

The Relationship between Music and the Concert Hall

Tsuyoshi Tsutsumi

Toho Gakuen School of Music, 1-14-1 Wakaba, Chofu, Tokyo 182-8510

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Good morning I am Mr. Tsutsumi, the music director of the Kirishima International Music Festival. I think some of you may have already been to some of our concerts, some of which were held on Sunday. You might have found it strange that there was no music director present then but I was actually participating in Kuhmo Chamber Music Festival in Finland, and I just got here yesterday.

I am very honored to have the opportunity to talk to you about the relationship between the concert hall and music. I had prepared everything in Japanese, but I was told that today's symposium would be conducted in English. And while I am honored to talk today about the concert hall, it is very challenging because I am not an acoustics expert, or a scientist. So I am only able to talk about the concert hall from the view of the musicians or the performers. I do hope however, that whatever I may talk about is something that you will think about for future reference. I am certainly very grateful to Professor Ando and the organizing committee for inviting me as a guest lecturer.



The Western music, which we are involved, originated in Europe. And of course, there are many possible roots for the evolution of Western music, but perhaps the strongest foundation is from the old Greek music because we still use many Greek terms like pentatonic and so on. However, the form that we are now interested in, was founded in the Middle Ages.

During the Middle Ages, there were primarily two types of music, sacred music and the more popular, secular music. Naturally during the Middle Ages, God was the absolute and because of that, the power of the church was very strong. And, because in order to listen to God's message or his music or anything to do with hearing, music was considered something higher in the arts. Additionally, when you listen to God's message, you have to be very concentrated and quiet. So, therefore, we think the present form of concert, where we perform and the audience listens quietly, was formed in the Middle Ages.

At first, there were many people, including Bach, who mainly composed for the churches and then eventually began composing for general audiences.

When I was young, there weren't any concert halls with great acoustics in Japan, like the Miyama Concert Hall here. I thought that if I could make my instrument really sound well then that was enough and people would think his cello was sounding very beautiful. Back then, I didn't really think about the acoustics of the concert hall. First, as I said earlier there weren't really any great concert halls in Japan, the main concert hall, in Japan, at that time was called the Hibiya Public Hall in Tokyo. And for any kind of great musician or orchestra, from overseas, this was the main venue. This concert hall is still in use but it doesn't compare, in any way, acoustic-wise. So we could only try to make our instruments sound the best. But in 1960, I was invited as a cello soloist when the NHK Symphony Orchestra from Tokyo made a world tour. Then I came to realize that it isn't enough to

simply make our instruments sound as beautifully as possible. During the tour, I played the Cello Concerto by Haydn in the Musikverein Hall in Vienna, and a baritone singer by the name of Kunikazu Ohashi, who was living in Vienna at the time, came to the dress rehearsal. As we went through the piece he told me that, when you perform in concert hall like this, which gives you such a beautiful sound, the reverberation of sound is a little longer than we are used to. If the tempo is too fast, or if I don't take enough time in between the phrases or the even the notes, the sound gets mixed up and becomes rather confusing. So you must take a lot of time, and really enjoy each note, and then everything will become more enjoyable.

And that to me was really a great revelation because I had never thought that way. I thought that if I played well and my cello sounded well I always thought that was enough. But unfortunately that was not the case. At that time, I also learned its not just how beautifully the cello or the orchestra sounded but also how the concert hall acoustics influenced certain styles of the performances. So then I wondered if the acoustics of the Musikverein Concert Hall influences the Viennese way of music making and to me that was a great revelation. How the acoustic of the concert hall is, in total, more so than I ever expected, and that to me this was a great lesson.

Now in Tokyo there is a concert hall called the Suntory Hall, where many orchestras including the NHK Symphony Orchestra and many orchestras from abroad like the Berlin Philharmonic, the New York Philharmonic and Vienna Philharmonic Orchestra perform. This was nearly the first concert hall that was meant to have really great acoustics, comparable to the concert halls in Europe and the United States. The year before that, Mr. Hara built the Symphony Hall in Osaka, which was exclusively a concert hall and had beautiful acoustics, but in Tokyo, there were no concert halls like that. So everybody in musical circles in Japan made many suggestions to Mr. Keizo Saji, my father-in law. He decided that it is very important to listen to those suggestions but it would be best to visit those concert halls in Europe and America and see them and attend some the concerts. So together with him, we visited those concert halls in Europe and North America which included in Vienna, the Musikverein Hall, the Berlin Philharmonie in Berlin, Carnegie Hall in New York and several others. After that we discussed and we had to make a choice whether this concert hall should become shoebox type or wine-yard type. The shoebox type, which is more popular, is like the Musikverein

Hall. The wine-yard type is more round. Helbert von Karajan, the conductor of the Berlin Philharmonic orchestra, strongly suggested the wine-yard type, which is just like the Berlin Philharmonie. The wonderful aspect of the wine-yard type is its very rich and round sound. So not only this type of sound, which you would receive, but also something that was very unique in Japan was that the audience surrounds the stage. Therefore, instead of just the performers on stage, you feel as if you are really making music together with the audience, so this is something very unique to the Japanese audience.

