Juget-Sinclair Organbuilders, Montreal, Québec, Canada
Second Presbyterian Church, Nashville, Tennessee

From the organbuilder

We were first contacted by Second Presbyterian music director Nancy Turner in early 2004. A visit to Nashville to meet the committee revealed a fine group of people with good ideas, but no church as yet. Building a new organ for a structure that doesn't yet exist is quite different from the usual. We've developed a routine when we visit a church where we will be building: we make a pipe (a 2′ C Principal) that we bring with us to voice on site—on whatever is left of the outgoing organ—noting the wind pressure on the pipe itself. We then use the pipe as a starting point in prevoicing in the shop. This habit allows us the security of knowing we won't be too far off.

Of course at Second Presbyterian we didn't have that luxury, let alone the usual walk-through to get a feel for the acoustics. It is quite a different thing to base your efforts entirely on architectural plans and acoustician's predictions. But we have a hidden ace: our shop is a reinforced concrete structure built in 1919, with 30-foot vaulted ceilings, so the acoustics are flattering. We pre-voice a little loud, leaving the cut-ups low. It sounds good enough for a little concert in the shop before the organ is packed up. We're often surprised when we set up an organ in the church for the first time, and we hear how the voicing was left—*That* sounded OK in the shop?! This is our assurance that we've left enough room for on-site voicing.

Denis Juget started his shop in a former chicken coop in his back yard in Saint-Basile-le-Grand, Québec in 1994. It was a fairly large chicken coop, which allowed him to build seven practice organs, each one a little different, and a continuo organ. I joined him in 1998, and we moved the shop to Montreal, first in a 2500-square-foot space, then expanding to our present 5000 square feet. The team has slowly built up to eight. We take great pleasure in building very nearly everything ourselves from raw materials—from casting pipe metal to pipe making, from action parts to casework. We cast our own reed blocks and make our own shallots. We make pallet springs and roller arms. We are continually confronted with doubt about whether this practice is reasonable, but have never bothered with the calculation—confident, I suppose, that the costs are far outweighed by the hidden benefits. The first is complete freedom in design—an existing part doesn't fit the bill? Imagine a new one! The second is the inestimable value of having a small team capable of this varied work. These eight people can do anything.

The Second Presbyterian organ is set in the choir loft and speaks down the central axis of the octagonal nave. The console is built in, but elevated three feet from floor level; risers for the choir butt against the front frame, and the pedalboard sits on the top riser. Down on floor level are the bellows and blower-box, with the Pedal division behind. The manual divisions are above, with the Grand-Orgue in front and the Récit expressif behind. There is no back to the Grand-Orgue case and only a partial roof above it to allow sound egress. The pedal Trombone 16′ resonators are full length and extend up behind the Récit swell box. A ceiling truss passes inches above the Récit roof, and the central tower of the Grand-Orgue pokes up between two trusses. Key action is mechanical, and stop action electric.

The wind system starts with a single-fold cuneiform bellows. Wind trunks are in quarter-sawn white oak. There are concussion bellows on each division, and the wind is quite solid. The tremulant is a *vent perdu* style—a departure from our usual "Dom Bedos" style. Offset pipes are winded by wooden channels. We avoid using flexible tubing, only for the fun of it, whenever we can, which is almost always.

Juget-Sinclair organ, Second Presbyterian Church, Nashville

Lifting the console over the balcony rail

Second Presbyterian Church, Nashville, Tennessee

Drawknobs and keyboards

The elevated console posed a design problem: the organ case tended to look squashed. We found that incorporating mirrored pipe flats had the effect of visually lengthening the case. Mirrored façades are usually made by joining two identical pipes at the foot and winding them secretly from behind so that they speak in unison. We didn't need the extra power and space was not over-abundant, so this led to a façade arrangement that is possibly novel: we made the twinned pipes each play a different note. This gives an arrangement where the 12 notes of the octave are divided into eight groups! The interval between adjacent pipes is an augmented fifth. The Montre 8′ has five interior pipes: three full-length wooden basses (C, C#, D) and two interior pipes at the top (g#‴, a‴). The rest of the stop is in the façade, made up entirely of speaking pipes.

