

Tough Love: Byrd's music arranged for instruments by his contemporaries

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In a recent article I discussed a small group of Byrd's compositions that had not previously been given consideration as a category.¹ I have now discerned another such group of his compositions, but these are more disparate and are brought together because of the actions of other musicians. Thirteen of Byrd's pieces survive in 25 arrangements by other composers spread over sixteen manuscript or printed sources.² Forthcoming publication of the arrangement for two lute viols of the motet *Ne irascaris* will bring this entire repertory, such as it is, into print. A brief appendix will consider the significance of the pieces selected by Byrd's contemporaries to be arranged for instruments.

In the list which follows, each arrangement is given a running number, followed by the title by which the piece is usually known, an abbreviation of the title of its modern printed source, its original source(s), and the location of the original piece in *The Byrd edition*. Accompanying this list is an alphabetical list of the titles keyed to the modern printed sources cited. Where more than one arrangement is listed for a single piece, it is noted in the list below if the arrangements are identical (in which case they are listed at the same number), otherwise, if they are similar or separate, they are given individual numbers. This list is concerned with the fact and quantity of such arrangements.

Pieces arranged for keyboard

1. *In fields abroad* (TK 82) York Minster Library, MS M 91 (S) f.43v. (BE 16/17)
2. *My mind to me* (EK 49) London, British Library, Royal Music MS 24.d.3 (Will Forster's Virginal Book) p.460 (BE 16/14)
3. *My mind to me* (almost identical version a note higher, not printed in EK, but differences from version in EK 49 noted) London, British Library, Royal Music MS 24.d.3 (Will Forster's Virginal Book) p.464 (BE 16/14)
4. *Susanna fair* [a5] (EK 50) London, British Library, Royal Music MS 24.d.3 (Will Forster's Virginal Book) p.456 (BE 16/22)
5. *If that a sinner's sighs* (EK 51) London, British Library, Add. MS 30485 f.14 (BE 16/23)
6. *Care for thy soul* (EK 52) London, British Library, Add. MS 30485 f.13v

¹ R. Turbet, 'Byrd's choral songs with viols', *The Viol*, 9 (Winter 2007-2008), 14-16.

² Lute intabulations are not discrete, creative arrangements and are therefore not considered. The extensive Paston repertory of lute intabulations of Byrd's vocal music is studied in depth by Philip Brett in 'Pitch and transformation in the Paston manuscripts', in *Sundry sorts of music books: essays on the British Library collections, presented to O.W. Neighbour on his 70th birthday*, ed. C. Banks, A. Searle and M. Turner (London: British Library, 1993), 89-118. Also excluded by the same criterion are short or keyboard scores of consort pieces.

7. *Care for thy soul* (EK 52) London, British Library, Royal Music MS 24.d.3 (Will Forster's Virginal Book) p.468
8. *Lulla lullaby* (EK 53) London, British Library, Add. MS 30485 f.101v. Inferior version of first six and a half bars appears at *ibid.* f.57v (BE 16/25)
9. *Lulla lullaby* (EK 53) New York Public Library, Drexel MS 5612 p.194 (BE 16/25)
10. *O God but God* (EK 54) London, British Library, Add. MS 30485 f.15 (BE 15/6)
11. *Ne irascaris* (Skinner) Arundel Castle MS M419 f.2 [fragmentary] (BE 2/12)

Pieces arranged for lute

12. *Lulla lullaby* (North 1) Cambridge University Library, MS Dd 9.33 f.4v (BE 16/25)
13. *Pavana Bray* (North 2) William Barley, *A new book of tabliture* (London: Barley, 1596). Orpharion section D3v.-D4v. (BK 59a)
14. *Pavana Bray* (North 2) Cambridge University Library, MS Dd 9.33 f.12v-13 (BK 59a)
15. *The fifth pavan* (North 4) Cambridge University Library, MS Dd 9.33 f.35v-36 (BK 31a)
16. *The galliard to The first pavan* (North 5) Willey Park, Broseley, Shropshire, private library of Lord Forester, John Welde's Lute Book f.8 (BK 29b)
17. *The galliard to The first pavan* (North 5) London, British Library, Hirsch MS M.1353 f.2 (BK 29b)
18. *The galliard to The first pavan* (North 5) Cambridge University Library, MS Dd 9.33 f.59v-60 (BK 29b)
19. *The galliard to The first pavan* (North 5) Cambridge University Library, MS Dd 2.11 f.101v (BK 29b)
20. *Lord Willobies welcome home* (North 6) London, British Library, Egerton MS 2046 (Jane Pickering's Lute Book) f.33v (BK 7)
21. *The woods so wild* (North 7) Glasgow University Library, MS Euing 25 f.33-34v (BK 85)

Pieces arranged for broken consort

22. *The fifth pavan* (Turbet) Hull University, Brynmor Jones Library, MS DDHO/20/1-2 and Oakland, CA. Mills College, Parton Collection, unnumbered partbook (Walsingham Consort Books) (BK 31a)
23. *Pavan* [in B flat] (North 3) Willey Park, Broseley, Shropshire, private library of Lord Forester, John Welde's Lute Book f.7v (BK 23a)

Pieces arranged for lyra viols

24. *Lulla lullaby* (OM119) London, Royal Academy of Music Library, MS 600 (BE 16/25)
25. *Ne irascaris* (Carter) Oxford University, Bodleian Library, MSS Mus. Sch. D.245-246. Upper part only, by same arranger, in London, British Library, Add. MS 17795 f.39v (BE 2/12)

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EK *Elizabethan keyboard music*, edited by Alan Brown. London: Stainer and Bell, 1989 (Musica Britannica, 55) 2, 3, 4, 5, 6, 7, 8, 9, 10

North *William Byrd*, edited and transcribed by Nigel North. London: Oxford University Press, 1976. (Music for the lute, 6) 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 23

OM119 *Birds lullaby: Lulla lullaby, William Byrd (c1540-1623) set for three bass viols Alfonso way*, reconstructed by Richard Carter from the single surviving part in *The John Browne Bandora & Lyra Viol Book*. Kritzendorf, Austria: Oriana Music, 2008. 24

Skinner, David. 'A new Elizabethan keyboard source in the archives of Arundel Castle', *Brio*, 39 (2002), 18-23 (facsim. 22-23) 11

TK *Tudor keyboard music c. 1520-1580*, transcribed and edited by John Caldwell, London: Stainer and Bell, 1995 (Musica Britannica, 66). 1

Turbet *A paven of Mr Byrds. The fifth paven by William Byrd for broken consort*, edited by Richard Turbet, Lincoln: Lindum Desktop Music, 1993. 22

Conclusion

While drafting this article I consulted Christopher Goodwin, the Secretary of the Lute Society and a contributor to the *Annual Byrd Newsletter*. I asked him whether, in the case of the keyboard pieces by Byrd selected by his contemporaries for arrangement (rather than mere intabulation), the original pieces especially recommended themselves for playing on the lute. He replied '... I think they would have heard the music, liked it, thought would this fit on the lute? looked at the score, and decided that, yes it would go on the lute ...'³ As for the vocal works arranged for instruments, although most of them do not exist in many other versions, it would seem likely that the attraction for arrangers lay in their pious and moralistic texts, which suited the tenor of the times, at least among that section of the population likely to perform and hear such pieces. However, recently published research has revealed that *Ne irascaris* and *Lulla lullaby* were both featured in seventeenth century booksellers' catalogues as selling points for the two published collections of vocal music in which they appeared.⁴ So at least in the case of two of Byrd's pieces selected by his contemporaries to be arranged for instruments, we have specific evidence of how they came to be chosen.

³ Private emails, 22 and 24 December 2008.

⁴ R. Turbet, 'Three glimpses of Byrd's music during its nadir', *The Consort*, 65 (2009), 18-28.

The Identities of the Viols in the Ashmolean Museum

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The Ashmolean Museum, which is part of the University of Oxford, houses a small but world-class collection of musical instruments. This is generally known as the ‘Hill Collection’ because it predominantly comprises a gift made by the firm of W.E. Hill & Sons shortly before the Second World War. The Hills were among the top specialist violin dealers, and of world-leading renown for their expertise. As part of a major refurbishment of the museum in 2009, the musical instruments have been moved, and their display reorganised. Boyden’s catalogue¹ of the Hill Collection is long out of print, antiquated in many respects, and does not include the later accessions. Consequently a new catalogue is being prepared, research for which has generated this article.² A table of concordances between Boyden’s numbers and the new catalogue numbers is given at the end of this article, followed by illustrations of the viols.

Most of the instruments in the Hill Collection, including the ‘Messie’ by Antonio Stradivari, which is probably the most famous and valuable musical instrument in existence, are violins but there are also other items including bows, citterns, guitars, and seven viols. The history of the viols accessioned by the museum is rather complicated; it is not reported in Boyden and cannot be accommodated in the new catalogue. This article uses the miscellaneous documents that comprise what is now called the ‘Hill Archive’ in the Department of Western Art at the Ashmolean; they are currently stored in boxfiles, unindexed and unfoliated. The Ashmolean also houses the Hills’ extensive notes about English makers, which were made during approximately the first three quarters of the twentieth century and are arranged alphabetically in their original two binders, referred to here as ‘Hill, *English makers*’.

There are substantial mismatches between the viols identified in the original gift of instruments that the University of Oxford accepted and the instruments now present, but I have found no evidence that anyone at the University reacted to these discrepancies, or even noticed them.³ The official *Decree of Acceptance* of 1938⁴ identifies the following six ‘Viole Da Gamba’:

¹ D.D. Boyden, *Catalogue of The Hill Collection of Musical Instruments in the Ashmolean Museum, Oxford* (Oxford, 1969).

² The contributors to the new catalogue include Tim Baker, Stephen Barber, Carlo Chiesa, John Dilworth, John Milnes, Charles Mould, Jon Whiteley, Derek Wilson, and the present author. The catalogue will be published in 2011.

³ There was correspondence about discrepancies of items other than the viols, for example in a letter from K.T. Parker to A.P. Hill, dated 13 February 1946: ‘should I now take it that I am to expect only two instruments (viz. the inlaid Stradivarius and Alard Amati violins) and two bows, by François Tourte? If this is the case, there should still be the collection of bows, described in the decree of acceptance as “various specimens of the XVIII Century” to come?’. Parker (later Sir Karl) was Keeper of the Department of Fine Art (which became Western Art in the 1950s) at the Ashmolean, 1945-1962.

⁴ *Oxford University Gazette*, 15 June 1938, reporting proceedings of the previous day.

1. by Gasparo da Salò, *circa* 1580.
2. of Venetian work of the XVI Century.
3. by Gio. Paolo Maggini of Brescia, *c.* 1600.
4. by John Rose, Elizabethan period.
5. of English workmanship, Elizabethan period.
6. by Baker of Oxford, ex. Constable, R.A.

This *Decree* had been agreed by the Hills.⁵ The descriptions in it exactly match those of the viols in the list of instruments offered to the University in the Hills' letter of 11 October 1937. Their formal offer followed several years of correspondence and discussion about various possible combinations of instruments that might be given. For example, a letter of 1 June 1937 to Dr Lindsay (Vice-Chancellor of the university) mentions:

...two fine viole da gamba, one by Gasparo da Salò, the other by a Venetian maker; in addition to these, there are, at least, four fine examples of English viols, one a superb specimen by John Rose, an Elizabethan maker who worked in the palace at Bridewell, and a smaller type of the same period, also a third by Bowles⁶ who is referred to in Mace's book as being the greatest maker of viol's [sic] in his day – this is the only specimen of his work I have ever come across. ... In addition to the above, there is a most interesting viola da gamba by Baker of Oxon, of the year 1593 ? [sic] and a viol as well, both instruments particularly appropriate because of their association with your University town...⁷

Their museum numbers, which all include '1939', show that the seven viols now present were accessioned at the same time. Of the Italian viols, only the first two of the instruments in the list above are identifiable among those now present (Ash.03 and Ash.02 – see table below for the numbering used in the two catalogues). At least one Maggini bass viol has been recorded (while with W.E. Hill & Sons in 1981).⁸ In the absence of indications to the contrary, it seems that the Hills chose to keep the Maggini viol and substitute two other Italian viols: the cornerless treble (Ash.01, by Giovanni Maria), and the seventh viol in Boyden's catalogue, an instrument labelled 'Antonius, & Hieronymus Fr.Amati ... 1611' (Ash.04). No reason for this substitution is known, and there is no evidence that anyone at Oxford objected to it. It may be that two instruments were given instead of one to make the divergence from the original list of instruments acceptable, but no evidence to support this

⁵ Oxford University Registry, correspondence file UR 6/AM/1B (1-3), item 38, Acts., 6 June 1938, 8.

⁶ Spelt 'Boles' in a letter of 11 February that year (Mace uses 'Bolles'). This instrument would be of outstanding importance but, sadly, no other trace of it has been found.

⁷ For Baker see below; none of the known instruments are dated 1593, which would be too early to be the work of any known instrument maker named Baker. What was meant by the distinction made here between 'viola da gamba' and 'viol' is not clear – perhaps the latter indicates a treble (which may have been considered to be playable *a braccio*) or a tenor.

⁸ Information provided by John Pringle, who saw it there, for *Viollist* – the database of all extant antique viols started by Peter Tourin before 1979, now maintained and expanded by Thomas G. MacCracken, who has supplied helpful information for this article. The Maggini has a plain-cornered shape, as have Ash.06 and Ash.07, but external wooden liners on the ribs in the manner of the more violin-shaped Ash.02 and Ash.03. Its present location is unknown.

speculation is known. The new catalogue agrees with the Hills and Boyden about who made most of these viols, but it abandons the designation of Ash.02 as 'Venetian' and questions Boyden's description of three of the first four as basses (e.g. *viola bastarda* is a possible intended use).

The other three viols in the Ashmolean are English and their identities are more complicated. The description of viol no.5 in the *Decree*, 'English workmanship, Elizabethan period', could be applied with reasonable justification to each of Ash.05, Ash.06 and Ash.07. Viol no.4 in the list is almost certainly the festooned bass (Ash.05); it was considered to be by John Rose at least by 1940 when Alfred Hill described it as such in a letter to E.T. Leeds,⁹ and possibly as early as the time of its purchase by Alfred Hill in 1929 or shortly thereafter. But if no.5 in the *Decree* is Ash.06, why was it not described using the information on its label as 'by John Rose, 1598'? For early English viols, there are few exemplars of each maker's work, so an authentic label provides a rare and welcome basis for attribution. A label provides a stronger basis for attribution than the circumstantial evidence adduced for Ash.05, and is very unlikely to be omitted from any instrument description. In a letter to Gerald Taylor¹⁰ about the armorial decoration painted on the belly of Ash.05, Winifred Hall (who was investigating its heraldry with the assistance of A. Colin Cole, the Portcullis Pursuivant of Arms at the College of Arms) writes: 'I'm wondering whether the date (1590) on the label can be confirmed'. Perhaps Miss Hall had misunderstood a comment that the viol was *estimated* to have been made around 1590, but as this correspondence was entirely devoted to unravelling in meticulous detail the meaning and implications of the heraldry, such a casual approach to evidence seems improbable. No John Rose label bearing the date 1590 is in now the public domain, so if it existed and survives, it must be performing some unknown function in a private collection, leaving the rest of the world poorer.

Even more uncertainty surrounds viol no.6 in the *Decree*, as just two viols by [John] Baker of Oxford are recorded in *Viollist*. One is a bass that has belonged to the Victoria & Albert Museum since 1882; the other, a large treble (belly length 410 mm), is now in Japan but in 1966 was with the Dolmetsches - its location *circa* 1938 is unknown. Was this the viol once intended for the Ashmolean, or was that instrument by another 'Baker of Oxford' (possibly William, see below) that is now lost; was the attribution mere casual speculation, or was it based on a label that was felt to be more usefully deployed in another instrument? The Hills had records of two Baker bass viols from Oxford.¹¹ They knew of one by 'Mr' Baker of Oxford; this was in the famous sale in December 1714 of music and instruments belonging to Thomas Britton, the 'Small Coal Man'. The other bass viol was by William Baker; this

⁹ Ashmolean, Hill Archive. Letter dated 2 January 1940. Leeds was the Keeper of the Ashmolean Museum 1928-45. The question of who made Ash.5 is discussed in M. Fleming, 'Viol-Making in England c1580-1660', Ph.D. thesis, (The Open University, 2001), i. 180-187 and 221-224.

¹⁰ Taylor was Keeper of the Department of Western Art at the Ashmolean at the time of this letter, dated 6 August 1963.

¹¹ There is also a bass viol by a Francis Baker, 1696 (Brussels, Musée des instruments de musique 487) but his address was St Paul's Churchyard, London.

they had seen and described, and their description includes the claim that it had belonged to Constable the painter:

A small viol of miniature double-bass shape the top of back canted. Length of body 23 inches but sides of same depth as a full sized 'cello, viz. 4½ inches, but at top of back owing to the cant ¾ inches bare. Labelled William, Baker Oxon, 1682. Neat work of usual Urquhart characteristics. Double purfled oil varnish of the usual brown colour. The original head has gone and it is therefore impossible for us to say how many strings it had, but probably six. It must have been a small form of knee viol. The instrument belonged to Constable the painter, and was sold at the sale of his effects.¹²

The extant work of William Baker (c1645-1685)¹³ comprises at least five instruments, mainly violins, though at least one has been described as a viol.¹⁴ This could be the 1682 instrument as described by the Hills above, but there are several reasons to think otherwise: (i) it is common for more than one instrument by a maker to bear the same year date; (ii) the two descriptions of the label are not identical; (iii) body length reported by Hill is about 10% shorter; (iv) their description 'miniature double-bass shape' probably indicates plain bout corners with no reverse curve (unlike the viol), otherwise they would surely have written 'cello-shape'. 'Baker of Oxford' is quite an obscure designation, so assigning it to an otherwise anonymous instrument or to the Hill gift viol (which is associated with the label of another maker) would be a startling choice. The association with Constable could have an origin in some sort of documentary evidence but is more likely to be a confused family tradition that has developed into received opinion. There are numerous examples of old instruments with strong connections to particular artists. For example, Thomas Gainsborough (1727-1788) was an extremely good viol player who owned at least five antique viols by top makers, among other instruments, though no viols were among the instruments in the auction of his effects.¹⁵ However, music does not seem to have been significant in the life of John Constable (1776-1837), and I have seen no evidence that he ever played or owned a viol, let alone one by 'Baker of Oxford', or even that he used one as a studio prop. At present it seems most likely that some vague knowledge of Gainsborough's instruments was found appealing, then adopted, repeated, and through a process of 'Chinese whispers' developed into this claim about Constable.

¹² Hill, *English Makers*.

¹³ William Baker was referred to as 'Mr Baker' in some documents. It is possible that he made Britton's viol – the two men were close contemporaries. See P. Trevelyan, 'A Quartet of String Instruments by William Baker of Oxford (circa 1645-1585)', *Galpin Society Journal*, 49 (1996), 65-76 and M. Fleming, 'Instrument-Making in Oxford', *Galpin Society Journal*, 57 (2004), 246-251.

¹⁴ M. Herzog, 'The *Quinton* and Other Viols with Violin Traits', Ph.D. thesis (Bar-Ilan University, 2003), ii, GB8. Some earlier Oxford viol makers are known solely from documentary evidence, and two eighteenth-century instruments, one of which is a bass viol (undated), bear the label of William Cross of Oxford. 'Instrument-Making in Oxford', op cit.

¹⁵ The sale (Christie's, London, 2 June 1792) included two lutes, an Amati violin and a viola.

The Hill documents kept in the Ashmolean might be expected to clarify the identities of the viols but unfortunately they have the opposite effect as they bring further complications. In correspondence between Gerald Taylor and Desmond Hill in 1955-1956, one of the viols in the Ashmolean is repeatedly referred to as the 'Shaw' viol. This probably refers to John Shaw of London (*d* 1692) although there may have been other viol makers with that common name. The earliest information we have about Shaw is from a label in a violin, which the Hills report as:¹⁶

John Shaw at the Goulden Harp
and Hoboy nere the Maypole in the
Strand. 1656.

Shaw was appointed 'Instrument maker in ordinary to his Majesty' in February 1687/8, making and mending musical instruments, and supplying (possibly making) strings and bows for them. He was also paid for the supply of music and 'other service'. Shaw's place at Court was surrendered on 7 November 1689, though he was paid in 1691 for instrument repairs done for the court as late as 1690.¹⁷ His Court place was taken by John Walsh on 24 June 1692.

When W.E. Hill & Sons valued all the Ashmolean instruments in 1959,¹⁸ the viols were named and valued as follows:

| | |
|------------------------|----------------------|
| [Brothers Amati] gamba | £1,000 ¹⁹ |
| Small J. Rose Gamba | £500 |
| Larger " " " | £1,000 |
| Shaw " | £250 |
| Gio. Maria Treble Viol | £500 |
| Venetian Gamba | £500 |
| Gasparo da Salo Gamba | £750 |

So, unless it has been substituted since 1959 (which would be extremely unlikely as the instruments were already on display by then), the Richard Blunt viol (Ash.07) is the same instrument that was formerly described as having been made by Shaw. This implies that there was no label in the viol at that time, as an extremely strong reason would be needed to justify describing it as by Shaw if it was labelled as by another maker. Ash.07 bears no strong resemblance to instruments that bear Shaw's label,²⁰ so no good reason for assigning it to this maker is apparent. On 2 July 1914 the Hills described an instrument labelled 'Richard Blunt / Dwelling in London / in Fetter Lane / 1605' thus: 'MS label in a six stringed Gamba with carved head (man's face) no fluting, but cheeks and back of head stippled with a leaf design. ... which is the original shewn us by Miss Oliphant, 56 Holmwood Road, Brixton Hill', and a

¹⁶ Hill, *English Makers*. The Hills considered another violin with a similar label (dated 1674) to be the work of Thomas Urquhart.

¹⁷ *RECM*, ii, 17, 125, 140 etc. Shaw's will of 15 June 1692 was proved 22 December 1692.

¹⁸ Ashmolean, Hill Archive. A.P. Hill to Gerald Taylor, 18 June 1959.

¹⁹ On the same occasion the Brothers Amati viola was valued at £3,000.

²⁰ A 1673 bass viol by Shaw was sold by W.E. Hill & Sons at Sotheby's, London in 1991; they had acquired it in February 1925. The only other known Shaw viol is in Switzerland.

manuscript addition says 'later ours C.642 and in Ashmolean Collection'.²¹ This confirms that Ash.07 is the Blunt viol, but leaves intact the potent mysteries of why it was attributed to Shaw in the 1950s, the relevance of Baker of Oxford, and why Ash.06 was not always described as by John Rose, 1598.

A document of 1963,²² in which Boyden sets out his proposed numbering of the instruments for his catalogue, describes the viols as follows:

1. Treble viol – Giovanni Maria of Brescia – early 16th
2. Bass viol – Gasparo da Salò – late 16th
3. Bass viol – Venetian – 16th c.
4. Bass viol (decorated) – John Rose – 1590
5. Bass viol (smaller) – John Rose – 1598
6. Bass viol (smaller) – John Shaw (Richard Blanke?) – c.1605
7. Viol with cello features – A. & H. Amati – 1611

So in the 1960s when Boyden was writing his catalogue, Ash.06 was settled as by John Rose 1598, Ash.05 was associated with the year 1590, and the attribution of Ash.07 was hovering between John Shaw and Richard Blanke. This was just one stage in the bizarre twentieth-century history of the latter instrument: in 1914 it was known by the name on its label (Blunt); by 1938 it was attributed to Baker (perhaps because labels that had been removed from several viols could no longer be matched to the correct instruments); then by 1955 it was again re-attributed, this time to Shaw; and by 1963 it was reverting once more to Blunt (in the guise of 'Blanke?'), despite the continuing absence of its label.

Thurston Dart's annotated checklist of the Ashmolean instruments was written and published in 1954, when all the Hill instruments were already on display in the museum.²³ In his article Dart asked for further input because 'A fuller catalogue is in preparation' but although he corresponded with Gerald Taylor in 1955 about the production of such a catalogue, he never completed one. The level of detail in Dart's transcription of the label of Ash.07 as 'Richard Blanke bewling (?) on London in ffetter lane 1605' implies he had inspected it, but does not mean it was in the instrument at the time. Boyden's comment in the 1969 catalogue, that no evidence to support reading the name as 'Blanke' is known, is still true.²⁴ He could also have commented that the label may have been barely legible, or that Dart's palaeography seemed questionable, as the third word should almost certainly be read as 'dwelling'. In the typescript for a lecture that Boyden gave at the Ashmolean in 1963 he describes Ash.05 as 'Bass viola da gamba by John Rose of Bridewell, 1590. No label'; no caveat or

²¹ Hill, *English Makers*. I thank Thomas G. MacCracken for advance sight of his forthcoming article for the *Journal of the American Musical Instrument Society*, 'Addison or Blunt: Who Made Canon Galpin's Lyra Viol?' in which he cites a 10 July 1914 entry in the diary of Alfred Hill that confirms the existence of a manuscript label dated 1605.

