

The Inner Life of the Cello

(Web version of lecture given by Professor Neil Heyde in the David Josefowitz Recital Hall at the Royal Academy of Music, November 2015)

This collection of materials is neither a ‘demonstration’ of the seven cellos, nor a ‘concert’, as such: instead, as I hope the title at least suggests, it is an exploration (through the medium of a framed concert) of what a cello *is*. Instead of calling it the ‘inner life’ of the cello I might have chosen a ‘social life’ (following the lead of writers like Eliot Bates or David Schoenbaum)¹ or something much more conceptual, like the ‘Thing Knowledge’ of Davis Baird’s ‘philosophy of scientific instruments’.²

One of the fundamental points I aim to make is that ontological questions about the cello cannot be adequately addressed in words; however, in order for the collection of materials as a whole to speak most effectively we do need a context, and this text presents a series of perspectives on the *idea of the musical instrument*, gradually focussing in on some of the unique qualities of the cello.

When Helmut Lachenmann claimed in 1986 that ‘composing [can be taken to mean] building an instrument’³ he was not only pointing to some peculiar aspects of his own practice – which he has articulated as a *musique concrète instrumentale* – but also indicating a sense of belonging to an established culture. Stravinsky takes a more rhetorical and radical stance in an interview with Robert Craft from the 1950s:

Instruments are nothing in themselves: the literature they play creates them. The mandolin and guitar, for instance, did not exist until Schoenberg imagined them in an entirely new way in his *Serenade*. A new musical masterpiece of that kind is a demand that musicians be created to play it.⁴

The underlying notion in both of these claims has a long history. Over a century earlier Hector Berlioz saw the composer as the ‘instrument creator’ in his *Grand Treatise on Instrumentation* which begins with the almost Cagean observation that ‘Every sounding object employed by the composer is a musical instrument’.⁵ In all of these statements it is clear there is an effort to point to something complex about the nature of the musical instrument, which lies in the fact that it

¹ Bates, Eliot: ‘The Social Life of Musical Instruments’, *Ethnomusicology* 56/3, 2012, pp. 363-395
Schoenbaum, David: *The Violin, A Social History of the World’s most Versatile Instrument* (New York: Norton, 2013)

² Baird, Davis: *Thing Knowledge, A Philosophy of Scientific Instruments* (Berkeley: University of California Press, 2013)

³ Lachenmann, Helmut: *Musik als existentielle Erfahrung*, ed. with an introduction by Joseph Häusler (Wiesbaden: Breitkopf & Härtel/Insel, 1996), p. 77. The German original reads: ‘Komponieren heißt: ein Instrument bauen’. This is discussed in Fitch and Heyde: ‘Recercar’ – The Collaborative Process as Invention’, *Twentieth Century Music* vol 4 no.1 (March 2007)

⁴ Stravinsky, Igor and Robert Craft: *Conversations with Igor Stravinsky* (London: Faber and Faber, 1958) p.114

⁵ Macdonald, Hugh: *Berlioz’s Orchestration Treatise, A Translation and Commentary*, (Cambridge: CUP, 2002) [orig. pub. Hector Berlioz: *Grande traité d’instrumentation et d’orchestration modernes*, Paris, 1844] p. 5 [The French original reads: ‘Tout corps sonore mis en oeuvre par le Compositeur est un instrument de musique’.]

is not merely a physical object or a tool. Nevertheless, Berlioz, Lachenmann and Stravinsky have all been interested in exploring the *innate* qualities of musical instruments. In the introduction to his treatise Berlioz goes on to observe that the study of ‘quality of tone (timbre), particular character and powers of expression pertaining to each instrument’ has been ‘hitherto much neglected’. Behind this lies an implicit acknowledgement of a complex relationship between musical idea and realisation that is strikingly – and also peculiarly – captured by Morton Feldman in an interview from 1967:

I like instruments that have a certain anonymous quality, that can easily metamorphose themselves to enter the musical world. If you really want to know the truth, instruments embarrass me.... I hear a sound: an instrument makes it... [the instrument] changes it, gives it its own colour, destroys its abstract quality, or its reality.⁶

