The Lyre-Way Fiddle: Violin Scordatura in Britain to 1705

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Abstract

This study examines the use of violin scordatura in Britain from the mid-seventeenth century to 1705, to establish how and why scordatura was used, its development, its relation to Continental practice, and why so few scordatura sources have survived. All extant British scordatura pieces from the period are considered and listed in a thematic inventory.

I use an integrated methodology, which combines both traditional and practice-led approaches. Alongside archival work, editing and analysis, performance-based experiments establish how the music might have sounded, the advantages and disadvantages of scordatura, and the practicalities of stringing for different tunings and playing from lyra-viol tablature. This combined approach has led to wider insights than could have been achieved by traditional research methods alone.

My work centres on Valentine Reading, the most prolific scordatura composer in Britain. I demonstrate a clear influence on his output from the Central European school. The authorship of a suite attributed to Thomas Baltzar is questioned, in the light of a Central European concordance. Works by Davis Mell and Gottfried Finger are also considered, alongside popular tunes published by Playford and Marsden, and anonymous manuscript pieces.

Extant descriptions show that the increased resonance from scordatura was highly valued within the contemporary sound aesthetic, despite any associated inconveniences. Scordatura can facilitate certain chords or fingerings, and influence the outcome of improvised ornamentation. My research suggests violin scordatura was more prevalent than extant sources in handgrip notation suggest, with sounding scores and viol tablature belying hidden scordatura violin practices. I also explore cross-stringing to facilitate more extreme tunings, considering its possible use in the seventeenth century and for present-day performers. I hope my work will encourage and contribute to a wider re-evaluation of the use of the solo violin in Britain in the late seventeenth and early eighteenth centuries.

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- Rec. 7.02viii PE 7.2, Reading 5/1, restrung, [c'f'a'c'']
- Rec. 7.03i PE 7.3, Universal stringing, scale, [gd'a'e'']
- Rec. 7.03ii PE 7.3, Universal stringing, Baltzar, 'John come Kiss', opening, [gd'a'e'']
- Rec. 7.03iii PE 7.3, Universal stringing, scale, [ae'a'c#'']
- Rec. 7.03iv PE 7.3, Universal stringing, Reading 16/1, [ae'a'c#'']
- Rec. 7.03v PE 7.3, Universal stringing, scale, [bbf'a'd'']
- Rec. 7.03vi PE 7.3, Universal stringing, Reading 11-1, [bbf'a'd'']
- Rec. 7.03vii PE 7.3, Universal stringing, scale, [d'f#'a'd'']
- Rec. 7.03viii PE 7.3, Universal stringing, Reading 3/1, [d'f#'a'd'']
- Rec. 7.03viiii PE 7.3, Universal stringing, scale, [c'f'a'c"]
- Rec. 7.03x PE 7.3, Universal stringing, Reading 5/1, [c'f'a'c'']
- Rec. 7.04i PE 7.4, 'I have been a Piper', lowered third string [aaa'e'']
- Rec. 7.04ii PE 7.4, 'I have been a Piper', cross stringing [e'aa'e'']
- Rec. 7.05i.i PE 7.5, Reading 14/1, [gd'a'e'']
- Rec. 7.05i.ii PE 7.5, Reading 14/1, [ae'a'e'']
- Rec. 7.05i.iii PE 7.5, Reading 14/1, [ae'a'c#'']
- Rec. 7.05ii.i PE 7.5, Reading 8/1, [gd'a'e'']
- Rec. 7.05ii.ii PE 7.5, Reading 8/1, [ae'a'e'']
- Rec. 7.05ii.iii PE 7.5, Reading 8/1, [be'a'd'', standard set-up]
- Rec. 7.05ii.iv PE 7.5, Reading 8/1, [be'a'd'', high-bass set-up]
- Rec. 7.05iii.i PE 7.5, Reading 11/1, [gd'a'e'']
- Rec. 7.05iii.ii PE 7.5, Reading 11/1, [bbf'a'd'', standard set-up]
- Rec. 7.05iii.iii PE 7.5, Reading 11/1, [bbf'a'd'', high-bass set-up]
- Rec. 7.05iv.i PE 7.5, Reading 3/1, [gd'a'e'']
- Rec. 7.05iv.ii PE 7.5, Reading 3/1, [ad'a'e'']
- Rec. 7.05iv.iii PE 7.5, Reading 3/1, [ad'a'd'']
- Rec. 7.05iv.iv PE 7.5, Reading 3/1, [d'f#'a'd'']
- Rec. 7.05v.i PE 7.5, Reading 4/1, [gd'a'e'']
- Rec. 7.05v.ii PE 7.5, Reading 4/1, [ad'a'e'']
- Rec. 7.05v.iii PE 7.5, Reading 4/1, [ad'a'd'']
- Rec. 7.05v.iv PE 7.5, Reading 4/1, [d'f'a'd'']
- Rec. 7.05vi.i PE 7.5, Reading 5/1, [gd'a'e'']
- Rec. 7.05vi.ii PE 7.5, Reading 5/1, [c'f'a'd'']

- Rec. 7.05vi.iii PE 7.5, Reading 5/1, [c'f'a'c'']
- Rec. 7.05vii.i PE 7.5, Reading 13/1, [gd'a'e'']
- Rec. 7.05vii.ii PE 7.5, Reading 13/1, [ae'a'c#'']
- Rec. 7.05vii.iii PE 7.5, Reading 13/1, [c#'f#'a'c#'']
- Rec. 7.06i PE 7.6, A major scale, [ae'a'c#'']
- Rec. 7.06ii PE 7.6, A major scale, without open strings, [ae'a'c#'']
- Rec. 7.06iii PE 7.6, E major scale, [ae'a'c#'']
- Rec. 7.06vi PE 7.6, D major scale, [ae'a'c#'']
- Rec. 7.06v PE 7.6, C major scale, [ae'a'c#'']
- Rec. 7.06vi PE 7.6, F major scale, [ae'a'c#'']
- Rec. 7.06vii PE 7.6, B^b major scale, [ae'a'c#'']
- Rec. 7.06viii PE 7.6, Ab major scale, [ae'a'c#'']
- Rec. 7.07i PE 7.7, Reading 17 extract, minimal string crossing, [ae'a'c#'']
- Rec. 7.07ii PE 7.7, Reading 17 extract, original, with open strings, [ae'a'c#"]

Abbreviations and Library Sigla

Library and Archive Sigla

A-ET	Ebenthal-Goëss (Private Collection)
A-KI	Landesmuseum für Kärnten, Klagenfurt, Austria
A-Wm	Zentralbibliothek der österreichischen Minoritenprovinz, Wien, Austria
B-LVu	Katholieke Universiteit Leuven, Belgium
CZ-KRa	Archibiskupský zámek, Hudební Archiv, Kroměříž
D-Bds	Staatsbibliothek zu Berlin, Preußischer Kulturbesitz, Musikabteilung
D-DI	Sächsische Landesbbibliothek (Staats- und Universitätsbibliothek), Dresden
D-F	Universitätsbibliothek Johann Christian Senckenberg, Frankfurt am Main
D-Mbs	Bayerische Staatsbibliothek, München
D-SÜN	Schloß Sünching, Germany
F-Lym	Bibliothèque municipale, Lyon
F-Pn	Bibliothèque nationale de France, Paris
GB-AS	Northumberland Archives, Woodhorn
GB-Cu	Cambridge University Library, Cambridge
GB-En	National Library of Scotland, Edinburgh
GB-Lbl	British Library, London
GB-Llma	London Metropolitan Archives

GB-Lna	The National Archives, London
GB-Mp	Henry Watson Music Library, Manchester
GB-Ob	Bodleian Library, Oxford
GB-Och	Christ Church Library, Oxford
IRL-Dtc	Trinity College Library, Dublin
PL-GD	Polska Akademia Nauk Biblioteka Gdańska, Gdańsk
PL-Pu	Biblioteka Uniwersytecka, Poznan
S-Uu	Universitetsbiblioteket, Uppsala
US-NH	Yale University Library, New Haven
US-NYp	Public Library at Lincoln Centre, New York
US-Wc	Library of Congress, Washington DC

Bibliographical Abbreviations

BDA	Philip H. Highfill, A Biographical Dictionary of Actors, Actresses, Musicians, Dancers,
	Managers and other Stage Personnel in London 1660-1800, 16 vols. (Carbondale:
	Southern Illinois University Press, 1973-93)
BDECM	Andrew Ashbee, and David Lasocki, eds., A Biographical Dictionary of English Court
	Musicians 1485-1714, 2 vols (Aldershot: Ashgate Publishing, 1998)
вно	British History Online, <https: www.british-history.ac.uk=""></https:>
BiberRS	Heinrich Ignaz Franz Biber, Rosenkranz-Sonaten, Bayerische Staatsbibliothek München
	Mus. Mss. 4123, intro. Manfred Hermann Schmid. Denkmäler der Musik in Salzburg
	Faksimile-Ausgaben, vol. 14 (München: Strube Verlag, 2008)
BoormanMVM	Boorman, Stanley, 'The Di Martinelli Violin Manuscript,' in Bruno Bouckaert and
	Eugeen Schreurs, eds., The Di Martinelli Music Collection (KULeuven, University
	Archives): Musical Life in Collegiate Churches in the Low Countries and Europe,
	Yearbook of the Alamire Foundation 4 (Leuven: Alamire, 2000), pp. 131–58
CCLMC	Christ Church Library Music Catalogue, <http: library.chch.ox.ac.uk="" music=""></http:>
Drescher <i>ST</i>	Thomas Drescher, Spielmännische Tradition und höfische Virtuosität (Tutzing:
	Schneider, 2004)
EdgarEoF	Daniel Edgar, 'The Encoding of Faith: Scordatura in Heinrich Biber's Mystery Sonatas',
	PhD diss., (University of York, 2008)
FARNE	Folk Archive Research North East, <www.farnearchive.com></www.farnearchive.com>
Glüxam <i>V</i>	Dagmar Glüxam, Die Violinskordatur und ihre Rolle in der Geschichte des Violinspieles:
	unter besonderer Berücksichtigung der Quellen der erzbishöflichen Musiksammlung in
	Kremsier (Tutzing: Schneider, 1999)

GMO	Grove Music Online, < https://www.oxfordmusiconline.com/grovemusic/>
Hawkins <i>GH</i>	Sir John Hawkins, A General History of the Science and Practice of Music, 5 vols. (London: Payne and Son, 1776)
HMS	Historical Music of Scotland, <https: www.hms.scot=""></https:>
Holman24	Peter Holman, Four and Twenty Fiddlers: The Violin at the English Court, 1540–1690
	(Oxford: Oxford University Press, 1993)
Holman <i>LAD</i>	Peter Holman, Life after Death: The Viola da Gamba in Britain from Purcell to
	Dolmetsch (Woodbridge: The Boydell Press, 2010)
JEvelyn	E. S. de Beer, ed., The Diary of John Evelyn, selected and introduced by Roy Strong
	(London: Everyman's Library, 2006)
Mace <i>MM</i>	Thomas Mace, Musick's Monument (1676)
MGG	Finscher, Ludwig, ed., Die Musik in Geschichte und Gegenwart: allgemeine
	Enzyklopädie der Musik, 2 nd edn, 28 vols. (Kassel: Bärenreiter, 1994-2008)
M-H <i>DV</i>	Greta Moens-Haenen, Deutsche Violintechnik im 17. Jahrhundert: ein Handbuch zur
	Aufführungspraxis (Graz: Akademische Druck- und Verlagsanstalt, 2006)
NobesNS	Pauline Nobes, 'Neglected Sources of the Solo Violin Repertory before ca. 1750, with
	Special Reference to Unaccompanied Performance, Scordatura and Other Aspects of
	Violin Technique', PhD diss. (University of Exeter, 2000)
ODNB	Oxford Dictionary of National Biography, <https: www.oxforddnb.com=""></https:>
PdAPoole	Patxi del Amo Iribarren, 'Anthony Poole (c.1629-1692), the Viol and Exiled English
	Catholics', PhD diss. (University of Leeds, 2011)
RECM	Andrew Ashbee, ed., Records of English Court Music, 10 vols. (Aldershot: Scholar Press,
	1986-96)
RISM	Répertoire International des Sources Musicales, <https: rism.info=""></https:>
RNorth	John Wilson, ed., Roger North on Music, Being a Selection from his Essays Written
	During the Years c. 1695-1728 (London: Novello, 1959)
RRFinger	Robert Rawson, 'From Olomouc to London: the Early Music of Gottfried Finger
	(c.1655-1730)', (PhD diss., Royal Holloway, University of London, 2002)
SPepys	Robert Latham and William Matthews, eds., <i>The Diary of Samuel Pepys</i> , 11 vols. (London: Bell & Hyman, 1985)
SPLiechtenstein	Jiří Sehnal and Jitřenka Pešková, Caroli de Liechtenstein-Castelcorno episcopi
	olomucensis operum artis musicae collectio cremsirii reservata, (Prague: Supraphon,
	1998)
VdGS	Gordon Dodd and Andrew Ashbee, ed. The Viola da Gamba Society Thematic Index of
	Music for Viols, updated online edn (2022), <https: thematic="" vdgs.org.uk=""></https:>

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WollstonIEVM	Silas Wollston, 'The Instrumentation of English Violin-Band Music, 1660-1685', PhD
	diss. (Open University, 2009)
Barlow <i>CCDT</i>	Jeremy Barlow, ed., The Complete Country Dance Tunes from Playford's Dancing Master (1651-ca. 1728) (London: Faber Music, 1985)
Other Abbreviations	

Fig. Figure

PE. Practical Experiment

Rec. Recorded example

Note to the Reader

All online references were accessed or checked between 26 and 30 June 2023, unless otherwise specified.

Suites and movements within them are referred to with the suite number/movement number, for example, Mell 12/3 is the third movement of Mell's suite 12.

R numbers refer to Reading's suites as listed in the Thematic Inventory, pp. 163-89. Thus R5 is Reading's fifth suite.

Note pitches are described using the Helmholtz system, where c' is middle C.

Interval patterns of tunings (rather than specific pitches) are referred to using the lyra-viol system of letters, whereby a is a unison, d a minor third, e a major third, f a fourth, h a fifth, n an octave. Thus standard violin tuning in fifths is *hhh*, and standard viol tuning *ffeff*.

'Handgrip notation' is the standard way of notating music for scordatura violin on the stave. When the player reads and fingers notes as if playing in standard tuning (using first position and open strings wherever possible), the correct pitches sound.

In transcribed musical examples of handgrip notation, the small stave above represents the sounding pitch. Original sharp or flat signs equivalent to modern naturals are preserved in transcriptions of handgrip notation, but natural signs are used in their sounding transcriptions. A small-size accidental above a note or bracketed before a note represents an editorial suggestion. Tunings are indicated in square brackets.

'High-bass tunings' are tunings where the lowest string is a fourth or more above standard.

As in the seventeenth century the administrative year was considered to start from 25 March, the commonly accepted form 1657/8 is used for dates between 1 January and 24 March from sources using this system. Where a single figure is given, the modern system applies.

Microphone Set-up

All examples intended for comparison were recorded with identical microphone set-ups.

Dry acoustic experiments

For the majority of examples recorded in a dry acoustic, two DPA 4003 omnidirectional microphones were used at a height of 1.75m, facing the violin at a distance of 0.9m from the violin bridge, with a width of 0.6m between the microphones.

Recs 2.03i-ii, **2.04i-ii**, **2.05i-ii**, **2.06i-iii** and **2.08i-ii**, which were recorded earlier in my study, used a single large-diaphragm cardioid microphone at a height of approximately 1.6m, and at a distance of approximately 0.8m from the violin.

Recs 2.09i-ii, **7.01i-vi**, **7.02i-viii**, **7.03i-x** and **7.04i-ii** were recorded on a Zoom Q4n (audio setting only) with the two cardioid capsules in crossed coincident pair configuration, at a height level with the violin (approximately 1.5m) and approximately 0.75m away.

Performance recordings, made in a reverberant acoustic

The majority were recorded at Finstock Village Hall. Two DPA 4003 omnidirectional microphones were used at a height of 1.75m, about 0.9m from the violin bridge, with a width of 0.6m between the microphones. In ensemble pieces, independent direct detail on each instrument was obtained by supplementing these with spot microphones on each instrument. For the violin, these were a pair of Schoeps MK21 wide-cardioid microphones at the same height, but 0.5m further away. For the viol an AKG 414 cardioid spot microphone was used, and for the harpsichord, a pair of Rode NT55 cardioid spot microphones (although these were barely used in the end).

The chapter 2 performance recordings (**recs 2.01i-vii**, **2.02i-iv**, **2.13** and **2.14**) were recorded separately in a church acoustic. The above-mentioned pair of DPA 4003 omnidirectional microphones was used but at a greater height of 2.2m. They were placed further away, approximately 2m from the violin bridge, and were 1.1m apart. The sound is entirely from this pair of microphones.

1. Introduction

'The *scordatura* is often a nuisance' wrote David Boyden in 1965.¹ Our understanding of violin scordatura has improved since then, but it is still avoided by many players. Traditionally, violin scordatura in the baroque era has been principally associated with the Austrian/Bohemian school. Whilst this music has been extensively studied, violin scordatura elsewhere has received little attention. There is a significant corpus of British violin scordatura repertoire which has been largely ignored. Parts of it have been alluded to in scholarly writing, often with misunderstandings and misattributions, but there has been no comprehensive detailed investigation into the subject. British solo violin playing of the seventeenth century has traditionally been dismissed as backward in comparison with continental playing. My study challenges this view. Combining traditional approaches such as archival research and musical analysis with practical experiments, recordings and observation, my work traces the development and usage of British violin scordatura was important to players despite its associated inconveniences, and suggests how these might have been minimised by the way instruments were strung.

My study begins in the mid-seventeenth century, when the earliest extant examples of handgrip notation appear in Britain, starting with Davis Mell (d. 1662) and his contemporary Thomas Baltzar. Whilst descriptions of Baltzar's scordatura playing are later, as is the extant copy of a scordatura suite bearing his name, his scordatura activities must have happened within the eight-year window between his arrival in England in 1655 and his death in 1663. Hawkins describes Anthony Wood playing a scordatura violin 'about the year 1650'.² It was only around this time that the violin started to gain favour as an artistic instrument worthy of the attention of gentlemen amateurs, a change from its previous status as a functional instrument played only by professionals. Little violin-specific repertoire was available at the time, and it is likely that the new upsurge of interest in the violin encouraged players to experiment with its possibilities as well as transferring techniques (such as scordatura) that were familiar from the viol. Amongst players of traditional fiddle, music scordatura was not new and probably represented an unbroken (and unwritten) tradition stretching back to the middle ages.

The later limit of my study is 1705, when Thomas Marsden published his *A Collection of Original Lancashire Hornpipes, Old and New. Containing, Divisions upon each*, a work with clear roots in the vernacular fiddle tradition of the seventeenth century. This was not the end of scordatura in

¹ David D. Boyden, *The History of Violin Playing from its Origins to* 1761 *and its Relationship to the Violin and Violin Music* (London: Oxford University Press, 1965), p. 226.

² See chapter 5, note 6.

Britain, as shown by numerous publications of traditional fiddle tunes in the later eighteenth century; indeed, scordatura is still used by some 'folk' players today. In higher artistic circles, however, violin playing in early eighteenth-century Britain was to undergo a drastic transformation resulting from the flood of interest in the new Italian style represented by Handel and the Italian violinists he brought to England, which swept away the earlier English style. Whilst scordatura crops up very occasionally amongst their compositions, these players formed part of a different tradition, beyond that of the current project.

Literature Review

The only serious study of the violin in England is Peter Holman's ground-breaking book, *Four* and *Twenty Fiddlers*.³ It examines the violin at the English court, therefore principally ensemble rather than solo repertory, but it nevertheless provided invaluable contextual information and a starting point for my research. Otherwise, scholars of seventeenth-century violin techniques, repertoire and social context have tended to focus on the German and Italian schools of violin playing. Works by Moens-Haenen,⁴ Drescher⁵ and Barnett⁶ provided essential background information, including detailed overviews of the most important extant seventeenth-century violin manuscripts from Continental Europe.

Studies of specific composers working in Britain, whose music includes works for scordatura violin, such as Gottfried Finger⁷ or Thomas Baltzar,⁸ whilst useful, tend not to explore their scordatura practices in detail. Such studies do not exist for every composer I examined, in particular Valentine Reading, the central composer of my study. Furthermore, anonymous works rarely receive the attention they deserve, and in the case of Playford's *Dancing Master*, the tunes have often been regarded by 'serious' violinists as simple or insignificant.⁹ Scholars of traditional ('folk') music, such as Offord or Barlow,¹⁰ mention scordatura only in passing. Johnson discusses its use in Scotland, but in

³ Holman24.

⁴ M-HDV.

⁵ DrescherST.

⁶ Gregory Barnett, Bolognese Instrumental Music, 1660-1710 (London: Routledge, 2008).

⁷ RRFinger.

⁸ Peter Holman, 'Thomas Baltzar (?1631-1663), the "incomperable *Lubicer* on the Violin", *Chelys* 13 (1984), 3-38.

⁹ John Playford, *The English Dancing Master* (1651) and subsequent editions.

¹⁰ John Offord, ed., John of the Green: The Cheshire Way. The famous triple-time hornpipes of North West England, with a selection of country dance tunes of the Baroque era, 2nd edn (London: Green Man Music, 2008). BarlowCCDT.

the eighteenth century.¹¹ Earlier Scottish sources have been catalogued and discussed by Stell and McGregor, but with no detailed consideration of scordatura.¹²

Music encyclopaedias such as *Grove Music Online* and *Die Musik in Geschichte und Gegenwart* cover violin scordatura in rudimentary ways, with little, if any, reference to England.¹³ The same applies to Boyden's classic (although now somewhat outdated) historical study of the violin.¹⁴ The only recent work dedicated entirely to violin scordatura is Glüxam's valuable *Die Violinskordatur*, which gives a chronological overview of continental violin scordatura through to the nineteenth century and catalogues this repertoire.¹⁵ There is only brief (and scathing) mention of Britain; the only British violin scordatura work the author appears to have seen is Playford's version of Readings Ground.¹⁶ The second part of Glüxam's book focuses on the scordatura collection in Kroměříž. Other scholars have studied specific continental scordatura collections, including Nobes (Klagenfurt manuscript,¹⁷ Vilsmayr Partitas),¹⁸ Fauconnier and Boorman (Martinelli manuscript),¹⁹ and Edgar (Biber),²⁰ but violin scordatura in seventeenth-century Britain has been sadly neglected.

There has been little practical study of violin scordatura. Edgar's thesis is an exception. His work is limited to Biber's Mystery Sonatas, comparing tunings within this religious cycle. Edgar offers fascinating conclusions about how scordatura sonorities are exploited for religious symbolism, but these conclusions are not necessarily applicable in the very different context of the secular British music of my study. For example, Edgar describes the fittingly harsh sound of c'f'a'c'' (obtained by retuning, not restringing) in Biber's Sonata [7] (The Scourging),²¹ whereas Valentine Reading uses this tuning for one of his sweetest, most delicate pieces (R5). Edgar's work lacks clarity on the vital question of string set-up. Historical stringing is a relatively new area of scholarship, which has yet to be fully implemented by many present-day HIP practitioners. Important steps forward in the field have been

¹¹ David Johnson, *Scottish Fiddle Music in the Eighteenth Century*, 3rd 3dn (Edinburgh: Mercat Press, 2005).

¹² Evelyn Stell, 'Sources of Scottish Instrumental Music 1603-1707', PhD diss. (University of Glasgow, 1999). Aaron McGregor, 'Manuscript Sources', *HMS* <https://hms.scot/manuscripts/sources/>. Unfortunately McGregor's thesis 'Violinists and Violin Music in Scotland, 1550-1750', PhD diss. (University of Glasgow, 2020), is embargoed until Autumn 2023.

 ¹³ David D. Boyden, et al. 'Scordatura', *GMO*; Mariane Rônez, 'Scordatura', *MGG*, Sachteil, vol. 8, pp. 1218-30.
 ¹⁴ Boyden, *The History*.

¹⁵ Glüxam*V*.

¹⁶ pp. 23, 80-82, 99.

¹⁷ A-KI MS M73.

¹⁸ NobesNS.

¹⁹ B-LVu P206/59 (see chapter 3, n. 81). Manon Fauconnier, 'Étude de la scordatura au violon et analyse technique des oeuvres de N. Goor de la Collection di Martinelli (KU Leuven Universiteitsarchief, P206)', M.A. diss. (Université catholique de Louvain, 2018). BoormanMVM.

²⁰ EdgarEoF.

²¹ EdgarEoF, pp. 67-68.

made by Peruffo and Barbieri, but only in relation to standard violin tuning.²² My study considers violin scordatura in the context of their findings.

My work centres the role of the lyra viol in the development of British violin scordatura. The lyra viol has been extensively studied by Traficante,²³ Otterstedt,²⁴ and more recently Sussex.²⁵ A link between violin and lyra-viol repertoire has been indicated by Dodd and Holman, although largely with regard to violin music in standard tuning.²⁶ Glüxam draws comparison between certain lyra-viol tunings and (continental) violin scordatura tunings.²⁷ My practical investigations into playing viol tablature on a scordatura violin not only reveal an area of potential hidden violin repertoire, but also demonstrate how scordatura influence likely passed from lyra viol to violin despite a lack of extant transcriptions.

The central figure in my study is Valentine Reading. He made the most significant contribution to the scordatura violin in seventeenth-century Britain, but his music has often been misunderstood. Although convincingly attributed to Valentine Reading in 2001 by Holman,²⁸ the scordatura suites in GB-Och Mus. 940 and their concordances in GB-Lbl Add. 22098 continue to be attributed to John Reading on *RISM*. Nobes (presumably unaware of Mus. 940) lists the Add. 22098 scordatura suites as unaccompanied,²⁹ and Glüxam discusses the simplicity of Readings Ground with no awareness of its concordance in Mus. 940.³⁰ Misunderstandings also surround the scordatura piece in US-NH Filmer MS 9, which has previously been described with the wrong tuning,³¹ and as being in the key of G.³² This is an understandable error, since the piece ends with a notated g' in handgrip notation; the Christ Church Online catalogue makes the same error with regard to the scordatura suite in GB-Och Mus.

²² Mimmo Peruffo, 'Equal tension, equal feel and scaled tension', <http://ricerche.aquilacorde.com/wpcontent/uploads/equal.pdf>. Peruffo, 'Italian violin strings in the eighteenth and nineteenth centuries: typologies, manufacturing techniques and principals of stringing', <http://ricerche.aquilacorde.com/wpcontent/uploads/Violin-strings-and-stringings.pdf>. Patrizio Barbieri, 'Roman and Neapolitan Gut Strings, 1550-1950', *The Galpin Society Journal*, 59 (2006), 147-81.

²³ Frank Traficante, 'Lyra viol tunings: "All Ways have been Tryed to do It", *Acta Musicologica*, 42 (1970), 183-204.

²⁴ Annette Otterstedt, *Die englische Lyra-Viol: Instrument und Technik* (Kassel: Bärenreiter, 1989).

²⁵ Polly Sussex, 'The Leero Vyall in Seventeenth-Century England', *Journal of the Viola da Gamba Society*, 13 (2019), 37-66.

²⁶ Gordon Dodd, 'Matters Arising from Examination of Lyra-viol Manuscripts', *Chelys*, 9 (1980), pp. 23-27. Holman, 'Thomas Baltzar', pp. 26-29.

²⁷ GlüxamV, pp. 80-81.

²⁸ Peter Holman, 'Reading, Valentine', *GMO*.

²⁹ Pauline Nobes, A Catalogue of Unaccompanied Solo Violin Repertory before ca. 1750: an Annotated Compilation (Ipswich: Rhapsody Ensemble Editions, 2000), p. 13.

³⁰ Glüxam*V*, pp. 98-99.

³¹ Margaret Gilmore, ed., The Division Violin (London: Oxford University Press, 1982), p. [iii].

³² WollstonIEVM, p. 368.

1125.³³ As well as addressing these misunderstandings, my work demonstrates the quality of Reading's music and the skill with which he exploited the possibilities of violin scordatura.

All the composers in my study deserve to be better known. Few of the works discussed have been recorded, and the existing recordings do not appear to use instruments in appropriate seventeenth-century set-up.³⁴ Much of the repertoire has not been published in modern critical editions. I hope to rectify both omissions in due course, through editions and recordings, exemplars of which represent significant aspects of this present project.

Methodology

This study combines both traditional and practical research. The practical side is integral, but does not exist in isolation. As much of the material has not previously been studied in depth, traditional research methods such as manuscript studies, archival research and editing were needed, in order to understand the composers' backgrounds and access their music. I studied all extant violin scordatura pieces from seventeenth-century Britain, and compared and related them to continental models. My practice gives a further angle, shedding light on how and why scordatura was used. This two-pronged approach has led to insights not available through text-based study or practice alone.

As music is a practical art, to study it disconnected from its practical living manifestation in sound is essentially limiting. There are further reasons why historical scordatura in particular cannot be fully investigated without practical performance. Scordatura handgrip notation allows the player to read and play as if using a violin in standard tuning (first position must be used wherever possible with open strings unless otherwise indicated).³⁵ As the notated pitches are adjusted differently for each string according to the scordatura, the correct pitches will sound with an appropriately tuned violin. This is essentially a form of tablature (albeit based on staff notation), indicating fingerings rather than sounding pitches, and can look misleading on the page.

