

# THE AMERICAN ORGANIST

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# COVER FEATURE

## ST. PAUL'S EPISCOPAL CHURCH

### INDIANAPOLIS, INDIANA

#### CASAVANT FRÈRES

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#### From the Organbuilder

Visitors to St. Paul's are likely to encounter considerable activity any day of the week, much of which involves the church's music program. Music has always played an important part in the life of the parish and its outreach to the community. Today this is evident in the large number of participants in the intergenerational choral program, known for its excellence well beyond the parish. The combination of children, youth, and adults engaged in the program provides an opportunity for fellowship that builds relationships among singers of all ages. In addition to leading worship each week, participants in the St. Paul's Choir School sing Evensong once a month and perform choral concerts with orchestra each year. The group makes recordings and tours regularly, including trips to England where they have served as choirs in residence at a number of well-known cathedrals.

The music program, which is associated with the Royal School of Church Music, includes personal instruction in the basic elements of music and liturgy along with active participation in the traditions and worship of the Episcopal Church. Continuing its commitment to music and music education, the church recently established a choral scholar program that underwrites lessons for worthy youngsters who exhibit a commitment to the choir program.

The parish actively supports excellence in music and the celebration of the liturgy not only as a way to uplift those who worship, but also as an extension of the church's presence in the spiritual life of the community. An annual concert series, Concerts at St. Paul's, is designed to enrich the cultural life of the parish and community through programs performed by professional musicians from around the world. St. Paul's is also home to the Indianapolis Pro Musica, a group of highly trained singers that presents choral masterworks with an emphasis on a cappella music.

From our first visits to St. Paul's through the celebration of the opening of the renovated church and first use of the organ, we continue to be impressed by the extraordinarily fine musical offerings and the large number of participants in the program. At St. Paul's, music and liturgy are celebrated, enjoyed, and appreciated by the parish and community.

St. Paul's dates to 1866, when 60 members from Christ Church broke away to form a new congregation in downtown Indianapolis. Within two years, they had grown sufficiently to build a cathedral-like Gothic church that was the largest in the diocese. In 1875, the Diocese of Indiana became the first in the United States to inaugurate a cathedral system when St. Paul's was consecrated as a cathedral. St. Paul's remained the cathedral until 1885, when church leaders petitioned to be released from the 1875 agreement. St. Paul's continued to serve its downtown location for almost 70 years; however, by the late 1930s, with the congregation dwindling as the inner city decayed, the parish decided

to move north on Meridian Street to an area then considered to be in the country. The parish completed its present church in 1947. This structure served well until recent years when a larger church for worship and additional space for its programs were desired.

#### The Renovation Project

Like many churches that add to their facilities over a period of time, subsequent additions sometimes address current needs without necessarily taking long-term implications into account. Looking at the big picture can be daunting and expensive, but also extremely rewarding, as is the case with this project. The main entrance into St. Paul's faced south and was rarely used because, over the years, educational classrooms, office facilities, and parking were developed on the north end of the property. A complicating factor included a street that divided the property and separated the church from the parish house. Fortunately, the church was successful in petitioning the city to close the street, allowing the campus to be unified and the buildings connected. The need to increase space for seating a large congregation coupled with solving the orientation of the nave in relationship to the rest of the facilities led the architects to suggest turning the nave 180 degrees. In doing so, the entrance to the nave has become welcoming, handicap accessible, and more convenient to the whole campus while providing an inspiring and dramatic entrance to the worship space. The organ committee's recommendation to move out of the former chancel with its divided choir stalls and organ placement in side chambers has given way to locating the instrument and musical ensembles on the central axis. The new chancel is sufficient in size to house the church's large choral groups, and to provide additional space for an orchestra. Virtually all of the chancel furniture is movable, which allows flexibility in settings for worship and other presentations.

The former chancel has been transformed into the new primary entrance to the church. While this area opens directly into the spacious nave through the imposing former chancel arch, the space itself retains an intimate feeling, making it ideal for small gatherings for worship, weddings and funerals. Chairs provide flexibility for seating, and the nave organ, with its own two-manual movable console, is used for services and intimate concerts. While a second organ in a church sometimes seems extravagant, in this building having an organ at the back of the elongated nave was considered essential from the inception of the design. The length of the nave increased by almost 50 feet and, while impressive in appearance, presented challenges to supporting congregational singing from an organ at the opposite end of the space. Pushing the sound of the main instrument in order to traverse the long nave was never considered a viable musical option. The nave organ is an important component of the "whole," not only to support congregational singing but also to unify the pulse of hymns sung in procession.

