

*Keyboard instruments and their repertoire, 1560-1780*

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**PhD submission**

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**2022**

## **Abstract**

The eleven chapters included here are the outcome of interactions between many aspects of musical study, including historical musicology, music analysis, archival work, data management, editing, organology, performance and teaching. Keyboards and their music are a valuable area of study, as their uses and design are critically related to the development of music and performance over several centuries. This was a period that saw the rise of the public concert, significant technological developments in organology, the development of notated teaching methods and the origins of idiomatic instrumental composition.

The four sections cover repertoire, composers, sources and instruments from the mid-16<sup>th</sup> to the late 18<sup>th</sup> centuries. Discussion of the virginalists includes a fundamental re-examination of the surviving information relating to ornamentation and performance practice, together with a historiographical discussion of Giles Farnaby and his music. Four studies of Bach include practice-led research project, a consideration of a neglected group of pieces with intermittent pedal parts, a typological analysis of cadence types in Bach's cantata recitatives, and an edition of all the surviving keyboard duos by J. S., W. F., C. P. E. and J. C. Bach. The third section describes a late 17<sup>th</sup>-century liturgical organ book and an early 18<sup>th</sup>-century teaching manuscript, while the fourth, devoted to the clavichord, includes a comprehensive discography, a discussion of the role the instrument may have played in French musical culture, and an examination of the sole surviving English clavichord.

## **Acknowledgements**

Thanks are due to the various libraries and archives I have worked in over the years, particularly in London, Oxford and Cambridge, and to their staff. Scholars who have assisted with valuable feedback on various drafts include Pieter Dirksen, John Koster and David J. Smith, while in the fields of analysis and editing, I have been very fortunate in recent research collaborations with Pablo Padilla (National University of Mexico) and Jon Baxendale (Norway). Finally, Robert Rawson (Christ Church Canterbury) kindly supported the selection and shaping of this material into thesis form.

Francis Knights  
Cambridge  
December 2021

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References

## **Introduction**

The publications presented here are the outcome of interactions between many aspects of musical study over a period of 30 years, including historical musicology, music analysis, archival work, data management, editing, organology, performance and teaching. The origins of research questions emerged from all of these aspects at various times, and also from decades of experience working as a reviewer, journal editor and festival organizer.<sup>1</sup>

The nine articles, book and edition are presented as eleven connected ‘chapters’ totalling some 550 pages, and are a selection from more than forty articles and editions about early keyboard music, many of which are related and most of which are referenced in the footnotes. After a summary and contextualization of the different chapters (in order) below, historical and methodological themes common to a number of them are drawn together.

The majority of the chapters originated in conjunction with long-term performance practice-focused keyboard recital projects, mostly now completed, including: (1) complete performances of all the virginal and organ music by Tallis, Byrd, Bull, Farnaby, Morley, Philips, Gibbons and Tomkins; and the major sources of the period, including the

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<sup>1</sup> For anniversary festivals related to particular keyboard composers, including Louis Couperin (2011), Duphly (2015), Froberger (2016), Telemann (2017), Couperin (2018) and Marchand (2019), see [www.francisknights.co.uk](http://www.francisknights.co.uk).

Fitzwilliam Virginal Book, My Lady Nevell's Book, the Mulliner Book,<sup>2</sup> Tisdale's Virginal Book, Clement Matchett's Virginal Book, the Dublin Virginal Manuscript, *Parthenia* and *Parthenia Inviolata*; (2) a series of all Bach's keyboard and organ music; (3) a 40-recital series of clavichord music by German (or Germanic, broadly defined) composers of the 17th and 18th centuries;<sup>3</sup> and (4) an ongoing series of 20th and 21st century solo and chamber music for harpsichord and for clavichord, including many new commissions. Of these projects, the Fitzwilliam Virginal Book (see Chapters 1-2) and Bach series (Chapters 3-6) are the most relevant here, although the German programmes have also provided much important context for Bach keyboard research, and the new music project will shortly result in a book.<sup>4</sup> In addition, an ongoing computational analysis project with Pablo Padilla<sup>5</sup> has investigated many issues of musical style<sup>6</sup> which inform other recent research, such as issues related to the evaluation of evidence from early writers and copyists.<sup>7</sup>

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<sup>2</sup> On the Mulliner Book, see Francis Knights, 'The Choral Foundation of Corpus Christi College, Oxford', *The Organ* lxx: 275 (Winter 1991), pp.10-14 and 'Thomas Mulliner's Oxford Career', *The Organ* lxxv: 297 (Summer 1996), pp.132-135.

<sup>3</sup> The list includes Albrechtsberger, C. P. E. Bach, J. C. Bach, J. C. F. Bach, Beethoven, Benda, Böhm, Buxtehude, Fasch, Fischer, Forkel, Froberger, Fux, Goldberg, Graupner, Handel, Haydn, Kerll, Kirnberger, Koželuch, Krebs, Kreiger, Kuhnau, Marpurg, Mattheson, Mozart, Muffat, Müthel, Pachelbel, Reincken, Rust, Scheidemann, Scheidt, Telemann, Türk, Walther, Weckman, Wolf and Zachow.

<sup>4</sup> See Francis Knights, 'Modern Music for Virginals', *Sounding Board* xvii (2021), pp.50-53 and *Modern Music for the Clavichord* (forthcoming 2022).

<sup>5</sup> Francis Knights and Pablo Padilla, *Computational Analysis and Musical Style* (forthcoming 2022).

<sup>6</sup> These include attribution, reconstruction and stylistic chronology in various early music repertoires. See the list on the FMM website <https://formal-methods-in-musicology.webnode.com>, including Francis Knights, Pablo Padilla and Dan Tidhar, 'Chambonnières versus Louis Couperin: attributing the F major Chaconne', *Harpsichord & Fortepiano* xxii/1 (November 2017), pp.28-32. None are included as chapters here, nor are any of the virginalist editions, as they are all multi-author projects.

<sup>7</sup> See Francis Knights, 'Guidelines for the systematic evaluation of early music theorists', *National Early Music Association Newsletter*, iii/2 (Autumn 2019), pp.44-49; Francis Knights and Pablo Padilla,

## The keyboard in music history

Medieval and Renaissance repertoire often implies ensemble performance, with different sizes and ranges of instruments to cover the Gamut; the latter period saw the development of bass instruments within matched musical families (viols, recorders and so on) which made the downwards extension possible. At the same time, it seems that both advancing gut and metal string technology allowed for the longer, heavier strings of such instruments, and for the expanded compass of lute and harpsichord, these two types of instrument developing chordal techniques that meant that they were able to offer solo performance of what would have previously been ensemble music, including polyphony and dances. They could also be used for choral accompaniment of singers and instrumentalists. The flexibility of instruments that were both melodic and harmonic (and, in the case of some keyboards, loud enough to be used with other performers) gave these instruments new roles, and from the 15<sup>th</sup> century a rapidly expanding repertoire than moved away from vocal intabulations to self-contained solo works. The story of the keyboard partially branches in terms of sacred and secular usage also, with the organ having specific usages in church and chapel. The harmonic flexibility and textural variety available on harpsichord-type instruments in particular led to increasing use for accompaniment,<sup>8</sup> aided by the use of figured-bass notation, and also eventually to solo and concerto repertoire. These latter roles were slow in coming, and it was not until the

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<sup>8</sup> 'Attributions in early music: a checklist for editors', *National Early Music Association Newsletter* v/2 (Autumn 2021), pp.56-67.

<sup>8</sup> This includes as an instrument for musical direction, before the origination of formal orchestral conducting techniques; see Peter Holman, *Before the Baton - Musical Direction and Conducting in Stuart and Georgian Britain* (Woodbridge, 2020).



late 18<sup>th</sup> century that the concept of a solo harpsichord recital as a public event arose;<sup>9</sup> by this time, the new fortepiano was beginning to take over. The period from the mid-renaissance to the classical period thus sees the keyboard expanding from its accompaniment, teaching and composition-tool roles to emancipation as a virtuoso and public solo instrument, a role which came to full flowering in the early 19<sup>th</sup> century, and which it retains to this day.

Before the relative standardization of keyboards (at least, the piano) in the mid-19<sup>th</sup> century, the variety of types found across Europe was considerable; this is especially true for hammered instruments in the second half of the 18<sup>th</sup> century. While the tangent piano has been successfully revived in recent decades, the *Clavecin Royal* (a favourite of C. P. E. Bach) has only recently been reconstructed and recorded.<sup>10</sup> In addition, combination instruments (claviorganum,<sup>11</sup> ‘organized’ pianoforte, pedal harpsichord) are still under-represented in modern performances and recordings. Historical national styles and designs partly depended on usage requirements, but also on furniture styles, materials and technology. There was also some international trade in instruments (Italian virginals and Flemish harpsichords<sup>12</sup> to England, German harpsichords to Spain, English harpsichords to Portugal), which impacted to an extent upon native building styles. Expensive imports

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<sup>9</sup> The concept of an organ recital has much longer roots, going back to c.1600 or earlier, as seen in the civic organ recitals that emerged in the protestant northern Netherlands.

<sup>10</sup> See Kerstin Schwarz, ‘The Clavecin Royal and the first copy in modern times’, *Harpsichord & Fortepiano* xxv/1 (Autumn 2020), pp.11-14.

<sup>11</sup> See Eleanor Smith, ‘The current state of Claviorgan Research’, *Harpsichord & Fortepiano* xxiv/1 (Autumn 2019), pp.8-11.

<sup>12</sup> For example, the Ruckers ‘doppel steart stick’ instrument ordered by Charles I in 1637; see Raymond Russell, *The Harpsichord and Clavichord* (London, 2/1973), pp.161-162.

would have been admired for their rarity and exoticism, but likely were not accessed by working musicians; survival rates of the former (as represented in decorative arts collections like that of the Victoria & Albert Museum) are not typical of the actual tools available to most composers.

As today, many keyboard composers and performers of the past owned more than one instrument, but what use they made of them is less certain. Generally, pedal instruments (clavichord, harpsichord or piano) served for organ practice, quieter instruments for domestic practice and teaching, and louder instruments for public performance and accompaniment. The clavichord was one instrument of particular use for composition - both Haydn's and Mozart's surviving clavichords carry just such associations. However, the survival of documents is often poor in terms of understanding these specific issues of usage (makers' names and dates are not given in archival or probate records, nor specifications). For example, J. S. Bach had five harpsichords, two lute-harpsichords and a spinet at the time of his death, while d'Anglebert had four harpsichords in 1691 and Nicolas Couperin had four harpsichords and four spinets in 1728.<sup>13</sup> These collections would have been dispersed in one or more houses, places or rooms, and could have included instruments at different pitches, volumes, tunings and so forth, to be used for teaching, performing or composing, among other purposes. Some could have been part of a collection of valuable items, have been available for hire or loan, or have been inherited and just kept for sentimental value; there is no reason to suppose each one was necessarily in good playing order. In all these cases, one particular keyboard might in any

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<sup>13</sup> Frank Hubbard, *Three Centuries of Harpsichord Making* (Cambridge, MA, 1965), pp.316-317.

case have served as a primary workhorse for a musician,<sup>14</sup> so it is remarkable that we are almost never able to link a specific instrument (or even maker) with the leading keyboard composers of the era: Byrd, Froberger, Couperin, Bach, Handel, Rameau, Scarlatti, among many others.<sup>15</sup> By the time of C. P. E. Bach, Haydn, Mozart and Beethoven such documentation has improved considerably, even if the instruments themselves have often been lost. The modern desire to make such links can be seen by the flurry of Mietke harpsichord copies that were made following discovery in the 1980s of Bach's interest in that Berlin workshop; and so the search for the 'ideal' composer instrument goes on.

### **The Virginalists**

A relatively large number of mid-17<sup>th</sup> century English virginals survive, and from them has come the term for Tudor and Stuart keyboard composers from before the Civil War: the Virginalists.<sup>16</sup> This repertoire was an early goal of the Musica Britannica series of scores (founded in 1951) and Thurston Dart, his students, colleagues and successors worked through the major composers over the following half century. As well as the collected keyboard music of Bull, Byrd, Farnaby, Gibbons, Philips and Tomkins, the complete Mulliner Book was produced, with later miscellaneous volumes gathering

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<sup>14</sup> Of course, some players owned only one instrument, such as François Couperin senior (1671), Nivers (1688) and Jollage (1753).

<sup>15</sup> The situation is somewhat different with organs, especially for those performers who were employed at major institutions on the continent. Whether or not that organ was their ideal instrument, it would certainly have been the one on which many of their compositions were heard.

<sup>16</sup> Other keyboard instruments were of course known and used, including harpsichord, clavichord and organ, but virginals appear to have been the most common keyboards.

together music by Morley, Richardson, Tisdall, Weelkes and many others.<sup>17</sup> The early 16<sup>th</sup>-century liturgical organ repertoire (of which Preston and Redford are the most significant composers) appeared separately in two volumes in the Early English Church Music series.<sup>18</sup> However, all these expensive collections have been embraced more by libraries than performers, and it is unfortunate that affordable reprints of outdated editions, especially the Fitzwilliam Virginal Book and My Lady Nevells Book, have instead dominated the repertoire choices of harpsichordists and organists.<sup>19</sup> Both of these collections have at last been recorded complete,<sup>20</sup> but the perspectives of both musicians and listeners have for a century been skewed by the early availability of such collections. Only a wider knowledge of the entire surviving repertoire, catalogued twenty-five years ago by Virginia Brookes, will enable an understanding of the stylistic context of this music, and many more editions and recordings are still needed.<sup>21</sup> Similarly, while the

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<sup>17</sup> Alan Brown (ed), *Elizabethan Keyboard Music*, Musica Britannica LV (London, 1989); John Caldwell (ed), *Tudor Keyboard Music c.1520-1580*, Musica Britannica LXVI (London, 1995); Alan Brown (ed), *English Keyboard Music c.1600-1625*, Musica Britannica XCVI (London, 2014); and Christopher Hogwood and Alan Brown (eds), *Keyboard Music from Fitzwilliam Manuscripts*, Musica Britannica CII (London, 2017).

<sup>18</sup> Tallis had already been edited by Denis Stevens for Peters: *Thomas Tallis, Complete keyboard works* (New York, c.1953).

<sup>19</sup> J. A. Fuller Maitland and William Barclay Squire (eds), *The Fitzwilliam Virginal Book* (Leipzig, 1894-99), facsimile reprint by Dover, 2 vols. (New York, 1963, rev 1979-80); Hilda Andrews (ed), *My Lady Nevells Booke* (London, 1926), facsimile reprint by Dover (New York, 1969). Both have now been superseded by new scholarly editions: Jon Baxendale and Francis Knights (eds), *The Fitzwilliam Virginal Book* (Tynset, 2020) and Jon Baxendale and Francis Knights (eds), *Byrd: My Ladye Nevell's Booke* (Tynset, 2021a). The first printed sources have also been re-edited – see Jon Baxendale and Francis Knights (eds), *Parthenia and Parthenia In-violata* (Tynset, 2021b) - and further volumes in this ongoing virginalist series will include complete manuscripts such as Will Forster's Virginal Book.

<sup>20</sup> *The Fitzwilliam Virginal Book*, Pieter-Jan Belder (harpsichord, organ, muselar, virginals), Brilliant Classics 95915 (2020); *William Byrd: My Ladye Nevell's Booke*, Christopher Hogwood (harpsichord, virginals, chamber organ), L'Oiseau-Lyre 430 484-2 (1976); *Byrd: My Ladye Nevell's Booke*, Elizabeth Farr (harpsichord, lute-harpsichord), Naxos 8.570139-41 (2007).

<sup>21</sup> Virginia Brookes, *British Keyboard Music to c.1660* (Oxford, 1996).

keyboard music of Byrd and Bull was explored in monographs some four decades ago,<sup>22</sup> the last book-length surveys of the virginalists date back about a century.<sup>23</sup>

### ***Ornamentation***

One of the main areas of difficulty with the virginalist sources concerns keyboard ornament symbols; as with contemporary lute ornaments (see below), no tables survive either to name or explain these. Modern editors and performers have therefore had to rely on continental or later British tables as a guide to their interpretation, without shedding much new light on the matter. The two single- and double-stroke signs originated in about 1540 and 1570 respectively,<sup>24</sup> and the latter seems to have been in use for more than a century. Rhythmic context, harmonic components, melodic context and fingering indications have all been used in support of various proposals for realizations, but there is still no universally-accepted solution. The symbols may have meant different things to different composers and copyists, and it seems very unlikely that they can have been intended as completely prescriptive. Many of these ornaments are quite technically demanding, yet relatively few of the performers of this largely amateur and domestic repertoire would have been of professional standard, and as the differences in touch or responsiveness of the various keyboard types was considerable, some flexibility or leeway in the quantity or execution of the ornaments was likely understood. Thurston

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<sup>22</sup> Oliver Neighbour, *The Consort and Keyboard Music of William Byrd* (London, 1978); Walker Cunningham, *The Keyboard Music of John Bull* (Ann Arbor, 1984).

<sup>23</sup> Edward W. Naylor, *An Elizabethan Virginal Book* (London, 1905); Charles van den Borren (trans. James E. Matthew), *The Sources of Keyboard Music in England* (London, [1913]); Margaret Glyn, *About Elizabethan Virginal Music and its Composers* (London, [1924]).

<sup>24</sup> Asako Hirabayashi, 'The Authority of the Bevin table in the interpretation of ornament signs in Elizabethan virginal music', *Harpsichord & Fortepiano* ix/1 (Spring 2001), pp.24-30.

Dart observed that ‘Different manuscripts containing the same piece commonly show such irreconcilable differences in the nature and placing of the ornaments that it is hard to believe these were taken very seriously’,<sup>25</sup> while Robert Donington noted ‘the difficulty of finding two separate ornaments to fit equally well all the contexts in which this pair of signs are used’.<sup>26</sup> More recently, David Wulstan<sup>27</sup> and Asako Hirabayashi<sup>28</sup> have proposed systems that assign consistent meanings to the ornaments, but the only generally accepted conclusions from more than a century of scholarly and practical investigation seem to be: that the double stroke ornament is some kind of trill; that the single stroke represents a simpler ornament; and that the musical context has implications for which choices are made for execution.

A catalogue of the ornaments from the Fitzwilliam Virginal Book alone shows some fifty different written-out example types, mostly varieties of trills; these operate at a variety of rhythmic levels, from quavers to hemidemisemiquavers, with semiquavers being the most common. These include cadential upper-note trills with termination (all virginalist written-out trill sources include termination); cadential composite trills that start on the main note but with a preparatory note or pattern; turns; broken turns (four-note figures with the interval of a third in the middle); trill-like patterns that fill out a third or fifth; *tirata* scale patterns covering a fifth; and upper- or lower-trills that have a melodic rather

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<sup>25</sup> Thurston Dart, *The Interpretation of Music* (London, 1954), p.118. Dart’s loose generalization about the notation not being ‘taken very seriously’ (by copyists? by performers?) masks a more nuanced series of reasons that may explain such inconsistencies (see Ch.1).

<sup>26</sup> Robert Donington, *The Interpretation of Early Music* (London, 1963, r/1989), p.238.

<sup>27</sup> David Wulstan, *Tudor Music* (Iowa City, 1986), pp.125-155.

<sup>28</sup> Asako Hirabayashi, ‘A New Interpretation of the English Virginalists’ Ornament Signs’, *Early Keyboard Journal* xxv-xxvi (2010), pp. 93-123.

than harmonic function. Even with these thousands of examples, an insoluble problem remains: either the ornaments were *only* written in full when they could not be represented by the normal signs, or the fully-notated versions show what the signs *actually* represented. However, taking the latter as a starting guide is still a reasonable course of action.<sup>29</sup> The playable length of an ornament is partly dependent on tempo, and Thomas Robinson (1603), describing lute ornamentation, makes an important distinction regarding the use of ornaments in a quick tempo: ‘in a quicke time a little touch or jerke will serve’,<sup>30</sup> that is, where there is not time for a full ornament, a shorter one will suffice.

The large Elizabethan lute repertoire should provide an interesting comparison, but the problem is very similar to that of the keyboard repertoire; the signs themselves are known but not named,<sup>31</sup> and there are no descriptive sources until later in the 17th century. Many manuscripts have only two signs, # and +, distributed approximately 70/30 % respectively, and various modern attempts to classify them have been made, especially by Martin Shepherd.<sup>32</sup> Robinson’s *The Schoole of Musicke* (1603) is particularly important here, and his verbal descriptions appear to encompass ‘falls’ and ‘relishes’, equivalent to short appoggiaturas and trills in modern usage; the implication of his text may be that the former are more often used than the latter. Shepherd’s hypothesis, based on counting

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<sup>29</sup> Original fingering should be used while experimenting, as it is highly likely that there is a relationship between ornament choice and the ‘strong’ fingers mentioned by keyboard (and lute) theorists of the period.

<sup>30</sup> David Lumsden (ed), *Thomas Robinson, The Schoole of Musicke* (Paris, 1971).

<sup>31</sup> Margaret Board’s *Lute Book* (c.1620) names and signs five ornaments, without describing them: pull back, fall forward, shake, long shake and slide.

<sup>32</sup> Martin Shepherd, ‘The Interpretation of signs for graces in English lute music’, *The Lute* xxxvi (1996), pp.37-84.

numerous ornaments, note durations, scale degrees and open string usage in two manuscripts from the early 17th century,<sup>33</sup> is that the # includes graces which start on the main note and the + those which begin with an auxiliary; the distinction is thus one between consonant and dissonant starts (unfortunately this theory does not map onto virginal ornamentation). As with virginal music, there are numerous examples of written-out (especially cadential) ornamentation, and divisions, and an examination of the complete lute works of John Dowland (1563-1626) shows a high level of overlap with the virginal ornament tradition.

Many unanswerable questions remain: what were the purposes of ornaments? Were they understood in the same way by all contemporary composers, copyists and performers? Did the meaning or interpretation of symbols vary between styles and genres? Were they interpreted in the same way on all types of keyboard instruments? And were ornaments (either written-out or indicated by signs) performed with *more* or *less* metrical freedom than the music to which they were attached? Practical decisions nonetheless need to be made by performers, and careful and systematic experimentation offers some way forward on a case-by-case basis.

### ***Giles Farnaby***

Extensive work in museums and archives over the past century has left comparatively little for musicologists still to find, and the basic biographical data for most early composers is likely to remain unchanged. However, interpretations of both such

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<sup>33</sup> Shepherd (1996), p.57 examined more than a thousand signs in two manuscripts, showing for example that the + sign rarely occurs on short note values and is more common on the tonic note than is the #.



information or its absence can change, and assessments of composers are by no means fixed, even if the humanities has a tendency to leave the current view with the most recent published scholar. In the case of Giles Farnaby (c.1565-1640), this view dates back some sixty years, and the time seems ripe for a re-evaluation.<sup>34</sup> Farnaby has suffered greatly from the archival discovery that he was professionally trained as a joiner not a musician, and might therefore be regarded as an ‘amateur’ composer, in a pejorative sense.<sup>35</sup> Old biases, in part driven by judgements of trade and class, seem to have marginalized figures like Farnaby, but recent explorations (including a new edition with his complete keyboard music<sup>36</sup> and a number of fine modern recordings), are beginning to have some success in shifting from perceptions and moving the focus to the quality of his music.

The documentary evidence about Farnaby is also worth re-examining, as there are possible alternative explanations to the narrative presented by Richard Marlow in the 1960s. First, there is no evidence for him having worked as a joiner after 1595, and his surviving music (including published works) comprises a substantial body of psalm settings, canzonets and virginal music (in the latter category, only Byrd, Bull and Tomkins produced more). The latter is found almost exclusively in the Fitzwilliam Virginal Book, and the mechanism by which that manuscript’s copyist accessed is

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<sup>34</sup> See Richard Marlow, *Critical edition of the keyboard works of Giles and Richard Farnaby*, PhD dissertation (University of Cambridge, 1966), ‘The Keyboard Music of Giles Farnaby’, *Proceedings of the Royal Musical Association*, 92nd Session (1965-1966), pp.107-120, and Richard Marlow (ed), *Giles & Richard Farnaby, Keyboard Music*, Musica Britannica XXIV (London, 2/1974).

<sup>35</sup> That usage of the term appears to date from the late 19<sup>th</sup> century onwards; see Noël Riley, *The accomplished lady: a history of genteel pursuits c.1660-1860* (Plymouth, 2017), p.2.

<sup>36</sup> Baxendale and Knights (2020).

unknown (the variable quality of the copy-sources suggest they did not come directly from the composer). A possible transmitter was Farnaby's musician son Richard (four pieces of his are also in the Fitzwilliam source), and the important discovery that the latter was working at the Pomerania-Wolgast court in the mid-1620s even suggests a possible explanation for the fact that Giles is missing from the historical record for more than two decades before 1634; did father accompany son abroad? Second, Farnaby was both a competent composer (BMus, Oxford 1592), with musical links to musicians like John Bull, and (almost certainly) a very expert performer. Finally, he may not actually have been a lifelong Protestant (the Fitzwilliam Virginal Book has been regarded as collecting principally Catholic composers, with Farnaby an inexplicable outlier); changes in religion were not uncommon in 16<sup>th</sup> and early 17<sup>th</sup> century England, and that he does not appear in his firmly Protestant mother Jane's will in 1605 is curious, as is the use of numerous plainchant-like themes in his keyboard fantasias. These approaches chime with the broader need to re-examine persistent myths about confessional uniformity in England and their relationships to music-making.

In the absence of any new biographical information, the fairest way to assess Farnaby's contribution to the virginalist tradition is through the music itself, thus returning to the more open perspectives of the earliest commentators, who were generous in their assessment of his music as being 'comparable with Byrd's',<sup>37</sup> describing him as 'the most original of all the virginalists'<sup>38</sup> and 'that special genius of virginal music'.<sup>39</sup>

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<sup>37</sup> Naylor (1905), p.199.

<sup>38</sup> Van den Borren ([1913]), p.355.

### **Bach's keyboard music**

Scholarly engagement with historical music sometimes operates by focusing on only one particular aspect, whether it be sources, musicology, analysis or other perspectives; bringing multiple constituent elements together requires a wide set of skills, and this is even more true when performance is added. Chapter 3 is an example of the additional value that practical engagement can bring, especially with a whole-corpus study. Here, elements as diverse as pedagogy, instrumental technique, compositional practice, performance practice, attribution studies and organology are related to the music itself, as experienced by the player. New questions can and should arise from direct engagement with the scores, sometimes in a way which might not otherwise be possible, and a broad repertoire study also leads to the noting of patterns of compositional practice than can prove significant. 'Completeness' is also an important aspect, as it gives the full context for a composer's style, even where differences are observed within genres, by chronology and so on.

Bach's process of collecting many of his clavier and organ works into fair copy sets of six or multiples of six appears to have begun in around 1720,<sup>40</sup> and this process led to many surviving 'orphan' works. Some of these may have been early works that he did not consider worthy or were awaiting revision; and some were of the wrong scale (the preludes & fugues in the Well-tempered Clavier contents appear to have had a length

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<sup>39</sup> Margaret Glyn, 'The National School of Virginal Music in Elizabethan Times', *Proceedings of the Musical Association*, 43rd session (1916-1917), pp.29-49 at p.32.

<sup>40</sup> For the clavier works, this includes *Clavierübung* I, II, the Goldberg Variations, the 48, the English and French Suites and Partitas, the Toccatas, the Art of Fugue and the Inventions & Sinfonias.

limit, for example). Other pieces which only survived due to limited circulation amongst former pupils or collectors. The 21 recitals of the complete surviving keyboard works took place between 2017-2021, and works were grouped by genre as far as possible, allowing that larger sets had to be split: *Clavierübung* II, the Goldberg Variations, the French Suites, the Art of Fugue and the Inventions & Sinfonias were single concerts each, while the 48 was divided into five (Book 2 is longer than Book 1), and the English Suites, Partitas and Toccatas were split between pairs of concerts. Playing in sets allows for a greater appreciation of compositional variety, as for example in the six Partitas, where Bach makes a point of varying the content (for example, six different types of Sarabande) through the collection. In terms of attributions,<sup>41</sup> a fairly generous approach was taken, which gave an opportunity to perform and consider a number of very early works that remain under suspicion.<sup>42</sup> Preliminary reading involved revisiting the standard Bach texts in English, including the *New Bach Reader* and standard works by David Schulenberg, Peter Williams, David Ledbetter, Ralph Kirkpatrick and Richard Troeger,<sup>43</sup> as well as three more recent volumes by Richard Jones, Peter Williams and Robin

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<sup>41</sup> For a discussion of dubious attributions, see Knights and Padilla (2021).

<sup>42</sup> With respect to the early suites, see Francis Knights, Pablo Padilla and Mateo Rodriguez, 'Chronology, Style and Attribution in the Early Keyboard Suites of J. S. Bach' (forthcoming).

<sup>43</sup> Hans T. David and Arthur Mendel (eds), rev Christoph Wolff, *The New Bach Reader* (New York, 1998), David Schulenberg, *The Keyboard Music of J. S. Bach* (New York, 2/2006), Peter Williams, *Bach: The Goldberg Variations* (Cambridge, 2001), David Ledbetter, *Bach's Well-Tempered Clavier: The 48 Preludes and Fugues* (New Haven, 2002), Ralph Kirkpatrick, *Interpreting Bach's Well-Tempered Clavier: A Performer's Discourse of Method* (New Haven, 1987) and Richard Troeger, *Playing Bach on the Keyboard: A Practical Guide* (Pompton Plains, NJ, 2003).

Leaver.<sup>44</sup> References to all these and a number of other books were then organized and presented as a short guide for the benefit of other players.<sup>45</sup>

For the first time, a complete Bach cycle was given on the clavichord, the most common domestic keyboard instrument in 18<sup>th</sup>-century Germany; and, in the spirit of performances from before the invention of the public ‘keyboard recital’ in the late 18<sup>th</sup> century, were presented in small venues in front of invited audiences. The instrument used was a 1993 copy by Dennis Woolley of a Johann Adolph Hass of 1763, the original of which is in excellent playing order. Although this particular clavichord dates from after Bach’s death, the original design, by Johann’s father Hieronymous Albrecht Hass (1689-1746 or later) was very similar, and there are 18 or so surviving FF-f<sup>3</sup> unfretted clavichords of this model by both father and son;<sup>46</sup> the earliest is from 1732, and is already a fully worked-out design from the period of (for example) Bach’s mature clavier works. The clavichord worked well for the entire chronological corpus, and supports Forkel’s statement that Bach ‘liked best to play upon the clavichord’, considering it ‘the best instrument for study, and, in general, for private musical entertainment’.<sup>47</sup>

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<sup>44</sup> Richard D. P. Jones, *The Creative Development of Johann Sebastian Bach*, 2 vols. (Oxford, 2007, 2013); Peter Williams, *Bach: A Musical Biography* (Cambridge, 2016); Robin A. Leaver (ed), *The Routledge Companion to Johann Sebastian Bach* (Abingdon, 2017).

<sup>45</sup> Francis Knights, ‘The Musician’s Bookshelf: J. S. Bach’, *Harpsichord & Fortepiano* xxiv/2 (Spring 2020), p.32.

<sup>46</sup> Donald Boalch, ed Charles Mould, *Makers of the Harpsichord and Clavichord* (Oxford, 3/1995), pp.365-376. An online update of Boalch is to be launched in 2022.

<sup>47</sup> David and Mendel (1998), p.436. Many 20<sup>th</sup> century harpsichordists (especially Wanda Landowska) have found Forkel’s statements highly contentious; see Francis Knights, ‘Johann Sebastian Bach und das Clavichord: Argumente für ein verkanntes Instrument’, *Neue Zeitschrift für Musik* (November 1990), pp.15-18.

Experience showed that the very act of performing these particular works on such an instrument, proved to be a valuable and revealing research method in itself.

The project began with the complete Well-tempered Clavier, on the basis that this is the most comprehensive survey of Bach's technical demands. A formal study-structure scheme was devised and written up,<sup>48</sup> using a six-level system of preparation (Analysis of the score and background reading; Fingering; Basic learning; Improving problem passages; Familiarity and revision; and Preparation for performance) with adjustable study times to allow for some flexibility. A list was also compiled of the individual technical components in the music, which was further developed for the Inventions & Sinfonias;<sup>49</sup> this useful task does not appear to have been done before. It validates Bach's own method of making these works an early goal of study, and reinforces that the full benefits of study only come if both sets of Inventions & Sinfonias are learned complete.

The Art of Fugue (performed in the recital series both as a solo and as a duo on two clavichords) provides an interesting example of a technical issue, that of hand stretch. Normal practice for Bach - and all early keyboard composers - is for the octave span to be the normal limit, and a deviation in the mirror fugues (Contrapunctus XIII) of parallel tenths in one hand raises the issue of whether the work is indeed for solo keyboard, as was proposed many years ago by Donald Tovey and Gustav Leonhardt,<sup>50</sup> among others.

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<sup>48</sup> Francis Knights, 'Learning the 48', *Harpsichord & Fortepiano* xxiii/1 (Autumn 2018), pp.21-31.

<sup>49</sup> Francis Knights, 'Bach's Inventions & Sinfonias and keyboard pedagogy', *Sounding Board* xiii (2019), pp.24-30.

<sup>50</sup> Donald Tovey, *A Companion to 'The Art of Fugue'* (Oxford, 1931); Gustav Leonhardt, *The Art of Fugue - Bach's Last Harpsichord Work: An Argument* (The Hague, 1952).

In fact, the work cannot be performed complete on a single keyboard due to such issues as hand stretch and keyboard compass,<sup>51</sup> and this raises an interesting question as to whether the Art of Fugue is indeed an entity, in performing terms. The incomplete Contrapunctus XIV was also the subject of study, using computational methods which assess the similarity of a number of completions (there are more than two dozen in total) to the musical content of Bach's surviving 239 bars.<sup>52</sup> Using a mathematical method called Information Theory, it can be demonstrated that Tovey's 1929 completion<sup>53</sup> holds up well, but is eclipsed by the recent Göncz version.<sup>54</sup>

The 21 solo clavichord recitals were supplemented by four others, which included a harpsichord performance of the Goldberg Variations; a repeat of one of the '48' programmes on the organ; the Art of Fugue as a clavichord duo with Dan Tidhar; and an experimental sight-reading concert. This latter subjected a small invited audience, who were invited to pick works at random from supplied collections of German baroque works, to see both what it is like to perform – and to hear – a sight-read recital; this was in reference to an anecdote in Forkel's biography of Bach, in which he told an acquaintance that he 'really believed he could play everything, without hesitating, at first sight'. On being given a score with an unplayable passage which he failed to negotiate

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<sup>51</sup> Francis Knights, 'Bach's Art of Fugue as a keyboard work', *Dolmetsch Foundation Bulletin*, New series No.38 (Autumn 2020), pp.8-12. The posthumous published edition also includes an organ chorale prelude, and an arrangement for two keyboards of the pair of mirror fugues, otherwise unperformable by a single player.

<sup>52</sup> Ivan Paz, Francis Knights, Pablo Padilla and Dan Tidhar, 'An Information-Theoretical Method for Comparing Completions of Contrapunctus XIV from Bach's Art of Fugue', *Empirical Musicology Review* (forthcoming 2022).

<sup>53</sup> Donald F. Tovey, *Bach, The Art of Fugue* (Oxford, 1929).

<sup>54</sup> Zoltán Göncz, *Joh. Sebastian Bach: Contrapunctus 14* (Stuttgart, 2006).

successfully, Bach is reputed to have said, ‘one cannot play everything at first sight; it is not possible’.<sup>55</sup>

One simple observation from performing the English Suites – that Bach’s binary-form dance movements nearly always end with matching broken-chord cadential patterns (all six Allemandes, for example) – led to a parallel piece of research about Bach’s cantatas (Chapter 5).<sup>56</sup> His recitative perfect cadences with obligato instruments are harmonically plain but quite varied in layout, and from this a typology of all such cadences (111 in total) can be created. This was intended to be useful for continuo players performing from the numerous cantata sources which are unfigured, where over-decoration is sometimes evident in modern concerts and recordings. The results from the written-out versions clearly suggest what is appropriate Bachian voice-leading, and what level of dissonance was typical (for example, dominant sevenths and falling sevenths are relatively rare in minor keys, and decorated cadence chords are far more common in some keys than others). The cantata texts set support cadence types being related to key words in the text: certain types of words evidently suggested melodic elaboration to Bach.

### ***Performance Practice***

Ornamentation is an area where ambiguity poses the performer many problems (see also chapter 1): sources may be unclear, may disagree with each other, or contain no

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<sup>55</sup> Forkel (1802), in Mendel and David (1998), p.435.

<sup>56</sup> Given the practical outcomes of the study, this was published in a widely-read open-access society publication (not peer-reviewed), where professional keyboard players were far more likely to read it.



ornamentation at all, leaving little concrete evidence of what was intended by the composer at the time of composition. For example, some Bach clavichord works survive in highly-ornamented German sources that owe something to the French manner, with little sense as to what is derived from Bach. Of course, copies like those of Johann Peter Kellner (1705-1772)<sup>57</sup> are highly instructive as to how one particular later musician understood the music, but connecting these back to Bach's practice in 1710, 1730 or 1750 (his own playing style is very likely to have changed over half a century) is uncertain. While his own highly ornamented alternative versions (for example, the Sinfonia in E<sup>b</sup> BWV791a) are indicative of the possibilities, do they reflect exceptional usage (perhaps model examples for students) or normal usage? Certainly, by the mid-1720s onwards, when Bach published his Six Partitas there is relatively little added decoration to individual notes compared to complex notated patterns written out in full (Sarabande, Partita No.6 in E minor). In terms of keyboard technique, this might even point to clavichord rather than harpsichord.

The differences in repertoire, style and use between organ and harpsichord is probably more marked today than it was in the Baroque, and both editors and publishers have tended to make a distinction between the two. In Bach, the organ works are usually seen as those with an obligato pedal part or a clear liturgical purpose (for example, a chorale prelude), with the remainder being seen as for clavichord. However, this leaves an interesting small group of pieces (see chapter 4) which have an intermittent or very occasional pedal

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<sup>57</sup> See for example the excerpts or scores included in Rudolf Steglich (ed), *J. S. Bach, Toccaten BWV 910-916* (Munich, r/2008), p.87, Georg von Dadelsen (ed), *J. S. Bach, Suiten, Sonaten, Capriccios, Variationen* (Munich, r/2009), pp.6, 20-21 and Georg von Dadelsen and Klaus Ronnau (eds), *J. S. Bach, Fantasien, Präludien und Fugen* (Munich, r/2009), p.141.

part. These are more likely to be published with the clavier works (which are intrinsically more ‘miscellaneous’ in style and genre than the organ works. None appear to need a 16-foot pedal, and the majority (while not precisely dateable) seem to come from around 1710-1715. Not all sources even mention the word ‘pedal’ at points where it seems to be implied, or comment in any way on the impossible stretches for the left hand. The options for performance are: the use of a third hand; a pedal harpsichord or clavichord;<sup>58</sup> putting the unreachable notes up an octave; using the ‘stick in mouth’ technique described by Charles Burney (see below); or the use of an instrument with pedal pulldowns (a small pedalboard connecting to the lowest notes of the manuals by cords or trackers). The eight works fall into two groups: those requiring just a few pitches at the end (Fugue in A minor BWV865 from *The Well-tempered Clavier*, Book 1, Fugue in C major BWV946, Fugue in A major BWV949, Fugue in A major BWV950); and those requiring a wider range of pitches (Fugue in D minor BWV948, Sonata in D major BWV963, *Aria Variata* BWV989, Capriccio in E major, BWV993). Both groups seem closer to clavier than organ in terms of texture and style (for example, dense left-hand chords in BWV993, wide-ranging arpeggios in BWV948). With reference to the plausible options suggested for performance, that of pedal pulldowns seems most likely with respect to Bach’s original composition environment.

