

Cover feature

Kegg Pipe Organ Builders, Hartville, Ohio Church of St. Gabriel the Archangel, Saddle River, New Jersey

The new organ for the Church of St. Gabriel the Archangel in Saddle River, New Jersey presented us with an unusual combination of challenges and opportunities. Our first inspection of the modern, stylized Georgian church revealed a main space more than twice as wide as it is tall, lower side aisles adding even more width, and a deep choir gallery tucked less than 12 feet below the ceiling. Despite these discouraging proportions, nice architectural details in the sanctuary and side altars combine with large clerestory windows and an elegant black and white marble floor to give a feeling of lightness and air. Hard surfaces abound, yielding an acoustic that is at once reverberant yet intimate.

The gallery, however, seemed entirely incongruous. The existing organ case was placed far forward in the center (not a bad location in and of itself), leaving the choir divided on either side, even closer to the ceiling on built-up terraces. The entire gallery was carpeted, with at least the back third of the space relegated to catch-all storage, and the console was in the far right front corner with no chance of the organist hearing any sort of balance.

The music program was already excellent, firmly committed to a traditional approach to music and liturgy. Musicians Joseph Scorese and Richard D'Amore had the choirs singing a broad range of repertoire—plainsong and Palestrina as easily as Rutter and Cherwen. But they constantly had to fight their surroundings in the gallery just to get their music into the glorious acoustical environment on the other side of the rail.

The challenges seemed nearly overwhelming, and after considering several different layouts, we concluded that many of the rules of organbuilding simply would not work in this situation. In breaking the rules, however, we were determined to do so conscientiously, and let our creativity enhance rather than detract from the final result.

Visually, it was imperative that the new organ should somehow connect the music-making space with the worshiping space. We also wanted to emphasize verticality as much as possible to make the low gallery appear taller. We wanted the organ to be a visual indicator of the excellence in church music supported by this congregation. And as our first organ in the Northeast, we wanted any organist's first sight of it to entice him into further exploration.

It was immediately apparent that the new organ case would need to come forward of the rail and extend down into the main space as far as practical. The gallery rail is curved, with the ends being farther forward than the center. Since a central location would only perpetuate the choir's difficulties, we settled on matching cases at the front corner of each side. The bulk of these cases sit on the gallery floor and are painted white to minimize their visual impact. The stained solid cherry front cases are cantilevered out from them and hang down over the gallery rail without actually touching it. Pipe shades of basswood, hand carved by Spirit Williams of *Wood Sculpture by Spirit*, develop a vine and leaf motif, and also include figures of St. Gabriel on one side and St. Mary on the other.

Portions of the organ whose first priority is leading congregational singing are placed in these cases. The remaining portions of the organ, whose primary duties are accompanimental, are placed in a wide, shallow case behind the choir toward the rear of the gallery. The built-up terraces have been removed and the entire gallery has a new flat hardwood floor. The two back corners have been enclosed to provide storage and to bring a reflective surface a little closer to the choir.

Virtually all committees assigned the task of commissioning a new pipe organ for a worship space arrive at the same



Gallery: Great on left, Pedal on right; Swell and enclosed Great in center



Console closeup



Dedication photo: Richard D'Amore (organist), Fredrick Bahr, Charles Kegg, Fr. Raphael Lee, Ken Cowan, Rev. Monsignor Robert J. Fuhrman, Joseph Scorese (music director)

order of priorities: 1) Lead the congregation in singing; 2) Accompany a wide range of solos and ensembles; 3) Play service music; 4) Play recitals of solo organ literature. A strong case has been made by many organbuilders that an organ well-designed to play the organ literature can certainly lead a singing congregation. And as long as service music is selected from the great literature, it can handle that as well. And with a mezzo-forte stop or two behind swell shades: *voilà*, it can accompany! Naturally the bigger the organ, the more of those stops it is likely to have.