Key action is suspended, with floating square rails to compensate for dimensional changes. Trackers are kept taut by tensioner bellows to avoid bounciness. The pedal coupler does not play through—with I/P and II/I couplers both on, a note played in the pedal will play manual I but not II. Consequently, we have to lighten the manual I keys with springs so that, with I/P and II/I couplers both on and a note held down in the pedal, that same note played on Manual II doesn't stay down or repeat slowly. Key action is designed and built to be responsive and reliable, and to have a weight appropriate to the instrument without being overly heavy when coupled. Pedal action uses our parallel motion pedal pallets, which provide copious wind.

The combination action is by Laukhuff, with general and divisional pistons as well as a simple sequencer. Drawknobs and thumb and toe pistons are by Harris, slider solenoids by Heuss, and control cards by Laukhuff. Rather than a *tutti*, there are two toe pistons, which are settable reversibles and could be used for anything one would want to come and go with a push of a piston, such as *appels d'anches.*

Swell action is mechanical, with a simple and direct linkage. It uses ball-bearings wherever possible, including at both ends of each swell shade. We use the most common source of high quality bearing we can find: rollerblade bearings. We go to great lengths to make the swell box as airtight as possible. The swell box sits on top of the Récit wind chests, and all the basses are inside the box. The shades are very closely fit in their opening, and carefully adjusted to ensure good dynamic range. The geometry of the action is designed so that much more subtlety of swell shade movement is given at the *ppp* end to compensate for mechanical swell action's natural tendency to have half the dynamic range in the first 1/4 of swell pedal motion. This geometry would normally feel strange underfoot as it would become suddenly light at the closed end. We install a brake that again compensates for this effect. It all ends up being worthwhile; the feeling and precision of a carefully regulated mechanical swell action is unmatched.

Pipe scales in this instrument are not variable, but mathematical, and often with a constant added, which has the effect of narrowing the scale in the middle of the keyboard or fattening it at the ends. Scales are based on our own experience, but informed by historical examples. Samples of any new reed scales are built and voiced in the shop before the stop goes into production. The Viole de gambe 8′ and Voix céleste 8′ are slotted. The céleste is placed just behind the Basson-Hautbois 8′ on the chest to avoid acoustical conflict. The Flûte douce 4′ is in cherry. Principals and manual reeds are in hammered tin, and flutes are in hammered lead. We order our lead ingots with the necessary impurities already added, which gives stability to the high lead pipes (1½% tin). We also use that same lead in all our alloys, so they all have some trace amounts of copper, antimony, and bismuth. The façade is also hammered, in 75% tin. Our pipes are made so that the metal at the top of the pipe is considerably thinner than around the mouth and at the foot. We feel that this is crucial to the long term stability of the pipework, as it takes a lot of weight off of the top and adds thickness to the bottom, where it is needed. Open pipes are cone tuned (except the slotted strings), and stopped flutes are tuned at the ears as they have soldered caps so that they will never slip. The Trombone 16′ is full length, with pine resonators, wooden boots, and leathered brass shallots.