²² Ashmolean, Hill Archive. Typescript by Boyden dated 13 July 1963.

²³ T. Dart, 'The Instruments in the Ashmolean Museum', *Galpin Society Journal*, 7 (1954), 7-10.

²⁴ Suggested by the museum; possibly Dart recalled the composer Edward Blanke (fl 1582-94), or the continental virginal maker Jasper Blanckart who came to London in 1566?

circa is attached to the date.²⁵ Later in this lecture, Boyden's typescript demonstrates again the confusion about Ash.07: 'attributed to John Shaw about 1605 (DART: a lyra viol by Richard Blake)', followed by a manuscript addition: 'No label'. Boyden also writes 'A true tenor is lacking in the collection, but one can see a tenor by Baker - from a chest of viols made in Oxford - in the window of Hill's London shop. (No Label)'.²⁶ This helps with the Baker question as the Baker viol now in Japan is a size of viol (belly length 410 mm) that Boyden would describe as a tenor.²⁷ It does not resemble any of the Blunt viols. The fact that Ash.07 was attributed to Blunt despite the absence of a label suggests the label was removed while the instrument was with the Hills; that distinguished firm is far from unique in being believed often to have removed (and not replaced) labels from instruments for study or other purposes. The potential positive result of such an act is support for developing expertise within the firm, but the negative is the deprivation of the rest of the world, both through compromising the evidence inherent in the object, and also because the expertise so acquired is often personal and ephemeral.

Reference pictures of all the viols in the Ashmolean Museum conclude this article. Full descriptions and illustrations of the viols will be provided in the new catalogue, which will be published in 2011. The following table gives concordances between the new catalogue and Boyden's catalogue.

| New Catalogue (2011) | | Boyden Catalogue (1969) | |
|----------------------|--------------------|-------------------------|--------------------|
| <i>number</i> | <i>designation</i> | <i>number</i> | <i>designation</i> |
| Ash.01 | Giovanni Maria | Boyden 1 | Giovanni Maria |
| Ash.02 | probably Italian | Boyden 3 | Venetian |
| Ash.03 | Gasparo da Salò | Boyden 2 | Gasparo da Salò |
| Ash.04 | A & H Amati | Boyden 7 | A & H Amati |
| Ash.05 | English | Boyden 4 | attr. John Rose |
| Ash.06 | John Rose | Boyden 5 | John Rose |
| Ash.07 | Richard Blunt | Boyden 6 | Richard Blunt |

²⁵ Boyden also notes that 'Another bass viol by Rose is in Hills shop in London, an instrument more regular in form but similarly decorated'. This may possibly refer to a viol now in the Metropolitan Museum of Art, New York (1989.44), but the decoration is not really similar, and I see no good reason to accept the attribution of this viol to John Rose.

²⁶ Hill, *English Makers*, notes two bass viols by William Baker, but no tenors or trebles.

²⁷ At that time (for example, N. Dolmetsch, 'Of the Sizes of Viols', *Galpin Society Journal*, 17 (1964), p. 27), it was considered that English viols were significantly smaller than is indicated in contemporary documents. This view is still held quite widely, but for a more up-to-date assessment see M. Fleming, 'How long is a piece of string? Understanding seventeenth-century descriptions of instruments', *Cheyls*, 31 (2003), 18-35.



Ash.01. Boyden 1 - Treble Viol by Giovanni Mania of Brescia (c1530-c1600).
Belly length 358mm

Photo: Tucker Densley, Ashmolean Museum, University of Oxford.



Ash.02. Boyden 3 - Viol (Bass?) probably Italian, late sixteenth century
Belly length 596mm

Photo: Tucker Densley, Ashmolean Museum, University of Oxford.



Ash.03. Boyden 2 - Viol (Bass?) by Gasparo da Salò (1540-1609).
Belly length 645mm

Photo: Tucker Densley, Ashmolean Museum, University of Oxford.



Ash.04. Boyden 7 - Viol (Bass?) by Antonio and Girolamo Amati, 1611.
Belly length 628mm

Photo: Tucker Densley, Ashmolean Museum, University of Oxford.



Ash.05. Boyden 4 - Bass Viol, English maker, possibly John Rose, probably third quarter of sixteenth century. Belly length 704mm.
Photo: Tucker Densley, Ashmolean Museum, University of Oxford.



Ash.06. Boyden 5 - Tenor Viol by John Rose, 1598. Belly length 551mm.
Photo: Tucker Densley, Ashmolean Museum, University of Oxford.



Ash.07. Boyden 6 - Tenor Viol by Richard Blunt, 1605. Belly length 555mm.
Photo: Tucker Densley, Ashmolean Museum, University of Oxford.

BOOK REVIEWS

Gamba Music of the Berlin School

SAMANTHA OWENS

Michael O’Loughlin, *Frederick the Great and his Musicians. The Viola da Gamba Music of the Berlin School* (Aldershot: Ashgate, 2008). 272 pages, illustrated, £55 (ISBN 978-0-7546-5885-6).

‘Berlinische Stücke müssen auch berlinisch vorgetragen werden’ (Berlin pieces must be performed in the Berlin style). In 1775, when Johann Friedrich Reichardt published this statement in his polemic, *Schreiben über die Berlinische Musik an den Herrn L. v. Sch. in M.*, little could he have imagined that some centuries later both the gamba repertoire produced by this Berlin-based group of musicians and its performance practices would become the focus of a monograph—let alone one written by an Australian! Yet despite the difficulties involved in undertaking such research from the other side of world, with this book Michael O’Loughlin has made a tremendously important contribution to our knowledge of these works and the fascinating context in which they were written. Perhaps most important of all is his discussion of the extensive holdings of gamba music from the library of the Berlin Sing-Akademie—a collection of music (including the so called ‘Bach Archive’) returned from the Ukraine in 1999, the repatriation of which O’Loughlin describes as ‘arguably the most significant event in historical musicology in recent decades’ (p. 6).

Like Reichardt, himself a professional musician and writer on music, O’Loughlin has drawn successfully upon his own extensive experience as a gamba player, a practical approach which, together with his highly readable (indeed, often refreshing) prose style, ensures that the results of his research are both relevant and accessible to a wide audience. Indeed, as he explains early on, it is the book’s primary intention ‘to introduce gamba players and scholars to a remarkably well defined corpus of viola da gamba music by a rather well defined group of composers’ (pp. 5–6). The composers in question were (largely) members of the so-called ‘Berlin School’, a term coined as early as 1773 by Charles Burney, following a fleeting visit to the Prussian capital in September–October 1772. This label was subsequently repeated by other writers of the time, including Christian Friedrich Daniel Schubart in the 1780s, and, as O’Loughlin argues convincingly on p. 9, the Berlin School is worthier of the title, in the Italian Renaissance sense at least, than many other ‘schools’ commonly referred to in music history texts, including those of Vienna and Mannheim.

Following a brief initial chapter that serves as an introduction, the background to the development of the Berlin School is outlined in some detail in Chapter 2: ‘Berlin and the Berlin School’. Beginning with a glimpse into the musical life of the Berlin court during the course of the seventeenth century (including at least one viol playing ruler, Friedrich Wilhelm (1620–1688), the Elector of

Brandenburg), we are then led to the ‘cultural semi-desert’ of Friedrich Wilhelm I (King in Prussia from 1713), the famously harsh, military oriented father of Friedrich II (the latter generally known in English as ‘Frederick the Great’). Thankfully, Crown Prince Frederick was able to escape his father’s domineering attention (to a certain extent) when, in 1732, he was appointed commander of a regiment based in Ruppin (some sixty kilometres outside Berlin). He quickly set about employing his own (albeit rather small) court musical establishment, including many figures who were to form the basis of the Berlin School: Johann Gottlieb Graun, Franz and Georg Benda, Christoph Schaffrath, Carl Heinrich Graun, and Johann Gottlieb Janitsch among them—all of whom composed for the gamba. By 1736, when he moved to nearby Rheinsberg, the prince had 16 musicians in his employ, mostly youthful like himself. Many of these had come from the court in Dresden, having previously served as members (or having been educated by musicians) of the celebrated Saxon *Hofkapelle*. Frederick had himself taken flute lessons from the Dresden master Johann Joachim Quantz, and in 1741—following his accession to the Prussian throne the previous year—employed him for his own *Kapelle* at the astonishingly high salary of 2,000 *Thaler*.

The direct influence of the Dresden style of music making on the compositions of the Berlin School is a further issue touched upon in this chapter. Evidence is provided in some detail, as, for example, with the discussion of the compositional device nicknamed by O’Loghlin the ‘small dark cloud’. Occurring in binary Allegro sonata movements in major keys, this comprised the insertion of ‘two brief passages of four bars or less in the minor key . . . as if the Berliners wish to remind us that no happiness can last forever’ (p. 45); a similar technique occurs frequently in the music of the Dresden composer Jan Dismas Zelenka. Over time, however, the Berlin composers and performers developed their own characteristic ‘Berlin style’—as it was referred to by Reichardt (see above) and others. Among its particular traits, the style featured sparing use of ornaments, although the inclusion of the trill and the *Vorschlag* (appoggiatura) were also critical elements, as were unexpected and frequent dynamic changes, hardly surprising given that close attention to such details was ‘characteristic of *Empfindsamkeit* which found its natural home in Berlin’ (p. 46).

Particularly highly valued by the Berliners themselves and certainly widely celebrated at the time, was their ‘ability to play a slow movement with heartfelt emotion, and to draw an emotional response from the listeners’ (pp. 38–39). The importance of the adagio to the Berlin composers can also be seen in their frequent use of the ‘Berlin sonata schema’, in which the order—slow-fast-fast—allowed more weight to be given to the slow movement. As O’Loghlin notes, this is always long and serious, making ‘a clear statement of what is important in the Berlin sonata style: extended fantasy, beautiful melody and expressivity’ (p. 75). Johann Gottlieb Graun, ‘the most prolific user’ of this schema, probably learnt it from his teacher Giuseppe Tartini, but nowhere else than in Berlin was it ‘adopted so thoroughly’ (p. 39, footnote 120).

In outlining the Berlin style, O’Loghlin has relied not only on his own analysis of the music itself, but also draws upon written primary sources, such as the treatises on performance by Quantz and C. P. E. Bach (who also joined

Frederick's *Hofkapelle* in 1741). Indeed, as noted early on in the book, 'every attempt has been made to understand the works, the composers and the performers within the context of the eighteenth century' through the use of contemporary 'treatises, periodicals, letters, and catalogue listings' (p. 2)—a highly commendable methodological approach.

An unfortunate historical quirk of the Berlin School has been that in some circles it gained a reputation as an ultra conservative, indeed backward looking, group of theorists, composers, and performers, doomed by Frederick the Great's absolutist tendencies to be forever frozen in time. In Chapter 2, O'Loghlin deals with these misconceptions in a fascinating section which focuses on the reception of the Berlin School: from the rather dismissive attitude taken by Burney, to the heated rebuttal of his claims made by Reichardt (whose writings turn out to be a valuable source of information on the aesthetics of the Berlin style), right up to the twentieth century, with Hans Heinrich Eggebrecht's decision in the 1967 edition of Hugo Riemann's *Musik Lexikon* to differentiate the South German (Mannheim) School from the old fashioned Berlin School with the term *jugendfrisch* (youthfully fresh)! (p. 31).

Having provided the necessary historical context, the remainder of the book (from p. 34 onwards) deals with the period between 1732—the year of Frederick's transfer to Ruppin—and 1772, when Frederick's nephew, Crown Prince Friedrich Wilhelm, gave up the gamba for the violoncello. The year 1772 also marked the death of the gamba virtuoso Ludwig Christian Hesse, a key figure in this study, who was employed by Frederick the Great in 1741 and, as such, was the sole gambist to work in the Prussian *Hofkapelle* after this time. Based on eighteenth-century evidence (both textual and musical), O'Loghlin characterizes Hesse as a 'player of extraordinary ability', who ranks alongside Jean-Baptiste Forqueray *le fils* and Carl Friedrich Abel 'as one of the last three great virtuosi of the viola da gamba' (p. 121).

Hesse's presence in Berlin *Hofkapelle* from 1740 until 1763 set the 'court apart from other German courts at the time', given that elsewhere the instrument was fast becoming obsolete. Although further details are somewhat sketchy (see Chapter 6, 'Ludwig Christian Hesse'—an updated version of an earlier article by O'Loghlin¹), it appears that by 1766 Hesse had entered the service of Crown Prince Friedrich Wilhelm. He appears to have been kept busy by the prince, for whom he made a series of *Hausmusik* arrangements 'for one or two gambas, with or without bass . . . [of] no less than 72 French operas [from Paris, some sent to the prince by Jean-Baptiste Forqueray], almost all complete, plus ten motets by Campra, and several opera sinfonias and dances' (p. 129). These are discussed in detail by O'Loghlin and show Hesse to have been an imaginative arranger. Somewhat surprisingly (and certainly rather unusually for the time), no music composed by Hesse has survived, possibly, as speculated by O'Loghlin, because 'he felt that his role was to stimulate his colleagues in the Berlin *Hofkapelle* to write for him' (p. 139).

And write for him they certainly did, producing numerous works which count among the high points of 'the last major corpus of music for the viola da

¹ Michael O'Loghlin, 'Ludwig Christian Hesse and the Berlin Virtuoso Style', *Journal of the Viola da Gamba Society of America*, 35 (1998), 35–73.

gamba.’ Comprising 52 extant works, including the two ‘Prussian Sonatas’ by C. F. Abel (which ‘fit with uncanny precision into the Berlin School *oeuvre*’, p. 1), an overview of the surviving manuscripts is given in Chapter 3, ‘The Sources’, which also provides a commentary on the patterns of dissemination of these works during their own time. Here, O’Loghlin provides an interesting outline of the complicated history of the Berlin libraries and the respective fates of their music collections, including those of the Berlin Sing-Akademie (which, thanks to the efforts of Carl Friedrich Zelter, included a large stock of purely instrumental music) and of the Amalienbibliothek (the former collection of Frederick’s sister, the passionate music lover, Princess Anna Amalia, which is now split between Berlin and Kraków).

Of the further extant sources which can be found scattered among institutions outside Berlin (for example, in Dresden, Brussels, Ann Arbor, and Rheda), the collection of the Hessische Landes- und Hochschulbibliothek in Darmstadt is particularly noteworthy given the ‘city’s strong gamba tradition’—a factor ignored by earlier scholars (p. 62). There, the importance of Ludwig Christian Hesse’s father, the gamba virtuoso Ernst Christian Hesse, who served at the Darmstadt court for a period of 68 years, coupled with the close links between the music loving Landgravine of Hesse-Darmstadt, Caroline Henriette, and members of the Prussian royal family (including Frederick the Great and Princess Anna Amalia), resulted in a considerable collection of Berlin music (with many of the gamba works copied personally by L. C. Hesse).

Chapters 4 (‘The Forms and Genres Used in the Berlin Gamba Music’), 5 (‘Alternative Instrumentation for the Viola da Gamba Parts’), and 7 (‘The Composers and Their Works’) all deal in greater detail with the nature of the surviving body of compositions, which range from relatively simple music suitable for amateurs to the highly complex virtuoso style in which J. G. Graun composed for Ludwig Christian Hesse. The discussion of the musical structures chosen by the Berlin composers to frame their gamba works is considered in light of the contemporary understandings of genre. These are revealed through the writings of theorists such as Johann Abraham Peter Schulz, Heinrich Christoph Koch, Scheibe, and Quantz, among others, and sometimes provide ideas which should prove thought provoking for potential performers of this repertoire. Of the 52 extant works, over half (36) are sonatas—including solos, duets, trios, quadros, and even one quintet—and, as O’Loghlin points out, ‘Only the Germans produced sonatas for the viol, and of these the sonatas of the Berlin School make a significant proportion, if not a majority’ (p. 72).

The corpus of gamba work investigated in this book also includes ten concertos for solo gamba in the Italian style. These were almost certainly all composed by Johann Gottlieb Graun for the virtuoso capabilities of Ludwig Christian Hesse, a process described by O’Loghlin as ‘a symbiosis between virtuoso and composer which is perhaps uniquely productive in the field of music for the gamba’ (p. 147). The concertos are all the more significant given that only three other works of this type are known: two by Tartini (which may have been for violoncello) and one by Johann Pfeiffer. Also considered are two trios concertante and a double concerto by J. G. Graun, and a concerto grosso

for four solo instruments and four-part strings marked simply ‘Graun’ (probably Carl Heinrich).

Rounding off the selection are two secular Italian cantatas by J. G. Graun scored for soprano and instrumental accompaniment, which both include highly virtuosic gamba writing. Although musical examples are sometimes provided (often in facsimile), by the end of this chapter my curiosity had been awakened to the extent that I was ready to search the internet—credit card at hand—for recordings of this repertoire! Such information would, incidentally, have been a welcome addition to the Appendix, a ‘Thematic Catalogue of the Works of the Berlin School for Viola da Gamba’, arranged alphabetically by composer. This handy listing will no doubt be referred to again and again by gamba players and others. In addition to full details of the location of sources, it includes incipits of all movements (useful, among other things, for the identification of any further copies of these works that may be found in the future), together with information on modern editions.

For those seeking specific details about the composers and their gamba works, Chapter 7 is a mine of relevant information, complete with occasional commentary on individual items which serves as a guide to performers. For example, regarding the trios for violin, gamba, and cello by Joseph Benedikt (or Baptist) Zyka, a Bohemian cellist who moved from the Dresden *Hofkapelle* to the Berlin orchestra in 1764, O’Loghlin writes: ‘[these] are competently written and very playable and performable, with some delightful oddities and flashes of brilliance. While perhaps not in the first row of the Berlin pantheon, Zyka has certainly added usefully to the gamba player’s repertoire’ (p. 193). The other composers whose gamba works are featured alongside Zyka’s in this chapter are Johann Gottlieb Graun, Christoph Schaffrath, C. P. E. Bach, Johann Gottlieb Janitsch, Carl Heinrich Graun, Franz Benda, and Carl Friedrich Abel.

Further repertoire suggestions can also be gleaned from Chapter 5, which discusses at length the ‘considerable enthusiasm both in Berlin and elsewhere for appropriating sonatas for other instruments’ (p. 7). Here, O’Loghlin examines eighteenth-century arrangements for gamba of Berlin works originally for other instruments: primarily violin—a relatively simple procedure since the Berliners generally wrote their gamba parts in treble clef—and viola. The discussion thus adds considerably to our knowledge of just how common such practices were in the eighteenth century. For those with harbouring any (anachronistic) scruples about such matters, as noted by O’Loghlin, ‘The material under discussion here suggests that only practicality counted, and respect for the original wishes of the composer was a foreign concept’ (p. 119).

The introduction of new repertoire to gamba players of varying abilities is a major part of what makes this book so important. Especially since, as Peter Holman points out in his ‘Foreword’, it was not until the latter twentieth century that ‘the true extent and significance of the eighteenth-century gamba repertory’ came to light, revealed in publications by Julie Anne Sadie (1980), Fred Flassig (1998), and Marc Strümper (2004) (p. xiii).² Michael O’Loghlin’s

² Julie Anne Sadie, *The Viola da Gamba in French Baroque Chamber Music*, Studies in Musicology, 26 (Ann Arbor, Michigan: UMI, 1980); Fred Flassig, *Die solistische Gambenmusik in Deutschland im 18. Jahrhundert*, diss. Universität Augsburg, 1996 (Göttingen: Cuvillier, 1998); and

book is an excellent addition to this line up, and a much needed one at that: somewhat astonishingly Eugene Helm's *Music at the Court of Frederick the Great* (Norman: University of Oklahoma Press, 1960) 'remains the only monograph on the composers of the Berlin School' (p. 33).

Throughout the book, the author proves himself to be up to date with relevant scholarly literature (in both English and German), and his own translations of quotations taken from primary source material are generally excellent. I particularly appreciated the decision to retain the original text of 'most' of these quotations—although I would have been interested to see the original French of the fascinating snippets from Frederick the Great's letters as well (see, for example, p. 11). My only other real gripe relates to the terrible copy editing of the footnotes throughout the volume. Minor inconsistencies of formatting and style abound which would be too tedious to enumerate here, sadly a situation that is all too familiar for readers of recent books published by Ashgate. I would, however, like to mention the importance of differentiating between the *Personenteil* and *Sachteil* when citing entries from *Die Musik in Geschichte und Gegenwart*: since the volume numbering begins at 1 for each of these two sections, providing solely a volume number is (theoretically) insufficient.

In conclusion, this book offers an indispensable guide to a previously largely unknown repertoire—one which is clearly of crucial importance for our knowledge of the history of the gamba and, indeed, of music at the Berlin court during the eighteenth century more generally. I can only agree wholeheartedly with Peter Holman in his wish that 'this book will encourage others to investigate further particular aspects of this fine repertoire and to publish, perform and record it' (p. 2). With luck, the future will see more players capable of rivalling Ludwig Christian Hesse who choose to both perform and record this music.

Marc Strümper, *Die Viola da gamba am Wiener Kaiserhof. Untersuchungen zur Instrumenten- und Werkgeschichte der Wiener Hofmusikkapelle im 17. und 18. Jahrhundert*, Publikationen des Instituts für Österreichische Musikdokumentation, 28 (Tutzing: Schneider, 2004).

Unequal Temperaments

BRADLEY LEHMAN

Claudio Di Veroli, *Unequal Temperaments: Theory, History and Practice (Scales, Tuning and Intonation in Musical Performance)*. Second revised edition, eBook, Bray Baroque, Bray, Ireland 2009.

This book sums up Claudio Di Veroli's experience and study across more than 30 years: playing some of the instruments he mentions, and building mathematically-based tools to analyse temperaments. It is an 'eBook' or electronic book: a self-published file in PDF format, downloadable from the Internet for a reasonable fee (calibrated to the purchaser's local currency). As can be seen in the author's advertisement,¹ the book presents a variety of historical and practical topics related to keyboards, stringed and wind instruments, mathematical modelling, and a few bits for singers. There are more than 450 pages, and the purchaser may reasonably expect the work to be comprehensive.

Unequal Temperaments (referenced henceforth as *UT*) is valuable as a provocative position paper on Di Veroli's topics. A careful editor could have improved the English usage and trimmed out perhaps 50 of the pages, focusing the occasionally vague and disorganized thought processes while demanding more robust citations of sources. Di Veroli often relies on Internet chatter, web sites, and vague rumours in preference to citing peer-reviewed and published work available through academic libraries. He then consolidates the ideas into sometimes-hasty generalizations about 'many' or 'most' tuners and musicians, living or dead. While the book reflects a weak standard of scholarship, it is enjoyable and has some lively writing. The musical insights are fine, and mostly practical. The mathematically-based points are presented well and thoroughly, although I would argue that some of them are based on faulty premises and impractical expectations.

The Format

As noted above, this is an 'eBook', a computer file in PDF format. A reader who prefers to read old-fashioned paper is expected to print a copy on personal equipment. With the costs of printer ink (in colour!) and paper, this quickly doubles the effective purchase price. The colour illustrations and graphs are clear enough when viewed on a screen, but they lose their sense if the purchaser chooses to print in black and white. The searchability of this file on a computer is a convenient feature; here, it is given as the excuse not to have the book indexed (and again it makes things difficult for readers who prefer paper).

The page layout often looks amateurish; consultation with a graphic artist or a seasoned publisher would have helped. Differences from the first edition (less

¹ <<http://temper.braybaroque.ie>>. All hyperlinks referenced in this review were tested on 22 November 2009.

than a year before the second edition) are indicated by a revision notation from the software package that generated the file. However, this distinction is nearly useless for any readers who will be studying only the current second edition. Quotations from the author's own earlier book² are given as indented paragraphs. However, this is helpful mainly to the few readers who already have that book and who want to see directly what has changed. These oddities of presentation give the impression that *UT* is a rough draft in process of settling down, as if Di Veroli is not fully committed to writing an entirely *new* book.

