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Being the go-between: recreating Grieg's 1903 Paris recordings

Our project investigates the possibility of reconstructing an existing recorded performance. Although utilising many advanced techniques our recreations are session recordings that do not use synthesised sound or computer driven data collection. Although creating a 'twin' as close as possible to the original is an important objective, an even more important issue for our work is to utilise this method as a practical means of in-depth performance analysis. We have attempted to work outwards and upwards from the smallest details, examining the structural effects of often very small performance events. Our approach has been to try to understand the inner working of Grieg's playing by working with all the performance elements simultaneously as they operate in real time rather than isolating particular parameters of interest. We would argue that through this holistic approach it also becomes possible to access information deeply embedded in a recorded performance that more passive or selective methods are less able to uncover.

[Music example 1]

Now that the period instrument movement has truly come of age and is at last investigating music actually written within the span of recording history one would have expected results that really got to grips with the essence of the period. After all, for the first time we have the evidence of our own ears in addition to historic instruments and written descriptions of performance practice. How could we go wrong? Even if the earliest recordings are imperfectly captured on disc and cylinder and recorded under conditions that were hardly optimal, the ability for us to actually hear what was done surely overrides all other anecdotal and other written evidence. But if we listen to Norrington's Elgar, could we mistake it even for a moment for Elgar's Elgar? Or could it be early Boult or Toscanini for that matter, or indeed a recording by any orchestra and conductor of the 1920's or 30's? Wonderful though the results may be they are quite decidedly a product of our age wrapped up with all our values and prejudices, a complex network of elements that time-stamp it forever. The Orchestra of the New Queen's Hall is another good example. The instruments are correct, the playing is fantastic, but from recordings we have heard it still seems for all its qualities to ignore many of the most fundamental issues that seem essential to music making in the early years of the twentieth century. These fundamental elements are deep rooted and of course bound to their period but we ignore them at our peril if we are going to do anything more than wrap a very modern performance in some attractive period garb. So where to begin?

Music in performance is wonderfully slippery stuff. This is surely one of the great attractions for everyone who loves music and particularly those brave souls who attempt to unravel and lay bare a few of its secrets. We should perhaps also remind ourselves before we go further that if a great work is multi-layered on the page, how much more so in a great performance with all its events alive, in constant, often contrary, motion. The performer can affect the inner workings of the piece at every level, from the purely decorative to the most profound (hardly a new thought of

course, it is what interpretation is all about) but things can, did, and perhaps should again go much further than anything to be found in the paper notation. There can even be fundamental elements that are impossible to glean from the score alone, often important structural issues that a great composer/performer or even just a great performer can illuminate and with it change forever our understanding of a work. We would certainly strongly argue that Grieg the performer does just this in his performances of his own music, the main subject of this paper and our investigation.

But it is perhaps the very three-dimensional nature of performance with its quicksilver shifting of events that is one of the main reasons it is so difficult to pin down, notate and analyse a recorded performance. So we naturally simplify when we listen, as indeed we do when we analyse what we are listening to: a listener who perceived music without this natural simplifying or grouping of events would simply be incapable of assimilating all the information as it was presented to them and anything more than the simplest melody would soon become an unintelligible jumble. So as a listener we unconsciously group events, just as we also do in language or the visual world. This mental shorthand is subtly different for each individual today, but more radically different between different periods in time: We simply perceive music differently in 2009 than in 1903.

But still the fact remains that what might have been simply conjecture can be clearly seen and heard because of the almost cryogenic possibilities of the recording medium. We have no need to wait for new technologies to see the spark of life return once again in the long dead patient, just place the disc on a turntable to reinvigorate. We, the listeners, however, are clearly not the same and here lies the rub.

This grouping of events extends to all the musical parameters. Even the simple grouping of pulse, for example, changes with time; a passage that was generally perceived as stable, steady in 1903 could well have slid into the realms of instability, unsteadiness when perceived with unmodified 21st Century ears. One can learn to listen in a more informed way but the problem is that there are so many parameters that interlace together at any one time, multiple layers that we have little direct conscious access to.

