

SERENADE FOR SIXTY STRINGS

by Lawrence Leighton Smith

Examining the link between quantity of players and quality of sound, a seasoned music director presents his case for the full-stringed symphony orchestra.

Back in the early 1970s when I was music director of the Oregon Symphony, I believed that if the orchestra was going to sound better, the answer was more strings. Before I went to the board to ask for the financial support such enhancement required, I gathered as much ammunition as I could find. It was then that I came across Nikolai Rimsky-Korsakov's *Principles of Orchestration*, in which the great Russian composer and teacher elucidated his plan for a full orchestra built on a foundation of sixty strings.

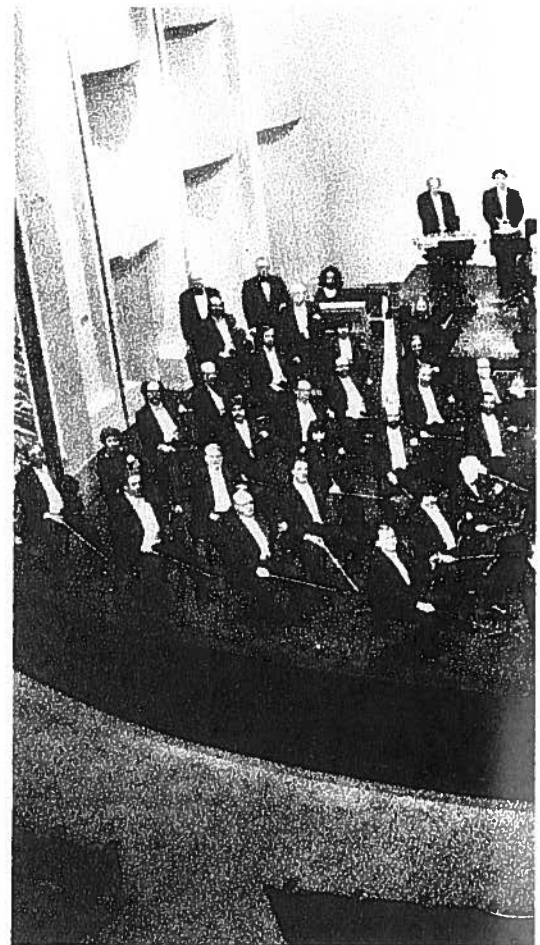
Sixty strings! What a nice, round number, I thought, ever the more mystically meaningful when you consider the reverse arithmetic progression: sixteen first violins, fourteen seconds, twelve violas, ten cellos, and eight double basses. I gathered as many concert programs as I could find and started to count the number of string players in various orchestras, comparing them to Rimsky-Korsakov's golden mean.

As I counted, I wondered why it was that professional orchestras in smaller cities had smaller string sections than pro-

fessional orchestras in larger cities, even though theoretically we all play the same orchestral masterpieces. Must be money, I thought, and a certain provincialism. Or maybe the board didn't know that the orchestra would sound better if you added more strings. But the music director *should* know: conductors may lead orchestras in out-of-the-way cities, but they don't stay in those cities all the time. Conductors get around.

Sustaining and expanding the number of musicians should be a primary concern when the board plans its expenditures. Granted, this goal should not deplete essential operations. After all, the function of an orchestra is to provide music, and to provide music it has to raise money, publicize concerts, and sell tickets. But I can think of no justification for cutting back on musicians as a means of strengthening an orchestra, even an orchestra in serious financial trouble. Getting rid of musicians is the most obvious way to save money, but it is also the most foolish. You are then compromising the quality of your product, and as a general rule in any business, you can't attract new customers by destroying your product. The better the orchestra sounds, the more easily you will sell it.

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You cannot reduce a symphony orchestra and then call it a "chamber orchestra"—it would be like shrinking a football to get a tennis ball. A chamber orchestra is not a less expensive version of a symphony orchestra. It is a unique musical institution with unique musical needs. Not all musicians and conductors are capable of or interested in forging a chamber orchestra. Few communities are capable of supporting one.

The repertoire for chamber orchestra is totally different. Standard orchestral fare would be limited: you must stop after Beethoven's Fourth Symphony, you wouldn't be able to play much Mendelssohn, and there could be no Brahms, no Strauss, no Tchaikovsky. (Just the thought of Tchaikovsky with a chamber orchestra makes the stomach turn!) For the most part, familiar repertoire would have to stop around 1850. There is plenty of Haydn and Mozart before that, and, as the Saint Paul Chamber Orchestra has shown, you can adventurously commis-



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committed to improving the overall sound of the orchestra, it will concern itself greatly with finding ways to fund sixty string players.

