Organological *Gruyère*

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From the organological point of view, the fascination of the Early Baroque period is not so much what we know as what we do not know and what we refuse to admit that we do know – we are, as it were, a gourmet fascinated with the holes rather than the cheese – hence my title. We don't even know the name of the period – what's 'Early Baroque' as a name? A name for a period which includes four of the greatest organological encyclopædias? A period which begins with Praetorius, goes on to Mersenne, and winds up with Daniel Speer and James Talbot? We could be parochial and call it Jacobean, but that wouldn't cut much ice with the Italians or Germans and could cause problems with the French through confusion with *Jacobins*. Since Caccini must, almost by definition, come right at the beginning, *Nuove Musiche* would be a possible name were it not that every period considers itself to be new. We can find examples of a similar ignorance with almost every type of instrument.

With keyboards, for example, we know exactly what the virginals sounded like, for many of them survive (allowing as always for the effects of *Anno Domini* on all materials), both English and Flemish – fewer French because Paris got cold in winter at the end of the eighteenth century – but what about the harpsichord in the same period? We have no idea at all of what the English harpsichord sounded like at this time, nor for that matter the harpsichord of any country save Italy, Spain,[i] and maybe Flanders. We have a reasonable number of Italian instruments of this period, not all of which passed through the hands of Franciolini, but from Flanders we have only one surviving instrument, now in Edinburgh,[ii] plus a lot of others which people in Paris thought would sound much better if they rebuilt them to sound the way they preferred. Do we have any German harpsichords? If Praetorius is

to be believed, they either copied or imported Italian instruments.[iii] We have one English corpse, the Haward of 1622 at the Palace of Knole,[iv] so at least we know what the outside looked like – we don't even know how it was strung – but the sound is lost unless we make the assumption that it sounded either like the virginals at the beginning of this period or the spinet at the end of it. As these each sounded quite different from the other, that would be a rather rash assumption. It might, of course, be useful to consider just why the virginals went out of fashion and the spinet came in. Functionally they are the same – the equivalent of the modern upright piano, something small enough for the living room and cheap enough for most of us to buy. What became wrong with the sound of an instrument with both bridges on the soundboard, and became right with the sound of one with only one bridge on the soundboard? Was it just that the new instrument was plucking at the same distance from the nut on every string? Is there any other difference which would affect the sound? When ranges were extended, was it more awkward to build a GG instrument in virginals form than in spinet leg-of-mutton shape? Raymond Russell illustrates one GG Flemish virginals and an FF English.[v] Neither looks inconveniently long or wide, and the scaling looks normal enough – they didn't need to shorten the bass strings. So there is our next question, a 'why did they change?' to follow the 'what did it sound like?' of the harpsichord.

Of the bowed string instruments, my impression is that we know almost equally little. Here I am wide open to correction, especially in present company, but the only baroque violins *et cetera* that I have seen in use were of the Bach or later periods, and they were usually played with techniques and styles more suited to Leopold Mozart, regrettably often to Leopold Auer, than to Geminiani, still less to Tartini or any of his predecessors, as indeed we saw and heard in the concert in the Minster. How many people except the Baker Collection use bows with clip-in frogs? I don't think I have ever seen bridges and any other features

close to those which we can see in the iconography of the late sixteenth and early seventeenth centuries (as we've seen, we have a number of beautifully detailed *Vanitas* and other still-life paintings available as evidence for the reconstruction of such elements).[vi] Nor have I seen players with the fiddle held on the chest, again except the Baker Collection, for which again we have ample iconographic evidence, with all its implications for left-hand technique and the linking of one note to the next. At the concert in the Minster they were gripped by the chin, with the left wrist curled well under, as taught by Carl Flesch. There was an interesting article on this in the latest FoMRHI Quarterly.[vii] What attempts have there been to establish what was the style and technique of violin playing before Stradivarius was born? Do we even have any decent fiddles in original state (by which I *mean* original, as distinct from rehashed)? All that one sees 'in original state' in the sale rooms are those which were hardly worth butchering in the nineteenth century.