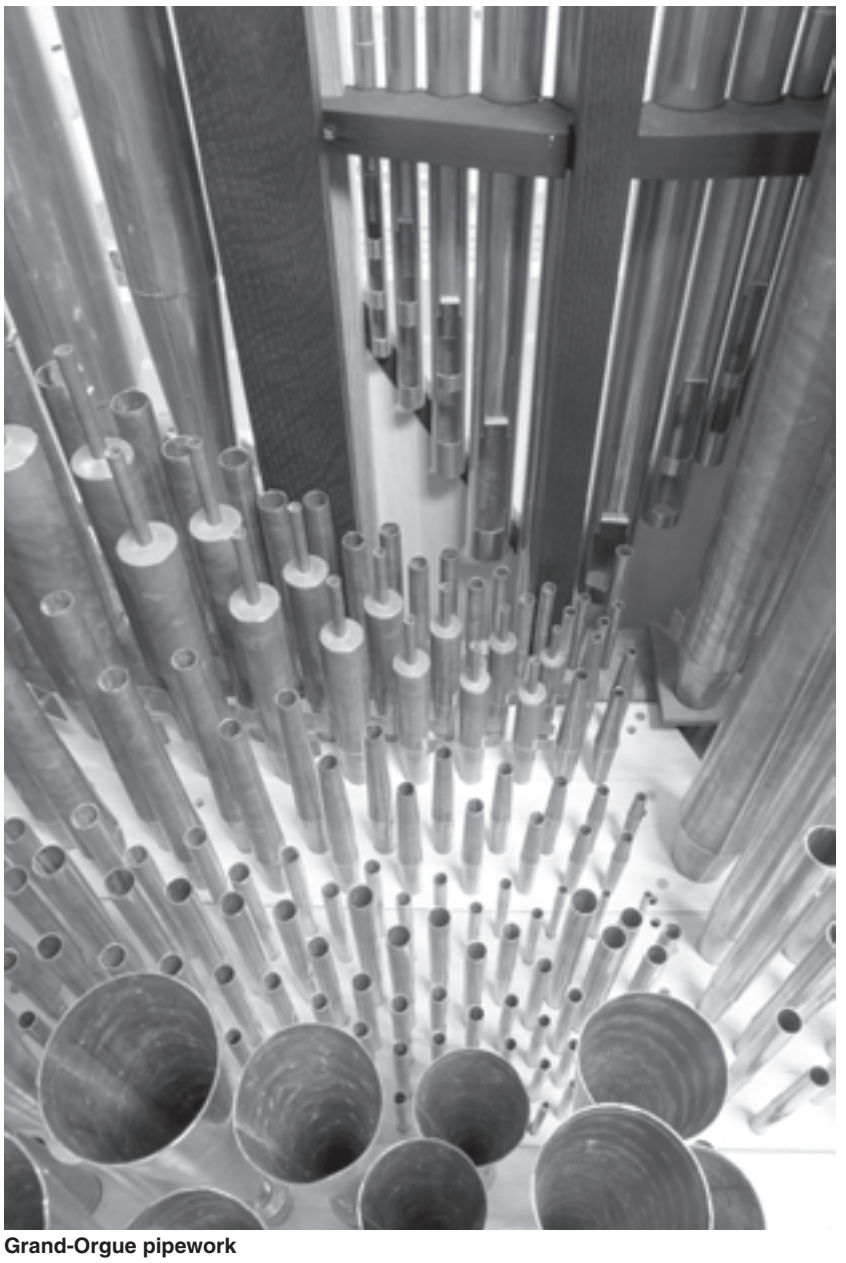
John Brock recorded the instrument for the Raven label, exploring a wide range of repertoire. The CD is entitled *Second Wind*—a reference to the fire and rebuilding—and we hope it aptly demonstrates the success of the rebuilding program.

Working on this instrument with Denis Juget and me in the shop were Robin Côté, François Couture, Céline Richard, Jean-Dominique Felx, and Jerome Veenendaal. Turned stop knobs and all engravings were by recorder maker Jean-Luc Boudreau. Raymonde Champagne designed the pipe shades. The celtic cross was gilded by Jean-Claude Vonesch.

A special thank-you is in order to John Brock, Nancy Turner, Allen Townsend, and everyone at Second Presbyterian for all their assistance and understanding during the whole project. It's impossible to overestimate the value of providing "conditions favorable to organbuilding."

—Stephen Sinclair

(L to r) Denis Juget, Robin Côté, Jerome Veenendaal—installing Récit windchests



Grand-Orgue pipework

From the consultant

In 2004 I was engaged by the organ committee of Second Presbyterian Church, Nashville, to assist them in the search for an organ to replace the one they had lost when their church burned the previous year. They were interested in an organ of good quality that would have the flexibility to support congregational singing, accompany the church's choirs, and perform a reasonably wide range of styles of organ music. The plans for the new church building included approximately 300 seats, with organ and choir in a fairly spacious rear gallery and the promise of better-than-average acoustics. It was obvious that a building like this didn't need an extremely large organ, and we were confident that they could find the right organ within their prescribed budget.

Church organist Nancy Turner and I set about gathering information from and about organbuilders in whom we were interested. Early on the name of Juget-Sinclair surfaced. I had once had an opportunity to play one of their excellent 3-stop practice organs, but that was the extent of our knowledge of their work. However, the reports we got from people who knew their instruments were so promising that we decided to investigate further. After trips to see and play Juget-Sinclair organs in Birmingham, Alabama, and Hickory, North Carolina, the committee was convinced that this was what they wanted, and a contract was soon signed for the organ.

