Orchestrating a Workbook Example
Orchestrating This Workbook Example For Strings
by Peter Lawrence Alexander

*Professional Orchestration: A Practical Handbook* is a streamlined revision in three books with separate workbook, focusing strictly on the techniques for transcribing piano works for strings, woodwinds, and finally full orchestra. Book 1 *From Piano to Strings* and *Professional Orchestration 2A: Orchestrating the Melody Within the String Section* are an ideal combination to use for a second semester orchestration class focusing on string writing.

I used the first edition of *Professional Orchestration: A Practical Handbook* while a Berklee student. Then later, I tried it again on my own. Here’s my experience which I’ve since found many others have also had. Each time I tried doing the workbook examples, I was never confident that what I was doing was right. I now know there were three reasons for that.

The first reason is that a working understanding of the techniques of harmonic figuration is vital. These are now covered in our new *Professional Orchestration Guide to Composition* available Fall 2009.

The second reason was because I didn’t know many devices for scoring strings. This was drilled home to me when I first arrived in Los Angeles and was fortunate to have a one-time phone conversation with the late Herb Spenser, John Williams’ orchestrator. Herb said that if I wanted to be successful I needed to know about a 1000 devices. I began putting together that device list and it grew to become the *Professional Orchestration™* series.

The third reason was the need for sound - to be able to hear your work. Now with so many orchestral libraries on the market, that’s no longer a problem. You can do the work in a notation program or you can learn MIDI mockup skills with a sequencing program. Either way, a harvest of skill is waiting to be farmed.

In this brochure, I’m taking one example from the workbook and showing how I would approach orchestrating it for the string section. I selected *Bourree Fantasque* because it neatly deals with issues for both live strings and doing MIDI mockups. *Bourree Fantasque* starts with a unison line in *f* which expands to five-part harmony. In *Professional Orchestration 2A, Orchestrating the Melody Within the String Section* I have unison combinations by register. So right away you have a handy reference guide.
Approaching the Unison Line

Look at the unison line by register by string instruments.

The first seven and a half bars the line is in the:

- low register of the violins then moving off the instrument at bar 6
- medium register of the violas staying completely in its range
- medium register of the cellos staying completely in its range.

What I learned from Al Harris

While in Los Angeles, I went through *A Practical Handbook* and the workbook with one of Hollywood’s great orchestrators, Dr. Albert Harris, who was nominated for a Pulitzer Prize for a guitar composition commissioned by Andres Segovia. What I learned from Dr. Harris was this: there’s more than one answer. Or put differently, there’s no one perfect answer. There are multiple solutions one or more of which will be stronger and more appropriate than the others depending on the situation.

What I learned from orchestral sample libraries

Repeated notes are natural for live strings because they’re bowed! Repeated notes are not natural for orchestral sample libraries unless the sounds have been recorded and edited to recreate repeated notes. Even then, it’s not yet perfect.

With “live” players, you pick the bowings in consultation with the concert master (if you’re wise). With orchestral sample libraries, you get the bowings they recorded.

Unison lines create another issue.

With strings, you have live players and textures that blend to create a distinctive sound. With orchestral sample libraries, unless it’s a great orchestral string library, a unison line might just sound like a fatter synth sound.

So in approaching this passage, you need to know your bowings and you need to know how the strings sound in each register so that when you blend them, you understand the sound you’re constructing.

Consequently, you have to know:

- what bowings sound like - what bowings don’t sound like
- what the strings sound like in each register - what they don’t sound like in each register.

If you don’t know these fundamentals, what you submit might make you look like an incompetent dweeb. I know this to be a fact because I did it to myself a couple of times. Fortunately for my career, I recovered!

Benchmarks for orchestral sample libraries

The examples from *Professional Orchestration: A Practical Handbook* are also excellent benchmarks for electronic scoring because from them you discover;

- if a specific library sounds like real strings or synth strings
- if the dreaded organ sound is produced.

You’ll know in seconds. And when you hear the first result, you’ll know why composers in Los Angeles, New York, London, Toronto (et al) usually have several string libraries, because to get some sort of realistic sound you have to mix, match and blend multiple libraries from other companies.

From this exercise, you develop what the late film composer and conductor Shirley Walker called your signature sound.
Bowings and Tempos

The tempo is quarter = 152 beats per minute. The French instructions say *tres anime avec beaucoup d’entrain.* Since I don’t speak French I need to translate. You can find free translation on the web or use the translation feature available on Dashboard on the Mac. The translation is, “Very animated with much spirit.” A Sousa march is at 120 BPM. So this tempo is about 30% faster.

In *Professional Orchestration Volume 1: Solo Instruments and Instrumentation Notes*, we worked out the tempos at which various bowings can be performed. Starting at bar 8 in the violins, there are four possible bowings that might work:

- **detache moyen**
- **sautille** - rapid spiccato without lifting the bow off the string (crisp, popcorn popping sound)
- **spiccato**
- **martele**

How do you know the bowing you want? The first place to start is by listening to the recorded piano example to gain interpretation insight that might be transferable to the strings.