It's always said that covered strings didn't come in until around the middle of the seventeenth century, but is this really true? My wife suggested a number of years ago in *FoMRHI Quarterly* that a form of covered string had been available from the tenth century onwards in England and possibly earlier in Byzantium: embroiderers used silk covered with silver or gold wire for copes and other ecclesiastical purposes and this was a feature, too, of *Opus Anglicanum*.[viii] I nicked a length of gold-covered silk from her stock in 1978 and put it on a fiddle, and it seemed to work perfectly well and it still holds enough tension to produce a definite pitch without ever having been retuned since then (the no retuning was deliberate to see to what extent it withstood tension – the answer is as well as any other string would have done over the same length of time.) – did no fiddler or luterer ever swipe one of his wife's threads?

Viols we do know rather more about simply because nobody has wanted to play them in

the Royal Phil and therefore there has been less inducement to butcher them into a different pattern. As a result we have surviving instruments in the V&A, Ashmolean, and many of the world's museums, and indeed in professional use, and with these and the visual evidence from Praetorius and Mersenne we can ignore those very dubious, and allegedly Venetian, Linarol-style instruments on the authenticity of which Karel Moens has cast so much doubt.[ix] Mind you, you only have to look at a few pages of *FoMRHIQ*, or start discussing anything with Eph Segerman to discover that there are plenty of questions left! Even so, how many people are playing viols with bent fronts rather than carved, bridges like originals, all-gut strings, and clip-in bows?

We are better off with plucked strings, partly because there are fewer loose parts, so there isn't so much to get lost, like the viol bridge at Haddon Hall which I reported and Mike Fleming wrote up in the most recent *Early Music,*[x] and thus leave us arguing about their exact shapes, and partly because of the plethora of surviving instruction books for the lute. Lute tablature is of course far less precise than that for the Chinese *qin*, the long zither sometimes miscalled the poet's lute, or the *pipa* and Japanese *biwa*, which *are* both lutes. With *our* lute we know the note to be played (let us not at this stage get drawn into questions of the pitch of that note) and its duration and its rhythm (subject to any discussion of French style on lutes, citterns, and guitars as well as on keyboards) but nothing more. With the oriental instruments, as well as that very basic information we know precisely how players, as far back as Confucius, who was contemporary with Pythagoras and the Buddha, sounded each note, with which finger, with which part of the finger, pad or nail, striking up or down, with or without vibrato, and so on.[xi] Thus we know not only what the notes were, but what they sounded like. We know nothing at all of what John Dowland sounded like, far less what Pythagoras sounded like, and if music isn't sound what is it?

With the popular instruments like the cittern, we know what and how they played in some of the more respectable musical styles, but when it comes to the question of whether they used lute-like styles in the more extempore music of 'reach it down and give us a tune' or whether they used a technique more akin to that of the banjo we have no idea at all. Presumably each player used his own style, and Charles Mouton would sound like Charles Mouton, whereas George Formby would already have been cleaning windows.

We are better off, too, with some wind instruments. There isn't a lot of choice when playing a flute, or a common flute, or a flageolet. There is a wooden tube with half a dozen holes and no further attachments and either you blow into it or you don't. Of course whether you cross-fingered or whether you stuck to C major, simply picking up a different-sized flute for music in a different key, we can't tell. The cases containing several flutes of different sizes seem both to be earlier and often military. By the time we get to Praetorius and Mersenne one would expect things to be more complex, but Mersenne's fingering charts are all diatonic only, so maybe any key-changes *were* done by changing instrument. This could be one explanation for the wide range of surviving sizes, and it does make quite a difference to the sound if all notes are produced by plain fingering rather than by cross-fingering, half-holing, and so on.