The ‘innate qualities’ of instruments to which Berlioz and Feldman are pointing are rich and complex, and the kinds of insider knowledge that musicians bring to bear on their *understanding*, *utilisation*, and, if we take Feldman seriously, even *mitigation*, is neatly illustrated by the English composer Cecil Forsyth, who makes the brief observation in his *Orchestration* (1914) that the difference between B-flat and A clarinets – which we understand as ‘different instruments’ – is ‘a good deal less than the difference between a Brescian and a Cremonese violin’ – which we understand as the ‘same instrument’.⁷ We might wonder how many composers today would have made this kind of timbral comparison by citing the two great centres of violin making at the beginning of the instrument’s history, so it’s worth knowing that Forsyth was a violist and that Brescian instruments have long been vastly more popular with violists than violinists or cellists.

For those who are not violin *cognoscenti*, the Brescian makers produced instruments that are often dark sounding (part of the reason for the violists’ fascination), and the Cremonese, brighter, more silvery ones. These timbral qualities also happen to be intimately related to the physical appearance of the instruments from the two towns. Put crudely, the Cremonese instruments are archetypically ‘classical’ and the Brescian instruments rather ‘gothic’.⁸ We will return to an opposition of types later...

Perhaps the greatest challenge in articulating any kind of ontology of musical instruments is that these composers are presenting only (their) part of the picture and there is in fact a very complex multi-directional ‘building’ of instruments, in which all of the component streams have complex lives in their own quasi-private worlds as well as in relationship.

[NH to give aside about composers being public in a way that makers are not and performers relationships with instruments rarely so.]

⁶ Morton Feldman – Interview with Jean-Yves Bosseur, 1967, trans. Ivan Ilić (2015), p. 7

<http://www.musicandliterature.org/features/2015/10/28/away-from-the-big-cities-brmorton-feldman-interviewed-by-jean-yves-bosseur>

⁷ Forsyth, Cecil: *Orchestration* (New York: Dover, 1982) [orig. published London: Macmillan, 1914, repr. 1935] p. 255

⁸ This used to be very effectively conveyed in Oxford’s Ashmolean Museum, in which two large cases of 17th- and 18th-century instruments from each town were set next to one another.

The instrument maker – the ‘literal builder’ of the *object* – knows nothing of the music that will be written for it (and may know very little of what already exists). His or her dialogue will be with other makers, and, to a certain extent, with players. *We have almost no records of maker-player discussions because of the private spaces in which these are largely conducted.* The composer is likely to be in much more intimate dialogue with other composers’ ‘building’ of instruments than with makers. Sometimes performers may be very present in this, but equally we may be rather ghostly figures, hovering in the wings... Explicit dialogue between composers and makers is quite unusual, and implicit dialogue between them is more often than not completely ‘out of time’. In the Finnissy pieces this is part of the ‘subject’ of the composition – and I cannot help but also make it part of the performance – but more often than not it is ignored. It is often simply too convenient for composers to treat instruments as means to ends.

The performer’s position is perhaps the most complex. We too are engaged in building instruments, but this process is much more difficult to grasp as it spans a lifetime and it is difficult to extract any kind of ‘trace’ as a manifestation. The instrument the player builds necessarily escapes both the bounds of the *repertoire* that it is used to play and the physical *thing* that is used for making the sounds: but these also remain as absolutely vital elements in it. It is this context that lies behind Nathan Milstein’s according a special importance to the advice his teacher Leopold Auer gave him: ‘think [or practice – he uses the two interchangeably] with your head and not your hands’.⁹

Thus, the ‘cello’ I play is not the instrument that Pablo Casals played, or – even today – those currently played by the students who brought in Academy instruments on loan to them for the concert – Margarita Balanas, Raffaele Ottonello and Josh Salter. Although Amit Peled from Peabody is now playing the Goffriller cello that Pablo Casals played for 60 years he cannot play Casals’ cello as I mean it here. That said, we both play a ‘cello’ that owes something fundamental to Casals even though it may be different aspects of his legacy that we incorporate. As those who have attended classes and lectures of mine know, I have been fascinated by Casals’ peculiar cellistic approach for years and have gradually found ways of incorporating some of his tools in my own arsenal. However, although the technical tools and the physical objects are important elements of the *shared construction* that is the instrument, it is very difficult to unpack the roles that they play. This is partly because they exist to a certain extent in their own worlds, but principally because they are implicated in myriad dialogues that are almost impossible to access. No matter how consciously aware we may be – or may try to be – of the technical, physical, aesthetic and interpretative dimensions of our playing, the vast majority of interactions remain below the threshold of consciousness. This is what I mean in the title by the ‘inner life’ of the cello: what is gradually built in countless hours of practice, workshop, rehearsal and performance.