A sounding transcription can aid study, but the effects of scordatura on sonority cannot be represented in any score. They can only be experienced through playing and listening. The same applies to aspects of technique and interpretation, such as how the increased need for string crossing in scordatura affects performance; what improvised figuration might be idiomatic to a particular tuning; or the repercussions for bow technique or choice of dynamics of different string tensions. Investigation into stringing for scordatura is also only possible through practical experimentation.

³³ CCLMC, entry for Mus. 1125.

³⁴ Readings Ground: Ensemble Shirokko Hamburg, *The Division Violin* (Ambitus, 2007). AMB96941. 'Baltzar' suite: Patrick Wood, *Thomas Baltzar: Complete Works for Unaccompanied Violin* (MSR Classics, 2007). MS1224.
³⁵ Boyden, *The History*, p. 250.

I have used practice to investigate a potential hidden violin scordatura repertoire, for example by testing whether violinists might realistically have played in scordatura from viol tablature. Likewise, an extant sounding score is no guarantee that scordatura was not used. Handgrip notation only became common around the middle of the seventeenth century, and the existence of some pieces in both handgrip and sounding score suggests a flexible approach to both tunings and notation. Music extant only in sounding score must be played to determine whether scordatura performance is viable and to demonstrate its expressive benefits, which historical performers were aware of, and modernday performers of this repertoire should be encouraged to try.

Practice in research can take at least three forms: a means of investigation or experimentation; a means of demonstrating or disseminating research results; or the creation of a new musical work. All three forms (often overlapping) appear in my research, including experimentation with sonority, stringing, and playing from viol tablature; performances of representative works which demonstrate the scordatura techniques, style and sound-world of the composers discussed; and newly created scordatura-inspired ornamented variations of movements which sources preserve only in simplified form. Audience feedback from my performances of the repertoire at concerts, lecture recitals, conference presentations, and informal gatherings of colleagues and friends was also informative. These complementary practical insights combine with traditional research to create a new and richer understanding of British violin scordatura.

The outputs of my practice are presented in different ways. I use recordings to demonstrate both experiments (often made in a dry studio to ensure that any resonance comes only from the instrument rather than the acoustic of the room) and complete performances in a good acoustic such as audiences might enjoy. Descriptions in words are also used, because certain aspects of technique are not necessarily audible (e.g. certain fingerings), or because some of the more subtle differences in sonority are difficult to capture on microphone. The extra ringing on of open strings is picked up, but less so the aura of sympathetic resonance, which is clearly audible to the player.

No methodology is perfect, and the practicalities of recording meant I had to record many different tunings in a short space of time. Had the recording time been unlimited, I could have allowed my instrument more time to settle into each new tuning, which might have led to greater audible differences in sonority. In addition, the listener's ear acclimatizes extremely quickly to a subtly new sonority, which can make differences hard to hear. It was impossible to make the experiments entirely scientific. Other factors apart from the tuning can affect the sound. Whilst I tried to minimize these by always using the same instrument in a dry acoustic for comparative experiments, certain factors, such as the weather (therefore humidity), were beyond my control. I did my best to bow comparative

examples identically, but after a lifetime of training to use bow technique to compensate automatically for uneven sound or an unresonant acoustic, this was not easy to switch off.

I used two main violins for the performances and experiments in this study. Both are English seventeenth-century instruments (Miller (c.1670); School of Rayman (c.1650)), in seventeenth-century set-up, strung all in gut, using equal tension for standard tuning (for scordatura stringing, see chapter 7). The bow is copied from a painting by John Baptist Medina, at Nostell Priory, dated 1686.³⁶ For extreme stringing experiments, which risked damage to the instrument, I used a student violin in the same set-up. My colleagues on the recordings play a six-string all-gut-strung viol (copy of an English instrument from 1637) and a small early-seventeenth-century-style single-strung Italian-type harpsichord.

English pitch in the later seventeenth century was not standardised. Investigations using extant organ pipes, wind instruments and vocal range (none of which relate closely to the largely solo violin repertoire in my study) suggest two broad pitch areas centering on means of c. A=400Hz (chamber) and A=423Hz (chapels; some were higher), although a number of recorders show a mean pitch of A=411Hz.³⁷ As there was considerable variation from these means, and as all these pitches differ less than a semitone from the present-day HIP pitch of A=415Hz, this pitch was deemed an acceptable solution and used throughout my research.

Overview

My study opens with the earliest extant examples of violin scordatura in Britain, by the composers Mell and Baltzar. This chapter describes my first experiments with different tunings, a learning experience that is developed in chapter 7. I then consider the next generation of composers, specifically Finger and Valentine Reading, the most prolific violin scordatura composer in Restoration England, who used many different tunings and was influenced by continental practice. The following chapters address how the receptive environment for scordatura violin music in Britain may stem from two native scordatura traditions: the lyra-viol repertoire, some of which was transcribed for violin, and more probably played straight from the viol tablature; and popular and traditional fiddle repertoire, where use of unnotated non-fifths tunings probably dates back to the middle ages. The final chapter investigates how violinists of the time might have approached stringing for scordatura, and considers the different scordatura sonorities and associated technical issues in the light of the sound aesthetic of the time. All seventeenth-century British manuscripts containing violin scordatura

³⁶ Holman argues that it actually dates from the 1660s. Holman*24*, pp. 280-81.

³⁷ Bruce Haynes, A History of Performing Pitch: The Story of 'A' (Lanham, Maryland: Scarecrow Press, 2002), pp. 124-33, 377-78.

are listed in the thematic inventory on pages 168-94. This does not include the Viennese GB-Lbl Add. 31500 ('GPD manuscript'), despite its date of 1679, because this is not known to have been in Britain during the seventeenth century and probably arrived later.³⁸ However, reference has been made to this manuscript in discussions comparing British and continental scordatura.

This is the first time that the corpus of British seventeenth-century violin scordatura music has been considered in its entirety. New insights include the establishment of clear connections between English and Central European violin scordatura practice, and a questioning of the previously accepted attribution of the scordatura suite in GB-Och Mus. 1125 to Baltzar. This is the first detailed study addressing stringing for violin scordatura and an original practical solution (cross-stringing) is proposed to mitigate the inconvenience of 'high-bass' tunings, which cannot be easily achieved by retuning from standard. A further revelation involves a possible hidden scordatura violin repertoire, whether notated in sounding score or lyra-viol tablature, which suggests that violin scordatura usage was more widespread than has hitherto been assumed. Reading's contribution to scordatura playing is investigated in depth for the first time, and his and other scordatura music performed on an instrument in appropriate set-up, which sheds new light on the sound aesthetic of seventeenthcentury England and English violin playing in general.

Playford noted in 1664 that 'The Violin is *usually* strung with four strings and tuned by Fifths' [my italics],³⁹ clear evidence that alternative tunings were known at that time. Perhaps his comment was inspired by the practice of the two earliest composers in Britain whose violin scordatura usage is documented. These are Davis Mell and Thomas Baltzar, who will be considered first in my study.

³⁸ Drescher*ST*, pp. 142-47.

³⁹ John Playford, A Brief Introduction to the Skill of Musick (1664), p. 96.

2. Early Proponents: Davis Mell and Thomas Baltzar

Davis Mell (1604-62) and Thomas Baltzar (c. 1631-63) are the earliest composers documented to have used violin scordatura in Britain. Each was considered, at different times, to be the leading violinist of their generation. Despite their different ages and backgrounds, they worked together after Baltzar's arrival in London, for example in Davenant's *The Siege of Rhodes* (1656) and at the English court after the Restoration. It is often assumed that Baltzar introduced scordatura to Britain,¹ but this is unproven. Continental violin scordatura sources become more common around the time of his employment in England, but it is likely that lyra viol, lute tunings and vernacular fiddle traditions influenced violinists on both sides of the Channel. Holman speculates on a possible rivalry between Mell and Baltzar,² suggesting this inspired Mell to attempt scordatura.³ In fact, influence was probably mutual. If Mell imitated Baltzar's scordatura, Baltzar imitated Mell's sweet sound, using scordatura as the means. This chapter considers each composer in turn. Practical experiments and demonstrations are presented in the final section, but referred to throughout.

Davis Mell

Life, Employment and Reputation

Davis Mell, the first Englishman to notate violin scordatura, worked at the English court under three different rulers (Charles I, Oliver Cromwell, and Charles II). Son of a court violinist, he is first documented at court playing in James I's funeral procession in 1625.⁴ Mell officially joined the King's Musick in 1626,⁵ and received regular payments for instruments, strings and music.⁶ At Charles I's court, Mell worked alongside the great violinist Etienne Nau.⁷ Mell performed in Shirley's *The Triumph of Peace* (1634),⁸ composing some antimasque dances and playing for dancers' rehearsals. During the Interregnum, when the royal music was disbanded, Mell became one of Cromwell's household

¹ Peter Holman, 'Baltzar, Thomas', GMO.

² Holman, 'Thomas Baltzar', p. 10.

³ Holman, 'Mell, Davis', GMO.

⁴ *RECM*, vol. 3, p. 5.

⁵ *RECM*, vol. 3, p. 21.

⁶ *RECM*, vol. 3, pp. 70, 86, 141, 151, 152, 158.

⁷ Andrew Ashbee, 'Nau, Stephen (d. 1647)', *ODNB*. Brian Brooks, 'Étienne Nau, Breslau 114 and the Early 17th-Century Solo Violin Fantasia', *Early Music* 32, no. 1 (2004), 49-72.

⁸ Murray Lefkowitz, 'The Longleat Papers of Bulstrode Whitelocke; New Light on Shirley's "Triumph of Peace", *Journal of the American Musicological Society*, 18/1 (1965), 42-60, at 60. Andrew J. Sabol, 'New Documents on Shirley's Masque "The Triumph of Peace", *Music and Letters*, 47/1 (1966), 10-26, at 20.

musicians, supplementing his income with private performances,⁹ teaching,¹⁰ and clock-making.¹¹ At the Restoration, Mell was reinstated in the court violin band, sharing the directorship with George Hudson,¹² and worked alongside Baltzar in the Private Musick.¹³

Mell was highly respected in and beyond London. In 1652, Evelyn called him a 'rare Musitian';¹⁴ in 1655 Hartlib described 'Mr Mels (one of the most compleatest Violins in the World)';¹⁵ a 1653 poem by Nicholas Hookes of Cambridge confirms Mell's prestige;¹⁶ and in March 1657/8, Anthony Wood in Oxford mentioned 'Davis Mell, the most eminent violinist of London'.¹⁷ Evelyn noted how Baltzar's arrival in 1655 knocked Mell off this pedestal.¹⁸ Anthony Wood also commented how after this 'Mell was not so admired, yet he played sweeter'.¹⁹ The comment on Mell's sweet sound is significant. At the time, violins were regarded as brash compared with the more genteel viol and often associated with lower-status players. The ability to make them sound sweet was therefore considered high art.²⁰ Mell's use of scordatura may have contributed to his sweet sound (see **PE. 2.1** and chapter 7).

GB-Och Mus. 433

A suite for scordatura violin by Mell appears in GB-Och Mus. 433.²¹ This manuscript, dating from the mid-seventeenth century, with a rare Pascal Lamb watermark,²² is in upright format (207x307mm). Mus. 433 contains twelve numbered violin suites in Mell's own hand, alongside a few other pieces added by later copyists James Talbot and Richard Goodson junior.²³ Some movements

⁹ Descriptions by Lodewijk Huygens (1552) and Anthony Wood (1657/8). A. G. M. Babrach and R. G. Collmer, eds., *Lodewijck Huygens: The English journal, 1651–1652* (Leiden: Brill, 1982), p. 105. John D. Shute, 'Anthony à Wood and his Manuscript Wood D 19(4) at the Bodleian' PhD diss. (International Institute of Advanced Studies, Clayton, Missouri, 1979), part 2, pp. 100-1.

¹⁰ See list of 'excellent and able Masters', Playford, A Musicall Banquet (1651), p. [ix].

¹¹ Maria P. Fernandez and Pedro C. Fernandez, 'Davis Mell, Musician and Clockmaker, and an Analysis of the Clockmaking Trade in 17th Century London', *Antiquarian Horology*, 16 (1987), 602-17.

¹² *RECM*, vol. 1, p. 18.

¹³ *RECM*, vol. 1, p. 9.

¹⁴ JEvelyn, p. 292, [1 August 1652].

¹⁵ Samuel Hartlib, 'Ephemerides', 1655 part 4 (13 August–31 December 1655), 29/5/56B.

¹⁶ Hookes, 'To Mr. Lilly, Musick-Master in Cambridge', in *Amanda* (1653), quoted in Percy A. Scholes, *The Puritans and Music in England and New England*, (London: Oxford University Press, 1934, repr. 1962), p. 176, and Holman, 'Mell, Davis (1604-1662)', *BDECM*, p. 791-94.

¹⁷ Shute, 'Anthony à Wood', part 2, pp. 100-1.

¹⁸ JEvelyn, pp. 333-34, [4 March 1656].

¹⁹ Shute, 'Anthony à Wood', part 2, pp. 100-1. Undated entry following July 1658. In March 1657/8, Wood also wrote that Mell 'play'd farr sweeter than Baltsar', pp. 100-1.

²⁰ Moens-Haenen emphasises this concept throughout her book M-HDV.

²¹ ff. 36r-35r inv.

²² Similar illustration in 'Appendix I: Watermarks and Paper Types', in Andrew Ashbee, Robert Thompson and Jonathan Wainwright, *The Viola da Gamba Society Index of Manuscripts Containing Consort Music*, 2 vols (Aldershot: Ashgate, 2001 and 2008), vol. 1, pp. 251-309, at p. 288.

²³ CCMLC, entry for Mus. 433.

appear to have been notated originally without barlines, which were added later. Black notation is used for some compound-time movements. Mell's suites are neatly written and carefully ordered, rising in key through the gamut from G minor to D major. The first eleven suites appear consecutively at the front of the manuscript, and the twelfth (scordatura) suite is inverted at the back. Apparently unaccompanied, each suite consists of a prelude followed by several simple dance movements, sometimes thematically related. Certain titles suggest a possible origin as masque dances, perhaps adapted for domestic use.²⁴ Many of the dances have concordances for larger ensemble, in Playford's 1662 *Courtly Masquing Ayres* (treble and bass), or Edward Lowe's manuscript GB-Ob. MS Mus. Sch. E.451 (originally in four parts).²⁵ Two suites and a couple of other movements were copied (probably for viol) into GB-Lbl Add. 15118 at an unknown date (the front leaf is dated 1633, but a Baltzar prelude must have been copied after Baltzar's arrival in 1655, or even later, after its publication in *The Division Violin* (1684)).²⁶ Two preludes from GB-Och Mus. 433 are published in *The Division Violin* (1684).²⁷ Mell's preludes, in Italianate improvisatory style (perhaps influenced by Nau),²⁸ exploit the range of the violin up to third position, and include complex passagework, written out trill figures, real and implied polyphony, and chords.

Mell's suites have been largely ignored or dismissed by scholars.²⁹ As notated, the dances are not technically advanced, but it was standard practice for performers to add improvised embellishment. Glimpses of this appear in the notated variations in the Saraband and Corant of suite 4, and the Saraband of suite 12 (**rec. 2.01iv**). For an example of my own added embellishment on the repeats of a dance from Mell's suite 5, see **rec. 2.08i**.

Scordatura Suite

The seven-movement scordatura suite 12 in D minor/major (complete suite **rec. 2.01i-vii**), is the earliest British example of 'handgrip' notation.³⁰ Baltzar probably also used this, possibly even introducing it to this country, but the extant music bearing his name is a later copy. Mell's tuning indication is written in words: 'The tuninge . a.4th.a.5^t.a.4th.' (**ex. 2.1**).

²⁴ Peter Walls, *Music in the English Courtly Masque 1604-1640* (Oxford: Clarendon Press, 1996), p. 256.

²⁵ Ashbee, Thompson and Wainwright, *The Viola da Gamba Society Index*, vol. 2, pp. 212-24.

²⁶ Suites 5 and 9.

²⁷ From suites 1 and 4. *The Division Violin*, nos. 17 and 15.

²⁸ Compare Nau's fantasia, D-Bds Mus. Ms. Sammlung Bohn 114 (formerly Breslau 114), ff. 34-35.

²⁹ Descriptions include 'musically limited', Peter Walls, 'The Influence of the Italian Violin School in 17th-Century

England', Early Music, 18 (1990), 575-87, at 579; 'feeble as music', Holman, 'Mell, Davis', GMO.

³⁰ Standard scordatura notation, where the player fingers the notes as if playing in standard tuning.



Ex. 2.1 Mell, Suite 12/1, opening with tuning instruction.

Theoretically any string pitches with this interval pattern would work, but the most likely tuning is ad'a'd". This keeps the a'-string constant like all other extant British scordatura violin tunings, and requires minimal adjustment from standard tuning. The D minor/major key signatures reflect this. Rather than following the later standard scordatura practice of indicating sharps or flats at each octave separately (often producing strange-looking combinations of sharps and flats together), Mell used sounding key signatures, writing any necessary accidentals beside the individual notes (**ex. 2.2**).³¹ ad'a'd'' is a common scordatura tuning, which produces a mellow yet resonant sound in D major/minor (**PE. 2.1**). It corresponds to the top four strings of the lyra-viol tuning 'Eights' (*fhfhf*, see chapters 3 and 5), which, as a viol player, Mell would have known. Suite 12 may even have been originally composed for viol. Similar open-chord tunings are documented as far back as the medieval era.³²

Mell uses a specific 'English' way of notating unisons. In standard handgrip notation, which indicates fingerings rather than pitches, unisons do not always look like unisons. Thus, for the tuning ad'a'd'', unison a' looks as it sounds (**ex. 2.2**, bars 7 and 15), but we would expect unison d'' to appear as d'' and e'', and unison d' as c' and d'. Mell clearly knew this practice, as there are examples in Suite 12: the final chord of 12/2 (**ex. 2.2**) and in the first-time bar of 12/5 (both d''-unisons). However, Mell mostly notates unisons by doubling the fingered note. Thus, unison d'' appears as two d''s (**ex. 2.2**, bars 1, 3, 8 etc., **ex. 2.3**), and unison d' as two c's (**ex. 2.2**, bar 15 and penultimate bar). This practice is found in other English sources, but not elsewhere.

³¹ Nobes discusses scordatura key signatures, NobesNS, pp. 27-30.

³² Margriet Tindermans, 'The Vielle before 1300', in Ross W. Duffin, ed. *A Performer's Guide to Medieval Music* (Bloomington and Indianapolis: Indiana University Press, 2000), pp. 293-301.



Ex. 2.2 Mell, Suite 12/2.

Suite 12 differs stylistically from Mell's other suites. The prelude (the only British scordatura example), whilst improvisatory in flavour, contains less rushing passagework than his other preludes and does not go as high (**rec. 2.01i**). The emphasis seems to be on sonority (heightened by the tuning and slower note movement) and implied polyphony, rather than virtuosity. The dances of suite 12 are polyphonic compositions rather than mere tunes. Frequent unisons (rare in Mell's other suites, and standard-tuning pieces in general) enhance the sonority, e.g. bars 22-23 of the prelude, where unison d''s (unplayable in standard tuning) form a pedal under a quaver melody (**ex. 2.3**).



Ex. 2.3 Mell, Suite 12/1, bars 22-23. (Rec. 2.01i, 1:12-1:19).

Suite 12 also includes many more double stops than Mell's other suites. Examples of real polyphony within the Saraband include bars 13-14 and 19-20 (**rec. 2.01iv**, 1:01-1:10, 1:29-1:39). Mell also implies polyphony within a single line, three very different examples being: Suite 12/1, bars 11-16 (a slow moving bass with a faster moving melody above, **rec. 2.01i**, 0:44-0:54), bars 24-5 (treble and bass parts moving at the same speed, **rec. 2.01i**, 1:20-1:26), and in 12/5, bars 4-8 (upper and lower voices alternating **rec. 2.01v**, 0:09-0:18). Suite 12 is poignant in flavour, although the mood lightens with the final three major-key dances. It feels more thoughtful and studied than Mell's other suites, whilst being attractive to hear and satisfying to play.

Hidden Scordatura?

Mell's suites 1-11 are written in sounding notation, which implies standard tuning. However, anomalies in the notation of d'-unisons in the preludes of suites 10 and 11 suggest that Mell may have played them in scordatura. In prelude 11 (D major) d'-unison is notated as doubled c', as in the scordatura suite (**exx. 2.4** and **2.5**).



Prelude 10 (D minor), ends with a d'-unison, notated as c' and d', as if in standard 'handgrip' notation (ex. 2.6).



Ex. 2.6 Mell, Suite 10/1, final chord.

These anomalies suggest that Mell may have been transcribing from an exemplar in handgrip notation intended for a violin with the lowest string raised a tone, or writing as he played in this scordatura, occasionally confusing handgrip and sounding notation. There is no other explanation for notating d' as c'. The resulting tuning, ad'a'e'', is used in folk music, even today (see chapter 6). Experimentation showed that Mell's suites 10 and 11 work in this tuning (**PE. 2.2a**).

Another possible indication that Mell sometimes altered his lowest string appears in the prelude of suite 1, which uses standard tuning. It is annotated with fingerings for basic notes on the bottom string, surely unnecessary for a player of Mell's calibre, assuming he annotated it for himself, not a pupil (**ex. 2.7**). However, in my own experience, it can be easy to lose track of notes if frequently changing between tunings, especially if reading from sounding notation, so occasional fingerings can be helpful.



Ex. 2.7 Fingerings in Mell, suite 1/1.

Why did Mell not use handgrip notation for suites 10 and 11? Handgrip notation was fairly new at the time, so not all players would be familiar with it. Sounding notation made the suites universally accessible, playable both with and without scordatura, a relevant consideration if Mell hoped they would be published (as some movements were). Suite 12 is not playable in standard tuning without compromising the many d"-unisons, so the scordatura and its special notation were retained.

This raises the question of whether other Mell suites might also have been played in scordatura. Practical experimentation showed that in most cases the required note range prohibits this. However, for suite 5 (A minor) the common tuning ae'a'e'' not only fits but adds sonority (see **PE**. **2.2b**), so Mell could have played it this way.

My research suggests that Davis Mell used alternative violin tunings more than has been recognised previously. Where scordatura is not notated, it was probably a flexible issue, partly determined by practicalities, such as the tuning of other pieces in the same programme, or what strings were available. If scordatura was more widely used than extant sources of handgrip notation suggest, there are probably many more examples of 'hidden' scordatura to be found.

Thomas Baltzar

The violinist Thomas Baltzar, who worked alongside Davis Mell at Charles II's court, has been credited with introducing violin scordatura to England. Descriptions from the time associate him with the technique, but few scordatura pieces bearing his name have survived. Nonetheless, his virtuosic prowess left a legacy, popularising the violin over the previously favoured treble viol, thus changing the course of English musical history.³³

³³ RNorth, pp. 300-1.

Life and Works

Baltzar was born in Lübeck into a family of town musicians.³⁴ According to Hartlib, Baltzar was a student of the great Hamburg violinist Johann Schop.³⁵ Baltzar probably also studied with Nicolaus Bleyer (1591-1658) in Lübeck,³⁶ and possibly also Franz Tunder (1614-67) and Paul Bruhns (c. 1612-55).³⁷ Baltzar was employed at the Swedish court until the abdication of Queen Christina in 1654. He subsequently returned to Lübeck, being registered as a town musician there early in 1655, but did not remain.³⁸ Bulstrode Whitelocke's embassy to the Swedish court in 1653 must have furnished Baltzar with English contacts. He was in England by 4 March 1656, when Evelyn heard and described him as 'the incomperable *Lubicer* on the violin'.³⁹ Baltzar's technical artistry amazed English audiences. Anthony Wood wrote that 'he played to the wonder of all the auditory', relating how John Wilson checked Baltzar's feet for hooves, in response to his devilish playing.⁴⁰

Baltzar joined Mell in a group of eminent players in Davenant's opera *The Siege of Rhodes* (1656), and in 1657/8 performed at Benjamin Rogers' degree ceremony in Cambridge.⁴¹ Baltzar was in residency at Hanwell House near Banbury for two years, during which he visited Oxford several times in 1658, prompting Anthony Wood, who heard him at one of William Ellis's music meetings, to pronounce him 'the most famous artist for the violin that the world has yet produced'.⁴² At the Restoration Baltzar was appointed a member of the Private Musick at court, receiving a salary of £110 per year from midsummer 1661,⁴³ as well as payment for providing instruments.⁴⁴ The creation of a new high-salaried position especially for Baltzar (expanding the number of violins in the Private Musick from two to three) shows how highly he was valued. He died in 1663, and was buried at Westminster Abbey.⁴⁵

³⁴ For Baltzar's life, see Holman, 'Thomas Baltzar'; Holman, 'Baltzar, Thomas', *GMO*; and Holman, 'Baltzar, Thomas (1631?-1663), *BDECM*, vol. 1, pp. 59-61.

³⁵ Samuel Hartlib, 'Ephemerides', 1655 part 4 (February-21 April 1655), 29/5/98A.

³⁶ Holman, 'Thomas Baltzar', pp. 3-4. Georg Karstädt and Ulf Grapenthin. 'Bleyer, Nicolaus', GMO.

³⁷ Philipp Toman, 'Thomas Baltzar: Ein Violinkomponist des 17. Jahrhnderts', <https://tomansmusikwissenschaft.wordpress.com/baltzar/> (excerpts from Toman, 'Thomas Baltzar – the most famous Artist for the Violin that the World had yet produced. Ein Beitrag zu violinspezifischer Musik des 17. Jahrhunderts', Diploma diss. (University of Vienna, 2002)). Hugh J. McLean, 'Bruhns, Nicolaus', *GMO*.

³⁸ Holman, 'Thomas Baltzar', p. 4.

 ³⁹ JEvelyn, p. 333, [4 March 1656].
 ⁴⁰ Shute, 'Anthony à Wood', part 1, p. 59.

⁴¹ Holman, 'Thomas Baltzar', p. 7.

⁴² Shute, 'Anthony à Wood', part 2, pp. 100-1.

⁴³ *RECM*, vol. 5, p. 32; vol. 1, p. 27.

⁴⁴ RECM, vol. 5, p. 109; vol. 1, p. 21.

⁴⁵ Holman, 'Thomas Baltzar', p. 29.
Few of Baltzar's works have survived: only four ensemble suites, probably written for the court;⁴⁶ a division on 'John Come Kiss';⁴⁷ two divisions for bass viol, which Holman suggests were originally violin pieces;⁴⁸ and about sixteen items for unaccompanied violin, all preludes or dance movements.⁴⁹ References to other works, now lost, include a set of sonatas for 'a lyra violin [i.e. scordatura violin], treble violin and bass', listed in the sale catalogue of Britton's library in 1714,⁵⁰ and a set of sonatas for violin and bass, listed in Burney's sale catalogue in 1814.⁵¹

Baltzar seems to have introduced to England the genre of three violins and bass.⁵² Offering a new and attractive sonority, his work inspired other composers to write for the same combination.⁵³ This suggests that Baltzar had an interest in sonority in general, which would be consistent with his use of scordatura.⁵⁴

Playing Style and Reputation

The two most striking features of Baltzar's playing to his English listeners were his fearless use of high positions, described by Anthony Wood,⁵⁵ and his chordal playing, which probably sometimes included scordatura. Roger North writes that Baltzar 'used the double notes very much';⁵⁶ and Evelyn records that 'he plaid on that single Instrument a full Consort'.⁵⁷ Baltzar's extant solo music (in standard tuning) contains frequent passages of consecutive three and even four-part chords, giving a rich texture and contrapuntal feel (**ex. 2.12**). Holman argues that Baltzar's chordal writing was inspired by the lyra-viol playing of his English court colleagues,⁵⁸ which involved viol scordatura (see chapter 5). Evidence is provided by the manuscript GB-Ob MS Mus. Sch. F.573, which contains transcriptions of lyra-viol pieces for violin (in standard tuning, although the lyra-viol originals use various tunings; the Jenkins Courante, **rec. 2.13**, is typical) alongside original violin compositions in similar style. At

⁵⁴ Thanks to John Cunningham for this insight.

⁴⁶ GB-Ob Ms. Mus. Sch. D.241-243 and GB-Ob Ms. Mus. Sch. E.451; GB-Ob Ms. Mus. Sch. C.102a-b.

⁴⁷ John Playford, *The Division Violin* (1684), pp. 20-22.

⁴⁸ US-NYp MS Drexel 3551, f. 12; GB-Ob MS. Mus. C. 39, f. 1. Holman, 'Thomas Baltzar', pp. 14-16.

⁴⁹ In *The Division Violin*, GB-Ob MS Mus. Sch. F.573, GB-Och Mus. 1125, and D-F, Mus Hs 337.

⁵⁰ Printed in Hawkins*GH*, vol. 5, p. 82.

⁵¹ Lbl C.61.h.1(12), 26, quoted in Holman, 'Thomas Baltzar', p. 26.

 ⁵² Baltzar's example is in GB-Ob Ms. Mus. Sch. D.241, pp. 51-54; D.242, pp. 51-55; D.243, pp. 51-54; and GB-Ob Ms. Mus. Sch. E.451, pp. 140-44. Modern edition in Peter Holman and John Cunningham, eds., *Restoration Music for Three Violins, Bass Viol and Continuo, Musica Britannica*, vol. 103 (London, Stainer and Bell, 2018), pp. 2-11.
 ⁵³ Holman and Cunningham, eds., *Restoration Music*, pp. xvii, xxi.