With reed instruments, on the other hand, about the one thing we can be certain of about the crumhorn, for example, after Barra Boydell's study,[xii] and more particularly Toon Moonen's article in *Galpin Journal* 36,[xiii] is that they didn't sound much like most of those reproductions that we have today. Bores were wider, fingerholes were wider, the sound was louder, and of course nobody used plastic reeds. There are some crumhorns in use which bear at least a passing resemblance to originals, but there are an awful lot which sound more like comb and paper. We can, I suppose, be grateful that they were more or less extinct by our

period. The shawms, too, didn't sound much like those we hear, but there I think it's mainly the players who are responsible – maybe I'm biassed due to fairly wide experience with exotic shawms, but I find it difficult to believe that an instrument that was used throughout Europe as the main melodic wind instrument, especially out of doors, could, even in the final years of its existence, have sounded quite so much like a dyspeptic cor anglais as most shawms that I've heard or accompanied in early music ensembles. If they did, it's not surprising that they were replaced by the oboe band!

A major hole in our *gruyère* is just what did Lully hear when he wrote for *hautbois*? One of the enormous advantages of English is that we have always adopted words from other languages, and as a result we do often, though by no means often enough, when adopting a new instrument adopt its name with it. The French, even in the seventeenth century, seemed just as determined as they are today to preserve the purity of their language, so *hautbois* it was and *hautbois* it remained, but one deafened you (if I'm right about its sound) and the other didn't. So which was Lully writing which music for? As to when the quieter one came in and what it sounded like, Bruce Haynes and Marc Ecochard showed us much (and Bruce has a few hundred pages of speculations and conclusions), and so did Graham Lyndon-Jones in the bass, as Paul White did in his DPhil thesis.[xiv]

We do have some wonderful cornett playing nowadays – very different from the old Steinkopf days, though they were then doing their best. Even so, has anyone heard a player who could play a song of eighty '*mesures*' without drawing breath, still less the hundred that Mersenne assures us that one player could achieve? It is possible to do so if one uses the very small mouthpiece that Mersenne describes, with the sharp edge shown by the very few surviving originals, and if one uses what the Germans call an *Einsetzen* embouchure, the mouthpiece set into the pink of both lips so that there is very little resistance from the lips

themselves. It is quite impossible with the small trumpet mouthpieces that one often sees, though these would be useful enough when playing from a town hall balcony in the old *Turmmusik* tradition.

On cornett, and indeed on sackbut and trumpet, we do have the knowledge that we need, we do have more cheese than holes. The tragedy is that we prefer to bury our heads in the holes, as it were, like organological ostriches. We know perfectly well that miniature trumpet mouthpieces were never used on seventeenth-century cornetts, despite which we hear them all the time. We do have some original sackbuts and trumpets and we do know what sort of metal they were made from and how they were made – the information has even been published in recent years by people like Henry Fischer and Bob Barclay [xv] – but many of us still go on using things quite unlike anything of the period, little more like originals in sound than a plastic violin would be like a wooden one. Drawn metal tubing doesn't sound the same as tubing raised from sheet with the hammer, nor does thick tubing sound like thin, nor do fixed stays and soldered mounts sound like loose stays and tied bows. As a result, most modern 'early' trumpets and trombones don't even begin to sound like real ones.

Still less do we use original mouthpieces. There is some excuse for sackbutters here because of the lack of undoubted originals, but there's no excuse for trumpeters. Eric Halfpenny published exact drawings of enough of them in *Galpin Journals* 20 and 21,[xvi] and the Simon Beale of 1667 in the Bate Collection is there for anyone to try, and there's no doubt about that mouthpiece because it was soldered in solid. For that matter, Bendinelli's own trumpet is sitting in the Accademia Filarmonica in Verona with the manuscript of his, the first, trumpet tutor.[xvii] How anybody could think that a modern Vincent Bach mouthpiece would produce anything like a baroque sound I cannot imagine, and as for opening holes in the tubing, all that happens is that the tone whistles down the wind.

