J.H. & C.S. Odell,
East Hampton, Connecticut
Scarborough Presbyterian Church,
Scarborough, New York

I remember receiving my first phone call from Scarborough Presbyterian Church in late January 2005. I was delighted to have the chance to become acquainted with this church and with its organ, my own family's J.H. and C.S. Odell Opus 327, installed in 1894. Six years on, there is much to report.

One cannot help but be immediately taken in by the beauty of Scarborough Presbyterian, both interior and exterior. The church is set along old Route 9 in Briarcliff Manor. Approached from either north or south, the siting of the building (whose exterior is rich with classical elements) blends in gracefully with its setting.

Scarborough Church was a gift from Mrs. Elliott Shepard as a memorial to her husband in 1893. The architects of record for the church were Haydel and Shepard, a short-lived partnership of Stanford White's nephew, Haydel, and a nephew of Mr. Shepard. Their only other significant building, the Fabbri Mansion on Manhattan's 64th Street, echoes the neo-classical style of Scarborough Church—briefly called, "Shepard Memorial," but organized later as Scarborough Presbyterian. A reprint of the dedication announcement from the May 12, 1895 edition of the *New York Times* includes copious detail of the building's appointments, which in modern architectural parlance is properly classified as Beaux-Arts:

> The main design of the ground plan is a cross, a *porte cochere* being one of the short arms of the cross, and the pastor's study the other arm. The church is built of granite rubble, with trimmings of Indiana limestone. The granite is of a pink tinge, which harmonizes pleasantly with the grayish limestone, and the effect is very striking to the visitor.
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> The height of the tower from the steps to the top of the cross is about 120 feet. The architecture of the exterior is a distinctly American interpretation of the Renaissance idea as it was in the time of Louis XIV. The granite used in the body of the structure was quarried on the estate of Col. Shepard, which is a short distance south of the edifice.
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> In the three large windows of the main structure, each nineteen feet high, are stained glass designs. Strictly classical treatment has been used in the interior of the building. The main auditorium has a seating capacity of 350, and the Sunday-school room of 150 persons. The floors are of mosaic in the church, and the pews are of carved wood. The building is as near as possible fireproof, as little wood being employed in the construction as circumstances would permit.
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> The wood-paneled [coffered] ceiling is secured to the entablature by carved wooden corbels. This ceiling is one of the main features of the room. It is made of California redwood. Its side surfaces are enriched with twenty-eight panels, each six feet square, and with carved wooden rosettes in their centers. This design encloses, as in a large frame, a large panel, itself broken up and subdivided into a considerable number of smaller panels. In the center of the ceiling is a great carved redwood cross. The inner walls are of cement, tinted to harmonize with the ceiling.
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> The choir dome, under which the pulpit is placed, at the end of the church, is paneled with rosettes, and a large skylight admits light from above. The building is lighted at night with electric lights, and the heating is to be in the winter season by hot-air appliances from the basement. Perfect ventilation is secured by means of exhaust flues in the side walls from the floors to the roof. The organ is in the main tower, while the keyboard is under the choir dome.

As the article states, the console was originally placed in the chancel area, leading me to speculate that this organ was likely the first all-electric adaptation of the patented Odell tubular-pneumatic action. In comparison, there are appreciable, if minor, design differences in the primary mechanism employed in the manual chest action used in our Op. 313 at St. Michael's Church on West 34th Street in Manhattan. That organ, which is presently under our care and slated for major restoration work in 2012, was originally all tubular-pneumatic when it was built only one year prior in 1893. It has been interesting to note the nuance in mechanisms, scaling, and voicing practices of two Odell instruments that were built at nearly the same time.

J.H. & C.S. Odell, Scarborough Presbyterian Church

Console

As one can easily imagine the unwieldiness of playing the gallery organ from the chancel, it is not surprising that the console was later relocated to the gallery. Apart from this, the organ remained largely intact until the first major campaign of rebuilding and revisions began in the late 1980s through the 1990s.

At one time, there had been ambitious plans for the instrument, evidenced in the documentation of the Peterson switching system installed by a prior technician. Most of these plans went unrealized, though the addition of an anachronistic and stylistically questionable "Positiv" division had been carried out. Other changes included additional reed stops in the Swell, as well as evidence of attempts at rescaling, mostly in the principal stops of the Great.