This is one of the most important areas we are attempting to tackle because this period-dependent simplification (indeed one can call it 'translation' it is so powerful in its effect) distorts our aural vision to varying degrees, often blinding us to much of what is really there. It was at this point that we had the following thought: is it stretching credibility to suggest that it is possible to be able to listen with something of the conscious and unconscious mindset of the original performer? Indeed, is it possible to short circuit this rather irritating part of the human brain at least for long enough to harvest some long obscured goodies? Preferably without physical surgery!

A final area we are examining has long intrigued both of us and surely many other musicians and listeners as well. A good, or better still a great, performance is full of very small-scale micro-structural events. They can be small rhythmic changes, points of emphasis, tempo fluctuations, something in the attack of a note, a particular colour in a note; any number of things. But what they all have in common is what we might call 'density' of musical content, where their apparent physical insignificance is out of all proportion to their actual structural power. However, the strange thing is that whilst many, probably most, small departures from the norm remain resolutely in the domain of local colour with no influence on the large scale whatever, others are

fundamental to the large scale evolution of the performance as a whole – they colour and shape it and are the catalyst for further development.

Some performers (and we would certainly place Grieg in this category) seem to be blessed with inordinate amounts of the good stuff and remarkably little of the often pretty but non-functional surface glitter. One could argue, and we certainly would do so at this point in our work, that what is most important is to understand and utilise these fundamental elements and resist the temptation to simply cherry pick from the array of obvious details on offer. It is certainly more difficult to fully understand the fundamental processes of a performance. These processes can remain hidden by the more apparent elements but to find and understand them is to find the key.

From the beginning when we started planning this project we both felt that we didn't want to use any computer-aided restoration on this particular journey, anything automatic, or synthesised or sampled sounds. We were, of course, aware of at least some of the work in computer reconstruction but were unconvinced by the results that we had heard and in any event our whole emphasis and general direction was different. The end result for us was not just in recreating the sound of the originals but to attempt to understand them.

As far as our original intention was concerned sonically, we intended to make a recreation that was as close at humanly possible to the original. We would emphasise the word humanly, because these recreations have to live, they have to have blood coursing through their veins like the originals. We look to the perfect twin, not the clone, as our goal. And central to all this of course, above everything else – we wanted to learn.

The nine single sided discs that Grieg recorded in Paris in the spring of 1903 seemed to largely choose themselves as a first project. Grieg's only recorded performances have long been regarded as historically important even if their musical value has often in the past been questioned, unfairly in our view. After all, these are, along with the two Brahms fragments, the only recorded examples of German-trained pianists born before 1850. That they are both great composers who were notable performers of their own music makes them doubly significant and worthy of careful study.

After some initial tests we both felt we had to record this project on a piano that was either of the period or had a very light touch, as it was clear that working on a heavier modern instrument would add to the difficulty of an already near impossible task. The natural decision here was of course to use Grieg's own 1892 Steinway, still in its original position in his music room at his villa outside Bergen, Trolldhaugen.

It was perhaps foolhardy to think of starting with such a huge task but we quickly came to the conclusion that it simply had to all be all nine sides as they provide such a very complete picture of Grieg's playing – and what spectacular playing it is under all that mush and crunch. They are a wonderfully balanced group of pieces that demonstrate perfectly the range and detail of the way he played. Although it includes the smaller scale pieces for which he was famous it also features movements from his only piano sonata and gives us a strong picture as to how he structured his playing in larger forms.

The musical example we played at the start of this paper is probably self-explanatory. It is, as you could hear, an edited version switching between Grieg in 1903 and

Sigurd in 2007. Here is another example that demonstrates one of the techniques we subsequently developed when editing and clearly shows just how faithful we can be to the original: Here is the first part of the minuet from the piano sonata. Grieg is on the left-hand channel, Sigurd on the right.¹

[Music example 2]

[Music example 3]

The last few seconds of that example are not edited and demonstrate very clearly just how difficult it is to stay with the original. In fact it is impossible for them to run in sync for more than a tiny amount of time without editing in a very complex way. We are now in the process of systematising the results of our research, and aim not only to point out the apparent features of the playing and their effect on the musical conception but also to describe the inner workings of these features, which remains a domain largely hidden both to the passive and the involved and informed listener.

