

Brief Introduction to the Music

The title of the piece is *Reverie*, which is defined as a state of dreamy mediation or fanciful musing. *Reverie* is a metaphorical dream, the orchestra and audience the metaphorical dreamers. The music reflects and integrates this theme in many ways, explained briefly in the following descriptions. Especially note how form matches content.

Falling Asleep

The piece begins with a section called “Falling Asleep”. It is meant to be reminiscent of the experience of drifting slowly into the dream state, in this case wandering through an amorphous, uncertain, and highly textural musical landscape. The music begins with timpani and then strings enter on harmonics, producing an ethereal, detached sound, a musical realization of the beginning of a dream, moving gradually from the world of awake to that of asleep. When writing *Reverie*, I was inspired by the movie *Inception*, one of my favorite films and a fascinating exploration of the idea of dreaming. The hallmark of *Inception* is the dream within a dream. In “Falling Asleep”, I accomplished exactly that in musical form. If you were to analyze the harmonic structure of this first section of the piece, it is an exact transcription in miniature of the overall harmonic structure of the entire piece. The short pause near the end of the introduction is a small version of the larger pause near the end of the piece. “Falling Asleep” is a microcosm of the work as a whole, a musical dream within a dream.

The next several sections introduce the first theme, the bridge between themes, a variation on the first theme, a development of the first theme, and the second theme, in that order. There are many complex technical elements in each of these sections, but I will highlight one that is especially interesting.

Development and Parallel Modulation

The development of the first theme (noticeable by the rhythmic motive of the first theme played twice as fast) plays with the rhythm and tonality of the theme by passing the motive between nearly every instrument in the orchestra, but in different keys. The second half of the section utilizes a structure I developed that I call “parallel modulation”. The motive of the theme played in the development can be played in canon with itself in two different keys: this means that two instruments each play the motive at the same time, overlapping, but at a delay. In my construction, one of the instruments modulates to a new key, and then the other one follows suit at the given delay, also modulating and by the same degree. Thus, a parallel modulation is achieved in the context of a canonic structure: the two instruments can play the motive, overlapping, and changing keys, ad infinitum. It’s remarkable that it works so well harmonically!

After the second theme (very dramatic, darkly heroic, and at a slower tempo), the bridge between themes is played in variation (twice as fast). Then, the music descends into a rhythmic, driving crescendo, the climax of the piece. In the final moments of building drama, there is a special performance effect that I would like to highlight, something that can only be experienced live.

Staggered Bowing and Climax

The first violin section of an orchestra is organized by stand, with two violinists at each stand. The first five stands are on the outside of the section, directly to the left of the conductor and clearly visible to the audience. In *Reverie*, these five stands make strong and clear bowstrokes in succession. Normally, of course, each stand of the section would play with every other stand, but in this case the first five play independently, in a staggered way. The first stand makes a strong downbow, then the second stand, then the third, and so on. The effect is a wave starting with the motion of the conductor and extending to the edges of the orchestra, at the fifth stand of the first violins. Then, it reflects and moves back toward the conductor, the fifth stand making a strong upbow, then the fourth stand, then the third, and so on. When the wave reaches the conductor again, the music suddenly breaks off into near silence, the only noise the pounding of the bass drum. This moment of the piece is called “Wake Up”. The choreography of the violins represents the physical tossing and turning of a dreamer in the heat of an intense dream, and the pause represents waking from the metaphorical dream of the music.

I deliberately use literary terminology and call the crescendo leading to the pause the climax of the music. I specifically modeled the piece on the dramatic arc of a narrative, with inciting events gradually building to the height of the drama at the climax (about 70 to 80 percent of the way through), and subsequently concluding through resolution. I was fascinated that traditional musical forms often follow a similar structure to that of a story, so I chose to use the dramatic arc to organize the music.

Heart Rates and Tempos

It is important to note that the break in the music at the climax is not filled with silence, but rather with the pulsing of the bass drum. The rhythm the bass drum plays is a heart beat rhythm, as if the metaphorical dreamer wakes from the dream to hear only his or her heart pounding. The heart beat is a key element of *Reverie*, and it deserves a more detailed description.

There are two written tempos in the music, 65 and 97.5 beats per minute. I found a scientific study (cited at the bottom of the first page of the score) that shows the average heart rate during sleep to be 65 beats per minute, so I reflected this in the tempo. The highest heart rate during sleep, according to the study, was also very nearly the 97.5 beat per minute value that I used for more exciting and dramatic parts. I chose to deviate from the traditional notation for tempo markings to reflect the theme of a dreamscape and to subtly hint to the conductor and performers that there are tempos, but

there are also heart rates. Therefore, I write both a tempo marking in the standard notation and a heart rate marking, but I write the heart rate in the following way: (the heart beat rhythm, equivalent mathematically to a given, traditional note value) = (the given beats per minute value). The 97.5 value is especially interesting. For one, it is extremely unusual to find a .5 value in a tempo—in fact, I can think of no other example. I did not choose to use the exact value for the highest heart rate during sleep from the study I found, because I could accomplish something very interesting by using 97.5, which is exactly $3/2$ of 65. This clean, mathematical relationship allowed me to write a tempo marking and a heart rate marking at *different* beats per minute values! Through syncopation, I could then (for example) play the heart-beat at a slower pace than the actual tempo of the piece, giving a deliberately disorienting sensation.

Canon Fugato

After “Wake Up”, the music of “Falling Asleep” is repeated (with subtle changes) to reenter the dream. Then, the final section of the piece begins. I call this section “Triumph” and describe it as a “canon fugato”, a term that I invented. A canon contains a melody that overlaps. “Fugato” means that the section has elements of a fugue, overlaying multiple melodies on each other in different keys and variations. The final section of *Reverie* has both canonic and fugue-like elements, and thus it is a canon fugato. To provide a sense of the complexity of this final section, here is a list of its elements, which are all played simultaneously(!):

- theme 1
- theme 1 played in canon with itself
- theme 1 variation overlaid on the canon of theme 1
- theme 1 variation played in canon with itself *and* overlaid on the canon of theme 1
- theme 2 overlaid on the canon of theme 1 *and* on the canon of theme 1 variation
- theme 2 played in canon with itself *and* overlaid on the canon of theme 1 *and* overlaid on the canon of theme 1 variation
- large theme 1 fragment
- small theme 1 fragment
- theme 2 twice as slow

The extremely complex, interlocking nature of this section leads to an important relationship between the beginning and end of the piece:

Harmony From Melody

I discussed the beginning of *Reverie* above—the introduction section entitled “Falling Asleep”. There is another essential aspect of this section, namely that each individual part is written chromatically so that the notes change by only half steps each time. This is interesting, first because the small changes internal to the parts produce overall diatonic change, or larger and more defined chord changes. What is crucial to note, however, is that the chromatic nature of the individual parts makes them completely meaningless as stand-alone entities. If played out of the context of the orchestra, no individual part would be even remotely intelligible, just as the events of a dream only make sense in the context of the dream: when awake, they seem like nonsense. Therefore, no individual part in “Falling Asleep” is a melody: each one is harmony.

The final section of *Reverie* has the many interlocking components I listed above and thus directly contrasts with the beginning of the music. By the end, every single part can stand alone as an individual entity. Perfectly opposite to the introduction section, every single instrument plays a melody and no instrument plays harmony: the harmony results from the overlapping of those melodies. The effect of such a construction is an overload of information. Because the brain cannot focus on so many melodies at once, it constantly perceives new aspects of the seemingly infinite sound.