For the moment I want to put dealers, auction houses, museums – even *collections* such as the one which has allowed this event to take place – to the side, even though it is clear that they too make a powerful contribution to our understanding of instruments. This is especially the case for the violin family. Although there are universal aspects to the player/maker/composer relationships through which we construct instruments, the violin family presents a few

⁹ Nupen, Christopher: *Nathan Milstein in Portrait* (Allegro films, 2007, DVD) [first shown on television in the 1980s]

distinctive features, of which the fact that most high-level professionals are using antique objects for their daily work is among the most striking.

That there is a rich and reflexive relationship between people and the instruments they play (or the voice-types they embody) that extends even to modes of dress and behaviour is obvious to anyone who has worked in a conservatoire or played in an orchestra.¹⁰ For all sorts of perfectly good reasons this has not been very thoroughly investigated, but the use of antique instruments by string players is inevitably something that shapes our interactions with the world. For a young player attempting to carve out a niche in a difficult profession it can feel like it would be very helpful to work with something that suggests a certain kind of *provenance* – which is one reason why instruments often feature in string player’s biographies – and, from a personal standpoint, the right kind of old instrument can sometimes prove a worthwhile financial investment.

In recent years some interesting research has been done by Claudia Fritz and an extensive team, claiming to present a ‘striking challenge to near-canonical beliefs about Old Italian violins’.¹¹ (These ‘beliefs’ are simply accepted as a ‘commonplace’.) The research was very well planned and executed, and over the course of a number of studies the team have reported the finding that ‘experienced players tended to prefer the new instruments, and were unable to distinguish old from new at better than chance levels’.¹² Let’s take that outcome at face value for a moment. Could it mean that playing on an ‘important’ instrument is merely a branding exercise, or could it be a kind of ‘projection’ of an investment strategy? Why do we ascribe special qualities to old instruments, and what kinds of qualities might these be?

Rather than raise issues with Fritz’s methodology, which is both careful and thorough, it’s interesting to look at the framing of the exercise. The unchallenged notion of the ‘purported tonal superiority of Old Italian violins’ may indeed be *claimed* by many players, but the claim may actually mean something a little different, as some kind of ‘necessary fiction’. There are two obvious problems with taking the claim for granted. The one which presents itself first, is that musicians are not – by and large – able to find adequate language to describe anything much about what they do. The second, which lies behind the first, is that the specific kind of understanding we have of our instruments is a *material* knowledge not a language-centred one.¹³

The fundamental task put to the experienced, high-level, players who participated in the more probing of Fritz’s two major studies was outwardly pragmatic, but conceptually complex:

¹⁰ At the time of writing the UK’s Classic FM radio station has a series of pie charts representing ‘musician’s brains’ on its website. The aim is humorous and I and many colleagues laughed at a significant number of them. The humour relies on deep-seated recognition that musicians have different psychological makeups that are connected to their choice of instrument. <http://www.classicfm.com/instruments/musician-brains-pie-charts/> (accessed 28 March 2016)

¹¹ Fritz, Claudia, Joseph Curtin, Jacques Poitevineau, Hugues Borsarelly, Indiana Wollman, Fan-Chia Tao, Thierry Ghasarossian: ‘Soloist evaluations of six Old Italian and six new violins’, *Proceedings of the National Academy of Sciences of the United States of America*, April 2014

Fritz, Claudia, Joseph Curtin, Jacques Poitevineau, Palmer Morrel-Samuels, Fan-Chia Tao: ‘Player preferences among new and old violins’, *Proceedings of the National Academy of Sciences of the United States of America*, January 2012

¹² Fritz et. al., 2014, p.1

¹³ See Davis Baird: *Thing Knowledge, A Philosophy of Scientific Instruments* (Berkeley, University of California Press, 2004) for a monograph-length attempt at articulating a ‘materialist epistemology’ for scientific instrumentation.

