

(Presentation by Roger Miller at the Salt Lake City AGO Chapter Super Saturday)

BERLIOZ AND THE FRENCH ROMANTIC ORGAN

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I

Only the very soft stops seem to be suitable for the accompaniment of voices. In general the organ is meant for total domination, it is a jealous and intolerant instrument. It seems to me that there is only one set of circumstances where it could blend with a chorus and an orchestra without detriment, but only on condition that it remained itself in majestic isolation. Suppose a mass of voices placed in the choir of a church, far away from the organ, and interrupting its chant to let the organ repeat it, in whole or in part; suppose even that the chorus, in a ceremony of a sad character, was accompanied by a lament alternating between the orchestra and the organ from the two extremities of the church, with the organ following the orchestra like a mysterious echo of its lament. This manner of instrumentation could lead to grand and sublime effects.

Yet even in this case the organ would not really blend with the other instruments, but would answer and question them. There would only be between these two rival powers an alliance all the more sincere as neither would shed any of its dignity. Every time I have heard the organ playing together with the orchestra it seemed to me to produce a dreadful effect; it interfered with the orchestra instead of strengthening it. (from Berlioz, *Treatise on Instrumentation and Orchestration*, Excerpts translated by Michel Austin, 2001-2009, Berlioz Website)

II

The late Stephen Bicknell, as head voicer with the British firm Mander, received high praise for his work on the St. Ignatius Loyola organ in NYC, which has been called the finest organ in North America. Several years ago, using a cooking metaphor, he wrote a short Internet (google Cavallé-Coll) piece describing CC's *fonds* in some detail, writing as follows:

I have had several requests for some kind of description of how the four typical flue foundation stops of a Cavallé-Coll organ actually work in practice. Here goes!

First I would like to affirm that the effect is quite unlike four stops of similar type on organs made in other style. Very few English or American romantic organs have the necessary qualities. To take an extreme example, in a vintage Harrison & Harrison one might find Open diapason, Open diapason, Claribel flute, and Stopped diapason, but these are not designed to be used together. The Stopped diapason might be audible when added to the Open II, but as the latter is likely to be of *geigen* (string) quality and slow in speech, and the Stopped diapason quick and dull, the blend will not be perfect. The Claribel will be very full and pure and will swamp the Open II or Stopped diapason; the Open I will be large and foundational with a strong bass, and will swamp the lot. It's oil and water -- no wonder George Dixon, the leading exponent of the 'Imperial' style of organ design, recommended that diapasons and flutes should never be drawn together.

Cavallé-Coll never built an organ of soft stops and loud stops, but maintained his own personal version of classical balance between the ranks throughout his career. However, there are several aspects of his style which make his recipe peculiarly effective and interesting:

The Montre 8', Flute harmonique 8' and Bourdon 8' are the invariable components of the sauce; variety, from instrument to instrument, comes from different scalings and progressions and the addition to the trio of a *Viole de gambe*, *Violoncelle*, or *Salicional* [in other words, *sting timbre*].

Firstly there is a *uniformity* in the style of voicing between these various ranks (stemming partly from the fact that Cavaillé-Coll stuck to rather 'quick' speech and preserved good articulation in all ranks. Though this articulation hardly amounts to an audible chiff, the Montre will speak with a trace of the octave (the basses are often made without ears, a fact which forces the speech to be set quick), the Flute harmonique will speak with a trace of the sub-octave, and the Bourdon will speak with a trace of the octave quint ($2 \frac{2}{3}$ '). The string rank will start with a characteristic 'dzzzh' consonant (if you know Russian you will know what I mean!).

This is accentuated by the fact that each rank embodies trace elements which are related to its neighbours. The Montre will be fluty on account of generous scale, quick speech, and the unfocussed effect of having no ears, but an element of string tone may be present if the pipes are slotted. The Flute harmonique is not an orchestral flute (although it passes well as such in the correct register); it is actually a harmonic partner to the Montre, a principal stop of large scale and double length. It has an open wooden bass of full but horn-like tone (...) with the harmonic section starting around middle *f*. The harmonic pipes have the virtue of speaking with the harmonic build-up of a true 16' register, adding the faintest trace of 'sub' tone to the entire mix (there are $5 \frac{1}{3}$ ' and $3 \frac{1}{5}$ ' components which only a harmonic stop can provide). Cavaillé-Coll was obsessed with melodic strength: Montre and Flute harmonique together are designed to provide this. The bass of the Montre is likely to be gentle in power, the treble harder, brighter and louder. The Flute harmonique fills out the bass, adds power to the treble, and gives a distinct color to both the speech and continuation tone. [sic]