⁵⁵ 24 July 1658. Shute, 'Anthony à Wood', part 2, pp. 100-1.

⁵⁶ RNorth, p. 301.

⁵⁷ JEvelyn, p. 333, [4 March 1656]. Discussed by Patrick Wood Uribe, "On that single Instrument a full Consort": Thomas Baltzar's Works for Solo Violin and "the grand metamorfosis of musick", *Journal of Seventeenth-Century Music*, 15, no. 1 (2009), <http://www.sscm-jscm.org/v15/no1/uribe.html>.

⁵⁸ Holman, 'Thomas Baltzar', pp. 26-28.

least six of the latter are by Baltzar, who may have made some of the transcriptions.⁵⁹ Toman suggests that Baltzar's chordal skills stemmed from an unwritten early German chordal violin tradition (glimpses of which are found in Nau's Fantasia in D-Bds Mus. Ms. Sammlung Bohn 114,⁶⁰ and publications by Italian composers based in German lands, such as Marini, who also used scordatura).⁶¹ In fact, Baltzar was probably already indirectly influenced by the lyra viol before he left his homeland. The German violin school was influenced by émigré English musicians such as William Brade, Maurice Webster and Thomas Simpson, all lyra-viol players. Brade taught Bleyer, and probably Schop too,⁶² both of whom taught or influenced Baltzar.

Baltzar's scordatura usage was probably also influenced by lyra-viol music. According to North, 'he often used a lira manner of tuning [i.e. scordatura], and hath left some neat Lute-fashioned lessons of that kind'.⁶³ Exactly what is meant by 'lute-fashioned' is not clear, although the lute (which Baltzar played) used a variety of tunings at the time. North may be referring to *style brisé* (*style luthé*), an irregular arpeggiation effect, creating the suggestion of chords and counterpoint within an ever-moving texture. Originating with the lute, this became a feature of lyra-viol music. It requires a left-hand technique similar to multiple stopping, and a highly refined string-crossing technique with the bow. Baltzar uses *style brisé* extensively in his unaccompanied violin works as a form of decoration (**ex. 2.11**). Extant examples use standard tuning, but since scordatura facilitates both certain chords and sustained resonance (one of the functions of *style brisé*), it lends itself well to the effect (see **rec. 6.4iii**). Baltzar's scordatura examples could have been improvised and never notated, or simply lost. As one of the first violinists to use *style brisé*, Baltzar would have stood out from his English contemporaries such as Mell, who favoured melodic diminutions.

Baltzar used scordatura to manipulate his sound, which had failed to impress English audiences, despite his otherwise spectacular technique. Anthony Wood commented that Mell 'play'd farr sweeter than Baltsar', and that 'Mell... had a sweet stroke; Baltzar's was rough'.⁶⁴ We should not necessarily interpret this literally. 'Rough' could refer to unfamiliar virtuosity. There are other cases where more virtuosic players were described as having a rougher sound, for example Paganini compared with Spohr.⁶⁵ In Baltzar's case, the description may indicate a difference of aesthetic between the English tradition and that of Baltzar's homeland, reflected in instrument set-up.

⁵⁹ Holman, 'Thomas Baltzar', pp. 27-28.

⁶⁰ Brian Brooks, 'The Emergence of the Violin as a Solo Instrument in Early Seventeenth-Century Germany', PhD diss. (Cornell University, 2002), especially pp. 5-67 and 157-87; Brooks, 'Étienne Nau'.

⁶¹ Toman, 'Thomas Baltzar'.

⁶² Kurt Stephenson, 'Schop', GMO.

⁶³ RNorth, p. 301. North never heard Baltzar, but did own a manuscript of his pieces, RNorth, p. 301, n. 43.

⁶⁴ Shute, 'Anthony à Wood', part 2, pp. 100-1.

⁶⁵ M-H*DV*, p. 72.

Raguenet described Italian violinists using heavier strings than the French, which gave a bigger sound.⁶⁶ English players, heavily influenced by French practice in Baltzar's time, probably favoured lighter strings to make a soft-edged viol-like sound. Baltzar, from a different tradition, and possibly influenced by Italian musicians at the Swedish court, may well have used heavier strings with a correspondingly heavier bow technique. As **PE. 2.3** shows, this would make a brighter sound, which might well have appeared 'rough' to the English (see also chapter 7).

To suit English tastes, Baltzar sweetened his sound using scordatura. North wrote: 'his hand was accounted hard and rough, tho he made amends for that by using often a lyra-tuning, and conformable lessons which were very harmonious'.⁶⁷ **PE. 2.4** demonstrates this effect. The idea of manipulating sound colour in this way (akin to setting organ registrations before playing, which remain for the whole piece) is foreign to violinists nowadays. Today's norm of achieving radical sound-colour changes using bow technique alone seems to have been introduced in England only after Baltzar's death, with the arrival of Matteis.

Scordatura Suite

Despite descriptions of Baltzar using scordatura, only one scordatura work bearing his name has survived, and as we shall see, this ascription is problematic. Preserved in GB-Och Mus. 1125, f. 27 (item 10), it is a suite for (apparently) unaccompanied violin, consisting of four short dance movements in handgrip notation (Almand, Almand, Corant, Sarabrand), entitled: 'A Set of Tunings by Mr Baltazar' (complete suite **rec. 2.02i-iv**).⁶⁸ Most of Mus. 1125 is from the music collection of Richard Goodson junior (1688-1741), professor of music at Oxford and organist of Christ Church. He inherited much of his collection from his father, Richard Goodson senior (c.1655-1718), who held the same posts. Mus. 1125, originally numerous separate items on loose leaves of varying size, now bound together, mostly contains miscellaneous music for instrumental ensembles. This repertoire is probably mostly from the Oxford waits, and was copied in the late seventeenth or early eighteenth century by several unknown hands. However, the scordatura suite on f. 27 appears unrelated to the other repertoire in the volume, so may originate from elsewhere and have ended up amongst the rest by chance.⁶⁹

⁶⁶ François Raguenet, *Parallele des Italiens et des Français en ce que regarde la musique et les opéras* (1702). Oliver Strunk, ed., 'A Comparison between the French and Italian Music by François Raguenet', *The Musical Quarterly*, 32 (1946), 411-436, at 431.

⁶⁷ RNorth, p. 349.

⁶⁸ Modern edition Patrick Wood Uribe, ed., *Thomas Baltzar: Works for Violin* (Middleton Wisconsin: A-R Editions, 2012), pp. 8-11.

⁶⁹ CCLMC, entry for Mus. 1125.

This suite is notated on a single large sheet (327x210mm) in upright format, ruled with 12 staves with vertical guide lines at the sides. The sheet has been folded at some point, with horizontal fold lines visible, indicating that it has been used rather than simply preserved in a library. There is evidence of a watermark, but not enough is visible to identify it. The hand does not match others in the volume, despite sharing similar treble clef forms. The lettering is italic, with flamboyant loops decorating the final letters of the words Almand and Sarabrand, and some capital letters (**ex. 2.8**). The music is very neatly copied. Although no tuning indication is given, scordatura key signatures are used (**exx. 2.10, 2.13**) and all necessary accidentals included, which suggests that the composer or copyist was familiar with scordatura notation. The lower sharp in the key signature of the first stave (on the e'-line rather than in the f'-space) is an error (**ex. 2.9**), but all other key signatures are accurate. a'-unisons are notated 'English-style' (**ex. 2.8**), except at the opening of the first movement (**ex. 2.9**). c#''-unison at the start of the second movement is also 'continental-style', perhaps because, notated as a third (rather than a second, like a'-unison), it is harder to spot without playing, particularly as it forms part of a larger chord.



Ex. 2.8 English unisons, ending of Sarabrand, Mus. 1125, f. 27.



Ex. 2.9 Traditional unison notation, opening of Almand 1, Mus. 1125, f. 27.

The tuning is *efh*, most likely rendered as ae'a''c#'', the least radical departure from standard tuning therefore creating minimal upheaval for the instrument (see chapter 7) and following the standard practice of keeping the a'-string unchanged. *efh* was one of the most widely used violin scordatura tunings across Europe in the seventeenth century, and is still used today in the Scottish, American and Scandinavian folk traditions. It is also documented in early English fiddle music.⁷⁰ On the Norwegian Hardanger fiddle and in the Swedish fiddle tradition (which uses ordinary violins in

⁷⁰ Paul Roberts, 'Reconstructing English Fiddle Style 1650-1850', *FiddleOn Magazine*, 17 (2005), 8-12; Chris Haigh, 'English Fiddle', http://www.fiddlingaround.co.uk/english/index.html.

various tunings), *efh* is associated with trolls or the devil because of its hypnotic flavour.⁷¹ Baltzar could have heard local fiddlers using this tuning in Sweden before he came to England, although Moens-Haenen questions how much 'art' violinists would have wished to ape the traditions of lower-status players.⁷²

Baltzar's authorship of the Mus. 1125 suite has not previously been questioned. There are certainly elements that would be consistent with his authorship. Although Mus. 1125 is a late copy, certain features of notation suggest that the copyist worked from a considerably earlier original that could be from Baltzar's time: there are no time signatures, and minimal barlines. Barlines are only inserted to differentiate upbeats at the beginnings of movements and B-sections, apart from in the Corant, where the first full bar is also delineated, perhaps to avoid any confusion about the metre. (There is a similarity here to Baltzar's pieces in F. 573, also later copies from earlier originals, where full barlines are only found before upbeats, although small barlines are a regular feature (**ex. 2.11**).) Double barlines separate movement halves, but there are no final barlines; instead, movements finish with an ornate circular flourish (**exx. 2.8** and **2.13**). Another archaic feature is that titles appear at the ends of movements rather than the beginning (except the Corant, for space reasons).

Stylistically, the music does not feel out of place alongside other English solo violin music of Baltzar's time, such as the dances by his contemporaries in F. 573, and Mell's scordatura suite. The Mus. 1125 Corant has a French flavour with rhythmic ambiguity, alternating between a 3/2 and 6/4 feel (**rec. 2.02iii**). The Sarabrand is simple and beautiful, making use of unisons and open string bass notes alongside the melody (**rec. 2.02iv**). The Almands, especially the second, are busier, whilst still expressive (**recs. 2.02i** and **ii**). The second Almand contains a flattened seventh before the final IV-V-I cadence (bar 17, **rec. 2.02ii**, 0:55), a feature found elsewhere in Baltzar's music.⁷³ This movement includes a hint of *style brisé*, with an almost note by note alternation of register within a syncopated figure (**ex. 2.10**). However, it is only notated in quavers, nothing like the florid *style brisé* semiquavers of Baltzar's non-scordatura pieces (**ex. 2.11**).

Further elements also set the suite apart from Baltzar's other music, which contains copious multiple stops and complex passagework. The Mus. 1125 suite is noticeably less virtuosic in every sense. Chords and unisons are used but much more lightly (compare **exx. 2.12** and **2.13**). Although the suite contains plenty of string crossing (scordatura commonly necessitates this), this is also noticeably simpler than the extremely demanding string crossing usually typical of Baltzar (**ex. 2.11**). The suite

⁷¹ Chris Haigh, 'Scandinavian Fiddle', <https://www.fiddlingaround.co.uk/scandinavia/index.html>. Henrik Norbak, 'Swedish Traditional Music', <http://www.norbeck.nu/swedtrad/>.

⁷² M-H*DV*, pp. 19-20, 50-51.

⁷³ 'John Come Kiss', variations 3, 4, 6.

uses the full first-position note range, up to a fourth-finger extension on the top string (notated c'''), but no shifting is required, although Baltzar uses this elsewhere and had a reputation for using high positions. There is also no sign of his characteristic metrical trill figures. None of this necessarily precludes Baltzar's authorship, as scordatura music is often less technically complex than music in standard tuning, due to an emphasis on sonority rather than virtuosity.⁷⁴ In any case, the practice of improvised variation meant that a simple dance could become quite elaborate in performance (see **recs. 6.04i-iv**).



Ex. 2.10 Nod to style brisé, Almand 2, Mus. 1125, f. 27, bars 5-9. (Rec. 2.02ii, 0:30-



Ex. 2.11 Style brisé, G minor Allemande, Ob MS Mus. Sch. F.573, f. 9v, bars 27-31.



Ex. 2.12 Multiple stops, Baltzar, C minor Praeludium, Ob MS Mus. Sch. F.573, f. 8r, bars 18-20.

⁷⁴ GlüxamV, pp. 60-63, 84, 89.



Ex. 2.13 Thinner double stop texture, Almand 1, Mus. 1125, f. 27, bars 18-21.

Kroměříž Concordance

There is, however, a reason to question the authorship at least of the first Almand. This is a slightly strange piece, and rather angular unless the somewhat concealed implied imitation of the opening theme is brought out by the player. Listeners in my performances commented that it stands out as more awkward than the other movements. Perhaps it has become corrupted in copying. This movement lacks the characteristic upbeat that was almost universally present in Allemandes by Baltzar's time, and (unusually) does not modulate at all in the first half, cadencing at the mid-point still in the home key (**ex. 2.14**, **rec. 2.02i**, 0:01-0:37). It is in this movement that the only 'non-English' a'-unison appears (although it also has two English unisons), which might suggest it is copied from a different source from the other movements.

This first Almand shares a concordance with an Allemanda in the Liechtenstein collection in Kroměříž: CZ-KRa A909 (item 4). This manuscript of anonymous dance suites in various tunings survives as a single violin part, but the label 'Violino primo' suggests that there was originally a second violin part, and probably also a bass.⁷⁵ A909 was probably copied around 1670 by an unknown copyist.⁷⁶ Sehnal's inventory attributes the music to Schmelzer, although this is not definitive.⁷⁷ The remaining movements of the Mus. 1125 suite do not appear in A909, where the Allemanda is followed only by a Gigue, after which a new suite begins in a different tuning. The A909 Allemanda seems to fit stylistically with the other dances in the same manuscript, which are almost all in scordatura, and contain similar levels of double stops and/or implied counterpoint.

The Mus. 1125 Almand and A909 Allemanda share the same tuning (ae'a'c#'') and much identical material. **Ex. 2.14** shows transcriptions of both versions for comparison. Rests in the last few bars of the A909 Allemanda (not present in Mus. 1125) where a bass note or imitation from another part might have sounded are consistent with the idea that it was an ensemble piece. The A909 piece has a typical allemande upbeat. The two versions differ most at the end of the first section. The A909

⁷⁵ GlüxamV, pp. 341-47, especially pp. 342-43, 450; SP*Liechtenstein*, p. 464.

⁷⁶ SPLiechtenstein, p.464. Glüxam suggests between 1668 and 1677, Glüxam V, pp. 385, 450.

⁷⁷ SPLiechtenstein, p. 464.

version modulates to the dominant at this point, whereas the Mus. 1125 version does not, although it is more extended. Despite these differences, both movements are clearly closely related variants of the same piece, perhaps derived from a single original.

This raises the question of whether this original was composed by Baltzar, or imported from Central Europe. England in Baltzar's day was not generally an influential musical epicentre. Nonetheless, we cannot completely discount the possibility that Baltzar's music travelled, as music by his court colleagues Jenkins and Steffkin appears in the Rost violin manuscript, compiled by a Jesuit priest in Strasbourg (see chapter 5).⁷⁸ Jesuit transmission channels, responsible for the dissemination of music in both directions, stretched across Europe into the sphere of Habsburg influence which included Kroměříž.⁷⁹ Steffkin himself could have aided transmission (in either direction), as he was widely travelled and had contacts in Germany, Holland, Rome and Regensburg (a Jesuit centre).⁸⁰

Westwards transmission of violin music was more common and provides a more likely scenario. The presence of Schmelzer's works in the Martinelli manuscript shows that central European repertoire reached the Low Countries,⁸¹ which had ample contact with England.⁸² An example of such contact again involves Steffkin, who corresponded with the Dutch viol enthusiast Constantijn Huygens until 1662.⁸³ The manuscript F. 573, which contains a central-European gigue concordance,⁸⁴ is in the hand of a Dutch speaker,⁸⁵ and as we shall see in chapter 3, Reading in London had access to Central European music.

Assuming the Allemanda from A909 travelled west, we must question whether or not it arrived in England during Baltzar's lifetime. Holman dismisses the possibility that Baltzar was influenced by central European scordatura,⁸⁶ but we cannot completely rule out the idea. Although A909 was copied after Baltzar's death, the music could have been composed earlier. Whilst the heyday of scordatura in Kroměříž appears to have been around 1670 and later,⁸⁷ one early manuscript, a virtuosic sonata for two scordatura violins and organ copied c. 1660 or before,⁸⁸ proves that scordatura was used in the area during Baltzar's lifetime. Schmelzer (1623-80) was composing at this

⁷⁸ F-Pn Rés Vm⁷ 673. Marmee Alexandra Eddy, *The Rost manuscript of seventeenth century chamber music: A thematic catalog* (Warren, Mich.: Harmonie Park Press, 1989).

⁷⁹ PdAPoole, pp. 17-72, especially pp. 20, 28-62.

⁸⁰ Christopher D. S. Field, 'Steffkin [Steffkins, Stefkins, Steiffkin, Stephkins], Theodore', GMO.

⁸¹ B-LVu P206/59. See chapter 3, n. 81.

⁸² PdAPoole, pp. 17-72.

⁸³ Field, 'Steffkin'. PdAPoole, pp. 58-61, 207.

⁸⁴ Ob MS Mus. Sch. F.573, f. 32 'Jigue'; concordant with A-KIm M73, f. 31r. See discussion of M73 on p. 65.

⁸⁵ Holman, 'Thomas Baltzar', pp. 26-29.

⁸⁶ Holman, 'Thomas Baltzar', p. 26.

⁸⁷ Glüxam emphasises the significance of Biber's presence in Kromeriz in 1668-70. Glüxam V, pp. 383-418.

⁸⁸ CZ-KRa A644. See Glüxam*V*, pp. 276-78, 432.

time, although extant copies of his scordatura pieces are later.⁸⁹ If Baltzar did encounter the A909 Allemanda, he could have adapted it to work without bass (for example, removing the rests near the end), and to create a more preludial flavour (removing the opening upbeat and the modulation in the first half, although the label 'Almand' and binary form remain), and it could have inspired him to compose the following movements in Mus. 1125. However, it seems unlikely that Baltzar, a highly successful composer, would simply appropriate the work of another as part of his own suite. Baltzar's probable arrangements in F.573⁹⁰ are not passed off as his own; they almost all bear the names of the original composers.

It is much more likely that the Allemanda arrived later and Baltzar never encountered it. The remaining three movements in Mus. 1125 could still be by Baltzar. Perhaps a later copyist combined these movements with the first, since they share a key and tuning, assuming that all were by Baltzar. The source of the first Almand may have contained 'non-English' a'-unisons, which would explain why this is the only movement in Mus. 1125 in which one appears. As we shall see in chapter 3, Valentine Reading seems to have owned a collection of loose sheets with scordatura dance movements from or influenced by the central European school. The first Almand from Mus. 1125 could be from a leaf which got separated from Reading's collection. Significantly, the suite preceding the concordance in A909 opens with an Allemande which is a part-concordance of a Reading movement (see pp. 66-67). It is even possible that 'Mr Baltazar' in Mus. 1125 refers, not to Thomas Baltzar, but to Baltazar Reading, Valentine Reading's string-playing court colleague and probable close relation (see chapter 3), who could have been somehow involved with the piece and its transmission, although this is speculation.

A final possibility is that none of the movements in Mus. 1125 are by Baltzar. The suite could have been mis-ascribed to him, given his reputation for using scordatura. The sale catalogue of Burney's library (1814), includes a set of 'Solos for Violin with Bass, supposed by Baltzer'.⁹¹ Holman notes that the word 'supposed' implies they do not carry Baltzar's name, and may not be by Baltzar at all, perhaps being attributed by style or technique. If the attribution is due to scordatura, the Mus. 1125 suite could be copied from this book, although we will probably never know.

It is clear that the attribution of Mus. 1125 is less straightforward than has previously been assumed. Given the similarity between Reading's links with Central Europe (see chapter 3) and the concordance between Mus. 1125 and A909, combined with the fact that the last three movements of

⁸⁹ Perhaps Schmelzer composed the A644 sonata? The tuning shares an interval pattern (*hfh*) with some of his extant works, although not exact pitches.

⁹⁰ Holman, 'Thomas Baltzar', pp. 27-28.

⁹¹ Lbl C.61.h.1(12), 26, quoted in Holman, 'Thomas Baltzar', p. 26.

the Mus. 1125 suite in particular fit well into the English style, it seems most likely that the first movement in Mus. 1125 is Central European (possibly from Reading's collection) and has been added to an existing Baltzar suite. The fact that the latter does not resemble Baltzar's 'rough' (i.e. virtuosic standard-tuning) pieces shows his adaptation to English tastes as described by North. However, the unconfirmed authorship of the suite limits the conclusions we can draw about Baltzar's scordatura use.



Ex. 2.14 Comparison of Mus. 1125 Almand with A909 concordance.

Recordings and Practical Experimentation

This section details my practical work relating to Mell and Baltzar. I investigate the different scordatura sonorities, considering why scordatura might have been used, and how it could have made Baltzar's sound less 'rough'. I also experiment with using scordatura for certain Mell pieces which are extant in sounding notation. These experiments are recorded in a dry acoustic, to minimise resonance due to the acoustic. I also recorded performances in a more resonant acoustic to show the music as audiences might have experienced it, and to compare scordatura and non-scordatura performances in this type of acoustic. These initial findings are developed further in chapter 7. My string set-up for standard tuning was all gut, equal tension (a'-string gauge 0.82mm unless otherwise indicated),⁹² with scordatura obtained by simply retuning the strings.

Mell and Baltzar, Performance Recordings.

The suites are recorded complete, in a resonant acoustic.

Rec.	Mell, Suite 12, Mus 433 [ad'a'd'']
2.01i	1. Prelud
2.01ii	2. Almand
2.01iii	3. Corant
2.01iv	4. Saraband
2.01v	5. Almand
2.01vi	6. [Corant]
2.01vii	7. [Jig]

Rec.	'Set of Tunings by Mr Baltazar', Mus 1125 [ae'a'c#'']
2.02i	Almand [1]
2.02ii	Almand [2]
2.02iii	Corant
2.02iv	Sarabrand

PE 2.1 Scordatura versus Standard tuning in Mell's suite 12

To consider why Mell chose scordatura for this suite, I played all movements in both scordatura (ad'a'd") and in standard tuning (adapted where necessary) for comparison. The sample recordings below, one minor and one major movement, were made in a dry acoustic.

Piece	gd'a'e'' rec.	ad'a'd" rec.
Mvt 3. Corant (D minor)	2.03i	2.03ii
Mvt 5. Almand (D major)	2.04i	2.04ii

One noticeable difference comes from the d"-unisons (**rec. 2.03ii**, 0:01-0:08, 0:38, 0:45, 0:58, 1:04, 1:14, 1:23; **rec. 2.04ii**, 0:01-0:06, 0:14, 0:26, 0:36, 0:45, 0:52, 1:09), strikingly effective in ad'a'd"

⁹² For detail on equal tension, see chapter 7.

and noticeably absent in standard tuning, where they cannot be played. These unisons are probably the principal reason why Mell used scordatura in this suite. Like other double stops, unisons can be played with both notes sounding together (**rec. 2.01i**, 0:04, 1:00), or spread as an expressive device, like the unison stagger on a coupled harpsichord (**rec. 2.01i**, 1:37). The lower d'-unisons, whilst playable in standard tuning, are much easier to play in ad'a'd". Raising the lowest string facilitates finger technique, as d' (for unisons) and c#' are then played with third and second finger respectively, rather than fourth and stretched third. As well as being less of a stretch, the larger third finger can more easily press down a thick gut string than the fourth to make a unison. Fourth finger d'-unisons are rare at this period. A quicker response from the raised lowest string and sympathetic resonance of the d''-chanterelle (**rec. 2.04ii**, 0:38-0:39) also contribute to a clearer ringing sound and easier intonation in the d'-unisons in ad'a'd" tuning (compare **rec. 2.04ii**, 0:38 with **rec. 2.04i**, 0:34; **rec. 2.03ii**, 1:21 with **rec. 2.03i**, 1:08).

As the recordings show, ad'a'd" gives a less bright overall sound, a result of the lowered chanterelle. Particularly noticeable in higher passages (compare **rec. 2.03ii**, 0:17-0:24, 0:33-0:37, 0:50-0:57 with **rec. 2.03i**, 0:12-0:19, 0:26-0:30, 0:41-0:47), this may have contributed to Mell's reputation for sweet sound. The raised fourth string speaks more quickly, so the lower notes sing more compared with standard tuning (compare **rec. 2.04ii**, 0:22-0:24, 1:01-04 with **rec. 2.04i**, 0:19-0:21, 0:53-0:56). It is easier to play loudly lower down, and more softly on top, which potentially affects interpretation. The overall sound of ad'a'd" is more resonant on the tonic and dominant of the key, due to the octave strings resonating in sympathy (although it is worth noting that standard tuning is not without resonance in D, having d' and a' strings). This is strikingly audible to the player, although harder to capture on recording. Open strings ringing on sustain the notes after the bow leaves the string (e.g. high d'' **rec. 2.04ii**, 0:36-0:39, 1:11-1:15), which led me (unintentionally) to play the scordatura versions at a slower speed, as if playing in a much wetter acoustic. The two tunings also feel different under the bow, due to different string tensions. The top string must be bowed less heavily, yet nearer the bridge to avoid it sounding too quiet. Altogether, the player experience between the two tunings is quite different.

PE 2.2 'Hidden' Scordatura by Mell

Practical experimentation was used to establish whether certain pieces by Mell, extant in sounding notation, could viably be played in scordatura, and if so, how this compares with playing in standard tuning. The selected examples below were recorded in a dry acoustic (a'-string 0.87mm).

29

a. Mell Suites 10 and 11

Piece	gd'a'e'' rec.	ad'a'e'' rec.	ad'a'd'' rec.
Suite 11, Prelud D major	2.05i	2.05ii	
Suite 10, Prelud D minor	2.06i	2.06ii	2.06iii

As the recordings show, both pieces work comfortably and convincingly in both standard tuning and ad'a'e". An advantage of ad'a'e" is the facilitation of fingering on the lowest string as described above (including for d'-unisons, e.g. **rec. 2.05ii**, 0:52, 2:24, 3:03; **rec. 2.06ii**, 2:58), whilst maintaining the full note range on the top string. This is probably the principal reason why ad'a'e" might have been used in these suites.

Raising the lowest string not only makes it more responsive (**rec. 2.05ii**, 0:17-21, 0:49-0:52) but gives the whole instrument a brighter clearer sound, making it easier to play. This sound is wellsuited to the Italianate flavour of the preludes, adding brilliance to the rushing passagework. The resonance of the low a-string also supports the dominant of the key (it rings, **rec. 2.06ii**, 2:35). The recordings suggest that some of these effects are more apparent to the player than listeners, but player experience matters crucially, especially for amateurs playing for themselves, such as Mell taught. What the player hears affects performance and interpretation.

I tried the same pieces in ad'a'd" tuning, since Mell used this elsewhere. Results suggest this tuning was probably not used for suites 10 and 11, since the lowered chanterelle reduces the range. Frequent inconvenient shifts or extensions are needed, whereas the notes lie comfortably under the hand on an e"-string. Prelude 10 (**rec. 2.06iii**) fits better than prelude 11; the following dances of both suites are high-lying, making an e"-string preferable.

The more mellow sonority of ad'a'd" (especially on the chanterelle) lends itself to a more poignant and introverted interpretation, less well suited to the Italianate preludial style. This explains the different style of suite 12's prelude, which seems to emphasise sonority rather than virtuosity.

Experimentation with suites 10 and 11 in ad'a'd" proved that despite this, the different sound colours of each register need not limit interpretation, as they can be countered using bow technique. In the above recordings I deliberately tried to keep the musical shaping consistent between tunings. Thus, **rec. 2.06iii** sometimes matches the natural sonority of the different registers (quiet at the top, louder lower down: 0:53-1:13, 0:40-0:47), and sometimes counteracts it (2:13-2:19), which demonstrates that bow technique can be used to override certain scordatura effects. The extra resonance of the d"-string can be heard (**rec. 2.06iii**, 0:01-0:05, 0:10), including sympathetic resonance with the final d'-unison (**rec. 2.06iii**, 3:11-3:16).

b. Mell Suite 5 in A minor.

Practical experimentation shows that the whole of Mell's suite 5, although written in sounding notation, fits comfortably and idiomatically in both standard tuning and the scordatura tuning ae'a'e". The selected examples below were recorded in a dry acoustic.

Piece	gd'a'e'' rec.	ae'a'e'' rec.
Suite 5, Prelud	2.07i	2.07ii
Suite 5, [Country Dance] ⁹³	2.08i	2.08ii

The tuning ae'a'e'' is more satisfying for the player, both technically and acoustically. Although the differences audible on this recording are subtle, audiences in my live performances commented on the difference, always favouring the scordatura, against which standard tuning sounds more 'ordinary'. Tuning the lower two strings up a tone considerably brightens the sound across the whole instrument (more than with ad'a'e''). Both lower strings become more responsive, ringing easily even when bowed lightly (**rec. 2.07ii**, 1:00-1:04). This makes the instrument easier and more enjoyable to play, particularly in fast passagework, which can otherwise be held back by the length of time needed for the notes to speak. The top string gains a silvery edge, especially audible on longer notes (**rec. 2.07ii**, 1:16-1:28; 1:47-1:53).