Burney’s reference to the anecdote about Bach using a stick in his mouth to play even more notes led to a practical experiment to test this. The results suggested that it is difficult to use on a touch-sensitive instrument like the clavichord, with issues of

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<sup>58</sup> See Joel Speerstra, *Bach and the Pedal Clavichord* (Rochester, 2005).

balancing the tone and volume with the notes played by the hands, but that it can work on harpsichord. It is far too inelegant to use in an actual recital, and angling the head to reach the low bass notes with the stick means the music cannot be seen while doing it, but it is not actually impossible as a technique. Such curious historical anecdotes as this one sometimes turn out to have an original basis in fact, rather than being simple biographical invention.<sup>59</sup>

### **Manuscript Sources**

Given the long history of choral foundations in England, the number of surviving early manuscripts is remarkably small. Collections were built up for practical use, subject to various liturgical changes (for example, the back-and-forth upheavals of the 16<sup>th</sup> century), and as they became old fashioned or worn out, were discarded or put away on a shelf. Damaged material not in permanent bindings was always in danger, and this is likely the reason for major collegiate institutions such as King's College in Cambridge and Christ Church and Magdalen College in Oxford having very few music manuscripts from before the 17<sup>th</sup> century.<sup>60</sup> Items were even mislaid as late as the end of the 19<sup>th</sup> century, such as the Magdalen copy of Daniel Purcell's Service in E minor that served a copy source for Stainer's edition, originated during his time as *Informator Choristarum* there. What may be a companion organ book for that lost Purcell source has survived in the College archives, MS 347 (chapter 7); this dates from soon after the Restoration, and includes

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<sup>59</sup> For an example of such a 'close-reading' examination of a different anecdote about John Bull (also mentioned by Burney), see Francis Knights and Pablo Padilla, 'Dr Bull and a motet in 80 parts' (forthcoming).

<sup>60</sup> See for example the references in Francis Knights, 'The History of the Choral Foundation of St John's College, Oxford', *The Musical Times* cxxxi/1770 (August 1990), pp.444-447, Knights (1991) and Francis Knights, 'The historic chapel music manuscripts at Trinity', *Trinity College Annual Report* (2007), pp.55-59.

music from before the Civil War composed by Tallis, Farrant, Byrd, Patrick and Gibbons, and from after it by Rogers, Child, Blow, Purcell and Aldrich. The presence of several pieces by Benjamin Rogers suggests that he may have been involved in its compilation. The source is especially important as a performance practice document for several reasons: at a time when organs were being re-pitched lower, the transposition of Tallis' Short Service suggests an attempt to retain the sounding pitch its composer might have expected; and Gibbons' Short Service is highly ornamented in the Restoration manner (see Knights 1990 for a transcription of the Magnificat & Nunc dimittis).<sup>61</sup> This is highly unusual (although not unique),<sup>62</sup> and has significant implications for both tempo and style. As well as flourishes between verses, there are keyboard ornaments in the organ part which – it could be assumed, but is not completely certain – were reflected in the missing chorus parts. In other words, music by Gibbons was being updated into a contemporary style, and this also raises the obvious question as to whether, at this time and place at least, highly ornamented styles were usual for church music. This would certainly justify experimentation as to the results of this.

As noted above, the survival of music manuscripts is often owed to a critical moment, when an old book is deemed to be worth keeping even though the repertoire it contains is obsolete. Collectors have always been attracted to large and highly decorated volumes, such as the lavish early 16<sup>th</sup> century choirbooks produced by the Alamire workshop in Antwerp, but more modest volumes started attracting the interest of antiquarians from the

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<sup>61</sup> Francis Knights, 'A Restoration Version of Gibbons' Short Service', *Organists' Review* lxxvi/271 (June 1990), pp.97-100.

<sup>62</sup> See Knights (2007).

18<sup>th</sup> century onwards; many of these have now found their way into collections such as the British Library. The ‘Cinderella’ of such hand-copied collections are probably the teaching manuscripts created from after the Restoration until the early 19<sup>th</sup> century, where simple works of modest musical value intended for pupils have less to commend them in terms of musical contents. Some of these remained in their place of origin for many years, such as the ‘Cobham Hall Spinet Book’ (chapter 8), now in Cambridge University Library.<sup>63</sup> This records the progress of an aristocratic young pupil in a grand country house in Kent from 1729 onwards. Teacher Charles Froud (a London organist) appears to have collected together works by Handel, Arne, Greene, Ariosti, Pepusch and others (no composers are named, but many works can be identified), and some of the contents parallel pieces in Peter Prelleur’s *The Modern Musick-Master* of 1731.

Cobham Hall was the seat of the Earls of Darnley for more than 200 years, passing out of the family in 1957 after the death of the ninth Earl. The first Earl (d.1728) and his wife Theodosia (d.1722) had six children, and it appears that the youngest, Theodosia Bligh (1722-1777) was the pupil in question. Her older brother Edward (Second Earl of Darnley from 1728) became a Handel enthusiast as an adult, and the house later contained a both a chamber organ attributed to Samuel Green and a substantial Snetzler organ. The manuscript refers to lessons on the ‘Spinetto’, which may be a generic keyboard term or have referred to an actual spinet; these were much more common in England than harpsichords until the middle of the 18<sup>th</sup> century. However, a surviving single-manual harpsichord by John Hancock (London, 1720) was also sold in the 1957

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<sup>63</sup> GB-Cu MS Add. 9127.

estate sale, and it is possible that this instrument – which has the exact GG-e<sup>3</sup> compass required by the manuscript – was the very instrument on which Froude gave his lessons.

The manuscript starts with a concise set of instructions similar to those of the *Harpsichord Master* volumes published in London from the very end of the 17<sup>th</sup> century. Most importantly, it includes manuscript notes of great rarity concerning actual lesson dates, noting all ‘The Days Mr Froud came to teach me to play on the Spinetto’ (as with the history of rehearsal, the history of private music lessons at this early date is poorly supported by archival evidence, making such specific dates linked with one source all the more important). Between January and June 1729, 48 lessons were given, more than two per week, and the manuscript repertoire and difficulty appears to be progressive; the lessons likely continued to 1731 and possibly beyond, even though no later teaching dates are listed. It is a pity no further information is given.

### **The Clavichord**

A final group of chapters relate to the clavichord. This has been a long-standing research interest, and started with the collection of data about recordings and publications. Chapter 9 began as an article,<sup>64</sup> but within a few years a revised version was large enough to become a substantial book in 2009,<sup>65</sup> since expanded and updated in 2020; this was a reflection of the greatly increased interest in the instrument worldwide, supported by the foundation of clavichord societies in Finland, Germany, Japan, the Netherlands,

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<sup>64</sup> Francis Knights, ‘A Clavichord Discography’, *Music Review* li/3 (August 1990), pp.221-233.

<sup>65</sup> Francis Knights, *Clavichord Discography* (Cambridge, 2009).

Switzerland, the UK, and the US (sadly, several of these have now closed, more due to administrative and financial difficulties than lack of interest). A parallel project collected writings on the instrument,<sup>66</sup> which (again) were much more extensive than previously thought; this bibliography has now been superseded by the comprehensive one published online by Lothar Bemann.<sup>67</sup> The discography, which was supplemented by an extended review-article of the main recordings then available,<sup>68</sup> has in particular become a resource for the study of repertoire interests and performance practice in the modern era, for example Paul Simmonds' article about the (still-neglected) place of the clavichord in the late 18<sup>th</sup>-century German clavier repertoire.<sup>69</sup>

A second strand concerned repertoire, both in general and in particular. As well as a brief overview of the possible music for which the instrument was historically suited,<sup>70</sup> there were studies relating to the instrument in France (Chapter 10) and England (Chapter 11). Two particular composers also featured: Bach<sup>71</sup> and Chopin.<sup>72</sup> The former needed 'rescuing' from harpsichord recitalists, who had chosen to ignore Forkel's clear statement

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<sup>66</sup> Francis Knights, 'The Clavichord: A Comprehensive Bibliography', *Galpin Society Journal* xlviii (1995), pp.52-67.

<sup>67</sup> See <http://www.clavichord.info>.

<sup>68</sup> Francis Knights, 'The Clavichord on CD', in Judith Wardman (ed), *International Clavichord Directory* (London, 2/2008), pp.11-31.

<sup>69</sup> Paul Simmonds, 'The Clavichord Revival', *Clavichord International* xxv/1(May 2021), pp.21-23.

<sup>70</sup> Francis Knights, 'A short guide to the Clavichord and its music', in Wardman (2008), pp.9-10.

<sup>71</sup> See Knights (1990).

<sup>72</sup> Francis Knights, 'Exploring Chopin on the clavichord', *Tangents* xlv (October 2019), pp.1-4.

about Bach's keyboard preferences ('He liked best to play upon the clavichord'),<sup>73</sup> as it did not accord with performing realities of today; it is gratifying to see that the composer is now featured on more than 160 recordings, even if Richard Troeger's excellent ongoing complete series on Lyrichord is not now to be finished. Chopin is a more contentious matter, and was an idea borrowed from the performers Judy Conrad, Anna Maria McElwain and Wim Winters.<sup>74</sup> The historical justification was that from the late 18<sup>th</sup> century clavichords could have very large six-octave compasses (CC-c<sup>4</sup> – Pehr Lindholm, 1794 onwards; FF-f<sup>4</sup> – Carl Jacob Nordqvist, c.1820), which must have been related to the music they were intended for.<sup>75</sup> One likely reason was to keep up with the expanding compass of the fortepiano, and clavichordists must to some extent been playing piano repertoire, even if the absence of a sustaining pedal caused difficulty in Romantic piano music. Clavichords were still being built in Poland during Chopin's lifetime,<sup>76</sup> and scholars have even suggested that Chopin could have used the instrument when young. A programme of mazurkas, preludes and waltzes falling within an FF-f<sup>3</sup> compass was devised and successfully performed in May 2019.

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<sup>73</sup> David and Mendel (1998), p.436. See also Knights (1990).

<sup>74</sup> The second of these also wrote an extensive study of the Preludes, and has recorded a number of them; see Anna Maria McElwain, *A Clavichordist's View of the Chopin Preludes* (Sibelius Academy, 2010).

<sup>75</sup> Wide compasses were also found in the Czech lands and Iberia.

<sup>76</sup> Benjamin Vogel, 'The Clavichord as an Instrument and as a Term in Polish Musical Culture', in Bernard Brauchli, Susan Brauchli and Alberto Galazzo (eds), *De Clavicordio I* (Magnano, 1994), pp.209–213.



There is also a substantial modern repertoire for the instrument, now catalogued,<sup>77</sup> which began with Herbert Howells in 1927 and follows a variety of paths across the world from the neo-classical to the avant-garde, resulting – in the interests of encouraging further commissions for the clavichord – in an article explaining some of the parameters for effective composition for an instrument which is not yet well understood by many musicians.<sup>78</sup>

### ***Clavichord Recordings***

The history of clavichord sound recordings dates back 90 years to Arnold Dolmetsch, who has been followed by no fewer than 250 performers on disc (Chapter 9). The instrument has greatly benefited from modern recording techniques, especially in terms of capturing low level dynamic range and nuance, and the sounds of the pioneers are now relatively dated. However, the ‘revival’ clavichords by Dolmetsch, Goff and others that were used up until the 1970s make a more attractive sound than do the equivalent harpsichords; the simplicity of the clavichord precludes the engineering-driven ‘improvements’ that were made to the latter instruments before that time. Repertoire choices began with mainstream Baroque and Classical composers (Bach, Haydn, Mozart are well represented), but with increasing coverage of the 17<sup>th</sup> century subsequently. Certain composers, such as C. P. E. Bach, have been very fortunate, to the benefit of their reputations. In addition, folk, pop, jazz and contemporary music are now all represented,

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<sup>77</sup> Knights (forthcoming 2022). A selection of recent works by Alexander Blustin, Alan Bullard, Graham Lynch, Ivan Moody, Peter Nickol, Janet Oates and Julia Usher will appear as Francis Knights (ed), *New Music for Clavichord* (forthcoming 2022).

<sup>78</sup> Francis Knights, ‘Composing for the Clavichord’, in Wardman (2/2005), pp.9-10. A series of recitals in Cambridge since 2017 has explored the modern repertoire, including the complete clavichord works of Herbert Howells at the time of his 125<sup>th</sup> Anniversary.

and the instrument can also be heard in accompaniment role, with a solo voice or flute, and in its ‘pedal’ guise, an important historic use as a practice instrument for organists.

Although a database provides advantages for searching, a printed discography allows for a better overview, and the layout adopted here is alphabetical by performer, followed by recordings in date order, with a numbered suffix to indicate reissues or versions of the original issue.<sup>79</sup> The data also includes the full clavichord track list, instrument, format, label, date and reviews; separate indexes for composers and historic instruments are provided.

### ***The clavichord in France***

The distribution of surviving historical clavichords between the early 16<sup>th</sup> and mid-19<sup>th</sup> centuries suggests the popularity and usage made of it varied considerably between country and century. Some three-quarters are of German origin, by such esteemed makers as Friderici, Hubert and Hass, and literary and archival sources, as well as extant music, suggest that the heyday of the clavichord took place in 18<sup>th</sup> century Germany. However, the lack of named and dated instruments or identifiable repertoire in other clavichord centres, such as 16th-century Spain and 18th-century Sweden, makes such statements uncertain. In modern times, ‘players of the modern concert harpsichord ... have enthusiastically laid claim to all early keyboard music whatsoever’,<sup>80</sup> in the words of Thurston Dart, hampering our understanding of the sheer variety of keyboards in pre-19<sup>th</sup>

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<sup>79</sup> This format designed here is based on 15 years’ experience as a professional discographer and cataloguer.

<sup>80</sup> Thurston Dart, sleeve note to *J. S. Bach: the Six French Suites*, L’Oiseau-Lyre SOL 60039 (1961).

century Europe. In respect of the French tradition of the 17<sup>th</sup> and 18th centuries, the quantity and quality of music by Chambonnières, the Couperins, Rameau, Duphy, Forqueray and other members of the *claveciniste* school has partly overshadowed the contemporary organ and fortepiano traditions. While no known French clavichords survive, documentary evidence published half a century ago by Lesure, Hardouin and Hubbard indicate that the instrument was known and used (Chapter 10).<sup>81</sup> Workshop inventories and estate valuations between c.1550 and c.1800 show instrument makers, composers and performers with clavichords in their possession, and include such illustrious family names as Denis, Jacquet, Baillon, Blanchet, Hensch, Stehlin, Taskin, Goermans, Gigault, Couperin, Dumont, Nivers, Raison, de la Guerre, Thomelin, Marchand and Forqueray. For the most part, the condition and purpose of the instruments (none are attributed or dated in the records) is unknown, but it seems that a considerable number of French composers, players and makers owned clavichords; the preponderance of known organists among the second group suggest that (as elsewhere) they served as convenient practice instruments. Strikingly, the instrument owned by Nicolas Gigault in 1701 represents only the second archival reference to an unfretted clavichord, after its mention in the preface to Johann Speth's *Ars magna consoni et dissoni* keyboard collection of 1693.<sup>82</sup>

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<sup>81</sup> François Lesure, 'La Facture Instrumentale à Paris au Seizième Siècle', *Galpin Society Journal* vii (1954), pp.11-52; Pierre Hardouin, 'Harpsichord Making in Paris: Eighteenth Century', *Galpin Society Journal* x (1957), pp.10-29; xii (1959), pp.73-85; xiii (1960), pp.52-58; Hubbard (1965), pp.286-319 and 89.

<sup>82</sup> One related outcome of the 1991 France article has been a 2014 CD recording by Terence Charlston called *Mersenne's Clavichord* (Divine Art DDA25134), using an instrument by Peter Bavington based on Mersenne's description.

### *The Clavichord in Britain*

As with France, documentary sources show evidence of knowledge and use of the clavichord in England, and from the 15<sup>th</sup> to the 19<sup>th</sup> centuries,<sup>83</sup> although references seem to decline in number after the English Civil War. However, Handel reputedly owned a high pitch instrument by Ugo Annibale Traeri (1726), used ‘in composition, while travelling’;<sup>84</sup> and references to instruments being played, auctioned, sold or made can be found between the 1740s and 1780s. Unlike France, an actual instrument of c.1780 now survives, signed by Peter Hicks (see Chapter 11). The authenticity of this clavichord has been debated for many years, mainly because of uncertainty about its date relative to its style; for example, it has been suggested that it might have been made by Rudolf Straube, that the inscription was later added to a clavichord of German origin, or that it could have been converted from a square piano. In addition, some poor 19<sup>th</sup> century restoration work (the bridge is currently fitted the wrong way round) has tainted the instrument.

Peter Hicks is almost unknown, but appears in the Broadwood Books as a tuner between 1769-1772, and he may have been related to a later Bristol family of instrument-makers who devised the portable street barrel piano. The instrument is small and triple-fretted (exceeding rare by the second half of the 18<sup>th</sup> century), but the mahogany casework is typical of English keyboard instruments from the second half of the century; a date of c.1780 seems plausible. The provenance of the instrument goes back to 1881, when it

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<sup>83</sup> Bernard Brauchli, *The Clavichord* (Cambridge, 1998), pp.44-46; Christopher Hogwood, ‘The Clavichord and its repertoire in France and England before 1700 - a summary and a new manuscript source’, *De Clavicordio VI* (Magnano, 2004), pp.157-176; Christopher Hogwood and Bernard Brauchli, ‘The Clavichord Britain and France: a selection of documentary references before 1700’, *De Clavicordio VI* (Magnano, 2004), pp.177-184; Francis Knights, ‘The clavichord in Tudor Cambridge’, *British Clavichord Society Newsletter*, xli (June 2008), pp.3-7.

<sup>84</sup> Boalch (1995), p.660.

was owned by John Gillis of Cardiff, who sold it to the scholar and collector Thomas Lea Southgate in 1892; in 1917 he passed it to the Victoria and Albert Museum, where it remains. Southgate appears to have been proud of his acquisition of the only known English clavichord, and exhibited it, with references to the instrument in print found from 1894 onwards.

The origins of the instrument can only be conjectured, but it can (for example) be imagined that Hicks built by modelling it an older fretted clavichord to which he had access – it is otherwise hard to understand why a triple-fretted (rather than an unfretted) instrument would have been wanted at this late date. One possible customer is actually Dr Burney, who in 1772 had visited C. P. E. Bach in Hamburg and heard him play, being very favourably impressed, and noting Bach's celebrated Silbermann clavichord.<sup>85</sup> The most likely use of the Hicks clavichord would have been as a portable practice or 'composer's workbench' instrument.

### **Editing: principles and practice**

The laborious process of identifying, collecting and collating musical scores to produce editions has undergone profound changes in the past two decades. On the one hand, accessing material digitally has enabled significant cost reductions, with the flexibility of computer typesetting programmes allowing elegant scores and performing material to be produced easily and cheaply. On the other hand, the widespread free online availability of outdated or inferior public domain editions has diminished the market for printed

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<sup>85</sup> See Francis Knights, 'Charles Burney's keyboard music', *Harpsichord & Fortepiano* xxv/2 (Spring 2021), pp.13-23.

scholarly editions, at the same time as expert editors find the professional or financial returns on such work much less worth such effort. The result is that ongoing series such as *Musica Britannica*, *Early English Church Music* and composer collected works continue to proceed slowly and expensively. However, markets do still exist for key works and sources aimed at performers, and the need to revisit antiquated editions such as the 1899 *Fitzwilliam Virginal Book* is clear. In recent decades, performers have become much more aware of the nuances and variety that early sources present, and are more willing to engage with notational difficulties; lute players have used facsimiles for years, and the time may even come when original clefs and six-line staves are seen as accessible to modern keyboard players. The major new editions of *The Fitzwilliam Virginal Book*, *My Ladye Nevell's Booke* and *Parthenia*, produced in collaboration with Jon Baxendale, now makes available the three most important manuscript and printed sources of the virginalists.<sup>86</sup> As well as including extensive introductions (covering history, notation, instruments, performance practice and the like), commentaries and bibliographies, these editions also retain almost all original notational features apart from clefs and six-line staves.<sup>87</sup> These include the hitherto-unnoticed ‘dots of alignment’ intended to help the player of the *Nevell* manuscript align long beamed passagework with the accompanying chords, a challenge about which 16<sup>th</sup>-century keyboard copyists could be remarkably cavalier.

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<sup>86</sup> Baxendale and Knights (2020); Baxendale and Knights (2021a); Baxendale and Knights (2021b).

<sup>87</sup> Some other editions in the Lyrebird Music keyboard series present duplicate texts, with the alternative version using original clefs throughout.

One particular issue – that of added editorial ties in keyboard music – was explored separately, with the conclusion that editors should more carefully think about why and for what instrument these might be considered.<sup>88</sup> In particular, it often seems to be assumed that long repeated organ notes are to be sustained, the evidence for which is by no means certain.

Chapter 6 comprises the complete keyboard duos by members of the Bach family. Music for pairs of keyboard instruments - harpsichords, clavichords, fortepianos and organs – originated in the 16<sup>th</sup> century, and the genre attracted works by leading composers in France, Spain, Italy and Germany during the Baroque.<sup>89</sup> Works for stringed keyboards fulfilled a social musical purpose, while some of the multiple-organ compositions reflected the availability of instruments in the largest churches and cathedrals, such the Monastery Church of Einsiedeln in Switzerland. The Bachs were a major contributor, and Johann Sebastian and three of his sons, as well as a number of his pupils (Johann Ludwig Krebs, Johann Gottfried M $\ddot{u}$ thel), composed for such instrument pairs.

This edition gathers all the Bach family works together for the first time in accurate modern editions, using a single-source rather than Urtext methodology intended to reflect the practical reality that comparative source studies would not have been possible at the time: musicians worked with the copy they had available, and had to interpret it in the light of their own experience and taste. The C major concerto by Johann Sebastian, the W. F. Bach *Duetto a Due Cembali* (also called ‘concerto’ and ‘sonata’) and the Sonata in

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<sup>88</sup> Francis Knights, ‘To tie or not to tie? Editing early keyboard music’, *National Early Music Association Newsletter* v/1 (Spring 2021), pp.15-19.

<sup>89</sup> See Francis Knights, ‘Early keyboard duets’, *Sounding Board* xvi (2021), pp.21-33.

G by Johann Christian are the most substantial works here, to which the C. P. E. Bach *Vier kleine Duetten* and J. S. Bach's Contrapunctus XIII arrangement (a pair of four-part mirror fugues) from the *Art of Fugue* form a supplement. The latter are quite challenging, and the two-keyboard layout presents a practical solution to performance of the entire work, which is otherwise problematic.<sup>90</sup> In terms of performance practice, it is especially noted that matched pairs of instruments are not necessarily required (for example, Burney and his family used fortepiano and harpsichord together in the 1770s), and that the narrow compass of most of these Bach works may suggest a smaller, domestic scale of keyboard, rather than the pairs of large harpsichords commonly used today in performance and recording.

### **Collecting musical information**

As with editing, the production of data collections such as indexes, catalogues and bibliographies has now become a lower priority for individual scholars. These projects do not receive the professional credit they once did, and it is often assumed that online resources and aggregated collections will provide sufficient information to support research questions for their users. However, much material is still not digitized, or is found only in obscure journal and society publications (few of which will appear in JSTOR and RILM, for example). In addition, scholars both often have quite specific requirements, and can neglect to share their own material publicly.<sup>91</sup> As well as the discography that comprises Chapter 9 here, a number of other indexes made accessible

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<sup>90</sup> See Knights (2020) and Francis Knights (arr), *Bach: The Art of Fugue* (forthcoming 2022).

<sup>91</sup> Publications like the Royal Musical Association's *Research Chronicle* (1961-) were founded to help address this problem.



online in pdf form were designed to help keyboard researchers find some rare material from past decades. These include *Harpsichord & Fortepiano, Complete Index 1972-2019*<sup>92</sup> and *National Early Music Association, Complete Publications Index 1991-2019*,<sup>93</sup> each some 60 pages in length, both of which are found on their respective publisher's website.

### **Conclusion**

While enormous numbers of pre-Romantic compositions have survived, music-historical archival sources are fairly scanty, especially for the period before the 18<sup>th</sup> century. Creating narratives by filling in those gaps from other times and places is both necessary and dangerous; the world, and the musical world, operated on a much more local basis before the invention of newspapers, affordable travel and universal education. While accurately outlining the generalities of music history is therefore difficult, some of the specifics lie on much stronger ground, and information from particular times, places, people, documents and instruments can at times combine to give a focused picture. The study of early keyboard music is one of the strongest of these areas, with some continuity as to the creation and use of keyboards, for performance, composition and teaching, as well as useful information about some aspects of performance practice, such as pitch, tuning and ornamentation. There is much still to be done, and those with broad skills that encompass archival work, editing, performance, analysis and so forth are best equipped to understand these aspects of music and musical practice of the past. A case can be

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<sup>92</sup> Francis Knights, *Harpsichord & Fortepiano, Complete Index 1972-2019* (2019).

<sup>93</sup> Francis Knights, *National Early Music Association, Complete Publications Index 1991-2019* (2019).

found in Couperin, where studying today his harpsichord music using facsimiles of his published scores, with the detailed guidance of his treatise *L'Art du toucher le clavecin*, on surviving instruments he could have known, tuned as he would have expected, and in venues he knew, may get us as close as any historically informed performance of the past can.

## Virginalist Ornamentation and Interpretation

FRANCIS KNIGHTS

### Introduction

The British “virginalist” tradition encompasses keyboard music from the Tudor and Stuart periods, most of the composers of which were associated with the Chapel Royal in London.<sup>1</sup> The term “virginals” refers both to keyboard instruments generically (harpsichord, virginals, spinet, ottavino, and clavichord),<sup>2</sup> and also to the rectangular single-strung plucked instruments that have survived in considerable numbers from 17th century Britain. The great majority of the virginalist repertoire consists of secular dances (pavans, galliards, almans, and so on), preludes, variations, contrapuntal works, and arrangements of vocal or other music.<sup>3</sup> A very large number of works have survived, particularly in manuscripts such as My Lady Nevell’s Book (1591) and the Fitzwilliam

<sup>1</sup> Or possibly “English,” as the surviving works are very largely from that country. Scottish composer William Kinloch is an exception in this repertoire, but almost nothing is known of his life or training; he may have been a pupil of Tallis. For surveys of the repertoire, see Alan Brown, “England,” in Alexander Silbiger, ed., *Keyboard Music before 1700*, 2<sup>nd</sup> ed. (New York: Routledge, 2004), 23–89, and Pieter Dirksen, “The Virginalists,” in Mark Kroll, ed., *The Cambridge Companion to the Harpsichord* (Cambridge: Cambridge University Press, 2019), 31–46.

<sup>2</sup> For an up-to-date survey of the instruments of the period, see John Koster, “The Harpsichords of the Virginalists” in David J. Smith, ed., *Aspects of Early English Keyboard Music before c.1630* (Abingdon, Oxon: Routledge, 2019), 29–48, and Dominic Gwynne, “The Lost Musical World of the Tudor Organ,” in Smith, ed., 49–65. Understanding what exact sizes and models (and therefore what touch and tone) of these instruments were available is complicated by the poor survival rates of instruments; for example, there is only one dated English harpsichord from between 1579 and 1683 (Darryl Martin, “From the Virginal to the Spinet: Domestic Keyboard Instrument Manufacture and Use in Stuart England,” in Thomas Donahue, ed., *Essays in Honour of Christopher Hogwood: The Maestro’s Direction* (Lanham, MD: Scarecrow Press, 2011), 1–12 at p. 2).

<sup>3</sup> Post-Reformation church organ music took the form of preludes, voluntaries, and other fantasia-like works, but these were not specific to the liturgical calendar.

Virginal Book (c.1610–1615),<sup>4</sup> and the quality of the music is often strikingly high.

The tradition lasted for more than a century, and used extensively a simple and limited set of ornament signs: a single or double stroke<sup>5</sup> through the note tail (or above or below a semibreve, breve, or black note) to indicate an ornament (Example 1). These two signs appear to have

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<sup>4</sup> For a catalog, see Virginia Brookes, *British Keyboard Music to c.1660: Sources and Thematic Index* (Oxford: Clarendon Press, 1996).

<sup>5</sup> Double strokes are rarely found on notes shorter than quavers, and Desmond Hunter, "The Position of Grace Signs in MS. Sources of English Virginal Music," *The English Harpsichord Magazine* 3, no. 5 (October 1983): 82–91, notes that double stroke appears in all British keyboard sources of this period, but not the single. Willem Diederik Viljoen, "The Ornamentation in the Fitzwilliam Virginal Book, with an Introductory Study of Contemporary Practice," (Ph.D. diss., University of Pretoria, 1986), 105–113, provides a list. There are also some rare triple- (and even quadruple-)stroke ornaments, which seem particularly associated with the early 17th-century composer and copyist Benjamin Cosyn; see Desmond Hunter, "The Application of (Ornamental) Strokes in English Virginalist Music: a Brief Chronological Survey," *Performance Practice Review* 9, no. 1 (Spring 1996): 66–77 at p.76. The triple-stroke has been universally interpreted as a more complex version of the double-stroke type, but Desmond Hunter, "The Dublin Virginal Manuscript: New Perspectives on Virginalist Ornamentation," *Early Music* 30, no. 1 (February 2002): 68–80 at p.76 gives an example from Tomkins where he proposes connecting the rising number of strokes in a passage with "speed of execution." For Cosyn, see Pamela Willetts, "Benjamin Cosyn: Sources and Circumstance," in Chris Banks, Arthur Searle, and Malcolm Turner, eds., *Sundry Sort of Music Books: Essays on The British Library Collections* (London: The British Library, 1993), 129–145; a complete edition of his keyboard music is due out from Musica Britannica, edited by Orhan Memed. The most extensive studies of the subject are Viljoen (1986), Desmond Hunter, "The Application of Grace Signs in the Sources of English Keyboard Music, c.1530–c.1650," (Ph.D. diss., National University of Ireland, 1989), and Asako Hirabayashi, "Ornamentation in the Harpsichord Music of William Byrd," (D.M.A. diss., Juilliard School of Music, 1997). Two other theses might also be noted: Erich Paul Schwandt, "The Ornamented Clausula Diminuta in the Fitzwilliam Virginal Book," (Ph.D. diss., Stanford University (1967) and Pamela Palmer Jones, "The Fitzwilliam Virginal Book: Historical Background and Performance Practice Issues," (D.M.A. diss., University of Utah, 2009). The most recent contribution to the subject is Alexei Panov and Ivan Rosanoff, "Performing Ornaments in English Virginal and Harpsichord Music (Based on the Study of Original Interpretation Instructions)," *Arts* 10, no.1 (2020), 41–67.

originated in about 1540 and 1570 respectively,<sup>6</sup> and the double-stroke ornament seems to have survived well into the 18th century.<sup>7</sup> With one partial, late, and contentious exception, Edward Bevin's "Graces in play" (c.1635),<sup>8</sup> no ornament table of the kind that is familiar in later keyboard sources exists to explain their execution.<sup>9</sup> We do not even know what they were called. Without such guidance to performance, modern editors and players have used continental or later British ornament tables as a guide, and also their own musical preferences. Rhythmic context, harmonic components, melodic context, and fingering indications have all been used in support of various proposals for realizations, but there is still no universally accepted solution.



**Example 1: Single and double stroke ornaments**

<sup>6</sup> See Desmond Hunter, "My Ladye Nevells Booke and the Art of Gracing," in Alan Brown and Richard Turbet, eds., *Byrd Studies* (Cambridge: Cambridge University Press, 1992), 174–192, at p. 175, Hunter (1996), and Asako Hirabayashi, "The Authority of the Bevin Table in the Interpretation of Ornament Sign in Elizabethan Virginal Music," *Harpichord and Fortepiano*, 9, no. 1 (Spring 2001), 24–30. Hunter (2002), p. 68 notes that "The Dublin Virginal Manuscript [c.1570] is the earliest surviving source of English keyboard music in which grace signs are applied with any degree of consistency."

<sup>7</sup> Edward Woodall Naylor, *An Elizabethan Virginal Book* (London, 1905), 209 notes its use in a manuscript of Lessons by James Nares (1715–1783).

<sup>8</sup> See Robert Ford, "Bevins, Father and Son," *Music Review* 43 (1982): 104–108 and Hirabayashi (2001). A facsimile is printed in David Wulstan, *Tudor Music* (Iowa City: University of Iowa, 1986), 130.

<sup>9</sup> Perhaps surprisingly, Thomas Morley's comprehensive *A Plaine And Easie Introduction To Practicall Musicke, Set downe in forme of a dialogue* (London, 1597) has nothing to say on these matters. The earliest English keyboard tutor to include an ornament table is Matthew Locke's *Melobesia* (London, 1673), which names but does not explain them. A double stroke is given as a "shake" and a single stroke is either a "Fore-fall" or a "Back-fall," depending on the direction of lean; see Christopher Hogwood, ed., Matthew Locke, *Melobesia* (Oxford: Oxford University Press, 1987), x.

The earliest attempts to describe the ornament signs date from the 1860s, with many further observations thereafter. But more than a century later Peter Williams noted that "little fresh light has been cast on the meaning of the signs."<sup>10</sup> Crucially, he believed that the symbols may have meant different things to different copyists (and indeed, composers), relating not only to actual ornaments, but to (for example) arpeggiation or articulation, "The signs often served as a kind of *nota bene* mark rather than ornaments *per se*."<sup>11</sup> Frederick Neumann concludes, "We have no hard evidence and can only resort to speculation."<sup>12</sup> It is now unlikely that any new historic evidence will appear, and modern scholars and players must therefore continue to work with such incomplete information as already exists.

The periods of keyboard compositional activity for the major<sup>13</sup> virginalist composers (those for whom, in the following list, more than ten works each survive) cover a period of more than a century. These long approximate *floruit* keyboard composition periods raise interesting questions as to the consistency of use and interpretation of ornament signs over more than a century: Thomas Tallis (1535–1565), William Byrd (1565–1610), Thomas Morley (1570–1600), John Bull (1585–1625), Peter Philips (1585–1625), Giles Farnaby (1590–1620), Orlando Gibbons (1605–1625), and Thomas Tomkins (1595–1655); Tomkins' final dated

<sup>10</sup> Peter Williams, "Other Keyboards," in Howard Mayer Brown and Stanley Sadie, eds., *Performance Practice: Music after 1600*, The New Grove Handbooks in Music (London: The Macmillan Press, 1989), 41.

<sup>11</sup> Williams (1989), 42. There are differing views as to this; Asako Hirabayashi, "A New Interpretation of the English Virginalists' Ornament Signs," *Early Keyboard Journal* 25/26 (2010), 93–123 believes "the idea of 'flexible ornament signs' seems contrary to the very nature of musicianship" (p. 95) and that the "visual aid" theory is not credible (p. 110).

<sup>12</sup> Frederick Neumann, *Performance Practices of the Seventeenth and Eighteenth Centuries* (New York, Schirmer Books, 1993), 318.

<sup>13</sup> Other lesser figures active in the Elizabethan period who contributed reasonable numbers of surviving pieces to the tradition, with their likely *floruit* dates, include John Blitheman (1550–1580), Benjamin Cosyn (1600–1650), William Kinloch (fl.1600), John Redford (1525–1545), and Ferdinando Richardson (1590–1610).

composition was from 1654,<sup>14</sup> making him the last survivor of the old Tudor tradition. Was the meaning of the signs unchanged throughout the period, including for composers who left for the continent (Philips from 1582, Bull from 1613)? Is it possible to identify a specifically “Elizabethan” performing tradition for these “graces”? If so, that would plausibly cover the training (if not necessarily the later ornament interpretations) of all the composers listed here. Whether those mainly composing in the Stuart period (Farnaby, Gibbons, and Tomkins) continued with an earlier usage cannot be known, although in terms of the musical stylistic development of keyboard music before the Civil War, changes in the first half of the 17th century were otherwise not that substantial.

Regardless of such questions, it seems unlikely that the ornaments actually copied into the manuscripts—which may never have been exactly as supplied by the composer, many 16th- and 17th-century copyists seeming to take an interventionist stance—were regarded as completely prescriptive, such an attitude not being much evident in keyboard music before the time of François Couperin, a century later. In addition, some flexibility must always have occurred, or at least been regarded as acceptable, due to the amateur and domestic nature of nearly all this repertoire.<sup>15</sup> Few of these performers would have been of professional standard; few had the technique to play the hardest pieces in the repertoire; older performers had less flexible fingers; and instrumental characteristics made some ornamentation trickier. For example, a heavy

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<sup>14</sup> Stephen D. Tuttle, ed., *Thomas Tomkins, Keyboard Music*, 2nd, rev. ed., Musica Britannica V (London: Stainer & Bell, 1973), xi–xii. This has now been superseded by Stephen D. Tuttle, ed., rev. John Irving, *Thomas Tomkins: Keyboard Music*, Musica Britannica V, 3rd rev. ed., (London: Stainer & Bell, 2010).

<sup>15</sup> Liturgical organ music being an exception. For a discussion of pre-Civil War amateurs’ manuscripts, see Candace Bailey, “Blurring the Lines: ‘Elizabeth Rogers Hir Virginal Book’ in Context,” *Music & Letters*, 89, no. 4 (November 2008), 510–546. Parallel iconographic evidence from the Netherlands (see Lucas van Dijk and Ton Koopman, *Het klavecimbel in de Nederlandse kunst tot 1800* (Zutphen: Walburg Pers, 1987)) suggests some domestic contexts for the study and performance of virginal music; and Marjorie E. Weiseman, *Vermeer and Music: The Art of Love and Leisure* (London: National Gallery, 2013), 30, importantly notes that “harpsichords and virginals are played almost exclusively by women” in Dutch genre paintings.

organ touch, the fretting on a clavichord,<sup>16</sup> or the level of responsiveness of a harpsichord or virginals keyboard—all make a difference as to what it is possible to include, or what would have felt comfortable to an individual player.<sup>17</sup> It is quite likely that many amateurs omitted the more difficult ornaments; not all would have received uniform guidance about ornaments and their usage (remembering that few players would have been taught by leading London professionals), even if such guidance existed. But performers of the calibre of Bull or Gibbons (called “the best finger of that age” in 1624) might have added yet more ornaments and divisions, both by way of demonstrations of virtuosity, and because such creative interpretations of a score were part and parcel of the professional musician’s remit. Nevertheless, any performer of the time must have understood the ornament signs as meaning *something*; but that meaning having varied in time, place, within traditions, for different instruments and by personal taste, seems quite likely.<sup>18</sup>

One further thought: to the modern mind, the absence of an original ornament table represents an accident of historical survival, or a pedagogical oversight. However, it could have been deliberate. Access to knowledge was what teachers were paid for, and not all wished to share

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<sup>16</sup> Clavichords were much more common in Tudor England than has previously been realized; for example, probate records indicate that they were almost as common as virginals in Cambridge in the 16<sup>th</sup> century. See Francis Knights, “The Clavichord in Tudor Cambridge,” *British Clavichord Society Newsletter* 41 (June 2008), 3–7.

<sup>17</sup> For modern players, Ann Bond expresses this as “...don’t hesitate to leave out ornaments for which you can feel no musical purpose, or that are beyond your technical ability to blend naturally into the texture,” Ann Bond, *A Guide to the Harpsichord* (Portland, OR: Amadeus Press, 1997), 127; Howard Ferguson, *Keyboard Interpretation* (Oxford: Oxford University Press, 1975), 147 took the same practical stance. Writing about a later style, Ton Koopman takes a professional’s view of prolific ornaments: “Only keyboard players who find it hard to play them complain that there are too many ornaments (the solution lies in practical),” Ton Koopman, “The Netherlands and Northern Germany,” in Kroll (2019), 71–92 at p. 88.

<sup>18</sup> For a general introduction to Renaissance ornamentation traditions, see Howard Mayer Brown, *Embellishing Sixteenth Century Music* (London: Oxford University Press, 1976); there is also a list in Viljoen (1986), 62–68. Some copies, such as Bull’s “Spanish Pavan” in the Fitzwilliam Virginal Book, contain no ornaments, but it is almost certain performers would have added these themselves.



that information, except verbally with paying pupils. Thomas Mace summarized it trenchantly later in the 17<sup>th</sup> century:

Nor was there, nor yet is there *Any Thing* more constantly to be observed among *Masters*, that to be *Very Sparing* in their Communications concerning Openness, Plainness, and Freeness; either with *Parting* with their *Lessons*, or *Imparting* much of *Their Skill* to their *Scholars*; much more than to shew them the *Ordinary way* how to play such and such *Lessons*.

This hath been, and still is the *Common Humour*, ever since *my Time*.

So it is no marvel, that it continues *Dark* and *Hidden* to *All*, except some *Few*, who make it their *Chief Work* to *Practise*, and *Search* into *its Secrets*.

Which when they have done, and with *Long Pains*, and much *Labour obtained*, THEY DYE, AND ALL THEIR SKILL AND EXPERIENCE DYES WITH THEM.<sup>19</sup>

### The History of Interpretation

Debate as to the meaning of these ornament signs has been going on for more than a century and a half, and the history of this is worth examining in detail, as it is clear that many editors have repeated earlier statements as if they were more authoritative than their authors intended, and that includes some of the less plausible proposals.