When reading the book on a computer connected to the Internet, the reader can click on hyperlinks to go directly to the online resources referenced. However, some of those hyperlinks have already become dysfunctional during 2009, such as those that go to postings in the archive of HPSCHD-L.³ This is not Di Veroli's fault, and he has a disclaimer about this in the introduction, but the book does not provide enough information (e.g., sufficient annotation of the date, time, and writer's name) to find those postings in the archive's new home since mid-2009.

Furthermore, it is questionable whether such Internet-based material should be included at all in a book or eBook. Day-to-day postings in a discussion list are highly context-sensitive, are never formally peer-reviewed for accuracy, and could simply be informal rhetorical reactions, relevant only to the discussion flow as it took place. They might not even originate from any relevant or confirmable expertise, if the discussion groups have no membership restrictions! At least, permission from the quoted participants ought to be obtained before their in-the-moment opinions are put into a more permanent format such as a book.

This problem of judgement is symptomatic, throughout *UT*, of an unwillingness to make distinctions between others' informal drafts and their polished work; or, citing only their early work while ignoring their publications of the past five years. The informality is certainly inappropriate when Di Veroli makes occasionally disparaging comments about the perceived personalities of people he has not met. It teaches the reader (implicitly) to trust the Internet ahead of trusting books, academic journals, and libraries. Again, these are problems that a competent outside editor or publisher would have handled, if the book had had one.

Sections I found especially valuable

There is an interesting and useful section about geometrical methods for monochords, and fretting schemes for viols and lutes.⁴ It supplements the material in Mark Lindley's excellent book *Lutes, viols and temperaments*,⁵ which is difficult to get in hardback outside libraries, but is republished as a paperback.

² C. Di Veroli, *Unequal temperaments and their role in the performance of early music* (Artes Gráficas Farro: Buenos Aires, 1978).

³ An Internet discussion group for builders, players, and enthusiasts of harpsichords and related instruments; see <<http://albany.edu/hpschd-l>>

⁴ Section 15.2, 269ff.

⁵ M. Lindley, *Lutes, viols and temperaments* (Cambridge University Press: Cambridge, 1984).

Di Veroli points out⁶ that Lindley gave the matter of meantone fretting only two pages, and therefore he is providing this long and detailed section to fill a necessary gap in the literature. The section is excellent, although there are a few typographical errors: several headings each ought to say ‘wolf D#-B’ instead of D#-Eb.⁷

An assertion from this section needs a citation: ‘A theorbo continuo player even suggests on the Internet the radical—but effective—solution of not using the 1st fret at all!’⁸ I would like to know more about this mysterious Internet lead. The following bold generalization also needs a reference and further explication:

Standard French *ordinaire* being the most unequal circular temperament, the conclusion back in 1978 was that a most accurate fretting was possible for all the remaining circular temperaments as well. This has now been confirmed in practice after three decades of successful viol playing in unequal temperaments worldwide.⁹

Other rare topics include a tenth century method to construct a monochord; temperament instructions glued onto a spinet by Scorzi, 1778; and an explanation of ‘The 13th string in Flemish transposing harpsichords’. There are two second-hand citations of a treatise from the 1750s by Giordano Riccati. At these and numerous other points, *UT* refers the reader to the excellent scholarly work of Patrizio Barbieri. That is especially welcome, as I had not known much about it before this year. Some of it is available at Barbieri’s web site.¹⁰

Overemphasis on beat rates and mathematical precision, ahead of *musical* listening skills

Let it be clear, my primary goals through all the following critical remarks are:

- To help readers’ musicianship to sound as aesthetically and historically plausible as possible, in the important area of intonation.
- To help tuners and players to do their work confidently and efficiently, without getting bogged down in unnecessary dead ends or rigid recipes.
- To present a fair and objective assessment of this book, even if it seems harsh, in the interest of accuracy with the topics it presents.

UT will be useful to those who want detailed schemes of tuning by beat rates, down to tenths of seconds. That is the approach found in books by the late Owen Jorgensen, along with the assertions that this focus on beat rates and checks (by beats) is the only way to deliver sufficient accuracy in practice. Some temperaments are described as being too difficult or impossible to set without modern beat-counting methods. This judgement reflects only Di

⁶ Section 15.8, 290.

⁷ Section 15.8, 291 and 294.

⁸ Section 15.8, 297.

⁹ Section 15.11, 309.

¹⁰ <<http://www.patriziobarbieri.it/>>

Veroli's and Jorgensen's approach to setting them, within their calculation-based paradigm. Beat rates can give effective results in practice, but I disagree with the principle that tuners *must* use them to deliver acceptable work. A ballplayer is able to catch, kick, or hit a ball without doing a single calculation or using a stopwatch. People tie shoes and neckties daily, without ever receiving instruction or measurements from a book. The same principle applies to tuning accurately: with experience and trained perception, excellent results are easy without referring to a long series of absolute beat rates. Perhaps this is merely a difference of personality style, but Di Veroli teaches through *UT* that all the mathematical apparatus is necessary; this may frighten away some readers who prefer to use different listening skills. At one point, *UT* belittles and discounts the experience of those who are able to tune an entire harpsichord accurately in 15 minutes, as Bach reportedly did.¹¹

Personally, I have left the detailed beat-counting methods behind, years ago, and I continue to work exclusively by ear without those tables: in part because the ancients were themselves undemanding with regard to beat counting, and in part because it is simply easier. I find beat-rate sequences difficult to memorize, while I can learn shapes, relationships, and intervallic qualities in only a few minutes. One must only know which intervals are to sound identical to or larger than other ones around them, and then match or contrast them by character (not by numbers of beats). Listeners to ordinary music hear and respond to intonation quality, anyway, rather than counting beats against any standards! Furthermore, instructions based on beat rates work accurately only at one particular pitch level (which Di Veroli explains adequately). A series of numbers provides rigid information not directly useful when working at any other pitches; Jorgensen's books are calibrated to $a'=440\text{Hz}$, and most of *UT* uses $a'=415\text{Hz}$.

I like to set the first one or two intervals by a known beat rate, for example, by establishing a tenor *fa* wide at 3 beats/sec (at $a'=415\text{Hz}$) for any of the 1/6 comma temperaments, and then working entirely by comparisons thereafter. The size of an interval can be compared directly with that of another, e.g., making an A-E 5th similar to the G-D next to it, if one keeps in mind that it is not a beat rate that lines up, but rather a musical quality of deliberate sourness. No timekeeping device *of any kind* is necessary in setting an accurate temperament, not even to get the beat rate of some initial intervals; one can simply match the beating with the performance tempo of some memorized piece of music, using a musical skill rather than a mathematical one.¹²

In temperaments that have a series of regularly-sized 5ths or 4ths in succession, having established the size of one major 3rd, it is easy to set the four consecutive 5ths within it precisely by the comparative triplet/duplet method that I have explained on my web site.¹³ It resembles origami paper-folding techniques, which deliver accurate sizes and shapes without first

¹¹ Section 12.10.29, 193.

¹² For the *fa* of 1/6 comma temperaments, I use my performance tempo of the F major prelude in Bach's WTC book 1, in the left hand's quavers: 3 per second.

¹³ "Tetrsecting a major 3rd..." <<http://www-personal.umich.edu/~bpl/larips/tetrsect.html>>

measuring anything in numbers. *UT* describes and disdains a similar method, without giving any firm source:

A non-beat-rate-era technique, based on Fogliano's primitive meantone, is to first tune pure the 'external' two fifths in the initial major third F_A: F-C and D-A. Then a G is found that tempers similarly both fifths C_G_D. Finally C is retuned for equal tempering of the fifths F_C_G, and D is retuned for equal tempering of the fifths G_D_A. An error of less than 1 Cent will be achieved for every fifth. Note however that we have tuned 5 notes and performed 3 checks. The main beat-rate scheme in the previous page produces a more precise result by tuning only 3 notes and performing 1 check! So much then for the purported 'simplicity' of traditional methods: to achieve the same precision, they are *more* complicated and need *more* work than modern beat-rate schemes.¹⁴

Whether one chooses to use it in the temperament bearing or not, this listening technique¹⁵ is an excellent way to check treble octaves on a harpsichord.

Unrealistic expectations for practical musicianship

In discussion of violin fingering, *UT* asserts that 'Fingering accuracy in any circular temperament is not difficult to master by carefully listening to and playing with a well-tuned harpsichord or a good-quality tuning device.'¹⁶ On the next page, that statement is contradicted by this one: 'Playing in tune with an equally-tempered keyboard is difficult. Playing in tune with an unequally-tempered one is impossible: this was well known to 18th century writers.'¹⁷ Which is it to be? Or, is the point here that Pythagorean intonation (in particular) has some notes in weird and difficult places?

Presenting 'the cons of 31 positions', for players of the violin family to learn complicated fingering charts: *UT* again puts forward the notion that players of flexible-intonation instruments (or singers) should have ever tried to perform 'in' a keyboard temperament ('Standard', circular, or otherwise), matching all its tempered pitches exactly. There is a forbiddingly complicated map of the fingerboard,¹⁸ showing the orderly logarithmic placement of all the naturals, sharps, flats, double sharps, and double flats. However, this is presented as something to learn directly, and not to derive for oneself through understanding and listening. The section concludes: '[F]or the violinist interested in learning to play in Standard Meantone, the 31-division fingering is certainly worth exploring, if not for usual practice, at least as a very instructive exercise.'¹⁹ I concur that violinists performing their early repertoire ought to

¹⁴ Section 13.3, 206.

¹⁵ To do this, one compares the triplet/duplet relationships of the 5th and the 4th under a top note, or simply listens for a similar quality of sourness in these two intervals. In turn, the octaves can prove the accuracy of these intervening 5ths and 4ths that are nominally of the same regular size.

¹⁶ Section 16.5, 322.

¹⁷ Section 16.6, 323.

¹⁸ Section 16.2, 317.

¹⁹ Section 16.2, 318.

know that notes with sharps are to be played noticeably lower in pitch than notes with flats, and that some pure major 3rds may be obtained by observing these distinctions. Still, the point is not to be rigid about this, but rather to know what to listen for, and then to produce in practice whatever sounds ‘best’ in musical context.

That assumption of matching a keyboard brings an unfortunate bias into the long section about natural trumpets and horns, too, where *UT* gives the numbers of cents by which the players should correct their pitches upward or downward to agree with the keyboard. ‘The above analysis of nats at 6 different pitches is valid for modern replicas trying to play in tune with keyboards or other instruments, when everybody is—quite obviously—tuning to the same tuning fork pitch and following the same temperament.’²⁰ Considerations for trumpet and horn players can certainly inform a keyboardist’s choice of temperament, for playing together; but, I disagree with that as such a primary factor. Should not the keyboardist (and every other musician) strive to make his/her *own* instrument sound to best advantage in the music to be played?

It is a quixotic pursuit, this misguided expectation that all the notes by singers and non-keyboard instrumentalists ought to agree exactly with a keyboard’s pitches, all the time. Bruce Haynes addressed this issue thoroughly in 1991,²¹ showing that most seventeenth and eighteenth century musicians probably did *not* try to match keyboard temperaments. Instead, they relied on general principles regarding sharps, flats, and melodic intervals, such as the distinctions found within 1/6 comma meantone (or the 55-comma division of the octave): a system that *UT* presents briefly, but disdains. Musicians then and now have been free to inflect notes deliberately high or low, or to slide into them occasionally, when that serves the expressive goals of communicative performance. Unfortunately, *UT* teaches musicians to adhere to mathematically-based standards of intonation (and sometimes practically impossible standards, at that), rather than cultivating this tasteful freedom.

In the instructions to set equal and nearly-equal temperaments, *UT* makes some prescriptive statements that look like pure speculation, not a report from practice. Is anyone honestly able to ‘count alternatively 7 beats in a second and 8 in the next second’,²² working with a timekeeping device? It might be barely feasible to count to 15 beats quickly across 2 seconds, but *UT* asks the reader to observe one second that has 7 beats and another that has 8, accurately. This section also asks for the direct but accurate counting of very slow rates such as ‘2 beats in 3 seconds’ and ‘3 beats in 4 seconds’.

Harpsichords often drift noticeably out of tune during each half of a concert, or within every few ‘takes’ at recording sessions. In the sections about temperaments where the naturals are tempered narrow by 1/4 comma or more, I think there ought to be some remarks about the practicality of

²⁰ Section 18.8, 351.

²¹ B. Haynes, ‘Beyond Temperament: Non-Keyboard Intonation in the 17th and 18th Centuries’, *Early Music*, vol. 19 no. 3, August 1991, 357-381.

²² Section 14.7, 266. Similarly, p. 267 asks for 5 and 6 beats per alternate seconds, or 6 and 7, in the bearing plan for equal temperament.

maintaining an instrument in those extremely unequal temperaments. I have played in and experimented with such temperaments for more than 20 years, and it always strikes me that the 5ths and 4ths are already on the edge of being too spicy or wobbly (at least on harpsichords with a medium-to-bright tone). That amount of tempering makes me perceive open 5ths as dissonances when I encounter them in ordinary music, such as the playing of fugues. I know that this perception is a matter of taste, but it becomes especially important when I come back to an instrument that I tuned hours or days earlier. With the 5ths already so tightly tempered, there is no additional room for error as individual notes drift slightly sharp or flat. Where a pitch has 1/4 comma of error on both sides already, if that pitch moves a bit, one 5th or the other will become even worse, sounding like a wolf interval.

In the past, where no one had modern ‘climate control’ of any music room or church, that problem would have been worse yet. Did musicians several hundred years ago really prefer 1/4 comma *in practice* as much as some theorists would lead us to expect, seduced by the presence of nominally pure major 3rds? There are reports that many actually preferred the 1/5 to 1/6 comma range (see especially Mark Lindley’s article ‘Temperaments’ in *New Grove*), and they are not to be dismissed as easily as Di Veroli does. I wonder if some of that preference was due not only to the arguably more interesting and lively 3rds (beating slightly), and the greater melodic smoothness, but also to the simple practicality of maintenance: the instrument becomes more tolerant of day-to-day error. If some notes on a harpsichord tuned in regular 1/6 comma have drifted since the last complete tuning, it is not as immediately obvious, because none of those 5ths have become as sour individually as 1/4 comma 5ths are. All the correctly-spelled 3rds and 5ths still sound ‘good’, even if the instrument technically needs a fresh tune-up.

Reading the sections about ‘Homogeneous Meantone’ and ‘Attenuated Meantone’ (1/5 and 1/6 syntonic comma systems, respectively),²³ I miss the simpler sense that the seventeenth and eighteenth century musicians in actual practice flattened the 5ths and sharpened the 3rds as much as sounded acceptable to them. Why would they need to, or aim to, hit any particular size of narrowed 5ths exactly, such as 1/4, 1/5, or 1/6 comma? Why should they care? These practical musicians did not have calculators, they were very unlikely to have used algebra or logarithms in their work, and they were trained in musical *listening* skills, not computation. The range of sizes for narrowed 5ths is a continuum, not a set of several fixed points; one can turn the interval inward by some tasteful amount, sliding the pitch until it sounds sour by the intended amount, whatever that might be. If some *theorists* in the past were adamant about mathematical or theoretical precision, to the same degree as Di Veroli is now, this did not necessarily concern any practical musicians charged with keeping their instruments in playing condition. They could make their music without needing to know *any* such mathematical apparatus!

I do not see why regular schemes such as 1/5 or 1/6 syntonic comma need to be assigned labels such as Di Veroli’s ‘Homogeneous’, ‘Attenuated’, or ‘Extended’ (2/7 comma), at all. Those labels are atypical, outside this book.

²³ Sections 5.7 and 5.8, 73ff.

They bias the reader to consider such schemes as musically or historically inferior to ‘Standard’ (1/4 comma), and to discard all other regular systems (whether based on the Pythagorean comma, or merely on ‘about that much’ listening) as unworthy of use. These non-syntonic schemes perhaps cannot be *measured* as conveniently with Di Veroli’s spreadsheets, but why should that be any deterrent to their musical usefulness? Music is not calculation. Personal taste might well fall into the cracks between the comma splits. For example, in Section 8.2, Di Veroli judges that a non-mathematical scheme by the English writer Keller is ‘a typical if coarse recipe for Homogeneous 1/5 S.c. Meantone temperament’,²⁴ instead of considering that Keller might have been referring more practically to 1/6, or something in between, or not trying to hit any particular measurement.

Hasty or erroneous conclusions, apparent biases of the author,
and unfortunately misleading information

Throughout *UT*, Di Veroli is consistently dismissive of temperaments he probably hasn’t actively played in extensively, but has only analysed according to his expectations and mathematical calculations.²⁵ He discards very quickly all of the following: regular 1/5 and 1/6 comma, all of the Neidhardt and Werckmeister schemes, Kirnberger 2 (which had wide circulation in eighteenth and nineteenth century publications²⁶), and Bach/Lehman.²⁷ He does not mention in detail any of the Marpurg or Sorge temperaments, or Thomas Young’s preferred first temperament (see below). It appears to me that Di Veroli does not want to deal extensively with anything that he did not already know about or use in the early 1980s, when his first book was greeted so enthusiastically by musicians.²⁸ He mentions these temperaments just enough to say that he doesn’t want to know more about them, and that his readers ought to share his attitude against exploring them in practice. For example, regarding Neidhardt’s 1732 scheme for a ‘Big City’,²⁹ we do not get to see its recipe by tempered 5ths,³⁰ but only an assertion that it is:

²⁴ Section 8.2, 104. Godfrey Keller died in 1704, and his tuning instructions were published posthumously, first in 1707. *UT* cites them only as quoted by Michel Corrette, in 1753. Di Veroli may have got the 1/5 comma notion from p. 47 of Barbour’s book. Jorgensen, in chapter 17 of *Tuning*, pointed out that Keller’s tasteful tempering of 5ths could have been anything between 1/12 and 1/4 comma, or even more.

²⁵ If Di Veroli has given more of these temperaments an active and thorough ‘test drive’, with appropriate music, I apologize; but, it does not say so within this book. Presenting what he calls ‘Standard French’ temperament, at Section 8.3, 109, he asserts that ‘Music with extreme modulations or just many accidentals is likely to sound very dissonant.’ Instead of saying it is ‘likely to’ sound dissonant, why did he not do some hands-on testing with extant music, and report some concrete results?

²⁶ See chapter 6 in Rita Steblin’s *A history of key characteristics in the eighteenth and early nineteenth centuries* (Second edition, University of Rochester Press: Rochester NY, 2002).

²⁷ Discussed below; see also <<http://www.larips.com>> for full details.

²⁸ It is a by-product of success in early work. Why argue with a structure that some people already enjoy well enough and find useful? Why revisit things deeply enough to allow a paradigm shift in methodology, or expectations?

²⁹ Johan Norrback’s book (*A Passable and Good Temperament’ - A New Methodology for Studying Tuning and Temperament in Organ Music* (GOArt Publications: Göteborg, 2002)) provides

... very irregular and very difficult to tune with any precision using pre-beat-rate methods. This was undoubtedly Neidhardt's best proposal for a Good temperament, yet its shortcomings show that it is unlikely to have been of practical value to Baroque musicians.³¹

I have tested most of Neidhardt's 1732 temperaments hands-on; they often sound terrific, even the ones disdained in *UT* for having odd patterns of 3rds, and they are easy enough to do by ear if one works by slightly altering notes that were temporary stepping stones to set others.³² It is like doing a few final polishing steps to make an origami creature especially attractive.

UT guides the reader to favour a restricted set of only a few generalist solutions, the ones where we get to see the recipes and calculations, instead of cultivating a musical and problem-solving approach. It actively discourages the thinking through of enharmonic requirements, and hands-on experimentation through listening to a harpsichord, moving notes up or down to taste. Furthermore, the instructions to set temperaments look more complicated than they really need to be. The book belittles those (such as researchers, practicing musicians, and members of Internet discussion groups) who would keep exploring unknown combinations of 12 notes per octave. There is an entire section about the trillions of possible and distinct temperaments, a rhetorical exercise in dismissing them all. It concludes: 'Summarising, we could assign a temperament to every newborn. There is matter for emulators of Neidhardt to work nonsensically inventing and advocating new temperaments for centuries on end. As far as one can tell by searching the web, they have already started....'³³

Within this book that presents itself as objective and scientific, at least through the extensive measurements, there is a disturbing bias in the way intervallic qualities are compared. There is two-way argumentation against the 5ths in the presented 'Rameau'³⁴ and 'Rousseau'³⁵ temperaments and instructions. The 1/4 comma 5ths are tempered narrow by 5.4 cents each, yet the analysis asserts that the three other wide 5ths of 5.2, 5.2, and 4 cents 'are to be avoided'. This makes no sense, because the narrowed 5ths on the naturals are therefore rougher than these wide ones; why exactly are the wide 5ths 'to be avoided', if these remarks are anything but empty rhetoric? Wide 5ths of those sizes beat *less* than the 1/4 comma narrow 5ths; they waver in the opposite direction, and more slowly. This is not objectionable in practice, if one has already accepted 1/4 comma 5ths. When tuning Vallotti's temperament step-by-step, we are told to 'Check that g-b is a very good major third (but not pure)', and similarly for f-a and c-e.³⁶ However, in the presentation of regular 1/6 comma, where

excellent background, including a contemporary map showing the official assessments of city size in Germany.

³⁰ I have included it below, for reference.

³¹ Section 21.6, 418.

³² See <<http://www-personal.umich.edu/~bpl/larips/practical.html>>

³³ Section 20.5, 383.

³⁴ Section 21.3, 403.

³⁵ Section 21.3, 406.

³⁶ Section 13.16, 242.

these 3rds are practically the same size as in Vallotti's (within 0.5 cent), they are called 'good but noticeably sharp'.³⁷ This implies a noticeable distinction of quality between 'very good but not pure' and 'good but noticeably sharp'; at least a value judgement, casting in good light the temperament the author endorses (Vallotti) and denigrating the one he doesn't. The same 'very good major third' checks appear again, in another temperament he promotes enthusiastically, 'Vallotti/Young'.³⁸ Di Veroli's descriptions tell the reader to hear favourably the things he favours, but to disdain those same phenomena within other contexts.

In the introductory section³⁹ about unisons and octaves, we read:

If we mistune an octave even slightly, all the harmonics produce beats and the mistuning is very apparent. If instead the tuning is perfect, the consonance is perfect, and actually the two sounds are perceived as one with a particular 'harmonic content'. In any organ or harpsichord, if we play a single note on an 8' stop and add a 4' stop, we do not hear an octave but only the low note with a much more 'brilliant' timbre. Incidentally, this does NOT always happen on a modern piano if we strike two strings one octave apart: more often than not the two notes are actually heard separately, due to the significant inharmonicity of piano strings, producing an audible discrepancy between harmonics.

To the extent that I understand the physical properties of inharmonicity in pianos, this seems to be an overstatement. How do we know that any separate *perception of* the piano's tones (measurable how?) is due primarily to inharmonicity, and not more simply to the character of piano timbre, or something else?

In the 'General Laws on Consonance and Beat Rates', Di Veroli explains:

An interval is consonant if and only if the ratio between the two fundamental frequencies is equal to the ratio of small integer numbers. The smaller the numbers, the greater the consonance.⁴⁰

This refers to the reinforcement we hear when some low and loud overtone of each note coincides exactly in frequency with some audible overtone of the other. By this standard, a major 10th (5:2) and a major 17th (5:1) are considered 'more consonant' than a major 3rd (5:4). This is at odds with Di Veroli's later assertions about major 3rds being more important to temperament than 10ths and 17ths are.⁴¹ It is also slightly misleading at this point in the book, as the perception of consonance or dissonance usually comes from the interactions of the overtones, not the fundamentals. It applies to ordinary musical tones (because their audible overtones determine the

³⁷ Section 13.7, 220.

³⁸ Section 13.17, 245. See also the presentation of its recipe below.

³⁹ Section 1.4, 20.

⁴⁰ Section 1.6, 23. Furthermore, we must be careful not to confuse the issues here, where a perfect 4th (4:3) was not considered 'consonant' within a system of tertian harmony. This discussion is simply about beatless or nearly-beatless intervals.

⁴¹ See below, where this is explained more fully in the section about Barnes and Couperin.

timbre of the tone), but not to pure sine waves. Di Veroli explains the rest of this in a much later section,⁴² summarizing experimental findings by Plomp and Levelt in the 1960s.