There is increased sympathetic resonance on the tonic and dominant of the key, and more open strings can be used, which ring on and add to the resonance, e.g. e'-string **rec. 2.07ii**, 0:21-0:22, 1:31-1:36 (compare **rec. 2.07i**, 0:21, 1:28-1:31); e' and a' **rec. 2.07ii**, 1:03-1:04, 3:03-17 (**rec. 2.07i**, 1:00-1:01, 2:55-3:08). Examples in the Country Dance include **rec. 2.08ii**, 0:03, 0:12-0:13, 0:18). The overall scordatura effect is one of brilliance, clarity, and increased resonance, which carries well. As the recordings show, many of the same effects are achievable in standard tuning, but it is harder work as more careful bowing is needed. Standard tuning has some resonance in A major in any case, from the top two strings (a' and e'').

When ornamenting repeated sections of the Country Dance, I took care to play divisions that worked well in both tunings. In practice, players would not have been constrained by this limitation. **Recs. 6.04i-iv** showcase ornamentation specifically inspired by the ae'a'e'' tuning.

Whilst Mell's suites 10, 11 and 5 work successfully in standard tuning, the discussed scordatura tunings, easily obtained by retuning from standard, add an extra dimension, affecting sonority, technique and interpretation and it is plausible that Mell used them. Even where differences

⁹³ Suite 5/6, untitled in Mus. 433, 'Country Dance' in Playford's Courtly Masquing Ayres.

in sonority are subtle and only audible to the player, this will still affect the performance, and thus the audience experience.

PE. 2.3 Heavy versus Light strings

These recordings compare the sound of a violin strung (in equal tension) with a heavier setup with that of the same violin strung more lightly, playing the first three strains of Baltzar's 'John Come Kiss' in standard tuning. I sought to achieve the cleanest and most resonant sound in each case.

Rec.	Stringing
2.09i	Heavier (a'-string 90)
2.09ii	Lighter (a'-string 0.72mm)

The heavier strings sound louder and brighter, with considerably more 'white noise', although this is less audible at a distance. The lighter stringing produces a gentler, more refined sound, which carries less and requires lighter bowing to make the best sound. Unlike in my experiment, players would have set up their violins (bridge, sound post etc.) specifically to reflect their chosen stringing, making the contrast greater. Further experimentation showed that, had I abandoned equal tension, and used larger string gauges on the higher strings in the 'heavier' example, there would have been even more difference. If Baltzar used heavier stringing than the English, it is clear how his sound might have been perceived as 'rough'.

PE. 2.4 Sweetening Baltzar's sound

I explored how Baltzar might have used scordatura to sweeten his sound, using *efh*, the only scordatura tuning associated with Baltzar's name, in two realisations: ae'a'c#" (the most common) and gd'g'b' (attested on the Continent).⁹⁴ I recorded the last three movements from the Mus. 1125 suite using equal tension for standard tuning and retuning for scordatura, in a dry acoustic.

Piece	gd'a'e'' rec.	ae'a'c#'' rec.	gd'g'b' rec.
Almand [2]	2.10i	2.10ii	2.10iii
Corant	2.11i	2.11ii	2.11iii
Sarabrand	2.12i	2.12ii	2.12iii

Standard tuning is the least resonant and sounds more 'ordinary'. Both scordatura tunings are significantly more resonant and softer-edged than standard tuning. Open strings can be heard ringing on throughout both scordatura versions (noticeably absent in standard tuning). gd'g'b' is the gentlest and least bright, since two top strings are lowered and no strings raised. With ae'a'c#'', the raised lower strings partly mitigate the lowered tension of the chanterelle, and also speak more responsively.

⁹⁴ Glüxam*V*, p. 426.

This tuning is so resonant that the strings resonate with speech. Baltzar could have used either scordatura tuning to obtain a sweeter sound, although ae'a'c#'' is more likely.

With ae'a'c#'' the strings feel uneven and bowing adaptations are needed to compensate, similar to a'd'a'd'', but more extreme. The chanterelle in ae'a'c#'' feels significantly weaker than in standard tuning and must be bowed with care, stroking the string, rather than chopping (even more so with gdg'b'). Unison c#'' (**rec. 2.10ii**, 0:03; equivalent note, **rec. 2.10ii**, 0:03) is noticeably lacking in the standard-tuning version, where it is unplayable (compare **rec. 2.10i**, 0:03). a'-unisons are easier to finger in ae'a'c#'' than standard tuning (requiring third rather than fourth finger, **rec. 2.10ii**, 1:21-1:27), although this is less of an issue on the third string than on the lowest string. The c#''-string allows certain chords to be played which in standard tuning are either impossible (a-e'-a'-c#'': **rec. 2.11i**, 0:27-0:29) or less resonant, since open strings cannot be used (a'-c#'': **rec. 2.10ii**, 0:21, 0:36, 1:15; **rec. 2.11ii**, 0:13; **rec. 2.12ii**, 0:02, 0:09, 0:23 compared with **rec. 2.11i**, 0:12; **rec. 2.12ii**, 0:02, 0:08, 0:22).

Playing a c#"-string requires counterintuitive fingerings (as if playing in a flat key, despite the sounding key of A) which can be awkward and takes some getting used to. This may explain why handgrip notation was introduced, which indicates finger positions rather than sounding pitches. The c#"-string also raises intonation issues, including how to tune it in terms of temperament. It is most resonant when tuned a pure third from the a'-string. Violinists are accustomed to placing thirds higher or lower according to the harmonic context, but an open string is fixed. Exact placement of fingered notes on this string varies according to the temperament of the c#", and does not exactly align with finger placements in standard tuning, or on the other strings.⁹⁵

Кеу	Rec.	Non-scordatura work	Rec.	Scordatura work for comparison
D	2.13	Jenkins, Courante,	2.01iii	Mell, Suite 12, Corant
minor		F. 573, f. 13v		[ad'a'd'']
А	2.14	Anon., Allemande,	2.02ii	Baltzar, Almand [2]
major		F. 573, f. 20r		[ae'a'c#'']

PE. 2.5 Comparison between scordatura and non-scordatura pieces in a resonant acoustic

To compare the sound of non-scordatura pieces with scordatura pieces in a resonant acoustic, pieces in matching keys and similar style were recorded on the same instrument in the same venue. It can be heard that a wet acoustic adds its own resonance to non-scordatura performances, lessening the difference in sonority between these and scordatura pieces for the listener, although not the player. There is more difference between ae'a'c#'' and standard than between ad'a'd'' and standard.

⁹⁵ Nobes addresses intonation in NobesNS, p. 29.

The unisons still stand out in both scordatura tunings, as does the slightly softer tone of the chanterelle with ae'a'c#'', which seems to have been valued by Baltzar's contemporaries.

North's opinion of Baltzar's scordatura is that 'this manner, which was but a complement to the lute, and not fit for consort, did not take at all'.⁹⁶ This is not quite true however. Baltzar's trio sonatas with lyra violin in Britton's library catalogue suggest evidence of scordatura being used in ensembles. Furthermore, violin scordatura was not unique to Baltzar. Mell used it, even for certain pieces written in sounding score, and it is likely that other composers did too, as it was known in wider society. Pepys, wrote on 17 September 1665 of his barber: 'He offered to come this day after dinner with his violin to play me a set of Lyra-ayres upon it'.⁹⁷ By this date, neither Mell nor Baltzar was still living. A composer of the following generation, who could well have studied with Mell or Baltzar, explored scordatura in depth. This is Valentine Reading, who will be considered in the next chapter.

⁹⁶ *RNorth*, pp. 349-50.

⁹⁷ SPepys, vol. 6, p. 227.

3. Comprehensive Explorer: Valentine Reading

The largest extant source of scordatura violin music from seventeenth-century England is GB-Och Mus. 940, which contains seventeen anonymous suites for scordatura violin and basso continuo. No simple collection, Mus. 940 seems to be designed to exemplify the possibilities of scordatura, with a wide variety of keys and tunings. Four of the same suites appear in GB-Lbl Add. 22098, ascribed to 'Mr Reading'. In addition, Readings Ground, a cut-down version of the final chaconne from Mus. 940 was published by Salter in 1683 and Playford in 1684.¹ Reading is therefore probably responsible for all the suites in Mus. 940, and the chaconne at least must have been composed by the early 1680s.

Life

Of the numerous musicians named Reading in Restoration London, the most likely composer of the suites is Valentine Reading, a violinist who performed with the court string band under Staggins during the reign of James II.² Valentine's name appears on a paylist of players 'for their attendance on the King at Windsor Castle for 141 days, from 14 May to 1 Oct, 1686'.³ Of the remaining Readings, three were not violinists, therefore unlikely to have made extensive use of the specialist technique of scordatura. Two of these were keyboard players: John Reading (i) (c.1645-92),⁴ to whom the suites have traditionally been ascribed,⁵ and John Reading (ii) (c.1685-1764), who was too young to have composed them.⁶ John Reading (iii), was a popular bass theatre singer and a known Jacobite. He was probably also the 'Mr Reading' who sang as a Gregorian in the Catholic Chapel of James II.⁷ There was one other string-playing Reading besides Valentine: Balthazar Reading was employed as a bass violinist at court between 1685 and 1689,⁸ thereafter working in the theatre. He witnessed an agreement

¹ Humphrey Salter, *The Genteel Companion; Being exact Directions for the Recorder: With a Collection of the Best and Newest* Tunes *and* Grounds *Extant* (1683), pp. 34-35. John Playford, *The Division Violin* (1684), no. 1. See discussion below pp. 85-93.

² Holman, 'Reading, Valentine', *GMO*.

³ *RECM*, vol. 2, p. 12.

⁴ Susi Jeans and Robert Thompson, 'Reading, John (i)', *GMO*. Ian Spink, 'Reading, John (c. 1645-1692), musician and composer', *ODNB*.

⁵ See *RISM*, and Nobes, *A Catalogue*, p. 13.

⁶ Susi Jeans and H. Diack Johnstone, 'Reading, John (ii)', *GMO*. Andrew Ashbee, 'Reading, John (c. 1685-1764), organist and composer', *ODNB*.

⁷ Robert Thompson, 'Reading, John (iii)', *GMO*. 'Reading, John', in *BDA*, vol. 12, pp. 277-78. Olive Baldwin and Thelma Wilson, 'Purcell's Stage Singers', in Michael Burden ed., *Performing the Music of Henry Purcell* (Oxford: Clarendon Press, 1996), pp. 105-129, at pp. 111-12.

⁸ He was sworn in on 10 September 1685 having served since 25 March. The last court reference to him is 25 March 1689, *RECM*, vol. 2, pp. 3, 23-24.

between Betterton and the dancer Sorin in 1696.⁹ The earliest extant reference to Balthazar is the baptism of his son (also Balthazar) at St Martin-in-the-Fields in 1679.¹⁰

Valentine and Balthazar Reading seem to have been closely connected. Balthazar had a fixed court job, but the one time that Valentine's name appears in court records, Balthazar's is absent. Highfill assumes they are the same person.¹¹ Ashbee follows suit in *BDECM*, with a single entry entitled 'Reading, Balthasar/Valentine'.¹² Whilst this theory is possible, we cannot assume it. Sources generally refer clearly to one name or the other. Valentine could have been deputising for Balthazar at Windsor. If so, they were probably related, since court jobs frequently passed between family members. Valentine may have been a musician-in-extraordinary at court. These 'extra' players were essentially unpaid, so their names rarely appear in records.

Evidence that points to Valentine as composer of the scordatura suites comes from one of Tom Brown's satirical *Letters from the Dead to the Living*, written before Brown's death in 1704. This features 'Henry Purcell' writing to John Blow from beyond the grave, complaining he is sick of music, because 'every Man, for his Sins in the other World, shall here be punish'd with excess of that which he their esteem'd most pleasant and delightful'. Recounting the experiences of various deceased court musicians in this context, 'Purcell' continues:

Poor *Vol Redding* too is quite tired with his Lire-way Fiddle, and has betaken himself to be a merry-Andrew to a *Dutch* mountebank; and the Reason he gave for it was this, that he was got into a Country where he found Fools were more respected than Fidlers.¹³

Although we know little about Valentine Reading's life, his mention here points to his being a familiar figure in musical society, otherwise readers could not have appreciated the satire. The 'Fiddle' reference confirms he was a violinist. All other musicians mentioned (Nicholas Staggins, Thomas Farmer, and Robert Smith) are court violinists, and Reading's inclusion suggests that he played more frequently at court than extant records show. 'Lyre-way' was a common term for scordatura. The satire implies Reading was well-known for this technique, making it likely that he composed the Mus. 940 suites.

A 'merry-andrew' was a clown, often assistant to a 'mountebank' or quack doctor, providing entertainment to draw a crowd, often with a musical instrument. The satire probably refers to the

⁹ GB-Lna LC7/ 3 no. 73 (25 July 1696). Photograph of this signature in Andrew Woolley, 'English Keyboard Sources and their Contexts, *c*. 1660-1720', PhD diss. (University of Leeds, 2008), p. 57.

¹⁰ 'England Births and Christenings, 1538-1975', *FamilySearch* https://familysearch.org/ark:/61903/1:1:J34V-ZMP>, entry for Balthazar Reading, 21 Jul 1679.

¹¹ 'Reading, Balthazar (Valentine)', in *BDA*, vol. 12, p. 277.

¹² BDECM, vol. 2, p. 948. It is also implied in RECM, vol. 2, p. 12.

¹³ Sam Briscoe, ed., *The Works of Mr. Thomas Brown, in Prose and Verse; Serious, Moral and Comical*, 2 vols. (1707), vol. 2, *Letters from the Dead to the Living, Both Serious and Comical*, pp. 158-61.

well-known mountebank, Hans Buling, a Dutchman active in Covent Garden c.1670-90.¹⁴ The merryandrew's music was probably not sophisticated, rather in folk style with drones to add volume. Scordatura is attested in folk music from the time (see chapter 6), perhaps further reference to Reading's specialism. The implication is that he has turned to cheap tricks because art music is not valued, presumably a comment on contemporary society. The satire shows that Reading died before 1704, possibly considerably earlier, like some of the other named composers.¹⁵

Further clues about Reading's life come from the music itself. Its technical content suggests he was a capable player. Thomas Britton both owned a copy of his works ('Redding's Lyra'),¹⁶ and copied four of them into his personal notebook, which could suggest he knew Reading personally. It is likely that Reading performed at Britton's concerts, or at least that his suites were performed there. Reading's scordatura performances probably built his reputation, inspiring Salter and Playford to publish Readings Ground in 1683 and 1684. These publications probably further enhanced Reading's prestige, and it may be significant that subsequently Reading's name appears at court. Apart from the scordatura suites and Readings Ground, no other extant works can be definitively attributed to him. However, an arrangement of a theatre suite by 'Mr Redding', probably dating from the 1680s, in US-NH Filmer 9,¹⁷ is likely to be by Balthazar or Valentine. It contains many of the same dance-types as Reading's scordatura suites. If the Filmer suite is by Valentine, he must have worked in the theatre. It may be no coincidence that a short scordatura violin piece is copied into the same manuscript (see chapter 6). As will be discussed later, Reading's scordatura music contains links to the Central European school, suggesting that he had contact (directly or indirectly) with this tradition.

Reading is a common name and seventeenth-century hearth-tax records show Readings (with varying spellings) across London,¹⁸ although the only Valentine Reading/Redding appearing in extant records is a child baptised at St Dunstan's, Stepney on 2 June 1706¹⁹ and buried on 10 December 1707,²⁰ son of a victualler, perhaps a relation.²¹ Although the name Reading sounds English, this is deceptive as foreign names were often anglicised on official documents. A 'List of strangers in the city and liberties of Westminster' dated 10 March 1638/9 mentions one 'Bartholmew Reddinge, A french

¹⁴ For others, see Silke Meyer, 'The Germans as the Alter Ego of the English? The German Doctor in Eighteenth-Century Debate', *Ethnologia Europea, Journal of European Ethnology*, 36 (2006), 58-69.

¹⁵ Smith 1675, Farmer 1688, Purcell 1695, and Staggins 1700.

¹⁶ See p. 39 below.

¹⁷ WollstonIEVM, pp. 85-93, 368.

¹⁸ 'London Hearth Tax', BHO < http://www.british-history.ac.uk/search/series/london-hearth-tax>.

¹⁹ 'England Births and Christenings, 1538-1975', *FamilySearch* https://familysearch.org/ark:/61903/1:1:JMVS-Y57, entry for Valentin Reading, 02 Jun 1706.

²⁰ 'England Deaths and Burials, 1538-1991', FamilySearch < https://familysearch.org/ark:/61903/1:1:JHB4-ZPG>, entry for Valentine Redding, 10 Dec 1707.

²¹ GB-Llma P93/DUN/260.

musition' living in the parish of St Margaret's Westminster.²² No further details are given. This parish, and that of St Martin-in-the-Fields (where Balthazar Reading appears), both adjacent to Whitehall, tended to be inhabited by court employees. Like many others in the 1638/9 list, Bartholmew may have arrived in the retinue of the queen mother (Marie de' Medici visited England in 1638) or queen Henrietta Maria. If so, it is likely that he was Catholic. The Reading court musicians of the following generation, Valentine, Balthazar (with his foreign-sounding name), and John the singer, could be related to Bartholmew, perhaps sons. Catholic faith (corroborated, at least in John's case, by his employment in the Catholic Chapel), might explain why all three are only documented at court during the time of James II.²³ Moving in Catholic circles could have given Valentine access to music from Central Europe, as Catholic dissemination networks stretched right across the continent.

Embassy chapels, exempt from the prohibition of Catholic worship, were often attended by local Catholics. The marriage register of the chapel of the Portuguese embassy at Lincolns Inn Fields shows Catholic Readings in London in 1714, with entries naming James Reding, Ann Reading and Bartomij Redden, perhaps relatives of Valentine, Balthazar and John.²⁴ The name Bartomij might also suggest a relation to the French Bartholmew Reddinge (presumably originally Barthélemy).

The word 'French' sometimes applied to French speakers from outside the political territory of France. Flemish musician Philip van Wilder appears in a 1522 court document as 'Phyllyp of Wylde Frenssheman'.²⁵ The name Reding (French Redin/Redon/Redan/Reydan) is not uncommon in the Low Countries, so Bartholmew Reddinge may have hailed from Flanders. In the mid-seventeenth century, there were (probably English) Readings in Saint-Omer (part of the Spanish Netherlands until 1678). Records of the English Augustinian Convent in Leuven/Louvain mention Mary and Anne Reading, daughters of 'David Reading Cath of Saint Omer, Artois', who died in 1663 and 1659 respectively.²⁶ Although possibly coincidental, the first violinist at Antwerp Cathedral in the later eighteenth century was Jean-François Redin/Redein (1748-1802), son of Joseph Redin.²⁷ Antwerp cathedral records spell his name 'Redengh'.²⁸ As Jean-François Redin's op. 4 quartets (1789) were published in London,

²² *RECM*, vol. 8, p. 125. GB-Lna SP16/414, No. 97.

²³ Andrew Walkling, 'French Musicians at Court, 1675-89', in *Masque and Opera in England, 1656-1688* (London: Routledge, 2016), pp. 264-90, especially pp. 271-81.

 ²⁴ J. M. C. Weale, ed., *Registers of the Catholic Chapels Royal and of the Portuguese Embassy Chapel, 1662-1829. Vol. 1, Marriages,* Catholic Record Society Record Series, 38 (1941), p. 66, item 672; p. 67, item 685.
 ²⁵ Holman24, pp. 72-73.

²⁶ Who were the nuns?: A Prosopographical study of the English Convents in exile 1600-1800, <https://wwtn.history.qmul.ac.uk/>.

 ²⁷ François-Joseph Fétis, ed. *Biographie universelle des musiciens et bibliographie generale de la musique*, 8 vols,
 2nd edn (Paris: Firmin Didot Freres, 1866-88), vol. 7, pp. 195-96.

²⁸ Édouard Georges Jacques Gregoir, *Les artistes-musiciens belges au XVIIIme et au XIXme siècle* (Brussels: Schott Frères, 1885), p. 347.

perhaps he had family contacts there, which might link back to Valentine and Balthazar Reading, although this is speculation.

Based on the limited documentary evidence, it seems likely that the scordatura suites in Mus. 940 were written by Valentine Reading, a violinist who worked, at least occasionally, at James II's court. He may have performed at Britton's concerts and was well-known on the musical scene for using scordatura. He was probably related to Balthazar Reading, a bass-violinist who worked at court and in the theatre, where Valentine possibly also worked. The theatre singer, John Reading, may have been a relation. Valentine Reading may have been Catholic and of French or Flemish extraction.

Manuscripts

Two extant manuscripts containing scordatura music are associated with Reading. The most extensive is GB-Och Mus. 940, a collection of seventeen anonymous suites for scordatura violin and bass, using ten different scordatura tunings. See the Thematic Inventory pp. 178-94 (R numbers from this will be used to refer to individual suites and movements). GB-Lbl Add. 22098 contains the violin part of four of these suites. The sale catalogue of Thomas Britton's music collection after his death in 1714, reproduced by Hawkins, lists item 45 as: 'Six sets of books of Redding's Lyra, 2 violins, &c. and divers authors.'²⁹ Although the exact content of this entry is ambiguous, 'Reddings Lyra' clearly forms one element. The word 'Lyra' implies scordatura is featured. The rather informal name and lack of further description (compare item 51: '17 Sonatas by Mr. Finger, two of them with a high violin.'; or item 55: 'A set of Sonatas by Baltzar for a lyra violin, treble violin and bass.') implies that both the composer and the collection of works would be familiar to readers. Each manuscript will be considered in turn.

GB-Och Mus. 940

Mus. 940 was part of the collection of Henry Aldrich (1648-1710),³⁰ Dean of Christ Church, Oxford from 1689. It is not known how Aldrich acquired this manuscript, but during the 1680s he associated with a circle of Oxford musicians, collecting manuscripts copied by himself and them.³¹ The manuscript is a small thin pocketbook in oblong format. The paper measures 260x98mm, and the late seventeenth-century binding (plain leather with fillets at the edges and no title)³² 265x105mm. It contains forty-nine leaves, ruled with four staves per page. Two different watermarks are evident: the

²⁹ Hawkins*GH*, vol. 5, p. 81.

³⁰ *CCLMC,* entry for Mus. 940.

³¹ Robert Shay, 'Aldrich, Henry', GMO.

³² CCLMC.

Strasbourg Lily and Bend³³ and the Crowned fleur-de-lys,³⁴ but no obvious countermark or maker's initials. Both marks are relatively common on the high-quality Angoumois paper used for copying music throughout the Restoration period, so we cannot pinpoint the date of a manuscript from them without further contextual information.³⁵ However, watermarks of a similar description (albeit including countermarks) feature in a price list of paper types from 1674,³⁶ and sources examined by Thompson with similar watermarks all seem to date from c. 1679-82.³⁷ This would fit with the period when Reading seems to have been active.

The volume contains only the seventeen suites, in handgrip notation, with individual movements numbered 1-61. All are copied by one unidentified hand. The presentation is extremely neat, with clefs and time signatures so regular, they could almost have been printed. A correction in R9/4, bars 6-11, where a slip of paper has been pasted over the original, is so cleanly done as to be barely visible. The manuscript is laid out to avoid page turns, which along with the pocketbook format suggests it is intended for practical use, rather than being an archival or presentation copy. Further evidence of this is the unusual but practical layout with the violin part on the left-hand side of each page spread, and the bass part on the right, which allows both players to share a copy without the violin scroll blocking the bass player's vision (**ex. 3.1**). Music for violin and bass from this time is more commonly notated in score form, or separate part books.³⁸ The only other example of this layout is Matteis's *Ayrs for the Violin* (1676 and 1685), which also has only four staves per page, unlike the usual five or six in oblong quarto size books (**ex. 3.2**).³⁹ The compiler of Mus. 940 could have used Matteis's publication as a model.

³³ Similar illustration labelled Bend II in 'Appendix I: Watermarks and Paper Types', in Ashbee, Thompson and Wainwright, *The Viola da Gamba Society Index*, vol. 1, pp. 251-309, at p. 266.

³⁴ Similar illustration (plus initials or countermark) labelled Fleur-de-Lys I in 'Appendix I', in Ashbee, Thompson and Wainwright, *The Viola da Gamba Society Index*, p. 268.

³⁵ Robert Thompson, 'English Music and the Fine Paper Trade, 1648-1688', PhD diss., King's College, University of London (1988), pp. 26-28.

³⁶ Robert Thompson, 'Manuscript Music in Purcell's London', *Early Music*, 23 (1995), 605-18, at 609-11. Thompson, 'English Music', pp. 69-75.

³⁷ Thompson, 'English Music', pp. 137, 142-45 (Fleur-de-lys XXXIX, XLI and XLII); p. 156 (Bend LI); pp. 89-90 (dating information).

³⁸ e.g. Finger's VI Sonatas or Solos (1690) and Playford's Courtly Masquing Ayres (1662) respectively.

³⁹ Matteis's 1676 edition measures 223x113mm (paper), 230x120mm (binding). The 1685 edition is slightly larger. Measurements from GB-Lbl K.1.f.10.



Ex. 3.1 Mus. 940, nos. 1 and 2.



Ex. 3.2 Matteis, Ayrs for the Violin (1676), part 2, pp. 60-61.

A tuning indication is consistently given as a chord before the start of each suite, in up-to-date continental fashion (see **ex. 3.1**). Whenever a new tuning is introduced, additional tuning information is provided as a note diagram at the end of the first movement or page showing octaves and unisons between each pair of strings, akin to the way tunings are indicated in lyra-viol tablature (visible in **ex. 3.1**, bottom right of violin page). This makes the copy user-friendly for English players unfamiliar with the continental system, and further demonstrates that the manuscript was intended for use. Other elements of notation also appear in the latest format. For example, 'continental'-style unisons are used throughout, rather than 'English' ones (**ex. 3.3**, bars 1 and 4), and scordatura key signatures are complete and correct. Gigues are mostly notated in compound time, such as 6/8, rather than simple time.

Holman suggests that the hand could be Reading's own.⁴⁰ The lack of composer name is consistent with this. Reading may have prepared this neat copy as an exemplar for engraving. However, given the niche market for scordatura, it is more likely to be a manuscript publication, a cheaper method used for works unlikely to sell enough copies to justify a print run, or for testing the market before deciding to print.⁴¹ In this case the hand could be that of a professional copyist, although then we might expect to see a composer name. Although the presence of a correction slip might suggest the composer's agency in making the correction, the fact that it is not possible to see underneath it and that the manuscript is clearly a neat copy rather than a working draft leaves the matter ambiguous.

The suites in Mus. 940 are ordered carefully, according to keys and tuning patterns. Where these two factors conflict, key groupings have been prioritised (see **table 3.1**). The order does not follow the common Restoration practice of organising instrumental collections in ascending sequence of keys starting with gamut (G), often in major and minor pairs.⁴² Although none of the suites has a G tonic, neither are they ordered from the nearest key to this (A). Reading probably chose to end with his Chacone (R17) from an awareness of the continental practice of ending a collection of works with a variation movement.⁴³ Grouping other suites in the same key and tuning alongside R17 makes it impractical to open the collection with this A major group. However, he could still have started with the (separately grouped) A-tonic pieces in ae'a'e'' tuning, had he wanted to start near the bottom of the gamut. The first eleven suites in the set do rise in key, but the order breaks down after that. Tonic

⁴⁰ Stated on a note with the manuscript.

⁴¹ Thompson, 'Manuscript Music', 613-17; Rebecca Herissone, *Musical Creativity in Restoration England* (Cambridge: Cambridge University Press, 2013), pp. 84-88; Alan Howard, 'Manuscript Publishing in the Commonwealth Period: A Neglected Source of Consort Music by Golding and Locke', *Music and Letters*, 90 (2009), 35-67.

⁴² Peter Holman, *Henry Purcell* (Oxford: Oxford University Press, 1994), p. 91.

⁴³ e.g. Corelli, op. 2 (1685), no. 12 (Ciaconna); op. 5 (1700), no. 12 (La Folia); Lonati, *12 Sonate* (1701), [no. 12] (Chaconne); Biber, Mystery Sonatas (1670s), [no. 16] (Passacaglia).

majors and minors are adjacent (D maj/min, A min/maj), as are relative minors and majors (D min/F maj, F# min/Amaj).

Identical or similar tunings are mostly grouped together, presumably for practical reasons. However, R13 (a high-bass tuning) stands alone within a group of ae'a'c#'' suites, and R8 (be'a'd'') interrupts the ae'a'e'' group. The high-bass tuning of R3 immediately following R2 represents a considerable upheaval for the violin, despite their shared key. It might also have been more logical for R11 to follow R6, since the tunings are similar and the keys related. This would also form a useful intermediate step between the tunings of R6 and R7. R11's actual position could be due to B^b being the high point of the rising tonic order from the beginning, but R11 has no key relation to the adjacent sharp keys. An intermediate tuning step is not really needed from R11 to the following F# minor, although this might have made more sense if R12 and R13 were reversed. The key order is also not entirely considerate of the practicalities of the meantone-type keyboard temperaments used at the time (especially B^b major amongst the sharp keys). However, there is no reason to assume that the suites would be played consecutively, which makes the order less of a practical issue.