The Elizabethan keyboard tradition essentially persisted right through to the Restoration (as did much of the English church music tradition), until French influence helped introduce new fashions and styles in the later 17th century. The last of six issues or reprints of *Parthenia* (1612/13), the earliest British keyboard print, and containing keyboard music by Byrd, Bull, and Gibbons, actually dates from 1659,<sup>20</sup> by which time players

<sup>19</sup> Thomas Mace, *Musick's Monument* (London, 1676), 40.

<sup>20</sup> Richard Turbet, "The Fall and Rise of William Byrd, 1623–1901," in Banks et al. (1993), 119–128. The original plates were re-used each time (Edward Dannreuther, *Primer of Ornamentation* (London, 1893–95), 17).

presumably interpreted the ornament signs in their contemporary manner, whatever that was. While a small amount of Tudor church music remained in the cathedral repertoire, individual virginal works such as Byrd's "The Carman's Whistle" were only occasionally found in early 19<sup>th</sup>-century British music anthologies as historical items, not a living repertoire.<sup>21</sup> It was not until 1847 that a major keyboard collection, the complete *Parthenia*, was edited by Edward Rimbault (1816–1876) for the short-lived Musical Antiquarian Society.<sup>22</sup> There, the problem of what to do about the ornaments was solved by omitting them completely. That edition was known to Aristide and Louise Farrenc (1804–1875), who selected works from *Parthenia* for volume 6 of their *Trésor de pianistes*, that "entreprise colossale" (in the words of Fétis)<sup>23</sup> in 1863<sup>24</sup> but using the original source, supplemented with Elizabethan and Jacobean pieces from other important

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<sup>21</sup> There were rare exceptions: Charles Salaman (1814–1901) played Byrd's "The Carman's Whistle" on a virginals in London in a lecture-recital on 'the ancient keyed stringed instruments' on 9 January 1855, and repeated it in front of Queen Victoria on 10 May 1855, using a virginals of 1655 by John Loosemore; see Peter Holman, "The harpsichord in 19th-century Britain" *Harpsichord & Fortepiano*, xxiv/2 (Spring 2020), pp.4–14. Fuller Maitland himself played Morley's "Go from my Window" and a few other works during a lecture to the Musical Association on 9 April 1895, using an original 16th-century Italian virginals lent by Dolmetsch (J. A. Fuller Maitland, "The Notation of the Fitzwilliam Virginal Book", *Proceedings of the Musical Association*, 21st Session (1894–1895), pp.103–114). Margaret Glyn states that "The first public recitals of the keyboard works of Gibbons and Bull were given in London on November 3 and December 1, 1922", Margaret Glyn, *About Elizabethan Virginal Music and its Composers* (London, [1924]), p.46n, but these were probably performed on the piano.

<sup>22</sup> See Richard Turbet, "The Musical Antiquarian Society," *Brio* 29 (1992), 13–20. Dannreuther (1895), p. 17 called the edition "slovenly" and provides numerous corrections at 26–32, but Ernst Pauer (1826–1905) reprinted it regardless in his widely-circulated series *The Old English Composers for the Virginals and Harpsichord* (London, 1879).

<sup>23</sup> François-Joseph Fétis, [Review of *Trésor de pianistes* vols. 4 and 5], *Revue et Gazette musicale de Paris* 49 (6 December 1863).

<sup>24</sup> Aristide and Louise Farrenc, eds., *Trésor de pianistes* (Paris, 1863). Rimbault and Pauer were both subscribers.

manuscripts from their own collection.<sup>25</sup> The Preface seems to include the earliest modern attempt to describe Elizabethan ornaments, drawing upon later 17th-century English usage, and they believed (“nous avons acquis la conviction que leur interprétation doit être, en general”) that the single stroke was a mordent (*pincé*) and the double a trill (*tremblement*) without termination (a trill with termination was represented by the triple stroke).<sup>26</sup>

Edward Dannreuther’s subsequent attempt at explaining the single and double strokes—“conjectures, which must remain open to correction”<sup>27</sup>—appears to have been immediately influential. Appearing just before the complete edition of the Fitzwilliam Virginal Book printed by Breitkopf and Härtel at the very end of the 19th century,<sup>28</sup> the editors of that edition accepted Dannreuther’s suggestions, that the single stroke represented “a slide of a third upwards, or a double appoggiatura, and possibly occasionally a mordent,” and the double “a long or short shake, or for either a ‘Pralltriller’ or ‘Mordent.’”<sup>29</sup>

<sup>25</sup> These included Pc Rés. 1185, a manuscript once owned by Cosyn and bound in with a copy of *Partbenia*, and Pc Rés. 1122, copied by Tomkins; both were bought at auction at Sotheby’s by the Farrencs in 1825 and are now in the Bibliothèque Nationale, Paris. For their contents, see Brookes (1996), 103–106 and 100–103; and for a detailed description of 1122, see Tuttle (1973), 155–162.

<sup>26</sup> Farrenc (1863), 5. For further background, see Anthony Boden, *Thomas Tomkins: The Last Elizabethan* (London, 2005), pp.237–238.

<sup>27</sup> Dannreuther (1895), 18. At pp. 19–20 and 22–24 he provides completely realized versions of Byrd’s “Earl of Salisbury” Pavan and Gibbons’ “Earl of Salisbury” Pavan. Byrd’s ornamentation was also considered by Edmund Fellowes, *William Byrd, 2<sup>nd</sup> ed.*, (London, 1948), 209–211.

<sup>28</sup> J. A. Fuller Maitland and William Barclay Squire, eds., *The Fitzwilliam Virginal Book* (Leipzig, 1894–99), facsimile reprint by Dover, 2 vols. (New York, 1963). A revised edition was produced by Dover in 1979, edited by Blanche Winogron, but this not only failed to correct numerous mistakes but added new ones (see Viljoen (1986), 116–128). For a list of the manuscript’s contents, see Brookes (1996), 7–13. The Breitkopf edition has now been superseded by Jon Baxendale and Francis Knights, eds., *The Fitzwilliam Virginal Book*, 3 vols., (Tynset, 2020).

<sup>29</sup> Fuller Maitland (1899), i p.xvi.

A book-length study of the Fitzwilliam Virginal Book was published only six years after that edition of the manuscript made by J. A. Fuller Maitland (1856–1936) and William Barclay Squire (1855–1927), and Edward Naylor<sup>30</sup> engaged with the problem of the ornaments in several places. He partly follows the Breitkopf editors but with some unjustified confidence, stating unambiguously that the single stroke is a slide and the double stroke is an upper- or lower-note mordent;<sup>31</sup> Naylor even attempted to link the interpretation of the former with the historic fingering in Farnaby's "King's Hunt."<sup>32</sup>

A few years later, Charles van den Borren cited both Farrenc and the Breitkopf edition in his discussion of virginalist graces,<sup>33</sup> noting their disagreement about interpretation but seeking to crudely cut this Gordian knot by saying "the problem is of no very great importance" and that "the mordents and shakes add nothing" to the beauty of these works.<sup>34</sup> Arnold Dolmetsch's extensive and wide-ranging 250-page treatment of ornaments in 1916 had relatively little to say about the virginalists, there being no ornament tables to refer to, but he did make the very important observation that their written-out "ornaments" include some "divisions

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<sup>30</sup> Naylor (1905).

<sup>31</sup> Naylor (1905), 32.

<sup>32</sup> Fuller Maitland (1899), i, 196, Naylor (1905), 166–167. Ton Koopman, "'My Ladye Nevell's Booke' and Old Fingering," *English Harpsichord Magazine* 2, no. 1 (October 1977), 5–10 at pp.9–10, Wulstan (1986), 129–130, Harley (1992), i, p.224, Hunter (1992), pp. 181 and Christopher Hogwood, ed., *John Dowland: Keyboard Music* (Launton: Edition HH, 2005), vii also note some examples of given or likely fingering and compass restricting what is actually possible in terms of ornament execution.

<sup>33</sup> Charles van den Borren, trans. James E. Matthew, *The Sources of Keyboard Music in England* (London: Novello, [1913]), 145–148.

<sup>34</sup> Van den Borren (1913), 148. Margaret Glyn, "The National School of Virginal Music in Elizabethan Times," *Proceedings of the Musical Association* 43rd session (1916–1917), 29–49, agreed: "The ornaments of this music, scattered throughout the virginal books, have no expressive character, and are not essential to the text;" both views likely reflect pianistic attitudes from before the 20th-century harpsichord revival.

resembling shakes"<sup>35</sup> rather than being standard ornaments themselves. In 1926, Hilda Andrews' edition of *My Lady Nevell's Book* noted simply that there is "adequate evidence of the sort from fairly closely related texts" that the double stroke is a shake, and that the (more problematic) single stroke is a slide, or more probably a mordent.<sup>36</sup> At the same period, Margaret Glyn (who preferred this repertoire on the piano, in any case) stated, "Insufficient evidence exists to enable anyone to discover *with certainty* the general sixteenth century use of ornaments, and still less to understand the *composers'* use of them."<sup>37</sup>

Extensive confusion having been sowed early on by and among scholars, there matters largely rested, and it was not until the post-war revival of the harpsichord that players of necessity looked again at the interpretation of the virginalists' ornamentation. However, detailed engagement with the surviving manuscripts, particularly for the long-running and ongoing scholarly series *Musica Britannica* (including much of the keyboard music of the period), did not lead to much further wisdom.<sup>38</sup> Thurston Dart (1920–1972), then the leading expert, concluded

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<sup>35</sup> Arnold Dolmetsch, *The Interpretation of the Music of the XVII and XVIII Centuries: Revealed by Contemporary Evidence* (London, 1916, 2/1946), 157. This distinction is also explored in Viljoen (1986), 13–16. Diminution patterns are more highly characterized than ornaments, and can be used in attribution studies, according to Peter van Kranenburg and Johan Zoutendijk, "A Pattern Recognition Approach to the Attribution of Early Seventeenth-Century Keyboard Compositions using Features of Diminutions," in David J. Smith and Rachele Taylor, eds., *Networks of Music and Culture in the late Sixteenth and Early Seventeenth Centuries* (Farnham: Ashgate, 2013), 169–184.

<sup>36</sup> Hilda Andrews, ed., *My Lady Nevells Booke* (London, 1926), facsimile reprint by Dover (New York, 1969), xxxii–xxxiii. She adds that the music is "overburdened" with ornaments, and on the piano are best omitted, a point previously made by Naylor (1905), pp. 19 and 32 but disputed by Tuttle (1973), p.xv. For the Nevell manuscript, see Oliver Neighbour, ed., *My Lady Nevells Booke*, facsimile edition (London, 2012) and Jon Baxendale and Francis Knights, eds., *My Lady Nevell's Book* (Tynset, 2021).

<sup>37</sup> Glyn (1924), 58.

<sup>38</sup> Each of the *Musica Britannica* keyboard editors makes their own suggestions for interpretation, influenced to a greater or lesser extent by Dart; an exception is David Smith, ed., *Peter Philips, Complete Keyboard Music*, *Musica Britannica* LXXV (London: Stainer and Bell, 1999), which does not mention the ornament problem.

with some frustration, “Different manuscripts containing the same piece commonly show such irreconcilable differences in the nature and placing of the ornaments that it is hard to believe these were taken very seriously. Ornaments in Couperin are an integral part of the composer’s thought; most ornaments in the English virginalists seem stuck onto the music more or less at random.”<sup>39</sup> At the same time in the United States, Kurt Stone was equally pessimistic, “The modern search for a precise meaning for each ornament-sign applying to all the music even of a narrowly limited period is futile in principle.”<sup>40</sup> It is worth remembering that modern ideas of scientific precision did not exist in this period, and that most of Tudor society was well used to functioning with various approximations of (for example) time,<sup>41</sup> weights, measures, and spelling; although of course precise measurements were sometimes required in trade. However, musical notation, in all its forms, might well not have been seen as precisely prescriptive in the way that it is now understood.

Robert Donington’s 1963 attempt to describe the possible solutions followed Dolmetsch’s strategy of discussing each ornament historically in turn, noting of the virginalists that “the most useful mordent in this repertoire is the single mordent,”<sup>42</sup> “in many contexts, a quick slide makes a musically convincing solution”<sup>43</sup> for the single-stroke ornament, and wisely concluding that an important argument against specific distinctions between the single and double type “is the difficulty of finding two separate ornaments to fit equally well all the contexts in which this pair of

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<sup>39</sup> Thurston Dart, *The Interpretation of Music* (London, 1954), 118. For a revealing example, see the three parallel transcriptions of a voluntary by Gibbons in Calvert Johnson, ed., *Historical Organ Techniques and Repertoire: Volume 7, England 1550–1650* (Colfax, NC: Wayne Leupold, 2003), 98–102. Hunter (1992), 177–179 does seek to make such direct comparisons.

<sup>40</sup> Kurt Stone, ed., *Parthenia* (New York, 1951), vii.

<sup>41</sup> See for example, Paul Glennie and Nigel Thrift, *Shaping the Day: A History of Timekeeping in England and Wales, 1300–1800* (London, 2011).

<sup>42</sup> Robert Donington, *The Interpretation of Early Music* (London, 1963, r/1989), 262.

<sup>43</sup> Donington (1989), 218.

signs are used.”<sup>44</sup> Yet again, the appeal is more to musical context than evidence, which is the reason of these early scholars came to such different conclusions.

David Wulstan, who made a careful study of the subject in the 1980s,<sup>45</sup> made several interesting assertions, including that a “carefully written-out trill, which normally occurs in cadential or similar positions, could hardly be synonymous with the double stroke. If it were, there would be little point in carefully notating the many repercussions of the written-out trill,”<sup>46</sup> and that existing fingering indicates that “the single-stroke meant a lower-note ornament.”<sup>47</sup> Other scholars disagree. Throughout, Wulstan tried to draw clear analogies between variant sources, concluding with a typology of options showing that the single stroke could be a slide or rising appoggiatura, and the double stroke a lower-note ornament, short trill or long trill.<sup>48</sup> More recently, Asako Hirabayashi has also proposed

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<sup>44</sup> Donington (1989), 238. Cecil Clutton, “The Virginalists’ Ornaments,” *Galpin Society Journal* 9 (June 1956), 99–100, proposed an alternative fundamental distinction, that the single-stroke represents ornaments played before the beat and the double those played on the beat; this idea has not been taken up. A further unconvincing proposal made elsewhere is that the distinction between the two ornament symbols relates to whether semitone or tone movement is required.

<sup>45</sup> Wulstan (1986), “Graces in play,” 125–155.

<sup>46</sup> Wulstan (1986), 128. Other scholars support this view, including Glyn (1924), 58, “The complete shake is unlikely anywhere, being always written out,” Hirabayashi (2010), 97, “the double stroke does not mean a trill with termination” and Alan Curtis, *Sweetinck’s Keyboard Music* (Leiden, 1969), 209, “Trills were written out only when they could not be represented by such a sign;” but only a few specific examples are used to support these statements. Brown (2004), 48 gives a counter-example, and for a slightly later period, Terence Charlston, ed., *Albertus Bryne, Keyboard Music for Harpsichord and Organ* (Oslo, 2008), xxii shows how English scribes replaced written-out ornaments in continental music by Froberger and Rossi—nearly all of which can also be found in the Fitzwilliam Virginal Book—with contemporary English ornament symbols. It is very easy to imagine Elizabethan copyists using their own equivalent single- and double-stroke shorthand when trying (for example) to save time, effort or paper.

<sup>47</sup> Wulstan (1986), 129. Hunter (1996), 21 disagrees: “it was associated with upper- as well as lower-note embellishment.”

<sup>48</sup> Wulstan (1986), 134 and 145.

that the two signs form a comprehensible system which is fixed in meaning, in her view a mordent and a short upper-note trill respectively.<sup>49</sup> Ironically, this more or less takes us back to Farrenc, in 1863.

Relatively little has been said about the performance aesthetics of virginal ornamentation, beyond the usual comments about such ornaments having an accentual function, but Richard Troeger does make one relevant observation: “The virginalists’ signs may generally indicate emphatic, accentual ornaments in contradistinction to the lyrical, written-out trills and similar figures.”<sup>50</sup> The idea that written-out or unwritten-out ornamentation are to be performed differently is of course unprovable, but interesting nonetheless (and a case could be made the other way round, that the written-out versions were more metrically intended).<sup>51</sup> Examples 5 to 14 below show note values could shorten during a written extended trill, and this could imply acceleration instead of a metrical treatment.

The only generally accepted conclusions from more than a century of scholarly and practical investigation seem to be: that the double stroke ornament is some kind of trill; that the single stroke represents a simpler ornament; and that the musical context has implications for which choices are made for execution.

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<sup>49</sup> Hirabayashi (2010), 94 describes the two competing approaches as the “abbreviation theory” and the “realization theory;” and creates eight “Conditions for Interpreting Single and Double Strokes” (114). Her conclusions have been queried in an essay by David Schulenberg, “Ornaments, Fingerings, and Authorship: Persistent Questions about English Keyboard Music circa 1600,” *Early Keyboard Journal* 30 (2013), 27–52, also <https://faculty.wagner.edu/david-schulenberg>.

<sup>50</sup> Richard Troeger, *Technique and Interpretation on the Harpsichord and Clavichord* (Bloomington, IN, 1987), 174.

<sup>51</sup> Writing about Niccola Matteis, father-and-son violinists, about a century later, Roger North noted that their trills differed considerably in both speed and flexibility; see John Wilson, ed., *Roger North on Music*, (London, 1959), 166–167. Clearly, personal taste and tradition allowed for some variation in the execution of ornaments, by that time at least.



### Ornaments and Their Context

Where information such as ornament tables from 16th-century Britain is absent, it is both tempting and dangerous to seek this information from other times and places.<sup>52</sup> While it is quite likely that *some* ornaments from 17th-century Britain, and from the Continent, matched exactly those in use in the Elizabethan era, without knowing exactly *which* ones this information is of little help.<sup>53</sup> Yes, later 17<sup>th</sup>-century English musicians<sup>54</sup> produced “one of the most logical, coherent, and visually explicit [ornament] systems ever designed,”<sup>55</sup> but the precise mapping of this onto earlier systems is quite uncertain; and yes, some early 17th-century Dutch players did use the “English” system, but they do not provide an explanation of it either.<sup>56</sup>

Desmond Hunter suggests that “The fact that the Virginalists’ positioning of the double-stroke sign continued to be used occasionally to the end of the seventeenth century and can be found even in some pieces

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<sup>52</sup> Francis Knights, “Guidelines for the Systematic Evaluation of Early Music Theorists,” *National Early Music Association Newsletter* 3, no. 2 (Autumn 2019), 44–49. Hunter (2002), 73 offers the same caution.

<sup>53</sup> For example, the complex ornament described by Thomas Mace (1676) as the “Double Relish” (Dolmetsch (1916), 308) can be found in the Fitzwilliam Virginal Book, but that does not mean it was universally known or used in either period.

<sup>54</sup> Important sources include Christopher Simpson, *The Division Viol, or, The Art of Playing Extempore upon a Ground* (London, 1659), John Playford, *An Introduction to the Skill of Musick* (London, 1674), Thomas Mace, *Musick’s Monument* (London, 1676) and Henry Purcell, *A Choice Collection of Lessons* (London, 1696).

<sup>55</sup> H. Diack Johnstone, “The English Beat,” in Robert Floyd Judd, ed., *Aspects of Keyboard Music: Essays in Honour of Susi Jeans on the Occasion of Her Seventy-Fifth Birthday* (Oxford, 1992), 34–44, at p.34. Charlston (2008), xv-xvi found no fewer than 22 different ornament symbols or combinations of symbols, and subsets of those, in the works of just one mid-century keyboard composer, Albertus Bryne (c.1621–1668).

<sup>56</sup> Curtis (1969), 205–212.

included in *The Harpsichord Master*, Parts 2 and 3,<sup>57</sup> suggest that its meaning differed little, if at all, from the meaning attached to the sign by the Restoration composers.<sup>58</sup> But this is supposition, as is his belief that double trills on thirds are “inconceivable,” at least in the example given from Royal College of Music 2093, f.3.<sup>59</sup> Alan Curtis emphatically disagrees.<sup>60</sup> Similarly, Hunter’s conclusion that the single stroke ornament “had a more specific function than the double stroke”<sup>61</sup> is hardly demonstrable except insofar as the latter is regarded as a generic ornament.

Reverse-engineering the structure of an ornament from its context is fraught with difficulty, despite the thousands of examples to draw on, and almost no universally-agreed conclusions have been reached. This is partly because of uncertainties about things like the precise placement of ornaments. For example, Hunter,<sup>62</sup> following Dart,<sup>63</sup> suggests that the placing of double-stroke ornaments below or above a note rather than through a stem (for example, a black single note-head in black notation) may have had some bearing on the direction of the auxiliary notes of an ornament, but this is disputed by John Harley.<sup>64</sup> Elsewhere, some

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<sup>57</sup> *Second Book of the Harpsichord Master* (London, 1700), *Third Book of the Harpsichord Master* (London, 1702), facsimile reprint in *The Harpsichord Master II and III* (Clarendon, 1980).

<sup>58</sup> Hunter (1983), 82n.

<sup>59</sup> Hunter (1983), 89. But in Hunter (2002), 76, he gives examples where an oscillation by a third might be appropriate; Hogwood (2005), vii, suggests these “may simply imply a rolled chord.” There is also a possible “triple” ornament in *My Lady Nevell’s Book: the Second Ground*, variation 9 (thanks to John Koster for drawing this to my attention).

<sup>60</sup> Curtis (1969), 212.

<sup>61</sup> Hunter (1992), 192. Troeger (1987), 174 provides a good example from Bull’s “The King’s Hunt” (FVB 135, m. 23, right hand) where single- and double-stroke ornaments are attached to different notes of the same chord.

<sup>62</sup> Hunter (1983), 84–85, Hunter (1992), 177 and 189.

<sup>63</sup> Thurston Dart, ed., *Clement Matchett’s Virginal Book (1612)* (London, 1969), Preface.

<sup>64</sup> Harley (1992), i, 224.

examples suggest that the single-stroke version could be shorthand for the double, in a passage with continuing and consistent ornament patterns;<sup>65</sup> or where a single-stroke note follows a double-stroke note at a cadence, a pre-beat realization may be implied, but only if the first ornament did not conclude with a turn.<sup>66</sup> None of these ideas have been widely accepted. And what might one conclude regarding the proportion of ornament types in a source? Lady Nevell's Book contains only 24 single-stroke ornaments, compared to hundreds of the double-stroke type,<sup>67</sup> and most of these appear in one piece, "The Hunt's up"; Byrd's "Hornpipe," in two different manuscripts, also contains a higher-than-usual percentage of the single-strokes.<sup>68</sup> It is not known what the latter represent, or why Byrd used them far less frequently—are these two pieces supposed to sound different from his other music in some way? And what is a virginalist to make of an unplayable ornament at the end of Example 2, from his "A Lesson or Voluntary" in Lady Nevell's Book?<sup>69</sup>

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<sup>65</sup> Hunter (1983), 87–88 gives an example from Bull, "The King's Hunt."

<sup>66</sup> Hunter (1983), 86n; Alan Brown, "Parthenia—Some Aspects of Notation and Performance," *The Consort* 32 (1976), 181.

<sup>67</sup> Hunter (1992), 183.

<sup>68</sup> The two sources are British Library Add. MS 30485, possibly compiled by Thomas Weelkes; and British Library Royal Music Library MS 24.d.3, "Will Forster's Virginal Book" (1624). The single stroke appears in only two of the 21 pieces in *Parthenia*, but was used extensively by Cosyn and in Duncan Burnett's Virginal Book (National Library of Scotland, Edinburgh, En 9447, c.1600); for a list of the latter's contents, see Brookes (1996), 18.

<sup>69</sup> See Baxendale and Knights (2021). The density of the counterpoint and many wide stretches indicate that this originated as a consort work; nevertheless, keyboard ornamentation has been added to it. Similar "unplayable" ornaments can also be found in Tomkins: see "A Sad Pavan for these Distracted Times," m. 8 and the "Pavan Lord Canterbury," m. 25 (Tuttle (2010), 114 and 122).



**Example 2: Byrd, "A Lesson or Voluntary," (Lady Nevell's Book, no. 29, mm. 43-44)**

The three-note (upper or lower) mordent may be the most common choice for modern players of virginal music, but its use is far from self-evident. H. Diack Johnstone makes the extraordinary statement that, "Prior to 1749, the simple mordent was virtually unknown in England,"<sup>70</sup> adding "It seems inconceivable, yet where is the evidence to the contrary?"<sup>71</sup> An examination of the Fitzwilliam Virginal Book shows almost no written-out ornaments that might approximate to the simple mordent, and the rare examples that could possibly represent a (slow) mordent are themselves sometimes also ornamented with a double-stroke on the quavers, as in Byrd's "John come kiss me now"<sup>72</sup> (Example 3), which seems to deny any intrinsic ornament function of the three-note patterns here.



**Example 3: Byrd, "John Come Kiss Me Now" (FVB, no. 10, mm. 59-60)**

<sup>70</sup> Johnstone (1992), 42.

<sup>71</sup> Johnstone (1992), 42. Neither Simpson (1659) or Mace (1676) mention the mordent in connection with the lute; Shepherd (1996), 51.

<sup>72</sup> Fuller Maitland (1899), i, 51.

Willem Viljoen's extensive studies of the Fitzwilliam Virginal Book ornamentation also led him to state that the single stroke "is unlikely to signify a mordent."<sup>73</sup>

The playable length of an ornament is partly dependent on tempo, and Thomas Robinson (1603), describing lute ornamentation, makes an important distinction regarding the use of ornaments in a quick tempo: "In a quicke time a little touch or jerke will serve," that is, where there is not time for a full ornament, a shorter one will suffice. It is worth noting that he mentions this in the context of one particular feature of ornamentation in lute music, that it will help "to continue the sound of the note his full time,"<sup>74</sup> that is, sustain a note for its full duration.

#### The Bevin Ornament Table

Edward Bevin (b. 1595) compiled an ornament table entitled "Graces in play"<sup>75</sup> as part of a commonplace book, thought to date from about 1635; it is not known whether this is in his own hand. It is a most unusual table, in that three of the four signs are not known from any other source. Bevin likely invented them, and in fact two are not even used in his surviving keyboard compositions. Neither does his table include the most common ornament of all, the double stroke. The first sign in his table is the single-stroke ornament, which Bevin gives as a rising dotted slide of three notes (Example 4); this is a melodic figure that does indeed occasionally appear in virginal music, but it makes a very unsatisfactory ornament when actually applied as a realization of single stroke

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<sup>73</sup> Viljoen (1986), 352.

<sup>74</sup> Thomas Robinson, *The Schoole of Musicke* (London, 1603), plate VIII. His interesting further discussion of the dynamic possibilities and purposes of "relishes" does not directly apply to the virginals, but it might to the clavichord, and the "close shake" vibrato effect mentioned by some 17th century lute writers has possible analogies with the clavichord *bebung*. Robinson's *New Citharen Lessons* from six years later makes no mention of any kind of ornamentation.

<sup>75</sup> Perhaps unfortunately, this influenced Dannreuther (1895), see pp.25–26, and has remained part of the discussion ever since.

ornaments, as experiment quickly shows.<sup>76</sup> Asako Hirabayashi's excellent 2001 study of the Bevin table<sup>77</sup> concludes that it cannot be regarded as authoritative for Elizabethan music. The composer appears to have been an amateur, working late and outside the mainstream professional traditions, and his self-made table is "patently unrepresentative"<sup>78</sup> and "cannot be used as a record of established practice" (Thurston Dart),<sup>79</sup> so can safely be discarded as a present-day guide.



**Example 4: The "slide" from Bevin, "Graces in play" (British Library Add. MS 31403, f.5), c.1635 (only top voice shown)**

#### Catalog of Ornaments

Dannreuther's question of 1895 remains very pertinent, "We know that certain types of graces were constantly employed by the instrumentalists of the time ... *which of such graces are likely to apply, and how are they to be applied?*"<sup>80</sup>

The Fitzwilliam Virginal Book contains some 400,000 notes, with many thousands of written-out ornaments, a large set of data from which to make observations. The ten categories below use single examples of

<sup>76</sup> Brown (1969), 207. It also appears in this form much later in Prencourt's "Musical Rules" (British Library Add MS.32531, f.24).

<sup>77</sup> Hirabayashi (2001).

<sup>78</sup> Hirabayashi (2001), 28.

<sup>79</sup> Dart (1961), 30. Wulstan (1986), 130 however suggests "it would be a mistake to dismiss its evidence entirely."

<sup>80</sup> Dannreuther (1895), 18.

every type of definable ornament<sup>81</sup> found in that manuscript, but a complete count by type, including information about genre and composer, might refine this information further, some being much more common than others. For example, while many ornament patterns are universal, “turns” seem most associated with Bull and Byrd, the “broken turn” is most familiar from Byrd and Philips, and some of the more ornate patterns are only found in Philips (perhaps showing Continental influence) and in Farnaby.<sup>82</sup> Some of these patterns can also be found in combination, and on different degrees of the scale.

In the tables below,<sup>83</sup> the ornaments are represented schematically and normalized in pitch, with the length of the final note standardized, for the purposes of comparison. The final (sometime starting) pitch is given as C, but they are not to be considered as all in “C;” rather, the bass notes supplied are to indicate the dissonance state of the ornament.<sup>84</sup> Sextuplet indications are editorial, and many of the ornaments are found in the bass as well as the treble.

*A. Cadential upper note trill with termination, quavers and semiquavers*

These and Example 6 are the most common types, and operate at two different rhythmic levels. As Alan Curtis notes, all virginalist written-out

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<sup>81</sup> That is, a grouping of notes that might reasonably be represented by an ornament symbol, rather than a “division” pattern, and over a single bass note.

<sup>82</sup> The more unusual patterns may be characteristic of particular composers, for example Farnaby and Tomkins, and merit further study; such patterns may assist in dating or even identifying anonymous British keyboard works of the period. These will be examined as part of the <https://formal-methods-in-musicology.webnode.com> project; and see n.35 above.

<sup>83</sup> For convenience, all examples here are drawn from the Fitzwilliam Virginal Book (FVB, the given piece and bar numbers refer to Baxendale and Knights (2020)). This is a practical catalog, rather than the lengthy and theoretically constructed discussion of the categories in Viljoen (1986), 165–258.

<sup>84</sup> All non-standard (V–I) cadences have been reduced to a schematic form for convenience, sometimes with a bass to help indicate the harmonic structure; there are a few examples of V–VI, V–IV and VI–VII included.

trill sources include termination.<sup>85</sup> Example 5d was used from at least Tallis to Gibbons, and in some examples, the first quaver has a double-stroke ornament.

The image displays five musical examples, labeled 5a through 5e, arranged in three rows. Each example is written in 2/4 time and consists of a treble and bass staff. Example 5a shows a trill on a quarter note in the treble staff, with a double-stroke ornament on the first quaver. Example 5b shows a trill on a quarter note in the treble staff, with a double-stroke ornament on the first quaver. Example 5c shows a trill on a quarter note in the treble staff, with a double-stroke ornament on the first quaver. Example 5d shows a trill on a quarter note in the treble staff, with a double-stroke ornament on the first quaver. Example 5e shows a trill on a quarter note in the treble staff, with a double-stroke ornament on the first quaver.

**Example 5a:** Byrd, "Monsieurs Alman," G (FVB, no. 61, m. 63);

**Example 5b:** Richardson, "Galiarda," d (FVB, no. 6, m. 36);

**Example 5c:** Morley (attrib), "Go from My Window," G (FVB 9, m. 24); **Example 5d:** Tallis, "Felix namque II," d (FVB, no. 110, m. 2);<sup>86</sup>

**Example 5e:** Richardson, "Galiarda," d (FVB, no. 6, m. 29)

### *B. Cadential demisemiquaver trill, with termination*

The majority of these are demisemiquaver trills that are functionally upper-note, but with possible preparation from the main note or the note below.

<sup>85</sup> Curtis (1969), 209.

<sup>86</sup> A version in shorter note values can be found at Example 6h.



- Example 6a:** Richardson, "Galiarda," Bb (FVB, no. 6, m. 25);  
**Example 6b:** Marenzio arr. Phillips, "Freno," C (FVB, no. 71, m. 5);  
**Example 6c:** Dowland arr. Bull, "Piper's Galliard," a (FVB, no. 182, m. 34);  
**Example 6d:** Phillips, "Pavana Dolorosa," C (FVB, no. 80, m. 9);  
**Example 6e:** Farnaby, "Daphne," d (FVB, no. 112, m. 114);  
**Example 6f:** Marenzio arr. Phillips, "Freno," C (FVB, no. 71, m. 35);  
**Example 6g:** Richardson, "Pavana," a (FVB, no. 4, m. 29);  
**Example 6h:** Farnaby, "Pavana," D (FVB, no. 285, m. 54);  
**Ex.6i:** Marchant, "Allemanda," C (FVB, no. 187, m. 37)

*C. Cadential trills, main note start, with termination*

These composite trills start on the main (leading) note with a preparatory note or pattern, and proceed to a long or short upper-note trill in semiquavers or demisemiquavers. Increases in rhythmic values may imply acceleration.

7a 7b

7c 7d

7e 7f

7g

7h 7i

7j 7k



- Example 7a: Richardson, "Galiarda," a (FVB, no. 29, m. 1);  
 Example 7b: Phillips, "Galiarda Dolorosa," C (FVB, no. 81, m. 1);<sup>87</sup>  
 Example 7c: Byrd, "Monsieurs Alman," G (FVB, no. 61, m. 63);  
 Example 7d: Byrd, "Fantasia," G (FVB, no. 8, m. 70);  
 Example 7e: Byrd, "Pavan Fant," G (FVB, no. 257, m. 32);  
 Example 7f: Marenzio arr. Philips, "Fece da voi," C (FVB, no. 73, m. 31); Example 7g: Byrd, "Praeludium," C (FVB, no. 24, m. 20);<sup>88</sup>  
 Example 7h: Sweelinck, "Fantasia," Bb (FVB, no. 217, m. 86);  
 Example 7i: Marenzio arr. Philips, "Fece da voi," C (FVB, no. 73, m. 8);<sup>89</sup> Example 7j: Byrd, "Pavan Ph. Tr.," F (FVB, no. 93, m. 8);  
 Example 7k: Byrd, "Ut mi re," G (FVB, no. 102, m. 36); Example 7l: Byrd, "Fantasia," C (FVB, no. 103, m. 109); Example 7m: Marenzio arr. Philips, "Fece da voi," G (FVB, no. 73, m. 3); Example 7n: Marenzio arr. Philips, "Tirsi," B (FVB, no. 70, m. 12)

#### *D. Cadential decoration, with termination*

Melodic patterns in semiquavers or semiquavers, moving from supertonic to tonic at cadences.

<sup>87</sup> Also found with demisemiquavers in Lassus arr. Philips, "Margot Laborez," C (FVB 83, m. 1).

<sup>88</sup> Also found with demisemiquavers in Byrd, "Pavana Bray," F (FVB 91, m. 23).

<sup>89</sup> A shortened version can be found at Lassus arr. Philips, "Le Rossignol," C (FVB 86, m. 37).

**Example 8a:** Byrd, “Pavana,” a (FVB, no. 165, m. 16);

**Example 8b:** Byrd, “Pavana,” C (FVB, no. 256, m. 15)

*E. Trill-like demisemiquaver patterns filling intervals of a third or fifth*

These patterns are closely related to long trill-types, but are not harmonic and are used to fill intervals, in both treble and bass. The sharpened fourth effect in Example 9c (heard over a C, transposed) is not uncommon at cadences in the continental circles around Sweelinck and Cornet, and up to Buxtehude, but does not seem to be part of the English virginalist tradition.<sup>90</sup>

**Example 9a:** Byrd, “O Mistris Myne,” G (FVB, no. 66, m. 42);

**Example 9b:** Farnaby, “Bony sweet Robin,” d (FVB, no. 128, m. 8);

**Example 9c:** Sweelinck, “Fantasia,” G (FVB, no. 217, m. 167);

**Example 9d:** Byrd, “Pavana,” C (FVB, no. 256, m. 12);

<sup>90</sup> See David Schulenberg, “What is a Composer?,” in Smith (2013), 113–155 at 147–148.

- Example 9e: Farnaby, "Pavana," G (FVB, no. 285, m. 35);  
 Example 9f: Farnaby, "For Two Virginals," G (FVB, no. 55, m. 1);<sup>91</sup>  
 Example 9g: Marenzio arr. Philips, "Tirsi morir," A (FVB, no. 70,  
 mm. 12–13)

### F. *Turns*

The "turn" does not appear as a described ornament in Britain (unlike the continent) until later in the 17th century, but it clearly already existed in the 16th; it might be understood as a shortened form of the trill with upper-note start and termination, but no repercussions in the middle, for use in faster music.



- Example 10a: Byrd, "The Hunt's Up," C (FVB, no. 59, m. 56);  
 Example 10b: Byrd, "Sellinger's Round," C (FVB, no. 64, m. 165);  
 Example 10c: Bull, "In Nomine," G (FVB, no. 119, m. 30)

### G. "Slides"

There are no incontrovertible written-out slides in the Fitzwilliam Virginal Book or Lady Nevell's Book, although, as Neumann points out, several possible candidates for rising-third "slide-like figurations" exist.<sup>92</sup> Dannreuther cites the "slides" in Gibbons' "Galliard" (*Parthenia*) as evidence, but they cover the range of a fourth, and are therefore rather figuration<sup>93</sup> (see also I. below). Examples can be of both pre-beat and on-the-beat type, but all seem to be of the rising rather than the falling kind;<sup>94</sup>

<sup>91</sup> This is the only instance of hemidemisemiquavers in the Fitzwilliam Virginal Book.

<sup>92</sup> Neumann (1993), 360.

<sup>93</sup> Dannreuther (1895), 26.

<sup>94</sup> These observations appears to hold true for Elizabethan lute music too, if fast rising third patterns there are also identified as "slides."

Example 11c shows a related decorative figure of a more Baroque type, which is rare in written-out form.



- Example 11a: Peerson, "Alman," C (FVB, no. 90, m. 21);  
 Example 11b: Morley, "Nancie," F (FVB, no. 12, m. 80);  
 Example 11c: Farnaby, [Fantasia], C (FVB, no. 232, m. 15)

#### H. Broken Turns<sup>95</sup>

The four-note figure in quavers or semiquavers either falls and rises, or the reverse; it can be preceded by a "inverted turn" pattern.



- Example 12a: Byrd, "[Monsieurs Alman] Variatio," G (FVB, no. 62, m. 123); Example 12b: Marenzio arr. Phillips, "Freno," Bb (FVB, no. 71, m. 4); Example 12c: Byrd, "The Earl of Oxford's March," D (FVB, no. 259, m. 11); Example 12d: Marenzio arr. Phillips, "Freno," D (FVB, no. 71, m. 30)

<sup>95</sup> This terminology is from Hunter (1992), 179.

### I. Scale patterns

These rising “tirata” scale patterns are found at semiquaver and demisemiquaver level; it is uncertain whether they represent a written-out ornament (in effect, an extended slide) or just a division-like figure.



Example 13a: Bull, “Galiarda,” C (FVB, no. 186, m. 20);

Example 13b: Bull, “Pavana,” a (FVB, no. 34, m. 17);

Example 13c: Bull, “Variation of the Quadran Pavan,” G (FVB, no. 32, m. 112)

### J. Static trills

Upper- or lower-note trills which conclude on the *same* note, without change of harmony: melodic decorations.



Example 14a: Farnaby, [Fantasia], a (FVB, no. 232, m. 31);

Example 14b: Farnaby, “Why aske you,” D (FVB, no. 286, bar 30)

There are plausible but diametrically opposed views about the relationship of these real ornaments in Examples 5 to 14 and the interpretation of the single- and double-stroke signs: either the ornaments were *only* written in full when they could not be represented by the normal signs, or the fully-notated versions show what the signs *actually* represented. It is possible in some instances to take a middle view, where (for example) a double-stroke could represent an upper-note trill without termination; but the fact that all the trills in Examples 5 to 7 include a termination either means that *all* trills have terminations, or that *only* written-out trills have terminations. Alternatively, the double-stroke could represent an upper-note trill but starting on the main note. The matter is

simply not resolvable. However, the extensive selection of 54 different fully-notated ornaments in these examples can at least serve as an accurate (if not complete)<sup>96</sup> model of Elizabethan keyboard ornaments for players today.