Another factor in the success of this concert hall, I think is the big pipe organ, which was the first in Japan. Of course, most of the famous European concert halls have this type of organ, but in Japan it was the first time in a concert hall. The pipe organ looks very good because of the big pipes and it gives some sense of beauty in the concert hall. It also makes possible to provide not only orchestra concerts but also pipe organ concerts as well. While the look is very important however, even more important, to me, is that the pipes of the organ help the acoustics of the concert hall because of the reverberation. At least for me, I feel very comfortable when I see a concert hall with a pipe organ. We also considered what kinds of chairs for the audience would be best for the acoustics and many other aspects like comfort were considered. Because of these considerations, this concert hall has earned a certain high reputation.

As for the acoustics itself we reminded ourselves of four points:

- (1) How audience can feel the sound or acoustics of the hall itself and which means how the reflection of the sound and how the sound itself, can be received by the audience.
- (2) How the reflected sound hitting the walls and ceiling within 30 ms can enhance the volume of the sound.
- (3) The clarity of the sound—how can we get, not also only a rich sound or big sound, but also clarity of the sound itself was very important. How the sound bounces within 80 ms affects the acoustics.
- (4) How the audience can feel the spaciousness of the sound or the spaciousness of the entire concert hall itself, meaning the feeling of this space and not only the sound but also the overall atmosphere.

So those things we considered of the acoustics itself.

Now I would like to talk about "sound." How the sounds of music work together. Of course you know that music is something of time, which means that once one note or sound is

made, it is gone right away. Therefore, if I talk or make a sound and whether it is regular or irregular, how this sound is received, makes the art of the timing possible because whatever sound is made is gone immediately then the value of the notes made is also gone. So how we connect one note to the other or one sound to the other sound is the most crucial part of our profession. In Japanese language this idea is called "Ma" which means the time between sounds. So whether this time or duration between sounds is either short or long makes a great difference. For example, if the duration between sounds is very long and very irregular, the listener may wonder about what will happen next. They may begin to feel as though nothing may happen. So "MA" or timing makes our music really alive. This can be practiced but there are also many kinds of experiences or philosophies to accomplish this timing. For example, people try to achieve a Zen state, or they attempt to block out external influences so as to feel certain not only timing and sound, but also space. And in this way we can consider music making as something not only artistically but also has so much to do with mental process. In that aspect, to me, timing is one of the most essential components.

Performers are often asked to play in church or Buddhist temples and generally, these buildings have wonderful acoustics for us. For string instrument players this is a very rewarding experience and because it somehow realizes what I really do. If you are very comfortable, and very natural, then so I feel good. To me it's one of the most rewarding experiences. Of course some of these buildings are a little too rich in the acoustics of the reverberations, and it is difficult to hear what is happening with the sound. I once performed in a big church in New York City. It was in the middle of winter, by the way, and the church was so large that there was no way to warm the church up. But it did have great acoustics. Although it was really cold, acoustically it was a very nice experience. Places like these churches that have wonderful acoustics are really best for pieces like Johann Sebastian Bach because his compositions are composed in something we called polyphonic writing which means several voices are sounding together at the same times. It gives you such a wonderful or full-filling feeling and especially in churches because of the reverberations. Because unlike a keyboard instrument like a piano or organ, which can play many notes at once, the cello can usually only play one at a time. But because of the acoustics it can sound as if those notes that usually cannot be heard can be realized.

I once had an opportunity to perform at the salon of the

Bose family who was one of the best friends of Johann Sebastian Bach in Leipzig, Germany, which was very near to the Thomas Church. And although it was called a salon, the Bose family was so rich that this salon was actually like a small concert hall. There I performed the Bach suites and because of the particular acoustics I heard something that I had never heard before when I practiced or played in other concert halls—certain voices simply remained. Therefore, even though I was playing alone and most of the cello suites are written in single lines, because we cannot play four or five voices together, the particular acoustics of the Bose salon I could really hear a compound sound. This experience was so gratifying to me and at the same time I began to understand that perhaps when Bach composed his music, he had in mind these kinds of acoustics. This means if we can have the kind of concert hall that can realize that kind of acoustics, then the Bach pieces could really sound the way Bach wanted. For me, that concert was a great experience. And for example, if we performed pieces by Brahms, which because his music is so expressive, we need to make not only our instrument but also the sound of the concert hall sound like a great big instrument. And then Brahms idea of sonority can be realized.