The remaining two stops are the lesser partners to this major pair. Bourdon and string together give the 'Fonds Doux' (doux = soft, sweet), in gentle imitation of their senior brethren. The combination of the two usually sounds so like a lesser principal rank as to make the provision of a small open diapason completely unnecessary (just as the combination of Montre and Flute harmonique makes the provision of a large open diapason completely unnecessary). Indeed in some Cavaillé-Coll divisions the 4' ranks are *Viola 4'* and *Flute octaviante 4'*, together sounding uncannily like a single rank of 4' principals.

The string rank will add a trace of color to either the Montre or the Flute harmonique, but normally neither it nor the Bourdon are quite strong enough on their own to add appreciably to the Montre and Flute harmonique (though the Bourdon thickens the sauce very slightly). But, together, the string and Bourdon are strong enough to balance either of the senior ranks on their own or to make a significant background color in the four-rank ensemble.

The bass to treble balance of all four [ranks] is that familiar from an English or American string stop, but contrasting with romantic techniques in the English speaking world there is no attempt whatever to make the basses of the principals or flutes loud enough to be heard in major combinations. The bass of the Montre will support the treble of the Montre, but the bass of the chorus with mixtures is held up by the bass of the upperwork as much as by the bass of the Montre itself, and in full organ the necessary underpinning is provided by the reeds and by the independent (but mild) pedal fluework. In the fonds the abiding impression is of a gentle, unfocussed but full bass with a very strong melodic impetus in the treble. The bass-treble crescendo is often carried to lengths that the English speaking world would believe impossible: the Montres are to varied scales but sometimes the halving is as slow as the nineteenth or twentieth note.

Finally, a lot of the success of the recipe is related to the precise nature of the voicing and the speed of speech. These are characterful, articulate voices, but without any trace of neo-classical huskiness, breathiness, windiness or chuff. Please note that is a style of voicing which cannot easily be imitated on electro-pneumatic actions where the pallet opens much faster and the speech of the pipes has to be set slow.

Another school of organ building which can show something like this is that practiced in the Netherlands in the late eighteenth and early nineteenth centuries, where a similar effect is obtained from the three typical foundation ranks of Prestant (narrow bass but cut up high), Baarpijp (stringy spitz flute) and Holpijp (fat chimney flute). It is perhaps no coincidence that Cavaillé-Coll admired the organs of Bätz, where the mélange also includes a full organ with mixtures, cornets and batteries of reeds 16', 8' and 4' (fine examples survive at Utrecht Cathedral, at the Lutheran Church in the Hague, and elsewhere).

As you can see the picture is complex and fascinating: there is more detail in these four typical Cavaillé-Coll stops than you will find in an entire organ by a less inspired builder. References to cooking have peppered this description: to extend the likeness further it would be no exaggeration to say that the Cavaillé-Coll "jeux de fonds" make the "roux" on which every registrational dish is based.

III

Stephen Morelot's Implied Criticism from the *Revue Musicale*

"There are two categories of artists . . . those who count on variety of registration for effectiveness, and those who rely on the interest of the music itself. We shall report below what position Mr. Hesse has adopted with reference to these two approaches; but first, if we had had the time, we would have attempted to describe the theory of interpretation on the organ by inquiring to what extent it is legitimate to follow the fashion that today pervades all branches of music: the fashion of using the novel contrasts that new developments in instrument building have made available to the composer. We would have assessed to what degree this fashion can be reconciled with the organ's chief function, which is liturgical, a factor that must, in our opinion, decide the matter.