‘Imagine you are looking for a violin to replace your own for recitals and concerto performances in an upcoming tour’. As part of the process players were asked to score the instruments in terms of ‘loudness under the ear, estimated projection, playability, tone quality, articulation/clarity and overall preference/quality’.¹⁴

I can say categorically that I don’t feel I would be able to score the instruments used for the Finnissy performance very effectively in any of those categories, and although I could happily play the game of which one I’d take with me on my ‘imaginary tour’ I’m keenly aware that it would be exactly that – a *game*, that would bear little relation to any of the things I might find important in the long term. What we have in these studies is a category confusion – which I admit has been prompted by what players *say* – in which an instrument is treated as if it were merely a tool. (Even in the sciences, where this understanding of instruments has been habitual, it is now being questioned.)¹⁵ It is very difficult indeed to articulate what makes a particular instrument ‘interesting’ so most descriptions from players read like poor marketing speak. If we accept that we exist in very complex relationships with our instruments then it possibly makes more sense to think of them as partners rather than tools. It’s quite an interesting proposition, if deeply unsatisfactory, to re-imagine the Fritz experiments as ‘dating scenarios’. Certainly, if this element of our relationships were to be taken seriously it would require very different kinds of experiments and we would be much less confident about what the ‘results’ might be able to tell us.

I played the same – old Italian – cello for over 25 years before acquiring my current instrument (which I do not play for the Finnissy performance). It was quite difficult, psychologically, to say goodbye to ‘my cello’ after that time. Given that I owned it for only about a twelfth of its lifetime I have perhaps no right still to think of it as ‘mine’, although I do. However, it has also been exciting and challenging to develop a new relationship. Curiously, I found that my wife – who is an artist and also a musician – was much more insightful than I was while I was looking for my new partner. (Partly, I think, because I was actively looking for a kind of tool to do a job, but she was directly asking ‘do I believe this?’.) One comment that has stayed with me was her description of an early concert with the ‘new’ instrument I now play as a ‘fair fight’. (I’m reasonably confident she meant this positively, as the previous instrument was somewhat easier to dominate, but it wouldn’t be difficult to find a less encouraging reading.) Charles Beare has recounted Gregor Piatigorsky telling him ‘with a straight face’ that as he was about to play a concerto (feeling on tremendous form) a ‘small still voice coming from the pegbox [of his Stradivarius] said to him, “Who do you think you are?”’¹⁶

I feel it’s important to note that I think I learned much more about the cellos in the performance by working on Finnissy’s music on them – which gave them room to ‘talk back’ – than by the kinds of ‘testing’ that I did with them when I was simply establishing how to make the event happen.

¹⁴ Fritz et. al., 2014

¹⁵ See Baird, 2004, above.

¹⁶ Beare, Charles: ‘The Batta-Piatigorsky Cello’, in *Stradivarius*, exhibition catalogue (Oxford, Ashmolean Museum, 2013) p. 162

In a recent collection of essays exploring ideas around the musical instrument Jacques Dewitte sketches an ‘erotic’ dimension to our relationship with both music and instruments.¹⁷ The invocation of an element of seduction in the drawing out of the potential of materials in art has a long history, which can perhaps help us better understand Morton Feldman’s ‘embarrassment’. Gregor Piatigorsky, who had the opportunity many times to play two of the greatest Stradivari cellos, at the time kept next to one another at Horace Havemeyer’s apartment in New York – the ‘Batta’ (the one which he later bought, which ‘spoke’ to him, and is now on display at the Met) and the ‘Duport’ (which will come up later) – has written that ‘it is very important to have a beautiful instrument that inspires the player. Actually he must be in love with his instrument’.¹⁸ Dewitte doesn’t have much to say about players, but calls on Stravinsky’s ‘love defence’ of his treatment of the original 18th-century material in *Pulcinella* to help make his case:

People who had never heard of, or cared about, the originals cried ‘sacrilege’: ‘The classics are ours. Leave the classics alone.’ To them all my answer was and is the same: You ‘respect’, but I love.¹⁹

The fact that Stravinsky wanted at least something of this love reciprocated by the performer is clear in his *Poetics of Music*, where he claims the difference in make-up between an executant and an interpreter ‘in the strict sense of the word’ is of an ethical rather than aesthetic order: ‘one can only require of the executant the translation into sound of his musical part... whereas one has the right to seek from the interpreter, in addition to the perfection of this translation into sound, a *loving care*’.²⁰ It could only be a kind of passionate ‘love’ rather than ‘respect’ that would have allowed someone to authorise and commit the acts of violence that cut down the astonishingly beautiful, still rather voluptuous, Rugeri (the cello used for the sixth *ricercar*) to the proportions of an archetypal cello.