### Lute Ornaments

Nearly 30 years ago John Harley noted that "Greater consideration should have been given to the relationship between ornaments in keyboard music and those used in music for other instruments,"<sup>97</sup> but detailed comparison with the Elizabethan lute tradition was not possible until the lengthy study produced by Martin Shepherd<sup>98</sup> a few years later (graces also exist for the Jacobean lyra viol, but the only list, by Robert Downes (c.1615) in British Library Egerton 2971, is not fully legible).<sup>99</sup>

The ornament problem in Elizabethan lute music is very similar to that in the keyboard repertoire; the signs themselves are known but not named,<sup>100</sup> and there are no descriptive sources until the 17th century. Many manuscripts have only two signs, # and +, distributed

<sup>96</sup> Falls were never written out, and slides apparently rarely so.

<sup>97</sup> Harley (1994), ii, 224.

<sup>98</sup> Martin Shepherd, "The Interpretation of Signs for Graces in English Lute Music," *The Lute* 36 (1996), 37–84. For brief earlier studies, see Thurston Dart, "Signs in Jacobean Music for Lute and Viol," *Galpin Society Journal* 14 (March 1961), 30–33 and Diana Poulton, "Graces of Play in Renaissance Lute Music," *Early Music* 3, no. 2 (April 1975), 107–114; they are also categorized in Viljoen (1986), who too is sceptical as to the relationship of meaning between Elizabethan lute and virginal music ornaments (pp. 345, 352). The meaning of equivalent signs in cittern tablature is still unknown; see John Ward, "*Sprightly & Cheerful Musicke*, Notes on the Cittern, Gittern and Guitar in 16th- and 17th-Century England," *Lute Society Journal* 21 (1979–81), 94–97.

<sup>99</sup> Dart (1961), 31–32; he concludes that at least shakes and appoggiaturas are intended.

<sup>100</sup> Margaret Board's *Lute Book* (c.1620) names and signs five ornaments, without describing them: pull back, fall forward, shake, long shake and slide (Shepherd (1996), 42; see also Viljoen (1986), 86). From about 1660 the number and type of ornaments increases greatly.



approximately 70%–30% respectively, and various modern attempts to classify them have been made,<sup>101</sup> in terms that seem quite analogous to the study of virginalist ornamentation, including melodic direction, harmonic implication, complexity and upper/lower movement. Being actually Elizabethan in date, Thomas Robinson's early *The Schoole of Musicke* (1603)<sup>102</sup> is particularly important, and his descriptions appear to encompass "falls" and "relishes," equivalent to short appoggiaturas and trills in modern usage; interestingly, the implication of his text may be that the former are more often used than the latter. From a few years later, in c.1620, the Margaret Board Lute Book (Royal Academy of Music, London) notes two types of fall, two lengths of "shake" and a slide.<sup>103</sup>

Shepherd's hypothesis, based on counting numerous ornaments, note durations, scale degrees and open string usage in two manuscripts from the early 17th century,<sup>104</sup> is that the # includes graces which start on the main note and the + those which begin with an auxiliary; the distinction is

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<sup>101</sup> See Shepherd (1996), 57, 38–39.

<sup>102</sup> For a modern edition and transcription, see David Lumsden, ed., *Thomas Robinson, The Schoole of Musicke* (Paris, 1971); while the 34 lute solo and duet works there include many divisions, there is relatively little that looks like written-out ornamentation. More of the latter can be found a few years later in Robert Dowland, *Varietie of Late Lessons* (London, 1610), modern edition and transcription by Edgar Hunt, ed., *Robert Dowland, Varietie of Late Lessons (1610)* (London, [1956]).

<sup>103</sup> It is important to note that in the early 17th century, musical style in English lute music seems to have travelled further in terms of stylistic development (and possibly, ornamentation style and usage) than did virginal music during the same period. French influence before the Civil War may have entered via the lute repertoire; see David Ledbetter, "Stylistic Change in English Lute and Keyboard Sources in the Time of Orlando Gibbons," in Smith (2019), 207–239. This influence likely included ornamentation style. Poulton and Lam point out that the Margaret Board ornament signs seem to belong to the later part of the manuscript rather than the earlier (Diana Poulton and Basil Lam, eds., *The Collected Lute Music of John Dowland* (London, 3/1981), 340); they may not therefore be strictly relevant to 16<sup>th</sup> century practice.

<sup>104</sup> Shepherd (1996), 57 examined more than a thousand signs in two manuscripts, showing for example that the + sign rarely occurs on short note values and is more common on the tonic note than is the #.

thus one between consonant and dissonant starts.<sup>105</sup> Development of these classes of ornament appear to occur quite rapidly in the lute repertoire, with a single sign # to about 1590, # and + coexisting from c.1590–c.1610, then a splitting of the latter type into many variants thereafter.<sup>106</sup>

As with virginal music, there are numerous examples of written-out (especially cadential) ornamentation, and divisions, and an examination of the hundred-plus lute works of John Dowland (1563–1626)<sup>107</sup> shows a high level of overlap with the virginal ornament tradition: many Dowland examples can be found in all ten categories above, apart from those shown in D. to I. Although it is not clear that many contemporary musicians played both keyboard and lute—Queen Elizabeth I and Mary Queen of Scots were both exceptions, as were (for example) a number of Cambridge academics<sup>108</sup>—there was frequent musical traffic between them in terms of musical material, and the sounds of both would have been very familiar to all Tudor and Stuart musicians.

### Questions

As early scholars found, drawing conclusions about the meaning and use of ornament signs by using only small sets of examples could lead to radically different conclusions. Behind these specific examples (“This ornament was used in this way in such-and-such a manuscript, therefore it should generally be interpreted as follows...”) are much larger questions about ornament traditions and their development. These are laid out

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<sup>105</sup> Unfortunately this theory does not map onto virginals ornamentation.

<sup>106</sup> Figure 1, Shepherd (1996), 74–75. Even at the point of maximum complexity in the 17th century, ornament signs were not standardized.

<sup>107</sup> Poulton and Lam (1981). Note (for the purposes of comparison with Examples 5–14 above) that Elizabethan lute music uses tablature with rhythmic indications using headless note stems, and in order to represent longer values must necessarily use reduced rhythmic forms, with (for example) galliards in 3/8 not 3/2; Poulton and Lam (1981) usually double note values, with galliards transcribed into 3/4.

<sup>108</sup> Probate records show that Richard Bullar, Richard Edyll, Edward Hawford, and Thomas Lorkin all owned both a lute and either a clavichord or virginals; see Francis Knights, “Lutes and Lutenists in Tudor Cambridge,” *The Lute* 60 (2016), 21–31.

below as a series of questions, few of which are answerable in sufficient detail from the existing evidence, but which are still worth considering by both editor and performer.

### *History*

What ornaments, if any, were used in British keyboard music before 1540? Were ornament symbols supplied principally by composers or by copyists? When did ornament (and composition) styles from abroad, especially Italy, France, and the Netherlands, start to impact upon British music during the 16th century? Was this transmission a result of manuscript circulation, print music circulation, performers visiting the continent or performers visiting from the continent? At what speed did the transmission of new musical styles and performing styles occur throughout the country? Did they reach the provinces at all? Were some genres, instruments or performers quicker to take up new styles than others? Did Philips or Bull use, or expect to hear, different ornamentation in their music after their move to the Continent?

### *Interpretation*

What were the purposes of ornamentation? Were they understood in the same way by all contemporary composers, copyists and performers? How much ornamentation was expected or desirable, and what meanings did it convey? Were there clear unwritten rules about the length and types of ornament? What notice did copyists or performers take of ornament symbols? Did the meaning or interpretation of symbols vary between styles and genres? Did they change during the period? Were the ornament symbols interpreted in the same way on all the types of keyboard instruments? In all different genres? In all different performing contexts? Are some better suited to one type of instrument than another? Were more ornaments added than just those shown? When intabulating vocal or lute music, were the ornaments derived from the source tradition or a keyboard tradition? Did the performing venues, type of event, or acoustics, have an impact on such choices?

How many different meanings could a single ornamental symbol represent? Are the symbols prescriptive or suggestive? Was the concept

of “personal preference” allowed, or encouraged? Were professional players allowed more artistic leeway? What level of technique was required to be able to execute all the ornaments cleanly at the correct tempo? How were players trained, and what were their sources of information about music and musical performance?

Does the creation of a later ornament notation hierarchy (single-, double-, triple-, and quadruple-stroke) represent new forms of ornaments, or a clearer categorization of existing types? What was the relationship between written-out ornaments, ornament symbols and written-out divisions? What was the impact of increasing musical publication from the early 17th century onwards in terms of ornament standardization or use?

What impact does ornamentation have upon the tempo chosen? Should the quantity and type of ornamentation determine the tempo? Ornaments could be written out in quavers, semiquavers, demisemiquavers, and hemidemisemiquavers; what are the tempo or other implications of those different levels? Were ornaments (either written-out or indicated by signs) performed with *more* or *less* metrical freedom than the music to which they were attached? How did the listeners perceive ornamentation? Do developments in musical ornament usage, and increased notational complexity in the early 17th century, parallel changes in any other aspects of contemporary culture, such as “ornament” in architecture, art, clothing, or literature?

### *Influence*

What forms of ornament were used by other British instrumentalists, vocal soloists or choirs during the 16th century? What relationship do they bear to keyboard ornamentation? What was the relationship between lute and keyboard music? Did performance styles differ throughout Britain, especially in areas far from London? How were performance traditions transmitted?

### Performers' Experiences

It is one thing to examine and edit scores in fine detail, but another matter to have to record them or play them in concert; players simply do

not have the luxury of “performing” an ambiguity, and must make a clear choice that seems musically plausible to them. Recording notes provided by keyboard recitalists sometimes engage with these issues, and to take three examples, while Christopher Hogwood<sup>109</sup> refers to continental models, Colin Booth<sup>110</sup> takes a pragmatic approach depending on context in his Byrd recording; the only complete recording of the Fitzwilliam Virginal Book<sup>111</sup> has been made by Pieter-Jan Belder, who concludes in an essay about this massive project, “In the end I decided on the spot which ornament was suitable for each actual situation.”<sup>112</sup> In that, he is likely to be following in the footsteps of many an Elizabethan virginalist.

### Conclusions

While firm information from 16th century Britain about the interpretation of keyboard ornament signs simply does not exist, filling in the gaps with possible information from the post-Civil War period or the continent is not without risk. However, knowing the type of ornaments that were available to Elizabethan musicians, and examining the extensive evidence of written-out ornamentation in virginals and lute music, allows for some experimental musicology, so that each player can come to conclusions about what is both possible and effective, insofar as the evidence allows and bearing in mind likely distinctions between the meaning and function of single- or double-stroke ornaments.

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<sup>109</sup> *William Byrd: My Ladye Nevells Booke*, Christopher Hogwood (harpsichord, virginals, chamber organ), L'Oiseau-Lyre 430 484-2 (1976), recorded 1974-75, booklet p. 14. His thinking is further explained in Hogwood (2005), vii-viii.

<sup>110</sup> *The Melodious Birde: keyboard music by William Byrd*, Colin Booth (harpsichord and virginals), Soundboard Records SBCD217, recorded 2017, booklet pp.12-13.

<sup>111</sup> Brilliant Classics 95915 (2020). A complete concert series was also undertaken by Francis Knights, in 30 recitals on harpsichord, virginals, spinet, ottavino, clavichord, and organ, and finished in 2019.

<sup>112</sup> Pieter-Jan Belder, “Recording the Fitzwilliam Virginal Book,” *Harpsichord and Fortepiano*, 24, no. 2 (Spring 2020), 20-23 at p.22.

In modern terms, this gives is a choice of:<sup>113</sup>

- long and short upper-note trills
- long lower-note trills
- rising and falling short appoggiaturas<sup>114</sup>
- turns
- rising (and falling?) slides (and including scale patterns filling in a third, fourth or fifth)

It is likely that much too little emphasis has in the past been put on appoggiaturas and turns, and too much on slides and mordents, so the former types deserve particular attention. As all these ornament types are not necessarily uniform across the decades, genres, styles or composers, it would be best to draw a potential ornamental palette for (say) Byrd from only Byrd works deriving from sources reasonably close to the composer, in the first instance. The process might involve trying, in turn, every possible ornament option wherever a single or double stroke is indicated in a piece, distinguishing carefully between cadential moments, melodic accentuation or division-type patterns, then noting what seemed most effective. Original fingering<sup>115</sup> should be exclusively used for this purpose, as it is certain that there is a relationship between effective ornament choice and the “strong” fingers mentioned by keyboard (and lute) theorists of the period. Note should also be taken of any articulation suggestions that arise out of ornament experiments; these can change the character of the music considerably.

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<sup>113</sup> Modern terminology is used here, to avoid confusion with later 17th-century versions of these ornaments. It is interesting to compare the number and type of these ornaments with the “Purcell” table in *The Harpsichord Master* (1697) (Harley (1994), ii, 222), where French influence is evident.

<sup>114</sup> The acciaccatura and half-length appoggiatura are later forms, and early 17th century usage appears to be for the short appoggiatura, for example in proportions 1:3 of the main note.

<sup>115</sup> See Maria Boxall and Mark Lindley, *Early Keyboard Fingerings: A Comprehensive Guide* (London, 1992).

Tempo is also a crucial concern: "An important, but rarely considered, feature of the ornamentation is the indication which it frequently gives to the player for the correct tempo of a piece or of a particular passage."<sup>116</sup> If an appropriate notated ornament cannot be fitted in at the chosen tempo, that tempo is too fast; and there has certainly been a tendency among modern virtuosi to race through strings of scales in virginal music.<sup>117</sup> From later in the 17th century, and applying to church music, a tempo-measurement instruction related to the human pulse from Thomas Tomkins' posthumous *Musical Deo Sacra* (London, 1668) equates to around  $\text{minim} = 36$ , which David Wulstan describes (without giving reasons) as "far too slow as the basic beat for Tudor music;"<sup>118</sup> most scholars have been disturbed by this clear statement, and performers have ignored it.<sup>119</sup> The relevance of this information to Elizabethan instrumental tempi is unknown, even if it does accurately apply to the church music composed by Tomkins in the first four decades of the 17th century; nevertheless, experimentation along these lines is warranted for the modern performer. One must also avoid the fallacy that what seems like an appropriate tempo to modern players (in our so-called "machine age") must have felt so to 16th and 17th century musicians. Edmund Fellowes complains about the (to him) "drawled" tempi of Tudor services in early 20th century British cathedrals, but this is subjective. We have no way of knowing what was thought appropriate in the 16th century;<sup>120</sup> and even

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<sup>116</sup> Tuttle (1973), xv.

<sup>117</sup> Some recent harpsichord recordings show tempi in running semiquavers of up to crotchet = 160, at which speed it is very hard for ornaments on short notes to be cleanly articulated.

<sup>118</sup> Wulstan (1986), 188.

<sup>119</sup> Note that Tomkins gives a single tempo apparently suitable for all this music in his collection, not (as a modern musician would expect) a range dependent on mood, text or performing acoustics. Some support for such tempi comes from an Oxford manuscript of c.1680, which includes works like Gibbons' Short Service with an ornate added organ part that implies much slower speeds than are usual today. See Francis Knights, "A Restoration Version of Gibbons' Short Service," *Organists' Review* 76, no. 271 (June 1990), 97–100 and "Magdalen College MS 347: An Index and Commentary," *Journal of the British Institute of Organ Studies* 14 (1990), 4–9.

<sup>120</sup> Edmund Fellowes, *Memoirs of an Amateur Musician* (London, 1946), 120.

two centuries after the invention of the metronome, debates about correct tempi in some key 19th century repertoire (especially Beethoven) are not settled.

There is also the issue of steady tempo maintenance (even if we cannot know whether this was a contemporary composer or performer intention), in works with diminutions—like so much virginal music—where an apparently reasonable tempo at the beginning of a polyphonic work or set of variations becomes too fast towards the end, as the rhythmic activity increases. For example, the opening minim pulse of 60, 72, and 68 that Christopher Hogwood (1974/5), Davitt Moroney (1996) and Elizabeth Farr (2006) set in their recordings of Byrd's "A Voluntary for My Lady Nevell"<sup>121</sup> becomes 60, 58 and 48 respectively in the ornamented running-passage section at the very end (Example 15). Hogwood alone, having begun more slowly, chooses (or is able) to maintain the starting tempo through to the end.



**Example 15: Byrd, "A Voluntary for My Lady Nevell," mm. 75–76**

Lastly, several other aspects of ornamentation and performance that may also have existed, but nowhere appear in the keyboard notation of the period, are worth considering. Arpeggiation has been regarded as a fundamental part of harpsichord technique (as with the lute, it only described by theorists from the 17th century onwards, but obviously existed beforehand), and it may have been supplemented by the type of broken-chord figuration on (for example) final chords that can be found in Elizabethan lute music. The latter repertoire provides some interesting and attractive models for investigation. From the same source, the possibility of rhythmic inequality is also hinted at (compare the first two

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<sup>121</sup> Section beginning at m. 8.



bars of Dowland's "The Right Honourable Ferdinando, Earl of Derby, His Galliard," Example 16).<sup>122</sup>



**Example 16: Dowland, "The Right Honourable Ferdinando, Earl of Derby, His Galliard," mm. 1-5**

The absence of firm evidence about the realization of virginalist ornamental signs means that after 150 years of trying, scholars may now have little to add to the debate, but that performers need to work much harder, in order to see how the possible types of decoration can work with the melodic and harmonic components of the music, to create a plausible and musically effective realization of the virginalists' sound-world.

#### Acknowledgements

Grateful thanks are due to Jon Baxendale, Terence Charlston, Orhan Memed, David J. Smith and Martin Shepherd for helpful comments or resources.

#### Abstract

No contemporary keyboard ornament tables survive to explain the single- and double-stroke ornaments used extensively in 16th and early 17th century virginal music, and modern editors and performers have

<sup>122</sup> See Poulton and Lam (1981), 152-154. Note values in this author's transcription are quadrupled from the tablature.

usually relied upon continental or later British tables as a guide to their interpretation. This study examines the history of its modern interpretation, the types of written-out ornamentation found in sources such as the Fitzwilliam Virginal Book, and compares it with lute ornamentation in British sources, to re-examine the possible range of meanings for the ornament signs in virginal music.

## FRANCIS KNIGHTS

# Revisiting the keyboard music of Giles Farnaby

ANTHONY WOOD appears to have left the first assessment of Giles Farnaby (c.1565–1640) in the late 17th century, but perhaps without having much acquaintance of his music: he calls him simply ‘An eminent Musician’.<sup>1</sup> It was not until the publication of the complete Fitzwilliam Virginal Book edition in 1899 that his keyboard corpus – FVB being the only source for the great majority of it – could at last be examined and compared with that of his contemporaries.<sup>2</sup> Early commentators were enthusiastic, Edward Naylor in 1905 saying Farnaby was ‘as interesting as any composer’ in the Fitzwilliam Virginal Book and that ‘in sentiment and musical feeling Giles Farnaby’s music is comparable with Byrd’s’.<sup>3</sup> Charles van den Borren described him as an ‘inexhaustible melodist’ and ‘the most original of all the virginalists’;<sup>4</sup> and according to Edmund Fellowes in 1918 his keyboard music is ‘surpassed in beauty and style only by that of William Byrd’.<sup>5</sup> Slightly later Margaret Glyn provided a broader and fairly balanced commentary, giving the composer his due but not seeking to rank him with Byrd, Bull or Gibbons, except in his song variations;<sup>6</sup> but even she called him ‘that special genius of virginal music’.<sup>7</sup> However, the 1899 Fitzwilliam Virginal Book edition was not widely available until a 1960s Dover reprint, and most players (and that at first meant pianists) came across Farnaby’s music through anthologies and selections, such as the dozen works selected and edited for piano by Granville Bantock in *Album of selected pieces by Giles Farnaby* for Novello in 1920. As a result of these highly selective choices, the composer’s reputation was for short character pieces (the titles of which invited a Romantic interpretation, such as ‘Farnaby’s dream’), even as a ‘miniaturist’, a title which Joel Newman objected to as early as 1960.<sup>8</sup> At this point, almost nothing was known about the composer’s life, and he was thought to have died soon after 1600.

1. Anthony Wood: *Fasti Oxonienses* (London, 1692) p.578.

2. JA Fuller Maitland & William Barclay Squire, edd.: *The Fitzwilliam virginal book* (Leipzig, 1894–99).

3. Edward W. Naylor: *An Elizabethan virginal book* (London, 1905), p.199.

4. Charles van den Borren,

trans. James E. Matthew: *The sources of keyboard music in England* (London, [1913]), pp.286 & 355.

5. Giles Farnaby: *Canzonets to four voices*, ed. Edmund H. Fellowes (London, 1922), p.iii.

6. ‘Giles Farnaby’, in Margaret Glyn: *About Elizabethan virginal music and its composers* (London, [1924]), pp.105–116.

7. Margaret Glyn: ‘The national school of virginal music in Elizabethan times’,

in *Proceedings of the Musical Association*, 43rd session (1916–1917), pp.29–49, at p.32.

8. Joel Newman: ‘Tomkins and Farnaby’, in *Music & Letters* vol.41 no.3 (July 1960), pp.305–06.

The subsequent discovery that Farnaby lived until 1640, and was professionally trained as a joiner not a musician, has been quite problematic for his reputation, and nearly all commentary on him as a composer since then has mentioned the word ‘amateur’, in a negative sense;<sup>9</sup> his music is now seen principally through this lens, and all technical deficiencies explained as a lack of professional training. However, this is unfair; Farnaby’s level of technical skill may not be that of a Byrd or Tallis, but is entirely comparable with numerous other composers in the Fitzwilliam Virginal Book such as Mundy or Peerson. Indeed, it would be very difficult to point to specific grammatical errors which are the result of Farnaby being an ‘amateur’. Although there has been little recent research on his life or music, and our view has essentially remained unchanged for more than half a century, a new edition of his keyboard music,<sup>10</sup> together with a number of recordings,<sup>11</sup> offers a long-overdue opportunity to revisit the composer’s work, and consider whether there may be alternative interpretations to the standard narratives of Farnaby’s abilities, style, career and even religion.

### Farnaby the joiner

Almost nothing further has been found about Farnaby’s life since Richard Marlow’s thorough archival searches for this ‘fascinating but elusive figure’ in the 1960s.<sup>12</sup> Two distinct strands of his life emerge, Farnaby the musician and Farnaby the joiner, and it is worth trying to disentangle these a little (bearing in mind that it is always possible that there was more than one person in England at that period called ‘Giles Farnaby’).<sup>13</sup> Dated events for Farnaby’s musical activities, employment and title are 1592, 1598, 1608, c.1625–39 and 1640, and for his role as a joiner in c.1583, 1590–93 and 1595.<sup>14</sup> From this, extrapolating to say that ‘music was his hobby, not his livelihood’

9. The *Encyclopædia Britannica* article on Farnaby even expresses surprise that a joiner’s son should have got an Oxford degree.

10. Jon Baxendale & Francis Knights, ed.: *The Fitzwilliam virginal book*, 3 vols (Tynset, 2020). For the latest thinking on the origins of the manuscript, see David J. Smith: ‘Seven solutions for seven problems: the Fitzwilliam Virginal Book’, in David J. Smith, ed: *Aspects of early English keyboard music before c.1630* (Abingdon, 2019), pp.163–83.

11. *Farnaby’s dreame*, Tim Roberts (harpsichord), EMCCD 7756 (2003); *Complete fantasias for harpsichord*, Glen Wilson (harpsichord) Naxos 8.570025 (2006); *The Fitzwilliam virginal book*, Pieter-Jan Belder (harpsichord, organ, muselar, virginals), Brilliant Classics 95915

(2020). The author has also performed the complete keyboard works of Farnaby.

12. Richard Marlow: ‘Critical edition of the keyboard works of Giles and Richard Farnaby’, PhD dissertation (University of Cambridge, 1966), ‘The keyboard music of Giles Farnaby’, in *Proceedings of the Royal Musical Association*, 92nd Session (1965–1966), pp.107–20, and Giles & Richard Farnaby: *Keyboard music*, Musica Britannica 24, ed. Richard Marlow (London,

2/1974), p.xiii. Among later work that has been done, see Robert Philip Bron: ‘Giles Farnaby and the virginal variation’, MMus dissertation (Northern Illinois University, 1971); Genoveva Hitz: *Die Klanglichkeit in der Englischen Virginalmusik der 16. Jahrhunderts* (Tutzing, 1979), pp.143–52; and James McCray: ‘The canzonets of Giles Farnaby’, in *The Choral Journal* vol.20 no.9 (May 1980), pp.13–16.

13. John Harley: *The*

*world of William Byrd: musicians, merchants and magnates* (Farnham, 2010) identifies more than half-a-dozen ‘William Byrd’s, for example.

14. He was also churchwarden of St Peter’s, Aisthorpe, Lincolnshire, for several years from 1602; this was a tiny village just north of Lincoln: see AEB Owen: ‘Giles and Richard Farnaby in Lincolnshire’, in *Music & Letters* vol.42 no.2 (April 1961), pp.151–54 and Marlow: ‘Critical edition’.

may be a step too far.<sup>15</sup> It is entirely possible that he was solely a musician, music teacher and composer from his early 30s;<sup>16</sup> his surviving music from this later period includes psalm settings, canzonets and virginal music (and in the latter category, only Byrd, Bull and Tomkins produced more surviving works).<sup>17</sup>

The Worshipful Company of Joiners and Ceilers or Carvers, to which he first belonged, following in the footsteps of his father Thomas, were separate from other craft trades working structurally in wood, and dealt with furniture and with complex shaping and carving. Medieval in origin, they were granted a Charter by Queen Elizabeth in 1571. It is not known to what extent Elizabethan members were involved with the construction or decoration of musical instruments (carving being required for organ cases, scrolls of viols and violins and so on),<sup>18</sup> but it is quite likely that Giles Farnaby would have had an interest in any such aspect of the Company's work. Their later records also include numerous references to music at their celebratory events,<sup>19</sup> and one Georgian member (William Fay, 1785) is specifically listed as 'Musical Instrument Carver to the King'.<sup>20</sup>

On Farnaby's identity, and the possibility of others having had that or a similar name, it is worth also reconsidering the single reference to 'George Farnaby'. US-NYp Drexel MS 5612 is a substantial collection of English keyboard music from the first half of the 17th century,<sup>21</sup> and appears to have been completed before the Restoration, possible in the region of Salisbury. It contains a short Alman by 'Gorge Farnaby', as well as two short pieces possibly by Giles (for which there are conflicting attributions to Tomkins and Bull elsewhere), which Marlow believed was an 'evident error' for Giles.<sup>22</sup> This is the only 'Giles' Farnaby work not in the Fitzwilliam Virginal Book, and as the piece does seem slightly later in date than those works, the possibility of there being a separate 'George Farnaby' should not be discounted.

### The Fitzwilliam Virginal Book's sources

The means by which copyist Francis Tregian accessed copies of Farnaby's keyboard music for the Fitzwilliam Virginal Book is not known; there are no known mutual contacts, even if the latter had moved back to London from Lincolnshire in the second decade of the 17th century, as Marlow suggested. It could be assumed – given the apparent lack of circulation of his music

15. Marlow, in Giles & Richard Farnaby: *Keyboard music*, p.xiii.

16. His father Thomas (also a joiner) died in 1595, leaving him £30; this might be connected to his decision to leave London (and possibly the family trade) soon after 1600.

17. The surviving keyboard music must date from before 1617, the terminus ad quem for the Fitzwilliam Virginal Book.

18. There was once also a Company of Virginal Makers, about which almost nothing is known; see Marlow, in Giles & Richard Farnaby: *Keyboard music*, p.xix. Mid-17th-century virginal makers Thomas White (d.1660), Gabriel Townsend (c.1604–1661) and Adam Leversidge (fl.1650–1670) were all members of the Company of Joiners (Donald H. Boalch, rev. Charles Mould: *Makers of the harpsichord and clavichord 1440–1840*, 3rd ed. (Oxford, 1995)), pp.207, 194 & 117).

19. Henry Laverock Phillips:

*Annals of the Worshipful Company of Joiners of the City of London* (London, 1915).

20. Sidney E. Lane: *The*

*Worshipful Company of Joiners and Ceilers or Carvers: a chronological history* (London, 1968), p.87.

21. Virginia Brookes: *British*

*keyboard music to c.1660* (Oxford, 1996), pp.67–72.

22. Giles & Richard Farnaby: *Keyboard music*, pp.139 & 141.

– that the only way of accessing Farnaby’s complete keyboard works was directly from the composer, but the variable quality of the sources Tregian evidently used argues strongly against this. Another possible mechanism was via Giles’s son Richard. He married in London in 1614, at about the age of 20 and before the end of his formal indenture to Sir Nicholas Saunderson, then seems to disappear permanently from English records. However, he turns up as a musician at the court of the Duke of Pomerania-Wolgast on the Baltic coast in the mid-1620s, and would have been in a position to send back both his own and continental music (and of course the music of Giles) for Tregian’s use, if his departure from England had taken place before 1617.<sup>23</sup> Three mysterious works in the Fitzwilliam Virginal Book by Galeazzo, Jehan Oystermayre and Giovanni Picchi (the first two composers are unidentifiable) might have travelled in this manner, or else with works by John Bull in the Netherlands, after the latter’s own move to the continent in 1613.<sup>24</sup> Richard Farnaby would surely have been both Tregian’s conduit for his own piece ‘Nobody’s jig’ and the eastward transmission for his father’s ‘Bonny sweet Robin’<sup>25</sup> and ‘Muscadin’ (complete with a reference to his Oxford degree) to the important Lübbenau manuscript, D-B Lynar A1, which was copied in the 1620s.<sup>26</sup>

Knowledge of Richard Farnaby’s travels lead to a further surprising suggestion: that Giles might have gone with him. Between about 1610 (1614, if we assume he attended Richard’s wedding in London on 13 April 1614) and 1634 (when Giles is listed as a householder in Grub Street, London), there is no record of his existence. As Marlow suggested, he may have been in London that entire time, working as a musician and joiner, but it is also possible he was elsewhere – even abroad – for those 20-odd years. Might this also offer a possible explanation for the manuscript *Psalms of David* he presented to Dr Henry King of St Paul’s Cathedral some time between 1626 and 1639:<sup>27</sup> a bid for patronage on Farnaby’s return to London, or England?

### Farnaby attributions

The Farnaby canon has both gained and lost in the past few decades: while the number of identified arrangements of other composers’ work has in-

23. Gustaf Fredén: *Friedrich Menius und das Repertoire der englischen Kombdianten in Deutschland* (Stockholm, 1939), pp.108–09.

24. Works in FVB by Peter Philips appear to have been transmitted to England earlier than this.

25. There attributed to Bull.

26. See Brookes: *British keyboard music*, pp.3–4

and Pieter Dirksen: ‘New perspectives on Lynar A1’, in Christopher Hogwood, ed.: *The keyboard in Baroque Europe* (Cambridge, 2003), pp.36–66. There are also English works by Bull, Gibbons, Woodson and

Anon, plus five pieces by Philips. Dirksen points out that the Lynar texts are better than FVB: ‘the exemplar for the LyA1 copy must have been made by someone close to the Farnaby family’ (p.40). He connects the

anonymous Lynar pieces with John Bull, but Richard Farnaby may also be considered a candidate.

27. Only the Cantus partbook survives, in the library of the University of Pennsylvania.

creased, several suggestions have been made as to pieces that may be by him, or arranged by him. There are some 45 anonymous works in FVB, and Farnaby is a promising place to investigate likely composers. He has been proposed for a Coranto (FVB 266), a Toy (FVB 268) and a Galliard (FVB 21), as well as arranger for Robert Johnson's Prince's alman (FVB 145) and another Alman (FVB 146).<sup>28</sup> Possibly his most famous work, Tower Hill (FVB 245) turns out to exist anonymously in two other sources under the titles 'A jig' and 'Rosemont', so the Farnaby version may also be just an arrangement rather than an original work.

As well as music by Coperario (FVB 209), Dowland (FVB 290), Earl (FVB 235), John Johnson (FVB 284), Robert Johnson (FVB 39, 147) and Rosseter (FVB 283), several other works are probably arrangements of music by others: three masque tunes (FVB 198–199, 239) and Farmer's Pavan (FVB 287), while another Pavan (FVB 285) is based on a work by Morley.<sup>29</sup> While the Fantasia FVB 233 has been identified as Farnaby's 'Ay me, poor heart' from the *Canzonets for four voices* (1598) – an interesting example of a composer intabulating his own vocal work – two other Fantasias, FVB 234 and 236, are arrangements of unidentified contrapuntal originals, which may not be by him; for example, the first uses opening material similar to Giovanni de Macque's madrigal 'Non al suo amante', which appeared as 'The fair Diana' in *Musica transalpina* (1588). Perhaps more than a quarter of Farnaby's extant keyboard music is thus arrangements.

## Technique and skill

Critical comment about moments of ineptitude in Farnaby's keyboard music are mostly based on a misunderstanding of the difference between the 'rules' of vocal polyphony and the way keyboard music was constructed, in terms of voice leading, dissonance treatment and so on. Even Tallis and Byrd wrote passages in their keyboard music which would have been completely unacceptable in their motets. That Farnaby was capable of writing good counterpoint is seen in the 20 madrigals he published in London 1598, near the beginning of his career: *Canzonets to four voices*.<sup>30</sup> Apart from the occasional parallel fifths which so disturbed editor Edmund Fellowes (for example, in 'Susanna Fair', bar 20),<sup>31</sup> there are only a couple of instances of inelegant voice leading at cadences,<sup>32</sup> and Farnaby also shows himself

28. See the Critical Commentary to Baxendale & Knights, ed.: *The Fitzwilliam virginal book*.

29. FVB 267, 'A jig', might also be an arrangement, as it survives in similar but

anonymous form (Brookes: *British keyboard music*, no.681) as 'A Scottish jig'.

30. See Edmund H. Fellowes: *The English madrigal composers* (London, 1921),

pp.232–36 and McCray: 'The canzonets'.

31. Giles Farnaby: *Canzonets*, p.47.

32. Fellowes is unfair to

suggest the composer had an 'imperfect mastery of technique' (*ibid.*, p.iv), a harsher judgment than he had made in Fellowes: *Giles Farnaby: Canzonets*, p.235 the previous year.

capable of writing well in eight parts, in ‘Witness ye heavens’ at the end of the volume (this might possibly be his BMus exercise from six years previously). The composer’s wish to be seen as well educated is apparent in his dedication to Ferdinand Heyborne (a fellow Fitzwilliam Virginal Book composer), which starts with a reference to Chaucer,<sup>33</sup> and continues with conventional platitudes of modesty. Four commendatory poems (poor verse indeed) follow, by three musicians and a poet: Anthony Holborne, John Dowland, Richard Alison and Hugh Holland.<sup>34</sup> Farnaby was certainly musically well connected for an ‘artisan’, and familiar with the latest vocal and keyboard styles. He may also have been the originator, or an early exponent, of the keyboard duet and of crossed-hand performance, at least in England:<sup>35</sup> see ‘For Two Virginals’ (FVB 55) and ‘Bonny sweet Robin’ (FVB 128), variation 5.

### John Bull

The influence of Bull on Farnaby – evident both in keyboard compositional style and keyboard technique – is usually regarded as one-way, with the suggestion that Bull may have been Farnaby’s teacher. However, it worth remembering that they were almost exactly the same age (the latter’s birthdate is unknown, but regardless he cannot have been more than a few years younger). The idea that Bull and Farnaby might have had the same teacher is another possible explanation of some shared stylistic traits. The only time they are known to have met is at Oxford University on 7 July 1592, when Bull was granted his DMus (incorporated from Cambridge) and Farnaby his BMus; Edward Gibbons was also awarded his BMus on the same day.<sup>36</sup>

If Farnaby was able to play all his own music (which is equal to that of Bull in technical difficulty),<sup>37</sup> he would have been one of the best virginal performers in Britain. Where he might have acquired such skills is unknown, but he must surely have studied with a professional. Whether this was Bull or not cannot be determined; Farnaby’s thorough absorption of Bull’s keyboard style could have happened either through direct study with the composer or by immersion in Bull’s music only via the scores, even if the former is more likely.<sup>38</sup> In addition, studying composition and studying performance are to an extent two separate activities; even

33. As a churchwarden he even gave his first name in Greek, ‘Egdius Farnaby’.

34. Holland, a Cambridge academic (and later a recusant poet) also wrote a commendatory poem for *Parthenia* (1612/13) and a sonnet prefixed to Shakespeare’s *First Folio* (London, 1623).

35. ‘Bonny sweet Robin’ contains the only example of hand-crossing in FVB; the passage in Bull’s ‘Walsingham’ (FVB 1), variation 28, varies between sources, and hand-crossing may not have been intended in the original.

36. Cf Abdy Williams: *A short historical account of the*

*degrees in music at Oxford and Cambridge* (London, 1893, rpr. 2009), pp.73–74.

37. This is plausible because it contains many examples (like Bull) of difficulty for

difficulty’s sake, which belongs more to a performer than composer mindset at this period.

38. None of Farnaby’s surviving keyboard music

is dateable, although it must have all been composed before the completion of the Fitzwilliam Virginal Book, and the intabulations FVB 233 and 237 must postdate the 1598 *Canzonets*.



if nothing is known about Farnaby's education before his BMus, he was clearly a trained performer. It is also striking that Bull is the most common cross-attributed composer to Farnaby, with FVB 128, 'Bonny sweet Robin', FVB 143, 'Rosasolis', and FVB 291, 'Meridian Alman', under their names in different sources. Modern scholars have not been able to disentangle these solely on grounds of style with any certainty.<sup>39</sup> In addition, there are two contrapuntal works attributed to Farnaby in the Fitzwilliam Virginal Book, FVB 232 [Fantasia] and FVB 240 'Ground', which seem to be rather closer to Bull than Farnaby in terms of refinement and style, especially with the complex mensural structures in the latter case.<sup>40</sup>

### Farnaby the Protestant

The recusant Francis Tregian has been thought as a collector of specifically Catholic music in the Fitzwilliam Virginal Book, and certainly many of the major composers there were Catholic or had Catholic sympathies or inclinations; from that perspective, Farnaby the Protestant has been seen as an outsider or interloper in that source.<sup>41</sup> However, it is worth considering an alternative view: in the same way as with his professional role as a joiner, it may be a mistake to assume that Farnaby necessarily maintained the same beliefs throughout his long life. Although it is clear that he was certainly a conforming Protestant (and indeed a parish churchwarden in his 30s), evidence of Puritan tendencies noted by Richard Marlow may be overstated: for example, his children's names: Joyus (a son, 1599) and Philadelphia (two daughters, 1591, 1602). The latter is from a city mentioned in the New Testament, and in the 1650s would even become the label of a particular Protestant dissenter group founded by John Pordage (1607–1681), but this is slender evidence for Farnaby's beliefs in the second half of his life.<sup>42</sup> He might later have become sympathetic (or more) to Catholicism, and there is certainly something perplexing about the Will made by his firmly Protestant mother Jane in 1605: this ignores Giles (her only surviving child), and instead leaves the substantial sum of £40 in charitable bequests to the poor of the Dutch and French Protestant churches in London and for 'poor maides marriages'; Marlow notes that Giles and his mother were 'probably estranged'<sup>43</sup> – could one possible reason for this have been that a confessional difference had arisen between them?

39. See, for example, Pieter Dirksen: 'Towards a canon of the keyboard music of John Bull', in Smith, ed.: *Aspects*, pp.184–206.

40. Against this must be set the fact that Tregian's attributions seem generally reliable.

41. This has also been given as an explanation for the very little Gibbons included.

42. Christopher Thomas: 'Some English composers and their religious

allegiances: 1550–1650', in *Churchman* vol.103 no.4 (1989), pp.326–31, argues that the dedication text in Farnaby's manuscript *Psalms of David* shows the influence of Puritan thinking, but it

might also be read as sincere devotional feeling rather than a theological statement.

43. Marlow: *Giles & Richard Farnaby*, p.xx.

Ex.1: Giles Farnaby:  
Opening of Fantasia  
FVB237. The theme is  
heard on G and D.



