L. Ubel, rector, and the cathedral clergy, staff, and volunteers for their roles in enabling the project to completion. The first public recital was on October 24, 2013, when Olivier Latry, organist at Notre-Dame in Paris, France, presented a program of French music to a standing-room-only audience of more than 3,000 persons. Since then, an Inaugural Year

## Cathedral of St. Paul • St. Paul, Minnesota

QUIMBY PIPE ORGANS INC.

### OPUS 69 (2013)

#### GALLERY

Aeolian-Skinner Opus 1398  
(rebuild and enlargement)

#### II. GREAT

16 Violone  
8 Principal  
8 Violone (ext.)  
8 Bourdon  
8 Spitz Flute  
4 Octave  
4 Koppel Flute  
2<sup>2</sup>/<sub>3</sub> Twelfth  
2 Fifteenth  
1<sup>3</sup>/<sub>5</sub> Seventeenth  
Mixture III-IV  
8 Bombarde (Ped.)  
8 Cromorne (Ch.)  
Zimbelstern

#### III. SWELL

16 Rohr Bordun (ext.)  
8 Geigen Principal  
8 Rohr Flute  
8 Viola da Gamba  
8 Voix céleste  
4 Octave  
4 Flauto Traverso  
2 Spindle Flute  
2 Plein Jeu IV  
16 Hautbois (ext.)  
8 Trompette  
8 Hautbois  
4 Clarion  
Tremulant  
Pontifical Trompette  
(Bomb.)

#### I. CHOIR

16 Viola Pomposa (ext.)  
8 Gedeckt  
8 Viola Pomposa  
8 Viola Pomposa Celeste  
8 Erzähler  
8 Erzähler Celeste  
4 Spitz Principal  
4 Block Flute  
2<sup>2</sup>/<sub>3</sub> Nazard  
2 Zauber Flute  
1<sup>3</sup>/<sub>5</sub> Tierce  
1<sup>1</sup>/<sub>3</sub> Mixture III  
8 Cromorne  
8 English Horn (TC)  
Tremulant

#### IV. BOMBARDE

16 Violone (Gt.)  
8 Open Diapason  
8 Flûte harmonique  
4 Octave  
2<sup>2</sup>/<sub>3</sub> Quint  
2 Super Octave  
2<sup>2</sup>/<sub>3</sub> Mixture V  
2<sup>2</sup>/<sub>3</sub> Tierce Mixture VI  
2<sup>2</sup>/<sub>3</sub> Harmonics Mixture VII  
16 Trompette harmonique  
(ext.)  
8 Trompette harmonique  
8 Hautbois (Sw.)  
4 Clarion harmonique  
8 Pontifical Trompette

#### PEDAL

32 Bourdon  
16 Principal  
16 Violone (Gt.)  
16 Bourdon (ext.)

16 Viola Pomposa (Ch.)  
16 Rohr Bordun (Sw.)  
8 Octave  
8 Violone (Gt.)  
8 Bourdon (ext.)  
8 Rohr Flute (Sw.)  
4 Choral Bass (ext.)  
4 Harmonic Flute (Bomb.)  
4 Nachthorn  
Pedal Mixture IV  
32 Contre Bombarde  
16 Bombarde (ext.)  
16 Trompette harmonique  
(Bomb.)  
16 Hautbois (Sw.)  
8 Bombarde (ext.)  
8 Trompette harmonique  
(Bomb.)  
8 Hautbois (Sw.)  
4 Bombarde (ext.)  
4 Hautbois (Sw.)  
8 Pontifical Trompette  
(Bomb.)

#### SANCTUARY

E.M. Skinner Opus 518  
(tonal restoration)

#### II. GREAT

8 Diapason  
8 Wald Flute  
8 Gemshorn  
4 Octave  
4 Flute  
2 Fifteenth

#### III. SWELL

16 Bourdon  
8 Diapason

8 Gedeckt  
8 Salicional  
8 Voix céleste  
8 Flauto Dolce  
8 Flute Celeste  
4 Octave  
4 Flûte triangulaire  
Mixture V  
16 Fagotto  
8 Cornopean  
8 Oboe  
Tremulant

#### I. CHOIR

8 Concert Flute  
8 Dulciana  
4 Harmonic Flute  
2<sup>2</sup>/<sub>3</sub> Nazard  
2 Piccolo  
8 Clarinet  
Tremulant  
Chimes

#### PEDAL

32 Resultant (ext.)  
16 Open Diapason  
16 Echo Lieblich (Sw.)  
8 Octave (ext.)  
8 Gedeckt (Sw.)  
16 Fagotto (Sw.)  
8 Fagotto  
Echo Chimes

Full complement of intra- and  
intermanual couplers  
Virtuoso control system  
by Integrated Organ  
Technology Inc.  
Standard accessories

of Organ Concerts has been sponsored by the Cathedral Heritage Foundation.

Here, the sum total of the whole is greater than the constituent parts. Both the 1927 Skinner and the 1963 Aeolian-Skinner remain intact as recognizable identities; but, together with carefully conceived additions, they provide a diverse tonal palette suitable for numerous registration approaches that is emotive and majestic in full expression. The augmented gallery organ adequately fills the acoustically reverberant space with rich, well-grounded foundation tone, and the transparent, balanced choruses have the breadth required to support corporate singing for capacity crowds at Pontifical events. The sanctuary organ can serve

in a similar capacity for smaller functions and maintains its original role as accompanist to the liturgy. Both organs present appropriate yet diverse vehicles for the convincing performance of many schools of organ repertoire and promise to be inspiring catalysts for new compositional work to come. The identity of both instruments as the work of distinctive 20th-century American organbuilders is maintained, and they work in tandem to produce musical effects that are entirely equal to the environment in which they are situated.

---

**T. Daniel Hancock**, a licensed architect and member of the American Institute of Architects, is vice president of Quimby Pipe Organs Inc.