On the use of the word ‘standard’: *UT* christens Lodovico Fogliano’s 1529 layout as ‘Standard Just Intonation’,⁴³ apparently calling it ‘Standard’ primarily because Di Veroli fancies some of its features, not because it ever found its way into any widespread musical practice. From Barbour’s pages 94-95,⁴⁴ presenting three Fogliano schemes (plus Barbour’s own revision of one of them), Di Veroli selected the one he liked best: #1, having shifts of a syntonic comma in G-D, B-F#, and Bb-Eb, and an Eb-G# wolf. The word ‘Standard’ also becomes *UT*’s label for 1/4 comma meantone, for one of the French-styled temperaments, for a certain size of minor 7th, for the ‘standard Spiral of Fifths’, for ‘standard geometrical features’, and more. I take it to mean ‘whatever Di Veroli likes best, and believes ought to be the centralized recommended practice.’ If these things are ‘standard’, everything else is (by implication) substandard. The book uses that word ‘standard’ inappropriately so often that it begins to seem like propaganda, not objective research.

There are some overstatements about the necessity of equal temperament. ‘Recent research on temperament practice in the second half of the eighteenth century shows that circular unequal temperaments were still prevalent until 1750, but by 1790 they had lost most of the ground to Equal Temperament (...).’⁴⁵ To support this, Di Veroli cites an article from 1991: not very ‘recent’. He then generalizes: ‘All the evidence shows then that W.A. Mozart was using—and writing for—Equal Temperament (...)’. This mistaken assertion can be remedied by reading Ross Duffin’s 2006 book,⁴⁶ not in *UT*’s bibliography. Di Veroli asserts further that C.P.E. Bach’s ‘*Württembergischen Sonaten*—notably the beautiful N°2 in Ab major with its double flats in the Adagio—did not make musical sense in anything other than Equal Temperament. The work is dated 1742.’⁴⁷ That statement about musical sense is simply mistaken. I have two recordings of that piece on my web site’s ‘samples’ page,⁴⁸ from my concert and church performances on both harpsichord and piano.⁴⁹ I used ‘Bach/Lehman’ for both, and these musical examples show that that Adagio movement and its double flats make plenty of ‘musical sense’ in this unequal intonation scheme.

Section 13.10⁵⁰ presents an ‘original’ style set of instructions for the ‘Early French (Couperin) Temperament’, as if someone in the seventeenth century

⁴² Appendix 1, 439, ‘On Consonance, Dissonance, and Science’.

⁴³ Section 4.4, 54; and elsewhere.

⁴⁴ J. M. Barbour, *Tuning and Temperament: A Historical Survey* (Michigan State College Press: East Lansing, 1951, reprinted (with a corrected index) by Dover: New York, 2004).

⁴⁵ Section 11.11, 171.

⁴⁶ R. Duffin, *How Equal Temperament Ruined Harmony (and Why You Should Care)* (W.W. Norton & Co.: New York, 2006).

⁴⁷ Section 11.11, 172.

⁴⁸ <<http://www-personal.umich.edu/~bpl/larips/samples.html>>

⁴⁹ I play that sonata on my fretted clavichord also, tuned in Bach/Lehman, but have not recorded it on that instrument.

⁵⁰ Section 13.10, 227.

had written it. But, as another section⁵¹ explains clearly, Di Veroli and an associate derived this temperament themselves from some assumptions they made with regard to Couperin's Parish Mass, for organ. It is disingenuous to present a whole page of these 'original' pseudo-seventeenth-century instructions, alongside some others. Furthermore, there is a double standard in play. Presenting Herbert Kellner's temperament from c1975, there is the remark: 'No "original" scheme is provided for this non-historical temperament.'⁵² More remarks about Di Veroli's so-called 'Couperin' non-historical temperament are below.

From the section about meantone fingering,⁵³ the following statement appears to be merely badly edited prose: 'The violin arose in Renaissance meantone times. Extant Baroque sources show tables for Standard Meantone fingering, sometimes with the complete 31-division with equally placed frets and a full complement of double accidentals.' I hope that Di Veroli does not believe that violins ever had frets, or that people of the fifteenth century would have described their own world as 'Renaissance meantone times'!

In presentation of minor 7ths, *UT* gives only the 9:5 and 7:4 varieties, omitting the important 16:9 minor 7th which is obviously found in Pythagorean...or any other tuning scheme that has two consecutive 5ths that are pure. 16:9 is a compound of two pure 4ths, 4:3 each, which makes a 'pure' sound on a harpsichord, even though it does not get much help from audible overtones that high in the harmonic series (four octaves above the lower note). Other important intervals are missing from the book, as well; I will remark further about 1/6 comma's 45:32 tritone in a later section of this review.

Points that appear too lightly-researched

It is necessary to explain the many following points where I believe *UT* offers erroneous or insufficient information. This is not an exhaustive list of disagreements, but at least the most important points to supplement the material. If the book goes to a third edition, I would hope that the following areas receive further research and clarification by Di Veroli.

UT is weak on the use of modern German language sources. Some especially important works, in that regard, are Mark Lindley's essay 'Stimmung und Temperatur',⁵⁴ and Martin Jira's two books.⁵⁵ Outside the general omission of German scholarship, there are also no references here to theoretical or historical work by Bruce Haynes,⁵⁶ Easley Blackwood,⁵⁷ or Dominique Devie.⁵⁸

⁵¹ Section 21.1, 394ff.

⁵² Section 13.15, 239.

⁵³ Section 16.2, 315.

⁵⁴ M. Lindley, 'Stimmung und Temperatur', in *Hören, messen und rechnen in der frühen Neuzeit*, vol. 6 of *Geschichte der Musiktheorie*, ed. F. Zaminer (Wissenschaftliche Buchgesellschaft: Darmstadt, 1987) 109-331.

⁵⁵ M. Jira, *Musikalische Temperaturen in der Klaviermusik des 17. und frühen 18. Jahrhunderts* (Verlag Hans Schneider: Tutzing, 1997); *Musikalische Temperaturen und musikalischer Satz in der Klaviermusik J.S. Bachs* (Verlag Hans Schneider: Tutzing, 2000). See also the table below, for Jira's two proposed temperaments for Bach's keyboard music in that book from 2000.

⁵⁶ Haynes, 'Beyond Temperament' op. cit.; and his dissertation about pitch standards that eventually became the book *A History of Performing Pitch: The Story of 'A'* (Scarecrow Press, 2002).

Di Veroli has cited Ross Duffin's web pages, but not his book (as noted above). He has not used much by Rudolf Rasch, either, most notably overlooking Rasch's 1985 article that debunks John Barnes's analytical methods (see below).

In the section about 'Almost-Equal Temperament',⁵⁹ presenting one of Di Veroli's own invented temperaments, the book asserts what 'some' or 'most' nineteenth century tuners would do (with regard to the amounts of inequality that would have been tolerated in the musical taste of the time). It does not supply a single citation of support, or any description of the reasoning behind the statement. This appears to come from heavy reliance on Owen Jorgensen's speculations, which in turn are weak on evidence found in sources outside English.

There are other problems from over-reliance on Jorgensen as well, especially the heavy bias toward analysing temperaments with regard to their 5ths and 3rds, and ignoring almost all else. This is most prominent in the emphasis on calculating 'Harmonic Waste' for both 5ths and 3rds. From Section 3.9: 'Except for the concept of Harmonic Waste explained below, no other evaluation methods will be described or used in this book.'⁶⁰ Unfortunately, they should have been, because analysis merely by 5ths and 3rds (while valuable) gives a superficial and sometimes misleading picture into the temperaments and their usage. Where did the idea of 'Harmonic Waste' come from, beyond Jorgensen? 'In the works of Baroque theoreticians—especially German ones—we find the concept of *harmonic waste* which yields a most interesting criterion for the evaluation of the total dissonance of a temperament.'⁶¹ This statement cites no source; as far as I have been able to figure out, it goes back to a vague remark by Georg Andreas Sorge from 1744.⁶² Sorge is mentioned only twice in *UT*, and this source is not in the bibliography; it appears that Di Veroli relied on second-hand or third-hand reports, plus the assumption that Jorgensen's principles are both sufficient and sound.

Section 20.6 explains the supposedly important concept of 'ornamental beats', showing how the intervals in some temperaments have identical or nearly-identical beat rates (or simple multiples) when various types of triads are played. However, it is not shown that this has any *musical* relevance whatsoever,

⁵⁷ E. Blackwood, *The Structure of Recognizable Diatonic Tunings*. Princeton University Press, Princeton NJ, 1985; and articles. If Di Veroli had referred to Blackwood's book, his own Section 19.9 (analysing multiple-division systems) would have been unnecessary.

⁵⁸ D. Devie, *Le Tempérament musical: Philosophie, histoire, théorie et pratique* (Société de musicologie du Languedoc: Béziers, 1990); and articles.

⁵⁹ Section 9.11, 142.

⁶⁰ Section 3.9, 45, and into Section 3.10.

⁶¹ Section 3.9, 45.

⁶² G.A. Sorge, *Anweisung zur Stimmung und Temperatur sowohl der Orgelwerke, als auch anderer Instrumente, sonderlich aber des Claviers*, 1744. The student asks, 'Kann man nicht auch einige Quinten über sich schweben lassen?' The teacher responds, 'Ja; es ist aber ganz unnöthig, und wenn man es thut oder thun muß, so ist es ein Merkmal, daß man einige vorhergehende Quinten zu viel habe unter sich schweben lassen. Daher halte ich nichts von über sich schwebenden Quinten.' That is, in the teacher's opinion, wide 5ths within temperaments are acceptable but unnecessary. Cited in Lindley's 'Stimmung und Temperatur'.

in anything other than speculative or experimental music written to highlight it. It would also need to be demonstrated that anyone (whether an ordinary listener or a specially-trained one) would be able to hear and appreciate any of these synchronized beats, other than deliberately striking and holding chords to listen for only that single feature (for example, when setting a temperament by comparing beat rates).

Jorgensen's books presented his own 'proportionally beating' versions of temperaments, which he claimed were improvements on the 'theoretically correct' versions. Herbert Kellner also invented some reasons why this might be important, as selling points for his own temperament, pressing a coincidence inherent to 1/5 comma tempering and imputing it onto mystical values, and onto Bach. Beyond those examples of salesmanship by Jorgensen, Kellner, and now Di Veroli, I have never understood the point of synchronized beating as any measure of higher quality; it all seems like theoretical mumbo-jumbo to me. If this had any musical value, in practice, wouldn't all three notes of a triad have to be struck *exactly* together, so that the synchronized beats would never start out of phase with one another...provided that one was prepared to hear them at all? I do not understand why Di Veroli calls these 'ornamental beats', either; as far as I know, that is only a term related to tango dancing, and does not have any standardized usage (outside this book) with regard to intonation of triads.

In a section about logarithmic units of measurement, when presenting the 'Temperament Unit' (TU) measurement scheme,⁶³ Di Veroli seems unaware of its genesis by John Brombaugh, or its purpose in clarifying discussions about both the Pythagorean and syntonic commas.⁶⁴ Brombaugh chose his measurements based on the fact that all the numbers 720, 660, and 60 are easily divisible by 2, 3, 4, 5, 6, and 12, thereby simplifying analysis of temperaments without using computers.⁶⁵

Section 19.7⁶⁶ asserts erroneously that Friedrich Suppig's manuscript about temperament was 'published' in his lifetime. It was published only as recently as 1990, as a facsimile edition, with a historical essay by Rudolf Rasch. This is merely one example where Di Veroli relies only on secondary information, or on his own misreading of it (in this case, a 1984 article by Rasch), instead of taking a closer look at sources.

1/6 comma temperaments

1/6 comma systems deserve their own section here, as they were so important to eighteenth-century musicians, and perhaps also in the seventeenth century.

UT dismisses regular 1/6 comma frankly, thus:

⁶³ Section 19.10, 373.

⁶⁴ The TU is defined so that the Pythagorean comma spans 720 units, and the syntonic comma 660. The 'schisma', the difference between the commas, spans 60 units.

⁶⁵ I have more details about TU on this web page: <<http://www-personal.umich.edu/~bpl/larips/tunits.html>>

⁶⁶ Section 19.7, 368.

It is hard to find any advantage in this temperament ('Attenuated (1/6 S.c.) Meantone Temperament') over either Standard 1/4 S.c. or Homogeneous 1/5 S.c. meantone: With over 7 Cents of deviation, we have certainly lost the excellent major 3rds that made meantone temperaments so attractive. ... In a nutshell, this is a temperament that manages to put together all the worst features of both Standard Meantone and Equal Temperament, but none of their virtues.⁶⁷

This value judgement is unduly harsh, especially for those (including me) who feel that this temperament has some particularly beautiful features. Di Veroli continues:

During the 18th century a few writers, ignoring the issues outlined above, found that this temperament struck the best balance in the process of 'sacrificing the fifths to improve the thirds'. Even worse, at a time when German-speaking musicians had long abandoned meantone for circular temperaments, Gottfried Silbermann and a few other musicians and makers around mid 18th Century, through imperfect mathematics and wishful thinking, proposed attenuated meantone variants as 'meantone circularized', purposed to be a valid alternative to the French or Good temperaments by then in widespread use.

If these Germanic musicians frankly preferred it *musically*, who is Di Veroli to assert that they relied only on 'wishful thinking' and had faulty taste? This same amount of tempering was also a feature of the systems advocated by Telemann and Leopold Mozart, who should be considered expert musical witnesses by anyone's standards.⁶⁸

It becomes clear in *UT* that Di Veroli does not understand two of the most attractive practical features in regular 1/6 comma tempering, because he never brings them up. These features are the pure 45:32 tritone (which sounds like the compound of a pure major 3rd and a pure 9:8 2nd), and the enharmonically-wrong minor 6ths such as C-Ab, D#-B, F-Db, and A#-F#. Because they are tuned on the keyboard as C-G#, Eb-B, F-C#, and Bb-F#, they are not minor 6ths at all,⁶⁹ but they happen to be so close to 11:7 ratios that they become surprisingly playable (and arguably consonant). In practice, when playing *basso continuo* on a regular 1/6 comma keyboard, the chords of B major, C# major, and F# major can all be played without problem, whenever they are encountered in first inversion: D#-F#-B, E#-G#-C#, or A#-C#-F#, even though some of those notes do not technically exist in that temperament. This surprising feature makes regular 1/6 comma more useful and playable than it might appear on paper; certainly more flexible than regular 1/5 or 1/4 in that regard. Because *UT* focuses on almost nothing but 5ths and major 3rds played in isolation, such practical advantages of 1/6 comma are not evaluated.

⁶⁷ Section 5.8, 77.

⁶⁸ Again, see Duffin, *How Equal Temperament Ruined Harmony*, op. cit..

⁶⁹ They are augmented 5ths. The enharmonic spelling matters, especially in regular temperaments such as this one, as misspelled notes are usually not available for use.

Knowledge of the 45:32 interval could have improved Section 6.5,⁷⁰ for example.

The broader point here is to try out these temperaments on suitable harpsichords in ordinary music, listening to the results, instead of restricting the investigation to mathematical expectations from spreadsheets and algebra. Regular 1/6 comma is much more useful for performing music in common keys such as E minor and B minor, because of those first-inversion triads (where D# or A# occur in the bass line with a figure of '6'), than 1/4 comma is. Furthermore, the resonance of those pure 45:32 tritones gives a strongly focused quality to diminished triads, diminished 7th chords, and dominant 7ths.

1/6 Pythagorean comma has some theoretical and practical advantages, too, but they are apparently invisible to Di Veroli's analysis. The entire Section 6.4.6 is about 'nine commas in a tone', and it says: 'Unfortunately it can be shown that the dictum [of "nine commas in a tone"] is not true for any existing or conceivable meantone temperament.' This is absurd, because it is true both for regular 1/6 Pythagorean comma, and for its practical extension, the 55-note division of the octave! Di Veroli is so firmly fixated on promoting and analysing syntonic comma schemes that he has missed this.

UT presents a temperament by Arnolt Schlick (1460-1522), as reconstructed speculatively by Barbour. 'Note the similarities with Homogeneous 1/5 S.c. meantone/French in the Diatonic section.'⁷¹ However, according to several other sections,⁷² this Schlick temperament is based on 1/6 comma, not 1/5. *UT* makes such an enterprising case in favour of 1/4 comma systems, it is not surprising that this very early 1/6 comma system is placed inconspicuously near the back of the book, rather than given centralized attention for its virtues. The practical instructions⁷³ for this Schlick temperament are hazardous, as well. They tell the reader to set a 'flat but tolerable fifth' and a 'sharp but tolerable fourth' when working on the lower note of these intervals. Some will get this wrong, if they do not already know that the note is to be moved *above* the point where it is beatless, when working on the lower note of a 5th, to make a 'flat but tolerable fifth'. The word 'flat' implies moving the note downward, not upward. Similarly, some of these 'sharp but tolerable fourths' are obtained by moving the lower note downward, flatward, to make the interval 'sharp'.

A popular 1/6 comma temperament is given as 'Vallotti/Young' throughout *UT*, but that name is a misnomer. *UT* presents it as if Young's work is simply a sharpward rotation of Vallotti's scheme. First, there is no evidence presented (is there any?) that Young was aware of Vallotti's work. Second, while such a rotation looks easy enough on paper, it actually involves moving half of the notes: 6 out of 12. Third, the conflation here is with Young's second scheme, not the first one that he himself preferred as superior. That one, not presented

⁷⁰ Section 6.5, 88, 'Listening to meantone in an equally-tempered world', which implies that only 1/4 or 1/5 comma systems have decent tritones.

⁷¹ Section 13.13, 236.

⁷² At 116, 388-389, and 410-413.

⁷³ Section 13.13, 236.

in *UT*, actually has more claim to resemble Vallotti's in practice, as 10 of the notes are the same. Only the B (slightly higher) and F (slightly lower) are different.

UT has several pages⁷⁴ about my own largely 1/6-comma system for Bach's music, but it pointedly avoids evaluating my work or my reasoning in any meaningful way. Nor does it provide measurements that would allow a reader to see the recipe of that temperament.⁷⁵ It only says that my temperament itself (considered 'objectively') doesn't fit the author's expectations, or the Barnes experiment, and that several other writers in print don't like it. *UT* does not address the evidence provided, but only cites the existence of one article that puts up some disagreement, without evaluating the credibility of that article, either. Di Veroli is unfortunately content simply to cite whichever authoritative opinions he fancies (especially the long-deceased Barnes's), and expects the reader to follow suit rather than engaging the evidence closely.

The main argument⁷⁶ presented against my temperament is simply to observe that 'E-G# is his *worst* major third, and the thirds surrounding it are also quite bad.'⁷⁷ This is preposterous and short-sighted criticism, because only a few pages later *UT* presents the 'WTC Optimal+' solution that Di Veroli has worked out by taking the Barnes experiment farther. 'WTC Optimal+' has exactly the same size E-G# as mine, although the book doesn't present that fact directly (why not?). Furthermore, it has two other major 3rds (B-D# and C#-E#) of equally 'bad' size surrounding it, and one (F#-A#) that is even wider than that! Di Veroli closes the muddled thinking for his readers:

Summing up, after so much research by the author, some important ground has been covered and cleared: unfortunately the results show, once again, that there is no such thing as an 'ideal' or 'rediscovered' temperament for the WTC. The inevitable final conclusion is that back in 1979 Barnes already went as far as it makes sense to go in this matter: his system is an ideal match and good practical solution for Bach, with no pretence to be 'the' historical reconstruction, for which the evidence [is] obviously lacking. Hopefully all this study has served to prove that everybody should better 'leave very good enough alone'.⁷⁸

I can see how the reasoning gets there: by throwing out all evidence *but* that fatally flawed Barnes experiment, and being stuck within that dead-end investigation itself, Di Veroli has taken that experiment as far as it ought to go...and that's where we must cease thinking or listening. Well, to put this gently: it is not valid reasoning to assert that my proposed temperament for Bach's WTC is impractical and wrong (because of the E-G# business), and then to present as champion a new temperament that does measurably worse in

⁷⁴ Section 9.7, 130-131, and several disparaging remarks elsewhere...plus an oblique complaint about one of my demonstration videos, and my cat in it!

⁷⁵ For a full explanation, see the first two issues of *Early Music* in 2005, further resources at <<http://www.larips.com>>, and Peter Watchorn's exemplary recordings of both books of Bach's WTC (available through <<http://www.musicaomnia.org>>).

⁷⁶ As opposed to the improper *ad hominem* remarks misjudging my character, personally!

⁷⁷ Section 9.7, 131.

⁷⁸ Section 9.7, 134.

exactly the same area, by the author's own criteria of judgement as he presents in this book.

A closer look at Barnes's analytical method,
and Di Veroli's own 'WTC Optimal+' and 'Couperin'
temperaments derived by Barnes's procedures

Presenting a reappraisal of *temperament ordinaire*, UT has this bold statement:

Still today however, otherwise enlightened musicians often candidly tune instruments by modifying standard meantone by trial and error into a crude circulating temperament. This easily produces rough results, with many useful intervals sound unacceptably, unhistorically and unnecessarily dissonant. The historical evidence shows that French Baroque tuners spent decades experimenting before arriving to a very refined final version.⁷⁹

Frankly, I would use the first part of that to describe my own displeasure with Di Veroli's 'Couperin' temperament, as I have been playing through both of Couperin's organ masses (on harpsichord) with it. It has ten notes spaced as in 1/4 comma meantone, and the other two are crudely moved (E \flat downward and G \sharp upward) until we get three different wide 5ths splitting the enharmonic gap. Spots in the music using either E \flat -B \flat or A \flat -E \flat sound wolfish because of the 5th, and the intervals B-E \flat and G \sharp -C sound almost as rough as they do in regular meantone, not serving well as major 3rds. The major 3rds on F \sharp and C \sharp are still the diminished 4ths of meantone, with no modification. Even the major 3rd E-G \sharp sounds remarkably rough and dissonant, played within ordinary modulations among other nearby 3rds such as A-C \sharp and D-F \sharp that are pure.

I cannot believe that François Couperin, a refined and expert musician, would have endorsed such a crude system that simply knocks two notes off their typical 1/4-comma spots. His Parish Mass,⁸⁰ directly the source for Di Veroli's speculative temperament, relies on a good D \sharp extensively, along with the less frequently required E \flat . In the 'Offertoire sur les Grands Jeux' of that Mass, we need both an A \flat and a G \sharp , and the A \flat -E \flat 5th is clearly not to be a wolf. A \flat is also necessary within three of its other movements nearer the end. Couperin's Convent Mass⁸¹ (not treated by Di Veroli) does not fare well, either: it needs a better G \sharp and D \sharp than it gets in this temperament. Frankly, the music of these two Masses suggests to me that the assumed basis of 1/4 comma tempering in the naturals is entirely wrong, because it does not leave enough room to make up the enharmonically necessary compromises in A \flat /G \sharp , E \flat /D \sharp , and the 5ths and 3rds around that part of the circle. That is to say, and confirmed by his later harpsichord music (which often goes beyond the requirements of 13 or more notes within a single *Ordre*), Couperin had to have better circulating systems than this one imputed to him by Di Veroli.

⁷⁹ Section 21.3, 400.

⁸⁰ F. Couperin, *Messe à l'usage ordinaire des Paroisses pour les Fêtes Solemnelles*, c1690.

⁸¹ F. Couperin, *Messe propre pour les Convents de Religieux et Religieuses*, c1690.

The root of the problem here is the methodology. Statistics are meaningful and reliable only if they are based on a truly representative data set, and if they are designed to measure *all* the features that are important. Barnes's statistical method⁸² here fails both these criteria.

Any of the following defects individually make the Barnes experiment seriously flawed, but taken all together, the Barnes measurement emerges as being nearly (perhaps entirely) meaningless.

