

Eric Xue
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Musical Ensembles

Overview

Imagine going to your local production of your favorite musical. When you sit down in the auditorium, there below the stage is a pit ensemble ready to play along with the actors and actresses. When you graduated, maybe a wind ensemble was there playing “Pomp and Circumstance” continuously for hours during the ceremony. Another day you’re watching the news, and the President of the United States is welcoming the leaders of the world to a summit. There behind the President is the U.S Marine Band, “The President’s Own,” playing the National Anthem. Musical ensembles, an umbrella term for a group of people who play music together, are found everywhere and vary in everything from size to how they perform. Despite differences between ensembles, there are certain organizational factors between them that remain constant.

What is being organized?

The primary resources being organized are the musicians and their equipment, which can include instruments, chairs, and other necessities such as guitar amps. Musicians are typically defined by the instrument that they play, in the sense that you could refer to somebody who plays the oboe as an “oboist” and people would understand what that specific term meant. However, the relationship between musician and their instruments is not exactly one-to-one, as a musician could play multiple instruments or a single, physical instrument may be played by multiple people in a given performance. Since the primary resources are physical objects, organization is determined by the venue the ensemble occupies, both for rehearsals and performances. Furthermore, the relation between musicians is also organized, as there is usually some sort of leadership hierarchy in an ensemble. The individuals in an ensemble may be organized based on their instrument or their role, which creates different interactions in terms of performance.

Why is it being organized?

Each ensemble has a distinct purpose and plays certain styles of music based on said purpose. A college marching band at a football game would want to play energetic music to pump up the audience, rather than something slow and solemn such as a funeral march (though some bands might to heckle the opposing team). Generally speaking an ensemble wants to put on the best performance possible, and every facet in its organization is tailored to achieve that goal.

How much of it is being organized?

The organization of an ensemble utilizes the physics of sound to complement performance. Different types of music have separate requirements in terms of instrumentation, or what instruments are needed to play the piece. When different instruments play together, their sound in terms of vibrations in the air interact with each other to create things such as loudness, harmony, contrast, texture, and other qualities of music that the listener might hear.

In the grander scheme of things, almost everything is organized in the band to preserve balance and blending. Balance ensures certain sounds do not cover up others, and blending allows multiple sounds to combine and create something individual instruments could not. Though it’s

up to each player to maintain balance and blend, the spatial organization of the ensemble is used to facilitate both processes. To help blend, musicians who play the same instruments are organized into their respective sections. The sound of a single instrument might not be audible enough, so they are brought together. In addition, individual instruments are tuned differently, meaning two instruments could be playing the same note, but sound completely different because they create different frequencies. By grouping several of the same instrument together, the different frequencies of the sound waves created “average out”, smoothing out and blending the sound. An entire section of people functions to create the sound of a single instrument.

Sections are then grouped into families based off how the instrument makes sound, as the common families are woodwinds, brass, percussion, keyboards, and strings. For balance, instruments belonging to the woodwind family are usually arranged to be closer to the audience than brass instruments. The sound of woodwind instruments is the result of air waves coming out of different parts of the instruments body, meaning that the sound emanates to all directions. In comparison, the sound from a brass instrument is directional, as the vibrations come out of the bell. Therefore, the sound of woodwind instruments doesn’t travel as far or well in relation to the audience.