In the meantime, problems of the winding system and mechanism were largely ignored. It was in this state that I first examined the organ at Scarborough in 2005. The Swell chest was then largely non-functional, owing mostly to issues with stuck sliders and pallet actions in need of rebuilding. I quickly realized that not only would a program of full mechanical restoration be needed, but also a careful reversal of many of the tonal changes, if the final result were to resemble anything that would make sense to a properly trained organist.

In addition to the difficulties with the organ, Scarborough was managing a leadership transition, something that is always trying in the life of any parish. The congregation faced this while contemporaneously entertaining bids for the organ project from us and other local firms, as well as considering wholesale replacement of the organ with a new electronic substitute. It was not until I made a detailed presentation to the congregation that we were able to at least keep the latter option off the table.

While we eventually prevailed as selectee for the organ project, there was no appreciable progress in going to contract until the appointment of Kenneth Potter as organist and director of music in 2007. Potter took the position on the condition of the organ's restoration. This was agreeable to the Session and we were at last able to proceed.

Repaired pipe foot for one of the notes of the Great Open Diapason 8′. Note the use of common metal and the 2/7 mouth.

Comparing nodal points on the Harmonic Flute 4′ with scale data from Odell Op. 178

New spotted metal tuning inserts installed on stripped façade pipes prior to finishing

No sooner had Mr. Potter taken the position than he reached out to me, and a lively discussion ensued on how best to revise and restore the organ. Plans at one point had even branched out into an entirely new case design, for which I excitedly prepared several conceptual sketches, but these were later set aside for both practical and aesthetic reasons. With our limited budget, the majority of our work would have to focus on restoration of the pipes, console, and mechanism. Moreover, with limited gallery space and an already richly appointed interior, it was difficult to realize a case design that would match the level of ornamentation or allow for a proper sense of proportion without getting into models that we knew would be far too elaborate. We officially went to contract in late 2007 and set to commence work in early 2008.

Silver accent lacquering applied to pipe mouth inserts

Great Harmonic Flute 4′ and Principal 4′ on the voicing machine

Rebuilding pneumatic stop-action assemblies

Great Trumpet 8′ on voicing machine

Dry-fit of the new saepele bench with carvings

J.H. & C.S. Odell Opus 327
Scarborough Presbyterian Church, Scarborough, New York

GREAT

16′	Bourdon	70 pipes
8′	Open Diapason	58 pipes
8′	Gamba	58 pipes
8′	Gross Flute	58 pipes
8′	Bourdon (from 16′ Bourdon)	
4′	Principal	58 pipes
4′	Harmonic Flute	58 pipes
2⅔	Twelfth	58 pipes
2′	Fifteenth	58 pipes
1⅗′	Seventeenth (new)	58 pipes
III	Mixture	174 pipes
8′	Trumpet	58 pipes

SWELL – Expressive – in reconfigured expression chamber

16′	Bourdon	58 pipes
8′	Open Diapason	58 pipes
8′	Stopped Diapason	58 pipes
8′	Salicional	58 pipes
8′	Voix Céleste	58 pipes
4′	Violina	58 pipes
4′	Rohr Flute	58 pipes
2′	Flute	58 pipes
III	Cornet	174 pipes
16′	Bassoon	58 pipes
8′	Cornopean	58 pipes
8′	Oboe	58 pipes
4′	Clarion	58 pipes
	Tremulant	

PEDAL

32′	Resultant (special configuration, from Open Wood and Bourdon)	
16′	Open Wood	30 pipes
16′	Bourdon	54 pipes
8′	Gedeckt (ext 16′ Bourdon)	
8′	Violoncello	30 pipes
4′	Flute (ext 16′ Bourdon)	
16′	Bassoon (from Swell)	

Mixture Compositions

Great

1 to 25	15-19-22
26 to 37	12-15-19
38 to 58	8-12-15

Swell

1 to 25	17-19-22
26 to 37	15-17-19
38 to 58	8-15-17

Couplers
Great to Pedal 8′ (reversible)
Great to Pedal 4′
Swell to Pedal 8′ (reversible)
Swell to Pedal 4′