"One of these special effects, however, has been too lavishly used by today's organ builders, and it makes too great an impression on the public for us not to treat it in greater detail: this is the attempt to make the organ expressive by means of *shutters* that can be controlled at will. Let us first state what genuine resources this ingenious device has added to the organ. It cannot be denied that by allowing certain stops to sound distant as well as restoring all their immediacy, swell shutters significantly increase the variety of which the organ is capable. Since we cannot discuss these effects in detail, we refer back to Tuesday's recital. But that is all the importance we can grant to this innovation, since rather than creating expression as claimed, it produces only a yawn. Expression, after all, comes from feeling: how can it be produced by a mechanism, however sophisticated, since the mechanism remains foreign to the essential nature of the instrument to which it is applied?" (Fenner Douglass, *Cavaillé-Coll and the French Romantic Tradition*, Chapter Five, "Conflict in the Press".)

IV

Cavaillé's Response to a Critical Article by Danjou

"The only tendency plainly shown by Mr. Cavaille's work', you say, 'is improvement in the action, increasing the overall power of the instrument, and giving his stops the tonal character of the orchestral instruments whose names they bear'.

"Such is indeed, Sir, the goal of my endeavor, and you have grasped its meaning perfectly. However, you do not seem to approve of this tendency for you say in another paragraph, 'As for the imitation of orchestral instruments sought by Mr. Cavallé, if this error were to spread, the results would be disastrous for music.' And you add, further on, 'but from the religious point of view, it is no longer an absurdity: it is an impropriety.'

"This opinion does not seem to me to be acceptable. All I aspire to achieve, speaking for myself, is to give the various stops in the organ the tonal character of the orchestral instruments whose names they bear. In my view, strengthening the resemblance between organ stops and the instruments they imitate is improving their quality, not destroying their religious character, if indeed there is religious character in musical tones *per se*, as you seem to believe. In my opinion, religious character is found rather in the composition of the music. The same notes of the scale, after all, can be used to express a religious or a worldly idea, just as the same letters of the alphabet used to write the holy books are used in evil books. In music, as in speech, the same voice can express all kinds of feelings, just as organ tones, whatever they may be, will never say aught but what the artist makes them say, by means of the keyboard, always ready to follow his inspiration. Therefore, the organist, not the organ, gives music the religious or worldly character that you seek in vain among the tones of this gigantic but docile instrument.

"Even if we admit for a moment that musical sound *per se* may have a religious character, you will, I think, concede that this character must be found in the instrument whose tone is most perfect.

"Well, then, let us compare the various stops of the organ with the corresponding orchestral instruments. Is the sound of *Trompette*, even one of Clicquot's as perfect as that of a trumpet in the orchestra?

"Is the sound of a *Clairon* as perfect as that of the bugle it imitates?

"Does the sound of the *Basson* have the perfection found in that of the bassoon?

"Does the sound of the *Clarinette* stop equal that of the clarinet?

"Has the *Hautbois* -- in my opinion the most closely imitative of organ-stops -- reached the perfection of the orchestra's oboe?

"Has the *Cor anglais*, even with free reeds reached the perfection of the English horn?

"Finally, has the *Voix humaine* ever come near the admirable instrument placed in our larynx by the Creator?

"Obviously not. Therefore, every step towards perfect imitation of these various instruments will lend to the stops of the organ that religious character you seek. Far from being an obstacle, this imitation of orchestral instruments, which you condemn, becomes a resource for the organist to draw upon and heightens the grandeur of liturgical ceremony.

"I shall not speak of the towering ranks which are peculiar to the organ, and whose deep, majestic tones give it an imposing character found in no other instrument. I must limit myself to the instruments of the orchestra that have lent their names to organ-stops.

"The tone of flue stops leaves less to be desired than that of the reed stops we have just listed, but you will surely agree that despite the improvements you have discussed for your readers, we still have far to go before we achieve in our *Flûtes* the tonal perfection that [the orchestral player] brings forth from his instrument.

"As for the large-sized stops that give the organ's peculiarly imposing, majestic character, I believe that far from spoiling their effect, I have increased it as much as possible, as when I placed in the Saint-Denis organ ranks of 32' pitch, at the lower limit of audible sound.

"Neither do I think I have detracted from the religious character of the organ by progressively eliminating from our instruments those thickets of *Nazards*, *Quartes*, *Tierces*, and *Cornets* that plagued our old organs. Instead, I think I have replaced those snarling stops to good advantage with the new family of *harmonic* stops. They are not simply overblown, as you state; I created them, and I strive to perfect them.

"I hope, Sir, that these brief remarks may improve your estimate of my chosen path, which is to imitate in organ-stops the tone of the instruments they represent."