Some important features are immediately apparent on first listening, others appear only after many hours of repeated auditioning and from the process of actually re-creating what we hear. Perhaps the single most enlightening part of the process of recording was the continuous comparison of the newly recorded material with the 1903 original. This technique of direct comparison highlighted every tiny deviation from the original and often revealed details and layers that we were not looking for but were of considerable interest. This proved to be one of the most important aspects of our working method. But it was always when we were very close to the original, in close proximity to Grieg, that the most interesting elements became apparent.

Gradually, certain features of Grieg's playing appeared as being fundamental to his style:

- The nervous and anxious are a strong personal characteristic of his playing. The pulse and tempo are constantly affected by minute changes of direction, which creates complex undercurrents in often visually simple structures.
- His rubato and general treatment of tempo are always very coherent. There is an intriguing flexibility to his treatment of tempo and particularly in the pieces that are not dance based. We gradually realized how the coherence within all this flexibility is achieved through a strong feeling of beat subdivision: not the kind that stops the motion but the kind that holds together transitions and gives unity to an otherwise loose melodic outline. The smallest rhythmical unit, and sometimes an imagined subdivision rather than the audible subdivision, always controls his rubatos. Like Rachmaninoff, Grieg was also a conductor/pianist, and we believe a kind of conductor's control (articulated by the physical manifestation of beat, of which more later) is what we are hearing here.
- There is a very characteristic, seemingly primitive quality to his rhythmic

¹ Since delivering this paper we have continued refining the re-creations in post-production as the method itself is developing as we work. Whether we like it or not the same rules of engagement apply when editing this material as in a 'normal' recording (this is something we were keenly aware of during the sessions when recording and was one of main reasons they had to be so extended in time). After matching timing as closely as in the example above we have continued to re-work the material somewhat for the most natural presentation possible. It will, for the most part, still run with the original but so much more is at stake if it is to be totally convincing as a performance in its own right that small deviations and readjustments need constantly to be made. Music Example 3 is a further developed version of the opening of the Minuet and we think very effective.

impulses in the dance-based pieces. These are created by an apparently unprepared and early placement of accents, by the basic pulse of the piece and the quality of sound. Against the backdrop of an extremely sophisticated playing style obviously rooted in his German training this is a very fascinating point. This overlay seems to come directly from the Norwegian Folkmusic and the Hardanger Fiddle in particular.

- A very strong characteristic and not so immediately apparent is the speech-like quality of his playing. What is most remarkable is the way in which he retains this quality throughout almost the whole expressive range, even in the most vivid parts such as in the Finale of the piano sonata.
- Another not immediately apparent but fundamental characteristic of his playing is the constant presence of swing. Similar to the speech-like qualities of his playing there is also a physical quality present throughout all the range of his performances. This "schwung" was obviously of immense importance to Grieg and he talks about it many times in his letters.

'Schwung' has been a particularly rewarding element for us to investigate with the method of re-creation, as there is hardly any element in performance that suffers more from verbal explanation or notation than swing, and yet this is of such significance to Grieg's style of performance and to so many other great performers. Trying to analyse what actually constitutes Grieg's particular swing has involved constant experimenting with various timing issues, independence of voicing in addition to non-togetherness, and the physical aspects of sound production at the instrument.

Grieg, the composer, is generally criticised for his schematic structure and the lack of development within the music. The seams of the structure are so very apparent on the page and usually reinforced in performance. However, when listening for the first time to Grieg playing, for example his famous lyric piece *Sommerfugl* (Butterfly), one can have problems grasping the structure of the piece, at least with a modern set of ears. We certainly had some difficulty understanding what he was doing here. The impression of this performance and certainly of *Til våren* (To Spring) is of an improvisatory and flexible style of playing, evolving as if the shape and the length of the musical units are being decided on as the pieces unfold. What our studies have shown us, however, is the presence of firm structural patterns on which a given phrase is moulded, for example where Grieg performs the same melodic material in a surprisingly fixed, but extremely sophisticated and complex way, even in very different textural contexts. This is not to say that it sounds stiff or academic in any way, far from it. He creates a dynamic structure, a framework that enables him to form the smaller elements with the freshness of the newly made. Here is the main theme of *Til våren* in its two appearances in the piece in very different textural contexts. The structural pattern on which the melody is remarkably similar and very complex. Inspired, yes, fresh certainly but surprisingly not of the moment:

[Music example 4]

In his own playing, Grieg actually confounds his critics by constantly moulding the audible structures counter to the solid-edged visual structures of the score. His performances of these short pieces are actually so rich in content that they take on far larger structural significance. One could describe them as being macro structures on a micro level. The level of detail, however, never undermines or disturbs the overall line. On the contrary, the details of the performance all seem to cohere closely with, and support, the overall structure. Working over such a long time with these recordings, it

actually strikes us both how much of a strong inner logic there is to every detail of these performances, what consistency there is to every rubato, every element of articulation and to every transition. We have earlier spent a very considerable number of hours studying other great performers, for example Alfred Cortot, and can assure you that this impression of total consistency is not only formed by spending many hours listening to Grieg's performances.

Some personal reflections about increasing sensitivity, Sigurd:

There is of course a level to this process that is very personal to the performer involved. The feeling of becoming one with Edvard Grieg is mine alone, and being the performer one harvests from a different level of understanding than others, to a large degree this is a non-verbal understanding which expands one's artistic reservoir, however difficult to explain.

The repeated listening and the constant attempts of replicating create a heightened awareness of all the elements of performance, including the physical aspects of music making. I would say it came as a surprise to both of us how clearly we were able to reconstruct what we believe are the essential physical characteristics of Grieg's playing. My experience at the instrument and the original sound image together form a possibly speculative, but qualified opinion on the physical aspects of the performance: elements such as wrist technique, arm movement, the level of suppleness in the hands and fingers and the general physical gestures. In addition are the important elements of various kinds of sound production, swing and the transformation of human gesture into musical gesture.

For myself as a musician a crucial part of the process has thus been the strengthening of my sensitivity to minute details of tempo, sound production and voicing, and understanding the interaction between those elements in giving structure and character to the music.

Tony:

I would like to echo Sigurd's thoughts here. I also experienced similar feelings of intense understanding, although of course seen from my own standpoint as a musician who produces and conducts. This heightened level of perception was obtained both through working together over the long hours of the sessions but very particularly for me with the months of microscopic work necessary at the post production stage. It is certainly this solitary work that brings with it a different level of understanding than can ever be achieved through more passive listening approaches. In documenting our work these two complimentary but necessarily different viewpoints should be interesting.

Textural elements:

Even though our main interest in this project is not the textural aspects of Grieg's performance, there are a great number of extremely interesting deviations from the written score, some of which we have been able to detect only after repeated comparisons with our own recorded material. In fact, in the original recording some extra octave doublings are detectable only because of residual upper harmonics, the fundamental being below the frequency range of the recording medium. The most interesting question however would be to see if there is any pattern to his many textural deviations. One thing is for sure: the general feature of the textural changes is usually the expansion of the pieces' range, enabling small pieces to sound much

more orchestral. One certainly wonders why there is no indication of these wonderful expansions in the scores. The Humoreske is a particularly rewarding example where Grieg intensifies the orchestral effect by expanding by an octave in both directions:

[Music example 5: Humoreske]

A more detailed view:

Let us look in more detail at a few bars where we can see some of the above points in action. Here are the first few bars of the minuet again this time in Grieg's original:

[Music example 6]

There is certainly a lot going on here and we do not have time to go into great detail but let us focus on a couple of important elements. Firstly that wonderful "parlando" four note figure in the right hand in the start of the second bar, which is remarkably non-instrumental and finely shaped rhythmically, something not at all contained within the original notation. This is not the equal triplet plus one, as it appears in the score but rather a single four note sequence with the longest beat and most stressed being the first and each following shorter than the last. This really feels "spoken" and its shape can be clearly seen in the spacial score of the opening bars:

[Score example 1]

Listen again to the last note of the four-note phrase and the slight pressure on it – it is not really an accent at all (in fact it is easy to miss) but it is certainly no passive phrasing off either. It seems very insignificant at first but it is the catalyst for that powerfully active left hand third beat at the end of the bar. We know this as a fact because of the time we spend recording this very place. We found that without the slight pressure on the last right hand chord it was simply impossible to make the left hand bass at the end of the bar work at all, either in its placement in time or the quality of the attack. The physical gesture demanded these elements in place to work. The importance of the pressure on that right hand chord is not that it is audible in itself but that it is the very start of the swung gesture enabling the end of the bar to be tucked in by slight of hand on the part of Grieg.