- Major 3rds are given too much importance, above musical features such as smoothness of diatonic scale steps, audible beating in 5ths and 4ths, and any aesthetic judgement in favour of variety. Those criteria are all treated as negligible, being outside the experiment.
- Major 10ths and 17ths are given too little importance, and in this experiment *none*, while in musical contexts they show tuning problems more clearly than major 3rds do. They are simpler consonant intervals (5:2 and 5:1, as compared with 5:4), and their overtones beat more prominently, at least on harpsichords. In a major 17th, the upper note's *fundamental* coincides with the fifth overtone of the lower note, producing beats directly at that frequency if there is any tempering.
- Tuning problems show up more clearly in thin contrapuntal textures than in thicker chordal situations. However, Barnes's method discounts music of thin texture, sometimes to the point of having that music disappear from the data set altogether. It heavily favours pieces where Bach happened to write four-part music, or punctuating chords.
- Analysis of major 3rds is a superficial way to assess temperaments for real music. It is more important to look at the sizes of steps within diatonic scales (consistency, or nearly so), so no individual notes stick out as being too high or low for all the contexts in which they are used. It is also important that no notes be as much as a comma away from the spot where they would be in a regular system (generated by the spacing of the naturals).
- Barnes's data were not necessarily accurate. In a musical example printed in his article, showing part of the C major prelude of WTC book 2, one of the major 3rds is not circled.⁸³ How many other errors of tabulation or analysis are there?
- The Barnes temperament was then derived by trial and error, rather than systematically from the data set (even though the data set itself was flawed); this is not properly scientific procedure, for an experiment that proposes to be objective.⁸⁴

⁸² J. Barnes, 'Bach's Keyboard Temperament: Internal Evidence from the Well-tempered clavier', *Early Music*, vol. 7 no. 2, April 1979, 236-249.

⁸³ It is the right hand's f-a' in the penultimate bar, 33.

⁸⁴ Di Veroli's derivation of 'WTC Optimal' and 'WTC Optimal+' falls into that same trap, preferring visual inspection ahead of any mathematically-based outcomes; see pp. 423-425. This is poor science: throwing out any unwanted data that don't fit a preconceived model, and going only with visual inspection as the ultimate arbiter of truth. Furthermore, visual

- The weighting of relative ‘prominence’ values is subjective, and not defined clearly by Barnes. (Di Veroli is more systematic and forthright about this, with regard to deriving his ‘Couperin’ temperament, but the method remains subjective.)

The Barnes method *omits* from the data set:

- All the fugues (which bring up some of the worst offenders in ill-chosen temperaments: B major, D# minor, Bb minor, G# minor, Ab major, C# major, F# major, and F minor of both books; B minor of book 1; C minor, G minor, E minor, A major, and G major of book 2). The fugues comprise more than half the music of the WTC!
- All the minor-key music. It is more difficult to tune well for music in minor than for music in major keys, because it generally requires a more uncommon set of accidentals (venturing higher into the sharps). None of this music comes to Barnes's tables.
- All 10ths and 17ths, i.e. all music with a rather thin texture, having the hands spaced farther apart than an octave. In book 1, the F# major prelude contributes zero major 3rds (is wholly invisible in this experiment's analysis), and the C# major only two isolated major 3rds at its end! The D, F, G, and Ab major preludes do not get much say, either. In the C, Eb, E, G, Ab, and A major preludes of this book, the long final chords don't count, just because Bach did not insert one more note to double the bass with the right-hand thumb.

Coupled with all of that is the flawed assumption that Bach should have used his major 3rds systematically, favouring the best ones the most often, without much (any?) influence from other rules or ideas of composition. I am surprised that Di Veroli still champions Barnes's method, in light of its devastating defects. The criticism against it is not new, either; Rudolf Rasch already presented about half of these problems in his 1985 article⁸⁵ – not in *UT*'s bibliography.

Di Veroli does address the general problem of 10ths and 17ths, briefly, but not in the context of deducing any Bach temperament. It is only in his presentation of his ‘Couperin’ temperament,⁸⁶ where he made a decision that gets it backwards: 10ths and 17ths in the music are signals to *reduce* the ‘prominence’ factor, to him, rather than increasing it (as listening experiments and my theoretical point about 5:2 and 5:1 both make clear).

Di Veroli's ‘Optimal’ and ‘Optimal+’ temperaments are then chosen on their fit to Barnes's first graph in Figure 1 of his article. C, F, Bb, Eb, Ab, and A (taken as major 3rds: C-E, F-A, etc.) are pressed to be the smallest intervals in the temperament. This comes up most obviously in *UT*'s section called ‘Smoothing out the outsider’,⁸⁷ where Di Veroli tries to explain away that

inspection and calculations are not sufficient, either, since the ultimate point is to play *music* on appropriate instruments, and to listen to it.

⁸⁵ R. Rasch, ‘Does “Well-tempered” mean “Equal-tempered”?’ in the book *Bach, Händel, Scarlatti Tercentenary Essays* (Cambridge University Press: Cambridge, 1985) 293-310.

⁸⁶ Section 21.2, 395.

⁸⁷ Section 21.9, 424.

anomalous spike in Barnes’s data on A-C#. That Barnes graph also informs the remarks in several places about the way Bach’s music favours flats ahead of sharps.

So: that profoundly biased Barnes experiment in statistics leads to all this theoretical conjecture about both Couperin and Bach. The time could be better spent in playing the music on suitably clear-toned harpsichords, clavichords, and organs, where the intonation flaws become more immediately obvious than they are in spreadsheets.

How does Di Veroli’s ‘WTC Optimal+’ temperament sound? As I have played through WTC 1 in ‘Optimal+’, some of the preludes and fugues that stand out as rough are bars 67-70 (especially) in the D# minor fugue, many spots in B minor, and the Db-F 10ths in F minor. In the F# minor fugue, the high sharps spoil the *Affekt*, and make the suspensions sound as if they resolve into dissonances. Perhaps the strongest case against this temperament comes from the B major prelude and fugue, where the strong beats are a long series of wrecks. The Vallotti, Barnes, Werckmeister III, and many other temperaments fail at those same spots in the music.⁸⁸ Shouldn’t this be a red flag that the general shape of those temperaments is *wrong for the music*, in placing such wide 3rds at F#-A#, B-D#, and Db-F? The only common problem that ‘Optimal+’ solves is Ab-C.

Di Veroli presents the recipe as a cycle of 5ths, but doesn’t display the all-important (to him!) set of the 12 major 3rds that turn up in it. Here they are, in the notation of my papers and of Neidhardt and Sorge, counting schismas sharp of purity in the major 3rds (pure 5:4 = 0, Pythagorean = 11):

| WTC Optimal+ | | | | Bach/Lehman | | | |
|--------------|------|------|-------|-------------|------|------|------|
| F 4 | C 4 | G 5 | D 6 | F 3 | C 3 | G 5 | D 7 |
| A 7 | E 10 | B 10 | F# 11 | A 9 | E 10 | B 9 | F# 8 |
| C# 10 | Ab 7 | Eb 6 | Bb 4 | C# 9 | Ab 8 | Eb 7 | Bb 6 |

To reiterate something I said earlier: after the complaint that my E-G# is as wide as size 10, Di Veroli’s ‘Optimal+’ layout has the same size of E-G#, and two others the same, and F#-A# even larger than that! Furthermore, his ‘best’ major 3rds of F-A and C-E are both wider than mine, also. Why does *UT* not convey this information, frankly?

The notion of Bach ‘avoiding’ the bad major 3rds of F#-A# and Db-F is asserted,⁸⁹ but never demonstrated, and a play-through of the WTC in ‘Optimal+’ shows it to be false. Apart from the WTC, which obviously uses all tonalities and 3rds, the F#-A# and the Db-F (or C#-E#) come up in hundreds of

⁸⁸ For my own harpsichord recording to demonstrate the Bach/Lehman temperament in 2005, I chose to include pieces from WTC book 1 that sound the most ‘ill-tempered’ in other schemes such as Barnes’s: the F minor, B major, F# minor, and Bb minor preludes and fugues. I also included the C major prelude and fugue, and a variety of other pieces through many other keys. The CD is *Playing from Bach’s Fancy*, LaripS 1003; see <<http://www-personal.umich.edu/~bpl/larips/cd1003.html>>

⁸⁹ Section 9.7, 131.

other pieces, while playing in keys as simple as E minor, B minor, D major, A major, F# minor, G minor, or C minor; not to mention their importance in music with signatures of four or more sharps or flats.

An especially problematic piece in this regard is the opening of WTC 1's C# major prelude, with its open 17ths on downbeats. (If Bach wanted to show off the importance of appropriately moderated major 3rds/10ths/17ths, how much more blatant could he be, beyond writing music in this two-voiced texture with such a spacing, and putting those intervals on strong beats? There is no place for problems to hide. He did it again in the four Duetti of *Clavierübung III*, where the two-voiced texture and the modulatory adventurousness make perfect test pieces for a temperament.) Another obvious example is the last bar of WTC 2's F# major fugue: F#, a#, and f#" played together, with that unconcealed open 17th between the bass and the alto.

UT gives an exceedingly complicated method to set 'WTC Optimal+' by ear, requiring the user to count more than ten different beat rates. I have worked out a much simpler method, giving the same temperament through easier steps oriented toward musical listening (instead of exhaustive beat counting). It is available on my web site.⁹⁰ I invite any reader of *UT* to try out those grimace-inducing spots I have mentioned here, not only in 'WTC Optimal+' but in a variety of other temperaments as well, to understand the magnitude of the musical problem which any 'Bach' temperament must solve.⁹¹

Reference of temperament recipes based on 1/12ths of the Pythagorean comma

The following table [overleaf] presents a variety of temperaments mentioned either in *UT* or in this review. The first five are from *UT*'s section 21.9, the computerized derivation of temperaments from Barnes's data. The numeral in each column indicates the amount of tempering in that 5th, proceeding to the next note. 0 indicates a pure 5th, 1 is 1/12 Pythagorean comma (about 2 cents, as in equal temperament), 2 is 2/12 or 1/6, 3 is 3/12 or 1/4, and -1 is 1/12 in the opposite direction (i.e., a 5th beating *wide* by a scarcely perceptible amount).

To find out how wide any major 3rd is in these temperaments, add the four values spanning those named notes, and then subtract that total from 11. For example, to measure Eb-G in 'WTC Optimal+', $11 - (0 + 1 + 2 + 2) = 6$, as we saw in the above table of all its major 3rds. F#-A# is $11 - (0 - 1 + 1 + 0) = 11$, a 'Pythagorean major 3rd', a full syntonic comma wide.

Enough arithmetic! The point is to present these temperaments for easy comparison, and to set up any of them for testing the sound of the music, hands-on: playing especially the WTC.

⁹⁰ <<http://www-personal.umich.edu/~bpl/larips/bachtemps.html>>

⁹¹ The practical gist of mine is as follows: start by setting the naturals F-C-G-D-A-E (i.e. the home base of the C major hexachord, C-D-E-F-G-A) in their ordinary regular positions, 1/6 comma each. The remaining six notes, B and the five sharps, are carefully raised as compromises so they can also serve as flats. E-B-F#-C# are pure 5ths, and C#-G#-D#-A# a gentle 1/12 comma each, taking Bach's drawing as a diagram indicating these tasteful adjustments in turn. See <<http://www.larips.com>>

| E♭ | B♭ | F | C | G | D | A | E | B | F♯ | C♯ | G♯ | Description |
|-----------|-----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|--|
| 0 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 0 | -1 | 1 | WTC Optimal+ (Di Veroli's preference for the WTC) |
| 0 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | WTC Optimal (Optimal+ with a slightly lower G♯) |
| 0 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 0 | Barnes (differs from Vallotti only by a raised B) |
| 0 | 1 | 2 | 2 | 2 | 1 | 2 | 0 | 2 | 0 | 0 | 0 | PO, V3, RS 'very good but visual is better' ⁹² |
| 0 | 2 | 2 | 2 | 1 | 2 | 2 | 0 | 1 | 1 | -1 | 0 | PO, V4, RS 'very good but visual is better' |
| 0 | 0 | 0 | 3 | 3 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | Werckmeister III |
| 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | Vallotti |
| 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | Young 2, aka 'Vallotti/Young', aka rotated Vallotti |
| 0 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | Young 1 (differs from Vallotti only at notes B and F) ⁹³ |
| 0 | 1 | 1 | 2 | 2 | 2 | 1 | 0 | 1 | 1 | 1 | 0 | Neidhardt's 'Big City' of 1732 |
| 1 | -1 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 1 | 1 | Lehman ⁹⁴ |
| 1 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 1 | 1 | 1 | 0 | Jira's 'closed' temperament, 2000 ⁹⁵ |
| 0 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 3 | 0 | -1 | Jira's 'open' temperament, 2000 |

Getting beyond *UT*'s insufficient analytical methods

Let us go through several case studies that show why the analytical methods in *UT* are insufficient, where it merely measures 5ths and major and minor 3rds. I hope that this may inspire a new path forward, as musicians and scholars grapple with the practical and historical decisions regarding temperaments.

The first case study is the accompaniment of a violinist in two sonatas by Jean-Marie Leclair, in 'easy' keys of zero or one sharp. The violinist chooses the sonatas from book 1 (1725), #1, A minor, and book 2 (n.d.), #1, E minor. Taking *UT* as it stands, we have no option but to choose the 'Standard French' (1/4 comma) or 'Homogeneous French' (1/5), because 1/6 is allegedly at least 25 years too early for mention in France, and because Di Veroli has told us what was 'Standard': a weighty word implying contemporary consensus. All of the major 3rds based on B, F♯, C♯, A♭, and E♭ are much worse than in equal

⁹² Section 21.9, 425, in Di Veroli's presentation of 'Statistical Best Fits' to derive 'Bach's Temperament' based on the Barnes data.

⁹³ *UT* does not give the recipes for this temperament that Young preferred, or for Neidhardt's 'Big City' or my own (Lehman); therefore, I include them here to make direct comparisons easier.

⁹⁴ B. Lehman, 'Bach's extraordinary temperament: our Rosetta Stone', *Early Music* vol. 33, February and May 2005, including web-based sections: five 'supplementary' PDF files (material too long for the printed edition), and six music clips, illustrating the sound of that temperament on harpsichord and organ. All parts are available for free download from <<http://www-personal.umich.edu/~bpl/larips/outline.html>>

⁹⁵ I have these two and a roster of many other proposed 'Bach' temperaments at the web page: <<http://www-personal.umich.edu/~bpl/larips/bachtemps.html>>. Jira's are in his 2000 book about keyboard temperaments and Bach's music, op.cit..

temperament, as the notes D \sharp , A \sharp , and E \sharp are not *designed* to be any good in these temperaments. Those pitches serve their functions very roughly. Now, let's take a closer look at the primary evidence of the music. That A minor sonata requires all the notes from B \flat to E \sharp (14 different notes), inclusive, and the E minor sonata requires B \flat to A \sharp (13). Despite the simple key signatures of zero or one sharp, the compositions support the argument that we need a much better circulating temperament than *UT* has been able to provide for that period in France.

The broader point here is: when selecting a keyboard temperament to participate in ensemble music, it does not suffice simply to observe the date and place of origin, and then to apply some generalist solution based only on that, assuming all will be well. Wherever a piece of music goes beyond 12 differently-named notes, or exceeds the usual set of 12 notes (E \flat to G \sharp), one needs some way to handle them: whether that is making adjustments to get the 'right' accidentals, or having some split keys, or using a circulating temperament that handles all the enharmonic exchanges smoothly enough (i.e., a temperament that is close enough to equal, abandoning 1/4 comma or 1/5 comma schemes).

I take it as axiomatic that no single note should be more than a comma 'off-spot' for its spelling, vis-à-vis all the other notes around it, and especially the naturals—or else it will never sound smooth in its musical contexts, but merely like a 'wrong' note. So, for example, if a composition requires both A \sharp and B \flat , all of the 3rds/4ths/5ths/6ths on either side of those two notes ought to sound 'good' within one comma of the point where they would make a pure interval. The pitch must be moderate enough to work with C \sharp /D \flat , D, E \flat /D \sharp , F/E \sharp , F \sharp /G \flat , and G both above and below it. It should also sound good with the minor 7ths: C/B \sharp below and A \flat /G \sharp above. Every note has important intervallic relationships with almost every other note. If that harmonic consideration were not enough, we must also consider how a pitch fits into scales melodically, proceeding by either semitones or tones on each side. If we place our B \flat to fit well into a diatonic scale fragment such as G-A-B \flat -C-D, does it also function well as A \sharp within a competing fragment such as F \sharp -G \sharp -A \sharp -B, as we have some cadence into B minor? Are F \sharp -G \sharp and G \sharp -A \sharp nearly the same size?

The second case study is a closer look at some earlier repertoire, along a similar line of investigation: Arcangelo Corelli's book of violin sonatas, Op. 5, published 1700, with a title page that calls for accompaniment by harpsichord *or* cello. Playing it with harpsichord, what notes do we require of the temperament?

- 1: D major, F to E \sharp (13)
- 2: B \flat major, A \flat to G \sharp (13)
- 3: C major, D \flat to D \sharp (15)
- 4: F major, E \flat to G \sharp (12)
- 5: G minor, A \flat to C \sharp (12)
- 6: A major, C to B \sharp (13)

- 7: D minor, E \flat to G \sharp (12)
- 8: E minor, F to A \sharp (12)
- 9: A major, D to B \sharp (11)
- 10: F major, E \flat to G \sharp (12)
- 11: E major, A to F \times (11)
- 12: D minor, B \flat to C \sharp (10 - 'La Follia' variations, no modulation)

As noted here in this set of 12 Corelli sonatas, regarding intonation, different pieces in a collection might have radically different needs. 'Should' the D minor and F major pieces be done in a typical regular system because they can be? If we do that, what should guide our choice of tempering in the 5ths, anywhere in the continuum from 1/4 to 1/6 comma? 'Should' we retune the notes E \flat , B \flat , F, C, and G to D \sharp , A \sharp , E \sharp , B \sharp , and F \times to be able to play #9 in A or #11 in E...in the process smoothing out whatever exotic character the composer may have intended in choosing the scale he did? 'Should' we use some mostly-regular system but with a moderated A \flat /G \sharp serving roughly, to play #2 in B \flat ? If we do that, how should we handle #6 in A where the compromised note is C/B \sharp , or #1 in D where it is F/E \sharp ? Does the presence of #3 in C major, needing four flats and four sharps (and all in simple-triad situations, presumably to sound consonant), argue that the other pieces in the book 'should' be accompanied by a nearly-equal keyboard, even though they would not require it technically on their own?

The third case study brings in the enharmonic requirements of some solo keyboard music. Readers may draw their own conclusions from these data, thinking through the questions I raised above.

Henry Purcell (1659-95), eight suites for harpsichord, published 1696 by his widow:

- G major, Z. 660: C to A \sharp (11)
- G minor, Z. 661: A \flat to C \sharp (12)
- G major, Z. 662: F to D \sharp (11)
- A minor, Z. 663: F to D \sharp (11)
- C major, Z. 666: B \flat to G \sharp (11)
- D major, Z. 667: C to A \sharp (11)
- D minor, Z. 668: E \flat to G \sharp (12)
- F major, Z. 669: E \flat to C \sharp (11)

Georg Böhm (1661-1733):

- Capriccio in D major, B \flat to E \sharp (14)
- *Präludium, Fuge und Postludium* in G minor, A \flat to C \sharp (13)
- Suites: #1 in C minor, A \flat to C \sharp (12)

- #2 in D major, B \flat to A \sharp (13)
- #3 in D minor, A \flat to G \sharp (13)
- #4 in D minor, B \flat to G \sharp (11)
- #5 in E \flat major (now attributed to Froberger, with Allemande about crossing the Rhine), A \flat to F \sharp (11)
- #6 in E \flat major, G \flat to F \sharp (13)
- #7 in F major, D \flat and E \flat to G \sharp (no A \flat) (13)
- #8 in F minor, D \flat to B (11)
- #9 in F minor, D \flat to B (11)
- #10 in G major, F to A \sharp (12)
- #11 in A minor, F to D \sharp (11)

Johann Sebastian Bach (1685-1750), Toccatas, c1707-c1715:

- F \sharp minor BWV 910, G to C \times (14)
- C minor BWV 911, G \flat to C \sharp (14)
- D major BWV 912, B \flat to F \times (16)
- D minor BWV 913, C \flat to D \sharp (17)
- E minor BWV 914, F to E \sharp (15)
- G minor BWV 915, C \flat to C \sharp (15)
- G major BWV 916, F to A \sharp (12)
- Capriccio in B \flat BWV 992, c1704, G \flat to G \sharp (15)
- Capriccio in E BWV 993, c1725, C to C \times (15)

I present all these questions here as a practical challenge, because they arise out of hard musical evidence in these published compositions. These data are from core repertoire, and from an investigative method that I believe is much more meaningful than the Barnes/Di Veroli tallying of 3rds.

UT (unfortunately) leaves the student at a superficial level, where these types of question do not enter the reasoning process. Instead, it advises the reader to maintain only a few ‘one size fits all’ temperaments in one’s practical repertoire, make a choice from that tiny menu, and live with it. A keen musician who does that will get a mistaken impression: that unequal temperaments in general will always have ‘wrong’ spots that we can’t do anything about, or it’s too complex to deal with, or too difficult to set up without modern beat-rate techniques.

Did all the seventeenth and eighteenth century experts accept crude temperaments and wrong enharmonics, just because they didn’t know any better or have any refined skills? I refuse to accept that. Why did they write and

improvise music⁹⁶ in keys that require these exotic notes such as E# and B#, unless they expected those notes to sound pleasing and colourful, worth bothering with as a positive feature of the music? To me, the presence of those notes shows that those musicians cared about key differentiations, and had satisfying temperament methods that didn't make it into the realm of their contemporary speculators who wrote treatises. Furthermore, any speculators and researchers today who focus on only the treatises and on related historical scraps of information are profoundly missing the point: in the sets of enharmonic notes it asks for by name, to fill out the scales it employs, the music itself largely tells us what it needs.

UT does have a section 13.23, 'Do-it-yourself temperament schemes', but it is only one page long, and it presents a 'suggested working sequence' that I disagree with. It implies that the only good way to work out a new temperament is to pick up Di Veroli's own spreadsheets (free on the Internet),⁹⁷ learn to use them, and then to work through all the mathematical speculations, looking for easy-to-gauge beat rates (especially with pure intervals, 0). This, to me, is a backwards approach to historical inquiry. The musicians several hundred years ago did not have computers and mathematical tables to tell them how to do their listening work, and they worked out DIY methods according to the music they decided to play: presumably by listening and adjusting! I prefer to work out new ideas hands-on at the harpsichord, adjusting everything entirely by ear and testing it with suitable music. Then, and only then, I work out the mathematical modelling⁹⁸ to check my work, and to be able to print out a visual representation of the sound. Di Veroli's spreadsheets are fine, but not unexpectedly, in their analyses of temperaments for comparison they focus almost exclusively on 5ths, major 3rds, and minor 3rds.

Summary

Unequal Temperaments is obviously a stimulating book. I appreciate the enormous amount of unpaid and thankless work that Di Veroli has put into it, and his broad interest in these topics that many musicians will consider arcane. The book is certainly worth its price, and more. I hope that this review itself leads to serious scholarly and practical discussion of the musical and theoretical points raised; and to a third edition of *UT*!

⁹⁶ Including *basso continuo* parts....

⁹⁷ <<http://temper.braybaroque.ie/spread.htm>>

⁹⁸ I use a later version of my own spreadsheet that has been freely available on the Internet since 1997: see <<http://how.to/tune>>

MUSIC REVIEWS

Joseph Haydn
28 Divertimenti a tre
für Baryton (Viola da Gamba, Violine),
Viola und Violoncello
Hob XI: 97-126

CAROL A. GARTRELL

Joseph Haydn 28 Divertimenti a tre. Urtext edition, edited by Günter and Leonore von Zadow. (Edition Güntersberg: Heidelberg, 2009).

Score and four partbooks:

Score - G179 (150 pages - €44.00) ISMN M-50174-179-3

Baryton (Violine) treble clef - G180 (80 pages – €23.50) ISMN M-50174-180-9

Baryton (Viola da Gamba) alto clef - G181 (80 pages – €23.50) ISMN M-50174-181-6

Viola - G 182 (82 pages – €23.50) ISMN M-50174-182-3

Violoncello - G183 (74 pages – €23.50) ISMN M-50174-183-0

The Edition

It seems highly appropriate that this late set of 28 Divertimenti a tre for Baryton, Viola and Violoncello should be published as an Urtext playing edition in 2009, the bicentenary of Haydn's death, bringing to the playing public the culmination of his baryton oeuvre, and complementing the release of the first complete recording of all the baryton works of Haydn.

This edition makes available not only a playing edition of the Late Divertimenti, but also one that has been produced in a manner such that the baryton part can be played on a wider range of instruments e.g. violin or viola da gamba, thus making it available to a much wider audience. The concept of a transferable baryton repertoire is not unique, and is indeed authentic. It is evidenced in the St. Petersburg 'Swan'¹ and Kassel² baryton manuscripts, the Krause³ nine partitas for solo baryton, and in the baryton works of Haydn, where transcriptions of the baryton part were made for violin, viola da gamba

¹ The St. Petersburg 'Swan' Manuscript, Library of the Academy of Sciences, BAN, 0 No. 124.