Church musicians and clergy know all too well how difficult it is to propose changes in worship practices or facilities, and this project involved many. Everyone understood the importance of having the organ and choir on the central axis from an acoustic standpoint, but many voiced their concern about the visual impact of the organ and singers ostensibly competing for attention with the liturgy. Much discussion transpired during design meetings, but, with patient and careful explanations from the architects and liturgical consultant, the work moved forward. The design team's choice of scale for the chancel furnishings, use of color, and effective lighting made the initial concerns about perceived distraction by the choristers and organ disappear once parishioners saw the realization.

#### The Organ

The main organ at the front of the chancel is housed in Gothic-style quarter-sawn oak casework that was designed by Casavant's Benoît Gendron and built in the Casavant workshop. The unenclosed divisions occupy the forward position in the instrument, with the Great organ above the impost immediately behind the facade. The Pedal is divided on each side of the Great. The polished tin facade is taken from the Great and Pedal 16' and 18' principals. All of the principal stops of the Great, Choir, and Pedal, as well as the Solo Harmonic Flute 8', are made of 70% tin alloy. The remainder of the metal pipes, including the Swell principal chorus, flutes, and reed resonators are made from spotted metal with the exception of the 16' reed in the Pedal division, which has wood resonators.

The principal goals of the tonal design were to provide variety in color and create a singing tone in all registers. The organ's character is decidedly orchestral in the manner in which its rich, full ensemble and presence is achieved largely by the foundations. Keeping clarity in every register was equally important, to the point that the bass remains clear even when playing full chords with all foundations.

The Great is based upon a 16' principal plenum, which is essential for an instrument in a large space. The chorus is capped by two mixtures and includes the Twelfth 2 $\frac{1}{2}$ ', which led to the addition of the Seventeenth 1 $\frac{1}{2}$ ' in order to provide a bold principal-scaled Sesquialtera II. Flutes at 8' and 4' pitch plus reeds at 16' and 8' pitch complete this twelve-stop division. The Great reeds, which are built with slightly tapered shallots, provide a solid presence and a warm, dark tone that contrasts with the Swell reeds.

A solid grounding of the instrument is provided by the 32' and 16' Pedal stops, including two full-length open flues—the wood Contrabass 16' and metal Diapason 16'. The stopped Sub Bass 16' and duplexing of the manual 16' stops to the Pedal provide considerable flexibility in registering the softest célestes through moderate combinations to full organ. The Pedal also has independent flues at 8' and 4' pitch as well as the customary reed chorus.

The three expressive divisions are located immediately behind the Great and Pedal in concrete walled enclosures. Extra thick shutters with gasket seals provide very effective expression from closed to fully open at 90 degrees. This latitude of control is especially effective for the Tuba Mirabilis, which is on 22 inches of wind. For the best projection of sound of the instrument, as well as the comfort of individuals near the organ, all of the windchests of the manual divisions and pedal trebles are situated well above the heads of the choristers in the chancel.

Both the Swell and Choir divisions have plena based upon 8' principals. The Swell chorus has two mixtures at 2' pitch. The smaller and softer Mixture III, which is intended for use with smaller ensembles, is especially useful in choral accompaniment, while the Plein Jeu III-V is scaled and voiced for use with the full ensemble. The division contains strings starting with the Gambe 16'. For the occasional indulgence that organists sometimes are reluctant to admit using, the strings and celestes are available at 16', 8', and 4' pitch. An added bonus of this admittedly non-traditional unification is the way the Violina 4' has become useful to bridge the registration space between the Harmonic Flute 4' and Principal 4'. The Swell includes an Oboe 8' and the requisite full chorus, the foundation of which is a Waldhorn 16' that fits well under the Bertounèche Trumpet 8' and Clairon 4'. The Vox Humana 8' is enclosed in a second enclosure that has four levels of expression controlled from the console.

The Choir division has a complete diapason chorus and a lovely Cornopean 8'. The flutes and mutations of this division form a *cornet décomposé* including the Larigot 1½'. In this instrument we decided to place the Clarinet in the Choir and house the Cromorne in the Solo to permit dialogues between the classical cylindrical reed and the cornet. The Choir and Swell divisions each house the instrument's softest stops and their corresponding célestes.