Despite occasional irregularities, and conflicts between key groupings and tunings, the compiler of Mus. 940 has clearly put consideration into the order of the suites. The keys rise from D to Bb. The desire to end with a chaconne causes the set to finish with A major, preceded by its relative minor in the same and related tunings. This, along with the use of up-to-date notation, practical layout and meticulous copying suggests the manuscript was intended for publication, probably a manuscript publication.

Suite	Кеу	Tuning
R1	D	ad'a'd''
R2	D	ad'a'd''
R3	D	d'f#'a'd''
R4	D minor	d'f'a'd''
R5	F	c'f'a'c''
R6	F	c'f'a'd''
R7	A minor	ae'a'e''
R8	A minor	be'a'd''
R9	A	ae'a'e''
R10	A	ae'a'e''
R11	Вþ	b♭f'a'd''
R12	F# minor	ae'a'c#''
R13	F# minor	c#'f#'a'c#''
R14	A	ae'a'c#''
R15	A	ae'a'c#''
R16	A	ae'a'c#''
R17	A	ae'a'c#''

Table 3.1 Suites in GB-Och Mus. 940

GB-Lbl Add. 22098

The other Reading manuscript, GB-LbI Add. 22098, is closely associated with Britton, being inscribed 'Tho: Britton His Book July y^e 12. 1697'. Britton was a small-coal merchant whose passionate interest in music (amongst other subjects) transcended his social status. From 1678, he hosted some of London's earliest public concerts in a small room over his charcoal warehouse in Clerkenwell. Performers included professional musicians, and audiences included the music-loving aristocracy.⁴⁴

Add. 22098 is another pocketbook in oblong format (paper size 200x95mm), containing 41 leaves, ruled with four staves per page. This is considerably narrower than Mus. 940, although of similar height. Extant music books smaller than quarto size are rare.⁴⁵ Mus. 940's similarly slim height suggests that such pocketbooks were not so unusual, but wear-and-tear resulting from their portability has caused few to survive. Add. 22098's paper shows the Arms of Amsterdam watermark with the countermark PR. The closest match illustrated by Thompson is found on a manuscript from 1692,⁴⁶ which would be consistent with the dates of 1693 and 1697 written in Add. 22098.

Add. 22098 is a commonplace book, containing violin tunes and anonymous pieces for one and two recorders in addition to four Reading suites (R6, R9, R10 and R4), which are followed by the words 'Finis Mr Reading'. The only other named composer in the book is Britton's Islington neighbour, Edward Sadler,⁴⁷ founder of Sadlers Wells, and a former musician.⁴⁸ The hand of Add. 22098 does not match that of Mus. 940. Tuppen states that Add. 22098 is in Britton's own hand.⁴⁹ This is convincing because the text in the music matches Britton's writing on the flyleaf. A different hand appears in GB-Ob Mus.Sch.c.75, a copy of Corelli's op. 1 trio sonatas, where the title page of the first violin part claims 'These lessons are ye hand writing of old Thomas Britton, ye famous musical Small-coal man. & used at his Assembly for many years'.⁵⁰ However, as Add. 22098 was Britton's personal notebook, he is likely to have copied it himself, and the attribution in GB-Ob Mus.Sch.c.75 is probably erroneous.

Add. 22098 contains no bass part for the Reading suites. It is unlikely that one existed in a separate book, since the volume opens with a bass part for a ground, and both parts are included for

⁴⁴ Michael Tilmouth, and Simon McVeigh. 'Britton, Thomas.' *GMO*. Curtis Price, 'The Small-Coal Cult', *The Musical Times*, 119 (1978), 1032-34. Douglas A. Reid, 'Britton, Thomas (1644-1714), concert promoter, book collector, and coal merchant', *ODNB*.

⁴⁵ Thompson, 'English Music', pp. 79-80.

⁴⁶ Thompson, 'English Music', p. 152 (Amsterdam XLVII); p. 89 (dating information).

⁴⁷ f. 15, dated [16]93.

⁴⁸ Philip Temple, ed., 'Sadler's Wells', in *Survey of London: Volume 47, Northern Clerkenwell and Pentonville* (London: London County Council, 2008), pp. 140-164. *BHO* <http://www.british-history.ac.uk/survey-london/vol47/pp140-164>. Price, 'The Small-Coal Cult', 1034.

 ⁴⁹ Sandra Tuppen, 'Music Manuscripts from the 17th and 18th Centuries in the British Library', *The Public Domain Review* (December, 2013), https://publicdomainreview.org/essay/music-manuscripts-from-the-17th-and-18th-centuries-in-the-british-library. The British Library catalogue entry for Add. 22098 states the same.
 ⁵⁰ WollstonIEVM, pp. 158-59.

the two-recorder pieces. Perhaps Britton copied the suites as 'lessons' and the teacher (maybe Reading himself) had his own bass part. However, occasional notes in Add. 22098 differ from Mus. 940 and do not work with the Mus. 940 bass line (e.g. R6/4, bar 4, third quaver). These sound fine without bass (despite possibly originating as copying errors), which suggests that Britton played unaccompanied. Nonetheless, the final tonic chords of each half of R6/1, and the opening and final tonic chords of R6/2 are in second inversion, which suggests they were originally conceived with a bass line to provide the root, although they are easily adapted in unaccompanied performance.

Notational elements in Add. 22098 suggest it is copied from a considerably earlier original, predating the versions of the suites in Mus. 940. Old-fashioned forms of time signatures are used for movements in triple-time (corants and sarabands) and compound-time (gigues). For example, Add. 22098 uses 3/1 where Mus. 940 has 3/4 in R4/2, R4/3, R6/2 and R10/2, as well as in R9/2 (a French courante), where Mus. 940 has 3/2, although the note lengths are identical in both manuscripts. Add. 22098 uses 3/1 for gigues, where Mus. 940 has the more modern 6/8, for example in R4/4, R6/4, and R9/4; and in R10/4 it has the time signature 6/4, despite writing six quavers per bar just like in Mus. 940, which is in 6/8. Add. 22098 also contains only older-style 'English' unisons (e.g. R10/3 bar 1: ex 3.4).

Tuning indications appear in Add. 22098 for just one suite (R4), following the first and last movements. This is also where the tuning indication is placed in Playford's Readings Ground print, suggesting that it was positioned here on the exemplars from which Add. 22098 and Playford's piece were copied. This position possibly represents an earlier practice, akin to that of naming the composer at the end (rather than beginning) of a piece, as Add. 22098 does with Reading (although not Sadler). The remaining suites have no tuning indication, a surprisingly common phenomenon in both lyra-viol and violin manuscripts, although tunings are meticulously indicated in publications. Tuning indications in Add. 22098 are shown as a chord, labelled 'Acord'. The first example has been annotated: 'Tuning 4:3:3'. These numbers represent the interval pattern, a system associated with viols and lutes and used by Mell for the violin. Apart from suggesting that Britton needed clarification of the chord indication, the emphasis on interval pattern rather than absolute string pitches could further indicate unaccompanied performance.

The order of the Reading suites in Add. 22098 (**table 3.2**) is not logical in terms of key progression or tuning practicalities. Although R9 and R10, which share a tuning, are adjacent, R6 and R4, which share similar tunings, are separated. This suggests the suites were copied from separate sheets without regard to order, although R9 and R10 could have originally been on one sheet due to their shared tuning and so ended up together in Add. 22098.

Folios	Suite	Кеу	Tuning
3v-6r	R6	F	c'f'a'd''
6v-8r	R9	A	ae'a'e''
8v-10r	R10	A	ae'a'e"
10v-12r	R4	D minor	d'f'a'd''

Table 3.2 Reading suites in GB-Lbl Add. 22098

Comparison between Add. 22098 and Mus. 940 reveals differences which shed light on their different origins and functions. Although the Reading suites in both manuscripts are very similar, neither manuscript seems to be a direct copy of the other, since occasional small copying errors (such as a line note written in a space or vice versa, omitted ledger lines, accidentals or ties) appear in both manuscripts, but not in the same places. Such errors are more frequent in Add. 22098, which also contains more serious errors, suggesting it has either been less carefully copied, or is copied from a rougher original, which was corrected in Mus. 940 but not in Add. 22098. For example, in R6/2 the first bar of the second half is missing. In R6/1, two beats have been omitted from the last phrase, and the remaining note values extended to make the bar add up. Three movements in Add. 22098 (R6/3, R10/1, R10/3 (**ex. 3.4**)) lack time signatures, ⁵¹ and the last two movements of R4 lack key signatures. The absence of relevant accidentals indicates that a key signature is required. It was presumably omitted in error, as one is present in the first two movements. Otherwise, the scordatura key signatures in in Add. 22098 are correct. However, in places the copyist has written key signatures on all four staves of a page, but then not used all the staves, which shows the layout was not carefully planned.

Both manuscripts exhibit background variation (variations of small details such as rhythms or ornaments, which do not fundamentally change the work but simply reflect how different performers might have played it).⁵² Examples include dotted versus plain rhythms, varying semiquaver decorations, the presence or absence of slurs, and the use of a full tonic chord versus a unison at cadences. A further example involves the lute-style 'cadence' figure of a dotted crotchet followed by two semiquavers before a resolution,⁵³ a frequent feature, particularly in sarabands. The semiquavers often move in different directions in the different manuscripts, as shown in R10/3, bars 4 and 8 (**exx. 3.3** and **3.4**). This could indicate careless copying, or deliberate choice of the upward-moving figure by Britton to avoid fiddly string crossing, although he uses the downwards version sometimes too.

⁵¹ Mus. 940 has only one example of this, the violin part (only) of R6/3.

⁵² Herissone, *Musical Creativity*, pp. 245-48.

⁵³ The Burwell Lute Tutor, intro. Robert Spencer, Facsimile edition (Leeds: Boethius Press, 1974), f. 32v-33r.



Ex. 3.3 R10/3, bars 1-8, Mus. 940. [ae'a'e''].



Ex. 3.4 R10/3, bars 1-8, Add. 22098. [ae'a'e''].

Another variant, perhaps simply one of notation, is the chord in R4/1, bar 6. In Mus. 940 it is written as a spread, with the lower notes crotchets under a dotted minim. In Add. 22098 all notes of the chord are dotted minims, although it was probably played as a spread. This is an example of Mus. 940's notation being more careful and precise, although in practice neither version exactly represents what might have been played, which would have varied from player to player.

On the whole, Add. 22098 tends to have a plainer outline of the basic melody with less florid decoration than Mus. 940 (compare **exx. 3.5** and **3.6**, and **exx. 3.7** and **3.8**). Add. 22098 also tends to use fewer chords and unisons. A comparison of **ex. 3.4** with **ex. 3.3** shows a missing unison in bar 4, and other missing double stops in bars 2, 4, 6 and 8. There are many other such examples. However, there are exceptions: Add. 22098 has an extra unison in R6/4 final note and R10/1, bar 13; and extra double stops in R9/1, bar 13, and the final chords of R6/3 and R4/2.



Ex. 3.5 R10/2, bars 13-15, Add. 22098. [ae'a'e''].



Ex. 3.6 R10/2, bars 13-15, Mus. 940. [ae'a'e''].



Ex. 3.7 R4/1, bars 8-9, Add. 22098. [d'f'a'd''].



Ex. 3.8 R4/1, bars 8-9, Mus. 940. [d'f'a'd"].

In one place (R4/2, bar 3) Add. 22098 has significantly more double stops, with continuous quavers in sounding parallel thirds, where Mus. 940 has double stops on the first two quavers only (**exx. 3.9** and **3.10**). As some notes are inaccurate, **ex. 3.11** shows the corrected version.⁵⁴ This is played by fingering parallel diminished fifths, a contraction pattern neither easy nor familiar from standard tuning. It would be easier on an instrument which was both larger and fretted, such as the viol, which Britton played. He might have played this suite on the viol, reading from the violin notation. The scordatura matches the top four strings of the high harp-way flat lyra-viol tuning. Perhaps Reading deliberately simplified the passage in question when compiling Mus. 940 for possible publication.

⁵⁴ Corrections confirmed from Mus. 940 figured bass.



Ex. 3.9 R4/2, bar 3, Mus. 940. [d'f'a'd"].



Ex. 3.10 R4/2, bar 3, Add. 22098. [d'f'a'd''].



Ex. 3.11 'Correct' notes R4/2, bar 3, Add. 22098. [d'f'a'd''].

Another significant difference between the two manuscripts is the inclusion in Add. 22098 of eight extra bars in R9/3, not present in Mus. 940, constituting two extra sections of the piece (**rec. 3.06iii**, 0:28-0:40). These are not simply variations of the first two sections (found in both sources), and are in the same hand and ink as the rest, so not a later addition. As the movement sounds complete after the first two sections, having modulated back to the tonic, Reading may have removed the extra sections to match the binary form of the other Mus. 940 movements.

Add. 22098 was Britton's personal notebook, which explains why it is somewhat carelessly copied. Not a professional copyist, he was copying only for himself. Older notational forms and a lack of logical order suggest he copied from early versions of the suites written on loose leaves, which he may have obtained from Reading himself. Mus. 940 may have been based on the same loose-leaf versions, but the compiler (probably Reading) has 'improved' them by adding decoration and standardising movement formats. Scrupulous preparation of the manuscript following the latest notational conventions, combined with a thoughtful layout suggest Mus. 940 was intended as a (probably manuscript) publication. This could have been relatively well-known in London musical circles of the time, as Reading himself was, and might therefore be a copy of the collection termed 'Redding's Lyra' in the Britton sale catalogue. Britton owned copies of most major publications of the time, so if such a publication existed, it is no surprise that he owned a copy.

Reading Performance Recordings

Rec.	Suite/movement	Title	Key and tuning	Note (with harpsichord unless specified)
3.01	R3/1	[Allemand]	D [d'f#'a'd'']	with viol
		[- [
	Suite 4 (complete)	I	D minor [d'f'a'd'']	
3.02i	R4/1	Adagio		'Almain', Add. 22098
3.02ii	R4/2	[Corant]		'Corant', Add. 22098
3.02iii	R4/3	Sarabanda		
3.02iv	R4/4	Giga		
	Suite 6 (complete)		F [c'f'a'd'']	
3.03i	R6/1	[Allemand]		
3.03ii	R6/2	[Corant]		
3.03iii	R6/3	[Saraband]		
3.03iv	R6/4	[Gigue]		
3.04	R7/4	[Gigue]	A minor [ae'a'e'']	
3.05i	R8/1	[Allemand]	A minor [be'a'd'']	
3.05ii	R8/3	[Saraband]		
	Suite 9 (complete)		A [ae'a'e'']	
3.06i	R9/1	[Allemand]		
3.06ii	R9/2	[Courante]		
3.06iii	R9/3			with extra Add. 22098 strains
3.06iv	R9/4	[Gigue]		
	510/1	F.4.11 17		
3.07	R10/1	[Allemand]	A [ae'a'e'']	
2.00:	D12/1	[]]]]]]]]]]]]]]]]]]]	F#	
3.081	R13/1	[Allemand]		with viol
2 0811	R13/A	[Gigue]		with viol and harpsichord
5.001	113/4	[Uigue]		
3.09	R14/1	[Allemand]	A [ae'a'c#'']	
		[
3.10i	R15/1	[Allemand]	A [ae'a'c#'']	
3.10ii	R15/2	[Corant]		with viol
3.11	R17	Chacone	A [ae'a'c#'']	

Most suites in Mus. 940 follow the 'standard' four-movement form of allemand, corant, saraband and gigue, mostly without titles.⁵⁵ This regularity could be indicative of a publication, just as

⁵⁵ Titled movements are R1/1 Almand; R4/1 Adagio (Almain in Add. 22098), R4/2 Corant (Add. 22098 only), R4/3 Sarabanda, R4/4 Giga; R5/4 Presto; R17 Chacone.

Mell's irregular suites in GB-Och 433 were regularised in Playford's *Courtly Masquing Ayres*. All suites in Mus. 940 open with an allemand and corant. Four have only three movements: R2 and R16 omit the gigue; R3 and R15 omit the saraband. R5 has five movements, adding an undefined fast dance between the saraband and gigue. R17 consists solely of a long chaconne (**rec. 3.11**). The suites are the earliest British scordatura violin music to survive with bass lines. These offer plenty of interest, forming polyphony with the melody. They fit idiomatically on a viol, even in keys such as F# minor and F major (not the easiest viol key), despite occasional movements requiring the lowest string tuned down to C (a common practice).⁵⁶ The combination of violin and viol creates a transparent texture which highlights the counterpoint (**recs. 3.01, 3.08i, 3.10ii**). The figured bass makes keyboard or theorbo equally likely, although the figures are descriptive rather than prescriptive (**recs. 3.02i-iv, 3.03i-iv, 3.04, 3.05i-ii, 3.06i-iv, 3.07, 3.09, 3.10i, 3.11**), or a combination of chordal instrument and viol (**rec. 3.08ii**). The suites also work unaccompanied. If Reading was compiling a publication, this versatility would give it wider appeal.

All movements within each suite are in one key. Apart from the Chacone, all are in binary form, mostly modulating to the dominant (or relative minor/major) at the mid-point before returning to the tonic at the end. Scordatura tunings limit modulation possibilities, but interest is obtained with chromatic notes, implied polyphony, rich harmony (**rec. 3.09** (R14/1)), florid passagework and especially sonority (see practical exploration in chapter 7).

The allemands capitalize on the scordatura sonority with expressive melodies. Many have florid semiquaver decoration (**recs. 3.01** (R3/1), **3.02i** (R4/1), **3.05i** (R8/1), **3.06i** (R9/1), **3.08i** (R13/1), **3.09** (R14/1)). R6/1 and R15/1 are more upbeat, opening with a fanfare motif on the tonic chord (**recs. 3.03i** and **3.10i**). All allemands contain examples of quaver arpeggiation of the final chord, a feature also typical in contemporary viol, lute and keyboard music (see **ex. 3.26**).

The corants encompass a variety of styles. R5/2, R7/2, R9/2 (**rec. 3.06ii**) and R14/2 are French courantes (barred in 3/2 with alternation between a 3/2 and 6/4 feel). The rest resemble early Italian (or English) corantos, barred in 3/4. Six of these (R2/2, R4/2 (**rec. 3.02ii**), R6/2 (**rec. 3.03ii**), R10/2, R12/2 and R15/2 (**rec. 3.10ii**) exhibit running quavers, foreshadowing the eighteenth-century Italian corrente, but unlike the latter, also have fast-moving quavers in the bass.

All sarabands are of the slow type, with regular four-bar phrases and poignant slow-moving melodies highlighting the scordatura sonority (**recs. 3.02iii** (R4/3), **3.03iii** (R6/3)). Players probably decorated the repeats. The sarabands often have more violin chords than other movements (**rec.**

⁵⁶ R5/1, R6/4, R7/4, R11/1.

3.05ii (R8/3)), but plainer bass lines and simple textures. Almost all feature the 'cadence' figures mentioned on p. 46 (above).

Most of the suites end with a toe-tapping gigue. The majority are French-type gigues in 6/8, often with complex bass lines and irregular phrase lengths (**recs. 3.04** (R7/4), **3.02iv** (R4/4), **3.06iv** (R9/4), **3.03iv** (R6/4)). Some have canary-style dotted rhythms. Two (R3/3 and R11/4) are simple 'English-style' jigs in 6/4, with regular four-bar phrases and simpler bass lines (although not devoid of polyphonic interest), with melodies reminiscent of jigs by Mell.⁵⁷ The 'Jigg' at the end of Readings Ground as published by Playford is also of this type. R13/4 (**rec. 3.08ii**) begins like a simple jig, but changes in the second half, with chords in the violin part and running quavers in the bass (see pp. 81-82). R15/3, notated in 3/4 with dotted rhythms, has a compound-triple feel, like a celtic slip jig. A similar movement ends Daniel Purcell's 1698 Sonata quarta.

The Chacone (R17) is an extensive piece with fifty variations in strict pairs over a four-bar harmonic sequence (rec. 3.11). Variation pieces could be etudes for technique study, models for improvisation, and vehicles for technical display. Although less showy than some European examples (Biber, Bertali, Lonati), R17 encompasses a wide range of violin techniques. This Chacone is non-typical in England for many reasons. Firstly, the bass line varies. This is common in continental chaconnes, but in England chaconnes more often had an ostinato bass, like grounds.⁵⁸ Chaconnes with varying bass were unknown in England before the 1680s and never became dominant.⁵⁹ R17, written before 1683, must have been one of the earliest examples. Its publication as Readings Ground with an unsuccessful fixed bass line (see pp. 88-89), suggests the arrangers were not yet familiar with the varying-bass form. Secondly, the final cadence of the strain resolves on the final beat of the bar. This is typically French style (excluding Lully, whose strains overlap, the cadential resolution forming the start of the next strain). English chaconnes typically finish with the final resolution on a downbeat.⁶⁰ Thirdly, English solo violin chaconnes are rare, with examples by only three other composers. Two (Matteis and Keller) were not English,⁶¹ and one (Poole) was English but lived abroad.⁶² Their chaconnes have little in common with Reading's, having ostinato basses and overlapping cadences. Finally, variation pieces in non-standard tuning were uncommon in Britain outside the folk tradition.

⁵⁷ Further examples in Playford's *Courtly Masquing Ayres*, and *Apollo's Banquet*, 5th edn (1687).

⁵⁸ Stephan Schönlau, 'Creative Approaches to Ground-Bass composition in England, c.1675-c.1705', PhD diss. (University of Manchester, 2019), pp. 22-23, 53-65.

⁵⁹ See Schönlau's table, 'Creative Approaches', p. 82.

⁶⁰ Schönlau, 'Creative Approaches', p. 56.

⁶¹ Matteis, 'Bizzarrie sopra la Vecchia Sarabanda ò pur Ciaccona', in *Ayrs for the Violin*, book 1 (1676), pp. 86-89. On Matteis, see Simon Jones, 'The "Stupendious" Nicola Matteis: an exploration of his life, his works for the violin and his performing style', PhD diss. (University of York, 2003). Keller, 'Ciacona violin solo', in GB-Ob MS. Mus. Sch. c.44, ff. 75-76. On Keller, see Peter Homan, 'Keller, J(?ohann) Gottfried', *GMO*.

⁶² PW1b, PW2b, PW10b, in D-F, Mus Hs 337 pp. 32-35, 36-40, 21-24. All are transposed from viol originals. For Poole, see PdAPoole.
In viol-playing, division music and scordatura were considered separate traditions. There are violin examples from central Europe (see below p. 75), but R17 is unique in Britain.

Two of Reading's dances fit none of the above categories. R5/4 could be a theatre dance. Its typical antimasque features such as fast tempo ('Presto'), jagged melody and dotted rhythms suggest a morisco (**ex. 3.12**).⁶³ Two similar movements appear in the Filmer 9 Redding suite. Mell's suites sometimes contain a morisco in a similar position. R9/3 replaces the usual saraband with a ¢ movement, consisting almost entirely of paired running quavers in the violin (**ex. 3.13**. See p. 49.) with a fairly simple bass. Although without tempo indication, it lends itself to fast playing (**rec. 3.06iii**).



Ex. 3.12 R5/4, bars 1-18. [c'f'a'c''].

⁶³ Murray Lefkowitz, 'Antimasque', GMO.



Ex. 3.13 R9/4, opening. [ae'a'e''].

The dance forms in Reading's suites are largely traditional, with no examples of new fashionable dances such as gavotte, minuet, or bourée found in contemporary sources, such as Matteis's *Ayrs* or Salter's *Genteel Companion*. Maybe Reading was old-fashioned or modelling his music on earlier works.

Tunings

Mus. 940 contains ten different tunings, none of them standard, which is impressive for a single-composer collection. It is second only to Biber's 'Mystery Sonatas', which use fifteen (including standard).⁶⁴ Other principal violin sources of the time with significant amounts of scordatura contain works by multiple composers, yet still contain fewer non-standard tunings than Mus. 940 (**table 3.3**). Only five Reading tunings (one transposed) overlap with Biber's.⁶⁵ Some common continental tunings are not found in Mus. 940, particularly gd'a'd'' and ae'a'd''. The 'folk' tuning ad'a'e'' (see chapters 2 and 6) is also absent. However, there is a clear relationship between Reading's tunings and English lyra-viol tunings (see **table 3.4** and chapter 5).

Manuscript	Composer	Date (approx.)	Number of tunings	Includes standard tuning?				
D-Mbs Mus. ms.4123. 'Mystery Sonatas'	Biber	1670s	15	Yes				
GB-OCh Mus. 940	Reading	?1680s	10	No				
A-Wm Ms. XIV 726. 'Vienna manuscript'	Multiple	c.1690	10	Yes				
B-LVu P206/59. 'Martinelli manuscript'	Multiple	1680s/90s	9	Yes				
F-Pc Sign. Rés. Vm ⁷ 673. 'Rost manuscript'	Multiple	1680s/90s	7	Yes				
A-Klm M 73 'Klagenfurt manuscript'	Probably multiple	1680s	6	Yes				

Table 3.3 Comparative numbers of violin tunings in manuscript collections

⁶⁴ D-Mbs Mus. ms.4123. *BiberRS*.

⁶⁵ ae'a'e'', ad'a'd'', ae'a'c#'', c'f'a'c'', and *edf* (c'e'g'c'' in Biber, d'f#'a'd'' in Reading).

Tuning	Equivalent lyra-viol tuning	Suite(s)	Кеу		
	(top viol strings unless indicated)				
d'f#'a'd''	High harp-way sharp fde fh	R3	D		
d'f'a'd''	High harp-way flat fed fh	R4	D minor		
c'f'a'c''	Harp-way sharp def hf	R5	F		
c#'f#'a'c#''	Harp-way flat <i>edf</i> hf	R13	F# minor		
c'f'a'd''	Lyra-way fef hf	R6	F		
b♭f'a'd''	Lyra-way (adapted) [feh]	R11	Bþ		
be'a'd''	Horne's Pipe fff	R8	A minor		
	Drew's tuning (middle strings) efffe				
	[Unnamed] <i>fffed</i>				
ae'a'c#''	Harp-way sharp (middle strings) d efh f,	R14, R15, R16, R17.	A		
	Lyra-way (middle strings) f efh f	R12	F# minor		
	'Alfonsoe way onelly the treble set one				
	note loer' <i>efh</i> fh				
ad'a'd''	Eights fhf hf	R1, R2	D		
ae'a'e"	Eights (middle strings) f hfh f	R9, R10.	А		
	'in fiuftes Allfonsoe' hfh	R7	A minor		

 Table 3.4
 Correspondence between Reading's tunings and lyra-viol tunings

Like many lyra-viol tunings, some of Reading's violin tunings form major and minor pairs. This is easily apparent in the high harp-way sharp/flat pair, but less obvious with harp-way sharp/flat, because the a'-string remains constant, requiring the tonic to change to form the minor variant. R6's tuning matches lyra-way, and R11 is the same, but with the bottom string a tone lower, which extends the range and adds resonance in the key. R8's tuning fits Hawkins's description of Anthony Wood playing his violin tuned 'by fourths'.⁶⁶ It matches two tunings from the Manchester Lyra-Viol Book, Horne's Pipe (which uses only four viol strings) and the middle strings of Drew's tuning;⁶⁷ and an unnamed tuning from GB-Cu HenDep 77(1).⁶⁸

Reading's most frequent tuning (five suites) is ae'a'c#", which matches the middle four viol strings of both lyra-way and harp-way sharp. It also matches the top strings of a viol tuning described as 'Alfonsoe way onelly the treble set one note loer'.⁶⁹ Although an early tuning compared with extant violin examples, this could have been transferred to the violin earlier than it was notated. ae'a'c#" is used in GB-OCh Mus 1125, f.27, Filmer 9 (see chapter 6), and in Scottish folk music.

The remaining two tunings, which are open chords with no third, are more typically violin than viol tunings by Reading's time. They relate to the lyra-viol tuning 'Eights' which was used earlier in the century. The top strings of eights match the tuning ad'a'd'', whilst the middle strings match ae'a'e'',

⁶⁶ Hawkins*GH*, vol. 4, p. 384.

⁶⁷ GB-Mp Brm/832 Vu51, pp. 89 and 171.

⁶⁸ p. 109. Tuning 35, in Traficante, 'Lyra Viol Tunings', 202.

⁶⁹ Alfonso Way is *ffhfh*, stipulated by Ferrabosco, *Lessons for 1. 2. And 3. Viols* (1609), p. 8. Traficante 'All Ways', 183-205, especially 186.

Reading's second most frequent tuning. The latter also matches the viol tuning *hfh* (lower strings unspecified), named in IRL-Dtc D.1.21 as 'in fiuftes Allfonsoe'.⁷⁰ Both violin tunings are common. Many of Reading's tunings fall into the 'high-bass' tunings category, with certain strings pitched up to a fifth higher than in standard tuning. This will be discussed further in chapter 7.

Reading's tunings form the tonic chord of the piece, with only two exceptions. The first is R8, tuned in fourths, which does not form any tonic chord, although (like standard fifths tuning) it contains elements of several, and is thus acceptably resonant in various keys. Reading seems to use this tuning for its double-stopping possibilities, as R8 contains more double stops than most other suites (**recs. 3.05i-ii** (R8/1, R8/3)). The second exception is R12, tuned to an A-major chord, for F# minor. Two suites have tunings which match the tonic but contain an extra note. R6 (**rec. 3.03i-iv**) uses a chord of F major plus a d'' (making it resonant in D minor as well as F, although Reading does not exploit this), and R11, in Bb, is tuned to a chord of Bb, but with a' present, as the a'-string never changes, presumably to aid pitch stability.