Evolution of the Orchestral Machine

The symphony orchestra has grown over the centuries as composers have broadened the palette of sound. In Rimsky-Korsakov's time, the standard orchestration for a symphonic work asked for doubling—two flutes, two oboes, two clarinets, two bassoons. It has become standard now with symphonic works to have triple winds: two flutes and a piccolo, two clarinets and bass clarinet, two oboes and an English horn, two bassoons and a contrabassoon.

Stravinsky was a primal force in enlarging the size of the orchestra. His original *Rite of Spring* asked for fours and fives in many woodwind sections, and eight horns. *Eight horns!* When Richard Strauss came along he too wrote for eight horns. Bartók and Hindemith geared their symphonic works for large orchestra. Today's generation of composers is still writing for a large ensemble, and in the last ten years a Romantic gesture of writing has produced music that requires great forces. David Del Tredici writes for a Mahler-sized orchestra. John Adams also writes for a particularly large apparatus.

Had the ideal of eight horns been emulated by the followers of Strauss and Stravinsky, we might have needed 120 strings just to keep up with the brass. For-

sion new chamber orchestra works, but your audiences would soon become bored if all they ever heard was the very old and the very new. A chamber orchestra is shut out from playing the great symphonic works in our orchestral tradition.

Funding a chamber orchestra is not easier than funding a symphony orchestra. In all likelihood, it will be much more difficult. The public perception of a chamber orchestra is totally different—people hear the word “chamber” and think of delicate chamber music. When they hear “symphony” they think of a big, powerful sound. Just as pops concert audiences rarely make the move to classical subscription concerts, so may devout symphony people be reluctant to embrace a chamber orchestra.

Successful chamber ventures—the Los Angeles Chamber Orchestra, the Saint Paul Chamber Orchestra, Orpheus—were designed, built, and sold to the public for the purpose of exploring the chamber orchestra repertoire. They exist in

large cities with large population bases and generous corporations and foundations. Most importantly, they all thrive in cities where the alternative of a full orchestra is readily available. Unless you are in a big city, you can only support *one* orchestra. And if you can only support one orchestra, a luscious full-stringed symphony orchestra is artistically and financially more viable.

Selling the need for growth to the board is not easy for the conductor. Some board members understand the problem immediately. Others find it difficult to understand that size limits repertoire. They often expect a Mahler symphony to appear before their eyes. And when it doesn't sound very good they'll say “Well, it's a lousy orchestra.” The audience, regardless of sophistication or experience, will notice the weakness of sound as acutely as the musicians. They can hear an orchestra struggle, and it's not a pleasant sound. The problem may not be quality, but quantity. If the board is truly

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tunately, most orchestral works—and thus most orchestras—went from double winds to merely triples. Ironically, the section that has grown most quickly in the past century is brass, which can seemingly outblow anything.

The fastest-growing section in America has been percussion: in classical music, as in rock and roll, there has been a lot more banging around. It's a rare piece from the new orchestral repertoire that uses fewer than three percussion players in addition to the timpani. Well-equipped orchestras now have all kinds of percussion stuff—wind bell trees, roto-toms—and it is not uncommon to have eight or nine players in a percussion section.

Performing spaces have also changed substantially since Rimsky-Korsakov's time. Halls are bigger and often less resonant. Multi-purpose halls are generally not designed to capture the subtleties of symphonic performance. The larger the hall, the more distant the orchestra will sound.

Why not just mike the strings? That's not a valid alternative in my book. If the balance of the orchestra is off to begin with, and the quality of the sound is forced, simple electronic amplification of one section will further distort the orchestra's sound. Electronic enhancement systems can and should be used to correct overall sound problems in a hall—we use one in Louisville—but you can't use them selectively to correct musical deficiencies.

Under Rimsky-Korsakov's rule strings make up two-thirds of the ensemble, a logical balance between the temperate resonance of bowed instruments and the more forceful potential of wind instruments. The issue thus becomes not just one of volume but one of balance; if you have the right number of winds, but too few strings, you'll never be able to balance the sound as the composer intended



it to be heard.

One might ask whether adjustment of dynamics by the conductor—telling the strings to play louder, the winds softer—could not compensate for imbalances in volume. Dynamics can only be controlled to a certain extent from the podium. There are times when you must “let go” and allow the music to be played as it was written.

