

***A PERSONAL VIEW ON HOW THE FEEL AND SOUND OF
CONCERT HALLS AND STUDIOS AFFECTS THE HEALTH OF THE
MUSICIANS THAT PLAY IN THEM***

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In the chairman's letter to the Royal Society of Musicians, Christmas 1996, Rodney Slatford wrote of a vast increase in referrals to the Performer's Clinic at the Royal Free Hospital. He added that the majority of these referrals were 'not unexpectedly' from the London area and that professional string players represented the highest percentage.

That 'the majority of referrals come from the London area' might well be because so many musicians live and work in London, with all the difficulties that living in London creates and also the proximity of the clinic. My submission is that, alongside these and other factors, one of the major causes of ill health amongst musicians is the poor feel and sound of the concert halls in London.

- Royal Festival Hall.

The Royal Festival Hall is the hall that has set the standard for concert hall building in England since the fifties. Many towns in England have built multi-purpose halls whose acoustic for music is compared to that of the Festival Hall. Sometimes it is said, 'If the acoustic time is good enough for the Festival Hall, it is good enough for us'. Other times you hear, 'the acoustic is almost as good as the Festival Hall'.

Unfortunately, the acoustic of the Festival Hall is a failure. When the hall was first opened, the failure was so noticeable, that the stage was rebuilt and an electronic acoustic enhancement system, amplification by another name, was installed. Word of mouth has it that the roof had been put on too soon; building time and money had run out with the Festival of Britain due to start. Whatever the reason, the acoustic space is too small. This lack of sufficient acoustic space largely accounts for the dry sound, even after the more resonant stage replaced the original and the amplification system was installed.

Sir Thomas Beecham was scathing about the building from the beginning both in private and in public. During the speeches he made to audiences introducing the 'lollipops' he liked to play as encores, he was so critical of the hall, that both he and 'his' orchestra, the Royal Philharmonic Orchestra were banned for a time from giving concerts in the hall.

The architectural book on the Royal Festival Hall says of the acoustic, that while it is on the dry side, it gives a clean modern sound. Sadly that is the best that can be said. In my experience, the hall can almost be made to work. This is perhaps the worst

scenario, as the fact that it has worked at all, is only as a result of the best efforts of the musicians themselves. In my opinion, the price these musicians have paid, is a major part of the subject of this conference, 'the medical problems of musicians'.

- Feel and Sound.

In my title I have used the words 'feel and sound'. They are to a performing musician both part of the same. The feel and sound are what musicians add to the notes on the page when performing a piece of music.

As an example of what I am referring to, consider the Double Bass part of a Verdi Opera. An Aria might have a crotchet (quarter note) as the first and only note of each bar for a whole page. With no guidance from the score, a good bass player will, from his own creative knowledge, be able to play every note differently. The player will be helping the solo line along on some notes, giving space on others, some notes shaded, others accented, etc. etc. all the while bringing out the spirit of the aria. This is what is expected of you, it is also an endless source of fascination for both performer and listener.

But how do you play in a dry acoustic? Do you lengthen the notes? Do you play extra softly? Do you play more loudly? Do you have time to shift between notes? Is the acoustic booster switched on? Is the booster adjusted correctly for the size orchestra? When these questions become Will I play more softly? Or Will I have time to shift? Or even Can I? Then the musician is well into having problems, which affect will his health.

Playing in a dry acoustic is thus a very edgy affair. For many musicians the sound and feel of their playing is the starting point. If the sound is not right, it takes all their concentration to try to make it right. This can be at the expense of playing the right notes and can prevent the musicians losing themselves in expressing the music.

If the 'feel and sound' of a hall is uncomfortably dry, the listener hears and sees an uncomfortable performance. In the Royal Festival Hall the dry acoustic is a subtle but pervasive, negative influence. Rarely will discomfort be directly attributed to the acoustic of the hall by the listener; most often the musician will be seen as found wanting and, most damaging of all, the musician might see himself as found wanting.