Perhaps this can help us understand why, towards the end of a conversation in which Nathan Milstein emphasizes the centrality of *invention* for the performer, he makes an outwardly simple, but still somewhat shocking observation, that comes across both as a quasi-private confession and also as a fundamental truth:

You know, I love the violin more than I love music....²¹

I turn now to the cello itself, which appears as part of the violin family quite suddenly in the 16th century. Even though we continue to build instruments in all of the senses that I have indicated, the body of the literal instrument has changed very little in hundreds of years. It is difficult to escape some kind of notion of ‘ideal form’. Looking backwards it almost seems as if the family arrived fully formed so it’s important to remember that the archetypes that have been most influential in its long history belong largely to the early 18th century. (To imagine that time gap we might think of the history of the car or plane – for which the equivalent time has not yet

¹⁷ Dewitte, Jacques: ‘L’invention instrumentale’, *Methodos – savoirs et textes*, 11/2011, ed. Bernard Sève, <https://methodos.revues.org/2518>

¹⁸ King Terry: *Gregor Piatigorsky: The life and career of the virtuoso cellist* (Jefferson: McFarland: 2010) p. 268

¹⁹ Stravinsky, Igor and Robert Craft: *Expositions and Developments* (London: Faber and Faber, 1959) p. 114

²⁰ Stravinsky, Igor: *Poetics of Music in the form of six lessons*, trans. Arthur Knodel and Ingolf Dahl (Cambridge: Harvard University Press, 1942) pp. 123-4. Stravinsky follows this with a warning that this ‘does not mean, be it surreptitious or openly affirmed, a recomposition’, firmly establishing a composer-performer hierarchy.

²¹ Nupen, Christopher: *Nathan Milstein in Portrait* (Allegro films, 2007, DVD) [first shown in the 1980s]

elapsed.) I can't claim any special personal expertise in the reading of this emergence but I want to make a case that it must have been at least as much a social, cultural and aesthetic process as a technological one. In fact we know shockingly little of the kinds of actual personal and material interactions that gave birth to the instruments we have since taken as representatives of the ideal – and less still of the very earliest examples.

At the beginning of Kenneth Clark's classic monograph from the 1950s, *The Nude, a Study in Ideal Form* he observes that the 'English language, with its elaborate generosity, distinguishes between the naked and the nude.'²²

To be naked is to be deprived of our clothes, and the word implies some of the embarrassment most of us feel in that condition. The word "nude", on the other hand, carries, in educated usage, no uncomfortable overtone. The vague image it projects into the mind is not of a huddled and defenceless body, but of a balanced, prosperous, and confident body: the body reformed.²³

The essential point is not merely that the 'nude' represents a different conception of the state of being without dress but also that it is a specific formulation – a *construction* – in a way that nakedness is not: hence Clark's 'study in ideal form'.

Clark sees the nude as an art *form* (not a subject), *invented* in the fifth century (BCE) by the Greeks – just as opera was invented in the 17th century by Italians. The nude, in Clark's view is not strictly representative but a complex interrelation between certain ideals of proportion and design – geometrical principles – and an absolutely necessary degree of depiction. Above all, he observes, 'we do not wish to imitate; we wish to perfect'.²⁴

There's no need here for any kind of explication of a Platonic concept of ideal form, but for anyone who has encountered Plato's account of the difference between individual instances of beds or tables, or the bits and reins for riding a horse (of which there are myriad) and his notion of the 'idea' or 'form' of each (of which he claims there can only be one), the arguments about the relative values of the knowledge of 'makers' (of tables or beds) or 'riders' (of horses) or 'imitators' (in art) reflect some of the challenges I have set out for our understanding of instruments.²⁵ Clark tilts at the philosophical problem a little but goes on to offer instead a pragmatic response to the challenge that we cannot know an 'ideal form' directly but must approach it through a process of discovery. He draws on Michelangelo's use of the word *dipendenza* to express a relationship that binds and transcends the two forms of order embodied in the nude and tries to find a language to show the way in which discovery of an 'ideal' is gradual and shared:

The ideal is like a myth, in which the finished form can be understood only as the end of a long process of accretion. In the beginning, no doubt, there is the coincidence of widely diffused desires and personal tastes of a few individuals endowed with the gift of simplifying their visual experiences into easily comprehensible shapes. Once this fusion has taken place, the resulting image, while still in a plastic state, may be enriched or

²² Clark, Kenneth: *The Nude, A Study in Ideal Form* (New York: Doubleday Anchor, 1954) p. 23

²³ Ibid.

²⁴ Op. cit. p.26

²⁵ In the following discussion I use 'ideal' quite freely, sometimes implicitly suggesting Plato's concept, sometimes in ways that might suggest Weber's 'ideal type', and at others simply reflecting common usage of the notion of an ideal.

refined upon by succeeding generations. Or, to change the metaphor, it is like a receptacle into which more and more experience can be poured. Then, at a certain point, it is full. It sets. And, partly because it seems to be completely satisfying, partly because the mythopoetic faculty has declined, it is accepted as true.²⁶

If we take Clark's perspective in relation to the cello at the beginning of the 20th century the instrument presents a very special case – as perhaps the Steinway Model D does today, but for very different kinds of reasons. The 'ideal' violin never quite 'sets' in the same way as the cello did in the 18th and 19th centuries. Francesco Maria Veracini, the great Italian violin virtuoso of the first half of the 18th century, owned many violins, including several Amatis, but his two favourite instruments were Stainers (from Tyrol, rather than Italy, although he had been an Amati pupil). Although Giovanni Battista Viotti later in the century brought the Cremonese, Stradivarian, 'ideal' to Paris and then to much of the rest of Europe, the early 19th-century saw an alternative world view embodied by Nicolò Paganini, playing the instrument he nicknamed 'the Cannon' by Giuseppe Guarneri 'del Gesù'. This kind of aesthetic differentiation, manifested in part by instrument choice, has remained present throughout the history of top-level violin playing. (Guarneri's instruments are, by and large, closer to a Brescian tonal ideal than Stradivari's – recalling Forsyth's distinction.)

The issue of the way an instrument is set up – choice of strings, bridge, placement of soundpost etc. – is both too large to address here and also, in the long run, of secondary rather than primary importance.

The greatest cellists of the late-18th century and 19th century, by contrast, almost all had a preference for Stradivari instruments from roughly the first two decades of the 18th century (a very small pool of only about 20 cellos). A few of the names of the great players who chose those instruments will give some idea of the extent to which they were perceived as an ideal. Stradivari-playing cellists included Boccherini, Merighi, Pezze, Piatti, Romberg, Becker, Haussmann, Davidoff and Servais, giving by their names alone a clear sense of the spread of these instruments across Europe. But one instrument, which found its home in France, is especially iconic: the Stradivari cello of 1711 named after Jean-Louis Duport, and later owned by Auguste Franchomme. (Looking back from the 21st century it's worth noting that this was also the cello Mstislav Rostropovich played from 1974 until his death.) Partly through Jean-Baptiste Vuillaume's taking of the 'Duport' instrument as the model for the vast majority of his cellos and partly through its evocative power in the hands of two of the very greatest players at the centre of the development of string playing this became the foremost representative of the Stradivarian 19th century 'ideal cello'.²⁷ There is no real equivalent for the violin or viola. Vuillaume, for example, made a lot of different models of violins, with numerous examples of copies or responses to several Stradivari instruments, various copies and reinterpretations of 'Il Cannone' and a significant number of Maggini-style instruments.²⁸

²⁶ Op. cit. p. 35

²⁷ The 'Duport' cello is quite unusual in having exceptionally flat arching: a feature at least partially shared by the 'Batta' and 'Piatti' also separated out from the rest of Stradivari's production as the finest examples by the Hill brothers.