² The Kassel Collection, D-K1 2° Ms. Mus. 61 L2.

³ J.G. Krause, IX Partien auf die Viola Paradon, D-DL 2132-v-1.

and even the flute. Indeed some of the baryton works have survived in such an alternate scoring only.

This Güntersberg edition is A4, portrait in format, with a soft back and spiral binding, making page turning easy and sits well on the music stand. The covers are attractively decorated with an anonymous engraving of Haydn on the front and an engraved image of the Esterházy Palace at Fertöd on the back, the venue for performances of many of these works.

The score is prefaced by an introduction in both German and English, whilst a shorter version, confined to editorial practice, is incorporated into the part-books. It gives only the briefest account of the commissioning of the divertimenti for baryton and the principle of the transferable repertoire, but gives precise detail of the ten sources upon which this edition has been based, including locations and shelf marks. It details the differences between the sources, referring in particular to the works where the extant manuscript is for a combination other than with baryton, and issues of editorial addition, where it has been necessary to add the numbers for the strings of the lower, plucked manual of the baryton. Finally it addresses details of editorial practice, noting that the part books have inconsistencies born from the variety of sources accessed, particularly with regard to details of articulation, which have been preserved. Minor issues of editorial practice, in keeping with those proposed in the editorial accompanying the Henle Edition⁴ of the Haydn baryton works, have been retained.

The introductory pages have been further enhanced by the addition of facsimile pages providing exemplars of a divertimento title page, and extracts from a partbook. These additions are not just decorative but give a real sense of the vibrancy of the music, which production in printed notation perhaps does not. Whilst standardized notational practice has been adopted e.g. for dynamics, accidentals, appoggiaturas, movement headings, lengths of final notes and omitted da capo repeats, the edition captures some of the momentum of Haydn's notational practices by retaining the vertical stroke to indicate staccato. There are other notational niceties. The provision of a score to accompany the parts enables the players to access an overview of the music and to make informed decisions as to the detail of ensemble realization of the performance in a way that parts alone do not. Cues are also incorporated to aid ensemble where movements start with an individual instrument e.g. Divertimento 101, movement three, Finale – *Fuga a 3 soggetti in Contrapuncto doppio*.

Where the application of the transferable repertoire principle leads to impossible passages for the violin or viola da gamba, with regard to the realisation of the plucked tones in solo polyphonic sections for the baryton, the plucked tones are given to the violoncello e.g. Divertimento 107, movement three, Trio. This is an effective solution, although I would suggest that these tones be plucked to achieve the contrast of texture conceived by Haydn when composing for the baryton.

⁴ S. Gerlach, 'Critical Edition' in J. Haydn, *Baryton Trios Nr. 49-72*, (München, 1958), 9ff.

The substitution of violin or viola da gamba for the baryton creates other issues of texture and timbre when in combination with the viola and violoncello. Whilst the baryton is of a similar register, sounding as it does, an octave lower than notated, its nasal bowed tone, enhanced by the coupled vibration and harmonic resonance of the lower manual strings and the occasional plucked tones, ensures that it emerges confidently from within the texture. Whilst the violin playing at notated pitch would soar above the viola and violoncello in true string trio manner, the more reserved and lower pitched tone of the viola da gamba could well be lost. Attention needs therefore to be given to issues of balance if this combination is to be utilised.

The Music

Although a detailed chronology of the Haydn baryton trios is far from being conclusively determined, these late divertimenti, numbers 97 to 126, were composed between 1772 and 1774. Divertimento 105, for example, bears the date 1772. Certainly all the trios had been finished by November 8 1778, when the final set of trios was bound, and Haydn's attention was refocused on opera at the behest of Prince Nikolaus Esterházy, who commissioned all Haydn's baryton music.

The immediate impression of these late works is of their sophistication and variety, of both form and style. It is almost as if the trios were Haydn's playground where he felt free to experiment, to investigate and to trial. Originality however is confined to the music and not to the baryton writing itself which is far from innovative, particularly in relation to the plucked manual.

One significant difference between these and earlier baryton trios is the choice of key. We see a broader range of keys which include D, G, F, C and A majors, still relatively limited, but with modulations, which are predominantly to the dominant and relative minor keys and more numerous than in earlier trios. This paucity of modulation is in part due to the limited opportunities offered by the tuning of the lower manual and the use made of it, which is largely confined to just six pitches A, D E, F, G, A, and possibly still to the relatively limited playing technique of Prince Nikolaus.

An examination of the baryton parts reveals some interesting and imaginative uses of the instrument, even if not demanding a virtuoso playing technique. Plucked notes are integrated into a bowed melody line, punctuating longer passages often on a weak beat, and the melody line is characterised by a greater attention to detail with sforzandos, trills and pianissimo. The baryton takes on the role variously of dominance, accompaniment to the viola, and equal partners with it.

The first work in this edition, Divertimento 97, is of particular interest as it is a substantial work with seven contrasting movements, and for me, the apotheosis of Haydn's works for baryton. Composed in celebration of the birthday of Prince Nikolaus in 1771, it is a work of great maturity and contrast, from the dark tones of the opening Adagio cantabile to the playful exuberance of the Polonaise, concluding in a confident and brilliant fugue. Even here, the

use of the lower manual is sparing but musically sensitive. Although not notably more demanding for the baryton in technical terms, this is a work of great sophistication. Certainly the bowed upper manual part demands a competent level of technique in both variety of style, figurative work, ornamentation and some accompanying passage work, but there is little that is typically idiomatic of the baryton.

A survey of the baryton parts of these final works reveals some sensitive writing for the baryton, but for an instrument where the lower manual is used sparingly, yet to great effect, and with the upper manual contributing its characteristic and contrasting plaintive, rather nasal tone, as an integral member of the classical trio timbre. Some imaginative textures are achieved from this marrying of tone colours. The baryton is complemented in Divertimento 107, movement one, by the viola *con sordino*, perhaps to emphasise the tonal quality of the bowed manual of the baryton and in preparation for the Trio of movement two, where the baryton plays alone. Notated on two staves, the lower manual is used relatively sparingly, often complementing rather than accompanying and delineating cadences. Its range is limited to an octave, and movement between adjacent ascending strings predominates. In Divertimento 111, the lower manual appears more frequently, and becomes an integral part of the baryton's persona. In the first movement the lower manual is integrated into the melody line, not as an accompaniment, but alternating with the bowed tones, again over a limited range of only D (2) to B (7), and generally in ascending stepwise motion and in quavers at only a moderate pace.

Where one might have expected to see the apotheosis of technique on the baryton in these the final trios by Haydn, one instead observes the baryton as a mere shadow of its former self, compounded in no small part by the limited technical skills of its major exponent, Prince Nikolaus, but also as it fought to compete on equal terms with the richer tones of the violin family.

This is a much welcomed publication, for it not only enhances the very limited printed repertoire currently available for the baryton, but also makes it readily available to exponents of the string trio. A great deal of care and attention to detail has been invested in the preparation of this playing edition of the 28 Divertimenti a tre, and the result is an authentic, Urtext and authoritative publication that will be most welcomed by both baryton and Haydn enthusiasts alike.

Select Bibliography

- T. Crawford, and F-P. Goy, *The St. Petersburg 'Swan' Manuscript* (Columbus: Editions Orphée, 1994).
- E. Fruchtman, 'The Baryton Trios of Tomasini, Burgksteiner and Neumann' (PhD thesis, North Carolina University, 1960).
- C.A. Gartrell, 'The Baryton: The Instrument and its Music' (PhD thesis, University of Surrey, 1983).
- C.A. Gartrell, *A History of the Baryton and its Music* (Lanham: Scarecrow Press, 2009).
- L. Greilsamer, 'Le Baryton du Prince Esterházy', *Revue Musicale Mensuelle* 1, no. 1.

- T.M. Pamplin, 'In Which Octave did Prince Nikolaus Pluck his Baryton? Or, How in Fifteen Years Nikolaus Esterházy set the Agenda for the Twentieth Century', *Musical Objects* 1. (London: Kings College, 1995): 32–40.
- H.C. Robbins Landon, *Haydn. Chronicle and Works. Haydn at Esterháza 1766-1790* (London: Thames and Hudson, 1978).
- H.C. Robbins Landon, *Haydn. Chronicle and Works. Haydn: the Early Years* (London: Thames and Hudson, 1978).
- W.O. Strunk, 'Haydn's Divertimenti for Baryton, Viola, and Bass', *Musical Quarterly* XVIII, 2 (1932), 218-332.
- H. Unverricht, *Geschichte des Streichtrios* (Tutzing: Schneider, 1969).

Manchester Revisited

RICHARD CARTER

The Manchester Gamba Book, reproduced from the manuscript in the Henry Watson Music Library, with a foreword by Paul Furness, Peacock Press, Hebden Bridge, 2003, xvii + 196pp.

The long awaited publication of a facsimile edition of the manuscript usually known as The Manchester Lyra Viol Book¹ by Peacock Press in April 2003 was a major cause for celebration for all with any interest in the lyra viol. It is the largest surviving manuscript collection (246 tablature pieces), and parades the largest number of different tunings in any one source (22), so for players its appearance represented an incalculable enlargement and enrichment of the easily accessible repertoire. The manuscript impresses in other ways, too. Handwritten lyra viol sources are typically more or less haphazard collections assembled and copied for private use, often with poorly annotated contributions from a succession of owners and/or scribes. The Manchester Book has, uniquely, the appearance of a ‘presentation’ manuscript², entirely the work of one scribe, whose neat, stylish, conscientious, and well-planned copying shines out from every page. Not only the pages, but also the tunings and the pieces are numbered, and what is more, each piece has a time signature, and most carry a title and attribution³, annotations which cannot by any means be taken for granted in this repertoire. As if that were not already enough, the manuscript boasts the most comprehensive range of ornament symbols used in any lyra viol source, complete with an explanatory table.

Andrew Kerr’s review of Peacock Press’s facsimile edition for the VdGS Newsletter⁴ naturally concentrated on these riches, although he did express reservations about the yellow paper,⁵ and wryly observed that the name of the author of the introduction is spelt in two different ways, in true seventeenth-century style. This is in fact but one of many infelicities of spelling and layout in the introductory pages, which I shall return to later, but at the time of publication there seemed to be no good reason not to skip the introduction, take up a viol and start playing—after all, not only is the beautifully clear hand of the Manchester Book copyist easier to read than the moveable-type printed editions of the seventeenth century, there is a reassuring note from the publisher on p.iv of the introduction:

The original manuscript is, at times [sic], heavily ink stained. In the interest of scholarship, these pages have been left as the original

¹ Manchester Public Library, Henry Watson Collection, BRm 832 Vu 51.

² The title page has not survived, and nothing is known of the circumstances of the copying, nor of the identity of the copyist.

³ Only 53 pieces have no clear attribution, eight of these are identifiable from concordances.

⁴ Viola da Gamba Society Newsletter 121, April 2003, 18.

⁵ This has since been changed to cream.

for fear that the cleaning process could remove important musical information.

Some symbols and numbers in the left hand margins have been added where the originals were faint.

It was not until September 2007 that I became aware that all is not what it seems: my attention was initially drawn to the end of piece no. 6 in tuning VI, an Alman ascribed to Richard Sumarte⁶ (see figure), where the final double barline and characteristic flourish occupy a short length of stave which is wider than the rest of the system—something which is conceivable with moveable-type printing, but decidedly improbable with staves hand ruled using a rastrum. Fortunately a photocopy of the microfilm belonging to the Viola da Gamba Society of America was to hand, and on checking page 77 I saw that in the manuscript the final bar and barline are almost completely obscured beneath a large ink stain. In the facsimile edition this had been ‘corrected’ by a rather crude cut and paste method, and I then also realised that the editorially reconstructed final ‘chord’, a lone open third string, is a most unlikely ending: at the very least there would have been a stopped unison on the next string below, in all probability the lower octave too.

With suspicions fully aroused, I embarked on a comparison of the facsimile with the microfilm photocopy. Bearing the publisher’s note in mind I first concentrated on those places which are heavily ink stained and found that around 45 of these have been partially or wholly cleaned up; more than a dozen have faulty or dubious reconstructions of the musical text, or fail to reconstruct it at all (in some cases it was possible to consult concordant sources to establish or confirm a reading). Realising that it was now impossible to trust the facsimile—every letter or rhythm symbol which seemed to be badly or wrongly placed, or slightly malformed, or badly reproduced, became suspect—I extended the survey by looking, and then playing through each piece with both the facsimile and microfilm versions in front of me. The resulting commentary is appended to this review, I hope it will prove a useful resource for those who have bought the Peacock edition. It includes entries not only for those places which have been subject to editorial intervention, but also for those which, in the light of the extent of this intervention, might also *seem* to have been edited. Some of these are simply a matter of poor reproduction, some are errors in the original copying—the scribe was meticulous, but not infallible!

The second paragraph of the publisher’s note reproduced above also merits closer scrutiny: in fact, the vertically ruled margins and the marginal information—page numbers, tuning numbers and names, time signatures, and piece numbers—are, with a very few exceptions (also listed below), perfectly well reproduced on the microfilm, and it is not clear why they should have needed to be reconstructed in such a wholesale manner for the facsimile. Piece numbers and tuning names have been inserted in a modern font, which at least signals their status. The time signatures have been reconstructed by pasting in a representative example, in roughly the correct place, and the page numbers

⁶ This piece is in fact listed in *The VdGS Thematic Index* under Thomas Gregorie 52b, see J. Cunningham ‘Lyra Viol Ecclesiastica’, in this Journal, 1-54, here 26.

The image displays two systems of handwritten musical notation for a tuning exercise. Each system consists of two staves. The top staff of each system begins with a treble clef and contains a sequence of notes with stems pointing downwards, indicating a specific pitch contour. The bottom staff of each system contains a sequence of notes with stems pointing upwards. The notation includes various rhythmic values and accidentals. The bottom system includes the text "Alman." and "M. Sumarte." written below the staff.

Fig. 1: GB-Mp BRm 832 Vu 51, p. 77, tuning VII no. 6
 above: from the VdGSA microfilm; below: from the facsimile edition
 By permission of The Henry Watson Music Library, Manchester Library and Information Service.

seem to have either been written in by hand or simply left out. The facsimile has modern pagination at bottom centre, which matches the original until the first lengthy blank space between tunings in the manuscript (after tuning XVI, page 171), it then becomes increasingly out of step at each subsequent change of tuning.

To return to the introduction: it is of course not necessary to be a musicologist to produce a facsimile edition, the straightforward presentation of good quality images of the original document is sufficient, and indeed this is the approach adopted by Peacock Press for their latest lyra viol facsimile edition, *Lessons for 1. 2. and 3. Viols* by Alfonso Ferrabosco (London, 1609), published in 2006. The Manchester Book is however provided with a brief introductory text by Dr Paul Furness, followed by ornament tables, a list of contents, and indexes by composer and title. Dr Furness's text is a curiously truncated affair—after a general preamble there is a discussion of some aspects of some of the tunings, and of the ornaments; but what then seems to be about to develop into an overview of the musical forms and style breaks off abruptly, having not mentioned anything beyond the third tuning, and the reader is referred to the author's doctoral dissertation⁷ for further information. Not only was this dissertation already 25 years in the past at the time of the facsimile's publication, I think it is unreasonable to present part of the story, and then expect interested readers either to obtain a microfilm from the USA or to travel to Manchester to examine the original dissertation on paper, in order to learn more.

I take issue with two things in the introductory text. First, Dr Furness writes that the 'excellent examples' of divisions in the Manchester Book represent an Italian style of 'decorative, melodic embellishments', to be contrasted with 'the French style, with its concise, generally harmonic, and often expressively dissonant ornamental formulas.' We must be careful here to distinguish between (1) divisions on a ground, which the Manchester Book does not contain; (2) variations, which are present;⁸ and (3) dance-based pieces with divided repeats, in which the material of the plain strain is presented entirely, or almost entirely, in quaver or semiquaver movement, of which there are indeed many excellent examples—but this is also French practice ('Le Double'), and is as much a harmonic as a melodic elaboration. Nowhere do we find the Italian 'bastarda' style harking back to Ganassi or Ortiz.

Second, Dr Furness's statement, in connection with the highly ornamented Paven by Gervise Gerrarde (tuning III, no. 15), that '... a Lyra Viol piece ... may overflow the bounds of its original metrical structure as it is played repeatedly with gradually increasing embellishments.' I don't dispute that the sectional dance-based pieces could be first played plain, with the ornaments saved for the repeat, or that each strain could be played more than twice,⁹ with

⁷ *The Manchester Gamba Book: A Primary Source of Ornaments for the Lyra Viol*, Stanford University, 1978.

⁸ For example 'Jemmye' (tuning IV, no. 7); of the eight surviving sets of variations for lyra viol on the popular Scots tune 'Put up thy dagger, Jamie' the magnificent set of 20 copied here are perhaps the most satisfactory.

⁹ This is made explicit on p. 106 of the Manchester Book, where a four bar 'coda' to a saraband is preceded by the following remark: 'Playe this to conclude the Saraband, when you

the spontaneous addition of further ornaments, indeed, I believe that this is exactly what we should be doing, but the musical pulse must remain intact—and a suitable *tactus* chosen to enable this to happen.

The table of ‘Graces on the Violl’, page 1 of the manuscript, has suffered the ravages of time rather more than the rest, so the inclusion of a modern handwritten ‘forgery’ is helpful. Page 2 of the manuscript is an index of the 22 tunings which is no problem to read; the ‘forgery’ of this, which occupies two pages, usefully adds the numbers and names of the tunings (including those which are not named in the manuscript), but omits the page numbers. Some of the graphics from which it is assembled are printed at quite rakish angles across the page. The table of graces is backed up by a second, slightly different tabulation of the same information, with the addition of two further combinations of symbols not in the original—named ‘shaked backfall and relish’ and ‘backfall and relish shaked’—these are marked with an asterisk, but no further information or explanation is offered.

Pages x to xiv of the introduction contain a complete table of contents, a welcome, indeed essential aid to navigating around such a lengthy manuscript; it fulfils this function well, despite (necessarily) spreading over five pages, and I like the idea of reproducing the original orthography of titles and composers’ names. But as I indicated earlier, there are problems here too: although the general layout is clear, the detail is very amateurish, columns of titles and page numbers are not justified, and proofreading has not been thorough, which means that these pages cannot be used as a reference tabulation of the copyist’s annotations (see commentary below). In all, it gives the impression of having been very hastily put together. It is also a pity not to have included the *VdGS Thematic Index* numbers, and thus also the attributions of the unascribed but identifiable pieces. The indexes by composer and title give the tuning and piece numbers, but not the page number, which renders them less useful than they might have been; it does seem pedantic to list some of the variant spellings separately (as many as six for *almain*, for example)—this practice has sensibly not been extended to the composer Joseph Sherlie, whose name is rendered in four different ways by the copyist.

Researching this commentary and list of corrections is a task I would much rather not have felt the need to carry out. But on the positive side, I have had the pleasure of playing through the whole of this remarkable manuscript in a focussed and critical manner. On the whole, one would expect closer acquaintance to steadily lead to better understanding; unexpectedly, in this case, it simply highlighted a series of paradoxes and questions which the beautiful presentation of the manuscript initially serves to conceal. For example, the Manchester Book is well known for its ornaments, and yet they are inconsistently applied; many of those in the table of graces are indicated in relatively few pieces (the ‘shake wth the bowe’ in just one), and a large number of pieces have very sparsely notated ornamentation, or none at all.

A closer look also reveals that the organisational principles of the copying did not extend beyond basic sorting by tuning. An example: there are eleven pieces

haue playde it as often as you will./ J. Jenkins?. The saraband in question (Tuning X, no. 9) has no notated ornaments, apart from a few slurs.

in tuning X (The ‘French Sette’), four by Richard Sumarte and seven by John Jenkins, the Jenkins pieces may be divided by key into two groups—but there is no hint of any such ordering in the mixed-up sequence of the manuscript. Elsewhere there are indeed sequences which look to modern eyes like a suite, for example in tuning XIV, nos 5-7 (Almaine-[Coranto]-Saraband) by Peter Warner, or in tuning XXI, nos 4-6 (also Almaine-Coranto-Saraband) by Henrie Read, but there is no evidence that this was an important consideration; tuning XIV, no. 13 is an isolated coranto by Warner, a few pages after the ‘suite’. The copyist entered a short Saraband on page 135, ascribing it to Simon Ives (tuning XII, no. 15), apparently blissfully unaware that he had already copied it on page 131, where it is credited it to Thomas Bates!

Nor indeed does selection by musical quality seem to have played much of a role: alongside gems such as the Allman and Coranto, VdGS 234 & 248, by John Jenkins, (tuning XI, ‘Harpe sette flat’, nos 6 & 7)—the Allman is one of Jenkins’s loveliest and most beautifully poised essays in the genre (it seems to have been correspondingly popular), the Coranto reworks material from the Allman in the most subtle and refined way¹⁰—there are pieces which are barely coherent, the two by a certain William Kinglake come to mind as especially incompetent. In fact, one of the overriding memories of my concentrated play-through is the marvellous feeling, after a few pages of pleasantly indifferent music, of coming again to one of the greats—Jenkins, or Lawes, of course, but also Charles Colman, William Young and John Esto, and from the earlier generation, Joseph Sherlie and Alfonso Ferrabosco the younger. It is hard to escape the feeling that whatever music came to hand in each tuning found its way into the manuscript.

Another issue which the play-through raised is that of how well the music matches the tuning, and here again the Manchester Book offers a good sample across the board. There is another piece which was copied twice: an almaine, which is on page 26 (tuning I ‘Violl waye’, no. 18), ascribed to ‘M^r Younge’ and on page 110 (tuning XI ‘Harpe way flat’, no. 3) with no ascription. The piece is in D minor, the version in Harp way flat is transcribed but not transposed, and thus sits very oddly in a sequence of G minor pieces in a G minor tuning.

One of the more eccentric tunings, at least on paper, is the last (‘The 22th [sic] tuning’), *ffcdh*, sounding *d'-a-e-d-b-E*. There are just four pieces, by Young and Lawes; perhaps not surprisingly then, all are well suited to the tuning, and feel perfectly natural, no awkwardness arises from having two strings tuned only a whole tone apart. In contrast, there are two other tunings in which most of the pieces copied here are unsatisfactory: tuning V, *efhfb*, usually treated as sounding *c#'-a-e-A-E-A'*, and tuning XXI (‘The 21th’), *efffe*,¹¹ sounding *d'-bb-f-c-G-Eb* or *c#'-a-e-B-F#-D*. The first of these is a modified form of tuning IV, Alfonso way *ffhfb*, sounding *d'-a-e-A-E-A'*; only two of the seven anonymous pieces exploit the third between the top two strings, the remainder are better suited to playing in the parent tuning (see commentary below). A similar situation occurs with *efffe*; again, all but two of the pieces would be more effective and resonant

¹⁰ The Allman has survived in nine sources (including one for solo violin, but counting Playford only once); this Coranto is unique to the Manchester Book, two other sources have a different Coranto (VdGS 235/6), also paired with and based on VdGS 234.

¹¹ Known elsewhere as ‘Drew’s tuning’, it is not named in the Manchester Book.

in tuning X, *efdef*, sounding *d'-bb-f-d-Bb-F* or *c#'-a-e-c#-A-E*, as the music is then in the key of the open 5th string (as notated, the open 6th string is never needed). Even the two remaining pieces, which do require the open 6th string, fail to exploit the *efffe* tuning particularly effectively; *efdeb*, sounding *d'-bb-f-d-Bb-Eb* or *c#'-a-e-c#-A-D*, suggests itself here as a more resonant alternative.