Keeping the a'-string constant potentially limits the key range, but Reading maximises the available possibilities, using every key where A is the tonic, third or fifth, plus Bb major (R11). This covers many common keys, but also the unusual key (for the time) of F# minor. As **table 3.4** shows, Reading uses ten tunings for seven different keys. This frequently means more than one tuning per key (two tunings are used for D, F and A majors; A and F# minors), and more than one key per tuning (ad'a'd'' and ae'a'e'' are used for both major and minor keys of D and A respectively, and ae'a'c#'' is used for A major and F# minor). Reading seems to be exploring every option. Mus. 940 is no simple collection, it presents a highly studied exemplification of scordatura possibilities. The sonorities of Reading's tunings are explored in chapter 7.

Other Techniques

Scordatura can affect other aspects of violin technique. Although scordatura pieces are often simpler than pieces in standard tuning (the emphasis being on sonority rather than virtuosity),⁷¹ considerable technique is required in Reading's suites. His London contemporaries Matteis and Baltzar go further in their use of demanding double stops and (in Matteis's case) high positions. However, this is in non-scordatura music, so is not a level comparison. Whilst scordatura simplifies some aspects (e.g. certain chord fingerings), it makes others harder (e.g. string crossing). This discussion concentrates on technical issues specifically relevant to scordatura. Examples are from Mus. 940.

⁷⁰ Another variant of *ffhfh*. Traficante, 'All Ways', 186-7, 204.

⁷¹ GlüxamV, especially p. 89.

Double stops, chords and unisons

Chord fingerings are often facilitated by scordatura. Many of Reading's movements open and/or close with a tonic chord consisting of four open strings (R3/1, R3/2, R4/1, R4/2, R5/1, R14/1). Three-part consecutive chords in R17 only require the lowest part to be fingered (**ex. 3.14**).

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Ex. 3.14 R.17, var. 31. [ae'a'c#"]. (Rec. 3.11, 4:19-4:30).

Some tunings enable the playing of consecutive thirds without the need for fourth fingers or shifting, for example, in R11/3 and R8/2 they are fingered as fourths (**ex. 3.15**), and in R13/4 they are fingered as fifths (**ex. 3.16**). However, as Glüxam states, such fingerings are far from easy to play accurately, especially at speed.⁷²



Ex. 3.15 R8/2, bars 6-8. [be'a'd"].



Ex. 3.16 R13/4, bars 31-33. [c#'f#'a'c#'']. (Rec. 3.08ii, 0:31-34).

As discussed above (pp. 48-49), one example of sounding consecutive thirds in Add. 22098 (R4/2 bar 3) requires demanding contraction fingerings, which have been simplified in Mus. 940. Their presence may indicate influence from the viol or lute (where such fingerings are more common), and certainly indicate that the composer had an advanced violin technique.

Scordatura enables unisons which are not playable in standard tuning. Unisons particularly feature at openings and cadences, where, like open-string chords, their extra resonance helps define the tonality and sonority. For example, unison d''s open and close R1/1, R1/2 and all three movements

⁷² GlüxamV, p. 62.

of R2 (**ex. 3.17**). R17 opens with two unisons (a' and c#'', **ex. 3.18**) and most strains finish with unison a'. However, to be effective, unisons must be precisely in tune (perhaps why Reading, unlike Matteis, never uses them with a fourth finger) and carefully bowed.



Ex. 3.17 R2/1, opening. [ad'a'd''].



Ex. 3.18 R17, opening. [ae'a'c#'']. (**Rec. 3.11**, 0:01-0:06).

Not all movements contain double stops, and these are frequently limited to openings and cadences. Movements that particularly feature double stops are R2/3, R8/1 (**rec. 3.05i**), R8/2, R12/3, R13/4 (**rec. 3.08ii**), R14/1 (**rec. 3.09**), R16/1, and certain strains of R17 (e.g. **rec. 3.11**, 4:19-4:50). Reading's double stopping is less extensive than Matteis's or Baltzar's in their non-scordatura music. Reading does not use double stops to create imitative counterpoint as in, for example, Baltzar's C minor Prelude, or Matteis's fugues. Matteis's dance movements are more similar to Reading's, although Baltzar's (non-scordatura) dance movements are often still chord-heavy. However, Reading writes counterpoint implied within a single-line melody, and between the violin and bass parts.

String Crossing

Scordatura tunings usually entail increased string crossing. This is because intervals between strings are generally smaller than in standard tuning, so fewer notes can be played on one string (without shifting), and because open strings are preferred for sonority. The latter is clear from the notation, which differentiates between fingered and open-string notes. Reading usually favours open strings even where fingered notes would make more bowing sense, such as for the slurred semiquavers in R12/2 (ex. 3.19). In fast passagework, this use of open strings makes the bowing fiendish, for example, in R17, variations 45 and 27 (exx. 3.20 and 3.21), which require string crossing in an irregular pattern (see pp. 153-54, PE. 7.7). That Reading often makes no concession to bowing difficulties suggests that he had excellent bowing technique and valued the open-string resonance above any loss of neatness.



Ex. 3.19 R12/2, opening. [ae'a'c#''].



Ex. 3.20 R17, var. 45, opening. [ae'a'c#'']. (Rec. 3.11, 6:35-6:44).



Ex. 3.21 R17, variation 27, opening. [ae'a'c#'']. (Rec. 3:42-51).

String crossing omitting one or more middle strings is used to imply polyphony and creates a display effect (**exx. 3.22** and **3.23**).⁷³



Ex. 3.22 R6/1, bar 4. [c'f'a'd'']. (Rec. 3.03i, 0:11-0:14).



Ex. 3.23 R17, var. 34, opening. [ae'a'c#'']. (Rec. 3.11, 4:50-5:00).

At speed this can be extremely demanding to play precisely. Reading's gigues frequently involve repeated fast leaps across the strings, omitting at least one middle string, as in R15/3 (**ex. 3.24**). This

⁷³NobesNS, p. 34.

is even found within slurs, as in R5/4 (**ex. 3.25**), requiring advanced bow (and finger) dexterity. Lutenists play such figuration easily using the thumb to pluck the lower strings and the fingers for the higher ones, which could suggest a lute influence.



Ex. 3.24 R15/3, bars 2-3. [ae'a'c#''].



Ex. 3.25 R5/4, bar 3. [c'f'a'c''].

Reading's use of open strings is not indiscriminate. Sometimes a fingered alternative is preferred, apparently for a deliberate reason. For example, in R16/1, bar 15 (**ex. 3.26**), the second semiquaver is an open string, whilst the eighth semiquaver is fingered, yet both sound c#". This avoids hopping over a string within a slur, thus preserving the legato. The importance of legato must also explain why fingered c#" is consistently preferred to an open string (notated e") in R17, variation 47 (**ex. 3.27**), allowing the bow to remain on one string.



Ex. 3.26 R16/1, bars 15-16. [ae'a'c#''].



Ex. 3.27 R17, var. 47, opening. [ae'a'c#'']. (Rec. 3.11, 6:54-6:57).

In R17, variation 29 (**ex. 3.28**), the final three quavers of bars 1 and 3 sound the same but are fingered differently. Bar 3 has a fingered c#", as an open string would mean omitting two middle strings after the previous quaver, rather than only one, as in bar 1.



Ex. 3.28 R17, var. 29. [ae'a'c#'']. (Rec. 3.11, 4:01-4:09).

In some cases, a fingered note rather than equivalent open string could indicate that a unison was originally intended, but one note was erroneously omitted during copying. In R17 variations appear in pairs, generally with identical endings. However, variation 42 ends with a unison (**ex. 3.29**), whereas its pair (variation 41) has a single (open-string) note (**ex. 3.30**). Variations 39 and 40 (another pair) end with the same figure but have a single fingered note (**ex. 3.31**). This may be deliberate, to avoid a string crossing, but as the preceding three quavers are identical to variation 41, we might expect the same fingering. This makes it more likely that variation 41 originally had a unison. For a copyist hearing a sounding pitch in his head, it is easy to write the sounding pitch instead of the fingered pitch by mistake, which might explain other inconsistencies.



Ex. 3.29 R17, var. 42, end. [ae'a'c#''].



Ex. 3.30 R17, var. 41, end. [ae'a'c#''].



Ex. 3.31 R19, var. 39, end. [ae'a'c#''].

Range and Positions

Reading's suites use the whole range of the instrument from the lowest open string up to fourth position on the top string. Unlike in Baltzar's extant music, fourth position is used for more than just occasional notes. High positions were unusual in England at the time, the exception being Matteis, whose extant music uses sixth position. However, Reading's fourth-position passages would not have sounded particularly high, since the top string in the relevant pieces is tuned a third lower than standard (**ex. 3.32**), so unlike with Matteis and Baltzar, Reading's audience is unlikely to have noticed and commented on the high positions.



Ex. 3.32 R15/1, bars 3-5. [ae'a'c#'']. (**Rec. 3.10i**, 0:08-0:17).

In the lower range, Reading does not hesitate to use the bottom string, including within melodic passages. Some contemporary English violin music (e.g. Daniel Purcell sonatas) avoids the lowest string, perhaps because of the problem of getting gut G-strings to speak well. However, Reading's lowest string is always tuned (sometimes significantly) higher than standard, which removes this issue.

Cantabile bowing

Cantabile bowing was a highly valued skill at the time, and regarded as a mark of 'art' violinists as distinct from folk fiddlers.⁷⁴ Such bowing is particularly appropriate in Reading's sarabands and allemands. Scordatura tunings facilitate the sustained sound, because of their extra resonance (see chapter 7). However, to maximise their effect, intonation must be precise and the bow well controlled.

Conclusion

The sonority of Reading's scordatura tunings adds an extra dimension to his already attractive violin compositions. However, scordatura brings its own technical demands, indicating that Reading was a capable violinist. He understood what is idiomatic to the instrument, and what potential clients would have wished to hear and play.

⁷⁴ M-HDV, pp. 91-120, especially pp. 96-97.

Context

It is important to consider the context in which Reading was working. His predecessors, Mell and Baltzar, worked at a time when lyra-viol playing was widespread but interest in the violin was only just beginning. By contrast, Reading was active when the lyra viol was falling out of fashion, and the violin popular and widely played. The violin scene was dominated by Nicola Matteis, and there was public debate on approaches to tuning.

Scordatura became a hot topic with the Salmon-Locke controversy of 1672-3. This was a pamphlet war which raged between Salmon and Locke, although others contributed, including Playford. Although the main argument revolved around Salmon's proposals for reforming pitch theory and clefs,⁷⁵ it included discussion about viol tuning. Salmon favoured scordatura sonority, proposing that harp-way sharp/flat be used as what he called 'An Universal Tuning'.⁷⁶ Locke was vehemently opposed, arguing that this limited the key range, leaving the viol 'pinion'd and fetter'd'. He favoured standard tuning, which made all keys accessible.⁷⁷

This debate probably reflects conflicting attitudes in the wider playing community. The use of alternative viol tunings was in decline, as can be seen from Playfords editions of *Musick's Recreation* (table 5.1, p. 107). The 1652 edition contained the most tunings, numbers subsequently falling until the final edition of 1682, which contained only Salmon's favoured harp-way sharp/flat. Some scordatura advocates clung on, such as the backward-looking Mace, who described five viol tunings.⁷⁸ Moss published a (meticulously ordered) book of lyra-viol suites in 1671, which possibly inspired Reading's own collection for the up-and-coming violin.⁷⁹ However, Moss's scordatura alterations (six tunings, including standard, and thirteen keys) were minimal, only ever altering the lowest two strings (thus open strings sometimes conflict with the key). Perhaps he was hedging his bets in the debate, or demonstrating a compromise approach. Reading, with his highly studied collection of violin suites, appears to be batting for the scordatura camp, favouring the richer sonority. However, unlike Salmon, he used many tunings rather than only one, thus minimising key limitations. Matteis, on the other hand, sided (unconsciously) with Locke, using only standard tuning but achieving different sonorities using advanced Italian bow technique.

If Mus 940 was some form of publication, it could fill two gaps in the market. Firstly, English musicians familiar with scordatura from the viol might have had an interest in transferring the concept

⁷⁵ Rebecca Herissone, *Music Theory in Seventeenth-Century England* (Oxford: Oxford University Press 2000), pp. 104-12.

⁷⁶ Thomas Salmon, *An Essay to the Advancement of Musick* (1672), pp. 48-52 and 'The Contents', p. [iv]; *A Vindication of An Essay to the Advancement of Musick* (1672), pp. 62-65.

⁷⁷ Matthew Locke, Observations upon a Late Book, entitled An Essay to the Advancement of Musick (1672), pp. 33-35; The Present Practice of Musick Vindicated (1673), pp. 9-11.

⁷⁸ Mace*MM*, p. 264.

⁷⁹ John Moss, *Lessons for the Basse-Viol* (1671).

to the more fashionable violin, but there were no significant violin scordatura publications. The first printed English example was Readings Ground in *The Division Violin* (1684), which may have whetted buyers' appetites for more. Indeed, with this piece Playford could even have been testing the waters before attempting a more specific scordatura volume, although if so, his death in 1686 meant that this never materialised. Secondly, in the genre of string writing for treble and bass, there had been a gap of over twenty years between Playford's *Courtly Masquing Ayres* (1662) and *The Division Violin* (1684, itself not equal part writing), with nothing in-between except Matteis's significant *Ayrs for the Violin* (1676), which possibly provided a model for Reading. However, a specific scordatura volume would probably only have niche appeal, so would not be viable for engraving without patronage. A manuscript publication seems more realistic.

Matteis was such a towering figure that few violinists of the time could hope to compete. However, by specialising in a technique not used by Matteis, Reading was able to make a name for himself. This was the time of the earliest public concerts (starting with Banister's in 1672).⁸⁰ Musicians needed a unique selling point to make themselves stand out and be in demand for concerts, private performances and teaching. Tom Brown's *Letters* show that it is for scordatura that Reading is remembered.

Central European Concordances and Influences

Concordances between Reading's music and music in Central European sources as well as other shared stylistic elements indicate that Reading must have been familiar with the Central European style and possibly possessed manuscripts of this music. This suggests an earlier connection between London and Central Europe than has previously been considered, since the connection is generally assumed to have started with Finger's arrival in 1685.

Main Concordance

The most substantial concordance linking Reading's music with Central Europe is a concordance of R10/1 (untitled, appearing in both Mus. 940 (**rec. 3.07**) and Add. 22098) with an allemande from the Martinelli manuscript, B-LVu P206/59, item 19, which bears Schmelzer's name.⁸¹ Both pieces use the tuning, ae'a'e''. The melody lines match (allowing for some background variation; the Martinelli version is less ornate in the last few bars), but the bass parts do not (**exx. 3.33** and **3.34**). In the first half of the piece, the bass parts are quite different. In the second half they are more similar, but this may be coincidental, given the implied harmonies of the melody and a restricted stylistic

⁸⁰ WollstonIEVM, pp. 50-53.

⁸¹ B-LVu P206/59 is the siglum given by *RISM*. The sigla VII.59 and P206/28 are used for the same manuscript. Charles E. Brewer, ed., *Johann Heinrich Schmelzer (c. 1620-23–1680): Sonata a Violino Solo, Web Library of Seventeenth-Century Music* 39 (2022), <www.sscm-wlscm.org>, p. 1.

framework. Perhaps Reading composed his own bass line because he only had a copy of the melody, presumably that which Britton copied in Add. 22098, as Britton's copy is much closer to the Mus. 940 version than the Martinelli version. All three sources differ in the three semiquavers of the first bar, but Britton seems to have made a simple error here, copying these semiquavers a tone too high. The pattern of movement indicates that what is intended matches Mus. 940, rather than the Martinelli version.



Ex. 3.33 R10/1, Mus. 940. [ae'a'e"].



Ex. 3.34 Schmelzer, Allemande, B-LVu P206/59. [ae'a'e''].

The Martinelli allemande is part of a three-movement suite: Allemande del Sr. Smelzer, Gigue and Sarabande. The second movement is thematically related to the first, and all are stylistically similar. The other R10 movements do not match those in the Martinelli suite (although R10/2 has a separate possible Central European link, see below). Reading either did not have access to the other Martinelli movements, or chose to replace them.

The Martinelli manuscript is a collection of thirty-two works for violin and basso continuo, copied in the 1680s/90s in an Italian hand.⁸² The owner was Guillelmus-Carolus di Martinelli (1661-1728), a violinist, teacher, organist and choirmaster,⁸³ born in Ghent, who worked in The Hague and Diest, although he may not have been the copyist.⁸⁴ His family came originally from Genoa. The manuscript was probably intended for personal study, comprising virtuosic sonatas, and dance suites. The last section is missing. The composers are largely German/Bohemian (Schmelzer, Pez, Albicastro, Finger) or Italian (Lonati, Capellini, Cailo), as well as the unknown Goor, who wrote in Bohemian style. Items copied from prints (Petersen's *Speelstukken* (1683) and Walter's *Hortulus Chelicus* (1688/1694)), help date the manuscript, although the Schmelzer pieces were composed earlier, since Schmelzer died in 1680. The manuscript contains large amounts of scordatura. This suggests that Martinelli, who used scordatura in his own compositions, had a particular interest in scordatura works.⁸⁵

Shared openings

Further examples indicating links between Reading's music and Central Europe are either partconcordances, or feature stylistically similar traits. In many cases a melody starts the same, then deviates, creating an apparently new piece. Sometimes tunings or keys vary between concordant examples.

The clearest example is R9/1, an untitled allemande from Mus. 940 (**rec. 3.06i**) and Add. 22098, which shares an opening with CZ-KRa A909, item 1 (Allamande) and CZ-KRa A4688, item 23/6 (Allamanda), but deviates after ten notes (**exx. 3.35** and **3.36**). The Kroměříž examples are identical, requiring the tuning ae'a'c#''. R9/1 uses ae'a'e'', which gives a related but not identical sonority (see chapter 7). As the handgrip notation differs for each tuning, the concordance only becomes apparent when the pieces are performed or transcribed into sounding score. The different tunings may explain the difference in melody. R9/1 makes the most of its e''-string by using a higher register than the piece in the Kroměříž sources where the chanterelle is lower. In the Kroměříž sources, the allemande opens a three-movement suite, the following movements being Sarabande (Sarabanda in A4688) and Gigue.

⁸² For a discussion of this manuscript, see Drescher*ST*, pp. 147-52. Incipit list pp. 285-88. BoormanMVM.

⁸³ Eugeen Schreurs, 'Di Martinelli, Guillelmus-Carolus', GMO.

⁸⁴ BoormanMVM, p. 146.

⁸⁵ M-H*DV*, p. 153.

R9/1 begins a four-movement suite (**recs. 3-06i-iv**). Its following movements (untitled, but including a courante and gigue) are all thematically related to R9/1, but do not match those in A909 and A4688.



Ex. 3.35 Allemande, CZ-KRa A 909. [ae'a'c#''].



Ex. 3.36 R9/1, Mus. 940. [ae'a'e''].

A909 is a collection of dances copied around 1670.⁸⁶ It is also the source of the 'Baltzar' concordance discussed in chapter 2. A909 survives as a single violin part, but the label 'Violino primo' indicates there was originally another violin part, and probably also a bass.⁸⁷ A4688, copied around the same time,⁸⁸ also survives only as a single part. It is a collection of violin dances (plus four viol works, one by Finger).⁸⁹ Some items have concordances elsewhere for larger ensemble,⁹⁰ so we cannot assume they were originally solo pieces, even if they were sometimes performed like this.

A second example (perhaps less distinctive, being merely a rising scale) is R10/2, an untitled corrente from Mus. 940, and Add. 22098. The opening seven notes match two (identical) Central European examples before deviating: CZ-KRa A4683, item 13 (Corrente), and item 10 (untitled) in the Klagenfurt manuscript, A-Klm M73 (**exx. 3.37** and **3.38**).⁹¹ All use the tuning ae'a'e'', but only R10/2 (in Mus. 940) has a bass line. It is significant that R10/1 also has a central European concordance (see above).

⁸⁶ SP*Liechtenstein*, p. 464. Glüxam suggests 1668-1677, Glüxam*V*, pp. 385, 450.

⁸⁷ GlüxamV, pp. 341-47, especially pp.342-43, 450; SPLiechtenstein, p. 464.

⁸⁸ SPLiechtenstein, p. 734. Glüxam suggests 'post 1670', GlüxamV, p. 459.

⁸⁹ RI69, RRFinger, pp. 47, 177, 349.

⁹⁰ e.g. the Finger viol piece, various suites concordant with A909, and a concordance of 'Aria Imperatore Leopold' in CZ-KRa A836 for four-part strings.

⁹¹ f. 7v, part of the suite which Nobes labels Kl.2, NobesNS, pp. 176.



Ex. 3.37 Corrente, from CZ-KRa A4683. [ae'a'e''].



Ex. 3.38 R10/2 from Mus. 940. [ae'a'e''].

A4683, copied after 1672, is another manuscript of anonymous dances, many in scordatura, with only a violin part extant.⁹² It is not clear whether the pieces were intended as solos or originally conceived with bass or another violin part. The Corrente in question is not part of a suite in A4683, although it follows another corrente in the same tuning, also found in M73, where both movements form part of a larger suite.

M73, which was preserved (although probably not compiled) in a Benedictine Convent, contains copious anonymous dances, many in scordatura and some quite virtuosic. It was probably copied around 1680 or later.⁹³ It is mostly for solo violin, although some pieces have bass or other parts in concordances. Occasional bass or second violin parts in M73 imply that the rest were probably played unaccompanied in this context.⁹⁴ M73 has many concordances in Kroměříž.⁹⁵

A third example of a shared opening (although again, a descending scale is less distinctive than the example of R9/1) is R13/3, an untitled saraband from Mus. 940, which matches the first four bars of an untitled saraband (without bass) from M73 before deviating.⁹⁶ The movements are in different keys and tunings. The M73 saraband is in G minor with standard tuning (**ex. 3.39**). R13/3 is in F# minor, tuned c#'f#'a'c#'' (**ex. 3.40**).

⁹² Glüxam*V*, p. 452.

⁹³ DrescherST, pp. 152-58; NobesNS, pp. 38-80 (discussion), 176-84 (thematic inventory), vol. 1 supplement II (facsimile edition); GlüxamV, pp. 151-60.

⁹⁴ GlüxamV, p. 155. DrescherST, p. 157; NobesNS, p. 39.

⁹⁵ See table in GlüxamV, pp. 152-55.

⁹⁶ f. 36r. Part of Kl.18, according to NobesNS, p. 180. Glüxam labels it item 67, GlüxamV, p. 154.



Ex. 3.39 [Saraband], A-Klm M73, Kl. 18. [gd'a'e''].



Ex. 3.40 R13/3, Mus. 940. [c#'f#'a'c#''].

Another shared opening with non-matching keys and tunings involves R11/2, an untitled coranto, which shares its first nine notes with A4688, item 26/9 (Courant). See **exx. 3.41** and **3.42**. R11/2 is in B^b, tuned b^bf'a'd'', whereas the A4688 Courant is in A, tuned ae'a'c#''.



Ex. 3.41 Courant, A4688. [ae'a'c#'']. (Top sharp in the MS key signature is erroneous.)



Ex. 3.42 R11/2, Mus. 940. [bbf'a'd''].

Other shared material

Extracts from A4688, item 19/2 (Allemanda) appear to crop up in more than one Reading piece. The A4688 Allemanda seems to share its opening with R14/1 (untitled allemande, **rec. 3.09**), but then deviates (**exx. 3.43** and **3.44**). Bars 2-3 (five beats) in this A4688 Allemanda match bars 2.5-3 of R16/1 (untitled allemande), allowing for some background variation (**exx. 3.45** and **3.46**). The final three bars of these two movements are also very similar (**exx. 3.47** and **3.48**). All these movements are in A, tuned ae'a'c#''. These matching extracts may represent stylistic similarities rather than actual quotations, but are nonetheless striking.



Ex. 3.43 Allemanda, opening, A4688. [ae'a'c#].



Ex. 3.44 R14/1, opening, Mus. 940. [ae'a'c#''].



Ex. 3.45 Allemanda, bars 2-3, A4688. [ae'a'c#].



Ex. 3.46 R16/1, bars 2.5-3, Mus. 940. [ae'a'c#]. Bass included to show presence of F# on penultimate beat.



Ex. 3.47 Allemanda, end, A4688. [ae'a'c#].



Ex. 3.48 R16/1, end, Mus. 940. [ae'a'c#''].

Similar traits

Further extracts from Kroměříž pieces also closely resemble passages from Mus. 940. For example, the opening of A4683, item 14 (untitled allemande), is reminiscent of R13/1 (**rec. 3.08i**), despite differences of key and tuning: B minor with standard tuning in A4683 and F# minor tuned c#'f#'a'c#'' in R13/1 (**exx. 3.49** and **3.50**). This is not an exact transposition. The bracketed section of R13/1 falls from and to the tonic, whereas the corresponding section in A4683 falls from and to the third of the key. However, the pattern is remarkably similar. The movements following this allemand in A4683 do not match those of R13. Incidentally, the previous item in A4683 is the Corrente which is concordant with R10/2 (**ex. 3.37**).



Ex. 3.49 Allemanda, opening, A4683. [gd'a'e''].



Ex. 3.50 R13/1, opening, Mus. 940. [c#'f#'a'c#''].

A similar example occurs in the above-mentioned Courant from A4688, item 26/9, where an extract in the second half resembles R9/2, bars 8.5-10, if allowance is made for octave transposition at the bracketed section (**exx. 3.51** and **3.52**). Both pieces are in A, but the A4688 Courant is tuned ae'a'c#'', whereas R9/2 is tuned ae'a'e'', which may explain the use of different octaves.



Ex. 3.51 Courant, bars 17-20, A4688. [ae'a'c#'']. (Top sharp in the key signature is erroneous.)



Ex. 3.52 R9/2, bars 8.5-10, Mus. 940. [ae'a'e'']. (Rec. 3.06ii, 0:20-0:25).

Arrangements, Quotations and the Creation of New Works

It is worth considering the different forms of these concordances. R10/1 is an arrangement where Reading composed a new bass to an existing melody. This was a standard compositional method. According to Purcell, 'formerly they used to Compose from the Bass, but Modern Authors Compose to the Treble when they make Counterpoint or Basses to Tunes or Songs'.⁹⁷ Reading probably wrote his own bass for R10/1 because he only had access to the melody.⁹⁸ Britton copied four Reading suites without bass, which suggests his source (possibly the same as Reading's) also lacked a bass line. It seems this repertory circulated as a single line, which might be used alone, or with an added bass line as needed. It is possible that some of the other movements with bass lines in Mus. 940 may also be Reading's arrangements of melodies by another composer rather than his original compositions, although without concordances we cannot be sure.

A further type of arrangement is represented by the small alterations, such as regularising all movements into binary form, adding melodic decoration, or creating technical simplifications (see pp. 47-49), made by Reading when compiling Mus. 940 from an earlier source (such as copied by Britton). However, if the movements without central European concordances are Reading's original compositions, the later versions must be what Herissone terms 'serial recomposition', where a composer makes revisions whilst copying his own work.⁹⁹

In other cases, Reading seems to have generated new works by starting with a quotation from the opening of another piece and continuing the composition in a new way. We cannot rule out the

⁹⁷ Henry Purcell, 'The Art of Descant', in Playford, Introduction (1694). See Herissone, Music Theory, p. 207.

⁹⁸ Herissone discusses this type of arrangement in keyboard music, *Musical Creativity*, pp. 356-60.

⁹⁹ Herissone, *Musical Creativity*, pp. 209-59, especially 209-14 and 258-59.

possibility that these 'new' works were not created by Reading, but rather that they were created in central Europe and that Reading is merely copying them.

Other similar (but non-identical) traits listed above may not necessarily be actual quotations. Rather, they may be characteristic idioms of a composer copied by Reading, which featured in several of that composer's works. The movements Reading copied from may no longer survive, but others containing similar idioms remain.

Reading appears to reuse material in two gigues (R6/4 and R14/4). See **exx. 3.53** and **3.54**, especially the bracketed sections. This could be another example of a repeated idiom of a composer he is copying from. If so, more of Reading's music could be based on Central European originals than the extant concordances show. Alternatively, Reading himself may have been trained in the Central European style, so naturally included Central European traits in his compositions.



Ex. 3.53 R6/4, bars 10-14, Mus. 940. [cf'a'd"]. (Rec. 3.03iv, 0:12-0:19).



Ex. 3.54 R14/4, bars 10-14, Mus. 940. [ae'a'c#"].

Close influence

Copying and adapting music relates to the idea of learning and creating by imitation and emulation of masters, a concept borrowed from Rhetoric, and not considered plagiarism.¹⁰⁰ Works were regularly imitated without being copied directly, which may be the case with R17. As discussed above (pp. 52-53), R17 is not typically English, nor is the concept of a solo violin chaconne. Reading may have been imitating a foreign model. There was a tradition of writing virtuosic solo violin chaconnes in Italy and central Europe. A study of seventeen such examples (the maximum I could trace) revealed remarkable variation, given that all chaconnes are based on more-or-less the same chord sequence. Those most similar to R17 (i.e. based on a four-bar pattern resolving on the final beat

¹⁰⁰ Herissone, *Musical Creativity*, pp. 3-60, 315.

of the bar) are listed in **table 3.5**. Notably these are all by (or attributed to) Schmelzer, Biber or their milieu.