Hill, W. Henry, Arthur F. Hill, Alfred E. Hill: *Antonio Stradivari, His Life and Work (1644-1737)* (New York: Dover, 1963) [first pub. 1902] p. 129

²⁸ For a discussion of Vuillaume's work see Roger Millant: *J. B. Vuillaume, Sa Vie et son Oeuvre* (London: W. E. Hill & Sons, 1972)

In the performance I begin with one of Vuillaume's interpretations of this 'ideal cello'. However, it seems that this particular archetype no longer appears to exert the power that it once did. The range of instruments in use by today's great players is much wider and I think this is only partially a consequence of scarcity of resource. In fact, even some of today's cellists who have access to the 'ideal' Stradivari instruments – Yo Yo Ma, for example, who has the Davidoff Stradivari from 1712 – more often than not choose to play on other instruments. Perhaps today's 'ideal' might be more likely to be found in Venetian cellos by Matteo Goffriller and Domenico Montagnana (it is a Montagnana that it seems Ma plays most often). It certainly seems to me that Goffriller, Montagnana and Guadagnini (a Milanese) seem to provide the most common models for the makers of new instruments today. The tonal balance of these instruments is rather different to Stradivaris – and possibly more 'robust' – so we cellists too now have something closer to the violinists' instrumental aesthetic divergence.

In their ground-breaking book on Stradivari from the very beginning of the 20th century the then world experts on the violin family, the Hill brothers, repeatedly turn to the notion of 'ideal form' in their chapter on cellos which begins with this fundamental endorsement:

The excellence of Stradivari's violoncellos is even more remarkable than that of his other productions: in fact, we can unhesitatingly say that his finest examples stand without rivals.... Posterity has not only admitted the correctness of his judgment, but re-echoes his triumph....²⁹

One of the issues at the heart of their discussion is size, and the Hills point out that Stradivari was not the first to try the kind of practical dimensions found in the 'ideal' Stradivari model. What they are interested in in his work is described as a balance of the 'maximum of power with the utmost refinement of quality, leaving nothing to be desired: bright, full and crisp, yet free from any suspicion of either nasal or metallic tendency'.³⁰

However, even over a hundred years ago the Hills express a concern that this is not always fully appreciated by players:

...we are bound to recognise the growing tendency to subordinate, or even sacrifice entirely, beauty of quality to power of tone – a tendency perhaps even more apparent in relation to the violoncello than to the violin.

The *A* or first string being the more easily rendered telling and effective, the habit has been acquired of treating the violoncello for solo purposes as an instrument of one, or at most two strings – the *C* or fourth string occasionally receiving some attention. Makers are therefore often obliged, often against their better judgment, to seek to adjust fine violoncellos in such a manner that the tone of the *A* string shall be, above all, aggressive

²⁹ Hill, W. Henry, Arthur F. Hill, Alfred E. Hill: *Antonio Stradivari, His Life and Work (1644-1737)* (New York: Dover, 1963) [first pub. 1902] p. 109

³⁰ Op. cit. p.127. In support of their case they continue with an observation from Alfredo Piatti 'who during a long career, possessed many fine violoncellos – more perhaps than any other artiste. He says: "I have at times become enamoured at the sight of a fine instrument, have been impressed by its beauty, and when I have become its owner I have tried to believe that its tone equaled that of my Stradivari. Time, however, has invariably seen me return to my old friend with a feeling of satisfaction difficult to explain. True, the differences of tone between my Stradivari and other recognized fine instruments are subtle, but I can only say that I obtain from the former a depth and nobility of tone which ever affords me a sense of contentment; in fact, there is a something unattainable elsewhere.'"

and trumpet-like, that of the *C* string loud and metallic to the utmost degree. The two middle strings ... are neglected...³¹

The compositional example they cite in support of the importance of the 'core' of the instrument is the opening to Beethoven's first Razumovsky quartet which requires a special beauty on the second and third strings. This is the part of the cello that especially interests Michael Finnissy in his *ricercars* too!

The Hills' chapter on Stradivari's cellos is one of the great treasures of the literature for the way it brings their vast experience and knowledge of musicians as well as making to bear on the emergence of an 'ideal form'. Everywhere one senses an interconnectedness and knowledge from first-hand experience that is difficult to achieve today. They know they are charting the evolution of what they see as a 'perfect instrument' but they also seem keenly aware that this picture needs a much wider frame than Stradivari himself:

Whether or not Stradivari himself recognised the real superiority of these instruments over those of the past is highly problematical; we think he did not.³²

Thus, the Hills are able to recognise Stradivari's supreme and highly individual craftsmanship, the extraordinary power of his imagination, and his unique feeling for what Michelangelo might have called *dipendenza*, while also understanding that the things that make some of his work an *ideal* belong to a much wider cultural construction in which many elements take part.