Even more mysterious is tuning IX, 'Horne=pipe', which appears in no other source. The tuning code is *fff*, i.e. the 4th string is tuned down from *c* to *b*, only the upper four strings are required. The one brief piece notated in this tuning, 'The horne=pipe, or Beggars=bush', is in F, the 4th string is called for just once, stopped at the third fret: what advantage there might be in having this string tuned to *b* rather than *c* will perhaps be revealed if further 'Horne=pipe' repertoire is ever discovered. This tuning is the third of a series of 'bagpipe' tunings of which the Manchester Book is an important source: tuning VII, 'Lanca=shire pipes', *fbn* sounding *d'-a-d-D* (5th and 6th strings not used), also survives elsewhere, mainly in Peter Leycester's *A Booke of Lessons for the Lyro=Viole*¹² and in Playford;¹³ tuning VIII, 'Bag=pipes', sounding *d'-g-[-]-d-G* (3rd and 6th strings not used) is, like *fff*, unique to the Manchester Book. These pieces are rare transcriptions of an otherwise unwritten tradition of bagpipe playing in North West England, with a repertoire largely consisting of hornpipes; their survival has proved to be of importance to the twentieth-century revival of traditional English piping.¹⁴

I have concentrated here on some of the curious and anomalous aspects of the manuscript as they struck me whilst preparing this review and commentary, to indicate something of the sheer variety it contains. There is far more that could have been said, but I will end with Andrew Kerr's apt summary: 'If you only want to buy one volume of music for the Lyra Viol, with a representative sample of repertoire and tunings, then I would recommend this book.'

With due reservations, I would still echo this recommendation. The viol player, the lyra viol enthusiast in me, is glad that this edition exists, with all its faults, making this splendid source available to all at a very fair price. It is not the first facsimile edition to have been doctored without adequate commentary, and it will probably not be the last.¹⁵ But the conscientious reviewer has no alternative but to call for its temporary withdrawal and re-editing.¹⁶

¹² GB-CHEr DLT/B31

¹³ *Musicks Recreation: on the Lyra Viol*, London, 1652, and *Musick's Recreation on the Viol, Lyraway*, London, 1661.

¹⁴ See R. Carter, 'Postscript', *The Viol*, 3 (2006), 9.

¹⁵ For example: the long out of print facsimile of Ferrabosco's *Lessons, 1609* (Theatrum Orbis Terrarum: Amsterdam, 1973), corrected a handful of instances of incorrect rhythm symbols in the course of the general cleaning up; in the sections with duets and trios the inverted pages were printed 'the right way up', so that the original table layout was lost, all without comment. This may be checked against the new Peacock Press facsimile mentioned above—although there the layout in the trios is also incorrect.

¹⁶ In January 2009 I contacted the publishers and sent a provisional copy of the commentary which follows this review. I received a brief acknowledgement, but no further response.

Commentary¹⁷

1: List of Contents (Introduction pp. x-xiv)

Despite the apparent intention in the contents listing to faithfully transcribe the copyist's orthography, there are many errors and omissions. I shall not attempt to list all the minor misspellings here, as they can easily be checked from the facsimile.

General points:

Throughout the contents listing 'M^f.' has only been included where there is no Christian name given; the copyist, however, makes frequent use of the title, and its presence or absence for a given composer—which is here fairly consistent—is not without meaning.

Whereas the copyist uses the typical form (e.g.) 'R: S:' for initials, the contents list consistently gives 'R. S.'

The use of a macron to indicate abbreviation (e.g. 'Preludiū') has not been reproduced, nor have the words been spelled out; this misrepresents the copyist's intentions. Since no standard font includes the letter 'm' with a macron, then a solution such as Will[ia]m, or Preludiu[m] is perhaps best.

Selected specific corrections:

- | | |
|-------------|---|
| VI/2 | Gervise Gerrarde (omitted) |
| VI/8 | M ^f . Crosbey, <i>not</i> M ^f . Oxosbey ¹⁸ |
| XIII/11 | M ^f . John Withie, <i>not</i> John Jenkins |
| XIV/13 | M ^f . Peter Warner, <i>not</i> Willm Younge |
| XVIII/2 & 3 | M ^f . Will[ia]m Younge, <i>not</i> John Jenkins |

2: Marginal information

As noted above, the marginal information in the manuscript is clearly reproduced on the microfilm, with a few exceptions, listed here:

- | | |
|---------------|---|
| pp. 1 & 2 | This leaf is torn at the top—no attempt has been made to reconstruct the damaged text in the facsimile, but 'forgeries' are provided in the introduction. |
| p. 11 | 'V' of <i>Violl</i> also missing on microfilm. |
| p. 47 | The long 's' in <i>Alfonfo</i> has been transcribed as an 'f'. |
| p. 107 | Ink stain over piece number. |
| p. 205 to end | Page numbers not clear on microfilm, the page corners are darkened, some are damaged. |

¹⁷ I wish to thank Johanna Valencia for testing and proofreading the entire commentary, also Pete Stewart of the *Lowland and Borders Piper's Society*, and John H. Robinson, who kindly checked some details.

¹⁸ The name of this otherwise unknown composer is at first sight not easy to decipher, especially the ornamental capital, but this is the form adopted by the *VdGS Thematic Index*.

3: Musical text

The entries in this part of the commentary fall into four categories:

1. Editorial intervention which either a) incorrectly, or b) correctly, restores material lost due to ink staining.
2. Material restored, faint, or missing as a result of poor reproduction.
3. Corrections or mistakes made by the copyist.
4. Further miscellaneous comments.

Sources consulted to establish or confirm doubtful readings:

| | |
|----------------------------|---|
| William Ballet | IRL-Dtc MS 408/1 <i>The 'Ballet Lute Book'</i> |
| Ferrabosco Lessons | Alfonso Ferrabosco <i>Lessons for 1. 2. and 3. viols</i> , London, 1609 |
| John Browne | GB-Lam MS600 <i>The John Browne bandora and lyra viol book</i> |
| Peter Leycester | GB-CHER DLT/B 31 <i>A Booke of Lessons for the Lyro=Viole</i> |
| Goëss (A) & (B) | A-ETgoëss MS (A) & MS (B) <i>The Ebenthal Tablatures</i> |
| Lbl 249 | GB-Lbl Ms. Mus. 249 |
| Playford MRLV 1652 | <i>Musicks Recreation: on the Lyra viol</i> , London, 1652 |
| Playford MRLV 1661 | <i>Musick's Recreation on the Viol, Lyra-way</i> , London, 1661 |
| Playford MRLV 1682 | <i>Musick's Recreation on the Viol, Lyra-way</i> , London, 1682 |

str.: strain

Upbeats are not counted separately, bars split across systems are counted only once.

ev.: event (note or rest) counted from the beginning of the bar. Tied rhythm symbols count as two events.

rs: rhythm symbol

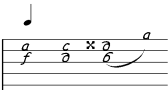
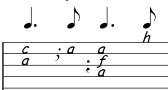
a, b etc.: sounding pitches in the Helmholtz system

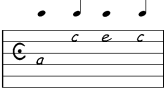
3b means 3rd string, 1st fret

| Page | Tuning/No. | Title & Attribution |
|-------|------------|--|
| p.3 | [Staff]/2 | <i>By Hugh Facie</i> Four places where details are missing, one towards the end of each system, and one in the middle of the third, appear with the same white-out on the film. |
| p.4 | [Staff]/3 | <i>By Hugh Facie</i> At the end of the first system: beaming is clear on the film, three semiquavers. |
| p.4-5 | [Staff]/4 | <i>Wooddicocke</i> Var. 5, 2 nd str., in the middle: two quavers (<i>a, g</i>) are clearly beamed together in the film. |
| p.6 | [Staff]/6 | <i>By Mr Rich Sumarte</i> At the end of the first system, three 'quavers' (<i>f, e, d</i>) (actually black crotchets) are clearly beamed together on the film. After the 'quavers' at the start of the third system: black semibreve <i>A</i> , black minim <i>G</i> . |
| p.8 | [Staff]/10 | <i>Prelud: Mr R: Sumarte</i> At the end of the first system, penultimate note, quaver <i>F</i> , is perfectly clear on the film. |
| p.11 | I/1 | <i>Queene Mariés Dumpe. R. S.</i> 3 rd var., antepenultimate bar, ev. 1: 3c . This, and the closing chords, 2c, 3d, 4c, 5a , are clear on the film. |

- p.12 I/2 *What if a daye*
Two places are faint also on the film:
3rd str., b. 4: **2d,3b**.
3rd str., b. 6: ev. 5 is **2b**, ev. 6 (missing) **2a**
cf. similar bars elsewhere in the piece.
- p.13 I/3 *Fortune. R.S.*
3rd var., 2nd str., b. 2, ev. 7 & 8 (**1b & 2d**): these are not a chord, but this poor spacing is a copyist's mistake.
- p.14
I/4 The right hand margin is missing in the facsimile, and music is lost from each line, some has not been reinstated.
Roben is to the greens:woode gon. R.S.
End of 1st line: add **2d** (missing in facsimile).
End of 2nd line: add **1c** (the edge just shows).
- I/5 *W'hoope doe mee no harme. R. S.*
Here the missing music has been correctly reconstructed.
End of first line: the last event is a chord **2a,3c**, the vertical alignment of the reconstruction is poor.
- p.15 I/6 *Daphne. R. S.*
1st var., 3rd str., b. 3, ev. 4: **2a & 3a** are patched in.
1st var., 3rd str., b. 6, ev. 1: this should be **5c**, cf. end of the 1st str. (copyist's mistake).
2nd var., 2nd str., b. 4, ev. 1: **5c** is reconstructed, somewhat further to the right than the original.
2nd var., 2nd str., b. 6: rrs dotted crotchet and quaver show clearly on the film, despite the ink stain.
- p.17 I/8 *Salte pitts. R. S.*
1st str., b. 8, ev. 1: this should presumably be **4c**, cf. the equivalent place in the 2nd var. The film is no clearer here.
- p.18-19 I/9 *Lachryme. R. S.*
1st str., b. 14, ev. 2 & 4: both **1a**
2nd str., b. 3, ev. 8: **2b**.
2nd str., b. 4, ev. 2: rs crotchet.
3rd str., b. 5, ev. 1: **1a,2a,3c,4c**.
(All of these are faint but legible on the film).
- p.20-21 I/11 *Solus cum Sola. R. S.*
The breve rrs at the end of each str. appear so on the film.
2nd str., penultimate bar, ev. 6: **2c**, it appears that no attempt has been made to clean up here.
- p.21 I/12 *The Nightingale. R: S:*
1st str., b. 5, ev. 3. this should of course be **1a,2a,3c,4c** (copyist's mistake).
1st str., upbeat to final bar: rs crotchet, the stem is faint but visible on the film.
- p.23 I/14 *Preludium. R: S:*
b. 5, ev. 10 & 11: **d & c** are perfectly clear on the film.
b. 6, ev. 15 & 16: **1f** (ev. 16 is very faint on the film).
- p.24 I/15 *Preludium. R: S:*
b. 6, ev. 3: **2a** is perfectly clear on the film.
b. 6, ev. 6: also missing on the film, **1a** is most likely.

- p.25 I/17 *Mr Elliot Oxon:*
1st str., b. 1, ev. 2: film illegible (ink stain), the patched in **a** is editorial.
- p.26 I/19 *Stephen Goodall*
2nd str., penultimate bar, ev. 3: **6a**, also not well reproduced on the film.
- p.27 I/20 *Stephen Goodall*
1st str., b. 5, ev. 3: the partially cleaned up ink stain does not affect the music.
1st str., b.15, ev. 2: also not good on the film, but the (expected) chord **2a,3a,4c,5c** can be confirmed.
- p.28 I/22 *Stephen Goodall*
1st str., b. 1, ev. 1: rs crotchet, the stem shows perfectly clearly on the film.
The vertical area of thickened line weight on this page in the facsimile (at the end of b. 1 etc.) is not present on the film.
- p.31 I/26 *Mr Willm Younge.*
2nd str., b. 3, ev. 5: this shows no better on the film, it must however be **1c**.
- I/27 *Saraband. Mr Thomas Woodson*
2nd str., b. 6, ev. 4: **5a** (missing in the facsimile).
- p.33 II/1 *Malte Man By Mr R: Sumarte*
At the start of var. 4: the patched in letters **a b d** are correct, but the quaver rs is misplaced one note to the right.
- p.34 II/2 *A Coranto. G: Gerrarde.*
Last ev. on line 1: rs is a dotted black semibreve (i.e. the same as the note following).
- p.37 III/1 *Preludium. Mr Anthonye*
b. 8, last ev.: **5f**
- III/2 *Bowe Bells*
3rd str., b. 1, last ev.: crotchet **2d**.
- p.38 III/4 *Gerv: Gerrarde*
1st str., b. 4, ev. 1: this is reproduced correctly, but should have been **1d,2d,3a** (copyist's mistake).
- p.39 III/6 *Gervise Gerrarde*
In general in this piece, everything which looks like a 'shake' is correctly reproduced—1st str., b. 4; 2nd str., bb. 1, 2, 4, 7, & 14.
2nd str., b. 11: there is a 'double backfall' before event 1, as in bb. 12 & 13, it is also badly reproduced on the film.
- p.40 III/7 *An Almaine. Mr Joseph Sherlie*
2nd str., b. 4, ev. 3: **2a**
2nd str., b. 10, ev. 4: **5f**
2nd str., b. 11, ev. 1: **3c,4a**.
- these all show a little better on film.

- III/8 *Coranto Alfonso Ferrabosco*
1st str., b. 3: the repaired rrs are misplaced one and a half notes to the left—they belong to ev. 1, 2 & 3 in b. 3.
- p.41 III/9 *Joseph Sherlie*
1st str., b. 1, ev. 3: the ink stain does not affect the music.
- p.42 III/10 *Coranto Alfonso Ferrabosco*
1st str., b. 9, ev. 2: **3e** (white-out not present on the film)
1st str., b. 11, ev. 6: **1c** is reconstructed.
2nd str., b. 4: white-out present on the film.
cf. **Ferrabosco Lessons** p.2
- p.42-43 III/11 *A Paven. Mr Joseph Sherlie.*
1st str., b. 10, ev. 10: **3c**.
2nd str., b. 10, ev. 2: **2d**.
- these both show a little better on the film
2nd str., b. 12, ev. 8: this is correctly reproduced, but should presumably be **6e** (copyist's mistake).
- p.43 III/13 *A Saraband Willm Kinglake.*
2nd str., b. 2, ev. 4: presumably **4a**, the film is no clearer, and there is no concordant source.
- p.44 III/14 *Coranto Mr G Willis*
A large ink stain across bb. 6-7 of the 2nd str. has been cleaned up without reconstructing the two notes at the end of b. 6. They should both be on the 5th string, **f** & **e** are feasible.
2nd str., final bar: this chord is missing its root **5a** (copyist's mistake).
- p.44-45 III/15 *Paven Mr Gervise Gerrarde*
1st str., b. 19, ev. 9 (last on p.44): **2b**, this was copied over the vertical margin, and has been lost in the general fading out at this corner of the facsimile page.
1st str., b. 19, ev. 14 (top of p.45): rs quaver, this is equally faint on the film. The fermata over the final chord is however, complete on the film (Note: this bar is 12 crotchets long).
- p.47 IV/1 *untitled*
1st str., b. 4, ev. 3: the ink stain has not been cleaned up, and it is not clear whether there is a letter hidden or even crossed out. The version in **John Browne**, however, has the following:

1st str., b. 9, ev. 3: **2d** (no white-out on film).
- p.48 IV/3 *Alman*
1st str., b. 1: nothing has been altered here, despite appearances.
1st str., b. 3: the reconstruction is garbled, it should read:


- p.49 IV/5 *The Princes Coranto*
2nd str., b. 4, ev. 6: **1e** (the film is a little clearer than the facsimile).
- IV/6 *untitled*
2nd str., b. 1: ev. 2 & 3 have been correctly patched in.
- p.50-54 IV/7 *Jemmye*
Var. 1, b. 6, ev. 3: **3e,4c,5a** (the film is somewhat clearer than the facsimile)
Upbeat to Var. 3: white-out present on the film.
Var. 5, b. 7: in cleaning up the ink stain extra notes have been patched in, ms reads:

- Var. 7, b. 4: the ink stain at event 4 has been half cleaned up without reconstructing the letter. It should be **f**. In the last bar nothing is hidden by the ink stain.
Var. 11, b. 6: the final **c** is correctly patched in.
Var. 16, b. 7: white-out also present on film.
- p.55 IV/9 *Coranto*
1st str., bb. 8-9: the half cleaned up ink stain does not obscure the music.
- p.56 IV/10 *Alman*
The right hand side of this page is in general rather poorly reproduced in the facsimile, a few items have disappeared completely; most are, however, clear on the film:
1st str., b. 3, last ev.: **1a** (also poor on film)
1st str., b. 4: rrs crotchet, dotted quaver, semiquaver, crotchet, etc.
1st str., b. 6, ev. 1: **4c** (a little clearer on film).
1st str., b. 6, ev. 4: rs semiquaver.
2nd str., b. 3, ev. 2: **4a**.
2nd str., b. 7, ev. 4: **1a** (between **1c** and **2d**).
- p.56-57 IV/11 *Alman*
The rrs along the top of p. 57 are fully visible on the film. They are: crotchet, minim, crotchet, quaver, semiquaver, quaver.
2nd str., b. 4, ev. 2: should read **2h**—the ink stain has been partially cleaned.
- p.57 IV/12 *Coranto*
1st str., b. 5, ev. 2: rs is patched in (ink stain).
- p.59 IV/14 *Coranto*
1st str., b. 6, ev. 1: the **1e,2c** reconstruction is convincing, although the **c** is not absolutely clear on the film.
Final bar: ms reads **2a,3f,4a** with a 'beate' on the **f** (there is no white-out on the film).
- p.60 IV/15 *Coranto*
1st str., b. 1, ev. 2: what appears to be a black semibreve rs is show-through.
1st str., b. 9: extra dots above stave are show-through.

- 1st str., b. 10: dot above stave appears to be a hole (?) in ms.
2nd str., final 2 bars: white-out also present on the film; final bar, ev. 2 must of course be **6a**.
- IV/16 *Alman*
2nd str., bb. 1-2: cleaning up the ink stain has led to a clumsy repair of the barline.
- p.61 IV/18 *Coranto*
1st str., b. 5: no attempt has been made to clean up this ink stain.
- p.62 IV/19 *untitled*
2nd str., b. 2, ev. 1: **3f** shows a little clearer on the film.
- p.62-63 IV/20 *Coranto*
1st str., b. 14, ev. 1: the letter is completely undecipherable under the ink stain; **f** is convincing, but not the only possibility.
- p.64 IV/22 *Galliard. Mr Joseph Sherbye*
3rd str., b. 8: this bar has not been cleaned up.
3rd str., b. 19: the worst of the ink stain has been removed around the rss.
- p.65 IV/23 *Coranto*
1st str., b. 2: the dot between the first two rss is show-through.
2nd str., b. 6, ev. 3: **1e** is clear on the film.
[Note: in this bar, and two bars later, the rss are correctly reproduced]
- p.66-67 IV/26 *Mr Jos: Sheirbye* (the name has been cropped in the facsimile)
1st str., b. 7, ev. 4: this is a copyist's mistake, **3c,4d** should be **2c,3d** (see **William Ballet** p.62)
3rd str., b. 6 has been very clumsily reconstructed. The version in **William Ballet** has the following:
- | | | | |
|---|---|---|---|
| e | a | c | e |
| a | | | |
| a | | a | c |
- p.67 IV/27 *Willm Kingelake*
1st str., b. 4, ev. 3: **1g,2h**; the ink stain has been cleaned up round the letters, leading to the loss of the lower tail of the **h**.
- p.68 IV/28 *untitled*
1st str., b. 12, ev. 3: **2a** is clear on film.
- p.69 IV/29 *Almaine*
1st str., b. 1, ev. 4: **2c** is correctly reproduced, but should presumably be **2a** (copyist's mistake).
1st str., b. 7, ev. 5 & 6: **4c,5a** & **4a**, there is no white-out on film.
- p.71 V/2 *A thumpe*
1st str., b. 6, ev. 2 & b. 8, ev. 1: **2c** in both cases, the film is no clearer than the facsimile here.

2nd str., b. 7: the ink stain here has not been cleaned up, and it is not possible to make out anything under it with any certainty, but **2f** is required, by analogy with bb. 5 & 9. There is no concordant source.

p.72 V/4

untitled

2nd str., b. 8, ev. 1: this should read **1d,2c,3a** (copyist's mistake).

p.73 V/5

untitled

2nd str., b. 1, ev. 4: **5a**, the ink stain has been rather half heartedly cleaned up, the letter is not appreciably clearer than on the film.

V/6

untitled

1st str., final bar: should read **3a,4c,5a** (copyist's mistake).

p.74 V/7

untitled

2nd str., b. 1, ev. 2 & 3: **3d & 3b**, no white-out on film.

3rd str., b. 1: the ink stain did not affect the music, nothing has been reconstructed.

[Note: pieces V/2, V/4, V/5, V/6 & V/7 all show clear signs of having been transcribed from original versions in Alfonso way proper (tuning IV, *ffhfb*)—for example the persistent use of **2e**, which is unavoidable in *ffhfb*, but in *efhfb* could often be usefully replaced by **1a**. All are more satisfactory to play in that tuning. I believe that the faulty chord in V/4 originates in a transcribing error—the chord would in *ffhfb* have been **1c,2c,3a**, and it is easy enough to imagine, in a lapse of concentration, changing both *c*'s to *d*'s instead of just the upper one.]

p.76 VI/3

Galliarde Mr Sherlie

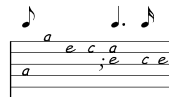
1st str., bar 3, ev. 7: **1a**, this shows even less well on the film.

p.77 VI/6

Alman Mr Sumarte

1st str., b. 2: the dot between ev. 3 & 4 barely shows on the film and would therefore appear to be spurious.

1st str., b. 4 should read:



The film is quite clear under the ink stain but the cleaned up version is garbled, it does not add up to a full bar.

The original final chord and barline are hidden under a large ink stain, but the single open 3rd string seems unlikely. The concordant sources have **5a** only, but here **3a** is clearly visible at the edge of the stain. Suggest **3a,4f,5a**.

cf. **Peter Leycester** f.23, **John Browne** f.41.

p.78 VI/7

Allman. Mr Thomas Gregorie

2nd str., b. 6, ev. 2 & 3: rrs semiquaver, crotchet; they are complete on the film.

p.79 VI/9

Allman. Mr Joseph Sherhye




2nd str., b. 9, ev. 3: rs should be dotted crotchet (copyist's mistake).

p.80 VI/10

A maske

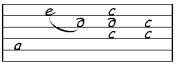
2nd str., b. 4, ev. 1: **3d**, also very faint on film.


- p.82 VI/13 *Allman. Mr Thomas Gregorie*
2nd str., b. 4, ev. 5: **2e,3c,4a**, the **a** is complete on the film.
- p.82-83 VI/14 *Paven. Mr Joseph Sheirlye*
2nd str.: b. 3, ev. 3 and 4, and b. 4, the upper note of ev. 1, are almost completely hidden under an ink stain, but the serif of the **h** is visible and the reconstruction is convincing (there are no concordant sources).
2nd str., final bar, ev. 3: rs minim, this shows up slightly better on the film.
- p.84 VI/15 *Galliarde. Mr Joseph Sheirlye*
1st str., b. 10, ev. 6: the film seems to show something crossed out on the second string. The slightly misplaced **f** in the facsimile is feasible, but is not strictly necessary and was almost certainly not intended (there are no concordant sources).
2nd str., b. 4, ev. 2: should be **5d** (copyist's mistake).
2nd str., b. 6, ev. 5: **3f** is reconstructed, the original is a little smudged.
3rd str., b. 6, ev. 3: **6a**, also poorly reproduced on the film.
- p.85 VI/16 *Preludiu[m]*
b. 6, ev. 8: has not been modified.
b. 9, ev. 1: rs semiquaver; the stem shows faintly on the film.
- p.86-88 VI/17 *Almaine. Mr John Jenkins*
1st str., final bar: this ink stain has not been cleaned up.
Div. to 1st str., b. 1, ev. 2: rs semiquaver, equally poorly reproduced on film.
Div. to 1st str., b. 2, ev. 6: **1c**, this is clear on the film.
Div. to 1st str., b. 9, ev. 1 & 2: in the facsimile these have been pasted in, they are perfectly clear on the film.
2nd str., b. 1, ev. 1: **1c,2a** shows clearly on film.
Div. to 2nd str., b. 4: appears so on the film, there are no tablature letters missing.
- p.88 VI/18 *Prelud: Mr Thomas Gregorie*
The final chord is perfectly clear on the film and should not have needed rewriting. The 5th string should of course be open, not stopped at the 4th fret (copyist's mistake).
- p.89 VII/19 *Pavine. Mr John Laurence*
2nd str., final bar, ev. 3: **1c,2e** shows a little better on the film.
- p.91-92 VII/2 *Lanca=shire pipes*
1st str., b. 1, ev. 1: the **a** is patched-in but clearly correct.
[After the 6th str. the word written below the stave is 'Upstroke' (cf. **Peter Leycester**, f.36v 'An upstroake to be played at the end of a Horne=pipe')]
End of 4th str. of the Upstroke: also faint on the film.
- p.92 VII/4 *Pigges of Rumsey*
b.2: the footnote (asterisk below event 2) reads 'hic finis est' ('this is the end').
b. 4, ev. 1, upper note: the ms has what could be **e** corrected to **c**.