The keyboard music itself offers further circumstantial food for thought. In Farnaby's fantasias there are a number of cantus-firmus like passages; and while plainchant themes, hexachords and In Nomines were widely used in music education and were common in keyboard music by Bull, Tomkins and the like, an examination of some of these long-note passages in Farnaby shows resemblances to chant-like material that was not part of that educational tradition. For example the opening of the Fantasia FVB237 (ex.1) is similar to numerous passages of plainchant,<sup>44</sup> and a different pseudo-cantus firmus bass (CDEEDCC) occurs later in the work. The theme of the 'Ground' FVB 240 has melodic similarities with several plainchant melodies, including 'Venite benedicti patris',<sup>45</sup> while the final third of the tenor voice of the Fantasia FVB 231 is again very chant-like. Were these long-note passages standard teaching canti firmi no confessional implication could be posited, but it is just possible that (if they are not just melodic coincidences) they reference an aspect of Catholic musical tradition, or at least demonstrate an absence of hostility towards it.<sup>46</sup>

Our view of Giles Farnaby has essentially remained unchanged for more than half a century, since Richard Marlow's researches established the scanty facts of his biography. Although virtually no new evidence has emerged since then, a re-examination of his keyboard music offers the opportunity to revisit the composer's life and music, and consider whether there may be alternative interpretations as to Farnaby's abilities, situation and even religion. In addition, a fairer way of evaluating his music can only be achieved by placing less emphasis on the circumstances of his early life, and removing the pejorative 'amateur' label from such commentary. It is unlikely much more will ever be known about Farnaby's life, and the music must now be allowed to stand for itself.

44. See [www.globalchant.org](http://www.globalchant.org) for a searchable database.

45. But see above the reference to Bull.

46. His four-part canzonet 'Susanna fair' (1598) is unique in having a cantus firmus; again, it is chant-like but not identifiable as a specific piece: see Marlow: 'Critical edition', p.200.

J. S. BACH'S KEYBOARD WORKS:  
FROM PERFORMANCE TO RESEARCH

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ДЕЛА Ј. С. БАХА ЗА КЛАВИЈАТУРНЕ ИНСТРУМЕНТЕ:  
ОД ИЗВОЂЕЊА ДО ПРОУЧАВАЊА

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Received: 12 Jun 2021

Accepted: 26 July 2021

Original scientific paper

АБСТРАКТ

Practice-led research in classical music has tended to deal with specific and limited case studies, examining in detail the ways in which one musician's individual responses to a work or genre can lead to a new understanding of that object, and assessing the different forms of knowledge generated. This project discussion however deals with a complete corpus created over one composer's lifetime, Bach's works for clavier, and looks at the very many different aspects of musical understanding – including pedagogy, technique, compositional practice, performance practice, attribution studies and organology – that can be enriched by hands-on engagement with a substantial and high-quality repertoire.

KEYWORDS: J. S. Bach, keyboard music, performance practice, research, pedagogy.

АПСТРАКТ

Проучавање уметничке музике вођено праксом, по правилу је усмерено на конкретне и ограничене студије случаја, у којима се детаљно истражују начини на које индивидуалне реакције музичара на дело или жанр могу

довести до новог разумевања предмета, те испостављају различите врсте тако створених сазнања. Међутим, ова расправа се бави комлетним корпусом створеним током живота једног композитора – Баховим делима за клавијатурне инструменте – и сагледава бројне аспекте музичког разумевања, укључујући педагогију, технику, композициону и извођачку праксу, студије ауторства и органологију – које може обогатити практичан рад на обимном репертоару високог квалитета.

Кључне речи: Јохан Себастијан Бах, музика за клавијатурне инструменте, извођачка пракса, истраживање, педагогија.

## INTRODUCTION

Any subject that relies on data in order to undertake research, such as musicology, has to engage with the problem of incompleteness: full information for analysis is rarely available, even within one corpus.<sup>2</sup> With increasing digitization of scores and the increased use of coding systems, it may one day be possible to (for example) provide a complete chronological typology of cadence structures in Haydn. But the questions asked of this data are most fruitfully originated from direct engagement with the scores,<sup>3</sup> and this often means from those who engage most intimately with such representations of the musical text – the performers. The project described here shows how a performer perspective can generate direct research questions, and how some of these questions would not have arisen without such a perspective. Much practice-led research in classical music has tended to deal with specific and limited case studies,<sup>4</sup> but the Bach project discussed here deals with a very substantial and complete corpus created over one composer's lifetime. Through performance of Bach's *clavier* works, issues lying within the very varied fields of pedagogy, keyboard technique, compositional practice, performance practice, attribution studies and organology arose, and have been the stimulus for about a dozen published articles and essays.

The issue of 'completeness' – here, of the surviving Bachian canon – is an important one, as it provides the background to a problem that has been troubling both the humanities and social sciences for some while, particularly in respect to a theoretical grounding of observation: the relationship between the particular and the universal. No artistic corpus is uniform – composers write differently at different times and places, for different performers and venues, for different scorings and so on – but

2 This is described as the 'against the world' problem in Burrows and Love 1999: 156–157.

3 See Francis Knights and Pablo Padilla, *Computational Analysis and Musical Style* (forthcoming).

4 See, for example, Doğan-Dack 2015. Early music repertoire has not been a major part of the debate to date.

there is nevertheless often a strong compositional 'voice', even if chronological divisions are imposed upon it (for example, Beethoven's 'late' period) by later scholars in order to make sense of a developmental narrative. Without knowing every possible musical component of every Beethoven work, what observations enable us to meaningfully describe what Beethoven 'is'? Or why it sounds like 'Beethoven'? The obvious answers lie in headline features that the ear can assimilate easily – melody, harmony, musical rhetoric and so on – but this leaves out many smaller components that also contribute. Contextualizing these specific components – the 'particular' – into the sense of compositional identity – the 'universal' – is not easy, but such engagement can be quite revealing. It can be positive as well as negative: Palestrina always does this, Byrd never does that. Even the observation of one such small feature can lead to the asking of these fundamental questions.

Numerous performers have written on music since the Middle Ages, but the bifurcation between composers and performers that started in the 19<sup>th</sup> century and accelerated and further divided in the 20<sup>th</sup> century has sometimes led to a gulf of understanding between those who create music, who study music and who perform music (composer, musicologist, performer). In the early music world, revival pioneers from Arnold Dolmetsch onwards were forced to become their own scholars, in order to access, edit and understand manuscript and other sources, and there is a strong tradition of professional performers writing about music. However, when they do this, the perspective is often pedagogical rather than self-reflexive (see Kirkpatrick 1987, Valenti 1990, Troeger 2003, Booth 2010), and the knowledge transmitted is intended to help a prospective student understand the context and technical components of a repertoire or style rather than explain how the writer/performer gained and assimilated that knowledge themselves. The formal authorial voice of a text is probably a necessary component in such cases, by way of reinforcing the expertise and credibility of the writer, but it tends to blur the sources of knowledge obtained, and any ambiguities and doubts about the interpretation of the information presented.<sup>5</sup>

## REPERTOIRE AND INSTRUMENT

From his mid-30s, Bach started collecting many of his works in fair copy sets of six or multiples thereof, possibly even revising some with a view to making sure that bar number tallies for sets were adjusted according to numerological principles (see Tatlow 2015). While the process was not completed, or at least fair copies of some sets may not have survived (for example, the flute sonatas), it is the keyboard and organ works which include many of the uncollected miscellanea. The reasons for this are probably varied: some were early works that he did not consider worthy, or were

5 Similar issues are doubly relevant when assessing the historical treatise writers who have formed the greater part of our understanding of music from before the 19th century: how much did they really know, and how far is it applicable? See Knights 2019a.

awaiting revision; some were probably of the wrong scale (the Preludes & Fugues in the Well-tempered Clavier appear to have had a length limit); and some he may have mislaid. We know of pieces which only survived due to very limited circulation amongst former pupils or collectors, for example. This raises the interesting question as to what Bach might have considered his 'complete' clavier works to comprise,<sup>6</sup> and indeed whether he would even have approved of performances and recordings of works such as the Suites in A minor BWV 818/818a and E<sup>b</sup> BWV 819/819a: both of these were 'French suites' that did not make it into his final set of six. Bach seems to have been an excellent judge of his own works in making his collections, and allowing for particular one-off works such as the Chromatic Fantasia & Fugue BWV 903, that leaves many single preludes, suites, fantasias and fugues remaining. Among them are many pieces of great quality, but also many lesser works. Given Bach's serious concern about revising his music to bring it up to standard (an entire chapter of Forkel's 1802 Bach biography is entitled 'Bach the Reviser of His Own Works', David and Mendel 1998: 474–476), which is often forgotten when we use only his final versions today, it may be the case that he would have objected to the lesser works being performed, as being unrepresentative of his highest standards. The moral question of whether a composer 'owns' his own works in perpetuity is unanswerable at this distance in time, but certainly exploring every note of Bach's surviving clavier music allows that particular canon to be put into context, and an understanding of his musical development, compositional technique and performing practices to be refined.

This project arose as a follow-up to a final-year undergraduate course I taught a few years ago, on Bach's clavier and organ music. Although I knew the repertoire very well as a listener, teacher and record reviewer, I had actually learned relatively little of it myself, and so set out a plan to cover all of the keyboard (that is, non-organ) music over a period of four years. The programmes were divided into groups of approximately 60 pages of score each (without repeats, average duration worked out at a little over a minute per page), and the 21 resulting recitals took place between Spring 2017 and Autumn 2020.<sup>7</sup> By happy coincidence, that meant it was possible to perform one concert on the very day of Bach 333<sup>rd</sup> birthday (a programme reflecting the composer's numerological interests (see Tatlow 2015), consisting of music entirely in triple time, in three flats or sharps, in three sections or in three parts, plus BWV 333 and the Canon at the Third from the Goldberg Variations); and to give a performance of the Wilhelm Friedemann Bach Book, 300 years to the day since the composer began the manuscript on 22 January 1720. At the beginning, there was no intention to do any writing as part of the project, but hands-on engagement with the

6 This would presumably have included at least the *Clavierübung* I, II, the Goldberg Variations, the 48, the English and French Suites and Partitas, the Toccatas, the Art of Fugue and the Inventions & Sinfonias.

7 For the sake of variety, these recitals alternated with others from three ongoing projects using early keyboard instruments (harpsichord, virginals, spinet, ottavino, fortepiano and organ), including the complete Fitzwilliam Virginal Book, a sequence of 40 German Baroque clavichord programmes and a contemporary music series; see [www.francisknights.co.uk](http://www.francisknights.co.uk).

music, and queries about some of the ideas presented in the standard narratives of Bach, led to almost continuous note-taking and eventual publications. This research could and would not have arisen without the performances.

The recitals grouped works by genre as far as possible, allowing that larger sets had to be split: *Clavierübung* II, the Goldberg Variations, the French Suites, the Art of Fugue and the Inventions & Sinfonias were single concerts each, while the 48 was divided into five (Book 2 is longer than Book 1), and the English Suites, Partitas and Toccatas were split between pairs of concerts. Playing in sets allows for a greater understanding of the internal structures, as for example in the six Partitas, where Bach makes a point of varying the content (eg six different types of Sarabande) through the collection as widely as possible.

In terms of attributions (see Knights and Padilla 2021), a fairly broad approach was taken; after careful examination, a number of pieces from the Neue Bach Ausgabe volume *Keyboard Works of Doubtful Authenticity* (Bartels and Rempp 2008) were included in the series,<sup>8</sup> but none from its *Keyboard Works attributed to J. S. Bach* (Bartels and Rempp 2008a). One near-canonic suite, the Präludium et Partita del Tuono Terzo in F BWV 833, was discarded. Although this appears in the Möller Manuscript (Berlin Staatsbibliothek Mus.ms.40644), a very important early Bach source, not one of its movements seemed to me to contain any Bachian fingerprints, despite the copy and attribution coming directly from the composer's older brother Johann Christoph (Schulenberg 2006: 35–38).<sup>9</sup>

The secondary source material in English was very familiar at the start, having been used for teaching for years, but a search for recent material proved very useful. As well as the essential *New Bach Reader*, David Schulenberg's *Keyboard Music of J. S. Bach*, and specific repertoire volumes by Peter Williams, David Ledbetter and Ralph Kirkpatrick (David and Mendel 1998, Schulenberg 2006, Williams 2001, Ledbetter 1987, Kirkpatrick 1987), three new books were particularly stimulating: Richard Jones on *The Creative Development of Johann Sebastian Bach*, Peter Williams' *Bach: A Musical Biography* and Robin A. Leaver's *Companion to Johann Sebastian Bach* (Jones 2007, Williams 2016, Leaver 2017); the latter is an invaluable digest of the state of Bach research. References to all these and many other books were then organized and presented as a short guide for the benefit of other players (Knights 2020: 32). Following this, an edition had to be chosen. The choices were between Urtext copies without fingerings, and the project started using the Neue Bach Ausgabe (Bärenreiter), but soon transferred to the Henle series after working with its exemplary copy of Book 2 of the Well-tempered Clavier. The reasons were as much practical as scholarly: the Henle volumes are more clearly printed on better paper, with fewer page turns and more informative critical commentaries.

8 It is very surprising that no Critical Commentary is included in this volume.

9 Schulenberg seems inclined to accept it. For a discussion of stylistic development in Bach's earliest keyboard music, including the dubious Neumeister Chorales, see Knights and Padilla, forthcoming.

All the concerts were performed on the clavichord (a first, for a complete cycle),<sup>10</sup> the most common domestic keyboard instrument in 18<sup>th</sup> century Germany (see Brauchili 1998); and in the spirit of performances from before the invention of the public ‘keyboard recital’ in the late 18<sup>th</sup> century, they were presented on a small scale, with an audience of listeners who were expert in Baroque music.<sup>11</sup> The historical conceit imagined here was of a complete Bachian cycle performed to the composer by his pupils in the 1740s, bringing together all the clavier music he had written in the previous half-century. The venues were nearly all very small, maintaining a sense of domestic intimacy, and allowing the clavichord (a quiet but very expressive instrument) to sound out well.

Perhaps surprisingly, the concept of ‘interpretation’ as such did not arise as a separate idea; after a lifetime listening to (and especially, reviewing) this music, clear ideas about the parameters for tempo, articulation, dynamics, ornamentation and so on were already very well formed; the concern was the application of fingering and other performance techniques to make these a reality.

The clavichord used was a fine copy by Dennis Woolley (1993) of an instrument built by Johann Adolph Hass (c.1720–c.1773/6) in Hamburg in 1763, the original of which is now in the Russell Collection at Edinburgh University.<sup>12</sup> The 1763 Hass is in excellent playing order,<sup>13</sup> and has been copied successfully many times. Although this particular instrument dates from after Bach’s death, the original design, by Johann’s father Hieronymous Albrecht Hass (1689–1746 or later) was very similar, and the 18 or so surviving FF–f3 unfretted clavichords of this model by both father and son vary in length only between 170 and 176cm (Boalch 1995: 365–376). The earliest is from 1732, and is already a fully worked-out design from the period of (for example) Bach’s mature clavier works. A close comparison I was able to make by giving recitals on the 1742 instrument in the Bate Collection, University of Oxford and the 1763 copy, confirms their great similarity in terms of tone, touch and response.<sup>14</sup> The Hass family instruments (including their very large harpsichords) were often highly finished, expensive and complex, using exotic materials such as mother of pearl and tortoiseshell for the keys; it is likely that they would have been well out of Bach’s price range, but something he might well have coveted. The only element of query as regards a suitable clavichord for Bach is the use by Hass of 4’ strings in the bottom octave and a half; C. P. E. Bach did not like these,<sup>15</sup> but we do not know that his father would have concurred.

An examination of the changes in Bach’s clavier style between 1700 and 1750 leads to further speculation about the instruments he used and had access to. The estate inventory at his death notes that he had five harpsichords (*clavecin*) of various

10 Richard Troeger (clavichord) began an excellent recorded cycle on Lyrichord in 1999, but it ceased after only four volumes; See Knights 2020b for details.

11 All the concerts were by invitation, and free.

12 See Whitehead 1996; [https://collections.ed.ac.uk/mimed/record/15366?highlight=\\*.](https://collections.ed.ac.uk/mimed/record/15366?highlight=*.)

13 See Knights 2020b for a list of recordings.

14 At other times I have also tried the original 1763 Edinburgh Hass and another Hass of 1761.

15 Noted in a letter to Johann Nikolaus Forkel in November 1773.



sizes, two lute harpsichords and a spinet, and that three 'clavichords with pedals' had previously been given to the young J. C. Bach (David and Mendel 1998: 251–252). How long he had all these instruments and what they were used for is unknown,<sup>16</sup> but they give no information about his previous collection. For example, his earliest work specifying a two-manual harpsichord is *Clavierübung* II (1735);<sup>17</sup> did he himself even own a double before that date,<sup>18</sup> or was its acquisition the inspiration for this collection and the subsequent Goldberg Variations (1741)? Many of his earlier works use full-voiced chords, rather in the manner of Kuhnau's keyboard music, in an attempt to produce what looks like a big tone – see BWV 832, 903 (octaves in the bass), 922, 923, 944, 963, 992, 993 etc – while the later works focus more on formal contrapuntal clarity. Large chords are less effective and indeed less necessary on an instrument like the clavichord, with its possibility of dynamics instead, and so is it possible that this change is related not only to the development of Bach's stylistic thinking, but also to the instruments he preferred to work on? Although Forkel's statement that Bach 'liked best to play upon the clavichord', considering it 'the best instrument for study, and, in general, for private musical entertainment' (David and Mendel 1998: 436) has been disputed for obvious reasons by generations of modern harpsichordist recitalists since Landowska (Knights 1990), it could be the case that Bach actually conceived his earlier *clavier* works for the harpsichord, then moved to the clavichord as wider-compass unfretted instruments became available in the 1720s.<sup>19</sup>

## PEDAGOGY

The first goal of the series was learning the complete Well-tempered Clavier, on the basis that after this compendium, all of Bach's other technical demands would seem relatively straightforward. For an early keyboard specialist, the major difficulty is remote keys (very little harpsichord music strays outside four sharps or flats), so the decision was made to group the works by key rather than book, and work towards the extreme sharps and flats in the fourth and fifth programmes. In addition, a formal study-structure scheme was devised, which was then written up (Knights 2018), with suggested times for the benefit of amateur players with variable levels of technical skill and practice time; between three and five months per concert was suggested. The order of preparation for each unit was as follows: 1. Analysis of the score

16 See Francis Knights, 'J. S. Bach as instrument collector' (forthcoming).

17 The two manuals are needed for the notated *forte* and *piano* dynamics only, not for any hand-crossings, and thus work well on the clavichord too.

18 He would of course have had access to institutional double-manual harpsichords throughout his career. Forthcoming research by Leonard Schlick indicates that two-manual instruments were much more common in 18th century Germany than previously thought.

19 Early examples include the FF-d<sup>3</sup> Johann Christoph Fleischer (1723) now in the Drottningholm Museum Theatre (Boalch 1995: 316–317), which is only a little smaller than the Hass clavichords described above.

and background reading; 2. Fingering; 3. Basic learning; 4. Improving problem passages; 5. Familiarity and revision; and 6. Preparation for performance, each of which was described in detail. This kind of structure<sup>20</sup> is especially useful for those without regular access to a teacher, and the point was made that there had to be a purpose: 'Each unit *must* end with a performance of some kind: this is the goal that defines the end of a unit, and is absolutely vital' (Knights 2018: 26). As well as the structured learning system proposed, a list was made of the individual technical components in the music, which included the following: interleaving of voices; independent moving parts within one hand; metrical arpeggiation and patterns; reading double sharps and double flats; clarity of trills and ornaments; trills on weak fingers; extended trills; wide-range arpeggios; wide leaps; hand crossing; hand rotation; playing quickly; complex chromaticism; performing in the free fantasia style; voicing large chords; wide stretches; cantabile and legato style; consistent and clear articulation in fugue subjects; overholding techniques; and playing in up to five voices at once. The idea that a new technique (such as hand crossing) only needs assimilating once is not quite true, as such techniques will feel different according to style, key and so on.

The principal challenge for the 48 is fingering; there was no contemporary method and little precedent for fingering in remote keys, and the lack of fingering in Bach's pupils' copies is intriguing. In the 1754 Obituary written by C. P. E. Bach and Agriola, Bach's own fingering abilities are described in some detail:

All his fingers were equally skillful; all were equally capable of the most perfect accuracy in performance. He had devised for himself so convenient a system of fingering that it was not hard for him to conquer the greatest difficulties with the most flowing facility. Before him, the most famous clavier players in Germany and other lands had used the thumb but little. All the better did he know how to use it (David and Mendel 1998: 306).

The point about use of the thumb is very important, and there are numerous instances where Bach has the player using that digit on a black key; in fact, throughout the two Books there are many instances where the composer virtually forces the student to make the right choice. Thus, the only way of learning workable fingering for the 48 is to learn the 48 itself, and perhaps this is why J. S. Bach (unlike C. P. E.

20 The method was successful, and used for all subsequent concerts, with the additional refinement that sections one and two were overlapped, so that the start of each recital learning process, fingering and so on were ready in the next score. My own learning times for each programme turned out to be three weeks ordinarily, with four weeks for the Art of Fugue and the 48, and five weeks for the Goldberg Variations. Ton Koopman (2009: 27) notes in his complete Bach organ set that 'doubtful' works required 'more extensive preparation than other pieces which are technically much more difficult'. The reason is likely that they do not use the familiar hand shape vocabulary that is built up playing the mainstream Bach repertoire; and I find the same holds true of genuine Bach works which use patterns he never returned to, such as the very chromatic Allemande from the Suite in Eb BWV819a and the Bb Fugue on a theme of Reincken BWV 954.

Bach) did not feel the need to write a keyboard method. Learning the music actually teaches the technique, a reversal of later keyboard pedagogical methods using technical etudes and the like in order to be able to learn the repertoire.

Players' hands are all different sizes, and keyboards vary too (for example, it is harder to play with good tone in extreme sharp and flat keys on the clavichord, as the finger has to be kept nearer the front of the key, due to the position of the balance pin), but it would be possible to produce a worked-out fingering guide to Bach from the experience here, even if it would not be applicable to every player and instrument.<sup>21</sup> One point of note was that so-called 'early fingering' (as used in the 16<sup>th</sup> and 17<sup>th</sup> centuries, and taught for white-note scales by Bach in the Wilhelm Friedemann book of 1720 [Plath 1979: 4] and noted as normal by C. P. E. Bach too in 1753 [Bach r/1974: 46]),<sup>22</sup> is often extremely useful in counterpoint where one part is held and another moves scalically: in (for example) a rising right-hand scale, paired fingers 3-4 3-4 are used, with the longer finger leading. An example occurs in the final bar of the very first Fugue of the Well-tempered Clavier (Book 1), right hand.

A further unexpected observation from performing the Well-tempered Clavier is that Bach mutates the fugue subject - that is, the statement in the original key, not the answer - quite often; this is not something that is mentioned (or would be approved) in fugue theory texts. A good example occurs in the Eb Fugue from Book 1, where in bars 28-29 the first note of the subject is a tone lower, and tied back over the barline. The purpose seems to be to disguise the entry, and a look over all the fugues in the 48 shows that such changes of pitch or rhythm occur no fewer than 38 times (Knights, forthcoming). Further examination suggests fifteen different categories of changes, including lengthening or shortening the first note, changing tonality, rhetorical interruption and so on. That the fugue subject, the building block of the entire piece, is not inviolate is itself interesting, but it also has implication for Bach's compositional method: the structure of a fugue (exposition, episodes, modulations etc) is assumed to be planned on paper so that the subject can be placed first and the additional counterpoint built around it. But the composer seems willing to compromise the integrity of the subject *after* those other parts are created - in the D minor Fugue of Book 1, bars 34-35, the subject is even partly in the major.

Following on from these technical studies of the 48, a more detailed account was made of the earlier Inventions & Sinfonias as a result of the performance (Knights 2019). These two sets were put into final form when Wilhelm Friedemann was about ten, and the composer's manuscript Preface explains the dual purposes, for student performer and composer: "to learn to play clearly in two voices" then "deal correctly and well with three obbligato parts", as well as learning how to develop good musical ideas and "a singing style of playing." What is not evident from modern editions<sup>23</sup> is that two thirds of the works also involve reading the alto clef, an additional im-

21 Throughout the entire project, I only found one bar it was impossible to finger satisfactorily with the method developed: the Prelude in E minor, Well-tempered Clavier (Book 2), bar 30, right hand.

22 It was unchanged in the 1787 edition.

23 An exception is Pickett 2004.

portant skill. The works have been an important part of piano pedagogy since the 19<sup>th</sup> century, but without ever explaining what specifically was being taught. A close analysis of the score shows just how much needs to be assimilated: matching figuration patterns in both hands; continuous semiquaver movement; division of the inner voice between two hands; scale patterns of more than an octave; leaping down with the RH 5th finger; leaping up with the LH 5th finger; long trills; trills against a moving part; broken thirds; parallel thirds and sixths in one hand; broken chord patterns and figuration; one held and one moving voice in one hand; chromatic scales; wide leaps and stretches; arpeggios of more than an octave; part crossing; legato; two against three; syncopation; fast demisemiquavers; double sharps and flats; complex ornamentation and much else.<sup>24</sup> This list absolutely validates Bach's own method of making these works an early goal of study, and it is worth noting that the full benefits only come if both sets are learned complete.<sup>25</sup> It also removes the element of personal preference: when you can choose which pieces to learn, it will often be those for which one's technique is already sufficient - few students choose to learn a difficult piece just because of its difficulty.

## THE ART OF FUGUE

One aspect a player becomes very aware of in keyboard music is hand stretches, where more than an octave is asked for. Although physical keyboard compass varied slightly in Bach's Germany, between different regions, types of instrument and makers, the composer's usual practice was to make the octave span the normal limit (that is, after all, why the keyboard octave is the size it is), with an occasional ninth and an even rarer tenth at cadences. This is information well 'known' to the fingers, and deviations from it are noticeable. An interesting case arises in the Art of Fugue (Knights 2020a), which has generally been accepted as a keyboard work for many years, since the writings of Donald Tovey and Gustav Leonhardt (Tovey 1931; Leonhardt 1952). As with the problematic A minor fugue in Book 1 of the 48 (see below), some sections of this ask for 'impossible' stretches, a fact which is glossed over. In reality, the Art of Fugue cannot be played on a single keyboard unless the player has very large hands indeed; the posthumous published edition also includes an organ chorale prelude, *Vor Deinen Thron*, and an arrangement for two keyboards of the second pair of mirror fugues. Experience with the ongoing recital project meant that the mirror fugues and chorale were performed separately as part of a clavichord duet concert, and the solo clavichord Art of Fugue was given as Contrapunctus I–XI, XIV plus the four canons. The completion supplied at the end of the Henle edition (Moroney 1989: 69) was also omitted, and this tied in with a further piece of related research, described next.

24 In Knights 2019 all these components are identified by specific bar.

25 This is one of the justifications of 'completist' projects; as expressed by Damian Thompson in a different context, "The most perceptive performances of Beethoven's sonatas tend to come from pianists who play all of them" (Thompson 2020: 36).

Computational tools have developed sufficiently that they are able to process symbolic music data meaningfully, and have many applications, such as in attribution studies. The comparison problem is that works by the same composer can be quite varied, and a sufficient corpus is needed to compare (for example) an anonymous 18<sup>th</sup> century German fugue with other known repertoire to have any chance of a plausible identification result. The systems used can be simple enough to be considered robust,<sup>26</sup> but *Contrapunctus XIV* offers another way of comparing reconstructed music to actual Bach (Paz, Knights and Padilla, forthcoming). There are some two dozen completions of the *Art of Fugue*, of varying levels of success, but they all tightly use Bach's existing material and contrapuntal structures to try and produce a seamless finish to the concluding fugue. By measuring the shape (intervallic rise and fall) of the individual lines and comparing them with the surviving 239 bars of *Contrapunctus XIV*, the closeness of the various completions can be measured. This does not of course directly correlate with any guaranteed sense of artistic or contrapuntal success, but does show which scholars have been able to create lines that are very similar to Bach's own. Using a mathematical method called Information Theory, it can be demonstrated that Tovey's 1929 completion (Tovey 1929) holds up well, but is eclipsed by the recent Zoltán Göncz version (Göncz 2006).

## PERFORMANCE PRACTICE ISSUES

A number of Bach's early works survive in sources that are very highly ornamented in the French manner, some of which derive from later copyists;<sup>27</sup> it is not certain how much this tradition has a direct line to Bach – there are very few early Bach autographs, for confirmation. While there certainly are examples of Bach providing highly ornamented alternative versions (e.g. the *Sinfonia in E<sup>b</sup> BWV 791a*), there appears to be a difference in the amount and type of ornamentation used from the mid-1720s onwards, when he started to publish his *clavier* music. There, added decoration to individual notes gives way to complex notated patterns written out in full (see the *Sarabande of Partita No. 6 in E minor, BWV 830*, for example). There is thus a case to be made that Bach's ornamentation practice changed during his compositional lifetime, and in the spirit of the '1740s' approach outlined above, the decision was made to use throughout the type and quantity of ornaments from the later period.<sup>28</sup> This also seemed to work better on the clavichord, where excessive French-style decoration makes it more difficult to produce good tone – Hass clavichords are notorious in their demands in that respect (see Bavington 2019: 7–14).

26 See as an example the Formal Methods in Musicology project, <https://formal-methods-in-musicology.webnode.com>.

27 See for example the excerpts or scores included in Steglich (r/2008: 87); von Dadelsen (r/2009: 6); von Dadelsen and Ronnau (r/2009: 141).

28 This raises a very interesting question: did Bach play his early works in later years using the ornaments he had first envisioned, or in his current playing style, if these were different?

Performance of the English Suites led to an interesting tangential piece of research about Bach's cantatas (Knights 2020c). Observing while playing that Bach's binary-form dance movements nearly always end with matching broken-chord cadential patterns (all six Allemandes from the English Suites, for example), a parallel listening project working through all of Bach's cantatas<sup>29</sup> with scores in hand noted that recitative perfect cadences with obligato instruments were both generally harmonically plain but rather varied in layout. This resulted in a typology of all these 111 cadences, the purpose of which was to provide practical guidance to organists, many of whom (on the evidence of concerts and recordings) have been providing excessively florid continuo parts in Bach recitative. This is particularly useful for the many basso continuo parts which are unfigured, and hence where no guidance is given by the composer. The sometimes surprising results indicated what was appropriate voice-leading, and what level of dissonance was typical (for example, dominant 7ths and falling 7ths are relatively rare in minor keys). A comparison of the cantata texts being set for the cadences indicated that certain types of words evidently suggested melodic elaboration to Bach, and that decorated (as opposed to plain V-I) cadence chords were far more common in some keys than others, major and minor keys having some further differences also.

One interesting performance issue noted during the ongoing series was one of relative accuracy; as Bach's numerous finger-patterns and hand-shapes were ever more thoroughly assimilated, a 'backup' for mistakes started to appear. That is, where a note or pattern was misread in concert, the actual notes played would be replaced not by (for example) just one too high or too low, but by something else from the 'Bachian' finger-palette, which was often fitted sufficiently well that listeners were not aware of a mistake. The same process must surely support improvisation in historical style, as practiced by expert performers like Mikko Korhonen,<sup>30</sup> where a whole repertoire of unconscious patterns under the fingers can be drawn on; and it would of course have been true for Bach himself, in his own improvisations. A further manifestation of this unconscious activity occurred in the F major Prelude from Book 2 of the Well-tempered Clavier: in bars 5 and 61 the tenor voice has two crotchets, the first of which is tied over from the previous bar, but the same passage in bar 21 has a minim; despite the latter being a fourth lower, my fingers would routinely play the version from the other bars. Here, finger memory trumped reading the actual score.

One interesting set of works noted for consideration during the project were those which use occasional pedal notes.<sup>31</sup> The usual distinction in Bach between organ and clavier works is that the former either have an obligato pedal part or a liturgical purpose (eg a chorale prelude). This leaves a small group of works which are unplayable as they stand on harpsichord and clavichord, but have been largely

29 Collected recording by the Vienna Concentus Musicus and the Leonhardt Consort, Teldec Classics 2564 69943-7 (2007), recorded 1971–1989.

30 See for example Korhonen 1997.

31 For a detailed discussion, see Knights 2020d.

ignored by organists as they are usually included in editions of the clavier works: pieces that require an intermittent or very occasional pedal part, such as at the end of a fugue. None of them appear to need a 16' pedal, and the majority (while not precisely dateable) seem to come from around 1710-1715. Not all sources even mention the word 'pedal', or comment in any way on the impossible stretches for the left hand. The options for performance are the use of a third hand; a pedal harpsichord or clavichord (see Speestra 2005); putting the unreachable notes up an octave; using the 'stick in mouth' technique described by Charles Burney (see below); or the use of an instrument with pedal pulldowns (a small pedalboard connecting to the lowest notes of the manuals by cords or trackers).<sup>32</sup> The eight works fall into two groups, those requiring just a few pitches at the end (Fugue in A minor BWV 865 from *The Well-tempered Clavier*, Book 1, Fugue in C major BWV 946, Fugue in A major BWV 949, Fugue in A major BWV 950), and those requiring a wider range of pitches (Fugue in D minor BWV 948, Sonata in D major BWV 963, Aria Variata BWV 989, Capriccio in E major, BWV 993). Both groups seem closer to clavier than organ in terms of style (for example, dense left-hand chords in BWV 993, arpeggios in BWV 948). While BWV 948 looks like an organ fugue for the most part, it concludes with two entire pages of wide-compass demisemiquaver arpeggios that modulate wildly, rather in the manner of the clavier *Fantasia* in A minor BWV 922; it also requires top c#, which was not available on most organs. The apparent pedal part is rather unusual in its demands, and resembles no known Bach organ or clavier fugue in its layout here; see Example 1.



Example 1: Bach, Fugue in D minor BWV 948, bars 64–66

By way of an applied musicology experiment to follow this up discussion of these 'occasional' pedal parts, the 'stick in mouth' method (option four) was tested. This was referred to by Burney as an evident absurdity: Bach "was so fond of full harmony that, besides a constant and active use of the pedals, he is said to have put down

32 In performance, the third option was taken, apart from BWV 948, which was omitted as impossible without a proper pedalboard.

such keys with a stick in his mouth as neither hands nor feet could reach”,<sup>33</sup> and has so been treated by later writers, but what if it had some basis in fact? While hardly seeming necessary for the organ, with its additional pedals, it could be applied to the harpsichord and clavichord, and was tested using a long and thin wooden spoon of 35cm, which could be easily held between the teeth. The conclusion was that it was very difficult to use on a touch-sensitive instrument like the clavichord, with issues of balancing the tone and volume with the notes played by the hands, but that it could work on harpsichord. It is probably too inelegant to use in a normal recital, and angling the head to reach the low bass notes with the stick means the music cannot be seen while doing it, but it is not actually impossible as a technique. Accurately hitting sharps is much harder than naturals.

### FURTHER EXPERIMENTS

In addition to the 21 clavichord performances, four other concerts took place by way of appendix: a repeat of one of the ‘48’ programmes on the new organ of St Edmundsbury Cathedral, demonstrating the easy transferability of the music between various keyboard instruments (there are at least five complete recordings of the ‘48’ on organ); a second complete performance of the Goldberg Variations on harpsichord, including those two-manual variations which cannot be comfortably be played on the single keyboard of the clavichord; a duet recital on two clavichords with Dan Tidhar of the Art of Fugue, including the two-keyboard versions of the mirror fugues; and a special sightreading concert early on. In this last, an invited audience was invited to pick works at random from supplied collections of pieces by Bach, Böhm, Buxtehude, Reincken and others distributed among them. The purpose of this was twofold: to see what it was like for an audience to knowingly hear a sight-read recital, and for the performer to experience the pressures of playing at *prima vista*. Much of the music was straightforward, and the experiment appeared to work well; it was not evident that there was much additional tension for either player or listeners caused by concern about misreadings or slips happening, probably because we were ‘among friends’. This was all done in reference to an anecdote in Forkel’s biography of Bach: at Weimar he told an acquaintance that he “really believed he could play everything, without hesitating, at first sight”. Nemesis came when the friend deliberately supplied a score with an unplayable passage, to which Bach responded, after failing to negotiate it successfully: “one cannot play everything at first sight; it is not possible” (Forkel, in Mendel and David 1998: 435). One assumes that Bach must have told this story against himself, for it to have become part of family lore. The essential point is that the German organist tradition placed

33 Charles Burney on Bach, *Rees’s Cyclopaedia*, Vol. 3, section 2, part 6 (1804). His original notebook comments (c.1772–c.1790) were “This Musician was so fond of Polyphonic Music & full harmony that besides a constant & active use of Pedals, he is said to have had a stick (some say a short Tobacco-pipe) in his mouth, by wch. he put down such notes as neither feet nor Hands cd. get at”; see Gilman 2014.



a considerable premium on the ability to sightread (and of course, to improvise), practice access to the instrument being problematic when an additional person or two were needed to work the bellows. In addition, the modest level of technical difficulty of early 18<sup>th</sup> century German keyboard music, and the lack of indications such as fingering in manuscript scores, leads one to ponder whether indeed many players simply read through the music domestically as best they could, by way of a kind of personal 'performance'.<sup>34</sup> Such an attitude is hardly possible with Bach's own music of course, which really does need learning; Forkel also notes that the compositions of Bach's contemporaries were all 'easier than his own' (ibid.: 435).

One additional skill in learning music is retaining it; it is hard to keep a fully-worked version of a Bach piece under the fingers without deterioration for very long, so an experiment was added to the project in which either Book 1 or Book 2 of the 48, the Goldberg Variations or the Art of Fugue, was played though alternately on the first day of every month. Some sense of decline could then be measured for works not kept up to concert standard by continued performance (a familiar problem for professional recitalists). The Goldberg Variations fared well, but some of the most intricate hand-crossing passages fell away and would have needed re-learning; and (as expected), the Preludes & Fugues in remote (and therefore rarely-used) keys did not do so well during the following year or two. The Fugues in C# (Book 1) and F# (Book 2) were particular victims; whether repeated performances would have embedded the finger-memory more strongly than for a single concert seems highly likely.

The performances of the 48 and of the many other miscellaneous preludes and fugues led to what is perhaps a quixotic editing project: a 'third' Book of the Well-tempered Clavier, assembled from the latter material (Knights, forthcoming a). Many of the miscellanea are high quality but not well known, and there seemed merit in collecting these together for the benefit of players; to fit the 24 major and minor keys, all were transposed by a tone or semitone,<sup>35</sup> and some additional material was also sourced from the unaccompanied violin and cello works. Perhaps the greatest value of the new collection is the fact that – unlike Bach's own Books 1 and 2 – the works in remote keys are deliberately short and easy, and thus ideal preparation for study of the real Well-tempered Clavier.

Various follow-up recital projects are now under consideration; an obvious one is the exact same repertoire but on harpsichord; and another is a complete performance of Bach's organ works. This second idea has a particular appeal: much of Bach's music for string and wind keyboard instruments utilizes a very similar technique (it was not until the 19<sup>th</sup> century that organ technique became clearly distinguished from piano technique, for example), yet there are both notational differences (especially with regard to the sustain of voices)<sup>36</sup> and differences in the use of the left hand in particular. The end of the first Prelude from Bach's *Well-tempered Clavier* (see example 2) shows one interesting notational example: the bass C minims in the penul-

34 We know very little of how thoroughly music was learned by non-professionals in this period.

35 As Bach appears to have done when compiling part of Book 1, at least.

36 For a discussion of editorial concerns about the tying of notes for different keyboard instruments, see Knights 2021.

timate bar are always tied in modern editions (sometimes without even mentioning it in the Commentary), to match the layout of the previous bar. On the clavichord at least, the written version works perfectly well; it might be done differently on organ.



Example 2: J. S. Bach, Prelude in C BWV846, bars 34–35

Overall, a detailed comparative study of the precise technical demands of Bach's clavier and organ works arising from performance would be most instructive.

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## ФРАНСИС НАЈТС

### ДЕЛА Ј. С. БАХА ЗА КЛАВИЈАТУРНЕ ИНСТРУМЕНТЕ: ОД ИЗВОЂЕЊА ДО ПРОУЧАВАЊА

#### (РЕЗИМЕ)

Пројекат описан у овој студији показује како извођачке перспективе производе конкретна научна питања у проучавањима руковођеним праксом, овде на примеру истраживања комплетног циклуса Бахових дела за клавијатурне инструменте, спроведеног од 2017. до 2021. године.

Дела су, колико је то могућно, груписана према жанру, уз пажљиво разматрање коришћених инструмената, нотних издања и услова извођења. Пројекат је започео циклусом Добро темперовани клавир, садржао је шест делова, од анализе до коначне припреме извођења, што је постало основом за педагошку студију. Уследила је дискусија о прецизним техничким компонентама двогласних и трогласних инвенција. По извођењу Уметности фуге настала су два истраживачка есеја, један о делу као композицији за клавијатурни инструмент (то је био закључак, али не постоји јединствена клавијатура), а други о различитим модерним завршецима последњег, незавршеног Контрапункта. Овде је заједнички рачунарски пројекат идентификовао завршетке који највише личе на Бахову музику у погледу вођења гласова и мелодијске контуре.