Let's say you are faced with having to perform a Bruckner or Mahler symphony with a smaller orchestra. You have twelve first violins, ten seconds, and down the line such that you are well below Rimsky-Korsakov's magic number. At the same time you have four of all the woodwinds,

and enough brass to blow the strings off the stage. Even if you tell the brass not to play so loudly, the strings will *still* have to play their hearts out just to hear themselves. The audience will hear a perpetual digging sound as bows crunch into strings. A cloud of rosin will form over the whole string section.

If you force an orchestra to strain like that for a whole season, you are going to engender serious physical problems for the players. They will have to live in this environment of forced dynamics not just for one concert, but for several—plus rehearsals. Brass players will have to live with the frustrations of having to play lighter. This can be very strenuous, often more so than playing louder. Consistent “crunching” in the string section can result in serious neuro-muscular disorders for the string players.

Assuming you don't force the string section—if the woodwinds play lighter, the brass play lighter, and the strings play a normal forte—your audience will not like what they hear. “That Mahler sounds weak,” they will say, and they will be right. Mahler's is a highly charged and neurotic music. Sometimes you have to scream out with the horns to get the horrific sounds he wanted. But to scream with the horns you must be able to scream with the strings too. If you do it right, your audience will react viscerally, as will the musicians. A forced fortissimo is not

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the same as a real one. A fake fortissimo may wake a slumbering concertgoer. A real one will pin him against the back wall.

Building from the Bottom Up

The primary beneficiary of orchestral music is the audience. Their concerns and complaints should be heeded, no matter how naive. But the ultimate decision on matters of orchestral sound and balance must come from the music director. He's most likely the only person around who can accurately assess the problem. He knows the music, he can hear the various sections, and he can estimate how the orchestra sounds to the audience. The board must trust that the music director knows when, where, and how musicians should be added to the orchestra.

There are ways to add strings without breaking the bank. The first thing the conductor must do is forge a strong alliance with the manager. It has to be a team. It is imperative that the conductor understand the institution's abilities before banging his fist on the boardroom table. These days a music director has to be very aware of the dollars or else he won't last long.

The conductor must formulate a full musical explanation for every musician requested and indicate how those musicians will be used. When you make the commitment to more strings you have to be sure that your orchestra has enough on its schedule to keep those musicians busy over the main season and through a healthy summer season too.

You can't expect to add ten new string players overnight. Rare is the orchestra that can add more than two players a season. The first violins carry the melodic line—the music that most people listen to—while the lower strings, Bruckner used to say, are “the pillars of the cathedral” and provide the tones on which all

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other chords are built. So in general, string players should be added at the top and bottom simultaneously: one first violin and one double bass. Later you can fill in with second violins, violas, and cellos. Keeping in mind your vision of what the orchestra's final size should be, a long-range plan for supplementing the strings might look like this:

Phase One: one first, one second, one bass

Phase Two: one first, one viola, one cello

Phase Three: one first, one double bass

Phase Four: one second, one viola

This process should continue until Rimsky-Korsakov's magic number is reached.

I have had to go through the arduous process of building strings with nearly every orchestra I have conducted. With the exception of a handful of venerable orchestras, the process of building strings is a fact of life for an American music director. Each time I have taken on the directorship of an orchestra I have had to assess the orchestra's musical needs, consider its financial limits, and then present my case to the board.

Once you have achieved Rimsky-Korsakov's ideal, the possibilities for

exploiting your orchestral machine are limitless. Of course, you don't have to use all of the musicians all of the time. Truly adventurous programming includes works of various genres on a given program. Many great orchestral composers wrote powerful works that require limited forces, and many works in the Classical and chamber orchestra repertoire do deserve to be played by a reduced symphony orchestra.

The fully staffed orchestra frees you to pursue all sorts of artistic options. It presents financial opportunities. Well-managed orchestras take advantage of every opportunity to sell the services of musicians who are not playing on a particular program. You may present an all-string program with Barber's *Adagio for Strings* and Tchaikovsky's *Serenade for Strings*, while on the other side of town your winds are being presented in chamber ensemble concerts.

I recently attended a New York Philharmonic concert that opened with a Handel concerto grosso performed by a small group of strings. Zubin Mehta had carefully programmed two unusual subscription weeks—one the preceding month with all winds, and another that evening with strings only.

As I was counting the strings, the fellow next to me got to his seat, took one look at the stage, and said to his wife “What the hell is going on?” He clearly felt he was being cheated. My neighbor was soon mollified when he realized that the stage configuration was just a temporary arrangement, and that the evening's program was yet another demonstration of the New York Philharmonic's exemplary versatility. He could take comfort in the knowledge that his beloved full-bodied orchestra would be back the following week. **S**