
What the *heck* is String Divisi and is it contagious?

Peter Lawrence Alexander

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Music technology has moved to a higher plane for string writing with the release of what are called *orchestral sample libraries* that let a composer easily write for divisi strings.

So here's the question du jour: What the heck is string divisi, and is it contagious?

The answer is: once you've learned what divisi is and how to use it, it's highly contagious!

So let's start with the basics.

Divisi is an Italian word, and it means *to divide*. Applied to the strings, it means that one or more of its sections are divided into smaller parts.

There are three types of strings divisi: two parts, three parts, and four parts.

If the score is marked *div a 2*, it means that a specific string section is divided into two parts. And that's the most common divisi used by composers.

Next most common is *div a 3*, which means that a specific string section is divided into three parts.

Next, and rarely used, is *div a 4*, which means that a specific string section is divided into four parts.

For simplicity, we'll apply this to Violins 1 to see how it works. Just understand that it also directly applies to Violins 2, Violas, Cellos, and the Basses, since you can divide these sections into smaller parts, too.

Central to how *divisi* is set up onstage is the music stand, also called a *desk*.

Whether on the concert stage or in a recording studio, two strings players use the same music stand. If you have 12 first violins, there will be six music stands. So if the part is marked *div a 2*, it means that the first violins are divided into two smaller sections each playing a different note.

If a part is marked *div a 3*, now it's more difficult to set up. With 12 First Violinists, that means the parts have to be assigned to players across six music stands. Four players will each play a different note. And here's where it gets tricky. The concert master of the string section, the leader of the strings, has to work out, by individual, by music stand who plays what note.

Following the same thinking, if a part is marked *div a 4* for 12 First Violins, then that means that the four pitches have to be assigned across 6 music stands with one pitch assigned to three different players. Once again, the concert master has to work out, by individual, by music stand, who plays which note.

Now, when you have a "live" First Violin section with 12 musicians in it, *divisi* is easy to work out because the number 12 is divisible by both 2 and 3. However, for many big budget film scoring sessions, and many large orchestras, the First Violins will have 14 or 16 players. Since neither 14 nor 16 is divisible by 3, the concert master has to work by each string player, by music stand, who will play which note if *div a 3* is used.

Now you can understand why *div a 2* is used most often.

HOW DIV A 2 WORKS IN LIVE PERFORMANCE

So let's consider how *div a 2* works in live performance. And this will help us understand the recording of *div a 2* to use in sample libraries.

Remember, two players share a stand. So from the audience perspective, the player to the left is the outside player, while the player to the right, is the inside player.

When a part is marked *div a 2*, what usually happens is that the player to the left, the outside player, performs the higher note on the part. The player to the right, the inside player, performs the lower pitch.

Now, there's a second way to handle this. Remember, in our example we said that there were 6-8 music stands for the First Violins. So the second technique is to have the players at the front stands perform the higher note while the players in the back play the lower note.

The question is: does it make a difference how the *divisi* is set up?

The answer lies in sound and subtlety. And the person making the final decision is the conductor.

Now there is one other factor and that's how the strings are seated onstage.

String Seating Arrangements

There are two standard seating arrangements. The most common from the audience perspective, going left to right, is Violins 1, Violins 2, Violas and Cellos, with the Basses angled to the right behind the cellos.¹

If both groups of violins are *div a 2*, this means that you'll hear four-part harmony to the left on stage, and in a stereo system, also to the left.

But then there's the other seating arrangement, called the European seating plan here in the U.S.

As I read you the setup, try to see it in your imagination. Going left to right, there's Violins 1, then, surprise, Violas, then Cellos, then Violins 2 to the far right of the stage.

So, If both groups of violins are *div a 2*, this means that you'll hear four-part harmony stage left and stage right, and in your stereo system, in the left *and* right speakers.

For live performance in the concert hall, it's not uncommon for a composer to be thinking about a specific string seating arrangement while he's writing.

WHY COMPOSERS USE DIVISI

Well, that's certainly a lot of technical information about string *divisi*, but we're not quite done, because the next question is, "why do composers write *divisi* anyway?"

The answer is color and sonority. With *divisi*, you can create rich vertical harmony, You can create mini-ensembles within the larger string ensemble, each with its own color and sound. You can even create a double string orchestra as Vaughan Williams did in *Fantasia on a Theme by Thomas Tallis*, which you heard in the film *Master and Commander: The Far Side of the World* starring Russell Crowe.

Nor have we considered the kinds of textures available when you mute the strings and divide them.

Now, one compositional point about *divisi*. Don't think that applying *divisi* writing is for just delicate or lush writing. It certainly can be! But handled correctly, *divisi* writing creates a big sound. In Aaron Copland's film score for *The Red Pony*, the strings are written in fifths and sixths in octaves. And it's a huge outdoorsy, western sound.

You can hear *divisi* writing in Stravinsky's *Rite of Spring*, *The Dance of the Young Maidens* which contains hard edged pulsing rhythms.

In Mussorgsky's *Pictures at an Exhibition* orchestrated by Maurice Ravel, the opening movement, *Promenade*, uses *divisi* writing to suggest grandeur and nobility.

Now, because of the types of coloration available with *divisi*, electronically, *divisi* writing has been the Holy Grail for composers. That's because you can create a *divisi* sound using many existing string sample libraries, but it takes hours, sometimes weeks, of editing to get it right, so that it sounds close to a live recorded string section. If you write for a living, the time you put in editing a piece electronically, is time not spent creating a new work.

So the newer libraries designed for *divisi* really are a blessing, because they make it much easier to create divided strings because of how the libraries are recorded and organized. This

¹ This is the seating arrangement many string sample libraries are recorded in. And when this arrangement is used, the library is advertised as being pre-panned. This is a great time saver for composers because it means they only have to work to adjust the volume levels.

ease in creation means a composer spends more time writing. And that's important, because professional writers earn income from writing and royalties. If you're not writing, you're not generating material to create royalties.

Now, discussing money and music isn't very artistic. But even composers have children who need to go to the dentist or optometrist!

TECHNICAL CONSIDERATIONS

In case you're wondering, *divisi* libraries on the market today do best on the more powerful machines because they're RAM hungry and CPU intensive. On a PC, you'll want at minimum, an i7 Quad Core CPU, while on the Mac, you'll want a Mac Pro. For either system, a composer needs 12GB of RAM or more to do all your work.

Well, that's our overview on *divisi*. So for this Study Hall, class dismissed.