Great to Great 16′
Great Unison Off
Great to Great 4′

Swell to Great 16′
Swell to Great 8′ (reversible)
Swell to Great 4′

Swell to Swell 16′
Swell Unison Off
Swell to Swell 4′

Pistons
12 generals (duplicated on toe pistons)
6 divisionals per division
4 reversibles (3 coupler, 1 Sforzando)

Accessories
32 levels of capture memory
12-step transposer
Programmable Sforzando
Memory controls in keyslip
Programmable Crescendo
MIDI for record/playback

Eventually we settled on the design one sees today, which in many respects closely resembles the organ's 1894 specification. The floating "Positiv" is gone, its Oboe restored and returned to its proper place in the Swell. The Swell Vox Humana was likewise deleted in favor of the Bassoon 16′, though not without some regret. The addition of the Clarion 4′ was kept, though the stop was revoiced in order to be more in scale (in terms of power) with the rest of the division's reed chorus. Apart from careful tonal finishing and some adjustments to the power of some of the stops, the rest of the division remains as original but for the replacement of the Aeoline with a matched Voix Céleste for the Salicional.

I approached the Great with similar care. In sorting through the pipework in the shop I was able to review (and correct) prior attempts in rescaling and revoicing. Thankfully, the critical backbone stops of the division (the Open Diapason 8′, Gross Flute 8′, Gamba 8′, and Harmonic Flute 4′) had been left mostly untouched. Efforts had been made to rescale the principal chorus from 4′ upward with limited success: rather than inserting new pipes in the bass and shifting the entire rank upward, pipes from various sources were randomly inserted in the compass of the Principal, Twelfth, and Fifteenth. To the uninitiated this probably seemed a harmless practice, but I was determined to restore some sense of order. Thus we maintained (and in some cases increased) the rescaling, as my experience with Odell scaling practices from this era (as well as my review of this instrument in particular) called for a significant increase in order to balance the power of the stops of the chorus without attempting to "voice around the scale." Thus I reoriented the prior attempts at rescaling by fabricating new pipes with properly matching 2/7 mouths, using matched common metal (roughly 70% lead) as opposed to the uncharacteristic spotted metal used before. This allowed better control in the adjustment of the power of these ranks as I worked on them in the voicing room.

The other changes to the Great included the addition of the original Swell Bourdon on new unit windchests, so as to be available at 16′ and 8′ pitch. The Dulciana was deleted in favor of a new, matching principal-scaled Seventeenth. This exchange was part of an overall plan to keep a third-sounding rank available in the division, since the original Great Cornet mixture (17-19-22) was to be rescaled and recomposed into a suitable chorus mixture based on 2′ pitch (15-19-22). The original Cornet Mixture in the Swell had been retained, and Ken and I were in agreement that one tierce mixture per organ was more than sufficient.

Apart from these changes, pipe restoration was straightforward. Along with the windchests and console, everything was brought back to our facility and carefully cleaned. Metal ranks went through our pipe shop for repair. Wooden pipes were repaired and pipe stoppers were repacked. But for the Bassoon 16′ in the Swell and the Trumpet in the Great (which I kept for myself to work on), the Swell reeds went to Trivo in Hagerstown for restoration. Broken reed pipes were properly reblocked, tuning inserts were replaced, and shallots, tongues, and wedges were carefully cleaned and refitted as required.

The rebuilding of the mechanism presented several challenges. The manual windchests were essentially Odell slider chests with electro-pneumatic pulldown motors and slider motors. Both chests were completely stripped down to their tables at our facility so they could be evaluated and repaired. Thankfully, retabling was not needed, though damage to some of the sliders was so severe that some of them had to be replaced. Unlike modern slider chests (where engineered plywood is used), the bottoms of the Odell chest grids are covered with motor cloth, and the pallet openings are formed by blocking in the channels inside the pallet box and covering the area with a layer of packing leather. All this was restored to match the original configuration, whereafter the grid channels were carefully sized with thinned shellac, as is the custom. It was an arduous, not to say messy process, but the result was the total elimination of the numerous runs and bleeds encountered prior to removal. Finally, the chest pallets were all re-dressed with new felt and leather, and the motor and primary systems rebuilt.