Horns aren't really relevant to our period, but here the problem lies more with the player who hand-stops because, like the trumpeter with his fingerholes, he can't lip reliably. There are no questions here – there's no doubt at all that hand-stopping didn't arrive till the mid-eighteenth century. There isn't any doubt about fingerholes either, incidentally. There are some original instruments with one fingerhole, but they're posthorns, not trumpets, and I think they're all lateish eighteenth century. Fingerholes are normally used today by players who have not acquired the necessary technique to play the natural trumpet, or because ensemble directors are not willing to be authentic enough to risk an occasional duff note from a trumpeter who can usually bring it off properly.

In my own department, we have other questions. There is such a wide variety of shape and pattern of surviving timpani, few of which can be securely dated even to the nearest half century, that we don't really know what were used, nor whether there was any difference made between what was used by the trumpet corps and cavalry for fanfares and what was used, if at all, for more 'orchestral' purposes. I've never seen any timpani that looked just like those in Praetorius, and certainly none that looked like those in Mersenne, but then I don't think that Mersenne had either. We don't know what thickness of skins they used, we don't know, though we have theories, why some had an internal funnel round the air-hole in the base of the kettle, like a small trumpet or french horn bell, and we don't know what sort of sound they made. We do know, at least sometimes, when timpani *were* used, but what we don't know is why very often they *weren't* used. We don't know why Praetorius used them once and once only.[xviii] We don't know why Heinrich Schütz used them not only once and once only, but then only one of them.[xix] Was he writing for some impoverished establishment that only possessed one drum? Or that couldn't afford a new skin for the other one? Did Praetorius find that the drummer of *In Dulce Jubilo* was drunk and dissolute and therefore

refused to let him into his band again, or was he a military drummer who couldn't read music and so made a mess of the part? We don't know. We don't know why Purcell sometimes wrote for timpani and sometimes imitated them on the basses instead. There's nothing in Andrew Ashbee's invaluable tomes to suggest that there weren't timpanists available for some of the Odes (kettledrummers were regularly on the establishment from the Restoration onwards, even if they never appeared earlier), but sometimes we see their music given to the bass players instead.[xx] I'm not convinced by Peter Holman's idea that of course they played what's written in the bass lines [xxi] – if they did so on those occasions, why were there proper kettledrum parts written for them on other occasions? Even when we do have timpani parts we often don't know how they were played. Certainly I've never heard a drummer play a roll in the way that Daniel Speer specifies,[xxii] especially at a final cadence – I've never dared to try it and I can't imagine the expression on a conductor's face if I did.

As for performance practice, much that we hear today is a poor joke. Even the things we know most about, from the vast amount of evidence bequeathed to us, such as cadential ornamentation, is blandly ignored, heads once again firmly in the holes in the cheese. Sound, vocal styles, and so on are very difficult to describe in words, but dammit, we have notes on paper for ornamentation – Caccini, Bovicelli, Dalla Casa, the list is endless. Why ignore them?

All in all, this is a period where there are many gaps in our knowledge. We don't know what it's called, there are many instruments of which we are ignorant, and there are many others where we ignore what is known. Let us hope that this conference will, as it were, turn over a new leaf of the musical clover so that not only will we learn more but, having learned it, will use that knowledge instead of doing what so many of us do so often today, and just say, as my neighbours in the BBC Symphony used to do, 'Leave it Jerry, don't worry, it's

near enough'.

A paper given at an 'Early Baroque' conference at a York Early Music Festival, in 1999, and later published but I seem to have no record of where.

Notes

i Andreas E. Beurmann, 'Iberian discoveries: six Spanish 17th-century harpsichords', *Early Music* XXVII:2, May, 1999; originally reported in Christiane Reiche, ed, *Kielinstrumente aus der Werkstatt Ruckers – zu Konzeption, Bauweise und Ravalement sowie Restaurierung und Konservierung: Bericht über die Internationale Konferenz vom 13.-15. September 1996 im Händel-Haus Halle*, Schriften des Händel-Hauses in Halle 14, 1998.

ii Raymond Russell, *The Harpsichord and Clavichord* , Faber, 1959, plates 33-35 and relevant text. *The Russell Collection of Early Keyboards*, Edinburgh, 1968, pp.12-15.