The Solo division is home to a large-scale Harmonic Flute 8', a Gamba 8', and Céleste 8', as well as a number of solo color reeds—the English Horn 8', French Horn 8', Cromorne 8', and a Tuba Mirabilis playable at 16', 8', and 4' pitch. For purely orchestral effects, the chorus of Swell strings and celestes at three pitch levels plus strings from the Nave Organ are playable from the fourth manual. The division's unenclosed floating Festival Trumpet, built with closed Cavaillé-Coll shallots, sits in a commanding position at the top of the casework just below the rose window, where its hooded resonators focus the stop's colorful and powerful sound over the heads of the congregants.

The organ's wind system consists of large reservoirs. Lead weights are used to set the pressure with concussion bellows used where needed to assure a steady supply of wind. The resulting sound has a subtle flexibility that enhances the instrument's intrinsic musical qualities. Tremulants are the *à vent perdu* type developed by the Casavant brothers at the turn of the 20th century that work effectively with large reservoirs to produce an excellent musical effect in small and large registrations.

The main organ is controlled by a movable four-manual drawknob console with a quarter-sawn oak Gothic-style case. The console interior, with mahogany terraces and white-faced drawknobs set at an angle to provide optimum readability by the organist, is based on early 20th-century consoles built by the Casavant brothers. The console has a full complement of unison, sub, and super couplers, plus the necessary accessories to control the main instrument and antiphonal organ.

The design concept for the nave organ is basically a fully developed single-manual organ controlled from a two-manual movable console. The large single division assures the fullness, power, and rich ensemble needed to support singing in the very long nave, while the stop distribution gives flexibility to perform literature on this division alone or in dialogue with the main organ. Access to the main console's combination action from

the nave console allows the main organ to be played from this console.

This has been an extremely exciting project not only because of the reputation and scope of the music ministry at St. Paul's, but also because of the appreciation and support shown by the parish. Knowing that the organ will become a major tool in the church's vibrant ministry became the inspiration for its design, building, and finishing. Our expectations for a glorious service of dedication have been fulfilled, and the knowledge that the work of our hands will continue to play an important role in this congregation's program is truly a source of pride. It has been a pleasure and an honor to serve St. Paul's Episcopal Church.

SYLVAIN VACHON  
JACQUELIN ROCHETTE  
SIMON COUTURE  
STANLEY SCHEER

### From the Church Musicians

In June 2003, an organ committee was appointed and given the charge to evaluate our 1950-era Möller and present a feasibility study to the vestry. We hired a consultant, John Schwandt, to report on the present condition of the organ and its placement. It was determined not only that the Möller's failure was imminent but that the organ's placement in chambers on the sides of the chancel was a great detriment to its sound. It was recommended that a new organ be placed on the central axis of the building.

As the vestry accepted the recommendation to place the organ on the central axis, the church leadership began to think creatively about the room's architectural design. It became clear that the 1947 building, with furniture dating to the 1800s, needed to be updated to be more hospitable and handicap accessible. Following much study, the architectural committee recommended that the church be "turned around" with the original collegiate-style chancel transformed into a new entrance to the nave, while the altar, choir, and organ were reoriented on the central axis at the newly extended south end of the building.

Educational sessions on the evolution of the pipe organ and its construction, as well as explaining the optimum placement for a new organ, were presented after worship on four Sundays, during which parishioners were encouraged to ask questions. The organ committee set a timeline, received educational information, and conducted sessions on the art and science of building pipes and how they sound. The committee received information from builders, and began visiting churches to see and hear representative instruments.

In determining the priorities for a new instrument, the organ committee was guided by St. Paul's long-standing Royal School of Church Music intergenerational choir program and the parish's rich tradition of Anglican liturgy. In addition to preparing music for weekly worship, the choir performs choral masterworks with orchestra each year, sings Evensong each month, produces recordings, and tours regularly. The church also sponsors an extensive annual concert series, Concerts at St. Paul's, which would feature a fine new organ.

Paramount tonal considerations included a rich, full foundation tone as well as variety in reed and solo colors. As we looked at builders, we knew that we wanted a company with a solid, established history of fine instruments that created everything in-house, from wood and metal pipes to casework. In December 2004, the committee

voted unanimously to sign a contract with Casavant Frères.

In July 2007, the organ committee visited the Casavant workshop to see the church's new instrument. Upon first seeing the organ, we were immediately taken by the exquisite facade of polished pipes set within the beautifully stained oak casework. In a quiet and reverent manner, Jacquelin Rochette, Casavant's tonal director, introduced this new friend to us, explaining his philosophy behind every stop, and how each set of pipes was built to produce its unique sound: the haunting English Horn, the celestial string ensembles, the rich and dark French Horn, and the commanding Tuba. The sounds were smooth, with an embracing warmth and color. Every rank had its individuality, yet blended with other stops to create an amazing assortment of rich timbres. As each of us played the instrument, we were captivated by its commanding presence and refined sound. Every stop was exquisitely beautiful by itself, while various combinations of sounds created a vibrant tapestry of colors.