- p.93 VII/6 *untitled*
b. 4, ev. 5: the patched-in **f** is misplaced but clearly correct.
- p.97 IX/1 *The horne=pipe; or Beggers=bush*
2nd str., penultimate b., ev. 5: this correction is original: it looks very much as though the copyist erased an unwanted ornament and therefore had to re-touch the stave line.
- p.99 X/1 *Mr John Jenkins*
1st str., b. 8: there is less white-out on the film, no music is lost.
- p.100 X/2 *Mr John Jenkins*
1st str., b. 2, ev. 3: the faint rs is show-through which has not been cleaned up.
- p.101 X/3 *Mr John Jenkins*
1st str., b. 6, ev. 6: **4d**, has not been cleaned up.
2nd str., b. 1, ev. 1: **1a** is editorial—musically convincing, but may not be present under the ink stain.
- p.102 X/4 *Mr Richarde Sumarte. None=Such.*
The copyist's idiosyncratic use of black notation is confusing here: the system is basically three black minims per bar, a black semibreve being worth two black minims (see the penultimate bar); for a note lasting three black minims a white minim is usually used, but there is also one instance of a dotted black semibreve. Thus the notation in the 1st strain, bb. 4 & 5 (white minim tied to dotted black minim), & 6 (white minim tied to black semibreve) is correct.
1st str., b. 4, ev. 1: rs is not dotted, despite appearances.
1st str., b. 5, ev. 2: dotted white minim on film; has been correctly blackened in facsimile.
2nd str., b. 6, ev. 5 & b. 9, ev. 5: there are indeed 'shakes' notated here.
2nd str., b. 12, ev. 6: this is correctly reproduced; this bar does add up to nine beats, albeit oddly distributed: 2-3-3-1.
- p.103 X/5 *Mr John Jenkins*
1st str., b. 4: this rather eccentric rhythm is correctly reproduced, but in the concordant sources **John Browne** f.89v has , **Goëss (A)** f.29r and **Lbl 249** f.16r have 
2nd str., b. 4, ev. 5: the **d** shows clearly under the ink stain on the film.
- p.104 X/6 *Mr Richarde Sumarte. Modicu[m] bonum.*
1st str., b. 1: rss are  All else is show-through.
1st str., b. 7: ev. 4, **2c**, and the slur seem to have been pasted in, they are perfectly clear on the film.
2nd str., b. 7, ev. 2 & 3: should probably be **3c** & **3a** (copyist's mistake).
- p.104-5 X/7 *Mr John Jenkins*
1st str., b. 12: the ink stain does not obscure any music.
- p.105 X/8 *Mr John Jenkins*
2nd str., b. 4, ev. 3: should be **2c, 3c, 4c, 5c** (copyist's mistake).

- 2nd str., final bar: omit **6a** (copyist's mistake). In the concordant sources **John Browne** f.89v has **1i,2a,3a,4a,5a** and **Goëss (A)** f.28v has **2a,3a,4a,5a**.
- p.106 X/9 *Saraband. Mr John Jenkins*
2nd str., b. 13, ev. 1: should probably be **1h** (copyist's mistake).
- p.107 X/11 *Saraband. R:S:*
1st str., b. 8: the ink stain below event 3 did not obscure anything.
2nd str., b. 7, ev. 1: **6c**, shows perfectly well on the film.
- p.110 XI/3 *untitled*
1st str., b. 1, ev. 4: rs should be a quaver—white-out also present on film.
2nd str., b. 6: there is a 'beate' before event 5.
- p.112 XI/6 *Allman [Jenkins]*
Four ink stains, two of them quite large, mar this page, and the cleaning up process has not been skilfully carried out. 1st str., b. 10 and 2nd str., bb. 3-4 and 9-10 are affected, the only place where a tab. letter cannot be adequately made out on the film is ev. 4 in b. 9 of the 2nd str.
1st str., b. 10: there is a 'fall' before the 2nd event **f**
2nd str., b. 4: despite appearances, there is no ornament before the first quaver **b**.
cf. **Playford MRLV 1652** p.42, **Peter Leycester** f.79v, etc.
- p.114 XI/8 *untitled*
1st str., b. 13, ev. 3: **2c**—this is a little clearer on the film.
- p.115 XI/9 *untitled*
1st str., b. 3, ev. 3: the patched in **a** is correct, but badly placed.
cf. **Peter Leycester** f.81v:3, **Goëss (B)** f.7v:2 etc.
- p.116 XI/10 *Almaine Mr John Esto*
1st str., final bar, ev. 2: white-out also present on film, suggest **2e**. There are no concordant sources.
- p.122 XI/22 *Countesse of Exeters Almaine Mr Simon Ives*
2nd str., b. 2, ev. 5 & 6: **a c** (slurred) is clearer on the film than the facsimile.
2nd str., b. 6, ev. 7: **3c** is reconstructed.
cf. **Playford MRLV 1652** p.46
- p.123 XI/24 *Almaine Mr John Jenkins*
1st str., b. 4: the intrusive **c** below ev. 4 has been added to the facsimile in error, there is nothing there on the film.
- p.124 XI/25 *Ayre Mr John Jenkins*
1st str., b. 7-8: the reconstruction of the cadence is correct.
cf. **Playford MRLV 1652** p.44
- p.125 XI/27 *Almaine Mr John Jenkins*
2nd strain, b. 6, ev. 4: the **b** can just be made out under the ink stain.
cf. **Peter Leycester** f.82v and **Playford MRLV 1682** p.72

- p.125 XI/28 *Saraband Mr John Jenkins*
2nd str., b. 3, ev. 3: the tail of the **e** is discernable in the ms.
cf. **Playford MRLV 1652** p.45
- p.127 XII/1 *Saraband. Mr Simon Ives Junior*
1st str., b. 3, ev. 3: the apparently faint rs is show-through.
- p.128 XII/3 *Coranto. Mr Simon Ives*
1st str., penultimate bar, ev. 1: rs (crotchet) is equally faint on the film.
- XII/4 *Saraband. Mr John Jenkins*
2nd str., b. 8 (last on page): all three letters are reconstructed, although only ev. 1 is faint on the film (there is no ink stain problem).
- p.129 XII/5 *Coranto. Mr Simon Ives*
2nd str., b. 6, ev. 1: rs reconstructed (ink stain).
- p.130 XII/6 *Coranto. Mr John Jenkins*
1st str., b. 5, ev. 1: **3a** is equally faint on the film.
1st str., b. 9: **3h** and **4a** are clear on the film.
- p.132 XII/9 *Saraband. Mr George Hudson*
2nd str., penultimate bar, ev. 3: **4c** is clear on film.
- p.135 XII/15 *Saraband. S. I.*
Upbeat to 1st str.: ink stain at the bottom of the stave does not affect the music.
- XII/16 *Almaine. Mr John Jenkins*
2nd str., b. 8, ev. 7: **4c**—a little clearer on film.
The ungainly rhythm in the final bars is original.
- p.136 XII/17 *Coranto Mr Simon Ives*
1st str., b. 5, event 1: **2h** is discernable under the ink stain.
There are no concordant sources.
- p.139 XIII/2 *Mr John Bates*
2nd str., b. 6: an ink stain in the space above event 2 has been cleaned up.
- p.140-1 XIII/4 *Mr John Jenkins*
2nd str., b. 6, ev. 4 & 5: reconstructed and not well aligned.
cf. **Playford MRLV 1652** p.66 and **Goëss (B)** f.64v
- p.141 XIII/5 *Mr Willm Younge*
1st str., b. 9, ev. 1: tab. letter completely hidden under the ink stain. Solutions other than **f** could also be experimented with. There are no concordant sources.
Final chord: the partially cleaned up ink stain does not obscure any music.
- p.142-3 XIII/7 *Mr Willm Younge*
2nd str., b. 11, ev. 1: **3d** is clear on the film, but missing in the facsimile.
- p.144 XIII/9 *Mr John Jenkins*
1st str., b. 7, ev. 6: **2a** is clear on the film, but missing in the facsimile.

- p.145 XIII/11 *Sarab: Mr John Withie*
1st strain, b. 4, ev. 4: white-out also present on the film.
- p.146 XIII/12 *Coranto Mr John Jenkins*
1st str., b. 10, ev. 2: **1c** (almost completely missing in the facsimile—cf. bar 11)
2nd str., b. 4, ev. 1: **1e** (this shows up a little better on the film)
2nd str., b. 6, ev. 1: **1k** (white-out also present on the film)
- p.147 XIII/14 *Allmain Mr John Jenkins*
1st str., b. 3, ev. 3: the reconstructed **a** is the only plausible solution. There are no concordant sources.
- p.148 XIII/15 *The Wagge Mr John Jenkins*
Some rss in the top line have been inserted by hand in the facsimile (those which are darker, but vertically misaligned). The last one (bar 13) should be a dotted minim. All are perfectly clear on the film.
2nd str., b. 20, ev. 1: **3h, 4h** (this shows up a little better on the film).
- p.149 XIII/16 *Saraband John Jenkins*
1st str., b. 2, ev. 3: should read **3y**, not the impossible **2c, 3y** in the facsimile.
cf. **Playford MRLV 1652** p.71
- p.150 XIII/18 *Coranto J: W:*
1st str., b. 10, ev. 1: **a** shows clearly enough under the stain.
1st str., b. 12, ev. 3: **5a** is clearly visible on the film, but missing in the facsimile.
2nd str., b. 7: the cleaning up has not been properly completed—comparison with **John Browne** f.60r suggests:
↓

The image shows a musical staff with two lines. The top line has a note with a slur over it, and the bottom line has a note. Below the staff, the letter 'a' is written.
- p.151 XIII/20 *Almaine Mr Christopher Simpson*
2nd str., bb. 9 & 13: there are ink stains above the staff. The rss. in bar 13 are reconstructed.
- p.153 XIV/1 *Allmayn Mr John Esto*
1st str., b. 5: has been cleaned up, the music is not affected.
- p.154 XIV/3 *Mr John Jenkins*
2nd str., b. 7, ev. 2 & 3: **6c & 6a** (these are a little clearer on the film).
- p.155 XIV/5 *Almaine Mr Peter Warner*
1st str., b. 4, ev. 1: **2a** at the top of the chord is clear on the film.
- p.156 XIV/6 *Mr Peter Warner*
2nd str., b. 12: rs should be a dotted minim.
- XIV/7 *Saraband. Mr Peter Warner*
1st str., b. 12, ev. 1: **11** is clear in the ms.
1st str., b. 12, ev. 3: **2h** has had to be patched in, although it is perfectly clear on the film.

- p.158 XIV/9 *Preludium. Mr John Jenkins*
b. 13, ev. 4: **4c** is a little clearer on the film.
- p.160 XVI/12 *Saraband. Mr Willm Younge.*
1st str., b. 10, ev. 2: **5d** – this is equally poor on the film.
- p.162 XIV/16 *Coranto Mr John Jenkins*
Division of 1st str., b. 8, event 1: **4d** also not clear on film
Division of 1st str., b. 12, events 3 & 4: the lower part of each letter is obscured by the ink stain—event 3 is **I** and not **f** as reconstructed (there are no concordant sources).
Division of 1st str., b. 14: appears so on the film.
- p.163 XIV/17 *Coranto. Mr John Withie*
2nd str., b. 1: the rss should probably be shifted one note to the left (copyist's mistake).
2nd str., b. 2, ev. 3: the 'dot' after the rs is show-through which has not been cleaned up.
- p.164 XIV/18 *Coranto. Mr John Jenkins*
Division to 1st str., b. 10: cleaning up of the space above the stave has cropped the top of the **I** (event 5).
2nd str., b. 10, ev. 1: rs is a dotted crotchet, the dot has been erased in the facsimile.
2nd str., b. 11, ev. 6: rs should be a semiquaver (copyist's mistake).
- p.165 XIV/19 *Almaine. Mr Willm Lawes*
2nd str., b. 3, ev. 7: **1h** also faint on film.
2nd str., final chord: white-out also present on film. This chord is corrupt, it should be replaced by a standard chord of D, e.g. **1a,2f,3e,4a** (copyist's mistake).
- p.166-7 XIV/22 *Coranto. Mr John Withie*
2nd str., b. 5, ev. 2: **6f** is perfectly clear on the film.
- p.168 XV/1 *Mr Willm Younge*
1st str., b. 10, ev. 1: the rs should be dotted, and there may also be a note on the third string here; the film is less clear than the facsimile.
- p.174 XVI/2
[facs. p.170] *untitled*
1st str., b. 5, ev. 6: film indecipherable under an ink stain, but the note must be on the 3rd string; the reconstructed **a** is probably the only good solution.
- p.180 XVII/1
[facs. p.172] *Mr Willm Younge*
2nd str., b. 4, ev. 3: **3d** is clear on the film.
- XVII/2 *Mr Willm Younge*
1st str., b. 3: the patched in **2c** is misplaced, the bar should read:
- 
- p.181 XVII/3
[facs. p.173] *Mr Willm Younge*
2nd str., b. 7, ev. 2-4: here an ink stain narrowly misses the music, the tab. letters have not been altered.

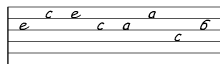
p.186 XVIII/1
[facs. p.176]

Mr John Jenkins

1st str., b. 2, ev. 1: ms has **3e** corrected to **3a** (or vice versa), exactly as in the facsimile. (**3e** is probably correct, cf. bar 2 of the division).

1st str., b. 5, ev. 4: the chord is **1a,2a,3a,4a**—the film is quite clear here.

Division to 1st str., b. 2 (first half): the reconstruction is garbled, it should read:



(The ms is reasonably clear here despite the ink stain)

2nd str., b. 5, ev. 4: the oversized 'dot' after the rs is show-through which has not been cleaned up.

p.192 [facs. p.180]

The heading and page number are fully present on the film.

p.192 XIX/1
[facs. p.180]

Mr John Esto

1st str., b. 2, ev. 8: **1a** is reconstructed. The rss in the top line have also all been reconstructed, despite being all present on the film, where they are also properly aligned.

p.192-3 XIX/2
[facs. p.180-1]

Mr Willm Younge

2nd str., b. 6, ev. 3 & 4: the ink stain has been cleaned but no letters patched in. Suggest **1c, 1e** (the film is indecipherable and there is no concordant source).

p.199 XX/3
[facs. p.183]

Mr Roger Read. Or trulye Mr Willm Lawes

This is another badly stained page.

1st str., bb. 5 & 6: ms clear enough.

1st str., b. 12, ev. 3 onwards (beginning of 2nd system): ms has quaver **3a** and then a huge ink stain up to the next barline—the reconstruction matches the concordant source (The bar is, however, suspiciously long to contain only two events; the Manchester version may have differed in detail here).

cf. **Playford MRLV 1661** p.55

Upbeat to the 2nd str.: rs reconstructed.

2nd str., b. 10 (the double length bar): reconstruction misaligned, but correct.

p.200-1 XX/5
[facs. p.184-5]

Mr Thomas Gooche. Or trulye Mr Willm Lawes

Several ink stains narrowly miss the music:

2nd str., bb. 2 & 3: rss slightly affected.

2nd str., b. 3: the touching up has removed part of the **d** at the top of the chord.

2nd str., bb. 11-14: the slurs are reconstructed, the originals are badly smudged.

p.205 XXI/1
[facs. p.187]

Paven. Mr Stephen Goodall.

1st str., b. 11, ev. 1: appears so on the film. The chord should probably be **2a,3a,4c**, it is not clear whether there is a copyist's mistake here.

p.206 XXI/2
[facs. p.188]

Coranto. Mr Thomas Woodington.

1st str., upbeat to b. 1: there is considerable darkening here on the film, but this appears to be **1a** only, the rs may be a quaver.

- 1st str., b. 5, ev. 1: the dot after the rs is show-through.
 1st str., b. 11, ev. 1: the dot after the rs is show-through.
 2nd str., penultimate bar, event 3: should be **4c** (copyist's mistake), cf. all other similar cadences in this tuning.
- p.207 XXI/4
 [facs. p.189] *Almaine by Mr Henrie Read.*
 1st str., final bar: this should read **3a,4a,5c,6c** (copyist's mistake).
 2nd str., b. 1, ev. 8: the dot after the rs is show-through.
 After the final barline and flourish comes the start of the word *Fi=nis*, of which *i=* has been cropped.
- p.208 XXI/5
 [facs. p.190] *Coranto. Mr Henr: Read.*
 1st str., upbeat to b. 1: there is considerable darkening here on the film; the reconstructed rs should probably be a quaver, cf. the division.
 2nd str., b. 3, ev. 1: the dot after the rs is show-through.
- p.210-1 XXI/9
 [facs. p.192] *Coranto Mr Simon Ives Junior.*
 1st str., b. 13, ev. 5 & 6: these also have dots below them on the film—these are clearly not thumps, presumably the copyist forgot to add a slur under this sequence of ten notes, similarly at the end of the 2nd strain.
 Along the top of p.211 [facs. p.193], rss are mostly, if not all reconstructed, and are not well aligned. 2nd str., b.10, ev. 1 & 2 are dotted black semibreve tied to black minim, the following 'quaver' symbol should be above event 3, **1f**
- p.214 XXII/2
 [facs. p.194] *Mr Willm Younge.*
 2nd str., b. 7, ev. 1: this is clear on the film but has been reconstructed for the facsimile.
- p.216 XXII/4
 [facs. p.196] *Mr Willm Lawes*
 Top left corner of page damaged, the film image is darkened and has had to be extensively cleaned up around the rss at the start of the piece.
 1st str., b. 12 (end of 1st system): **2c,3c,4b,5a** shows clearly on film.
 1st str., b. 14, ev. 1: **3d** also incomplete on film.
 1st str., b. 15, ev. 5, and 2nd strain, b. 10, event 3: these unresolved dissonances have not been altered, they are presumably what Lawes intended.

Notes on the Contributors

JOHN CUNNINGHAM read music at University College Dublin (2000), where he subsequently completed his Masters degree (2001). In 2007 he received his Ph.D. from the University of Leeds, with a thesis on William Lawes's consort music supervised by Professor Peter Holman. John has taught a range of subjects at University College Dublin and the Dublin Institute of Technology Conservatory of Music and Drama. He has held research posts at the University of Limerick, the University of Leeds and University College Dublin. He has published several articles on seventeenth-century English music; his monograph, *The Consort Music of William Lawes (1602-45)* will be published in 2010 as part of the Boydell and Brewer series, *Music in Britain, 1600-1900*. He is also the contributing music editor for *The Cambridge Edition of the Works of Ben Jonson* (forthcoming). He is currently working on a large-scale project on the lyra-viol, as well as several articles and scholarly editions. His current editorial projects include two co-edited volumes for the *Musica Britannica* series (Matthew Locke's consort music, with Peter Holman; and Alfonso Ferrabosco II's lyra viol music, with David Pinto); a volume of Maurice Webster's consort music (co-edited with Peter Holman) is in press with Edition HH.

RICHARD CARTER grew up in a musical family, playing the 'cello, but was dissuaded from studying music and took a degree in Physics at New College, Oxford. Dissatisfied with the career which unfolded, he spent twenty years living and working on the English canals. Increasing interest in early music and historical performance led to him taking up the viol and baroque 'cello, with encouragement and guidance from Stewart McCoy, Alison Crum and Catherine Finnis. Since moving to Austria in 2002 he has devoted himself to early music, supporting the teaching and performing activities of his partner, Johanna Valencia, and running a small publishing venture, *Oriana Music*, with a special emphasis on lyra viol and viol music for beginners. He is a founder member of the Vienna-based viol consort *Almayne*.

MIKE O'CONNOR is a renowned and experienced folk musician, working with both children and adults. Brought up in Wales and London, he lived in Scotland for many years before moving to Cornwall twenty years ago. He has travelled widely across the world researching his material, making many recordings and radio broadcasts and writing on subjects relating to folklore, as well as performing as both musician and story teller. He is currently working at the Institute of Cornish Studies, Exeter University. He is honoured to have been awarded the OBE and has been made a bard of the Gorseth of Cornwall.

ANDREW ASHBEE is the current curator of the Viola da Gamba *Thematic Index of Music for Viols* and General Editor of this Journal. His principal research interests are in English Court Music 1485-1714, and music for viols, especially that of John Jenkins. He has published much on both topics in books and articles.

SANDRA ZYDEK, M.A., was born in 1973. She graduated in Musicology and Theatre, Film and Television Studies at the Ruhr-Universität in Bochum, and in 1997 presented her Master's thesis on the rediscovery of the viol in the

context of the *Jugendmusikbewegung*. She works as a dramatic advisor and puppet theatre player in Düsseldorf and has an active concert life as a soprano.

RICHARD TURBET recently took early retirement as Music Librarian, amongst other things, at the University of Aberdeen. He has written and edited several books, and is the author of over a hundred articles, on Byrd, Tudor music, music librarianship, musical bibliography, cathedral music and, in an earlier incarnation, penological librarianship. His research and information guide to Tudor music was awarded the C.B. Oldman Prize for the year's best book of musical bibliography, librarianship or reference. He has also edited a small quantity of sacred and consort music. He is a member of the Viola da Gamba Society.

After taking a degree in Philosophy and Psychology, MICHAEL FLEMING stayed in Oxford to work for Robert Goble and Son, making clavichords and other keyboard instruments. Since 1982 he has focused on his principal interest, the viol, as a maker, researcher, and player. He was awarded a Ph.D. by the Open University in 2001 for his thesis 'Viol-Making in England 1580-1660'. He edited the *Newsletter of the Viola da Gamba Society* from 1993-2003 and has been chairman of the VdGS since 1997. In 2005 he was appointed Editor of the *Galpin Society Journal*. He is currently working with Professor John Bryan on the *Making the Tudor Viol* project, based at the University of Huddersfield.

SAMANTHA OWENS graduated in 1996 with a Ph.D. in Historical Musicology from Victoria University of Wellington (New Zealand) under the supervision of Peter Walls, and since 2001 has held a lectureship at the University of Queensland (Brisbane, Australia). Her research, which focuses on seventeenth- and early eighteenth-century German court music, has appeared in a variety of publications including *Early Music*, *Music & Letters*, *Eighteenth-Century Music*, and *Grove Music Online*, while her critical edition of *Adonis*, a German language opera by Johann Sigismund Cousser (Kusser) appeared in 2009 (A-R Editions). She is currently an Alexander von Humboldt Foundation research fellow at the Institut für Musik, Martin-Luther-Universität Halle-Wittenberg.

BRADLEY LEHMAN is a graduate of Goshen College (Indiana) and the University of Michigan, with degrees in harpsichord performance, the other early keyboards, historical musicology, church music, and mathematics. His doctorate is in harpsichord, 1994. In 2004 Lehman discovered what he believes to be J.S. Bach's own temperament for harpsichords and organs, presented as a practical diagram on the title page of the Well-Tempered Clavier. Lehman's article about this finding is published in the February and May 2005 issues of *Early Music* (Oxford University Press), with further clarifications and elaborations at the web site <<http://www.larips.com>>. Several of Lehman's CDs demonstrate this temperament on harpsichord and organ. They are available from Goshen College, <<http://www.gcmusiccenter.org>>. Lehman lives in the Shenandoah Valley of Virginia, and works as both a software developer and freelance musician.

CAROL A. GARTRELL graduated from the University of Surrey, UK in 1974 with a Bachelors degree in Music. Her interest in the baryton was initially fostered during those years and she produced an early dissertation on the

instrument. On graduating Carol continued to pursue her research into the baryton which resulted in a thesis entitled 'The baryton; the instrument and its music' for which she was awarded a Ph.D. in 1983. In Summer 2009 her research in culminated in the book *A History of the Baryton and Its Music, King of Instruments, Instrument of Kings* which was published by Scarecrow Press of America. Carol is currently Deputy Head of the School of Performance and Screen Studies, and University Teaching Fellow, at Kingston University, UK.