- Position in the Orchestra and damage to health.

The position that musicians hold in an orchestra can determine the type of risk that they are exposed to. This risk can be focused on one person and be directly related to where they sit on the stage or their role in the orchestra.

A percussionist friend of mine attributes his hearing damage to sitting behind the horn section in the Royal Festival Hall for five years. The horns themselves customarily played loudly to compensate for the dry acoustic.

Tragically, Bill Webster, Bruce Mollison and Ray Costa, Principal Bass players of the London Philharmonic Orchestra, the London Symphony Orchestra, and the

Academy of St Martins all died in the same year. All three were in their mid-fifties and seemingly healthy people. Was there a common cause? I suggest that the role of Principal Bass is particularly stressful in dry acoustic.

- Demonstrating the effect of a dry acoustic.

The havoc that a dry acoustic can cause, can be demonstrated at the Gordon Craig Theatre in Stevenage. The theatre has a dry acoustic designed to be suitable for the spoken word. About seven years ago, an effective acoustic Amplification system was installed, which has set switches for different size groups from Jazz Bands to Symphony Orchestras.

Simply switching the system on and off during a rehearsal can produce startling results. For the first fifteen minutes of a recent rehearsal with the system switched off, the violins and the conductor became increasingly uncomfortable with each other, as every little nuance was critically examined in the cold clarity of the acoustic. When the acoustic system was switched on, all the niggles disappeared in the warmer sound. The rest of the rehearsal and the concert were successful and everyone went home happy.

What had happened is that by increasing the resonance slightly, each note had more living time. This resulted in fractionally more time between notes. This extra space allowed embouchures momentary relaxations, made bowing a little less hard work and gave more time for the fingers to move. The result was that everyone was more relaxed and the sounds flowed easier. I note here that, paradoxically, if you want to play louder on a string instrument, you have to give the string more room to vibrate: just pressing the string down more, chokes the sound. In a dry acoustic the strings do not resonate sympathetically, thus the effort put into making the sound can easily kill resonating string, restricting the volume of sound.

Unfortunately acoustic enhancement systems are not the complete answer to dry acoustics. One important drawback is that, while the system adds warmth to a note, it also interferes with the natural decay of a note; this is vital to varying the feel of a note. Another drawback is that once a sound amplified, an essential part of its character is changed.

- Other halls in London.

Of the other halls in London, only the Wigmore Hall has a truly excellent acoustic. It is significant that performers queue up from around the world play there. The Queens Hall and the Aeolean Hall are sorely missed. The Royal Albert Hall is a fine hall with a unique ambience. Unfortunately from my perspective as a bass player, the stage at the Royal Albert Hall has been spoiled, with thick plywood covered in rubber laid over the old resonant floor. Violin players on the other side of the stage used to feel the vibration of the basses coming up through the legs of their chairs. The resonance of the floor enabled bass players to match the sound of the organ; for instance during some of the big choruses from the Messiah.

Thick plywood flooring, often covered in rubber, is spreading fast. The Queen

Elizabeth Hall stage uses it, completing its ruinous conversion to a multi-purpose hall. The recently demolished Sadlers Wells Theatre and many West End Theatre pits have this flooring, all with the same deadening effect for the bass player.

- Playing in the Barbican

Playing in the Barbican has been enjoyable for me, perhaps because most of the concerts that I have played in have been amplified. The Barbican is friendly place to work, with helpful, courteous, backstage staff. This, itself, makes a huge difference. There is also at the Barbican close contact with the audience, not just as you leave the stage, but also in the car park afterwards. It is reassuring to hear someone say how much they had enjoyed the concert, or just to be among people obviously happy. Even so, the Barbican does present problems of its own and I would expect these to produce a significant number of referrals to the Royal Free Performers

- Churches in London

The churches provide some interesting acoustics. St Martins in the Field and St John's Smith Square are examples of churches that put on successful concert series. Churches are also used for recordings and rehearsals; Rosslyn Hill Chapel in Hampstead and Henry Wood Hall, a converted church, are notable examples among many.