After listening to or playing the piano part, you draw on your musical experience to determine the most effective bow stroke that supports the composer’s intent. To repeat, if you haven’t built up that accumulated experience yet, do what most wise composers do - ask the advice of the person playing it, the violinist. Even Ravel did that! In fact, Ravel brought in a concert violinist to mark the bowings on the score before the parts were copied and put on the stands.

However, we’re now in the Twenty First Century and there’s YouTube. So if there’s no violinist around, or you feel ultra embarrassed to ask, go to YouTube and type in the bowing you’re thinking about.

If you’re reading this PDF online, click on [Sautille demo](#), [Spicotatto practice](#), [Niccolo Paganini](#), and [martele bowing](#).

One thing I want to point out about bowing descriptions - precise descriptions are variable depending on the orchestration textbook author, conductor, violinist and teacher. As an example, when I wrote the *Writing For Strings* course I compared bowing definitions between a concert master and a well known conductor, the late Norman Del Mar. There were both similarities and differences. I found this to be true when I scanned YouTube for bowing demonstrations for *sautille* vs. *spiccato*. The best you can do is pick the bowing you think is right, whether it’s this example or your own composition. If necessary, use technology to your benefit and show the video to the concert master to visualize what you’re looking for.

While no one wants to say this aloud, many string players consider composers and arrangers to be idiots when it comes to string bowings and will ignore what you wrote and redo it anyway. Even so! Bowings are part of your device and orchestral effects list. A bowing creates a certain sound, and to the best of your ability you need to mark your parts as best as possible.

Back to orchestral sample libraries. Once you’ve learned the sound of the bowings, now go back and listen to the bow strokes recorded in whatever library you own. Some libraries have named the bowings while others give the bowing and the length in seconds, as was done by both the Miroslav Philharmonik library (from IK Multimedia) and the Vienna Instruments.

Mastering the sound of the bowings in your musical imagination and comparing them to the libraries you have will quickly demonstrate the strength and weaknesses of any orchestral sample library. With strings, there is so much to record, it’s not really affordable financially to catch all the possible options. So what’s recorded will never be all that’s needed to accurately reflect what the strings are capable of doing.
The above slide shows what happens at bar 8 when the piece goes to five-part harmony. Look carefully for practical counterpoint applications 4 against 1 and 2 against 1. Once we get to this point, assigning the “notes” is pretty simple. But there are other decisions.

**First Violins**

The Violins 1 entrance is a D phrygian scale. Options are:

- Sul D (depends on the skill of the players being written for)
- Starting on the open D-string (with an open pitch) and crossing to the A-string
- Playing under a single bow
- Detache
Second Violins

I think the Second Violins are the make it or break it part of this example. 152BPM is blazingly fast for sixteenth notes. Notice that the first pitch of the sixteenth group is assigned down an octave. If you score this exactly, the Second Violins have a sixteenth rest which at this tempo requires considerable precision. I think that’s a prescription for a performance problem, especially if performed by an amateur orchestra or students. So my inclination is to raise that first pitch on the sixteenth group up an octave so the Second Violins have a steady sixteenth note line to play.

Violas

There’s a line over the notehead signifying that the quarter note part is to be performed for the full duration of the quarter note. The violas are performing a descending chromatic line. You could separate each pitch or play them all under a single bow.

Cellos and Basses

The cellos and basses are sustained playing in octaves.

Options

Bars 8 to the end pretty much write themselves for assigning notes. The pick-ups going into bar 1 offer these possibilities:

- Violins 1 only up to bar 6 followed by Violas only, or Cellos only
- Violins 2 only up to bar 6 followed by Violas only, or Cellos only
- Violins 1 + 2 up to bar 6 followed by Violas + Cellos
- Violas only up to bar 8
- Cellos only up to bar 8
- Violas + Cellos only up to bar 8
- Violins 1 + Violins 2 + Violas + Cellos up to bar 6 then Violas + Cellos only
- Violins 1 + Violas + Cellos up to bar 6 then Violas + Cellos only
- Violins 2 + Violas + Cellos up to bar 6 then Violas + Cellos only

So far I’ve worked out eleven different possibilities for just 8 bars.

The Unasked Questions

A great way to wreck your career as a writer is to assume and not ask these two questions:

1. How many players are you writing for?
2. What is their skill level?

If you’re writing for live players, you had better know the answers to these questions especially if you’re doing a MIDI mockup as an example. Often, a writer who’s used to writing mostly for sample libraries can be surprised at how “small” live strings sound when compared to sampled strings.
From Piano to Strings

Professional Orchestration: A Practical Handbook - From Piano to Strings is a practical, yet challenging work giving you training in writing for live players and how to make MIDI mockups sound live. From Piano to Strings is the first of three learning packages. It’s followed by From Piano to Woodwinds, and finally, From Piano to Full Orchestra. Audio packages are available for separate purchase for both the book and workbook.

In working your way through Professional Orchestration: A Practical Handbook you’ll want to have Professional Orchestration Volume 1: Solo Instruments and Instrumentation Notes, and Professional Orchestration Volume 2A: Orchestrating the Melody Within the String Section at hand so that you have the most used string combinations illustrated with full page/full score examples, at your fingertips.

You can do orchestral MIDI mockups with any string library you have available.

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