This idea of the concert hall as a musical instrument is very important, which means that our task is not only making our instruments sound beautiful, but also by making more spacious this instrument called concert hall, sounds more wonderful and fulfilling. For performers certainly acoustics on the stage and in the audience are equally important. And for example, Bach is very delicate, so the very many fine concert halls keep renovating certain things mostly for acoustic reasons, to improve this acoustics of both on the stage and in the audience.

It is naturally important that the acoustics that is on stage is good enough for the performers of chamber music or orchestral works to hear each other. In other words how can we make a beautiful sound in a concert hall if we can't hear each other? Certainly in the orchestra there is a conductor who is supposed to put everything together, however, the essence of music making is to make music together. And in order to make music together we have to be able to listen to each other. But more important probably to the concert is that it should sound best in the audience. So that is where the hall's sound should be directed. And this balance of the acoustics on the stage and in the audience is something that is very difficult and yet delicate. Something that is a little bit dangerous is when there is wonderful acoustics on the stage

but not in the audience. And often we must remember things like where there is an open space on the ceiling then the beautiful sound on the stage can go up instead of to the audience. And there are many other things that are similar to and we must be very careful.

As I noted earlier, it's very important that we are concerned with the clarity of the sound when making music because many factors beyond acoustics also affect clarity, for example, the temperature and humidity of the concert hall itself can affect clarity very strongly and because of that, when you build a concert hall it is very important to think about the total ambiance of the hall. However, ambiance also includes things like a green room, which means how the performer can feel in back stage. And this also applies to a passageway from the green room to the stage because it is at that time that the performer is most nervous. If that atmosphere is awful, you really feel awful when you come to the stage and you cannot even smile to the audience. So that's very bad. This whole atmosphere, I think, is one of the most crucial aspects for the performance itself. Therefore as I said earlier, the temperature and the humidity affect instruments and also the sound itself. Then if the temperature and the humidity in the green room or back stage room is the same as the concert hall, it is certainly very helpful.

There are many things we can do to help make the concert hall sound better. For example, as a cellist, when we play a concerto with the orchestra, we sit on a riser. This certainly has a visual effect because it puts you up a little higher and from the audience, it's easy to see what you are doing. But more importantly, the endpin of the cello, which rests on the podium, causes the podium to resonate, so as a total it really helps the cello sound project. For the tone of the cello is in the middle range, not piercing like the high notes of the violin. Other times, we use a soundboard behind the cello, which also helps the sound project. This idea also applies when there is a cello recital, accompanied by a grand piano, the lid on the piano is opened and this helps to reflect the sound of the cello to the audience. So this gives one of several examples of the kinds of devices we use.

Now I would like to talk silence because silence to me is one of the most important elements in music making. Hideo Kobayashi once said that beauty has the power to make people silent and through this power, is the very essence of the arts or true beauty. So therefore, in paintings and music, if you really wish to understand and really enjoy these media you really need to experience this intense silence. Of course in music, the sound itself can really deliver the message, but at

the same time so can the silence. So it is this total atmosphere of sound and silence that actually makes the music. This is an important part of music making because, even when you are making a certain sound and trying to express something very quietly, there is also silence. It is this timing of real silence that is also the music. A really great concert hall allows people to be able to really enjoy the both the sound and silence. Because silence can also make people imagine, and imagination is again one of the very important aspects of music making. In other words, while listeners enjoy the beauty of sound and other things, for music to be also philosophical, to make the audience look inward. I think it is the silence that can also make this possible.

This morning, I would like to perform a cello solo piece called "Bunraku" by the Japanese composer Toshiro Mayuzumi. I chose this piece to try and give an example of "Ma" or timing in music. , Although this piece was written for cello, the technique itself is based on the Shamisen, which is a traditional three-string instrument. This music is reminiscent of the Shamisen, which doesn't use a bow but instead is plucked which we call pizzicato, and with male singing. I'm sure you are familiar with Bunraku, which is in a sense, very traditional, but on the other hand the fact that this piece is written for cello is extraordinary and I think because of that, it has been quite successful, particularly when I perform abroad. I thought that for this occasion in particular it might be the best piece so today I am going to perform "Bunraku" by Toshiro Mayuzumi.



–Cello Performance by Tsuyoshi Tsutsumi–