

Orchestration In A Crunch

The Basics

Orchestration is the color of music and should be considered a separate skill set from composing and arranging. Let's consider the latter. There are many books on Orchestration and this writing does not attempt to replace them but rather give my personal viewpoint and methods that allow for fast work. After all this is Orchestration In A Crunch. What qualifies as a crunch? Well, in my career an overnight 80 bars for 40 pieces was not uncommon. And for much of that career there was no computer assistance. We did it with pencil and manuscript and a few good copyists to call in. I often arranged composed, and orchestrated my own work so sleepless nights were just part of the job. I did gain a reputation for solving problems for my clients so it certainly helped my career to provide a fast turn around. It will help yours too.

Composing is the act or art of creating a musical composition. Something out of nothing. While staring at the blank manuscript, I'd often ask, what do I want to be heard in this now silent room? A composition is presumably composed of time, form, shape, emotion and of course sounds arranged as music. Moreover, in day to day terms, it's melody and harmony over time at a given tempo or tempos to achieve the desired effect in the listener. Of course, not all compositions contain a discernible melody or necessarily familiar or pleasant harmonies. Nonetheless, if there is black on the page it is composed. Row Row Row Your Boat is a melody in linear time set to a lyric. This simple idea, a round, is the song we are all familiar with. Similarly, a piece of music can have obvious melodic content, lyrics or none, harmonic suggestion or strict harmonies that are in its creative make up, all elections made by its composer. To originate a musical idea is to compose no matter the form, notation used or rules ignored or adhered to. Composing is a wonderfully free zone of creativity wherein the eye goes left to right in its time stream and when performed the ear follows by capturing the real presence of waves in the air. Our last 200 or so years of musical composition attests to this assertion. Why some music is pleasant and other music not so much is partly tradition, training PR and yes even personal choices. Orchestration does not attempt to alter the composition's intent. Rather it works to convey and possibly enhance the composer's creation and the desired effect on the listener.

Arranging for some cannot be completely divorced from composing and there are instances that support this view. At the very least, we can say that notes have been arranged in a certain order in a certain time and in a certain format using repeats, Codas, etc .However, arranging can involve more than the original linear time and melody with its vertical harmonies to include variations on it, add content like counter melodies, create introductions, transitions, modulations, Key changes, tempo changes and much more. Arranging is no small skill set and incorporates composition though never can lay claim to the original creations import as the impetus for the work done. Arranging is the skill set and art of putting music into a form other than its original concept. This can also embrace adaptation ie a piano solo adapted to a string quartet with or without new content et al.

Orchestration in its most classical sense is the assignment of composed works to the various instruments of the Orchestra. It is the color of music. We can here include any orchestra of any era or size including the classical full symphony orchestra, Jazz bands, Big Bands, Chamber, Rock...on and on. An Orchestrator has traditionally been tasked with assignments based upon desired ranges, tonal colors, desired emotion, vertical thickness and combined effects like dynamics and the many articulations. It might also include various uses of solos, ensembles, divisi etc. that aid in achieving combined instrumental effects. It also certainly includes the use of articulations unique to the various instrument groups ie woodwinds, brass, strings, percussion etc. There is indeed a great pallet available

and it is a worthy study. My life of music is mostly self taught and because of this fact I have had some difficulty unplugging my analytic ear to merely enjoy a piece. When a piece captivates me as a listener and turns me my “how was that achieved?” into “my god this is wonderful” the piece has conquered me. But listening to hear what is being achieved and how has been and continues to be my blessing and bane.

To hear an original composition arranged in a specific format for time, harmony and other effects orchestrated by two different Orchestrator can be instructive. The two, even if trained similarly, will not necessarily end up with the same work product. Orchestration is NOT a science but it IS an Art with some well defined curbs, therefore it will have the invisible influence of one mind's perception of what is best. Surely there can be rules, admonitions and advices to follow in any approach to Orchestration and that is appropriate for purposes of achieving predictable results. Still, results among Orchestrators could differ significantly. One may choose to use the first violins whereas another the flutes, or one the T bones and another the F Horns or even the Violas in divisi. The combinations may not be endless but we'd need a millennium to explore them and still be discovering variations.

So how is it that music can emote, suggest the countryside, space and time, feeling, make the heart race or sadden one's soul. Give thought to how Beethoven's Pastoral actually pictured it and brought imagery to mind...this is hundreds of years before film yet he achieved the powerful horse galloping in the chase and the clouds and force of the storm. The combination of certain tonalities using certain ranges in a certain dynamic while in combination with others brings great variance of color and effect, This is indeed the realm of Orchestration.

The Orchestrator must ask him or herself several questions that may or may not consider the composer's wishes. I say may or may not because assignments come from many places and often the composer is far removed from the process in modern times. It is my belief that the greats heard in full color in their mind's ear and therefor composed in that way. There is some proof of this and I myself while making no claim of greatness, tend to compose with my orchestration in view. One small observation is that my personal inner ear has most difficulty in the vertical aspect but experience let's me fly by instruments so to speak. I mention this because a good orchestrator need not be a Mozart or Beethoven. Good skills can be acquired and though performance proficiency on organ, piano or similar harmonically wide instruments is a plus, even a clarinetist can achieve wonderful skills. Of all the instruments that might lend themselves to useful application when orchestrating is the grand organ with all its stops. These stops allow great control over tonal color and in that way give the organist a head start because there are many corollaries in the symphony orchestra.