With the slider motor system we faced a particular difficulty: Odell pneumatic slider motors were an innovative design in their day, but they can be fickle. When they work, they work well, but they often grow slow and unresponsive. Knowing this, in the planning stages of the project I seriously considered conversion to an electric slider motor system, but instead held this out as a last resort. The original pneumatic motors were dutifully rebuilt, and after some experimentation I eventually realized a solution: by placing the slider motor assemblies on their own separate wind reservoir and increasing the pressure moderately, I realized two immediate benefits: the slider motion was now swift and sure, and the action of the sliders no longer had any effect on the divisional wind pressure as they were actuated. I owe the inspiration for this concept to my colleague Timothy Fink, who several years ago used a similar ap-

proach when he designed his own pneumatically powered slider system (based in part on the Odell design) for the new organ he built for Grace Lutheran Church in Naples, Florida.

As the Pedal division had recently had its action rebuilt, we were free to leave this section alone and concentrate our remaining efforts on the console, winding system, and façade.

Dealing with the winding system was simple. The original massive single-rise reservoir was replaced with four new properly sized Odell reservoirs, one for each division, and the fourth for the aforementioned slider motor assemblies.

The console carcass was gutted and fitted with new, rear-fulcrum keyboards with basswood levers, and the manual compass restored to the original 58 notes. The newer pedalboard was kept. The stop-action rail and stop-action magnets were replaced with a much more reliable Harris tilting-tablet assembly, whose appearance is more characteristic of a traditional Odell console. The interior of the console was fitted with new panels made of sapele. We installed a new, integrated control system with the customary modern feature set.

The façade, which contains the bottom seventeen notes of the Great Open Diapason, was carefully stripped, repaired, and restored. The original zinc tuning flaps were replaced with spotted metal tuning scrolls. I personally handled the preparation and finishing process. A catalyzed base primer that bonds directly to the metal was used as the undercoat, over which I applied specialized metal lacquer mixed with gold flake powder. The result is a richer, deeper gold color that was accented by the application of silver flake lacquer on the pipe mouth inserts.

Our final step was to replace the 1950s-era wall panels below the impost of the façade. The layout was sketched by my wife Susan, who is a classically trained architect. With no cues from me, she intuitively established a rail and stile pattern that picked up on the center point placements of the pipes in the façade, while maintaining symmetry throughout. The panel molding, which required a custom-made set of molder knives, is a duplication of the custom panel moldings used throughout the church. The panels themselves are made from the same sapele used in the console, and are stained to match the existing appointments. Though it is minor, this was a welcome embellishment to the appearance of the organ.

Members of the Odell staff who contributed to this project include: John Williams (chest restoration, new chest, panel, and reservoir fabrication), Stewart Skates (pipe repair, fabrication, and restoration), Scotty Giffen (site, restoration, and assembly work), David Wason (wiring, site, restoration, and assembly work), Douglas Keilitz (site work, tuning, and tonal finishing), and myself (design, planning, wood and metal pipe finishing, voicing, and tonal finishing). Rigging for the removal and reinstallation was handled by our friends at Auer's of New York City, long known for their skill in handling this sort of work.

We are grateful to the staff and congregation of Scarborough Presbyterian Church for being given the opportunity to restore this instrument and return it to service. I am particularly grateful to Kenneth and Christine Potter (who have become great friends as well as champions of our work), and also the Reverends Chris Iosso, Dae Jung, and Tim Ives, worship and music committee chair Lindsay Farrell, and most especially the late Florence Fletcher, to whose memory the new organ façade is dedicated.

—Edward Odell
East Hampton, Connecticut

It isn't often that an organist takes a job with the congregation already understanding that the organ needs to be rebuilt, *and* he gets a significant say in *how* it gets done. My first decision was to commit what one might call a heresy among organists. I agreed that the organ needed to be reduced in size; we went from 37 ranks to 30. The results speak for themselves, as much of that reduction involved removing redundant ranks, ranks that served no useful purpose.