Извођачка пракса је била још једно кључно поље интересовања, укључујући и орнаментацију (различити рукописи из XVIII века, различите датације, нуде велики број различитих опција), повезивање баховских прстореда са извођачком техником и могућне утицаје на савремену импровизиациону праксу, као и повремену употребу педалних тонова у малом броју раних, за Баха нетипичних дела, где се сугерише да је композитор у том периоду имао инструмент с педалама које повлаче дирке.

Даљи практични експерименти спровођени су како би се тестирала интересантна прича Чарлса Бернија о Баху, који је „дирке повлачио наниже помоћу штапа у својим устима, а који није могао да дохвати ни рукама ни ногама“. Конечно, на додатним реситалима истражена је разлика између извођења Добро темперованог клавира на оргуљама и на клавикорду, вештина читања с листа (према сведочењима, Бах је могао да „свира све, без оклевања, на први поглед“), и идеја техничког урушавања наученог репертоара током времена. Већина тих истраживачких питања не би могла да се постави без извођачке перспективе. У том смислу, сасвим је јасна важност међусобног разумевања научника, уредника и извођача када је реч о њиховим различитим приступима.

**Кључне речи:** Јохан Себастијан Бах, музика за клавијатурне инструменте, извођачка пракса, истраживање, педагогија.

## Bach's pedal clavier: eight problem works

Francis Knights

The clear division of Bach's keyboard works into those for organ and those for *clavier* (harpsichord and clavichord, possibly also lute-harpsichord or fortepiano) is one that is more evident to modern editors than it probably was to performers in eighteenth-century Germany. Choosing whether to include a piece in either group has usually been made on the basis of two things: whether the music is in any way liturgical; and whether it has a pedal part. If the answer is yes to either, it has normally been included with the organ works (there are some vexed exceptions, such as the manuals-only Four Duets BWV 802–05, normally included with the organ works only because they were published in an organ collection, the *Clavierübung* III of 1739).<sup>1</sup> Sometimes genre is a key—suites were for clavier not organ—but a certain amount of other material may be ambiguous. Even the Chorale Partitas may have had a compositional and domestic purpose as much as a liturgical one. Some chorale settings themselves—and there are some sixty by Bach which do not require the pedal<sup>2</sup>—might also be slightly flexible in instrumentation, serving a dual purpose for church and for domestic devotions. In addition, registration indications, or a manual compass exceeding the organ's normal C–c<sup>3</sup>, are clues, as Bach the practical musician was keenly aware of such limitations; indeed, some of his organ works have been dated by their pedal compass, as related to the instruments to which he had access.<sup>3</sup>

Matters are further complicated by the fact that many early organ sources are copied on two rather than three staves, and exactly which notes belong to the pedal part (the indication 'Ped.' not always being present) is sometimes an editorial decision. In general, hand stretches are a valuable indication: Bach is happy to write occasional 9ths in one hand, and sometimes a 10th at a cadence, but no more.<sup>4</sup> This is one argument for *The Art of Fugue* not being a self-contained clavier work,<sup>5</sup> and for the Canzona in D minor BWV 588 needing a pedal part throughout.<sup>6</sup> Even the 6-part Ricercar from *The Musical Offering* (1747) requires no large stretches or assistance from the pedal. Sustained low notes are not themselves clinching evidence: there are plenty of Bach works with 'pedal' notes that are not intended for the organ, such as the opening of the Prelude from the English Suite No. 6 in D minor. The organ/clavier debate was given significant impetus by Robert Marshall<sup>7</sup> thirty-five years ago, in an important article that suggested the organ could be an appropriate vehicle for a number of works for manuals only, including the Toccatas BWV 912–17 and even *The Well-Tempered Clavier*. These proposals have had some effect, and there are now at least five complete recordings of the latter collection on organ.

When all this evidence has been collected and assessed, there still remain a small number of works which fall conveniently into neither camp: those which have an occasional pedal part. This idea is familiar from the seventeenth-century German chorale and fugal tradition, where a simple pedal part is brought in at the end, to provide a cadential marker and more sustained harmony, and is also familiar in Bach.<sup>8</sup> However, some works mysteriously require additional pedal notes for just a few bars in the middle of the piece. Most of these works are independent contrapuntal pieces that belong to no collection, and date from earlier

in Bach's career. Uncertainty about their instrumentation, and practical difficulties about their execution, means that they are rarely played. However, the eight pieces are worth considering as a group, as it is possible Bach intended them for some particular instrument, now unknown. None of them appear to need a 16' (rather than 8') pedal, and the majority (while not precisely dateable) seem to come from around 1705–10. Not all sources even mention the word 'pedal', or comment in any way on the impossible stretches for the left hand.

The eight works fall into two groups: those requiring just a few pitches at the end (Fugue in A minor BWV 865 from *The Well-Tempered Clavier*, Book 1; Fugue in C major BWV 946; Fugue in A major BWV 949; and Fugue in A major BWV 950) and those requiring a wider range of pitches (Fugue in D minor BWV 948; Sonata in D major BWV 963; Aria Variata BWV 989; and Capriccio in E major BWV 993). Both groups might seem closer to clavichord than organ in terms of style, insofar as that can be judged (for example, dense left-hand chords in BWV 993, wide-ranging arpeggios in BWV 948). The following tables give information about all the pieces, including both manual and pedal compasses. Table 1 lists the works which require pedal briefly, and only at the end.

Title	Catalogue number	Date	Length	Manual compass	Pedal compass	Comment
Fugue in A minor	BWV 865	<i>Well-Tempered Clavier</i> , 1722 (but composed earlier) <sup>9</sup>	87 bars	Eb–c <sup>3</sup>	A (one note)	<i>Well-Tempered Clavier</i> , Book 1
Fugue in A major	BWV 950	c.1710?	99 bars	D–b <sup>2</sup>	Pedal notes E, A (2 notes)	Arpeggio symbol, thick chords
Fugue in A major	BWV 949	c.1710?	87 bars	D–b <sup>2</sup>	D#, E, A (4 notes)	On a theme of Albinoni
Fugue in C major	BWV 946	c.1710?	51 bars	C–b <sup>2</sup>	C, E, F, F#, G, B, c (7 notes)	On a theme of Albinoni

Table 1: Works with pedal notes at the end.

It is unfortunate that the dating of these works is imprecise (most scholars avoid committing themselves at all); in the absence of manuscript information, dates have to be



estimated on the basis of style, and this can be problematic. For example, is it reasonable to assume Bach's musical skills developed in a linear manner?<sup>10</sup> All of the works above contain contrapuntal and structural inelegancies that suggest they are not the work of the mature composer, but where are they to be placed relative to the occasional crudities of the early 'Neumeister' chorales (c.1700?)<sup>11</sup>—if they are indeed by Bach—and the masterly Passacaglia in C minor (c.1706?)<sup>12</sup> In other words, is it possible to go backwards, in terms of demonstrating technical and musical ability? If not, some of the suggested dates in Table 1 should perhaps all be nearer 1705, when Bach was around twenty years of age. An additional problem with dating comes from the fact that Bach was a dedicated reviser of his music (an entire chapter of Forkel's biography is entitled 'Bach the reviser of his own works'),<sup>13</sup> which is often forgotten when we use only his final versions today. It may be the case that dating his works generally on the basis of style is complicated by the fact that a heavily revised piece may be converted from 'early' to 'mature' in style through such revision.

The manual ranges in Table 1 lie well within the normal four-octave span, and the pedal compass of the few notes needed does not descend below that; the implication is that the pedals are not providing low pitches unavailable on the manuals. The limited number of pedal notes is striking; the first three require barely more than tonic and dominant, and the end of the C major Fugue (Ex. 1) is restricted to an octave. This might mean that pulldown pedals (see below) rather than a separate pedal register is sufficient.



Ex. 1: Bach, Fugue in C major BWV 946, bars 47–51.

Table 2 contains four substantial works with more extensive pedal requirements, three of which are essentially contrapuntal, and for only one of which (BWV 963) the exact pedal requirements are certain:

Title	Catalogue number	Date	Length	Manual compass	Pedal compass	Comment
Sonata in D major	BWV 963	c.1710	277 bars	D-c <sup>3</sup>	D#, E, F#, G, G#, A, A#, B (15 notes)	
Capriccio in E major 'in honorem Johann Christoph Bach'	BWV 993	c.1710?	126 bars	D-b <sup>2</sup>	D#, E, F#, G, G#, A, A#, B, c#, d#, e, f#, g#, a (22 notes, in two passages) <sup>14</sup>	Some dense left-hand chords
Aria Variata	BWV 989	c.1710?	141 bars	AA, C-c <sup>3</sup>	C, D, E (6 notes) or C, D, E, G#, A, Bb, B, c, c#, d, d#, e, f, f#, g, g#, a, b, c <sup>1</sup> , e <sup>1</sup> (122 notes)	Additional notes required in Aria and Variation 10 only
Fugue in D major <sup>15</sup>	BWV 948	c.1710?	84 bars	C-c# <sup>3</sup>	G, A, Bb, B, c, c#, d, eb, e, f, g, a, bb (68 notes)	Manual compass too high for the organ

Table 2: Works with fuller pedal use.

While BWV 948 looks like an organ fugue for the most part, it concludes with two entire pages of wide-compass demisemiquaver arpeggios that modulate wildly, rather in the manner of the clavier Fantasia in A minor BWV 922; it also requires top c#, which was not available on most organs. The apparent pedal part is rather unusual in its demands; for example, see Ex. 2. Similarly, some of the textures of the Capriccio in E major seem more characteristic of clavier than organ writing. In terms of genre, BWV 963 and 989 also belong to the former instrument. This group may therefore be intended for clavier rather than organ, in which case the greater pedal range requirements compared to the fugues of Table 1 are intriguing.



Ex. 2: Bach, Fugue in D minor BWV 948, bars 64-66.

The pedal passage (not marked as such) in the D major Sonata is a slow interlude of only fourteen bars, but the need for a pedal is evident from the impossible left-hand stretches, whereas the Capriccio requires it in a fast passage, for several bars (those sources that indicate 'pedale' do not show where it leaves off), as well as in the flourishes of the coda. In all four cases, the use of many chromatic notes is quite striking; like Table 1, all these pieces likely date from the first decade of the eighteenth century.

The most perplexing work is the *Aria Variata*, subtitled 'all Man. Italiana' ('in the Italian manner'). The aria itself is almost certainly by Bach, and many of the ten variations (the last is a modified recapitulation of the aria) use patterns familiar from late-seventeenth-century German variation technique, so exactly what is 'Italian' about the work remains a mystery. It has even been suggested that it was written for an (otherwise unknown) 'Italian'-type keyboard with some kind of special lower-octave arrangement. Many scholars have been disturbed by the low AA in the manuals at the very end of variations 1-3 (it is highly unusual to have manual notes below C when a pedal part is present), but this could easily have been a retuned bottom C# (common practice in some places during the previous century). In any case, it rather implies that any 'pedal' part is at 8' pitch only, otherwise the pedal would have supplied the low notes for effect. The pedal requirement is shown by stretches of a 12th (see Ex. 3); elsewhere, almost everything fits under two hands, if not comfortably so. The difficulty is deciding whether the bass line of the *Aria* and variation 10 are continuously for pedal (in which case it covers more than two octaves), or whether it is only required for the three unreachable pitches: C, D, and E. In either case, there is no hint in any of the seven manuscripts<sup>16</sup> as to what the player is supposed to do.



Ex. 3: Bach, *Aria Variata* BWV 989, *Aria*, bars 5-8.

From these observations about the eight fragmentary pedal parts, options for any solution can be divided into six:

- That the extra notes are just of a theoretical nature, and their impossibility should not concern the player. Schulenberg remarks of BWV 865 that 'the ending seems to be a genuine example of "demonstration counterpoint" that players were not expected to execute precisely as written'.<sup>17</sup>
- The player manages as best they can, usually by putting the lowest note up an octave; this is an option for all the works except BWV 948.<sup>18</sup> This begs the question as to why Bach would have written unplayable notes in the first place.
- The use of a third hand to provide the extra bass. This is actually quite plausible, as it would always have been an expedient for organists needing to practise at home, when either the church was too cold in winter or no person to blow the organ was available. Given that Bach's clavier works were not written for public performance (the idea of the solo keyboard 'recital' only dates from the end of the eighteenth century), this might have been quite normal.<sup>19</sup>
- The fourth option is a pedal harpsichord or clavichord; these instruments were not uncommon as domestic practice instruments, and historical examples survive.<sup>20</sup> A full two-octave pedal compass with 16' strings would have been common, and sometimes two manuals, enabling the player to tackle the whole organ repertoire of the period at home. Before his death, Bach gave his youngest son Johann Christian '3 claviers with a set of pedals',<sup>21</sup> usually thought to mean a pedal clavichord. It has been suggested that this was by way of encouragement for him to pursue an organist's career.
- The use of an instrument with pedal pulldowns (a small pedalboard connecting to the lowest notes of the manuals by cords or trackers). These were surprisingly common, especially in Italy, as shown by holes drilled in the baseboard under the manuals of some surviving harpsichords, although few of the pedal mechanisms themselves have survived.<sup>22</sup> The restricted range of notes required by BWV 865, 946, 949, 950, and possibly 989 makes this the most likely option for those works. Schulenberg suggests with regard to BWV 993 that 'it seems that Bach – or his older brother – had access to some special keyboard instrument during the Weimer years; this piece might have been written expressly for it'.<sup>23</sup>
- The final option is the most radical, and could only apply to the first three works in Table 1, for practical reasons: the 'stick in mouth' technique described by Charles Burney.<sup>24</sup> This was referred to by Burney as an evident absurdity: Bach 'was so fond of full harmony that, besides a constant and active use of the pedals, he is said to have put down such keys with a stick in his mouth as neither hands nor feet could reach'. However, what if this story had some basis in fact? Burney can hardly have made it up, and he must have come across it from someone within the Bach circle on his trip

to Germany in the early 1770s. While hardly seeming necessary for the organ, with its additional pedals, the technique can be applied to the harpsichord and clavichord, and has recently been tested experimentally using a long and thin wooden spoon of 35cm, which can be easily held between the teeth.<sup>25</sup> The conclusion was that it was very difficult to use on a touch-sensitive instrument like the clavichord, with issues of balancing the tone and volume with the notes played by the hands, but that it can work on harpsichord. It proved impractical in a normal recital, as angling the head to reach the low bass notes with the stick means the music could not be seen while doing it, and accurately hitting sharps is much harder than naturals. It is just about manageable for a few slow bass notes, as in BWV 856, 949, and 950.

The eight pieces discussed here appear in both the Bärenreiter and Henle Urtext editions of Bach's clavier works, but have been neglected by harpsichord and clavichord players (apart from BWV 865), largely because of the pedal issue. While they can be played today on the organ, pedal harpsichord, and pedal clavichord, the origins of the works, at around the same time, suggests that this phase of composing works with intermittent pedal parts may have had its origins in a particular instrument at a particular time. While the D minor Fugue BWV 948 remains problematic, the other pieces could have been written for a harpsichord with one-and-a-half-octave pedal pulldowns, and represent a style of composition which Bach abandoned once he no longer had such a device.

## Notes

1. See Peter Williams, *The Organ Music of J. S. Bach* (Cambridge: Cambridge University Press, 2/2003), 529–35.
2. BWV 690, 691, 695–9, 701, 703–07, 711–13, 717, 719, 721, 722, 726, 734, 737, 742, 745, 755, 756, 765, 957, 1090, 1091, 1093–8, 1100–04, 1106, and 1109–19, plus a substantial inauthentic group without BWV number; see Reinmar Emans and Matthias Schneider (eds), *Bach: Orgelwerke, Volume 10* (Kassel: Breitkopf & Härtel, 2008).
3. See Ulrich Dahnert, 'Organs played and tested by J. S. Bach', in George Stauffer and Ernest May (eds), *J. S. Bach as Organist* (London: B. T. Batsford, 1986), 3–24; Christoph Wolff and Markus Zepf, trans. Lynn Edwards Butler, *The Organs of J. S. Bach: A Handbook* (Urbana: University of Illinois Press, 2012).
4. It has been suggested either that Bach had big hands, or a narrow keyboard instrument octave span, but he is remarkably consistent in constraining both the keyboard compass and the hand stretch throughout both his organ and clavier *oeuvre*. Allowance must also be made for bass stretches of a 10th possible by short or broken octaves; BWV 743 bar 12 is a likely example.
5. Francis Knights, 'Bach's *Art of Fugue* as a keyboard work', *Dolmetsch Foundation Bulletin*, New Series, No. 38 (Autumn 2020): 8–12.
6. It is printed as a manualiter work in the *Neue Bach Ausgabe*, but there are a few impossible stretches; one eighteenth-century source copied by J. G. Preller (Leipzig, Musikbibliothek MS.7) adds fingerings for manuals which do not make sense of these (e.g., bar 54). The fingered Preller score is reproduced in Quentin Faulkner, *J. S. Bach's Keyboard Technique: A Historical Introduction* (St Louis: Concordia Publishing House, 1984), 56–62.

7. Robert Marshall, 'Organ or "Klavier"? Instrumental prescriptions in the sources of Bach's keyboard works', in George Stauffer and Ernest May (eds), *J. S. Bach as Organist* (London: B. T. Batsford, 1986), 212–39.
8. Chorale-based works of this kind by Bach are not discussed here, as their likely intention for organ allows for additional pedal notes; and neither have fugues where the pedal entry is delayed for effect (for example, BWV 547 and 549).
9. Possibly from the Weimer period (1708–17); see David Schulenberg, *The Keyboard Music of J. S. Bach* (New York: Routledge, 2/2006), 233.
10. For discussions of Bach's compositional development, see Robert Marshall, *The Compositional Process of J. S. Bach*, 2 vols (Princeton: Princeton University Press, 1972), Laurence Dreyfus, *Bach and the Patterns of Invention* (Cambridge, MA: Harvard University Press, 2004), David Schulenberg, *The Keyboard Music of J. S. Bach* (2006), Peter Williams, *The Organ Music of J. S. Bach* (2003), Richard Jones, *The Creative Development of Johann Sebastian Bach*, vol. 1 (Oxford: Oxford University Press, 2007), and Peter Williams, *Bach: A Musical Biography* (Cambridge: Cambridge University Press, 2016). For the traditions of German pedal technique, see David Yearsley, *Bach's Feet: The Organ Pedals in European Culture* (Cambridge: Cambridge University Press, 2012).
11. Williams, *The Organ Music of J. S. Bach* (2003), 541–5.
12. Cantata No. 71 can be precisely dated to early 1708, but direct stylistic comparison between vocal and organ works is difficult.
13. Hans T. David and Arthur Mendel (eds), rev. Christoph Wolff, *The New Bach Reader* (New York: W. W. Norton & Co., 1998), 474–6; see also George Stauffer, 'Bach as reviser of his own keyboard works', *Early Music* 13/2 (May 1985): 185–98.
14. Schulenberg, *The Keyboard Music of J. S. Bach*, p. 67, argues the earlier one is a copyist's addition; however, it is not playable by hands alone.
15. There are doubts about the authorship of this fugue (Schulenberg, *The Keyboard Music of J. S. Bach*, 440–1) but the source attributions seem credible.
16. Listed in Georg von Dadelsen and Klaus Ronnau (eds), *J. S. Bach, Fantasien, Präludien und Fugen* (Munich: G. Henle Verlag, R/2009), 138.
17. Schulenberg, *The Keyboard Music of J. S. Bach* (2006), 234.
18. This was the option taken in my complete cycle of Bach on clavichord (2017–20); see Francis Knights, 'J. S. Bach's keyboard works: from performance to research' (forthcoming). For BWV 963, Schulenberg (*The Keyboard Music of J. S. Bach*, 84) is unjustly distrustful of the sources. This is expressed in more concrete form in his first edition of 1992 (p. 64): 'it is suspicious that the pedal notes in this section can be transposed up an octave or omitted without difficulty, suggesting that the bass originally lay an octave higher and was transferred to the pedals by a copyist'.
19. For a recorded example, see Yuko Inoue and Ketil Haugsand playing BWV 963 on YouTube <<https://www.youtube.com/watch?v=AuglCKrHyA4> (2020)>, accessed 8 August 2020.
20. See Joel Speerstra, *Bach and the Pedal Clavichord* (Rochester: University of Rochester Press, 2005). While in Weimar, Bach would surely have come across the massive pedal harpsichord owned by Johann Caspar Vogler, with 8' 8' 4' on two manuals and 8' 8' 16' 32' on the pedals (cited in Richard Troeger, *Playing Bach on the Keyboard: A Practical Guide* (Pompton Plains, NJ: Amadeus, 2003), 34–5). For recordings of pedal harpsichords and clavichords, see the discs by Luc Beauséjour (Analekta), Douglas Amrine (Priory), Erik van Bruggen (M.R.S.), and Harald Vogel (Organeum).
21. David and Mendel, *The New Bach Reader* (1998), 256.

22. See Donald Boalch, rev. Charles Mould, *Makers of the Harpsichord and Clavichord* (Oxford: Clarendon Press, 3/1995).
23. Schulenberg, *The Keyboard Music of J. S. Bach* (1992), 73. In the 2006 edition (p. 67) this interesting comment is somewhat neutralized.
24. Charles Burney on Bach, *Rees's Cyclopaedia*, vol. 3, section 2, part 6 (1804). His original notebook comments (c.1772–c.1790) were: 'This Musician was so fond of Polyphonic Music & full harmony that besides a constant & active use of Pedals, he is said to have had a stick (some say a short Tobacco-pipe) in his mouth, by wch. he put down such notes as neither feet nor Hands cd. get at'; see Todd Gilman, 'The evolution of Charles Burney's musical taste between 1770 and 1811', *McGill-ASECS Fellowship Report* (2014).
25. As part of the recital project mentioned in note 18.

# *Cadence patterns in Bach recitative: a guide for continuo players*

A surprising number of Bach's sacred and secular cantatas survive without figured bass parts, raising questions as to how and by whom these parts were performed in services and concerts. More critically, they leave us with little guidance as to the composer's expectations of voice-leading, dissonance choices and decoration by the keyboard continuo players in their recitatives. This study takes one principal component, the perfect cadence, and using the many examples of accompanied recitative in Bach's cantatas, shows what he might have expected from his performers at this point, influenced by elements such as key, text and scoring.

During the first years of Bach's tenure at Leipzig he worked tirelessly to create complete liturgical cycles of cantatas of his own. The demands of composing, copying, rehearsing and performing difficult new works weekly was very considerable, and the surviving scores and parts are testament to this. The schedule for the sacred cantatas, as outlined by Alfred Dürr,<sup>1</sup> involved three stages, and often many copyists, including his students and family:

- [1] the score was used to create a set of parts;
- [2] selected duplicates were copied from these as needed for the violins and for the continuo<sup>2</sup> (including a transposed version in *Chorton* for the organist);
- [3] Bach revised the parts and added bass figuring.

This last stage was not always completed or even attempted, due to lack of time - there are examples of copying only being finished a day or two before performance, barely in time for rehearsal - and many cantata copies do not have the bass line figured.<sup>3</sup> This has implications for who performed or was able to perform Bach's continuo parts, which were often so harmonically complex that old traditions like the 'rule of the octave' could never have sufficed; and whether the composer alone would have been capable of providing the keyboard harmony from a plain bass line, assuming he was not directing from the score at the keyboard (and in which case the sightlines and the different pitch would surely have ruled out the main organ as his instrument).<sup>4</sup>

In the absence of bass figuring in recitative, the harmonic outline is usually clear enough from the shape of the vocal line, with the exception of cadences after the voice has stopped.<sup>5</sup> Modern performers sometimes treat these cadences with a degree of imaginative freedom,<sup>6</sup> but can easily overstep the boundaries of what seems appropriate in terms of Bachian style.<sup>7</sup> However, very



useful guidance can be gleaned from the many examples of accompanied recitative Bach composed, and this study creates a typology of perfect cadences from these sources in order to identify the chord patterns that he actually used, both simple and decorated.

Accompanied recitative<sup>8</sup> is probably most familiar to listeners of Bach through the string 'halo' that accompanies Jesus in the *St Matthew Passion*. However, as Basil Smallman points out,<sup>9</sup> it is the absence of such strings for Jesus in the *St John Passion* that is the exception, and this style of instrumental accompaniment is derived from the traditions of Bach's predecessors. There are actually numerous examples of strings and other instruments accompanying recitative in Bach's cantatas, both sacred and secular, and from these, four clear groups of perfect cadence types - major and minor, simple and decorated - can be identified. These are models which continuo players today can use when playing recitatives without surviving bass figuring.

### **Cadence categories**

The following groupings are derived from the 111 examples of perfect cadences in accompanied recitative in Bach's sacred and secular<sup>10</sup> cantatas, plus the *St Matthew Passion* and the *Christmas Oratorio*. Perfect cadences are almost invariable at the end of recitatives, although they can also be found as 'punctuation' earlier in longer examples, up to a maximum of four in the longest recitatives.

The groupings below use the *Bach Gesellschaft* numbering for the cantatas,<sup>11</sup> with lower-case Roman numbers to indicate the movement number, followed by the original cadence key (upper case for major, lower case for minor) and date of composition. Thus '185ii b (1715)' indicates Cantata BWV185 (composed 1715), second movement, perfect cadence in b minor. Multiple examples are given in chronological order. Only those cadences which are a syntactical 'punctuation' (that is, not continuing from previous arioso orchestral lines, or where repeated patterns accompany the vocal recitative) have been included, and the final chord has in each case been schematically represented by a crotchet. In order to make possible a comparison of the chordal disposition and voice leading, all cadences have been normalized to C major or A minor, with the upper voices placed within the octave above middle C; they can of course be transposed to any key for use by continuo players today. The falling-fifth or rising-four bass line layout has been represented as correctly as possible, with some allowance made for compressed ranges as a result of transposition here.

The four categories include major (M), minor (m), simple (s) and decorated (d); thus 'Ms1' is the first example of the simple major cadence grouping. The 'simple' groups contain two-chord cadences with no passing notes, suspensions or decorations, and form the majority (66% of the total). All are scored for four-part strings with basso continuo unless indicated; in the latter cases, there appear to be some connections between Bach's decorated cadence types, instrumentation, keys and texts.

#### ***Major keys, simple cadences (Ms)***

There are 39 examples (ex.1), of which 27 (69%)<sup>12</sup> are of the first type, with the leading note at the top of the dominant chord (Ms1a-d); the two of these which are non-standard (1c-d), in five and three voices, are the only ones not scored for strings, which may be significant. It is interesting to note the paucity of 6/4-5/3 and 4-3 cadences (3% each) and dominant chords without the leading note at the top (5%), and that 7ths are present 31% of the time.

*Ex.1 Major keys, simple cadences*

Ms1, plain cadences in close (1a) or open (1b) position, in four parts:

Ms1a (14 examples): 28iv C (1725), 32iv G (1726), 84iv F# (1727), 244xxvii Eb (1727), 201xiv D (1729), 140v b (1731), 213xii F (1733), 214vi A (1733), 214viii D (1733), 207x D and D (1735), 206x D (1736), 210i E, D (c.1740)

Ms1b (11 examples): 63ii F (1714), 77iv G (1723), 62v E (1724), 78v Eb (1724), 87iv D (1725), 47iii Eb (1726), 55iv Bb (1726), 244xvii Eb, xxxiv A (1727), 207x A, G (1735), 197iv A c.1736)

Ms1c (1 example): 183i E (1725) (2 oboes d'amore, 2 oboes da caccia)

Ms1d (1 example): 248xxxii G (1734) (2 flutes)

Ms2, 4-3 suspension at the top of the dominant chord:

Ms2 (1 example): 132ix D (1715)

Ms3, with dominant 7th;<sup>15</sup> 3c-d with five-part wind instruments; 3e with full orchestra and dominant seventh at the top:

Ms3a (4 examples): 132iv D (1715), 22iii F (1723), 198x b (1727), 244xxxiv E (1727)

Ms3b (3 examples): 48ii Bb (1723), 59ii C (1723), 140vi A (1731)

Ms3c (1 example): 119v F (1723) (2 recorders, 2 oboes d'amore)

Ms3d (1 example): 119v C (1723) (2 recorders, 2 oboes d'amore)

Ms3e (1 example): 205ii G (1725) (3 trumpets, timpani, 2 horns, 2 flutes, 2 oboes, strings)

Ms4, 6/4-5/3, with falling 7th:

Ms4 (1 example): 116v A (1724)

*Major keys, decorated (Md)*

The image displays a musical score for piano, consisting of three systems of staves. Each system contains two staves: a treble clef staff and a bass clef staff. The first system is labeled with '1a', '1b', '1c', and '1d'. The second system is labeled with '2a', '2b', '3a', '3b', '3c', and '3d'. The third system is labeled with '3e', '3f', '3g', '3h', '4a', and '4b'. The music features various decorative techniques such as appoggiaturas, grace notes, and complex rhythmic patterns in the upper voice, while the lower voice provides a steady harmonic accompaniment.

*Ex.2 Major keys, decorated cadences*

There are 16 examples of major cadences with some kind of harmonic or melodic decoration (ex.2); all are unique examples, and tend to be later rather than earlier in date, taking the first Leipzig cantatas as a mid-point in this genre of Bach's. As these elaborations are likely the result of a mood (although not actual word painting) indicated in the text, translations<sup>14</sup> of the final text phrase before the cadence have been provided in each case.

Md1, in 3rds or 6ths, with appoggiatura (1a), mostly in three rather than four parts:

Md1a (1 example): 23ii Eb (1723) (violin 2, viola), 'and do not let You go without your Blessing' (241)

Md1b (1 example): 248xxvii E (1734) (2 flutes), 'Go, this is what you shall find!' (131)

Md1c (1 example): 112iii G (1731), 'I devote myself to your Word' (303)

Md1d 195iv D (1736) (2 flutes, 2 oboes d'amore), 'And lets that which He began / Also achieve its desired end' (754)

Md2, 4-3 suspension with decoration:

Md2a (1 example): 206x A (1736), 'The earth's sweetest delight / Derives his precious name' (846)

Md2b (1 example): 180iv Bb (1724) (2 recorders), 'And marks the greatness of His Love' (590)

Md3, with dominant 7th, decorated with anticipations or suspensions:

Md3a (1 example): 214vi D (1733), 'Indeed, they that with her life / May long give us delight' (828)

Md3b (1 example): 140v Ab (1731), 'And my right hand shall kiss you' (649)

Md3c (1 example): 187vi Bb (1726), 'Thus I know that he has determined my lot' (450)

Md3d (1 example): 69iv F# (1723), 'You will chasten but not kill us' (738)

Md3e (1 example): 170iv G (1726), 'When will He indeed give you / His Heavenly Zion?' (434)

Md3f (1 example): 209ii A (c.1734), 'And satisfy the zeal of Minerva' (922)

Md3g (1 example): 205x D (1725) (2 flutes), 'Your wish shall come true' (853)

Md3h (1 example): 204iii F (c.1727), 'to despise them / is incomparably more' (903)

Md4, 6/4-5/3, decorated (both from the *Christmas Oratorio*):

Md4a (1 example): 248xxxviii C (1734), 'Your Name inscribed within me / Has driven away the fear of death' (158)

Md4b (1 example): 248lii A (1734) (2 oboes d'amore), 'And gives itself to Him all as His own / Is my Jesus's throne' (171)

**Minor keys, simple cadences (ms)**

The image shows a musical score for piano accompaniment in G minor. It is divided into two systems. The first system contains five measures labeled 1a, 1b, 1c, 1d, and 2. The second system contains six measures labeled 3, 4, 5, 6a, 6b, and 6c. The notation includes treble and bass staves with various chords and melodic lines.

*Ex.3 Minor keys, simple cadences*

There are 34 examples here (ex.3), of which 24 (71%) are of the plain type, without dominant 7th and with the leading note at the top of the dominant chord. The layout of the inner voices is more varied than in the major cadences (Ms1), and there is not a single 6/4-5/3 or 4-3 cadence. Dominant 7ths are present (15%) half as often as in major keys, although with more of a tendency for the seventh to appear at the top of the chord.

ms1, plain cadences in four (ms2d, three) parts:

ms1a (15 examples): 185ii b (1715), 187vi g (1715), 40v f (1723), 59ii d (1723), 75ii e, f# (1723), 76ii e (1723), 2iv g (1724), 62v b (1724), 244xx e, xxvii g, xxx g#, xxxiv f# (1727), 213xii a (1733), 215viii b (1734), 248lvi f# (1734)

ms1b (8 examples): 148iii e, b (c.1723), 146iv g (c.1726), 244viii e, xxx b (1727), 201xiv f# (1729), 207x b, a (1735)

ms1c (1 example): 112iii f (1731)

ms1d (1 example): 174iii f# (1729) (3 violins, 3 violas)

ms2, with dominant 7th:

ms2 (1 example): 56iv g (1726)

ms3, melodic descent from B to A, with dominant 7th:

ms3 (1 example): 119iv e (1723) (2 recorders, 2 oboes d'amore)

ms4, 3rd at top of tonic chord:

ms4 (1 example): 244xv e, lii c (1727)

ms5, 5th at top of tonic chord:

ms5 (1 example): 76ix a (1723)

ms6, with dominant 7th, and 7th at top

ms6a (1 example): 159i c (1729)

ms6b (1 example): 48ii bb (1723)

ms6c (1 example): 171v b (c.1729) (2 oboes)

### ***Minor keys, decorated (md)***

There are 22 examples of decorated minor cadences (ex.4); all are unique examples except md4a, and they also differ from the Md group in their layout.

*Ex.4 Minor keys, decorated cadences*

md1, melodic descent from B to A, with anticipation in upper voices and dominant 7th:

md1 (1 example): 186vii g (1723), 'And pronounce blessing upon them' (492)

md2, melodic descent from C to A, sometimes 6/4-5/3, and with a falling 7th:

md2a (1 example): 204iii d (c.1727), 'Nevertheless hovers in constant apprehension of it' (903)

md2b (1 example): 39vi g (1726), 'So that what You promised I may one day yield from it' (394)

md2c (1 example): 120v f# (1742), 'And Your blessed Name / May be glorified among us' (736)

md2d (1 example): 22iii c (1723), 'For flesh and blood quite fail to understand / - With your disciples - what was said' (245)

md2e (1 example): 37iv b (1724), 'That before God we are justified and saved' (325)

md2f (1 example): 19iv b (1726), 'For his guard and defence / For his protection' (698)

md2g (1 example): 113vi b (1724), 'I have chosen you to be my friends' (498)

md3, with semiquaver patterns in 3rds or 6ths:

md3a (1 example): 113vi e (1724), 'Shall henceforth be a child of Heaven' (497)

md3b (1 example): 168ii c# (c.1725) (2 oboes d'amore), 'And from the lightning of his countenance' (474)

md3c (1 example): 205x b (1725), 'Since eternity / Prophesied his wise name' (853)

md3d (1 example): 180iv d (1724) (2 recorders), 'Who array themselves themselves in faith' (590)

md4, with chordal anticipation or appoggiaturas:

md4a (3 examples): 128iii b (1725), 'And do not seek to fathom this!' (329), 244xxx a (1727), 'The flesh is weak' (87), 209ii f# (c.1734), 'Comes his mother to console him' (922)

md4b (1 example): 157iii f# (1727), 'Unless your blessing remains with me' (765)

md5, falling 7th:

md5 (1 example): 190vi f# (1724), 'Then shall we live this whole year in Blessing' (146)

md6, 6/4-5/3 with angular melodic line:

md6 (1 example): 147ii g (1723), '...the wonders the Saviour / Has done for her as His handmaid' (670)

md7, dominant 7th falling to leading note:

md7a (1 example): 130iv b (1724), 'Even now the angel's help appears' (696)

md7b (1 example): 244viii d (1727), 'that I may be buried so' (32)

md8, upper voices in falling 3rds:

md8 (1 example): 107ii f# (1724) (2 oboes d'amore), 'With joy you will see / How God will deliver you' (445)

md9, dominant chord suspended, with decorated resolution:

md9 (1 example): 117v f# (c.1729), 'Give honor to our God!' (784)

## Key usage

An examination of the major and minor decorated cadences shows no real statistical significance either for liturgical purpose (sacred cantatas) or the solo voice used: soprano, alto, tenor or bass.<sup>15</sup> However, there is a significant difference in the variety of key usage in these cadences. Whereas there are examples in ex.1 in every major key except C# and B, but no more than three even for those most commonly used (D and A), for minor keys there are none at all in eb, f, g# or bb, only one in c, c#, e and a, but 18 in d, f#, g and b (82%). It is not evident that this is related to the probable keyboard temperaments in use, which suggests instead that certain key colours encouraged Bach to provide more complex recitative cadence types in particular minor keys, or (stepping further back) that certain texts suggested the use of certain keys. This may well be relevant for modern performers when deciding when decorated perfect cadences should be used instead of the simple type.

## The relevance of the text

Although some of the text phrases in Md and md seem relatively neutral, a number of clear themes do appear in the sacred texts, particularly as relating to faith ('deliver', 'save', 'Word', 'Zion', 'faith'). 'Soft' words such as 'delight', 'kiss', 'love', 'console' and 'help' appear, and 'blessing' or 'blessed' and 'God' or 'Jesus' occur six and four times respectively. These seem to be the components of the text that draw from Bach more elaborate cadence formulas, and more colourful orchestration (pairs of recorders, flutes or oboes, for example). Notice should be taken of the text content for those recitatives with unfigured basses, for the same reasons.

## Evidence from Bach's bass figuring

Although the numbers above are drawn from a sizeable statistical group, it should be remembered that Bach's organ continuo practice may not have been identical to his cadence disposition in composed *recitativo accompagnato*. However, it is rather unlikely that the improvised continuo cadences were *more* ornate than the notated ones.

By way of a comparison sample, the equivalent recitative cadences for Cantatas 1-10 can be counted:<sup>16</sup> there are 24 in total. Discounting the six that are unfigured, the statistics show that eight are 6/4-5/3, seven are plain V-I cadences (three with a dominant 7th) and three are 4-3 suspensions. The percentage figures for the 6/4-5/3 and 4-3 cadences are 45% and 17% of this sample, compared with the 15% and 2% for the accompanied recitative versions. Performers can therefore expect to make fairly frequent use of 6/4-5/3 and (less so) 4-3 cadences when playing unfigured recitatives.

## Guidance for performers

Drawing on the evidence of the accompanied recitative data above, performers should expect the majority of major and minor unfigured perfect cadences to be of a simple two-chord form, with the leading note at the top of the dominant chord, and sometimes with a 6/4-5/3 or 4-3 elaboration. Dominant 7ths and falling 7ths are relatively rare, as are parallel 3rds and 6ths. There are also some differences between chord layouts in major and minor keys.

While it is possible that *nothing* beyond this was ever part of Bach's continuo (as opposed to *accompagnato*) recitative practice, special texts, and certain minor keys, may encourage slightly more complex harmonic or melodic decoration, with very occasional anticipations, appoggiaturas



or trills. The use of any other note than the tonic for the top of the final chord should be regarded as unusual, and for a particular purpose; the decorated examples of exx.2 and 4 will serve as a useful guide in all these circumstances.

## Francis Knights

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### Notes

<sup>1</sup> Alfred Dürr, trans Richard D. P. Jones, *The Cantatas of J. S. Bach* (Oxford, 2005), pp.48-49.

<sup>2</sup> For the background to Bach's continuo sources and usage, see Laurence Dreyfus, *Bach's Continuo Group: Players and Practices in his Vocal Works* (Cambridge, MA, 1987).

<sup>3</sup> See Dreyfus (1987), pp.183-207 for a catalogue of surviving cantata parts.

<sup>4</sup> For a discussion as to the use of the harpsichord in Bach cantatas, see Dreyfus (1987), ch.2. Remarkably, there are no fewer than 15 surviving unfigured *Chorton* parts (Dreyfus (1987), p.53); Dreyfus is perhaps optimistic in thinking how much a Bach pupil could achieve with only this resource.

<sup>5</sup> Typical harmonies can of course be gleaned from figured examples (see below), but the chordal layout and level of decoration is never indicated.

<sup>6</sup> One fine example is the final cadence of BWV52iv, as recorded by the Leonhardt Consort (Teldec Classics, Das Alte Werk 2564 69943-7, disc 17, track 4, (P) 1976). The debate on the performance of written long bass notes as short (Dreyfus (1987), ch.3) is not considered here.

<sup>7</sup> There are numerous examples on record, including some which owe rather too much to French or Italian baroque practice.