iii Michael Praetorius, *Syntagma Musicum – De Organographia* , Wolfenbüttel, 1619, Theatrum Instrumentorum, seu Sciagraphia, VI (f.iiij verso), fig,1.

iv Raymond Russell, *op.cit.*, plates 55-56.

v *Ibidem*, plates 25 (Hans Ruckers, 1598) and 57-58 (Stephen Keene, 1668) respectively.

vi *E.g.* Jeremy Montagu, *The World of Medieval & Renaissance Musical Instruments* , David & Charles, Newton Abbot, 1976, plate XII by Pieter Claesz, 1597, and almost any book that illustrates Flemish and Dutch paintings of this period, such as the *Hoogsteder Exhibition of Music and Painting in the Golden Age* (Hoogsteder, The Hague, 1994), of which pages 56, 104, 151, 167, 169, 211, 236, 269, 270, 280, 284 all show useful details of members of the violin family.

vii Dmitri Badiarov, 'Violin neck. The changes from baroque to modern', *FoMRHIQ* 95, April 1999, Comm.1630.

viii Gwen Montagu, 'Metal-covered threads before 1600', *FoMRHIQ* 12, July 1978 , Comm.139.

ix Karel Moens, 'Authenticiteitsproblemen bij oude strijkinstrumenten', *Musica Antiqua* 4/1, February 1987 (I hope I have the title correctly; the title page of the photocopy he sent me is very faint and unclear).

x I noted it *en passant* in *Galpin Society Journal* XXXIII (not XXXII as Fleming refers to it) in 1980; Michael Fleming reported experiments on copies of it in detail in *Early Music* XXVII:2,

May, 1999.

xi Lui, Tsun-Yuen, 'A Short Guide to Ch'in', *Selected Reports in Ethnomusicology* I:2, Institute of Ethnomusicology, UCLA, 1968; Don Addison, 'Elements of Style in Perfornming the Chinese *P'i-p'a*', *Selected Reports in Ethnomusicology* II:1, Institute of Ethnomusicology, UCLA, 1974.

xii Barra Boydell, *The Crumhorn*, Frits Knuf, 1982.

xiii Toon Moonen, 'The Brussels Crumhorns: Hypotheses on their Historical Construction', *Galpin Society Journal* XXXVI, 1983.

xiv P.J.White, *The Early Bassoon Reed in Relation to the Development of the Bassoon from 1636*, DPhil Thesis, Oxford, 1993. Bruce Haynes is in press with OUP.

xv Henry George Fischer, *The Renaissance Sackbut and its Use Today*, Metropolitan Museum of Art, New York, 1984, and Robert Barclay, *The Art of the Trumpet-Maker*, Clarendon, Oxford, 1992.

xvi Eric Halfpenny, 'Early British Trumpet Mouthpieces', *Galpin Society Journal* XX, 1967, with a brief addendum the following year. The Beale was not included because at that stage it was still lost to sight.

xvii Cesare Bendinelli, *Tutta l'arte della Trombetta 1614*, Bärenreiter, Kassell, 1975; Edward Tarr's English translation of his notes and commentary, Brass Press, 1975, illustrates the trumpet.

xviii Michael Praetorius, *In Dulce Jubilo*, no. XXXIV of *Polyhymnia caduceatrix et panegyrico*, 1619, ed Willibald Gurlitt, Georg Kallmeyer, Wolfenbüttel, 1933.

xix Heinrich Schütz, *Herr Gott, dich loben wir*, Bd.32 of *Neue Ausgabe sämtliche Werke*, Bärenreiter, Kassel, 1971.

xx *E.g. Welcome Glorious Morn* and *Arise my Muse.* There are other examples.

xxi Peter Holman, *Four and Twenty Fiddlers*, Clarendon, Oxford, 1993, p.430.

xxii Daniel Speer, *Grundrichtiger Unterricht der musikalischen Kunst oder Vierfaches musikalisches Kleeblatt*, 1697, Peters, Leipzig, 1974, p.220.