Looking at the placing of that recurrent 'swung' third beat in the bass is also interesting, it is always early in relation to what we might call the 'point of beat expectation'². This all provides a wonderful counterpoint that is impossible to perceive from the original musical notation alone. The swing that Grieg the performer creates here is the physical powerhouse that drives the piece, and it is no regular dance swing as you can hear but very flexible with remarkable long-term shaping.

For the opening bars we have an internal conflict with the right hand being essentially resistant and the left swinging forward, but finally the right hand gives in to its attempt to stem the flow and in the face of a superior force surges forward as we move towards the fortissimo. Of course much more is happening here than we can go into now.

² The point in time where we the listener subconsciously expect a succeeding beat to be placed. A bulls eye creates a feeling of maximum stability where as placement either side of the centre line and by how much determines a feeling of forward motion or resistance to forward movement.

Our parlando figure also develops in the most interesting way from its opening presentation. As is clear from the spatial score with each recurrence it gradually evolves, gradually compressing while keeping the essential shape established at the first presentation until it contracts and becomes almost exactly like it is notated just before that first fortissimo. This is symphonic shaping, building a wonderful line full of internal complexity.

The reconstruction method also reveals actual dynamic relationships that are important to the performance and often obscured by the original recording method. Those - by now famous - left hand octaves, for example, are stronger and more dynamic than they sound to the casual listener. The bass of the instrument is more distantly recorded and even Sigurd began by underplaying these octaves. When we compared what we just recorded to the original it quickly became clear that the kind of gesture and attack that Grieg employed here could only be obtained at a particular dynamic level and this enabled us to re-align the dynamic relationship between the various registers of the instrument.

Also revealed more clearly is the strong 'will' behind the playing, the incredible inner drive that is as much a personality trait as a musical one, although it has direct musical consequences. All this can sound very small amid the wall of noise but is relived at the re-creation stage. He is very difficult to keep up with!

This brings us to a general observation that is of real importance and worthy of considerable investigation. We saw it in that little four note parlando figure we examined a little earlier. We don't have a good name for this, but it is about the contradictory nature of his phrase endings. This is a powerful tool that Grieg uses very consistently in creating a dynamic structure at the phrase level and above.

There is a strong tendency now among performers to reinforce formal shapes rather than encourage contradictions, to clarify rather than mystify. So a phrase ending will often be dynamically reduced to match a descending melodic shape, perhaps with a slight rhythmic softening and phrasing off, perhaps also a slight easing of general tempo or a stable tempo maintained to create an equilibrium. All these small events delineate structure and add to stability and clarity.

As we talked about earlier, Grieg consistently works against these paper constructions. That little four note parlando figure has a diminuendo, with a descending figure but the last note is not late, it is early, and has that slight pressure on it, not a phrasing off. So we point in two directions at the same time and in this case the "lift" provided on that last note in the right hand enables the left hand bass octave on the third beat to take up the challenge, and off we go.

This is a remarkably powerful detail that occurs hundreds of times throughout these recordings in many different contexts on the small and large scale. More significantly he is not alone in this. It seems to us to have been a widespread method and can be found in many of the great performers of the first half of the twentieth century. It will need more investigation but I suspect its gradual subjugation³ was due to recording.

The application of our research

Following the re-creations, we have also recorded Grieg's major work for solo piano:

3 It can still be found, although rarely appreciated, in modern performances.

the Ballade Op. 24 and the Sonata Op. 7. While the Ballade was never recorded by Grieg himself the Sonata was in part. The third movement of our recording is the recreation of Grieg's own and the Finale completes the parts Grieg cut in his recording.⁴ Sigurd has also performed the concerto a number of times after our work and his interpretation of all three of these works has been fundamentally effected by this practical research. We consider this to be the core of the project, namely the practical implementation of the principles we have found during the research process.