Some of these pieces are more similar to R17 than others. The Anonymous/Biber Ciacona in CZ-KRa A946 has a similar bass line to R17, but it is an ostinato and the piece is more virtuosic. Four examples use scordatura, although with one exception (ae'a'e'') these are not tunings used by Reading and do not match R17's A major key. Another (KI. 29) is in A with a similar flavour to R17, but does not use scordatura.¹⁰¹ However, one chaconne appears strikingly close to R17 in key, tuning and style, the 'Sonata a Violino Solo del Sigr J. H. Smelzer' from B-LVu P206/59. Whilst not identical to R17, it is hard to imagine there was no influence here. (Compare **rec. 3.11** (R17) with **recs. 3.12** and **3.13** (Schmelzer)). If, as Brewer speculates, the Schmelzer piece is the 'Ciaccona Violino solo ohne ferneres accompagniomento' mentioned in a letter of 1673, the date would be compatible with a possible influence on Reading.¹⁰²

Schmelzer B-LVu P206/59, no. 22, Performance recordings

Rec.	Content	Description
3.12	bars 1-72	With extant bass (adapted to fit). ¹⁰³
3.13	complete	Unaccompanied. Rests replaced by violin playing a bass strain.

¹⁰¹ An English lute concordance from c.1700 (PL-Pu ms. 7003, ff. 50-51) links this piece to Finger. RRFinger, pp. 133-35.

¹⁰² Brewer, ed., Johann Heinrich Schmelzer, pp. 9, 12.

¹⁰³ Fourth strain repeated, sixth strain ending modified. Ninth strain repeated six times for variations, followed by modified ninth strain and two iterations of fifth strain.

Composer and source	Title	Bass	Scordatura	Кеу	Comment		
Anon / Biber. ¹⁰⁴ CZ-KRa A946	Ciacona Violino Solo	Ostinato. (otherwise similar to R17).	No	D	More virtuosic than R17.		
Schmelzer. B-LVu P206/59, no. 22	Sonata a Violino Solo del Sigr J. H. Smelzer	Varying bass	ae'a'e''	A	Reminiscent of R17		
Anon/?Schmelzer. ¹⁰⁵ GB-Lbl Add. 31500, no. 6, ff. 17v-25	Ciaconna	Four sections, each with different ostinato bass (variation at end).	ae'a'd''	D	Opening bass similar to R17 (slightly different rhythm)		
Anon/?Schmelzer. GB-Lbl Add. 31500, no. 9, ff. 37v-41. A-Klm M73, Kl. 38, ff. 55v-60r	Ciaconna Untitled	Varying bass.	gd'a'd''	B♭			
Anon/?Schmelzer school. A-Klm M73, Kl. 8, f. 17r	Untitled	Ostinato.	gd'a'd''	B♭			
Anon / Bohemian. A-Klm M73, Kl. 29, ff. 49v-50r	Untitled	No bass. Final strain Ionger.	No	A	Reminiscent of R17 and Schmelzer P206/59 Sonata. Brief modulation.		

Table 3.5 Central European chaconnes similar to R17

¹⁰⁴ Sehnal argues for Biber: Jiri Sehnal, ed., *Heinrich Ignaz Franz Biber (1644-1704) Instrumentalwerke handschriftlicher Uberlieferung, Denkmäler der Tonkunst in Österreich*, vol. 151 (Graz: Akademische Druck- und Verlagsanstalt, 1997), pp. IX (edition pp. 107-113). Brewer labels it anonymous: Charles E. Brewer, ed., *Solo Compositions for Violin and Viola da Gamba with Basso Continuo from the Collection of Prince-Bishop Carl Liechtenstein-Castelcorno in Kroměříž* (Madison: A-R Editions, 1997), pp. 48-63.

¹⁰⁵ See p. 80 for Drescher's argument that much of GB-Lbl Add. 31500 could be by Schmelzer.

Like R17, Schmelzer's extensive chaconne is based on a four-bar pattern with a cadence resolving at the end of the fourth bar, and the bass varies, although it survives incomplete. No bass strains are identical to R17's, but many are extremely similar (**ex. 3.55**). Brewer speculates that the bass may not be original.¹⁰⁶ Although four-bar rests in the violin part contradict this, the piece works well unaccompanied (**rec. 3.13**). The extant bass line is underlaid at the beginning, but needs modification to fit.













Ex. 3.55 Similar bass patterns in R17 and Schmelzer's chaconne from B-LVu P206/59.

Like R17, Schmelzer's piece is in A, and uses scordatura. Although not identical, the tunings are closely related. R17 uses ae'a'c#'', whilst Schmelzer uses ae'a'e", a tuning used by Reading elsewhere. The openings share a skeleton outline (**exx 3.56a** and **3.56b**).

¹⁰⁶ Brewer, ed., *Johann Heinrich Schmelzer*, pp. 9-12.



Ex. 3.56a Schmelzer opening. (Rec. 3.13, 0:01-0:11).



Ex. 3.56b Reading opening. (Rec. 3.11, 0:01-0:10).

Neither uses high positions (Reading requires third, Schmelzer second). The style of variations is also similar. Schmelzer develops the technical wizardy further than Reading, but many of the same figures appear (exx. 3.57-3.61). Examples include rests and crotchet patterns (exx. 3.57a and 3.57b); semiquaver and quaver figuration (exx. 3.58a and 3.58b); three-part chordal passages (exx. 3.59a and 3.59b); showy string crossing with chords (exx. 3.60a and 3.60b); and building figuration as strains progress (exx. 3.61a and 3.61b).



Ex. 3.57a Schmelzer, bars 317-20. (Rec. 3.13, 13:34-13:44).



Ex. 3.57b Reading, bars 49-52. (Rec. 3.11, 1:42-1:50).



Ex. 3.58a Schmelzer, bars 141-44. (Rec. 3.13, 5:52-6:01).



Ex. 3.58b Reading, bars 57-60. (Rec. 3.11, 1:59-2:07).



Ex. 3.59a Schmelzer, bars 217-20. (Rec. 3.13, 9:11-9:22).



Ex. 3.59b Reading, bars 121-24. (Rec. 3.11, 4:19-4:30).



Ex. 3.60a Schmelzer, bars 233-36. (Rec. 3.13, 9:56-10:06).



Ex. 3.60b Reading, bars 129-32. (Rec. 3.11, 4:40-4:50).



Ex. 3.61a Schmelzer, bars 109-12, 117-20, 121-24. (Rec. 3.13, 4:36-4:45, 4:55-5:03, 5:03-5:12).



Ex. 3.61b Reading, bars 73-76, 81-84, 89-92. (Rec. 3.11, 2:33-2:41, 2:50-2:58, 3:06-3:14).

Similarities in figuration are not surprising, because the diminution tradition was used across Europe and there probably existed a common pool of techniques to draw on. Schmelzer's strains are more whimsically ordered compared with R17's regular pairs, and Schmelzer's piece includes two momentary cadences in the dominant (**rec. 3.13**, 1:10-1:15, 8:05-8:09). Nonetheless, these two pieces seem to have more in common with each other than with other solo-violin chaconnes. They also share the mesmerising flavour created by the short repeated bass and A-major scordatura sonority. Given the proximity of Schmelzer's chaconne in the Martinelli manuscript to the other Reading-Schmelzer concordance, and the striking similarity between the two chaconnes, it seems plausible that Reading could have known Schmelzer's piece.

Schmelzer/Biber connections

All the sources concordant with or showing close links with Reading's suites share notable interrelations and are representative of a Central European style of scordatura, at the heart of which is Schmelzer and perhaps also Biber. The relevant items in B-LVu P206/59 name Schmelzer specifically. The attribution seems convincing, as similar scordatura dances by Schmelzer are known from other sources, including two suites for violin and bass in the Düben Collection,¹⁰⁷ and a suite for two scordatura violins and bass in Kroměříž.¹⁰⁸

The Kroměříž dances discussed above are all anonymous, but Sehnal suggests that A909 could be by Schmelzer.¹⁰⁹ A4688 shares various concordances with A909, implying the same composer or milieu. Sehnal lists A4688 as anonymous,¹¹⁰ although there are named concordances from it elsewhere, including a Schmelzer Courant.¹¹¹ A4683, copied around the same time, is stylistically similar.

M73 shares numerous concordances with the above Kroměříž manuscripts. Nobes suggests much of M73 could be by Schmelzer, and identifies a concordance with his name.¹¹² M73 also shares nine concordances with the GPD manuscript, GB-Lbl Add. 31500, which originates from the Vienna area and is dated 1679.¹¹³ Drescher identifies three Schmelzer concordances in Add. 31500 and argues that the rest are likely to be by Schmelzer or someone close to him.¹¹⁴ All nine items shared by M73 and Add. 31500 also appear in A4683 or A4688, further evidence that these manuscripts are associated with Schmelzer.

Glüxam notes that A909, A4683 and A4688 were copied around the time when Biber was employed in Kroměříž (c.1668-70). She argues that violin music in Kroměříž from this time becomes more technically adventurous and uses a wider range of tunings than before, suggesting that much of

¹⁰⁷ S-Uu imhs 8:19 and 8:20.

¹⁰⁸ CZ-KRa A747.

¹⁰⁹ SP*Liechtenstein*, p. 464.

¹¹⁰ SPLiechtenstein, p. 734.

¹¹¹ S-Uu Instr. mus. i hs 8:19. GlüxamV, p. 253.

¹¹² NobesNS, pp. 19 and 39.

¹¹³ Its arrival date in London is unknown. See Drescher*ST*, pp. 142-47. For concordances between M73 and Add.

^{31500,} see NobesNS, p. 39, n. 10.

¹¹⁴ Drescher*ST*, p. 147.

it could be Biber's.¹¹⁵ Schmelzer was in Vienna at this time, but regularly sent his music to the bishop in Kroměříž.¹¹⁶ The bishop favoured scordatura, specifically requesting scordatura works from Schmelzer in a letter of 1673. He sent his employee Heger to Schmelzer for violin lessons, and requested that Heger practise scordatura.¹¹⁷

Other signs linking Reading's music to Central Europe

The Schmelzer school links all the manuscripts which contain concordances and similarities with Reading's suites. This suggests that Reading had direct or indirect contact with this style, perhaps possessing manuscripts of this music. There are further stylistic and other elements that link Reading's music with Central Europe.

A Central-European connection would explain the style of Reading's gigues. As mentioned above, many of these are busy and virtuosic, featuring irregular phrase lengths and helter-skelter leaps across the strings necessitating fiendish bowing technique. The bass lines are busy too. This contrasts starkly with typical English jigs, with their regular phrase lengths and generally straightforward technique, or eighteenth-century Italian gigas (such as Vivaldi's), which favour violin display supported by simple bass lines. However, virtuosic gigues with busy bass lines such as Reading's are found amongst earlier Italian and Central European composers, for example, Lonati's sontatas of 1701, Finger's sonata RI 125,¹¹⁸ and Biber's Partia VII from *Harmonia artificiosa* (1696).¹¹⁹ The Kroměříž manuscripts A909, A4683 and A4688 contain numerous similar examples (albeit without extant bass lines).

A possible connection with Finger (or perhaps Bohemian style generally) is the treatment of the bass line in R13/4 (**rec. 3.08ii**). In the second half of this movement, the bass takes over much of the interest as it changes from a relatively simple supporting line to continuous racing quavers (**exx. 3.62** and **3.63**). Although the violin part retains some rhythmic interest, more sustained chords provide harmonic support to the bass line in a reversal of the original roles. This type of role exchange between violin and bass is found in Finger's suites for scordatura violin and bass viol, and violetta and bass viol, with continuo (see chapter 4).¹²⁰ Finger usually gives the viol the continuous quavers (or semiquavers) first, transferring them to the violin (or violetta) with the viol providing simple chordal support in the following 'double'.

¹¹⁵ GlüxamV, pp. 383-418. Her argument applies to several manuscripts, including A909, A4688, A4683 and A4684.

¹¹⁶ SP*Liechtenstein*, p. 31.

¹¹⁷ GlüxamV, p. 254. Brewer, ed., Solo Compositions, p. xi.

¹¹⁸ GB-Lbl Add. 31466, no. 45.

¹¹⁹ For viola d'amores, but stylistically identical. The gigue in Partia II (for violins) is similar, if less extreme.

¹²⁰ RI200 and RI196. GB-Ob MS Mus. Sch. d.249, ff. 82-85 and 49-54.



Ex. 3.62 R13/4, opening, Mus. 940. [c#'f#'a'c#'']. (Rec. 3.08ii, opening).



Ex. 3.63 R13/4, bars 19-22, Mus. 940. [c#'f#'a'c#'']. (Rec. 3.08ii, 0:19 onwards).

Many of Reading's tunings are found in Central European sources. Kroměříž sources use ad'a'd", d'f'a'd", c'f'a'd", c'f'a'c", ae'a'e", and ae'a'c#";¹²¹ b^bf'a'd" appears in B-LVu P206/59 in a suite in Central European style; and Biber's Ascension Sonata uses c'e'g'c", a transposed version of d'f#'a'd".¹²² Other tunings, common in Central Europe, are not used by Reading, for example gd'a'd" and ae'a'd". Perhaps Reading deliberately selected tunings relating to English lyra-viol tunings, since English players would find them familiar. He may also have used other tunings in music that has not survived.

One last possible Central European link is the word 'Acord', written over the tuning indications of R4 as copied by Britton into Add. 22098. This is an abbreviation of Italian 'Accordatura' and the translation 'tuning' has been added in one case. This Italian word suggests that the music copied (which presumably belonged to Reading) came from an area of Italian influence. This certainly applies to Central Europe, and the word appears on various scordatura sources in Kroměříž.¹²³

¹²¹ Glüxam*V*, p. 311.

¹²² *BiberRS*, pp. 54-57.

¹²³ e.g. A4996 '2 Violini 2 Brazze con accordt.'; A782 'Accord'.

Route of transmission

Having established the likelihood that Reading had access to Central European music, we must consider how he acquired that music. We cannot discount the possibility that Reading came from Central Europe, or visited the area at an impressionable age, but there is no evidence for this. A more likely possibility is that the music arrived with foreign musicians who visited or immigrated to London. There are various possible candidates.

The Italian violinist Nicola Matteis, who travelled to England 'thro' Germany',¹²⁴ arriving in the late 1660s, would have passed through areas of Austria and Southern Germany where Schmelzer's music was known.¹²⁵ Matteis probably had contacts amongst the numerous Italian musicians working in the Hapsburg lands (particularly Vienna, where his son later worked),¹²⁶ who could have passed music of the Schmelzer school to him, although there is no evidence that Matteis himself ever used scordatura. An Italian violinist who did use scordatura is Carlo Ambrogio Lonati, who visited London in 1676 and played before Charles II.¹²⁷ Before this, Lonati worked in Rome, including leading the orchestra of Queen Christina of Sweden.¹²⁸ Jesuit channels provided a regular transmission route for music from Bohemia to Rome, and Lonati would presumably have had an interest in music by fellow scordatura composers. He also seems to have had connections with the Viennese court (his 1701 sonatas are dedicated to the Emperor), which could have given him direct access to music of the Schmelzer school. Reading must have written at least some of his scordatura music by the late 1670s, given the publication date of Readings Ground. Lonati's 1676 visit ties in well with this, making Lonati a credible candidate for supplying the material to Reading.

Other foreign musicians in London, although not themselves violinists, would certainly have had contact with musicians abroad who could have passed on music. The keyboardist Giovanni Baptista Draghi arrived in London in the 1660s and remained for the rest of his life, working in the court and theatre.¹²⁹ He is thought to be brother to Antonio Draghi, who worked with Schmelzer at the Hapsburg Court.¹³⁰ Draghi probably knew Valentine Reading at the English court, and certainly knew Balthazar Reading as he witnessed a contract with him for Betterton in 1696.¹³¹ The Albrici

¹²⁴ RNorth, p. 308.

¹²⁵ Jones, 'The "Stupendious" Nicola Matteis', especially pp. 7-8.

¹²⁶ Michael Tilmouth, Andrew D. McCredie, and Neal Zaslaw. 'Matteis [Matheis], Nicola (ii)', GMO.

¹²⁷ Matteo Messori and Anna Katarzyna Zaręba, 'Vincenzo Albrici (1631-1687) e la sua famiglia: recenti ritrovamenti biografici e musicali', *Fonti Musicali Italiane*, 22 (2017), 17-31, at 24, 29.

¹²⁸ Norbert Dubowy, 'Lonati [Lunati, Lainati, Leonati], Carlo Ambrogio', GMO.

¹²⁹ Ester Lebedinski, "Obtained by peculiar favour, & much difficulty of the Singer": Vincenzo Albrici and the Function of Charles II's Italian Ensemble at the English Restoration Court', *Journal of the Royal Musical Association*, 143/2 (2018), 325–359, at 355.

¹³⁰ Peter Holman, 'Draghi, Giovanni Battista', *GMO*. Robert Thompson, 'Draghi, Giovanni Battista (c. 1640–1708), musical performer and composer', *ODNB*.

¹³¹ *BDA*, vol. 12, p. 277.

brothers (Vincenzo and Bartolomeo) sang in the exclusive Italian ensemble at the English court from 1663/4. Their previous employments in (amongst other places) Rome, Stockholm and Dresden, and their 1665/6 sojourn at the Catholic court in Neuburg an der Donau, whilst recruiting musicians for Charles II, would have furnished opportunities to collect the latest Central European music. Vincenzo left London for Dresden again in 1668, later working in Rome and (from 1682) Prague.¹³² Bartolomeo remained in London for the rest of his life, singing in James II's Catholic chapel, so probably knew Reading from the court. Also at James II's court was the Moravian composer Gottfried Finger, who wrote scordatura music for viol and violin (see chapter 4).¹³³ Hailing directly from Olomouc, his influence on English violin music is indisputable. However, Readings Ground was published before Finger arrived in 1685, so Reading must have had access to at least some Central European music before this. Some Reading pieces could have been written later, perhaps influenced by music brought by Finger.

Another possible transmission route between Central Europe and England is via the Low Countries, where Schmelzer's works and similar Central European music were known, as evidenced by B-LVu P206/59. Contact between the Low Countries and England at the time is well documented. Steffkin and his sons spent time in Holland, and the descendants of the Sephardic Jewish Tudor court musicians had family ties in the area. Jesuit networks served as superhighways for cultural transmission between the Habsburg lands and Flanders.¹³⁴ Although England was closed to the Jesuits, music still arrived via this route (for example, Poole's music reached Oxford from St Omer). If Reading was Catholic, as I have suggested, this would have facilitated such transmission.¹³⁵ Evidence of Central European music arriving to England via the Low Countries is a Jigue in GB-Ob MS Mus. Sch. F.573 which concords with a movement from Klagenfurt.¹³⁶ F.573, which includes music by the Flemish Philip Hacquart, was compiled by a Dutch-speaking copyist around 1690.¹³⁷ The inclusion of the Dutchsounding Cornel^o Van Shmelt division in *The Division Violin* suggests that Playford had access to music from the Low Countries before 1684.¹³⁸

Martinelli's family connections in Genoa may explain his access to Central European sources. Italian musicians in Genoa would probably have had contact with colleagues employed in the Habsburg area. Lonati was based in Genoa from the late 1670s until 1682, so could potentially have provided both his own sonatas (there are five in the manuscript) and the Schmelzer-school material

 ¹³² Mary E. Frandsen, 'Albrici [Alberici, Albrizi], Vincenzo', *GMO*. Lebedinski, 'Obtained by peculiar favour'.
 ¹³³ RRFinger.

¹³⁴ PdAPoole, pp. 17-72, especially pp. 20, 28-62.

¹³⁵ PdAPoole, p. 199.

¹³⁶ M73, f. 31r and F.573, f. 32. NobesNS, p. 39.

¹³⁷ Holman, 'Thomas Baltzar', especially 26-7. Dodd, 'Matters Arising', 23–27.

¹³⁸ Item 16. Actually a reduced version of Brade's Coral, S-Uu imhs. 1:10.

to Martinelli. Moens-Haenen speculates that Lonati may have visited Martinelli in Flanders after fleeing Genoa in 1682.¹³⁹ If they were personal acquaintances, Lonati could have visited Martinelli on his way to England in 1676. The present-day di Martinelli family claims that there was an English branch of the family in the seventeenth century, although this is unproven.¹⁴⁰ This would provide an easy transmission route between the Low Countries and Reading, as would also be the case if Reading himself was of Flemish descent, as suggested above.

However Reading acquired his familiarity with Central European music, its influence can be seen in the suites from Mus. 940, including R17, which must have been written before an arrangement of it was published in 1683. Previously, Central European influence in London has been considered to start with Finger's arrival in 1685, but this new information about the influences on Reading's music suggests an earlier connection. Schmelzer may himself have been influenced by the solo viol music of two English émigré players: William Young in Innsbruck, and John Price, who visited Vienna.¹⁴¹ If Schmelzer's music subsequently influenced Reading in England, the pattern of influence has come full circle.

Readings Ground

Whilst continental concordances suggest possible sources of influence on Reading's music, concordances in Britain of Reading's Chacone (R17) show that his music was itself popular and had a certain influence, with the Chacone bass line being used for the creation of new divisions. Two similar published arrangements of R17 appeared in the early 1680s, titled 'Readings Ground' (Playford, *The Division Violin*, 1684)¹⁴² and 'Mr Reddins Ground' (Salter, *The Genteel Companion*, 1683).¹⁴³ Although the Salter and Playford versions are not identical, both appear to stem from the same original, a simpler and shorter version of R17, also for scordatura violin, perhaps arranged from an earlier version than appears in Mus 940.

Playford's version.

Playford's Readings Ground is for scordatura violin tuned ae'a'c#", like R17. The opening item in *The Division Violin*, it remained present throughout the reprints by Playford's son Henry and later Walsh in the eighteenth century. It is the first English example of printed violin scordatura, and the only scordatura piece in the volume. The piece is playable in standard tuning, so the use of scordatura

¹³⁹ M-H*DV*, p. 152.

¹⁴⁰ M-HDV, p. 157, n. 189.

¹⁴¹ PdAPoole, p. 52.

 ¹⁴² 'Mr. Readings Ground' in the 1685 edition onwards. 'Mr Reddings Division to a Ground' in the contents list.
 ¹⁴³ pp. 34-35.

shows the sonority was considered an integral and defining aspect of the work and its composer. A chord at the end is labelled 'The Tuning', but as there is no further explanation about this or the handgrip notation, Playford must have expected his clientele to understand these.

However, certain factors suggest the copyist of the exemplar from which the engraving was made was not entirely familiar with scordatura. Firstly, the key signature is incorrect. A correct scordatura key signature would have sharps on c#" and f#' only (as in R17, see **ex. 3.65**). Before this practice became standard, key signatures were often those of the sounding key,¹⁴⁴ but this is not the case here either. The copyist has added an extra f#", probably assuming that the two sharps represented a D-major key signature (also used in the bass)(**ex. 3.64**). This is unhelpful in terms of both the sounding key (A) and the scordatura, which requires f‡" to be fingered on the top string. No compensatory accidentals are included. Secondly, although scordatura is used, it is not fully exploited, particularly regarding unisons. Playford's strains mostly close with unison a' (playable in standard tuning) (**ex. 3.64**), but unison c#" (only playable in scordatura) is never used. Even the open c#"-string is frequently avoided. R17 makes prolific use of both (compare **ex. 3.64** and **3.65**). Playford's 'English-style' unisons and the old-fashioned time signature (**ex. 3.64**) suggest that his model, like Britton's in Add. 22098, was earlier than Mus. 940, with its up-to-date notation. This is consistent with Playford's English unisons continued to be used in all later editions of *The Division Violin*.



Ex. 3.64 Opening of Readings Ground, The Division Violin (1685).

¹⁴⁴ NobesNS, pp. 27-30.

¹⁴⁵ Playford, Preface to *The Division Violin*, 2nd edn (1685).



Ex. 3.65 Opening of R17, Mus. 940.

Playford's version is not only shorter than R17 (sixteen variations (plus Jigg), rather than fifty), it is less technically adventurous. It concords with R17's simpler variations, further simplified. For example, chords are used only in the cadential figure, whereas R17 has more chords and polyphonic interest (compare variations 1 and 5, **exx. 3.64** and **3.65**). Playford's version frequently favours fingered notes over open-string equivalents, resulting in less resonance, but often easier bowing (although using an open string on the opening note would facilitate bowing; the original probably had a unison here). This difference can be seen in bar 9, where the pitches sound identical in both versions. Playford's unison a', not present in R17, could suggest that both versions are copied from an original with unisons on all three notes of the bar, but each copyist eliminated different notes for technical simplification. Such differences could also occur if a copyist worked from memory, remembering the pitch of the notes, but not how they were played. Playford's only difficult feature is probably an error (manuscript copies sometimes 'correct' it): the unison b' in bar 16 requires double stopping with first and fourth fingers, although the notation does not show this. R17 has a single note here. Such fingered unisons are rare and there are no other English examples.

Playford's cadential figures are more standardised than in R17. This could be deliberate simplification, or a natural result of notating from memory. Passages from R17 requiring shifting, continuous chords and complex passagework are omitted in Readings Ground, as is the tripla section, although Readings Ground finishes with a 'Jigg', not present in Mus 940. Printed pieces are often simpler than manuscript versions, presumably to appeal to a clientele including amateurs and learners. Another such example from *The Division Violin* is the Van Shmelt division,¹⁴⁶ a reduced version of Brade's extensive 'Coral'.¹⁴⁷ Advanced players could have added their own elaborations.¹⁴⁸

¹⁴⁶ Item 16.

¹⁴⁷ S-Uu, imhs 1:10.

¹⁴⁸ Matteis's performances were 'much richer than the prints shew'. *RNorth*, p. 310.

Salter's version

Salter's 'Mr Reddins Ground', for recorder, was published a year before Playford's version. Transposed into F and peppered with ornament signs, Salter's version, without scordatura, chords, or cadential turns, is even simpler than Playford's, although they are otherwise similar (**ex. 3.66**).



Ex. 3.66 'Mr Reddins Ground', Salter, The Genteel Companion, 1683.

Comparison between the two reveals information about the source they were copied from, which appears to be the same, since both share the majority of strains, in the same order. Salter includes four additional strains, but no Jigg. The source probably contained all these elements. All the strains (minus the Jigg) are in R17, but not in the same order (**table 3.6**). Salter's additional strains add little musically, being heavily simplified from their R17 equivalents, two of which (7 and 8) are repeated later. Playford may have omitted them so the piece fitted on a single page.

Table 3.6 Comparison of strains in Salter and Playford versions of Readings Ground. (Numbers refer to strains in R17).

Salter	1	2	3	4	5	6	13	14	7'	8'	<i>c</i> 9	<i>c</i> 10	7	8	17	18	15	16	49	50
Playford	1	2	3	4	5	6	13	14					7	8	17	18	15	16	49	50 Jigg

Bass line

Both Playford and Salter notate the (identical) bass line just once at the bottom of the page, common practice for treble-instrument grounds. However, this bass does not fit the melody, breaking harmony rules and causing dissonances, because, as Mus. 940 shows, the piece was not originally conceived with ostinato bass. This suggests the arrangement was not made by Reading. Playford was
sometimes guilty of publishing works without involving the original composers.¹⁴⁹ The 'one-size-fitsall' bass line, which only appears briefly in R17 (variations 29 and 30), remained in all later editions of The Division Violin. It is so disfunctional as an accompaniment, it can only be assumed that the piece was performed without bass. Although Simpson describes accompanied division playing,¹⁵⁰ unaccompanied performance was common. Salter's publication contained four division pieces, but only 'Mr Reddins Ground' includes a bass. 'A Jigg divided twelve ways' in Apollo's Banquet is also without bass.¹⁵¹ Viol divisions commonly feature the ground bass played by the soloist at the beginning. Gilmore discusses how, when transcribing viol pieces for The Division Violin, Playford moved ground bass lines from the opening to a separate position at the end, implying an accompaniment function which may not originally have been intended.¹⁵² The Readings Ground source might similarly have had the bass at the start. Further evidence for unaccompanied performance is the Jigg in Playford's version, which has no separate bass part. As division playing was largely an improvised practice, written versions mostly served as technical etudes or sample models, rather than for live performance (despite originating from performances).¹⁵³ So the ill-fitting bass line was perhaps less problematic than we might think, since in accompanied performance, new divisions would be created to fit.

Other Copies

Readings Ground must have been popular, as it was widely copied and transcribed for various instruments. A scordatura violin version entitled 'Mr Reding his Ground' appears in GB-Ob MS Mus. Sch. C.95,¹⁵⁴ an early eighteenth-century manuscript of (mostly treble) instrumental pieces and songs.¹⁵⁵ This version seems to be copied from *The Division Violin*, minus the Jigg. Playford's incorrect key signatures in both violin and bass parts are preserved and the unisons are 'English-style', despite the late date. One variation is missing (Playford bars 41-44), probably a copying error, since the variations form pairs and the second half of the pair is present. Playford's cadential slurs are missing, and his unison b' in bar 16 has been changed to a b'-e' chord to match the other cadences. In bar 22, where Playford misprints a' instead of b', the C.95 copyist first wrote a', then corrected it, a further sign he is copying from Playford. The tuning is indicated as a row of notes rather than a chord. In

¹⁴⁹ Rebecca Herissone, 'Playford, Purcell, and the Functions of Music Publishing in Restoration England', *Journal of the American Musicological Society*, 63 (2010), 243-90, at 251.