So, what questions might an Orchestrator ask?

What is the tempo of the piece?

Is it melodic or atmospheric?

What rhythmic scheme exists of any?

Is there a clear harmonic mode?

Does the Key signature demand to remain or possibly need changing?

Are there areas in the composition where a thicker sound is required or perhaps a solo?

Should brass be augmented by adding additions like Bass T Bone or Trumpet in C etc?

Is the music piece in a specified style?

How many instruments are needed and what size should the sections be?

Will the players have normal skills or is there some virtuosity involved?

What if any suggestions have been made by the composer...any formal notes?

These are by no means all inclusive and most questions are not asked as if on a checklist but rather in the ongoing process. An Orchestration has a life in its creation and can at times can have a life of its own demanding certain things that may or may not be available. Sure, we love orchestrating for a 100 piece symphony orchestra with dual harps, dual tubas, extended brass sections, 6 F Horns and huge string and full woodwind sections, but budgets alone preclude it. Orchestrating BIG on a budget is a real skill and there are some methods to add fullness even for smaller orchestras. I will cover some time tested ideas on this and many other critical areas to ensure good balanced orchestrations no matter the budget.

The Main Areas for Your Attention

In seeking a well balanced orchestration, we can use the grand staff as Treble, and Bass Clefs knowing there are intermediate clefs like the alto clef etc.. It is not necessary to think in terms of transpositions that may be needed for various instruments so just think in terms of C. Factually, I use C for my orchestrations until a later phase as a convenience to the eye and simplification helps. Today's computer software makes this a simple click.

So the grand staff can display all available notes on its lines and spaces proper or by addition of ledger lines and spaces. One ledger line below the treble staff and one ledger line above the bass cleff staff lays Middle C. Middle C is shown as the 3rd line when using the Alto or Viola clef. The Orchestra can be divided into Treble, Alto and Bass and later assigned additional range using contra bass and ultra soprano notations or there equivalent ie 8va up or down 16 va etc. The keyboard of the piano has 88 total keys divided as 52 white and 36 black. This comprises a little over 7 chromatic octaves.

Each note has its unique vibration frequency and each octave up is harmonic Pythagorean Theory is a good knowledge for Orchestrators and well demonstrated on grand organs where the length of pipe can be controlled. This theory about the length of a tring vibrating etc need not be ever present in the mind but id does lend itself to the precision an orchestra can produce. Though not solely responsiblke for the emotion felt by our listeners, frequency is key. The lower frequencies in nature tend to be lumbering big waves that come from big events. The higher frequencies come from smaller or less massy events...a boulder tumbling down a mountain + big long waves of low frequency vs a wine glass breaking on the floor creating a high pitched shattering sound of high frequencies. Frequency is used to give impression or power, gentility and a myriad of other effects. Dynamics also play in this by bringing an emphasis or subtlety to frequencies allowing a movement from front to back in the attention of the listener. A loud present sound is near and a faint one distant. Also there is frequency involved in the note duration choices. 64Th notes might suggest a hive of fast moving bees whereas lumber half notes are a heard of elephants walking through dense forest. A fast tempo will approximate a racing heart whereas a dirge is death itself. Frequency is a staple in the mind of an Orchestraror and can help answer some of its questions when asking how do I achieve _____.

So my first considerations when orchestrating are

- **Time Signature** (feel and emotion)
- **Tempo(s)** (feel and emotion)
- **Key Signature** (technical and practical)
- **Range** needed as written and range intended for orchestration effect(technical and practical)

These TTKR basics decided upon will allow for a more sensible selection of instruments. Keep in mind that lumbering waves emitted by bass instruments take more time to develop and therefore will not be practical for the fast phrases the violin or flute can produce. Surprisingly though the speed of phrases possible is still impressive, but remember that brass and woodwind players must breathe.

In budget situations it can be useful to know what instrument choices are more or less a duplication of others so a cut can be made. That can be a later decision as it will not likely influence the actual part written for say bass fiddles vs tubas or violins vs flutes and piccolo. Though these and other pairings are not necessarily interchangeable in all respects they have very similar ranges.

In the above items to consider speed of tempo is important because at some tempos the performer will have more difficulty than others and the quality of player can vary. We would all like virtuoso players but that is not a practicable expectation. That said, I have rarely challenged my violinists and the broad ability of professional orchestral players is quite impressive worldwide. Even when my page is black as they say most sections will sight read through the notation unless something extremely unusual is being implemented.

Assigning Instrumentation

The most versatile sections are the Strings. If you orchestrate for Strings with a full use of the range and articulations etc., you will never be disappointed. I always think in terms of my Orchestrations making sense for a string Ensemble then think with brass, woodwinds et al as additional color. This makes for a quicker result achieving the big picture then adding colorful details.

Instrument choices are partly dictated by Range and yes that is a primary consideration, but dynamic need, tonal color and sheer power or delicacy are also important factors.