Now that the instrument is in the church and the final voicing complete, Opus 3856 excels at accompanying choral anthems and Anglican liturgy. The vast variety of colors enhances Anglican chant and psalms, and permits appropriate text-painting in hymns and anthems. The instrument works superbly as a member of the orchestra as was heard in a performance of the Duruflé *Requiem*. This is a truly fine example of American Classic organbuilding by one of the finest North American builders. For more photos of the organ and information on the music program, visit our Web site ([www.stpaulsindy.org](http://www.stpaulsindy.org)).

FRANK W. BOLES  
Organist and Associate for Music  
EDIE JOHNSON  
Assistant Organist-Choir Director

### From the Organ Committee Chairperson

When Frank Boles asked me to serve on the organ committee, I was quite surprised because, although I sang in the choir and worked in the purchasing department of a large automotive manufacturer, I knew nothing about organs. Frank assured me that he and Edie Johnson, our assistant music director, would educate me. I was even more surprised to find myself chairperson of the committee by the end of our first meeting.

We quickly realized that we needed to educate the entire committee about organs in general, and our existing Möller specifically. Additionally, we would have to make a successful case to the entire parish about the advisability of the project. We brought in an organ consultant from Indiana University who made an evaluation of our current instrument. We hired an acoustical firm to conduct an assessment of our worship space. We spent time hearing and evaluating organs, and developed a list of musical priorities for the new organ: (1) to lead the parish in liturgical worship; (2) to accompany the choir in concerts; and (3) to serve as a solo and concert instrument.

During this entire process, we sought approval from our parish council at various key points, so that the parish leadership supported the whole process. After our own education, and in consultation with several leading organists in the United States, we identified four builders we felt could meet our needs. We spent a number of months visiting several organs by each of these companies. We talked with the organists who played them, played and listened to the instruments, and sang in each of the locations. As a result of these visits, we narrowed the list of builders to two.

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The process was placed on hold for about three months while our parish formed an architecture committee, because in our studies we had determined that our existing organ was placed in a location that essentially muffled its sound. If we wanted to take advantage of "the organ's most important stop," namely the building's acoustic, we needed to rethink the entire layout of the worship space. After looking at numerous options, the architectural committee approved a design that not only exceeded the organ committee's dreams but also provided our parish with a glorious and spiritual worship space.

Over the next three months, the parish musicians worked with the two companies to refine their proposals and, after formal presentations by both, the committee voted. After 18–20 months and many hours of education, the choice was clear and the vote unanimous; Casavant Frères had the capability, both artistically and tonally, to develop an instrument that would create a lasting legacy of excellence in worship and music for St. Paul's.

When I joined St. Paul's after moving to Indianapolis, I was delighted to find a strong children's program. My daughter and I enjoy singing and have developed a much closer relationship as a result of our time together in the choir. I grew up singing with my family and have been singing in church choirs for over 30 years, but I didn't understand what difference a top-quality musical instrument would make. As a congregation, we didn't realize what we were missing. Our new instrument already has become an integral part of our worship experience. It enhances our ability to sing our joy and love for God during worship and in concerts.

KAREN CASWELCH

**DESIGN DETAILS**

Slider windchests with electrically operated pallets  
Movable four-manual main organ drawknob console in French/Casavant-style  
Movable two-manual nave organ tablet-style console  
Casework and consoles in stained quarter-sawn oak with Gothic detailing  
Reservoir winding  
Manual naturals of bone; sharps of ebony  
Pedal naturals of maple; sharps of rosewood  
Solid-state combination system; 256 levels of memory for the main organ  
List system and four-level programmable crescendo  
Wind pressures:  
Great: 95 mm  
Swell: 125 mm  
Choir: 85 mm  
Solo: 125 mm  
Festival Trumpet: 150 mm  
French Horn: 200 mm  
Tuba Mirabilis: 575 mm  
Pedal: 80 and 90 mm; Trombone: 95 mm  
Nave: 85 mm

Case design: Benoît Gendron, designer  
Technical design: Pierre Drouin, architect;  
Pierre Gilbert, draftsman  
Installation: Fabien Tremblay, Érick Chagnon, Marco Laferrière, Louis Roberge  
Tonal finishing: Jacques Rochette, tonal director; Jean-Sébastien Dufour, Sébastien Kardos, Yves Champagne  
Liturgical Design Architect: Terry Byrd Eason Design  
Project Architects: Atkin Olshin Schade Architects, Philadelphia  
Acoustician: Kirkegaard Associates, Chicago—Joseph W. A. Myers