Prior to the rebuild, the Swell had become almost completely unplayable and been more or less abandoned. We realized the removal of the entire instrument to the Odell shop would be needed. Now rebuilt, the Swell is a wonderful division of great subtlety and color.

It made sense to keep certain additions, but we wanted these additions to form a real ensemble, and for the organ to speak into the room naturally. A fine Clarion 4′ had been added to the Swell. The Bassoon 16′, Cornopean 8′, Oboe 8′, and Clarion 4′ formed a reed battery that we were loath to break up. In order to keep it, the old Vox Humana 8′ had to go. I deeply regretted this loss, but I love the full reed chorus as it is now. The Aeoline 8′ went the same way to make room for the Voix Céleste. There was more than enough pipework left for quiet music, with the very gentle strings, a Stopped Diapason 8′, and a lovely Rohr Flute 4′ of surpassing beauty.

In the Great division, the previous Tierce had been derived from a split slider on the Mixture. It never worked very well, but I felt it was important to have a full Cornet on the Great, so we sacrificed the Dulciana. The Seventeenth that took its place is the only wholly new rank in the rebuild. The Dulciana's place in the tonal scheme was taken by an 8′ extension of the 16′ Bourdon. I felt that with the three other strong 8′ stops (Open Diapason 8′, Gross Flute 8′, and Gamba 8′) we needed a quiet 8′ flute. This Bourdon 8′ can be coupled with the Gamba 8′ and form a *fonds doux*, but it also works beautifully alone, or with the Principal 4′ or Harmonic Flute 4′. With all 8′ flue stops on the Great drawn, one has a close approximation of the classic *fonds de huit*. After rescaling and restoration, the Great chorus is powerful and intense. With the coupling of the Swell reeds, it becomes immense.

In the process of this rebuild, I learned a lot about what stops are truly necessary. As someone who cut his teeth on the Organ Reform movement, I had difficulty understanding a tonal scheme built on generously scaled 8′ stops, with smaller upperwork, or a second manual division without a Principal 4′. In time, I have come to understand this instrument on its own terms. The Violina 4′ really does serve a purpose, and I have come to love the very modest 4′ Rohr Flute in the Swell; it is delicate and very non-intrusive, and I never seem to stop finding uses for it. The Flute 2′ with the Cornet III makes a wonderful sparkle in that division without adding weight. The Oboe 8′, now returned to the Swell, is an excellent addition to the division's chorus, adding just enough weight to balance the flues. So much for the Swell organs I was previously accustomed to, with their 8′ Gedeckt foundation and blazing upperwork!

It thrills me endlessly to have other organists come in and play. I love to wander around downstairs and listen, often asking what stops they have on. This organ, which sounds immensely powerful in the gallery, is gentle and convincing downstairs—the fullest registration is not overpowering, but rather full, blended, and satisfying.

There isn't an ugly stop on the entire instrument. Every rank is distinct, beautiful, and makes the listener sit up and notice, whether quiet, *mezzo forte*, or loud. Nothing is overbearing and the range of color is amazing. Edward Odell has demonstrated great skill as a voicer, taking stops that had been poorly regulated, and restoring, focusing, and adjusting them to create a satisfying, integrated ensemble. He was ably assisted by Doug Keilitz on the tonal finishing.

Let me conclude by saying we are blessed with some of the finest acoustics I have ever experienced in a church, both for organ and choral music. The instrument is now inspiring our choir to new heights. As I had hoped, the wonderful sounds coming from the loft are enhancing our worship and attracting new members.

—Kenneth Potter
Organist and Director of Music

New Organs

Console

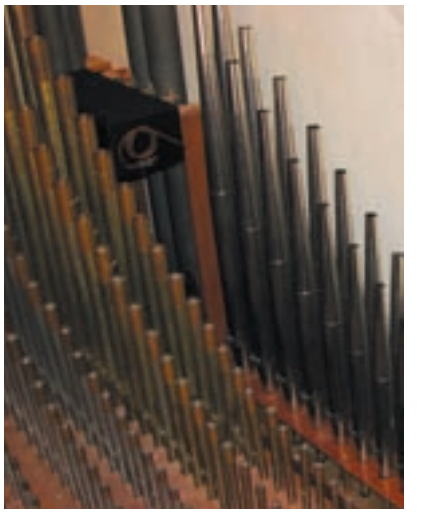
Lewis & Hitchcock, Inc., Beltsville, Maryland
Wesley United Methodist Church, Vienna, Virginia