The churches all have generous acoustics and despite the problems of lighting and heating often encountered, as well as an insufficiency of facilities, they are places that sound good and feel good to play in. Aeroplanes fly noisely overhead, tube trains rumble underneath, yet the musicians are happy. Recordings are sold and enjoyed all over the world. This is the sound of people performing in a comfortable acoustic, the sound that the Royal Festival Hall fails to deliver.

- Studios in London

The major large studios in London include Abbey Road 1&2, CTS 1&2, Whitefield Street, Air Lyndhurst and Angel 1&2. There are many more. These are some of the best places to play in London. Sooner or later most of the best players gravitate to them.

To hear the sound of a large orchestra playing in a comfortable acoustic, listen to a recording of a film track recorded at one of the above studios. Listen to the back ends of individual notes as they meld into each other naturally without losing their clarity. The musicians have time to play. You will also note that in these acoustics, the instruments sound right; the clarinets sound like clarinets, the violins sound like violins, and there is a deep richness to the bass sounds.

(Play tape at 100 from start)

(That was an excerpt from Patrick Doyle's extraordinarily tactile score for 'Frankenstein'. The score was recorded in 1994 at Air Lyndhurst, a church converted

by George Martin into a studio.)

In the commercial world, the composers themselves are normally present, often conducting. They know exactly what they want to hear and in what acoustic they want it recorded. Furthermore, music can be recorded anywhere in the world, so to survive, London has to compete on quality and price. Despite the considerable pressures and close mikeing of everyone, many players continue playing into advanced old age. Happy smiling faces are everywhere. The contrast with the sight of an orchestra, with their miserable tense faces, leaving through the artists entrance at the Royal Festival Hall after a morning rehearsal, tells its own story.

- I have three outline proposals to remedy the situation.

- 1) That it be acknowledged openly that the Royal Festival Hall has been a disaster for public music making. The hall has done a disservice to the audience and been damaging to the health of the musicians who have played in it.
- 2) That a ring of four concert halls are built around London, all with a natural acoustic. Perhaps these halls might be situated in Greenwich, Hackney, Mill Hill/Golders Green and White City. These four, combined with Fairfield Hall in Croydon. will make a circuit in which Orchestras can repeat concerts profitably.
- 3) That the Royal Festival Hall be rebuilt or at least have a new roof. The New York Philharmonic Hall at the Lincoln Centre has had two new roofs since it was built.

- Conclusion

The contrast between the comfortable acoustic and the strained acoustic is particularly apparent in London. A musician can be playing in the Royal Festival Hall and Air Lyndhurst on the same day.

The film director at Air Lyndhurst will listen to his sound track many times. He expects to hear musicians playing confidently and comfortably. He expects to hear the different sounds of the instruments contrasting with each other, bringing out the colors of the score. He expects a wide range of volume. The film director returns with his next film because this is what happens.

The musician going to the Royal Festival Hall knows what is expected but also knows that the feel and sound of the hall makes playing music harder and more uncomfortable. My submission is that playing in this acoustic causes stress: it is the cumulative effect of this stress, through regularly playing in this hall, which damages the health of the musician.

References

Sydney Opera House, Phaeton
Royal Festival Hall, Phaeton

An Autobiographical note: MICHAEL LEA - Double Bass Player

Michael Lea was born in 1947. His musical career started as a chorister in Salisbury Cathedral. After Salisbury he attended Rugby School and the Guildhall School of Music, where he studied the cello before taking up the Double Bass. In 1968 he joined the BBC Training Orchestra in Bristol followed by the CBSO and BBC Concert Orchestra. In 1979 Michael Lea became fully freelance playing in the studios and with chamber orchestras in and around London. Between 1980 and 1988 he taught the Double Bass at the Guildhall School of Music alongside his freelance playing.