We would not disagree with that line of reasoning. But we believe that there is a vast difference between an organ that can accompany and one that *excels* at it

and makes it fun, encouraging creativity. We often choose to take accompaniment as the starting point, and then develop those resources to enable the instrument to fulfill its other duties as well.

A hallmark of Kegg organs is their unique blend of accessibility and surprise. Organists and consultants alike have often commented that every stop is where they expect it to be and delivers what the stopknob promises. But there is a quality in the sound of the predictable that quickly invites creative experimentation. The fact that even many rule-breaking combinations coalesce into new and beautiful sounds is no accident, but rather the result of a complex series of deliberate choices in scaling, placement, pipe treatments, and tonal finishing.

Our normal practice is to shape the Great 8' Principal to engage the room in a particular way, then use it as a foundation on which to build out and up to create the various core ensembles that define the instrument. In this organ, that function is taken by a combination of 8' stops commonly called the "French Quartet": principal, string, capped or semi-capped flute, and open or harmonic flute. Each contributes an essential component to the composite sound. The Principal provides the basic diapason color; the Violone gives point and lets it sing; the Rohrflute adds breadth and weight; finally, the Harmonic Flute imparts intensity and carrying power. St. Gabriel's extraordinarily fine acoustic allowed us to approach each of these four component stops with a luxurious gentleness that would be impossible in almost any other situation.

A side-by-side comparison of identical notes in the Great Principal 8' and Octave 4' reveals that the Octave is equal to or even stronger than the Principal in some ranges. There are two reasons for this. First is that the Octave is intended to sit atop the combined French Quartet in all but the very leanest plenum combinations. Secondly, space and budget considerations resulted in a Fifteenth 2' extended from the Octave 4'. We have kept the 4' brighter than normal so that the 8'-4' combination is extraordinarily satisfying and does not beg for a 2' line to keep it clear. We have also given extra attention to the 2' partial of the Mixture IV and installed a cut-out for the borrowed Fifteenth so it does not play when the Mixture is drawn.

The Twelfth 2 $\frac{1}{2}$ ' was a preparation in the original contract. When funds became available to include it, we weighed carefully whether it was appropriate to add it while the Fifteenth remained borrowed. Given the steps we had taken to minimize the need for a Fifteenth, we concluded that the Twelfth was absolutely essential in building the rich but gentle texture of plenum we envisioned for this room.

Organ flute stops come in a wide variety of construction and tonal color on a continuum from fully capped through harmonic or even double harmonic. Experience has shown that a pair of flutes blend together best when the lower one is closer to the capped end of the spectrum and the upper one is closer to the open end. This results in the common pairings of Rohrflute 8'-Spitzflute 4', Gedeckt 8'-Koppelflute 4', or Open Flute 8'-Harmonic Flute 4', etc. Our normal practice follows that pattern. In the Saddle River organ, the Great Rohrflute and Harmonic Flute both needed to be present at 8' as essential components of the Quartet discussed above. Budget constraints would not allow an independent 4' flute, so we assumed on paper that the ubiquitous Flutes 8' & 4' registration would best be fulfilled by the Rohrflute playing at both pitches. As a pleasant surprise in the voicing process, we discovered that the Rohrflute at 4' would sit very nicely atop the Harmonic Flute 8', breaking the rules, but becoming the default Flutes 8' & 4' combination for the Great.

The Flauto Dolce and Flute Celeste are treated in our normal manner: clear but nearly weightless in the bass, ultra-transparent in the tenor, becoming milkier and more opaque as the volume diminishes in the treble. The Flauto Dolce in particular is carefully regulated for evenness and prompt speech, making it valuable as an accompaniment stop without the Flute Celeste.

The Clarinet is smooth, dark and woody in the bass and tenor, brightening slightly as it ascends.