The result is an instrument of first-rate quality. The early reports that we got on Denis Juget and Stephen Sinclair's work had been correct: they do whatever it takes to "get it right." The organ is a real jewel in its setting, and it does all the things that the organ committee had hoped for, i.e., it supports congregational singing (the congregation sings enthusiastically), it offers flexibility in choir accompaniment, and it plays a wide range of organ literature very convincingly. It's also a very responsive instrument, one that encourages the player in the best of ways.

It seems to me that the good organs of the world share several important characteristics, namely, a captivating, sometimes dramatic sound resulting from good pipe scaling and voicing, an attractive visual element, a reliable and responsive mechanism, and a cohesive sense of style. Juget-Sinclair has managed to achieve all of this in this modest organ. It was a pleasure working with them.

—John Brock

Grand-Orgue

8′ Montre
8′ Flûte à cheminée
4′ Prestant
4′ Flûte conique
2′ Doublette
1⅓′ Fourniture IV
8′ Trompette

Récit expressif

8′ Bourdon
8′ Viole de gambe
8′ Voix céleste
4′ Principal
4′ Flûte douce
2⅔′ Nazard
2′ Flûte
1⅗′ Tierce
2′ Plein jeu IV
8′ Basson-Hautbois

Pédale

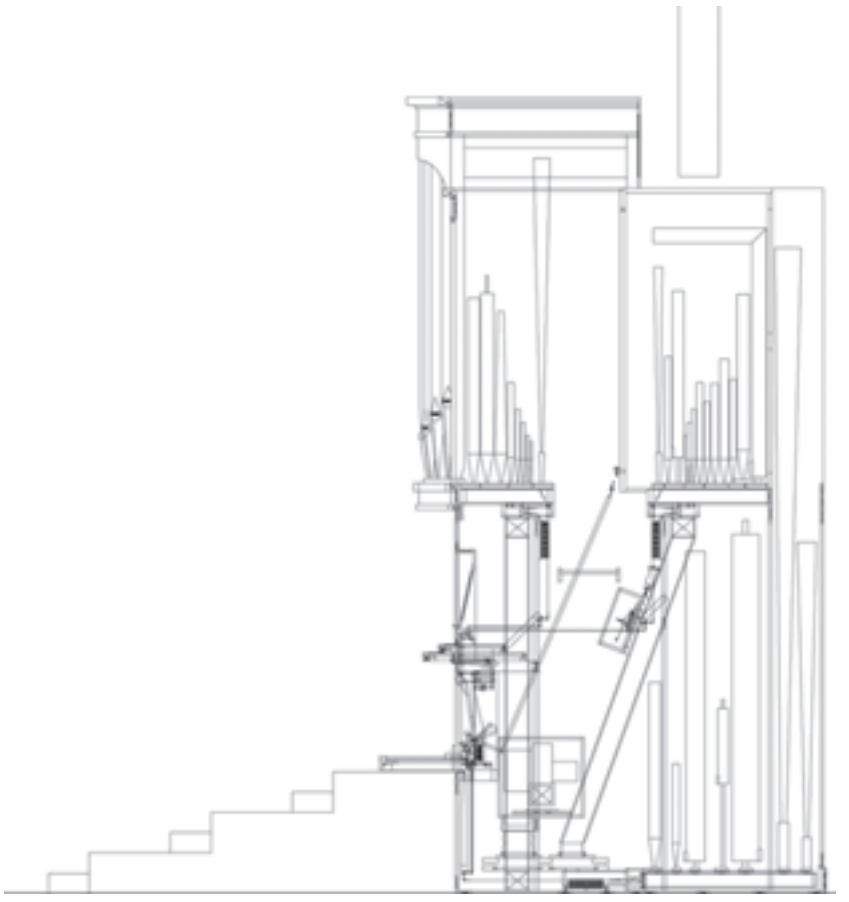
16′ Soubasse
8′ Flûte ouverte
4′ Octave
16′ Trombone

Couplers: II/I - I/P - II/P
Tremblant Récit

Photo credit: Stephen Sinclair

Juget-Sinclair Organbuilders
2250, rue Pitt, #307
Montreal, QC H4E 4H1

514/932-9898
www.juget-sinclair.com



Case profile