<sup>8</sup> The relevant English-language literature on Bach recitative and its performance is not large, but see Jack Westrup, 'The cadence in baroque recitative', in Knud Jeppesen, Bjørn Hjelmborg and Søren Sørensen (eds), *Natalicia musicologica: Knud Jeppesen septuagenario collegis oblata* (Oslo, 1962), pp.243-252 and Mark Radice, *Scripture recitative from Schütz to Bach*, dissertation, Eastman School of Music (1984). Some practical guidance is provided by Peter Williams, *Figured Bass Accompaniment* (Edinburgh, 1987), Bradley Lehman, 'Performance Practice: Plain Recitative in Bach's Vocal Works', <http://www-personal.umich.edu/~bpl/recits.htm> (2003) and Kevin Class, 'On the Accompanying, Coaching, and Conducting of Recitative: A few introductory thoughts on the art of coaching and performing recitative', <http://www.kevinclass.com/on-the-coaching-accompanying-and-conducting-of-recitative>.

<sup>9</sup> Basil Smallman, *The background of Passion music: J. S. Bach and his predecessors* (London, 1957), p.51.

<sup>10</sup> Bach appears to make no stylistic distinction between sacred and secular recitative style; where one type of work was repurposed for the other, the replacement text required new recitatives but the melodic and harmonic style remains similar. For a discussion of some of the literary and aesthetic concerns around such reworkings, using Cantata 198 as an example, see Laurence Dreyfus, *Bach and the Patterns of Invention* (Cambridge, MA, 1996), pp.232-41.

<sup>11</sup> All are available conveniently online at IMSLP.

<sup>12</sup> Percentages are rounded to the nearest whole number throughout.

<sup>13</sup> Viola normally at the lower octave (48, 59, 140), but may be above violin 2 (244).

<sup>14</sup> From Dürr (2005) for the cantatas and the *Christmas Oratorio*, and for the *St Matthew Passion* from Bach ed Alfred Dürr, trans. H. S. Drinker, *St Matthew Passion* [vocal score] (Kassel, 1974), with page numbers in parentheses afterwards.

<sup>15</sup> The alto is the least used voice, and in minor keys there is a preponderance of tenor and bass.

<sup>16</sup> These are not in chronological order in the BGG numbering; all but two date from the mid-1720s.

Francis Knights

## MAGDALEN COLLEGE MS 347: AN INDEX AND COMMENTARY

Magdalen College, Oxford was founded by William of Waynflete, bishop of Winchester, in 1458. In his statutes Waynflete made provision for a choral foundation consisting of an *Informator Choristarum*, four chaplains, eight clerks and sixteen choristers. Despite its long history, today the College possesses almost no music manuscripts dating from before the nineteenth century; several inventories from the late fifteenth century survive which list an impressive collection of both plainsong and polyphonic music,<sup>1</sup> but not one of these manuscripts is now extant. Both Stainer<sup>2</sup> and Rimbault<sup>3</sup> used Magdalen manuscripts for their editions of Daniel Purcell and Benjamin Rogers respectively during the last century, but these have also disappeared (one, a seventeenth-century organ-book, went missing in 1938, although a list of its contents has been preserved).<sup>4</sup> The College Archives now contain only the remnants of a set of nineteenth-century chapel partbooks, and a large oblong organ-book catalogued as MS 347. This latter manuscript has been briefly mentioned in print three times,<sup>5</sup> and is of considerable interest as a source of information about Restoration performance practice, especially ornamentation.<sup>6</sup> It contains service music for the 1662 Book of Common Prayer (Matins, Evensong and the Communion Service); ten composers are represented, principally pre-Commonwealth. The latest are John Blow (d.1708) and Henry Aldrich (d.1710), and the oldest is Thomas Tallis (d.1585). It is unfortunate that the corresponding vocal partbooks have been lost, as they would undoubtedly have contributed much further information.

MS 347 has been at Magdalen since at least the middle of the nineteenth century; William Barrett states that he examined it in the organ loft at the College, and this most probably occurred at the time when he was a lay clerk at Magdalen in 1861.<sup>7</sup> There is no reason to suppose that the manuscript has not been at the College since the time it was copied, and no evidence connects it with any other foundation. Oxford composers are represented by Aldrich (Dean of Christ Church 1689-1710), and Benjamin Rogers (Organist and *Informator Choristarum* at Magdalen 1664-86). The *Sanctus* attributed in the manuscript to Henry Purcell may have come to Oxford through Daniel Purcell (Organist and *Informator Choristarum* at Magdalen 1688-95), if MS 347 was copied after 1688.

The manuscript is a large volume, measuring 246 x 348 mm. The present leather binding, which has some gilded decoration, appears to be from the nineteenth century, and the title is stamped within a panel 'SERVICES/ORGAN PARTS/ABOUT 1680'; this suggested date is consistent with the repertory. It must in any case have been copied after 1682, when Henry Aldrich (called 'Dr Aldrich' in the manuscript)

obtained his DD at Oxford; regrettably, there are no watermarks to aid further with the dating. MS 347 is written principally in a single uniform hand, but with a varying degree of neatness; a second, eighteenth-century hand takes over at p.123, copying only Rogers in D. The page layout is uniform: six six-line staves of 18 mm, spaced about 19 mm apart, and the entire manuscript may therefore have been ruled before copying. Thirteen pages are missing from the beginning of the volume, according to the original pagination. It was later foliated in ink by a nineteenth-century hand, after the manuscript had reached its present form; this same hand added an index on p.ii. Several pages are ruled but blank, and at least one piece (Rogers *Sanctus in F*, pp.27-8) was later added on spare staves, possibly by the first scribe. During the period 1669-1700 the Magdalen chapel accounts record payments for copying and composing music;<sup>8</sup> the names listed are Benjamin Rogers (payments for the years 1669-75, 1677, 1679-84), Charles Morgan (1685-6, 1689) and William White (1697-9).<sup>9</sup> Rogers was paid sums of between 10s 6d and £2 9s 6d annually in all but two years of his 22-year stay at Magdalen, for copying 'Antiphonas', probably meaning service music as well as anthems; since his yearly stipend was £60, copying music for the chapel did not represent a major source of income for him. It has not been possible to locate examples of the music hands of either Morgan or White, and since MS 347 cannot be positively identified as in the hand of Rogers, Daniel Purcell or any other seventeenth-century Oxford scribe, the copyist must remain anonymous for the present.

The repertory of MS 347 offers no surprises. Unlike the contemporary Durham Cathedral music list for June 1680,<sup>10</sup> it does include post-Restoration music, although the balance favours sixteenth-century settings. Much of this is familiar cathedral repertory: the Short Services by Byrd, Gibbons and Tallis were printed by Barnard<sup>11</sup> in 1641, and all of the pre-Restoration music is also to be found in the Durham list. The services dating from after the Commonwealth are known from other sources, although the Purcell *Sanctus* is unique to this manuscript.<sup>12</sup> Liturgically, the manuscript provides an approximately equal number of settings for the Matins (Te Deum or Benedictus, and Jubilate or Benedicite), Evensong (Magnificat and Nunc dimittis, or Cantate Domino and Deus misereatur), and the Communion Service (Kyrie and Creed). There are no settings of the Responses (probably either chanted or said at this date), the Venite (introductory Psalm for Matins, probably chanted), and the Gloria and Agnus Dei from the Communion Service. These latter texts were not required to be sung by the 1662 Prayer Book rubrics, although Magdalen evidently had a tradition of singing the Sanctus, and also the Gloria before the Gospel ('Glory be to thee O Lord'). This Gloria was required by the First Book of Common Prayer (1549), although it was omitted from the second (1552) and from subsequent editions.

The principal interest attached to the Magdalen Organ-book is in the highly-ornamented version of Orlando Gibbons' *Short Service*. Taken together with the smaller number of decorations to be found in the Tallis and Byrd services, some idea of the way in which seventeenth-century musicians interpreted sixteenth-century music can be gained.<sup>13</sup> The texts of other services, such as Patrick in G, are also of interest, as they present some readings different from those given in modern editions. Editors of Tudor church music have often been inclined to dismiss Restoration copies as too late in date to be of value where sixteenth-century copies survive, yet the later manuscripts must often have been copied from earlier manuscripts, now lost. Although

Handwritten musical score for Magnificat by Gibbons. The score is written on two staves using mensural notation. The first staff begins with a treble clef and a key signature of one flat (B-flat). The second staff begins with a bass clef and a key signature of one flat. The notation includes various note values, rests, and bar lines. A section of the score is marked "For Gentils" in the center. The manuscript shows signs of age and is written in dark ink on aged paper.

some variants (such as changes in the harmony in the Gibbons service) may represent modernisation of the text by a later generation, certain readings will preserve genuine variants copied from Tudor manuscripts. At Magdalen, for example, a replacement copy of a sixteenth-century service setting is likely to have been made directly from the previous organ copy rather than from an outside source.

#### Contents of MS 347

<i>Composer</i>	<i>Title</i>	<i>Page</i>	<i>Comments</i>
		ii	C19th ink index [pp. 1-13 missing]
Gibbons	<i>Short Service</i>		ornamented
	Te Deum	14	page damaged; first 68 bars missing <sup>14</sup>
	Benedictus	[15]	page damaged; 43½ bars missing
	Creed	[20]	first two pages damaged; last chord missing [pp. 23-4 blank]
Tallis	<i>Short Service</i>		
	Creed	25	p. 26 damaged
Rogers	Sanctus in F	27	continued on p. 28
Tallis	<i>Short Service</i>		
	Sanctus	28	
	Kyrie	28	
Rogers	Gloria in F	28	before the Gospel
Purcell H	Sanctus	29	unique source <sup>15</sup>
Aldrich	<i>Service in G</i>		
	Creed	30	
	Kyrie	32	
Gibbons	<i>Short Service</i>		ornamented
	Magnificat	33	
	Nunc dimittis	35	
Byrd	<i>Short Service</i>		
	Te Deum	37	
	Benedictus	41	
	Kyrie	43	
	Creed	44	
	Magnificat	47	
	Nunc dimittis	49	
Tallis	<i>Short Service</i>		
	Te Deum	51	transposed up a tone <sup>16</sup>
	Benedictus	55	transposed up a tone [p. 58 blank]
	Magnificat	59	
	Nunc dimittis	61	
Farrant	<i>Short Service in A minor</i>		
	Magnificat	62	page damaged
	Nunc dimittis	64	

Patrick	<i>Service in G</i>		
	Te Deum	65	
	Benedictus	70	
	Kyrie	73	
	Creed	73	
	Magnificat	76	
Blow	<i>Service in G</i>		
	Te Deum	79	
	Benedicite	84	
	Jubilate	89	
	Kyrie	90	
	Creed	91	
	Cantate Domino	95	
	Deus misereatur	99	
Aldrich	<i>Service in F</i>		Verse service
	Magnificat	102	
	Nunc dimittis	107	
Child	<i>Service in E minor</i>		[Verse service]
	Te Deum	109	
	Jubilate	113	
	Kyrie	114	
	Creed	115	
	Magnificat	118	
Rogers	<i>Service in D</i>		copied by the second scribe
	Te Deum	123	
	Jubilate	130	
	Sanctus	132	
	Kyrie	[133]	
	Gloria	[133]	before the Gospel
	Creed	[133]	

Permission of the President and Fellows of Magdalen College to publish material from the College Archives is gratefully acknowledged.

#### Notes

1. See J. R. Bloxam, *A Register ... of Members of Saint Mary Magdalen College*, ii, (Oxford, 1857), p. 235, and W.D. Macray, *A Register of the Members of St. Mary Magdalen College*, Oxford, new series, ii, (Oxford, 1897), p. 198
2. J. Stainer (ed.), *Daniel Purcell: Magnificat and Nunc Dimittis* (London, 1900)
3. E. F. Rimbault (ed.) *Benjamin Rogers: Evening Service in A* (said by Bloxam, ii, p. 200 to be in Rimbault's Cathedral Music, but not to be found in Rimbault's [1847] edition of Arnold's *Cathedral Music*)
4. See the introduction to C. Dearnley (ed.), *Daniel Purcell: Magnificat and Nunc Dimittis in E minor*, (London, 1971)
5. W. A. Barrett, *English Church Composers*, (London, 1882), p. 63; B. Rose, 'Magdalen College Chapel, Oxford: Its Music Past and Present', *Oxford Magazine*, (13 November, 1970) p. 73; and F. B. Zimmerman,

*Henry Purcell 1659-1695: An analytical catalogue of his music*, (London, 1963), p. 414

6. See F. Knights, 'A Restoration Version of Gibbons' Short Service', *Organist's Review*, LXXVI No. 271, (June 1990) p. 97
7. Barrett, *op. cit.*
8. Bloxam, ii, p. 287
9. Biographical details can be found in Bloxam, ii, pp. 78, 83; Morgan and White were clerks in 1681-1725 and 1693-1705 respectively
10. See B. Crosby, 'A Service Sheet from June 1680', *Musical Times*, cxxi, (1980), p. 399
11. J. Barnard, *The First Book of Selected Church Musick*, (London, 1641)
12. For concordances, see R. Daniel and P. le Huray, *The Sources of English Church Music 1549-1660*, (London 1972)

13. See note 6

14. See *Tudor Church Music: Orlando Gibbons*, iv, (London, 1925), p. 35

15. Zimmerman *op.cit.* suggests that the attribution to Henry Purcell may be spurious; it certainly sounds later in date than its presence in this source would suggest

16. A early eighteenth-century manuscript containing Tallis in D minor also transposed up a tone was at Exeter Cathedral, according to E. J. Hopkins and E. F. Rimbault, *The Organ, its History and Construction*, (London, 1855), p. 167. This transposition is presumably a result of changes in organ pitch during the seventeenth century; the Magdalen organ was retuned a semitone lower by Harris in 1690 (see D. Gwynn, 'Organ Pitch in Seventeenth Century England', *BIOS Journal* 9, (1985), p. 65)

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## The Cobham Hall Spinnet Book

FRANCIS KNIGHTS

Cambridge University Library manuscript Add. 9127, known as “The Cobham Hall Spinnet Book,” is one of a number of early eighteenth-century English teaching manuscripts witnessing the progress of musical amateurs in the early Georgian period. It contains a dated record of lessons received from Charles Froud in 1729–1730 by an aristocratic young pupil in rural Kent. The manuscript is listed in RISM<sup>1</sup> but does not appear in John Harley’s catalogue of British harpsichord sources.<sup>2</sup> The only print citation of it seems to be as an “otherwise insignificant manuscript,” from H. Diack Johnstone in 1992, who was interested in Add. 9127 primarily for the history of English keyboard ornamentation.<sup>3</sup>

The reversible manuscript (that is, beginning at both ends) is in an original leather binding with gilt stamping and is 23 by 29.5 cm in size. The format is uniform, with eight staves to a page across the 80 pages. There are pages cut out after fols. 16 and 40, and fols. 17r to 36v are ruled and blank; the foliation is modern. The copyist’s hand is clearly the work of an experienced musician, and it seems reasonable to assume that this is Froud’s own writing. A modern pencil note on fol. 1r reads “This book came from Cobham Hall, Kent / Bought from David’s Bookshop.”<sup>4</sup> The contents are listed in the Table reproduced on the following page. They include arrangements of Handel, Arne, Ariosti, Pepusch and the like, as well as technical exercises, prefaced by a set of standard notation rules. Interestingly, the Gavotte from Handel’s *Ottone* (in B-flat, rather than the C of the Cobham Hall manuscript), Ariosti’s “T’amo tanto,” and his “Con forza ascoza” all appear in Peter Prelleur’s *The Modern Musick-Master* (London, 1731), published after the 1729–1730 lesson dates mentioned in Add. 9127.

1. The listing is available through a search for “Cobham” at <http://www.rism.info/home> (accessed 25 June 2019). For the historical background to such manuscripts see Andrew Woolley, *English Keyboard Sources and their Contexts, c.1660-1720* (Ph.D. dissertation, University of Leeds, 2008).

2. John Harley, *British Harpsichord Music* (Aldershot: Scolar Press, 1992), vol. 1

3. H. Diack Johnstone, “The English Beat,” in Robert Judd, ed., *Aspects of Keyboard Music: Essays in Honour of Susi Jeans on the Occasion of her Seventy-fifth Birthday* (Oxford: Positif Press, 1992), pp. 34–44, specifically 43.

4. The present owners of G. David’s Bookshop, Cambridge, do not have any surviving record of the transaction. The volume likely came on to the market at the 1957 sale of the contents of Cobham Hall. A microfilm (Mic. FF. 24 in the Pendlebury Library, Faculty of Music, University of Cambridge) was made in 1981, so the manuscript is most likely to have been acquired in the 1970s and first catalogued as MS 24 in the Pendlebury Library before being transferred to Cambridge University Library. There is no apparent reason to question the clear provenance statement.



The Cobham Hall Spinnet Book Table of Contents		
folio	Composer	Title
[front]	—	—
2v	—	[Notation rules]
3r	—	[Pitch rules]
3v	Handel	Minuet in C*
4r	[Ariosti]	T'amo tanto [from <i>Vespasiano e Artaserse</i> , also copied on f.v-v (back)]
4r	Anon	[Piece in C]
4v	[arr Pepusch]	The lass of Patie's Mill [from <i>The Beggar's Opera</i> ]
5r	[arr Pepusch]	Can love be controlled by advice [from <i>The Beggar's Opera</i> ]
5r	Anon	[Piece in B-flat]
5v	[Ariosti]	Con forza ascoza [from <i>Vespasiano e Artaserse</i> , also copied on f.v-v (back)]
5v	Anon	[Fragment of Exercise in C]
5v	Anon	[Fragment of Exercise in C, continues on 6r]
6r	Anon	Down in a meadow
6r	Anon	[Fragments of Exercise in C, end of 5v, incomplete]
6v	[Handel]	Gavotte [Ottone]
7r	[Handel]	Minuet [from <i>Rodelinda</i> ]
7v	Anon	Minuet in D
8r	Anon	[Piece in D] [completed on f.7v]
8v	[Greene]	Allemande in D†
9v	[arr Pepusch]	O what pain it is to part [from <i>The Beggar's Opera</i> ]
10r	[Handel]	Overture [ <i>Rodelinda</i> ]
11v	[Handel]	[Son confusa pastorella, from <i>Poro</i> ]‡
12v	[Handel]	[Caro vieni, from <i>Poro</i> , also copied on f.viv (back)]
12v	Anon	[Piece in F]
13v	[Handel]	Symphony [Son confusa pastorella, from <i>Poro</i> ]§
14v	Anon	Symphony [Aria "song" in G]
16r	Anon	Minuet in C
17v–26r	—	[ruled and blank]
[back]**	—	—
iii-r	Anon	Adagio in C [Violin sonata movement]
iii-v	Anon	Allegro in C [Violin sonata movement, incomplete]††
iv-r	—	[blank]
v-v	[Ariosti]	[T'amo tanto] [from <i>Vespasiano e Artaserse</i> , also copied on f.4r front]
vi-r	[Ariosti]	[Con forza ascoza] [from <i>Vespasiano e Artaserse</i> , also copied on f.5v (front)]
vi-v	[Handel]	[Caro vieni, from <i>Poro</i> , also copied on f.12v (front)]
<p>*Unidentified, and likely not an original keyboard work; found in B-flat major in British Library manuscript R.M.18.b.18.</p> <p>†This movement differs in details from the unauthorized 1733 print of Greene's suites by Daniel Wright, so must have had a different copy source.</p> <p>‡Includes some bass figuring.</p> <p>§Details of the bass line differ in places from Handel's original, so this might have been copied from memory.</p> <p>**The pieces at the back (reversed) all include figured bass (see Figure 2).</p> <p>††The first half of a Corelli-like binary movement, belonging with the previous Adagio; double stopping indicates that the solo part was for violin.</p>		

Like the excerpts from Handel's *Poro* (premiered in London on 2 February 1731),<sup>5</sup> this argues for a 1731 (or slightly later) completion date for the contents.

#### COBHAM HALL AND THE EARLS OF DARNLEY

Cobham Hall<sup>6</sup> (Figure 1), near Gravesend, is “one of the finest and largest great houses in Kent.”<sup>7</sup> It was built on the site of a medieval manor house and is now a girls’ school.<sup>8</sup> The present building is a Tudor structure supplemented with classical additions; work was done on it in the seventeenth, eighteenth, and nineteenth centuries by Peter Mills (1661–1663), George Shakespear (1770–1781), James Wyatt, the Repton brothers (1817–1820) and others. Cobham Hall was the seat of the Earls of Darnley for more than 200 years, passing out of the family in 1957 after the death of the ninth Earl.

Irish-born MP John Bligh (28 December 1687–1728), later First Earl of Darnley (1725), married Lady Theodosia Hyde (9 November 1695–30 July 1722), Baroness Clifton and daughter of the Earl of Clarendon, in Westminster Abbey on 24 August 1713. They were resident at Cobham Hall from 1725 and had six children, including three daughters, “typically high-spirited members of that brilliant Anglo-Irish upper-class society from which their father had sprung”<sup>9</sup>:

George Bligh (31 October 1714),<sup>10</sup>  
 Edward Bligh (9 November 1715–22 July 1747), Second Earl of Darnley,  
 Mary Bligh (c.1717–4 March 1791),  
 John Bligh (28 September 1719–31 July 1781), Third Earl of Darnley,  
 Ann (or Anne) Bligh (c.1721–7 February 1789),<sup>11</sup>  
 Theodosia Bligh (23 July 1722 - 20 May 1777).

5. Graham Cummings, “Handel’s Compositional Methods in His London Operas of the 1730s, and the Unusual Case of *Poro*, *Rè dell’Indie* (1731),” *Music & Letters* 79/3 (August 1998), pp. 346–367.

6. See Edwin Harris, *Cobham Hall* (Rochester, Kent, 1909), and Esmé Wingfield-Stratford, *The Lords of Cobham Hall* (London: Cassell, 1959).

7. Tim Tatton-Brown, “Cobham Hall: The House and Gardens,” *Archaeologia Cantiana* 122 (2002), pp. 1–27, specifically 1.

8. See [www.cobhamhall.com](http://www.cobhamhall.com) (accessed 25 June 2019). The house has served as a set for a number of films, including *Wild Child* (2008).

9. See Wingfield-Stratford, *The Lords of Cobham Hall*, pp. 170–173. Other sources for known biographical details are [www.thepeerage.com](http://www.thepeerage.com) and [www.wikitree.com](http://www.wikitree.com), but these sources by no means agree.

10. This date appears in some sources as date of birth and some as date of death, so it was likely both.

11. Two dates appear in unverified online references for date of birth, 1708 and 1723, neither being possible (five years before her mother’s marriage, or one year after her death). Her portrait is in Castle Ward, County Down, Northern Ireland: see [www.nationaltrustcollections.org.uk/object/836426](http://www.nationaltrustcollections.org.uk/object/836426) (accessed 25 June 2019).

It is regrettable that the exact birthdates of these children are not all known, but the order of the daughters by age was Mary, Ann, and Theodosia. From the facts of Baroness Clifton's short life and those of her children, and assuming a maximum of one birth per calendar year, it looks as though Mary and Ann can only have been born, respectively, in the years 1716–1718 or 1720–1721. The dates of the three girls' marriages are known: 1736, 1742, and 1745. Mary outlived all her siblings, dying in 1791.

The handwriting quality of jottings (see below regarding the dates of lessons) written in the 1729 manuscript other than the main contents by Mr. Froud suggests a child of eight or younger. This leaves Lady Theodosia as the most likely pupil for whom the manuscript was compiled. Such an education was more likely for the sons than the daughters of an Earl at this time (note that John Bligh junior would also have been a possible candidate pupil). Perhaps significantly, the start of the manuscript comes immediately after the death of the First Earl, who had been buried in Westminster Abbey<sup>12</sup> on 25 September 1728, aged only forty. Was this an attempt either to provide music as a welcome distraction or solace for one (or all) of the three orphaned daughters or a desire to provide them with some educational finish as they began to head towards the aristocratic marriage market, in the way that was familiar to readers of Jane Austen almost a century later?

The heir to the estate and title was Edward Bligh, who became 11<sup>th</sup> Baron Clifton (1722) and Second Earl of Darnley (1728) and was still a minor at the time of his father's death. He seems to have been musical as an adult and subscribed to no fewer than five Handel publications in 1737–1738: *Atalanta*, *Arminio*, *Giustino*, *Faramondo*, and *Alexander's Feast*.<sup>13</sup> Further musical resources were acquired by the family later in the eighteenth century, and the house later included a substantial two-manual organ built by John Snetzler in 1778–1779.<sup>14</sup> Previously, a harpsichord valued at £5 was in the house according to a 1672 inventory.<sup>15</sup>

After the death of the 8th Earl in 1955, the contents of the Cobham Hall were

12. His wife, Baroness Clifton, who died at the age of only 26 in 1722, a week after giving birth to her sixth child, had also been buried there (Wingfield-Stratford, *The Lords of Cobham Hall*, p. 162). Her portrait is in Castle Ward, County Down, Northern Ireland: see [www.nationaltrustcollections.org.uk/object/836223](http://www.nationaltrustcollections.org.uk/object/836223) (accessed 25 June 2019).

13. David Hunter and Rose M. Mason, "Supporting Handel through subscription to publications: the lists of *Rodelinda* and *Faramondo* compared," *Notes* 56/1 (September 1999), pp. 27–93, specifically 68.

14. See [www.npor.org.uk](http://www.npor.org.uk) (accessed 9 December 2019) and Alan Barnes and Martin Renshaw, *The Life and Work of John Snetzler* (Aldershot: Scolar Press, 1994); there is an illustration in Stephen Bicknell, *The History of the English Organ* (Cambridge: Cambridge University Press, 1999), p. 205.

15. Tatton-Brown, "Cobham Hall," p. 11; the document was published in full in *Archaeologia Cantiana* 17 (1887), pp. 392–408, specifically 403. As it was kept "In the WARDROBE belonging to the STABLE" it may have been in storage rather than in use.

sold at auction on-site by Sotheby's on 22–23 July 1957.<sup>16</sup> The instruments auctioned included an important Hancock harpsichord (see below), and a chamber organ of about 1778 attributed to Samuel Green (1740–1796),<sup>17</sup> which is now in the church of St. Mary the Virgin, Hastingleigh, Kent.

#### THE “SPINETTO”

Spinets were made by a large number of craftsmen in Britain,<sup>18</sup> and were much more common than harpsichords in Britain until about the middle of the eighteenth century. There are only fifteen surviving dated English harpsichords from before 1740,<sup>19</sup> and all but two of those dozen makers represented also made spinets, of which there exist more than ninety for the equivalent period. With their wide compass, light action, and good tuning stability, spinets were ideal instruments for teaching and for domestic performance and accompaniment. No less an authority than François Couperin had recommended that children begin on the spinet.<sup>20</sup>

Many keyboard-instrument makers were active in England in the early eighteenth century,<sup>21</sup> and of those who made spinets, the London makers Edward Blunt, Francis Coston, Thomas Hancock, Thomas Hitchcock the younger, Stephen Keene, Joseph Mahoon, John Player, Benjamin Slade and William Smith are the most obvious names to consider.<sup>22</sup> Of these, only Hancock, Hitchcock, and Slade are represented by surviving instruments of about the right date for the Cobham Hall manuscript and with compasses extending above d<sup>3</sup>. In view of his high output of spinets and his reputation for these instruments, Thomas Hitchcock the younger looks like a strong candidate for the maker of any spinet that would have been at Cobham Hall.<sup>23</sup>

16. Auction catalogue, *Cobham Hall: valuable contents, pictures, statuary, furniture & household furnishings* (London: Sotheby's, 1957).

17. See [www.npor.org.uk](http://www.npor.org.uk); David C. Wickens, *The Instruments of Samuel Green* (London: Macmillan Press, 1987), passim; and Michael I. Wilson, *The Chamber Organ in Britain, 1600–1830* (Aldershot: Ashgate, 2001), p. 223.

18. See Peter Mole, *The English Spinet with Particular Reference to the Schools of Keene and Hitchcock* (Ph.D. thesis, University of Edinburgh, 2009), and Donald H. Boalch, *Makers of the Harpsichord and Clavichord, 1440–1840*, 3rd rev. edition, Charles Mould, ed. (Oxford: Clarendon Press, 1995).

19. Mole, *The English Spinet*, vol. 1, p. 56.

20. François Couperin, *L'Art de Toucher le Clavecin* (Paris, 1716, 2nd ed. 1717), p. 6.

21. See Boalch, *Makers*, pp. 693–695 for a list by date and location.

22. See *ibid.* for biographies of these makers. The work of the various provincial makers, for example in Bristol or York, does not match well in date.

23. For the complex history of the Hitchcock family and their instruments, see Mole, *The English Spinet*; his “The Hitchcock Spinet Makers: A New Analysis,” *Galpin Society Journal* 60 (2007), pp. 45–61; and David Hackett, “The Spinets of the Hitchcock Dynasty: names, numbers, and dates,” *NEMA Newsletter* i/2 (July 2017), pp. 14–21. The numerous surviving Thomas Hitchcock spinets are listed in Boalch, *Makers*, pp. 386–394.

However, there is also the intriguing possibility that the word “spinetto” of Add. 9127 was used as a generic term for stringed keyboard by the young note-maker on fol. 1r of the manuscript, as Cobham Hall then<sup>24</sup> contained a harpsichord of exactly the right date, which remained there until 1957. This important harpsichord, now in the Russell Collection at the University of Edinburgh,<sup>25</sup> is a single-manual instrument dated 1720 and made in London by John Hancock, with two 8' registers and a compass of GG–e<sup>3</sup> (identical with the repertoire of Add. 9127); some Italianate design influence is evident. It was actually bought by Raymond Russell (1922–1964) at the Cobham Hall estate sale in 1957 and given to the University of Edinburgh by Mrs. Gilbert Russell as part of the Russell Collection bequest in 1964.

The Blighs could of course also have owned a spinet, or indeed other keyboards, as well as the Hancock harpsichord, but the existence of this 1720 instrument is very noteworthy: it is possible that one of the Miss Blighs did indeed have her lessons from Mr. Froud on the very harpsichord that now survives at Edinburgh.

#### MR. FROUD

The “Mr Froud” of the Cobham Hall manuscript was Charles Froud (or Frowd), a professional musician who appears to have spent his career in London. The 1729 Cobham Hall date is the earliest known reference to him. His date of birth is not known, but it must have been before 1700. Froud, still on the job, died in 1770. In 1739 he was a founding subscriber at the creation of the Royal Society of Musicians. As well as being a church organist (see below), he was very active as a violinist in London<sup>26</sup> and is recorded as having played violin (often leading the seconds) and sometimes harpsichord in concerts in London.<sup>27</sup> He worked with a number of leading London musicians during the mid-eighteenth century<sup>28</sup> and was active as a chamber

24. Or later; but this is less likely, as this type of Italianate single would already have been regarded as rather old-fashioned by as early as the 1740s.

25. Accession number 4312. There is a very full description of the instrument in Darryl Martin, “The Native Tradition in Transition: English Harpsichords circa 1680–1725,” in John Koster, ed., *Aspects of Harpsichord Making in the British Isles, The Historical Harpsichord 5* (Hillsdale, N.Y.: Pendragon Press, 2010), pp. 1–115, specifically 84–90.

26. Fiona Smith, *Original performing material for concerted music in England, c.1660–1800* (Ph.D. thesis, University of Leeds, 2014), pp. 260, and 362–363; and Philip H. Highfill, Kalman A. Burnim, and Edward A. Langhans, *A Biographical Dictionary of Actors, Actresses, Musicians, Dancers, Managers, and Other Stage Personnel in London, 1660-1800*, vol. 5 (Carbondale and Edwardsville: Southern Illinois University Press, 1978).

27. Simon McVeigh, *Calendar of London Concerts 1750–1800* (2014), online database at <http://research.gold.ac.uk/10342/> (accessed 9 December 2019).

28. Peter Holman, “Ann Ford Revisited,” *Eighteenth-Century Music* 1/2 (September 2004), pp. 157–181.

musician, for example, in the domestic concerts arranged by the leading engraver and musical amateur William Caslon (1693–1766).<sup>29</sup>

Between 1750 and 1769 Froud took part in many concerts, and no fewer than sixteen specific program citations are known from this period, with repertoire including much Handel.<sup>30</sup> He was also known to the two most important British music historians of the day, Charles Burney (1726–1769)<sup>31</sup> and John Hawkins (1719–1789). Hawkins noted him as a violinist: “The performers at Mr. Caslon’s concert were Mr. Woolaston, and oftentimes Mr. Charles Froud, organist of Cripplegate church, to whom, whenever he came, Mr. Wollaston gave place, and played the second violin...”<sup>32</sup>

Froud’s small corpus of published compositions include church music and arrangements, and can be found in collections like Chapman’s *The Young Gentlemen and Ladies Musical Companion* and Arnold’s *A Supplement to the Complete Psalmodist*.<sup>33</sup> Keyboard works by Froud can be found in two manuscripts compiled by his contemporary John Reading (1685/6–1764): Dulwich College 92A (1717)<sup>34</sup> and Tokyo College of Music N4/31 (1737).<sup>35</sup> The two musicians may well have been known to each other.

Froud’s principal employment was as a church organist, and he held a post at the historic church of St. Giles-without-Cripplegate near the Barbican in London from 25 May 1736 until his death.<sup>36</sup> A previous attempt at such a post is known of from a few years earlier, when he was one of several musicians who competed for the

29. Johnson Ball, *William Caslon, 1693–1766: the ancestry, life and connections of England’s foremost letter-engraver and type-founder* (Kineton: Roundwood Press, 1973).

30. McVeigh, *Calendar of London Concerts*, database entries 49, 120, 169, 200, 326, 523, 1206, 1208, 1213–1216, 1219, 1213–1224, and 1291.

31. Slava Klima, Garry Bowers, and Kerry S. Grant, eds., *Memoirs of Dr. Charles Burney, 1726–1769* (Lincoln: University of Nebraska Press, 1988), p. 91.

32. John Hawkins, *A General History of the Science and Practice of Music* (London, 1776), vol. 2, p. 128; see also Holman, “Ann Ford Revisited,” pp. 164–165.

33. Froud set the hymn “How good and pleasant must it be” in Thomas Chapman, *The Young Gentlemen and Ladies Musical Companion; or Sunday’s Amusement* (London, n.d.), p. 106, and arranged Psalm 100 in John Arnold, *A Supplement to the Complete Psalmodist* (London, n.d.), p. 40.

34. “Divine Harmonie or a Choice Collection of Anthems / Composed by Several Masters / Collected in the Year 1717 by John Reading Organist”: see Harley, *British Harpsichord Music*, vol.1, pp. 59–60. A piece by Froud from this manuscript is in John Carnelley, ed., *Voluntaries from the John Reading mss at Dulwich College* (Barnet, Herts: Fitzjohn Music Publications, 2018).

35. “Voluntaries for the organ By John Reading” (1737): see Harley, *British Harpsichord Music*, vol. 1, p. 7.

36. See Charles William Pearce, *Notes on Old London City Churches, Their Organs, Organists, and Musical Associations* (London: Vincent Music Company, n.d. [c.1900]), p. 241; John James Baddeley, *An Account of the Church and Parish of St. Giles, Without Cripplegate, City of London, compiled from various old authorities, including the Churchwardens’ Accounts, and the Vestry Minute Books of the Parish* (London, 1888); and Donovan Dawe, *Organists of the City of London, 1666–1850* (Padstow, Cornwall: Quill Print Services, 1983), p. 99.

post of organist at St. Michael, Cornhill, losing to Thomas Kelway (c.1695–1744).<sup>37</sup> The St. Giles organ (originally by Bernard Smith, 1688) had been expanded in 1734 by Richard Bridge at an estimate of £170 “for repairs and adding several stops.” In 1735 the churchwardens moved to elect a new Organist, whose conditions were: an annual election, a salary of £20 a year while Mr. Green (the incumbent) lived, and £30 after his death. These conditions were met by Froud, “who is to attend in his proper person on his duty all Sundays, morning and afternoon, and on Saints days in the morning” and who signed the Vestry Book accordingly. On 4 August 1737 Green was reported to have died, at which point Froud took the full post and salary. During the following period the main officers of the church remained in post for more than three decades, which suggests it was a happy environment: “It is remarkable that the Vicar (Dr. Nicholls), the Vestry Clerk (Mr. Stagg), and the Organist served together for over 30 years, and in the case of the Vicar and Clerk, over 40 years. Church matters ought to have worked smoothly.”<sup>38</sup>

In 1763 Froud was publicly listed as “Organist and teacher on the Harpsichord” in Mortimer’s *London Universal Dictionary* (1763) with an address at King Street, Bloomsbury.<sup>39</sup> Like the first Earl of Darnley, he was a Freemason,<sup>40</sup> and it is not impossible that his initial teaching role at Cobham Hall came about through Masonic contacts.

#### REPERTOIRE AND TEACHING

Keyboard playing appears to have become increasingly fashionable amongst the musical amateurs of the British aristocracy and middle class from the period after the Civil War. A significant number of sources<sup>41</sup> and instruments<sup>42</sup> survive, and it is clear that finding teachers for all these new players could be more difficult for those located outside the major population centres or cultural circles. Enterprising publishers like John Playford and John Walsh filled this need with elementary tutors comprising a few dozen selected (if not graded) simple pieces from well-known composers, prefaced by “instructions for learners.” A (deliberate?) misattribution by Walsh gave the instructions from *The Harpsichord Master* (London, 1697) a spurious authority which they retained for several decades: “written by ye late famous

37. Highfill et al., *Biographical Dictionary*, p. 419.

38. Baddeley, *Account of the Church And Parish of St. Giles*, p. 120.

39. The musicians included in this source are listed in “An Eighteenth-Century Directory of London Musicians,” *Galpin Society Journal* 2 (1949), pp. 27–31, Frowd (sic) at p. 28.

40. Robert Peter, ed., *British Freemasonry, 1717–1813*, vol. 5 (London: Routledge, 2016), p. 435.

41. See Stephanie Carter, *Music Publishing and Compositional Activity in England, 1650–1700* (Ph.D. dissertation, University of Manchester, 2010), and Rebecca Herissone, “Playford, Purcell, and the Functions of Music Publishing in Restoration England,” *Journal of the American Musicological Society* 63 (2010), pp. 243–290.

42. See Boalch, *Makers*.

Mr H Purcell at the request of a perticuler friend, & taken from his owne Manuscript, never before publish't."<sup>43</sup> Purcell had died two years before and was in no position to complain. Fortunately, his own teaching book survives (British Library MUS. MS. 1, found only in the early 1990s)<sup>44</sup> to show his thoughts on suitable repertoire and technical development for a learner.

The 1697 Instructions<sup>45</sup> start with the Gamut (BB–c<sup>3</sup>), representing the “thirty black Keyes” of “ye Spinnett or Harpsichord,”<sup>46</sup> then follow with concise examples of note values, rests, time signatures, ornaments, clefs, repeats, and fingering, all covered in four small pages. The *Second Book of the Harpsichord Master* (London, 1700) introduces new repertoire by Blow and Croft, among others, while retaining the same four pages of “plain and Easy Rules for Learners,” as does the *Third Book of the Harpsichord Master* (London, 1702).<sup>47</sup> Purcell’s own music does not appear in the two later volumes, but all three taken together seem to indicate a real commercial demand both for educational guidance and simple repertoire.

Better than an off-the-peg printed set of rules is a bespoke manuscript guide, and this is what the Cobham Hall book appears to include. The format of the opening instructions are fairly similar to those in the previous printed volumes but not derived from them. The Gamut, for example, is now GG–e<sup>3</sup>, with ledger lines shown up to e<sup>3</sup> on a separate stave, a reflection of increasing keyboard compass. The repertoire that follows is remarkably up to date (or, more likely, “fashionable”). A number of untitled short pieces that look like technical exercises offer the young player a chance to develop finger dexterity, and fashionable minuets are there both for melodic appeal and technical ease. In addition to excerpts from Handel’s *Ottone* (1723), *Rodelinda* (1725), and *Poro* (1731), and from Ariosti’s *Vespasiano e Artaserse* (1724), there are three song arrangements from the *Beggar’s Opera* (1728). This is music “hot off the press” from London, possibly works that members of the Bligh family (or Froud) had actually seen on the stage during visits to London in the 1720s. Other suite movements, of the kind that formed a large part of the Harpsichord Master volumes, are represented singly.

43. *The Harpsichord Master*, Robert Petre, ed., (London: P. Milburn Music, 1980), p. 7.