The Swell chorus is conceived in a typically American manner: the Bourdon and Salicional together act as the 8' foundation, with a 4' Principal and 2' Mixture filling out the upperwork. Each component is then extended up or down, exponentially increasing the registrational choices. The Bourdon extends



Gallery rail cases under construction



Case impost construction



Pipe shade being fitted in the Kegg shop



Mary listening, nestled among the vines



Console stop knobs being turned

down to become the Swell double and the soft Pedal 16'. Its primary focus is as a Pedal stop for notes 1-24; from 25 up it concentrates on blending rather than individual color, but still stays just lively enough for scherzo registrations. The Principal extends down into a Diapason of similar scale and volume to the Great, but with slotted color. The Salicional is not just a unison for the Voix Celeste, but very much a partner in ensemble building. Its 4' Salicet extension finds a perfect use in mezzo-forte accompaniments. The Mixture also plays an octave higher as the Scharf to provide the crown to the Great Mixture when the two choruses are coupled.

The Sylvan Flute developed as a chameleon, with distinct functions in different ranges. In the bass, it acts to color and define the 8' Bourdon, which is purposely amorphous for use in the pedal. Its tenor range is slightly hollow, vaguely reminiscent of panpipes, hence the name. In the midrange it takes on an open 4' flute quality, tending toward the sound of a narrow-scale harmonic flute. And finally, its treble provides a silvery top to 8-4-2 combinations, and is bright and sparkly for a skip-pitch effect with the Bourdon 8'.

The Nazard is deliberately very mild so that when it combines with the Bourdon 8' it suggests that lovely color associated with narrow-scale wood Gedeckts. Added to full 8's and 4's, it thickens and imparts a slightly reedy quality in preparation for adding the Oboe. The Tierce, while still able to blend, is spicier than the Nazard and definitely takes the driver's seat in the full Cornet.

The Bassoon-Oboe is specially designed to blend into the Swell flues to create the Full Swell effect at a dynamic level appropriate to the choir standing directly in front of it. The Oboe mid-range and treble accelerate only slightly in volume, but much more so in color and point, allowing it to stand out as a solo stop in normal melody range. The Trumpet-Clarion is strong and bright, giving the fire expected from the Récit in French literature. We chose to place it in the Enclosed Great expression box in order to increase the flexibility of the dynamic range. And finally, the Vox Humana adds its unmistakable sonority, exceptionally rich and buttery in this organ since it does not have the benefit of distance to mellow it.

The Pedal Octave and Subbass are located in the forward case opposite the Great. The lower panels of this case are of double-thickness MDF to provide solid projection of the bass frequencies. We used this same double-panel technique on the back of the Swell and Enclosed Great box to reinforce the sound of the Pedal Open Wood installed behind it. The mouths of these pipes speak toward the back wall of the church, using it as a sort of sub-woofer to fill the room with a solid foundation for the whole organ.

The Pedal case also houses Gabriel's Trumpet. Although of limited compass (tenor C through high F), this large-scale reed stop on 8 inches pressure provides a rich, powerful Tuba quality in the tenor range, perfect for delineating hymn melodies against the full resources of the rest of the organ. As it rises in pitch, it becomes more brilliant and comes into its own with trumpet tunes and wedding processions.

It is our hope that everyone who hears this organ, whether that be a parishioner whose worship is enhanced by its music, or the most accomplished organist listening intently with discerning ears, will feel a sense of the joy and wonder from which it was created.

—Fredrick Bahr, tonal director

Kegg Pipe Organ Builders

Fredrick Bahr
Philip Brown
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Photo credit: Richard D'Amore, Fredrick Bahr, Charles Kegg

Kegg Pipe Organ Builders Church of St. Gabriel the Archangel Saddle River, New Jersey

GREAT (Manual I)