³¹ Op. cit. pp.119-120

³² Op. cit. p.128

The foregoing has been designed as a kind of explanation for why I think this recorded performance, which draws on an apparently superfluous variety of instruments, might have something interesting to say beyond presenting a mere comparison. From the moment Michael Finnissy mentioned these pieces to me in a taxi in Bergen I dreamt of the potential that a performance could have for making the 'idea of the instrument' *present* and *alive*. My introduction is thus really just a reminder that it is easy not to be aware of the 'reach' that instruments have in our musical world.

For those of you who don't already know some of Michael Finnissy's work – and probably for those of you who do too – the music itself might come as a surprise. It has been one of the great experiences of my life to have had a long and ongoing relationship with Michael through my work with the Kreutzer Quartet. Some of the music we have played has been written for us, some for others, but every engagement with it – and with Michael, personally – has taught me something new about what it is to be a musician, and what 'art' is. Half of me doesn't like the word 'taught' because it might suggest something of the schoolroom, but the other half feels very strongly that the revelation of something that we *do not know* is the highest goal of artistry.

One of the challenges of Michael's music – for performer and audience alike – is that it asks for a kind of engagement that is quite different to habitual 'listening'. The choice of the title *ricercar* for these pieces, which implies a process of research or discovery, is important. Although there is, on the one hand, a very clear sense of the core of the kind of 'cello' Michael is building in these pieces, and his interaction with old repertoire is a critical part of this; on the other hand, I don't feel that these pieces *present* or *project* something that can simply be observed. Instead, I feel them as opening possibility fields for things to be *revealed*. The more I have worked on these pieces the more I discover.

Michael made it clear that it was my job to map particular cellos from the Academy's collection to the individual *ricercars* and I spent three sessions with them prior to this recorded performance. Each cello was played as I found it, rather than fitted up as I might do if it were my own, or, indeed, if I had it on loan.

The first session was a quick play some six months before the event on a large group of instruments in the workshop simply to check that we had seven accessible instruments that would be suitable for the piece and that wouldn't be too difficult to adjust to 'on the spot'. Having made a rough list of possible instruments Zubin Kanga and I then met to rehearse, and we spent a happy afternoon mapping instruments to *ricercars*. This was surprisingly easy. Zubin was quite vocal about things that weren't 'interesting' to him and we quickly moved from thinking about what might be 'viable' to hunting instead for things that were curious and suggestive.

After making an initial map that day we had an extended workshop session with Michael a couple of months before the performance which raised a lot of interesting issues. However, we didn't feel the need to actively discuss the mapping process. Having heard some of the things Michael had to say about sources for the pieces it occurred to me I could switch some of the instruments around, but I decided to keep to my original plan. I was only able to access the instruments again on the day, with just enough time to try them again briefly before the performance

I selected two explicitly Stradivarian instruments: the Vuillaume (mentioned in the lecture) and the Grubaugh-Seifert (which is effectively a response to the Academy's 'Marquis de Corberon' Stradivari cello, once played by Zara Nelsova).

The two 17th-century instruments have been altered in size to make them more like the 'ideal cello' of the 18th-century: the Brescian instrument (Rogeri) has been enlarged, and the Cremonese instrument (Rugeri) cut down. The Academy doesn't have a Venetian cello from the 'golden period' in the collection, but given some of the things Michael said about his music I was delighted when Barbara Meyer (the Academy's instrument custodian) proposed the Degani as a possibility – although you may notice it's not being used for the barcarolle-like music...

Perhaps the most interesting Academy link is in the Forster, which is a very personal combination of Amati (body, f-holes) and Stainer (head) features. The cellos of both 'Old' Forster (the one here) and his son had a staunch and powerful advocate in the great English cellist Robert Lindley, who was appointed the first cello professor of the Academy at its foundation in 1822. It seems very likely that this was one of the instruments he played.