44. For an edition, see Davitt Moroney, ed., *Twenty keyboard pieces and one by Orlando Gibbons, from Purcell’s autograph manuscript in The British Library, MS. Mus. 1* (London: The Associated Board of the Royal Schools of Music, 1999).

45. Reproduced in facsimile in Petre, ed., *The Harpsichord Master*, pp. [33]–[34].

46. Although the lowest key is labelled BB, a GG/BB–c<sup>3</sup> short octave compass is likely intended.

47. Facsimile reprint in *The Harpsichord Master II and III* (Clarabricken, Ireland: Boethius Press, 1980).



**Example 1.** Anon, [Minuet in C]. The opening of this seems to be modelled on the 3/8 aria *Se potessi un dì placare* from the end of Act 2 of Handel's *Tamerlano* (1724), from which Froud or another may have derived it. The fingering has been modernized (the original uses the “+ 1 2 3 4” “English fingering” format, with the thumb as “+” instead of the modern “1 2 3 4 5” notation). The dots in measure 44 are editorial.

Little of the music is attributed (although some can now be identified). Either this was not of concern to the teacher or student or the composer's names were imparted verbally. Some of the anonymous pieces may be original compositions or arrangements by Froud himself. Several of the pieces are very fully fingered (see Example 1), even to the extent that a thumb is indicated as part of an octave leap. This unexpected level of detail would have been especially useful to a young player needing reminders between lessons. As is not uncommon with Baroque teaching

2

The musical score consists of six systems of music, each with a treble and bass clef staff. Measure numbers 33, 38, 42, 47, 52, and 56 are indicated at the start of their respective systems. The notation includes various fingerings (1-5), trills (tr), and slurs. The key signature has one sharp (F#) and the time signature is 3/4.

Example 1 continued.

manuscripts aimed at students (see, for example, J.S. Bach's 1720 *Klavierbüchlein für Wilhelm Friedemann Bach*<sup>48</sup>), ornamentation is not saved as an added extra for an advanced pupil but is immediately part of the technique required. It was obviously regarded as integral to both musical expression and finger technique. One curiosity is noted by Johnstone<sup>49</sup> as unique to this manuscript: the absence of an appoggiatura to the English "beat" ornament.

48. Wolfgang Plath's edition (Kassel: Bärenreiter, 1979) includes the facsimile pages showing Bach's explanation of the Gamut, clefs and ornaments, very like the "Purcell" instructions of a few decades earlier.

49. Johnstone, "The English Beat," p. 43.



**Figure 2.** Manuscript facsimile page, f.iii-r (reversed), an anonymous Adagio in C for violin and continuo. By permission of Cambridge University Library.

Interestingly, the reverse of the volume includes five works with figured bass – two movements from a violin sonata in C major (Figure 2)<sup>50</sup> and three opera airs – of which the airs appear in the front of the volume as solo, but untexted, works. This suggests that Froud wished to start teaching his pupil accompaniment at an early stage and that there would have been a need for such accompaniment skills at Cobham Hall. Perhaps some others of the pupil’s siblings sang or played. The level of skill required is not that of a beginner, which is perhaps why this section is truncated.

One of the most significant features of the source is the index of lesson dates, a very unusual piece of information to survive. At the front of the volume, the young pupil has noted the day and date of each lesson (some of the early dates are crossed out, possibly as each lesson happened). It is clearly in a young child’s hand, one who could not always spell “Tues[day]” correctly:

50. It is worth remembering that the violin was another instrument played (and taught?) by Froud.

*The Days Mr Froud came to teach me to play on the Spinetto*

<i>Monday January 12th 1729</i>	<i>Th 9</i>
<i>Thursday ye 16th</i>	<i>Mo 13</i>
<i>Monday the 19th</i>	<i>Th. 16</i>
<i>Thursday ye 22d</i>	<i>Mo. 20</i>
<i>Monday the 26th</i>	<i>Th 23</i>
<i>Monday February ye 2d</i>	<i>Mo 27</i>
<i>Thursday ye 5th</i>	<i>Thu ult [30]</i>
<i>Monday the 9th</i>	<i>Mo. May 4</i>
<i>Th. 12.</i>	<i>Th 7</i>
<i>Mo. 16.</i>	<i>Mo 11</i>
<i>Th 19</i>	<i>Th 14</i>
<i>Mo 23</i>	<i>Sat 16</i>
<i>Th. 26.</i>	<i>Teus 19</i>
<i>Mo. March 2</i>	<i>Th 21</i>
<i>Th. 5</i>	<i>Mo 25</i>
<i>Mo. 9</i>	<i>Sat. 30</i>
<i>Th 12</i>	<i>Mo June 1</i>
<i>M 16</i>	<i>Th 4</i>
<i>M 23</i>	<i>Mo 8</i>
<i>Sat. 28</i>	<i>Th 11</i>
<i>Teus. 31</i>	<i>Th. 18</i>
<i>Fr. april 2 1730<sup>51</sup></i>	<i>Sat 20</i>
<i>Sat. 4</i>	<i>Mo 22</i>
<i>Mo. 6</i>	<i>Th 25.</i>

Thus, over a period twenty-five weeks, not quite six months, there were forty-eight lessons, averaging about two per week. Because compilation of the manuscript continued into 1731 and there is a possibility that other repertoire was assigned to the pupil, it is not possible to directly link the total number of pieces in Add. 9127 to the number of lessons, but it is easy to imagine that a new piece could have been added for each lesson. The technical grading of the pieces may be more subtle than it first appears,<sup>52</sup> but Froud clearly thought to appeal to his young student with attractive and fashionable melodic material, and, as the book progresses, more difficulties do appear. The final solo work (Example 1) would certainly represent a very respectable level of achievement for a child's eighteen months of study, if that is what Add. 9127's contents actually represent.

How long each lesson lasted and whether the teacher's fee and time included him regularly copying a new work into the student's workbook is not known, but Couperin in France only a few years earlier had mentioned three-quarters of an hour

51. The calendar year then changed at April, not January.

52. The transposition of a few initial works into C major suggests such a concern, for example.

as a suitable lesson length for a child.<sup>53</sup> This represents a substantial, and expensive, teaching regimen. Most of the lessons were held on Mondays and Thursdays, probably because a professional musician like Froud is likely to have needed to keep Saturdays free for concerts and, if he already had a post as organist, Sundays free for services. Froud's address at this time is not known, and it is possible that he was local to Kent at this point. If, however, he was based in London, the twice-weekly seventy-mile round trip from London to Cobham Hall by horse or coach across poor roads would have taken the whole day, and needed to justify itself economically or otherwise. The high-status activity of teaching an Earl's daughter would have been advantageous for the reputation and social standing of a young musician. Perhaps Froud had other pupils in the area or other teaching tasks at Cobham. The lesson record ceases in June 1730, but this does not mean that the lessons were discontinued, just that the dates were not recorded or were recorded elsewhere. Leaving behind this particular teaching book, with half its pages ruled but blank, the pupil could also have moved on to other works in manuscript or print. Nothing further is known about the pupil or teacher's musical activities at Cobham Hall, but Add. 9127 remains as an intriguing and detailed record of one young aristocratic pupil's first steps into music in the early eighteenth century. ❀

53. Couperin, *L'Art de Toucher le Clavecin*, p. 8

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**Online Resources**

British Institute of Organ Studies (BIOS), National Pipe Organ Register: [www.npor.org.uk](http://www.npor.org.uk)

Cobham Hall (School): [www.cobhamhall.com](http://www.cobhamhall.com)

McVeigh, Simon, *Calendar of London Concerts 1750–1800* (2014): <http://research.gold.ac.uk/10342/>

National Trust Collections: [www.nationaltrustcollections.org.uk](http://www.nationaltrustcollections.org.uk)

Répertoire International des Sources Musicales (RISM), Online Catalogue of Musical Sources: <http://www.rism.info/home>

Abstract

Cambridge University Library Add. 9127, known as “The Cobham Hall Spinet Book,” is one of a number of early eighteenth-century English teaching manuscripts witnessing the progress of musical amateurs in the early Georgian period. It contains a dated record of lessons given to an aristocratic young pupil in rural Kent by Charles Froud in 1729–1730. While the repertoire it contains is not of particular significance (arrangements of Handel, Arne, Ariosti, Pepusch and the like), the manuscript is of interest for two reasons: it is unusual in naming the spinet as the instrument being studied, and it gives an indication of the frequency of lessons as well as their content. In addition to knowing the venue, repertoire, and teacher for this source, it is also possible to conjecture the name of the pupil and identify an actual surviving instrument that she and her teacher may have played.

## Some Observations on the Clavichord in France

APPROXIMATELY three-quarters of extant historical clavichords are of German origin. They include instruments by such makers as Hubert, Silbermann and Hass, the last-named being especially familiar from book illustrations on account of their elaborate decoration. Literary, archival and other contemporary sources confirm that the clavichord was to be found most widely in Germany, at least during the eighteenth century; and German musical historians of both then and now have claimed the instrument as a characteristic part of their musical culture. The principal reason for this is the sheer quantity (and quality) of music composed for the clavichord in Germany during the seventeenth and eighteenth centuries: Froberger, Pachelbel, Böhm, Buxtehude, Reincken, J. S. Bach, C. P. E. Bach and W. F. Bach all wrote important and idiomatic music for the clavichord (in that it seems to suit the clavichord much better than the harpsichord), and a strong case can be made that some of C. P. E. Bach's keyboard music in particular simply cannot be performed on any other instrument. In comparison, the clavichord composers of, for example, sixteenth-century Spain or eighteenth-century Sweden, two other centres of interest in the clavichord, cannot compete either in terms of quality or quantity.

However, to say that 'the history of the clavichord from the 17th century onwards is largely the history of the clavichord in Germany',<sup>1</sup> may be to dismiss the role of the clavichord in other countries too lightly. The clavichord was certainly known and appreciated throughout Europe, including France, during the Renaissance and Baroque eras. But a just modern appreciation of the place of the clavichord in musical history has been hampered, in Thurston Dart's phrase, by '20th-century players of the modern concert harpsichord, who have enthusiastically laid claim to all early keyboard music whatsoever';<sup>2</sup> the origins of this attitude can be traced back to Wanda Landowska.<sup>3</sup>

The French *clavecinistes* of the seventeenth and eighteenth centuries, composers like Chambonnières, Louis and François Couperin, Rameau, Duphly and Forqueray, form a national school with a recognizable musical identity. However, their obvious artistic achievements may have led historians to undervalue other aspects of keyboard music in France, particularly organ music and French interest in the fortepiano. It has

certainly resulted in an underestimation of the role of the clavichord in France, and the present re-examination of archival information published more than two decades ago by François Lesure, Pierre Hardouin and Frank Hubbard may serve to correct this impression.<sup>4</sup>

The first of the two principal sources of information is the workshop inventories of harpsichord makers taken by notaries as part of the valuation of an estate, often at the death of a maker. There are some thirty accounts of this type, which are listed in Table 1. Only stringed keyboard instruments have been included here: clavichords, harpsichords, spinets, virginals and pianos. Since these are workshop accounts, many if not most of the instruments were only half-built, and a completed main case is taken as the criterion for inclusion; separate lids, actions, keyboards, soundboards, etc. are disregarded. There are some difficulties of terminology, *épinette* (spinet) apparently sometimes serving as a generic term;<sup>5</sup> nevertheless, the figures given below may be taken as a reasonably reliable guide. It should be noted that by no means all of the instruments in a given workshop were made there, as some makers acted as agents for rebuilt and antique instruments; not all of the completed instruments were in working order.

TABLE 1  
Inventories of Harpsichord Makers

		Clav.	Hps.	Sp.	Vir.	Pno.
1556	Yves Mesnager	2		2		
1587	Claude Denis	1		4		
1589	Robert Denis			9		
1632	Jean Jacquet	1	3	7		
1672	Jean Denis	2	7	12		
1682	Pierre Baillon	7	3	12	1	
1705	Philippe Denis		1			
1706	Louis Denis		5	2		
1722	Nicholas Blanchet		5	4		
1726	Pierre de Machy		13	7		
1726	François Blanchet		8	1		
1729	Jean Ferchur		7			
1737	Jacques Bourdet	2	15	11		
1737	François Blanchet		9	1		
1755	Jean Marie Galland		14	11		
1760	Jean Marie Galland		7	6		
1761	François Blanchet		2	1		
1766	François Blanchet		4			1
1769	Henri Hemsch	5 <sup>6</sup>	24	6		
1774	Jean Jacques Malade		5			
1774	Benoist Stehlin		3			
1774	Benoist Stehlin		20	4		
1777	Pascal Taskin		11	1		6
1779	Joseph Treyer		13	11	1	

Table 1 (continued)

		Clav.	Hps.	Sp.	Vir.	Pno.
1781	Jean Jacques Malade		1			1
1781	Jean Jacques Malade		17	3		4
1788	Joseph Treyer		21	9		4
1789	Jacques Goermans		12	1		23
1791	Louis Henocq		3		2	1
1793	Pascal Taskin		35	5		34
Total		15+	267	132+	4	74

The preponderance of harpsichords in Table 1 is unsurprising, but it is interesting to see such a large quantity of spinets, spread evenly over the whole period. The few virginals listed were probably older Flemish instruments awaiting cannibalisation as sources of seasoned soundboard wood. Although fortepianos are found in considerable numbers after 1777, Taskin still had more harpsichords than pianos in his workshop as late as 1793. Apart from Boudet, who in 1737 had two clavichords worth only about 10 *livres* each, none of the eighteenth-century harpsichord and piano makers appears to have had any interest in the clavichord. In view of the fact that no known French clavichords have survived, this is not unexpected.

The second source of information is the estate inventories of forty-one French musicians in the period 1557–1793. There are forty-eight of these given in Hubbard (1965), listing a total of 144 keyboard instruments:

TABLE 2  
Musicians' Inventories

		Clav.	Hps.	Sp.	Vir.	Pno.
1557	Nicholas Robillard	1				
1600	Pierre Chabanceau	1	1	3		
1617	J. Lesecq	1	2	5		
1623	Bienvenu			3		
1626	J. and M. Lesecq <sup>7</sup>		1	3		
1636	S. Biermant	1	1	1		
1639	Henry Housse		1			
1648	R. Dubuisson			2		
1653	R. Dubuisson		1	1	1	
1662	Nicolas Gigault	2	2	3		
1664	Charles Racquet			3		
1671	François Couperin		1			
1677	J. Racquet		3	1		
1678	de Hardel		2	1		
1679	Michel de la Guerre		1	1		
1684	Henri Dumont	1	2			
1684	Jean Lebègue		1			

Table 2 (continued)

		Clav.	Hps.	Sp.	Vir.	Pno.
1685	Antoine Fouquet	3	3	4		
1688	Guillame G. Nivers		1			
1689	Antoine Mahieu			1		
1691	Jean H. D'Anglebert		4			
1699	André Raison		1			
1701	Nicolas Gigault	1	3	2	1	
1702	Claude Jacquet		2	1		
1704	Martin de la Guerre		1			
1707	Simon Lemaire			1		
1711	Gabriel Garnier		1			
1714	Guillame G. Nivers		1			
1714	E. Houssu			1		
1715	Louis Garnier		9	2		
1720	Louis Thomelin		1			
1721/2	Gabriel Garnier		3	3		
1727	J. B. Buterne		1			
1728	Nicolas Couperin		4	4		
1732	Antoine Fouquet		1	3		
1738	Louis Thomelin			1		
1740	Guillame Marchand	1	1	1		
1744	R. D. de Bousset		1			
1753	Charles A. Jollage		1			
1757	M. Forqueray		1			
1760	P. Fi[?]		2			
1761	Charles A. Jollage		1			
1761	Jean Landini	1	1			
1761	N. G. Forqueray		2			
1763	Christ. Chiquelier		2	1		
1765	Joach. Gigault		2	1		
1772	Pierre C. Fouquet		1			
1789	Armand L. Couperin	1	2	2		1
	Total	14	72	55	2	1

Again, the harpsichord is the best-represented instrument, but the proportion of spinets to harpsichords is considerably greater than in the workshop inventories; it might have been wrongly assumed that professional musicians would have had relatively fewer spinets, a predominantly domestic instrument. However, the most striking statistic, apart from the single piano (1789), is the fourteen clavichords listed; ten musicians, about one quarter of the total number in Table 2, owned clavichords. The frequency of ownership of these instruments declines slightly into the eighteenth century, but continues as late as 1789.

A third source of information, somewhat later in date, is the 1795 inventory of keyboard instruments owned by victims of the French

Revolution.<sup>8</sup> Most of the instruments named are pianos and harpsichords, and full details of the date, maker, country of origin and value are given. Only five spinets are listed (compared to sixty-two harpsichords), and there are no clavichords. These smaller instruments were evidently not omitted on grounds of their lesser value, as violins and cellos worth only 5 or 8 Francs are listed; and it is likely that the clavichord should be associated, at least on the evidence of this late and unusual source, with professional rather than amateur musicians.

The evidence of the workshop inventories and the musicians' inventories is somewhat contradictory; French harpsichord builders were probably not building clavichords at all during the eighteenth century, yet a considerable number of French keyboard players owned and presumably used them. There are three possible explanations: either the instruments were routinely imported from other countries, probably Germany; or they were older indigenous instruments; or else were being made by organ-builders rather than harpsichord builders. The second of these suggestions is unlikely, as the triple-fretting used in seventeenth and early eighteenth-century clavichords would have imposed intolerable limitations on the playing of eighteenth-century music; either or both of the other alternative explanations seem plausible.

The clavichord mentioned in the Nicolas Gigault inventory of 1701 is of especial interest: 'An unfretted clavichord with one hundred strings, at the unison, mounted with brass strings'.<sup>9</sup> This instrument, which may have had a compass of  $C-d'''$  without  $C\sharp$ , or  $G'/B'-c'''$ , is not to be identified with either of the two clavichords owned by Gigault in 1662,<sup>10</sup> because it is unfretted. This seems to be the first known reference to a clavichord of this kind, apart from that in the preface to Johann Speth's 1693 *Ars magna consoni et dissoni*. Unfretted clavichords were not common until about the middle of the eighteenth century, and Gigault's unusual *bundfrei* clavichord may have been imported from Germany. In fact, the earliest extant unfretted instrument is probably the 1723 Gottfried Silbermann in Markneukirchen.<sup>11</sup>

It is clear from Table 2 that there is a significant relationship between organists and owners of clavichords; all but one of the latter group are known to have been organists, and about one-quarter of the organists named owned clavichords. This suggests that the instrument served, as in Germany, primarily as a practice instrument for organists, although no pedal-clavichords as such are specifically cited. There are no comments from the inventories in Table 2 to suggest that these clavichords are not working instruments (compare the 1769 Hemsch entry in note 6); and Jean Landini's 1761 clavichord is described as 'in good condition'. In the absence of any contradictory evidence, it must be assumed that the Table 2 clavichords were in working order and used by their owners. The fact that virtually all of the known clavichordists were organists and professional musicians, may serve to explain that instrument's very low profile in the

printed music and iconographical sources, where the more aristocratic, expensive and decorative harpsichord dominated.<sup>12</sup>

Were French clavichords used only for practising organ music? Much of the *clavecin* music by Marchand, de la Guerre, Couperin, Rameau and many others is musically very satisfactory on the clavichord, and there is no reason to suppose that it was not played thus, especially by the professional musicians who owned them. With due regard for the characteristic use made by French composers of the lowest octave of harpsichords à *grand ravement*, the clavichord, despite its narrower compass, should be considered a historically appropriate instrument for the performance of at least some of the French *clavecin* repertory of the seventeenth and eighteenth centuries.<sup>13</sup>

#### NOTES

<sup>1</sup> E. M. Ripin, 'Clavichord', *The New Grove Dictionary of Music and Musicians* (London, 1980), vol. IV, p. 463.

<sup>2</sup> T. Dart, note to *J. S. Bach: the Six French Suites*, L'Oiseau-Lyre SOL 60039 (1961).

<sup>3</sup> See, for example, D. Restout (ed.), *Landowska on Music* (London, 1965), p. 139ff.

<sup>4</sup> F. Lesure, 'La Facture Instrumentale à Paris au Seizième Siècle', *GSJ* VII (1954), p. 11; P. J. Hardouin, 'Harpsichord Making in Paris: Eighteenth Century', *GSJ* X (1957), p. 10; XII (1959), p. 73; XIII (1960), p. 52; F. Hubbard, *Three Centuries of Harpsichord Making* (London, 1965), pp. 286-319 and 89.

<sup>5</sup> See, for example, Hubbard, *op. cit.*, pp. 88 and 313n.

<sup>6</sup> 'Five small instruments such as spinets and clavichords, all of them dilapidated' (Hubbard, p. 302).

<sup>7</sup> Clavichord makers, according to Hubbard, p. 314n.

<sup>8</sup> A. B. Bruni, *Un Inventaire sous la Terreur* (Paris 1890/R1984).

<sup>9</sup> Hubbard, *op. cit.*, p. 316.

<sup>10</sup> *Ibid.*, p. 314.

<sup>11</sup> J. H. van der Meer, 'The Dating of German Clavichords', *Organ Yearbook* VI (1975), p. 103.

<sup>12</sup> The clavichord is not mentioned or named as an alternative to the harpsichord in any eighteenth-century printed sources, as pointed out in B. Gustafson and D. Fuller, *A Catalogue of French Harpsichord Music 1699-1780* (Oxford, 1990), p. 14.

<sup>13</sup> There are as yet almost no examples of French *clavecin* music on recordings of the clavichord; see F. Knights, 'A Clavichord Discography', *The Music Review* (forthcoming).



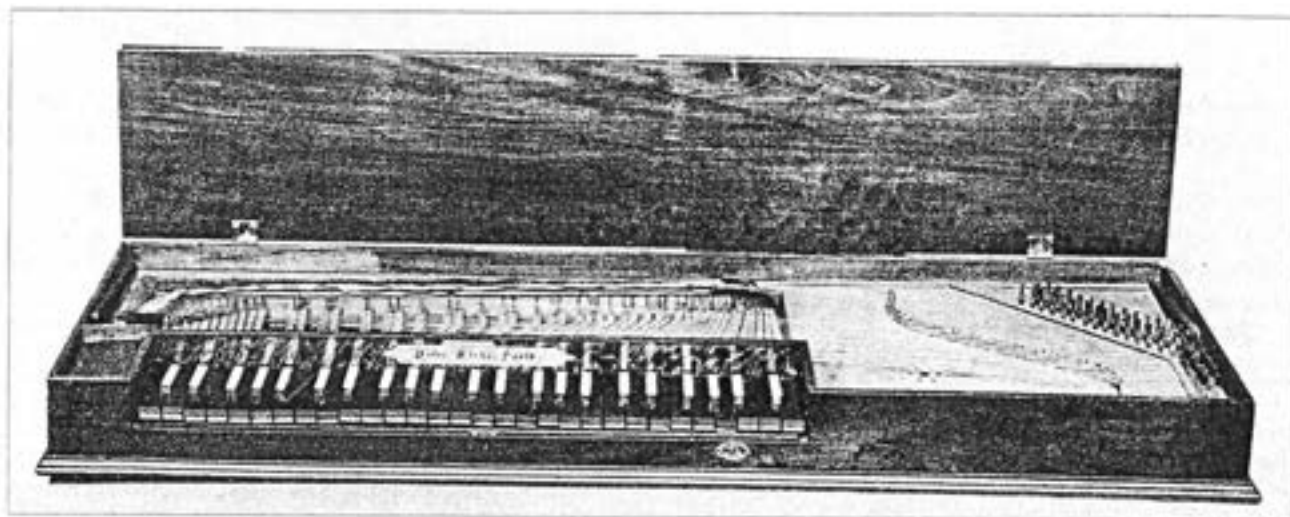
## THE PETER HICKS CLAVICHORD IN THE VICTORIA AND ALBERT MUSEUM

*Francis Knights*

ENGLAND did not seem to take to the clavichord as much as did the musicians of Germany, Scandinavia, and Iberia, to judge by the number of surviving instruments. However, documentary and other references in fact show that the clavichord was certainly known there from the fifteenth to the nineteenth centuries.<sup>1</sup> These references seem to decline after the English Civil War, and only a single instrument of ca. 1770 now survives, in the Victoria and Albert Museum, London, and signed by Peter Hicks. Further examination shows that the clavichord was still known and used in eighteenth-century England: Handel reputedly owned a high-pitch instrument by Ugo Annibale Traeri (1726), and "used it in composition, while travelling;"<sup>2</sup> Mrs Delaney's daughter had an instrument for practice in 1756;<sup>3</sup> while Broadwood stocked clavichord wire in 1773. John Wilbrook (an instrument advertised for sale in 1773), Frederick Neubauer (1763) and "Claviercordmacher" Hans B. Zopfi (d. 1750) made instruments, and six clavichords were auctioned between 1757 and 1786.<sup>4</sup> Some London music dealers, such as John Frederick Hintz and Robert Bremner (ca. 1765), also advertised them as available, but the latter's stock list is so extensive as to be almost impossible.<sup>5</sup>

The authenticity of the Peter Hicks has been debated for many years, partly because of uncertainty about its date relative to its style (dates ranging from 1580–1790 have been proposed), and concerns about the current state of the instrument: Raymond Russell suggested that the Hicks inscription was later added to a clavichord of German origin.<sup>6</sup>

Howard Schott wondered if the instrument could have been converted from a square piano,<sup>7</sup> and Lance Whitehead suggested that the instrument might have been made by the former Bach pupil Rudolf Straube (1717–1785), who advertised in 1763 that he had brought to York "several fine instruments" that were clavichords.<sup>8</sup> Little is known about the maker, other than that he appears to have been a professional keyboard instrument maker active around 1770, probably in London. Nicholas Nourse, describing the origins of the portable street barrel piano in the early nineteenth century and the role played in that by the Hicks brothers of Bristol, suggests that their father, Peter Hicks (d. before 1812), a cabinetmaker, might be the Peter Hicks of this clavichord.<sup>9</sup> The name and the date are plausible,<sup>10</sup> but it is of course possible for two craftsmen to have had the same name. However, Hicks could



*The Peter Hicks clavichord.*

have moved to Bristol in the late eighteenth century and changed from making instruments to making furniture.

The instrument is currently in storage and not available for examination. Fortunately, there are good modern descriptions by Donald Boalch and Howard Schott.<sup>11</sup> No modern color photograph of the instrument seems to exist, and the black-and-white representations are fifty or more years old.<sup>12</sup>

The instrument measures 124 x 35 x 10 cm, a compact design similar in physical size to the C-P fretted instruments Hubert was building in Bayreuth in the 1750s and 60s, and has a scale of 245 mm. It is triple-fretted<sup>13</sup> with a compass of C-d<sup>3</sup>, and is one of only two known triple-fretted instruments with a compass above c<sup>1</sup>.<sup>14</sup> Although other instruments of the period can be found with triple-fretting, such as the now-destroyed "Hoffmann" instrument of 1763,<sup>15</sup> it is exceedingly rare by this date, diatonic fretting having started to take over from the end of the seventeenth century. The lowest nine tangents are covered in leather, which is unusual but not unknown, and hints that these strings might originally have been overwound (the present stringing is modern). The casework is of mahogany with an inlaid satinwood nameboard, typical of English keyboard instruments from around the middle of the eighteenth century onwards; the ebony (rather than ivory) naturals are less typical.

The dating of the instrument has always been problematic, due to the great difference between the style of the instrument (small, fretted) and the casework materials (Georgian). The very earliest suggestion of "circa 1580" is completely improbable, and comes from the last private owner, Thomas Lea Southgate (1836–1917), who showed it at the exhibition to commemorate the 400th anniversary of the charter of the Worshipful Company of Musicians in London in 1904. In the catalogue it was described as "Clavichord, early English."<sup>16</sup> A better estimate was provided by Francis Galpin, who included an illustration of it in his *Old English Instruments of Music* seven years later, where it is described as ca. 1700,<sup>17</sup> and the record of its 1917 accession to the Victoria and Albert Museum called it "early eighteenth-century."<sup>18</sup> These datings were made by comparison to German instruments of the period, but the discovery of a single documentary reference to Peter Hicks of between 1769–1772 (tuning an instrument for Broadwoods: "Peter Hicks for tuning Harpd"<sup>19</sup>) pushed it half a century forward and made it even more of an outlier; other scholars have suggested a date as late as 1790. By then, what use might be made of a four-octave fretted clavichord is uncertain, but another instrument by Houston & Co of London, ca. 1790 (whereabouts unknown since being sold at auction in 1962) has a C–c<sup>3</sup> compass and is even smaller than the Hicks, at 116 x 39 cm.<sup>20</sup> Possibly both

were regarded as portable practice instruments or as a "composer's workbench."

The current state of the clavichord suggests major later interference: The "somewhat clumsily painted inscription,"<sup>21</sup> a "crudely made" soundboard with the beech bridge "fitted the wrong way round" and the case moldings "appear to be of a later date."<sup>22</sup> Rather than this being proof of some kind of fakery, this is all easily explained as a poor amateur restoration involving a new soundboard; even the repainted name is likely to have been replacing the previous faded or damaged version (there would be little point in faking an attribution to a completely unknown maker). There seems no reason to doubt the authenticity of the instrument and the attribution to Hicks.

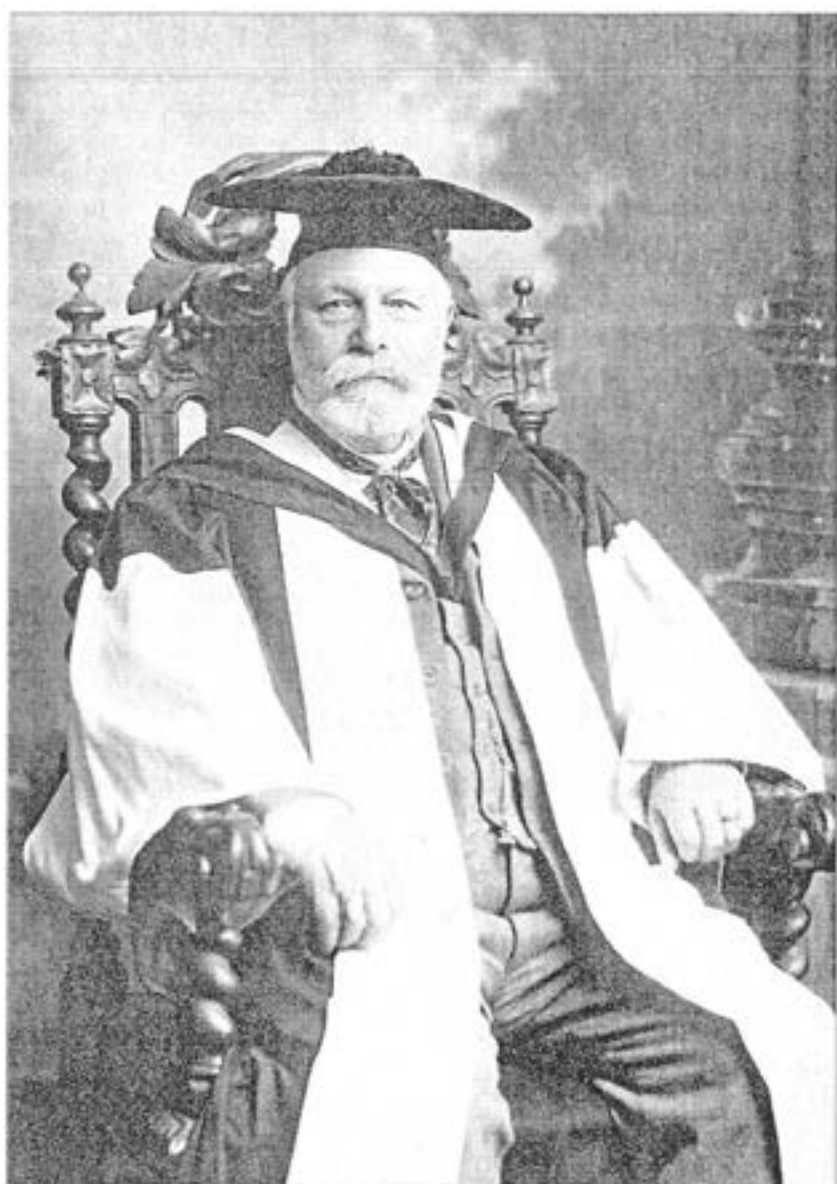
The design, which (apart from the extended d<sup>3</sup> compass) suggests no later than the early eighteenth century, might be explained by Hicks's having copied a previous instrument. While older clavichords were available at auction occasionally, and possibly from music dealers and instrument makers, the Hicks instrument might have arisen from a commission from a client who wanted a new instrument in then-fashionable woods. In the absence of any established designs being available in England, one can imagine Hicks's copying a borrowed instrument, likely earlier in date, and using that as a model. Otherwise, it is hard to understand what demand there might have been for a triple-fretted (rather than an unfretted) instrument at this late date.

The number of English musicians with a specific interest in the clavichord at that time cannot have been great, but the "Broadwood" Hicks dates of 1769–1772 raise a very interesting possibility. On 12 October 1772, Charles Burney famously visited C.P.E. Bach in Hamburg, and heard him play, publishing an account of his continental travels the following year. Burney was very taken by what he heard: "M. Bach was so obliging as to sit down to his Silbermann clavichord and favourite instrument, upon which he played three or four of his choicest and most difficult compositions....he not only played, but looked like one inspired."<sup>23</sup> Bach's celebrated Gottfried Silbermann clavichord, which dated from no later than the 1740s, might have been a fretted instrument (C.P.E. Bach's prescription for a minimum keyboard compass in his *Essay on the True Art of Playing Keyboard Instruments* (1753) was C–e<sup>3</sup>—the compass of a much-discussed clavichord in Markneukirchen plausibly attributed to Silbermann).<sup>24</sup> Is it just possible that Burney, on his return to England, commissioned from local builder Peter Hicks a clavichord? Burney certainly took a keen interest in keyboard instrument design, and owned a number of harpsichords and pianos during his career.<sup>25</sup> While this Hicks-Burney link is mere conjecture, it is not impossible.<sup>26</sup>

Nothing is known of the instrument before 1881, when it was owned by one John Gillis of Cardiff, who cannot be identified. It was bought from him in 1892 by Thomas Lea Southgate.<sup>27</sup> Dr. Southgate, a scholar, composer and collector of musical instruments (especially flutes) and viol manuscripts,<sup>28</sup> began his career as a clerk at the Bank of England, and was organist of a number of London churches from 1862. Thereafter, he was editor of the *Musical Standard* for twenty years and, later, of the *Musical News*. He was a senior member of the Musical Association (later the Royal Musical Association) and Master of the Worshipful Company of Musicians. As well

as publishing on early music, he also wrote articles on ancient Egyptian music, and co-authored a book on Japanese music in 1893. He was awarded a Doctor of Civil Laws by the University of Durham in 1907. Southgate appears to have been proud of his acquisition of the only known English clavichord, and to have shown it to his musical colleagues.

The first reference in print to the instrument appears to be a report of a lecture entitled "The Precursors of the Pianoforte," given in Oxford by F. Cunningham Woods in 1894,<sup>29</sup> where Southgate's ownership of the Hicks clavichord is noted. At this event, instruments from the



*Thomas Lea Southgate.*

Taphouse Collection<sup>20</sup> in Oxford were exhibited and described, and Miss Taphouse<sup>21</sup> demonstrated Bach's Prelude and Fugue in C from the first book of the Well-tempered Clavier, but on what clavichord is not specified; it might even have been the Hicks. Two years later, it was mentioned by Arthur Hipkins (1826–1903) in his *A Description and History of the Pianoforte and of the Older Keyboard Stringed Instruments*.<sup>22</sup>

Although the only certain facts about the Peter Hicks clavichord are the instrument itself and its provenance since 1881, it is possible to conjecture a narrative from such circumstantial evidence as exists: An English musician (perhaps even Charles Burney) decided to acquire a clavichord in about the 1770s, and commissioned a London keyboard maker, Peter Hicks, to build a new instrument. No designs being available, Hicks copied a borrowed fretted instrument, likely of earlier (German?) manufacture, using current English harpsichord-building materials. At some time during the nineteenth century, the instrument was crudely restored by an amateur and was acquired by John Gillis, eventually finding its way to the Victoria and Albert Museum in 1917. This is at least one way in which the historical context of this unusual instrument, what it is and why it exists, might be plausibly explained.

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#### NOTES

- 1 Bernard Brauchli, *The Clavichord* (Cambridge: Cambridge University Press, 1998), 44–46; Christopher Hogwood, "The Clavichord and its Repertoire in France and England before 1700: A Summary and a New Manuscript Source," *De Clavicordio VI* (Magnano: Musica antica a Magnano, 2004), 157–176; Christopher Hogwood and Bernard Brauchli, "The Clavichord in Britain and France: A Selection of Documentary References before 1700," *De Clavicordio VI* (Magnano: Musica antica a Magnano, 2004), 177–184; Francis Knights, "The Clavichord in Tudor Cambridge," *British Clavichord Society Newsletter* 41 (June 2008), 3–7.
- 2 Donald H. Boalch, *Makers of the Harpsichord and Clavichord, 1440–1840* (Oxford: Oxford University Press, 1995), 660.
- 3 Derek Adlam, "Clavichords in Georgian England: Handel, Mary Delany and the Granville Family," *De Clavicordio VIII* (Magnano: Musica antica a Magnano, 2008), 117–30.
- 4 See Peter Holman, *Life after Death: The Viola da Gamba in Britain from Purcell to Dolmetsch* (London: Boydell Press, 2010), 149.
- 5 See Eric Halfpenny, "An Eighteenth-Century Trade List of Musical Instruments," *The Galpin Society Journal* 17 (1964), 99–102.
- 6 Raymond Russell, *Catalogue of Musical Instruments, Vol. 1: Keyboard Instruments* (London: Her Majesty's Stationery Office, 1968), 56.
- 7 Howard Schott, "The Clavichord Revival, 1800–1960," *Early Music* 32, no. 4 (November 2004), 596.
- 8 Lance Whitehead, "Editorial," *The Galpin Society Journal* 56 (March 2013), 5–6.
- 9 Nicholas Nourse, "Musical Migrations: The Origins of the Portable Street Barrel Piano," *The Galpin Society Journal* 67 (March 2014), 54.
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- 11 Boalch, 89 and 385; Howard Schott, *Victoria and Albert Museum: Catalogue of Musical Instruments, Volume 1, Keyboard Instruments* (London: Her Majesty's Stationery Office, 1985), 94–95. The Museum entry is at <http://collections.vam.ac.uk/item/O58958/clavichord-hicks-peter>, and the instrument is also discussed in Brauchli, *The Clavichord*, 137–138.
- 12 Philip James, *Early Keyboard Instruments* (London: Chiswick Press, 1930), 95.
- 13 The layout is given in Schott, *Catalogue of Musical Instruments*, 94.
- 14 Maria Boxall, "The Origins and Evolution of Diatonic Fretting," *The Galpin Society Journal* 54 (May 2001), 175–15 Boxall, 178.
- 15 A special loan exhibition of musical instruments, manuscripts, books, portraits, and other mementos of music and musicians, formed to commemorate the tercentenary of the granting by King James I of a charter of incorporation to the Worshipful Company of Musicians in 1604. Held by kind permission of The Worshipful Company of Fishmongers, at their Hall, London Bridge, June–July 1904 (London, 1904): "1027. Clavichord, early English, by Hicke. Lent by Mr. T.L. Southgate. circa 1580."
- 16 Francis Galpin, *Old English Instruments of Music: Their History and Character* (London: Methuen, 1911), 118.
- 17 Victoria and Albert Museum, *Review of the Principal Acquisitions during the Year 1917* (London, 1920), 64: "an early eighteenth-century clavichord by an English maker, Peter Hicks."
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- 19 See Peter Bavington's entry on this instrument in "Boalch 3 Clavichord Updates," (2009), 27, <http://clavichord.org.uk/More/BCS%20reports/Boalch3CUindex.html>.
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- 22 Boalch, 385.
- 23 Charles Burney, *The Present State of Music in Germany, the Netherlands and United Provinces* (London, 1773), 269–270.
- 24 Boalch, 627.
- 25 Francis Knights, "Charles Burney's Keyboard Music" (forthcoming).
- 26 Dr. Burney is mentioned by name in the Broadwood books (22), but without any explanation; see Mould, "The Broadwood Books: I" (1973), 20.
- 27 1923 copy of a photograph dating from after 1907, see <https://memory.loc.gov/diglib/media/loc.music.dcmphot.00424/00424u.tif/2415>.
- 28 See <http://www.cecilia-uk.org/html/search/verb/GetRecord/611> for the Southgate Collection of manuscripts.
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