11 stops, 14 ranks, 878 pipes

| | | |
|----------------------|--------|------------------|
| 1. Violone | 16' | 73 pipes |
| 2. Principal | 8' | 61 pipes |
| Violone | 8' | From #1 |
| 3. Rohrflute° | 8' | 73 pipes |
| 4. Harmonic Flute° | 8' | 49 pipes |
| 5. Flauto Dolce° | 8' | 1-12 from #3 |
| 6. Flute Celeste° TC | 8' | 61 pipes |
| 7. Octave | 4' | 49 pipes |
| Flute° | 4' | 73 pipes |
| 8. Twelfth | 2 2/3' | From #3 |
| Fifteenth | 2' | 61 pipes |
| 9. Mixture (1 1/2') | IV | From #7 |
| | | 244 pipes |
| 10. Trumpet° | 8' | (cancels 15th) |
| 11. Clarinet° | 8' | 73 pipes |
| Tremulant | | 61 pipes |
| Chimes | | Deagan, 25 bells |
| Great Unison Off | | |
| Great 4 | | |
| Zimbelstern | | 5 handbells |
| ° Enclosed | | |

SWELL (Manual II)

10 stops, 13 ranks, 853 pipes

| | | |
|------------------|--------|----------------------------|
| 12. Bourdon | 16' | 73 pipes |
| 13. Diapason | 8' | 73 pipes |
| Bourdon | 8' | From #12 |
| 14. Salicional | 8' | 73 pipes |
| 15. Voix Celeste | 8' | 61 pipes |
| Octave | 4' | From #13 |
| Salicet | 4' | From #14 |
| 16. Sylvan Flute | 4' | 73 pipes |
| 17. Nazard | 2 2/3' | 61 pipes |
| Flute | 2' | From #16 |
| 18. Tierce | 1 1/2' | 61 pipes |
| Larigot | 1 1/2' | From #17 |
| 19. Mixture (2') | IV | 244 pipes |
| Scharf (1') | IV | From #19 |
| | | cancels Mixture when drawn |
| 20. Bassoon | 16' | 73 pipes |
| Trumpet | 8' | From #10 |
| Oboe | 8' | From #20 |
| 21. Vox Humana | 8' | 61 pipes |
| Clarion | 4' | From #10 |
| Tremulant | | |
| Swell 16 | | |
| Swell Unison Off | | |
| Swell 4 | | |

SOLO (Manual III)

1 stop, 1 rank, 42 pipes

| | | |
|--------------------------|----|--------------|
| Solo Diapason III | 8' | From #2-7-25 |
| Harmonic Flute | 8' | From #4 |
| Salicional | 8' | From #14 |
| Voix Celeste | 8' | From #15 |
| Flute Celestes II | 8' | From #5 & 6 |
| Cornet | V | #12-16-17-18 |
| 22. Gabriel's Trumpet TC | 8' | 42 pipes |
| Trumpet | 8' | From #10 |
| Oboe | 8' | From #20 |
| Clarinet | 8' | From #11 |
| Tremulant | | |
| Chimes | | |
| Solo 16 | | |
| Solo Unison Off | | |
| Solo 4 | | |

PEDAL

3 stops, 3 ranks, 132 pipes

| | | |
|---------------|-----|-----------------------|
| Resultant | 32' | Derived |
| 23. Open Wood | 16' | 32 pipes |
| 24. Subbass | 16' | 44 pipes |
| Violone | 16' | From #1 |
| Bourdon | 16' | From #12 |
| 25. Octave | 8' | 44 pipes |
| Subbass | 8' | From #24 |
| Violone | 8' | From #1 |
| Bourdon | 8' | From #12 |
| Super Octave | 4' | From #25 |
| Cantus Flute | 4' | From #4 |
| Harmonics | 32' | Derived |
| Trumpet | 16' | 12 pipes and from #10 |
| Bassoon | 16' | From #20 |
| Trumpet | 8' | From #10 |
| Clarion | 4' | From #10 |
| Clarinet | 4' | From #11 |

Tonal Resources

25 stops, 31 ranks, 1905 pipes

Inter-manual Couplers

Great to Pedal 8, 4
Swell to Pedal 8, 4
Solo to Pedal 8, 4
Swell to Great 16, 8, 4
Solo to Great 8
Swell to Solo 8
Great to Solo 8

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