As far as the Ballade is concerned Grieg himself never recorded this important piece, and it has remained a tough nut to crack interpretively since it was written. Brahms had great respect for the piece (something that both surprised and delighted Grieg incidentally) and it was in the repertoire of many of the great pianists of the first half of the twentieth century. It is a masterpiece of large-scale variation form, original in conception and bold in execution. What it does not have however is tightly composed transitional elements firmly locked into the framework of the piece. It is this that makes Brahms, to take one example, largely bomb-proof. A bad performance of Brahms 4th symphony never causes us to doubt the piece, only the performer. Beethoven is another good example of this. Has the performer yet been born that can really destroy the Eroica? Which is not to say the Eroica can't destroy the bad performer. So much is composed in to the very fabric of the work. Schumann is a notable exception to this pattern and demands the same intense understanding from his interpreter as does Grieg and has often been misunderstood for similar reasons.

To conclude, a few words about where we hope to go from here. We talked earlier about the documentation of our finds and we certainly have a book on the subject firmly in our sights. Another important question, we think, is the further use of the session material. We would like when we have finished this stage of the work to explore some way to make the material available for further research use by others (including possibly the 'live' edit with edits still active). Of course a pianist could replicate themselves some or all of what Sigurd has done to access the deepest reaches of understanding at that very personal level although that is probably something relatively few would wish to attempt and would be a course of action only be open to pianists. However, working on the material with the editing methods developed for this project would provide that physical contact with the material that we feel enables a very deep level of understanding.

Further projects

The Brahms cylinder from 1889 is an obvious contender for recreation and we have done extensive work on it already at the preparatory stage. To enable us to hear more of what is really there we have obtained high sample rate transfers of the 1935 Acetate re-recording from the British Library. It would seem that this has not been transferred since 1983. We have also managed to track down with the help of the of the British Library two copies of pressings made from the wax master at the sessions (clearly the signal was sent both to the acetate recorder and the wax cutting head at the same time as the material is the same with the same noises before and after the cylinder reproducer was lowered onto the cylinder itself. It was also transferred in a single pass, although the engineer responsible for the wax recording lifted the level after the spoken introduction, a feature not present on the acetate which proves the acetate was not a later copy of the pressing but recorded at the same time.). Taken

⁴ Grieg's recording is about a third of the movement as published.

together the three different copies provide valuable additional information to what is already known. We are in the process of getting the best recording pitch-stabilised in the same way as was done for the Grieg, which should also enable more to be heard.

Cortot and Busoni in Chopin and Cortot performing Schumann are high on our list.

The Mahler piano rolls

These are frustrating but contain valuable material if it is possible to separate, at least speculatively, what is Mahler (and human) from the Mechanical and chance aspects of the very imperfect mechanical recording medium. We would like to experiment with the opening few minutes of the 5th symphony and see if our detailed approach and knowledge of working on the Grieg recordings can yield results in filling in the gaps. The key may be the Grieg piano rolls from 1906 where he plays some of the same repertoire as in the 1903 acoustic sessions. Grieg is consistent in many details that seem of the moment (as we have discussed before) and a comparison gives a clear impression of exactly what the reproducing piano could, and more importantly, could not, do and the nature of the distortions (swing is one element, as one would expect, that the mechanical system has great difficulty with). Timing was often very imperfectly rendered and made worse (especially in the early years of development, the period we are interested here) by the transcription process of the markings made on the master rolls onto the punched holes of the finished master roll and by the subsequent copying in the factory process. All of this and the inherent timing inaccuracies of a mechanical system that was hardly quartz accurate to begin with, create an array of problems that need to be understood. Welte Mignon, the most advanced method in the early years of the new century and the system on which both Mahler in 1905 and Grieg in 1906 recorded, did record some basic dynamic information but not on a note for note basis. The piano was split into two halves and general dynamic information was independently noted for each but any kind of chord voicing or differentiation of contrapuntal lines within that range not recorded.

There is much to be done.

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