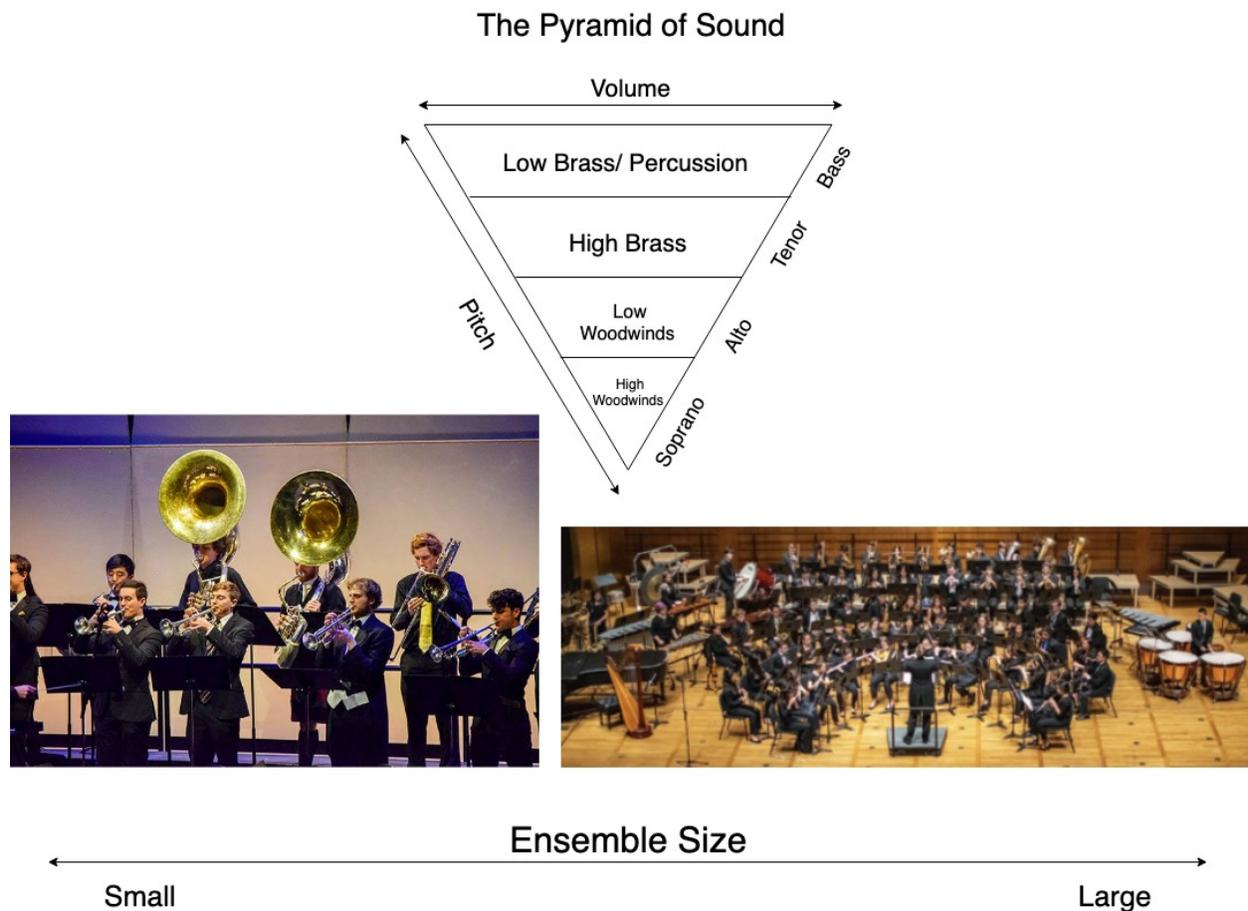


Figure 1: the pyramid of sound as an approximation to how instruments are spatially arranged. The same principles of organizations can be seen in ensembles of different sizes, as the physics of sound remain constant.

There is also organization amongst the musicians themselves. Within each section, musicians can also be organized by “chair order”, which physically determines where they sit in relation to each other, but also their role. The first chair or “principal player” is usually reserved for the most competent player, as they act as leaders for their section. For some instruments such as the violin and oboe, the first chair is used to tune the band or orchestra. Some types of ensembles have a director or conductor who is directly in charge of shaping the sound as it is being produced. Since the conductor is usually situated in front of the band, they can pay more attention to the intricacies of the music that the players cannot. All these details are considered to create the type of sound optimal and suitable for the performance, which serves the purposes of the ensemble.

When is it being organized?

The instruments included in a musical arrangement are usually determined at the time of composition, since composers typically know what specific ensemble will play the piece. However any ensemble can be flexible if needed, and a composer can always add variations. In terms of organizing the actual ensemble and players, it would depend on the purpose of the institution or the identity of the ensemble. Ensembles usually require auditions to determine membership, and how frequently auditions occur varies between context. An established city orchestra might only offer an audition if a player retires or dies. In some cases, an ensemble might even lack membership and has to adjust facets of its organization, performance, and music played to compensate. For professional groups, the board of Directors and funding can influence the number and availability of open spots. The relationship between musical arrangement played and group membership occurs both ways. An ensemble might seek to play a particular piece of music and seek musicians to meet instrumentation, or choose what to play based off available talent.

How or by whom is it being organized?

How an ensemble is organized varies between different types, and even within the same type. In some cases, there is some sort of director or a committee that oversees operations, but in others musicians might organize themselves. Whether an ensemble requires a director or not depends on its size and scale. For smaller groups that are starting out, it might make sense for musicians to self-organize. A band consisting of just a few friends playing music together for a local talent show probably doesn't need a manager. But if the band proves to be successful, they might decide to hire a tour manager or sign with a label that provides a form of indirect management. A famous symphonic orchestra that tours globally requires a large system of management that supervises every aspect of its operation.

Other considerations

The focus of this case study was primarily based on larger ensembles, but the same organizing principles apply to smaller groups as well. Percussion instruments typically produce louder sounds since more force is used to produce vibrations. The drum set is usually situated behind a rock band in the same way the percussion section is placed behind the ensemble. This arrangement prevents the percussion from “overpowering” others while providing a steady source of tempo.