Photographs: Stanley R. Scheer

**GREAT – 61 notes**  
16 Violone (ext.)  
8 Open Diapason  
8 Violone  
8 Chimney Flute  
8 Harmonic Flute (Solo)  
4 Octave  
4 Open Flute  
2½ Twelfth  
2 Super Octave  
1½ Seventeenth  
1½ Fourniture IV  
½ Cymbale III  
16 Double Trumpet  
8 Trumpet  
8 Tremolo  
8 Great Unison Off  
8 Chimes (Solo)  
8 Festival Trumpet (Solo)

**SWELL – 61 notes**  
16 Gambe (ext.)  
8 English Diapason  
8 Major Flute  
8 Viola da Gamba  
8 Voix Céleste (CC)  
8 Flûte Douce  
8 Flûte Céleste (TC)  
4 Principal  
4 Violina (ext.)  
4 Violina Céleste (ext.)  
4 Harmonic Flute  
2 Octavin  
2 Mixture III  
2 Plein Jeu III–V  
16 Waldhorn  
8 Trumpet  
8 Waldhorn (ext.)  
8 Oboe  
8 Vox Humana  
4 Clarion  
4 Tremolo  
4 Swell 16', Unison Off, Swell 4'

**CHOIR – 61 notes**  
16 Lieblich Gedeckt (ext.)  
8 Diapason  
8 Stopped Diapason (stopped wood)  
8 Dulciana  
8 Unda Maris (TC)  
8 Octave  
4 Spindle Flute  
2½ Nazard  
2 Principal  
2 Recorder  
1½ Tierce  
1½ Larigot  
1 Mixture IV  
8 Cornopean  
8 Clarinet  
8 Tremolo  
8 Choir 16', Unison Off, Choir 4'  
8 Zimbelstern (10 bells)  
8 Harp (Solo)  
8 Celesta (Solo)  
8 Festival Trumpet (Solo)

**SOLO – 61 notes**  
8 Harmonic Flute  
8 Gamba  
8 Gamba Céleste (CC)  
8 English Horn  
8 Cromorne  
8 Salicional (Nave organ)  
8 Céleste (TC, Nave organ)  
8 Tremolo  
8 Solo 16', Unison Off, Solo 4'  
16 Contra Gamba (Sw.)  
16 Contra Gamba Céleste (TC, Sw.)  
8 Viola da Gamba (Sw.)  
8 Voix Céleste (Sw., CC)  
4 Violina (Sw.)  
4 Violina Céleste (Sw.)  
8 French Horn  
16 Tuba Magna (TC, from 8')  
8 Tuba Mirabilis  
4 Tuba Clarion (ext.)  
4 Chimes (digital)  
4 Harp (digital)  
4 Celesta (digital)  
8 Festival Trumpet (high pressure, hooded)

**NAVE (floating) – 61 notes**

16 Bourdon (ext.)  
8 Open Diapason  
8 Chimney Flute  
4 Octave  
4 Bourdon  
2½ Twelfth (TC)  
2 Fifteenth  
1½ Seventeenth (TC)  
1½ Mixture II–IV  
16 Bassoon (ext.)  
8 Tromba  
8 Oboe  
8 Tremulant

**NAVE PEDAL – 32 notes**

16 Sub Bass  
8 Octave  
8 Chimney Flute (Nave organ)  
4 Choral Bass (ext.)  
16 Bassoon (Nave organ)

**PEDAL – 32 notes**

32 Contra Violone (digital)  
32 Contra Bourdon (digital)  
16 Contrabass (open wood)  
16 Diapason (ext.)  
16 Violone (Gt.)  
16 Gambe (Sw.)  
16 Sub Bass (stopped wood)  
16 Lieblich Gedeckt (Ch.)  
8 Principal  
8 Violone (Gt.)  
8 Stopped Flute  
8 Stopped Diapason (Ch.)  
4 Octave  
4 Flute  
10% Harmonics III (derived)  
2½ Fourniture IV  
32 Contra Trombone (digital)  
32 Waldhorn (digital)  
16 Trombone (wood resonators)  
16 Double Trumpet (Gt.)  
16 Waldhorn (Sw.)  
8 Trumpet  
8 Tuba Mirabilis (Solo)  
8 Festival Trumpet (Solo)  
4 Clarion (ext.)  
4 Festival Trumpet (Solo)  
4 Chimes (Solo)