Wesley United Methodist Church of Vienna, Virginia, has a Wicks organ that was installed in 1966 and enlarged in 1971. The organ had begun to have problems in the switching system and combination action. Working with trustees Harvey Bowles and Dick Takamatsu and organist Jason Bowles, we developed a plan to rebuild the organ, including replacing the switching system and relays with a new multiplex system that would provide a large combination action, with accessories such as a transposer as well as a piston sequencer. New keyboards were recommended, for a better feel as well as reliable contact systems.

We also recommended the replacement of one rank of pipes that would not hold voicing. As plans went forward, the desire was expressed to add some digital stops, and eventually a full complement of digital stops was designed to complete the organ tonally. These were provided by the Walker Technical Company of Zionsville, Pennsylvania. As there was no space in the chambers for a large bass speaker, they provided a cabinet finished to match the organ grillework, which sits directly in front of it.

Besides all the standard accessories, there is a piston sequencer with Next and Previous pistons and toe studs, and a MIDI data file record and playback system. The result is a versatile instrument that easily provides the right sound for the music.

—Gerald Piercy



Pipework

GREAT

16′	Violone (Walker Paradox System)	
8′	Principal	61 pipes
8′	Bourdon	61 pipes
4′	Octave	61 pipes
4′	Spillpfeife	61 pipes
	new pipes on existing chest	
2⅔′	Twelfth	61 pipes
2′	Fifteenth	61 pipes
8′	Trumpet (Walker)	
	Chimes (Walker)	
	Great to Great 16–UO–4	
	Swell to Great 16–8–4	
	Choir to Great 16–8–4	

SWELL

16′	Rohr Gedeckt	61 pipes
8′	Geigen Diapason (Walker)	
8′	Rohrflute (ext)	
8′	Viole d'Gambe	61 pipes
8′	Viole Celeste (tc)	49 pipes
4′	Geigen Principal	61 pipes
4′	Nachthorn	61 pipes
2′	Piccolo	61 pipes
1⅓′	Plein Jeu III	183 pipes
16′	Contre Trompette (ext)	
8′	Trompette	61 pipes
8′	Vox Humana (Walker)	
8′	Hautbois	61 pipes
4′	Clarion (ext)	
	Tremolo	
	Swell to Swell 16–UO–4	

CHOIR

8′	Nason Gedeckt	61 pipes
8′	Erzahler	61 pipes
8′	Erzahler Celeste (tc)	49 pipes
4′	Koppelflute	61 pipes
2⅔′	Nazard	61 pipes
2′	Blockflute	61 pipes
1⅗′	Tierce	61 pipes
8′	Krummhorn	61 pipes
	Tremolo	
8′	Harp (Walker)	
4′	Celesta (Walker)	
8′	Festival Trumpet (Walker)	
	Choir to Choir 16–UO–4	
	Swell to Choir 16–8–4	

PEDAL

32′	Untersatz (Walker)	
16′	Principal (Walker)	
16′	Bourdon	32 pipes
16′	Rohr Gedeckt (Sw)	
8′	Spitz Principal	32 pipes
8′	Bourdon (ext)	
8′	Rohrflute (Sw)	
4′	Spitz Principal (ext)	
4′	Bourdon (ext)	
2′	Octave (Gt 8′ Principal)	
16′	Trombone (Walker)	
4′	Hautbois (Sw)	
	Great to Pedal 8–4	
	Swell to Pedal 8–4	
	Choir to Pedal 8–4	

25 registers, 27 ranks, 12 Walker voices

Eyeline console, white knobs for stops and division couplers, black knobs for intermanual couplers.

The existing console shell was retained. The manual keys, pistons, drawknobs, toe studs and all internal works are new. The pedalboard was rebuilt to new standards. The relay system was replaced with multiplex units.

Lewis & Hitchcock, Inc.
<www.lhorgans.com>