¹⁵⁰ Christopher Simpson, *The Division-Violist or an Introduction to the Playing upon a Ground* (1659), p. 21. ¹⁵¹ Playford, *Apollo's Banquet* (1687), item 3.

 ¹⁵² Margaret Gilmore, 'A Note on Bass Viol Sources of The Division-Violin', *Early Music*, 11 (1983), 223-25, at 223.
 ¹⁵³ Frank Traficante, 'Division', *GMO*.

¹⁵⁴ pp. 28-29.

¹⁵⁵ Bodleian Archives and Manuscripts Catalogue,

<https://archives.bodleian.ox.ac.uk/repositories/2/resources/9516>.

addition to Playford's bass line, a second version an octave higher is notated for scordatura violin, complete with (English-style) unisons (**ex. 3.67**). These unisons imply an emphasis on sonority, suggesting that this bass line was actually performed by the violinist (perhaps at the start or before further improvised variations) rather than just being an aide-memoire, and points to unaccompanied performance.



Ex. 3.67 Tuning indication and bass lines, 'Mr Reding his Ground', Ob. Mus. Sch. C. 95.

Unaccompanied performance is also suggested in an untitled Readings Ground version for bass viol in GB-Ob MS Mus. Sch. C.39,¹⁵⁶ which presents the bass before the first variation (only). C.39 is a manuscript of viol divisions dated 1679, although it was probably compiled over a period of time. This piece is for viol in standard tuning, in A (with correct key signature), but appears otherwise close to Playford. The Jigg's lack of title, double barlines every four bars, and missing sharp in bar 7 exactly match Playford's 1684 version. Differences are occasional missing slurs, a lack of time signature (also found elsewhere in C.39), Playford's unison b' (unplayable on a viol) reduced to a single b', and Playford's misprint in bar 16 rendered correctly. It seems plausible that it was copied from Playford, particularly as three other items from *The Division Violin* also appear in C.39 (although one, Powlwheels Ground, contains differences which suggest it may have been copied from a shared source rather than directly from Playford).¹⁵⁷ Readings Ground is not the only violin piece arranged for viol in C.39. The manuscript opens with a viol division by Baltzar, which Holman argues was originally for violin.¹⁵⁸

¹⁵⁶ f. 26.

¹⁵⁷ Margaret Gilmore, 'A Note on Bass Viol Sources'. PdAPoole, pp. 214-19.

¹⁵⁸ Peter Holman, 'Thomas Baltzar', p. 14.

Readings Ground also opened John Walsh's *The Division Flute* (1706). This book of recorder divisions mostly consisted of repertoire transposed from *The Division Violin*. Despite being in F for recorder, this version of Readings Ground does not match Salter's. It is an exact transposition of Playford's violin version minus the double stops, complete with disfunctional bass part. The Jigg is included with correct accidentals.

The Balcarres lute book, GB-En Acc 9769 84/1, compiled in Fife c.1700, includes a lute tablature arrangement of Readings Ground (without the Jigg), with a new, varying bass line, apparently written by the arranger, Beck.¹⁵⁹ The manuscript, containing music of French, Scottish and English origin, includes several melodies from *The Division Violin*. Most are given new bass lines, which suggests Beck had access to the melodies only, apparently supplied by the violinist John McLachlan. The arrangement is for eleven-course lute in the D major tuning *efdefd* (plus bass strings tuned in a scale).¹⁶⁰

The only extant version copied from Salter appears in GB-Och Mus 598,¹⁶¹ a manuscript of songs and keyboard pieces from c.1685, probably belonging to a pupil of Richard Goodson senior, in whose hand the piece appears.¹⁶² It is an almost exact copy, although untitled and transposed to C major, with no specific keyboard adaptations such as added chords. It is in keyboard score, with the (disfunctional) bass underlaid beneath the melody. It is hard to believe that a musician such as Goodson, Heather Professor of music at Oxford and organist at New College and later Christ Church, would have tolerated this bass line. Perhaps it was intended as an exercise for a pupil of how to circumvent problems using improvised decoration.

Whether used for accompaniment or not, the bass line would be used as a basis for creating further variations. It is unlikely that players performed from the book, as extemporisation was a highly respected skill. Performances may have varied considerably from notated versions, and between players.¹⁶³ Reading may not have played his own variations identically every time. Thus, the piece probably existed in multiple 'authentic' versions and developed beyond the original composer.

Evidence of this process can be seen in three sources, where the bass line alone is concordant with Readings Ground. One is in F-Pn, Vm⁷ 137323/137317, a manuscript of viol sonatas and divisions associated with Anthony Poole (d. 1692), an ex-pat viol player based in St Omers. Extant only as an untitled bass line, it is the final item in the bass partbook, and probably served as a basis for

¹⁵⁹ 'Redings ground, mr mcLachlands way, by mr Beck', pp. 140-41.

¹⁶⁰ Matthew Spring, *The Lute in Britain: A History of the Instrument and its Music* (Oxford: Oxford University Press, 2001), pp. 475-94.

¹⁶¹ Item 29, ff. 15r-13r (rev).

¹⁶² CCLMC, entry for Mus. 598.

¹⁶³ Discussed throughout Katherine Linn Rogers, 'Written Fragments of an Oral Tradition: "Re-Envisioning" the Seventeenth-Century Division Violin', MA diss., (University of Oregon, 2012).

improvisation. The hand matches no others in the manuscript, so this bass line could have been copied by a visiting player.¹⁶⁴ It is in A with a D-major key signature like Playford's, although the minimally different rhythm in bar 1 suggests it was not a direct copy, perhaps being notated from memory. Del Amo discusses Poole possibly visiting Oxford around 1678, another plausible transmission route.¹⁶⁵

The Readings Ground bass line in G with new variations for bass viol appears in GB-Ob MS Mus. Sch. C.61,¹⁶⁶ a manuscript of viol divisions and violin sonatas copied from 1688 onwards, belonging to the viol-player Francis Withy.¹⁶⁷ None of the variations match Playford's. The bass line (with an insignificant rhythmic difference in bar 3), is underlaid beneath the first strain. The initials 'F. W.' indicate they are Withy's own composition. As the opening launches in with chords, proceeding to rhythmic and arpeggio figuration, rather than starting simply and building virtuosity, these variations may be intended to follow others already in existence (perhaps Playford's), rather than opening a new piece. If so, the key may be significant. A G-major chord is a common realisation of harp-way sharp tuning on the viol. The middle strings of harp-way sharp match the violin tuning of Readings Ground, and Withy's variations fit on a viol tuned to harp-way sharp, as well as standard tuning. As Withy also played the violin, he would have understood the fingering patterns behind violin handgrip notation, so could possibly have played Readings Ground straight from the violin notation on a viol tuned to harp-way sharp. This would realise the piece in G. He could then have gone on to improvise his own variations, notating them in sounding notation, however, this is speculation. Withy could simply be creating a new piece, as he did over Lully's 'Scocca pur' bass line in the same manuscript.168

A final example of the Readings Ground bass being used independently to create a new work is 'A Ground' by Jeremiah Clarke, from his *Choice Lessons for Harpsichord or Spinett* (1711).¹⁶⁹ In G, the bass part is adapted to suit the keyboard style and none of the variations match Playford's. An ornamented version of the same piece is preserved in the early eighteenth-century manuscript GB-LbI Add. 17853.¹⁷⁰

None of these bass-only concordances names the ground, and it is possible that the bass line came to be regarded as common property, rather like jazz standards today, part of an equally improvised tradition. Del Amo discusses how this makes the concept of single authorship inadequate

¹⁶⁴ PdAPoole, p. 173.

¹⁶⁵ PdAPoole, pp. 194-99.

¹⁶⁶ p. 37.

 ¹⁶⁷ Ashbee, Thompson and Wainwright, *The Viola da Gamba Society Index*, vol. 2, pp. 138-43. Holman*LAD*, p. 66.
 ¹⁶⁸ Andrew Woolley, 'Purcell and the Reception of Lully's "Scocca pur" (LWV 76/3) in England', *Journal of the Royal Musicological Association*, 138 (2013), 229-73, at pp. 245 and 260.
 ¹⁶⁹ pp. 2-3.

pp. 2-3.

¹⁷⁰ ff. 47v-48v.

when dealing with such repertoire.¹⁷¹ In any case, the above examples indicate the popularity of Readings Ground. Playford clearly understood the appeal of Readings music, when he published it on his opening page.

Conclusions

Valentine Reading was a skilled player, as demonstrated by his music. His performances of R17 probably achieved fame, leading Playford and Salter to publish Readings Ground. This led to manuscript copies and wider dissemination over several decades. However, based on the extant evidence, manuscript circulation of Reading's music unrelated to Playford and Salter's prints was limited. Reading may have had tight control over this music. Britton likely obtained his copies directly from Reading. It is unclear how Playford and Salter obtained their copies, but Reading's music does not seem to have been in wide circulation before their publications. In compiling Mus. 940, a highly studied collection, exploring and exemplifying a wide variety of tunings and keys, Reading created a compendium of scordatura technique, perhaps intended for teaching. It was probably a manuscript publication, known to cognoscenti as 'Redding's Lyra'. Reading was clearly influenced by continental scordatura practice, even before the arrival of a central-European composer who would leave his mark on English instrumental music. This is Gottfried Finger, who will be considered in the next chapter.

¹⁷¹ PdAPoole, pp. 195-96.

4. User-on-the-Side: Gottfried Finger

Gottfried Finger (c. 1655-1730) hailed from Central Europe and would have been familiar with scordatura from his homeland.¹ He left scordatura music for both violin and viol, and composed for viola d'amore and piccolo violin, which use variant tunings, although his influence on scordatura in England is uncertain. Finger was born in Olomouc, Moravia, which had a thriving musical scene, being the seat of Prince-Bishop Karl Liechtenstein-Castelcorno, whose musical establishment here and at his summer palace in Kroměříž included musicians such as Vejvanovsky and Biber. Growing up immersed in the local style, Finger became a virtuoso viol player and trumpeter, and some of his music survives in Kroměříž.²

Finger was probably in England by 1685, when he is thought to have performed in London with Kühnel.³ Holman speculates on a possible earlier arrival date (with Kühnel in 1682), but this is unconfirmed.⁴ Finger received a court post in James II's Catholic Chapel in 1687.⁵ When the king was exiled in 1688, Finger remained in London as a freelancer, performing concerts and composing for the theatre.⁶ He probably travelled to Italy to collect music between 1697 and 1699.⁷ He also provided information on many stringed instruments for the 1690s Talbot Manuscript.⁸ Finger published prolifically for diverse instrumental combinations, including copious pieces for the fashionable recorder, and his music was popular. His 1690 set of solo sonatas (three for violin, three for recorder) was influential as the first solo sonatas ever published in England. Finger's music also circulated widely in manuscript,⁹ the manuscript pieces often being considerably more demanding than his printed music.

Finger's London career ended after he failed to win the 1701 'Prize Musick' competition. Finger came fourth of four finalists, his more sophisticated older musical style, foreign nationality and Catholic faith probably counting against him. Declaring that 'he thought he was to be judged by men, and not by boys',¹⁰ he left England, never to return.

Life

¹ For Finger's life, see RRFinger, especially pp. 3-20.

² RRFinger, p. 5.

³ RRFinger, p. 7.

⁴ Peter Holman, 'The Sale Catalogue of Gottfried Finger's Music Library: New Light on London Concert Life in the 1690s', *Royal Musical Association Research Chronicle* 43 (2010), 23-38, at 28. Holman*LAD*, pp. 14-15. RRFinger, p. 7.

⁵ *RECM*, vol. 5, pp. 84 and 86-87.

⁶ RRFinger, p. 13. Peter Holman and Robert Rawson, 'Finger, Gottfried', *GMO*.

⁷ Holman, 'The Sale Catalogue', 25. Holman and Rawson, 'Finger, Gottfried.' RRFinger, p. 14.

⁸ GB-OCh MS Mus. 1187. Anthony C. Baines, and Darryl Martin, 'Talbot, James', GMO. RRFinger, pp. 80-83.

⁹ RRFinger, p. 7.

¹⁰ *RNorth*, p. 312.

Violin Scordatura

Three works associated with Finger are relevant to a discussion of violin scordatura. Two are found in GB-Ob Mus. Sch. d.249, from the collection of London apothecary and amateur musician James Sherard.¹¹ This manuscript contains predominantly music for one and two viols with basso continuo, probably copied in the 1690s. Sherard copied much of the manuscript, but two pieces are in Finger's hand. One, half in Finger's hand and half in Sherard's,¹² indicates they were working together and Sherard obtained the music directly from Finger. Two pieces bear Finger's name; others are identified as his compositions from concordances or stylistic traits. Evidence from concordances suggests Finger mostly composed these pieces before arriving in England.¹³

Scordatura violin features in one piece attributed convincingly to Finger on the basis of style and form. This is the only extant seventeenth-century ensemble piece requiring scordatura violin in Britain. The violin part (RI200) is an alternative to the first viol part of a suite in A for two scordatura viols and continuo in the same manuscript (RI174).¹⁴ Both are in Sherard's hand. The manuscript consists of what were originally loose leaves, now unhelpfully bound into an upright folio volume, such that constituent parts of this suite are no longer adjacent.¹⁵ The two-viol version is probably earlier, and the violin part a later arrangement (perhaps made in England), since Finger composed many similar suites for two viols; the title 'Intrada' (common in Finger's homeland for an opening movement) appears in the viol version but not the violin part; and the fact that the violin part is a simplification of the first viol part. The latter is transposed up an octave for the violin, but with almost all chords removed (even where playable), making the violin part significantly less demanding than the first viol part (compare **exx. 4.1** and **4.2**).

The suite consists of a three-section first movement (**rec. 4.01**) followed by five dances (Allemande, Courante, Saraband, Bourèe, and Guige), the first three with following 'doubles'. The two instruments have equal importance, but differing roles. In the dances, the violin first takes the melody whilst the viol plays diminutions underneath, then the roles reverse, with the violin playing diminutions and the viol playing chords. See **ex. 4.3** and its repeat, **ex. 4.4** (**rec. 4.01**, 1:56 and 3:02). Practical investigation showed that this rich texture, especially the chords, contributes to the scordatura resonance of both instruments. In the two-viol version, the extra chords with the first viol melody part significantly increase this effect.

¹¹ Michael Tilmouth and Robert Thompson, 'Sherard [Sharwood], James', GMO.

¹² f. 66.

¹³ RRFinger, pp. 37-42, 369.

¹⁴ RI numbers refer to Rawson's inventory, RRFinger, pp. 149-380.

¹⁵ Viol parts, ff. 149-52. Violin and bass parts, ff. 82-85.



Ex. 4.1 Saraband, RI174, opening, first viol. [EAc#eac#']



Ex. 4.2 Saraband, RI200, opening, violin. [ae'a'e'']



Ex. 4.3 Intrada, RI200/RI174, bars 40-42.



Ex. 4.4 Intrada, RI200/RI174, bars 50-52.

The violin arrangement works because in RI174 the first viol part is consistently higher than the second viol, and their roles clearly differentiated. The transposed violin part creates a more open texture than in the two-viols version, but does not disturb the part writing. Many of Finger's other pieces for two viols (e.g. RI74) have both viols overlapping in range and exchanging roles of providing melody and harmony every few bars, making them unsuitable for arrangement with a treble instrument. RI200 is not the only arrangement of its kind in d.249. There is an arrangement, probably by Finger, of a two-viol piece by Kühnel for violin, viol and continuo.¹⁶

The viol tuning in RI174/RI200 is efdef (EAc#eac#'), named French=Sette in the Manchester Lyra-Viol Book (GB-Mp Brm/832 Vu 51), or Common Tuning Sharp in GB-OCh Mus. 1187.¹⁷ This pattern is the major-key equivalent of what had become standard lute tuning (usually in D). No tuning indication is given, but Finger uses this viol tuning frequently, including for two other pieces in the same manuscript.¹⁸ The violin is tuned to the common pattern ae'a'e", indicated by a chord at the start. These related tunings encourage the sympathetic resonance between the two instruments. This explains why pairs of scordatura instruments are usually tuned identically, or as closely as possible.¹⁹ A closer (and more resonant) violin tuning would be ae'a'c#'', but experimentation revealed that using this tuning restricts the top range making this piece harder to play, which explains why it was not used. Since an original composition for violin would probably have used the tuning ae'a'c#" to match the viol tuning, with correspondingly idiomatic writing for this tuning, the use of ae'a'e" is consistent with the idea that the two-viol version came first. In addition, the violin part does not exploit the full range of the violin, which Finger invariably does in his original violin music. Most of RI200 is limited to the top two strings, occasionally venturing onto the third string for one or two notes. The lowest string is not used at all except as an open string in two chords. The whole piece is playable on the violin in standard tuning, so the fact that scordatura was used indicates that the scordatura sonority was valued. With both instruments tuned in A, all movements are in this key, and do not modulate beyond cadences in the dominant at the midpoint of the dances.

Both violin and viol parts are notated in handgrip notation. Finger was the only composer to use this for scordatura viol in England, where tablature was the norm. The viol part (second viol in RI174) has 'English' unisons (e.g. Intrada, bars 18-19, notated doubled c#' rather than c#'-d' (**ex. 4.5**)), whereas the first viol part of RI174 notates unisons 'continental-style', as we might expect from Finger, given his background. Perhaps Sherard converted the unisons in the second viol part as he copied; they mostly appear within single-line parts, so are easy to spot. He may not have recognised those in

¹⁶ ff. 86-95v. Holman*LAD*, p. 15.

¹⁷ Traficante, 'Lyra Viol Tunings', 199.

¹⁸ RI149 and RI 144. See Holman*LAD*, p. 23.

¹⁹ cf. Heinrich Biber, Harmonia Artificioso-Ariosa (1696), Johann Pachelbel, Musicalische Ergötzung (1695).

the first viol part, which form the bass of large chords (**ex. 4.1**, bars 1, 4). The violin part contains no unisons. For whom was the piece arranged? One possibility is Sherard, who was probably a pupil of Finger²⁰ and played the violin.²¹ Another possibility must be Valentine Reading, with his renowned scordatura interest, who would have known Finger from the court. The demanding viol part was probably played by Finger himself.



Ex. 4.5 Intrada, RI200/RI174, viol (2) part, bars 14-19.

Violetta

A second similar suite in d.249, also convincingly attributed to Finger is the 'Lesson â i violetta, viola di gamba con continuo', RI196.²² A Praeludium is followed by four dances (Allamand, Courant, Saraband, Guig, all but the last with 'doubles'), written in sounding notation. As in RI174/RI200, the two instruments are equal in importance over the bass and share roles in a similar way.

The term 'violetta' probably refers to a viola d'amore, an instrument that used scordatura.²³ The term 'Englisches Violet' was sometimes used on the continent to distinguish the type of viola d'amore with sympathetic strings used in southern Europe, from the northern type which was wire-strung without sympathetic strings.²⁴ The earliest reference to a viola d'amore in England is from 1679, when Evelyn mentioned 'for its sweetness and novelty the viol d'Amore of *5* wyre strings, plaied on with a bow, being but an ordinary Violin play'd on Lyra-way',²⁵ which clearly refers to the northern type. Burney described the 'violetta marina' played by Castrucci in Handel's Orlando (1733) as a 'kind of viol d'amour with sympathetic strings'.²⁶ Viola d'amore is almost certainly the instrument intended in the piece for 'violetta a cinque cords', in the inventory of the private library of Leopold I.²⁷

Finger would have known the viola d'amore from his homeland. Two are listed in Kroměříž inventories,²⁸ and Biber published a Partia for two viola d'amores.²⁹ An Intrada by Finger (RI172) in D-SÜN Schloß MS 12 for two treble instruments labelled 'violetta' is also probably for viola d'amores.

²⁰ Holman*LAD*, p. 15.

²¹ Tilmouth and Thompson, 'Sherard [Sharwood], James'. HawkinsGH, vol. 5, p. 126.

²² ff. 49r-54r. RRFinger, p. 240.

²³ Holman*LAD*, p. 24.

²⁴ Kai Koepp, 'Viola d'amore', *MGG*, Sachteil, vol. 9, pp. 1562-1572.

²⁵ *JEvelyn*, p. 603, [20 November 1679].

²⁶ Charles Burney, A General History of Music, 4 vols, (1776-89), vol. 4, p. 366.

²⁷ RRFinger, p. 105.

²⁸ Facsimiles in SPLiechtenstein, pp. 77-78.

²⁹ Harmonia Artificioso-Ariosa, Partia VII.

Five-string instruments are required, which rules out violins.³⁰ This manuscript has viol concordances both in Kroměříž (A4688), and in Sherard's collection.³¹ The violetta parts of RI172 are written in sounding notation, just like RI196. This leaves open the possibility of using a different instrument if no viola d'amore is available.

Violin and viola d'amore are not always clearly distinguished. Jappe points out their close relationship.³² Evelyn's description of viola d'amore as 'but an ordinary Violin', even though it is wirestrung, has five strings and uses scordatura, is telling. String material cannot be a defining factor, since Praetorius mentioned violins strung in brass or steel,³³ nor the number of strings, which varies between four and six on baroque viola d'amores.³⁴ Sometimes the two instruments are interchangeable: A sonata for viola d'amore, violin and continuo from the Rost Manuscript labels the first violin part 'Violino 1. Sive Viol d'amor' (Violin 1 or Viola d'amore), whilst the second violin partbook describes the piece as 'à 2. Violin.'³⁵ Violin and viola d'amore seem to be at opposite ends of a spectrum with a considerable grey area in the middle. RI196 could have been played on either instrument, as indeed could Reading's suites. Various common viola d'amore tunings match or are close to Reading's high-bass tunings and viola d'amores are extremely resonant, which would suit Reading's apparent interest in sonority. Compare R3/1 played on viola d'amore (**rec. 4.02**) with the original scordatura violin version, recorded in the same acoustic (**rec. 7.05iv.iv**). There is scope for further practical investigation of the violin/viola d'amore overlap, particularly using wire strings.

RI196 fits easily on a violin in standard tuning, but as with RI200, the full violin range is not used. The part goes below e' for only five notes. The viola d'amore had no standard tuning before the classical period, effectively always using scordatura, hence Evelyn's 'Lyra-way' reference. The tuning reflected the key, so a suitable tuning for RI196 would be the common viola d'amore tuning [e]ac#'e'a''e'' (the major equivalent of Rawson's suggested tuning for RI172),³⁶ which has clear parallels with Finger's viol scordatura tuning (Eac#eac#'), used in RI174/RI200. My experimentation found that on a four-string instrument the tuning ae'a''e'' works well, the same as the violin tuning for RI200. If RI196 was initially conceived for a scordatura instrument, might the viol part also have been played in scordatura, as in RI174/RI200? Whilst playable in the tuning Eac#eac#', it is harder, requiring more complicated chord fingerings than in standard tuning. This suggests it was probably not originally written for a scordatura viol. That the violetta part was very likely played (at least

³⁰ RRFinger, pp. 105-6.

³¹ RRFinger, pp. 32-33, 351.

³² Michael and Dorothea Jappe, Viola d'amore Bibliographie: Das Repertoire für die historische Viola d'amore von ca. 1680 bis nach 1800 (Winterthur: Amadeus Verlag, 1997), p. 9.

³³ Michael Praetorius, Syntagma Musicum (1619), vol. 2, p. 48.

³⁴ Jappe, Viola d'amore Bibliographie, pp. 217-22.

³⁵ F-Pn Rés. Vm⁷ 673, no. 78.

³⁶ RRFinger, p. 105.

sometimes) using scordatura again raises the question, mentioned in chapter 2, of how much more repertoire surviving in sounding notation was actually played in scordatura.

RI196 and RI174/RI200 are similar in style and could have been copied as a pair, with a particular player in mind, perhaps Sherard or Reading. William Corbett (1680-1748), another probable pupil of Finger in the 1690s,³⁷ could have played RI196 on the viola d'amore. Adverts for Corbett's concerts from 1728 and 1739 mention 'pieces on the viol d'amore'.³⁸

Piccolo Violin

A third piece by Finger relating to non-standard violin tuning is a sonata in B^b for three violins and basso continuo in F-Lym 129.949. The highest violin part is transposed a minor third lower, implying that it is intended for an instrument tuned b^bf'c''g'', what we nowadays call a piccolo violin.³⁹ F-Lym 129.949 consists of four quarto partbooks, once owned by the Lyon Académie des Beaux-Arts, founded in 1713.⁴⁰ It is well-preserved and neatly copied. The manuscript contains six trio sonatas by Couperin, probably composed in the early 1690s,⁴¹ followed by twelve sonatas by Finger, numbered 1-12, in a different French hand. The sonata with piccolo violin, unique to this source, is no. 8 ('Sonata ottava'). The other Finger pieces are from his op. 1 and op. 5. The sale catalogue of Finger's library in 1704/5 shows he owned a manuscript of (probably the same) six Couperin sonatas.⁴² This suggests the copyist of F-Lym 129.949 and Finger had direct contact, although exactly how is uncertain. If, as Corp claims, the manuscript was associated with the exiled court of James II at Saint Germain,⁴³ Holman speculates that Finger could have visited there en route to Italy in the 1690s.⁴⁴

Apart from the first violin part of 'Sonata ottava' being notated in G rather than B^b, there is nothing to suggest a different instrument is required, and no tuning indication, although the word 'accord' at the start suggests one was present in the exemplar being copied. The piece contains no unisons or chords. Holman and Cunningham suggest it may be an early work.⁴⁵ The piccolo violin

³⁷ Holman*LAD*, pp. 27-29.

³⁸ Quoted in Owain Edwards, 'Espionage, a Collection of Violins, and "Le Bizzarie Universali": A Fresh Look at William Corbett', *The Musical Quarterly*, 73/3 (1989), 320-43.

³⁹ Thanks to John Cunningham for sharing images of this manuscript with me. Modern edition in Holman and Cunningham, eds., *Restoration Music*, pp. 100-105.

⁴⁰ Holman and Cunningham, eds., *Restoration Music*, p. 117.

⁴¹ Holman, 'The Sale Catalogue', 28.

⁴² Holman, 'The Sale Catalogue', 28.

⁴³ Edward Corp, 'The Musical Manuscripts of "Copiste Z": David Nairne, Francois Couperin, and the Stuart Court at Saint Germain-en-Laye', *Revue de musicologie*, 84 (1998), 37-62, at 59.

⁴⁴ Holman, 'The Sale Catalogue', 25-28.

⁴⁵ Holman and Cunningham, eds., *Restoration Music*, p. xxxv.

was in use in Finger's homeland. Inventories from Kroměříž list two,⁴⁶ two ensemble pieces preserved in Kroměříž specifically require it,⁴⁷ and many tunings extant in Kroměříž would suit it well.

Small violins were also played in England. Two violins in the sale catalogue of Britton's music collection are described as 'high': Item 16 'A very good one for a high violin', and item 17 'Another ditto'.⁴⁸ The higher the pitch, the shorter the ideal string length, so these were almost certainly of small size. The sheet-music section of the same catalogue describes item 51 as '17 Sonatas by Mr. Finger, two of them with a high violin.'⁴⁹ Perhaps the sonata in F-Lym 129.949 was one of these. Specific separate (presumably smaller) violins were bought for use in the Chapel Royal at Whitehall, as the organ pitch was higher than that of the Royal chamber.⁵⁰

If the whole ensemble played at higher pitch, no transposition was involved. It is necessary in Finger's piece because the higher-pitch violin combines with others of 'normal' pitch. Although the sounding notes go up to $e^{j/''}$, transposition eliminates the need for shifting (the highest note can be played as an extension from first position), allowing the more resonant first position to be used. Practical experimentation confirmed that although the part fits on a violin in standard tuning, the piccolo version is much easier to play. It would have been suitable for an amateur not comfortable with shifting, perhaps even a child. Leopold Mozart noted the use of piccolo violins 'für gar kleine Knaben', even after they became otherwise obsolete.⁵¹

There was no standard piccolo violin tuning. Finger's, a minor third above standard, was common (used, for example, by Bach in BWV 1046 and BWV 140). Praetorius describes a fourth above standard.⁵² These tunings form a peripheral scordatura category because they use the same fifths pattern as standard tuning. However, piccolo violins were not always tuned in fifths. Prinner (1677) recommends c'g'd''g'',⁵³ with a fourth at the top, because a higher chanterelle was liable to break.⁵⁴ Piccolo violin was almost certainly intended for the numerous continental pieces requiring fourth string c'/d' with chanterelle f'/g', including three published by Pachelbel,⁵⁵ and many examples preserved in Kroměříž.⁵⁶ In England, small violins would have been ideal for Reading's 'high-bass'

⁴⁶ Facsimiles in SP*Liechtenstein*, pp. 77-78.

⁴⁷ Charles E. Brewer, *The Instrumental Music of Schmeltzer, Biber, Muffat and their Contemporaries* (Farnham: Ashgate, 2011), pp. 141-42.

⁴⁸ Hawkins*GH*, vol. 5, p. 88.

⁴⁹ Hawkins*GH*, vol. 5, p. 82.

⁵⁰ WollstonIEVM, p. 39. *RECM*, vol. 1, pp. 60, 139, 149; vol. 5, pp. 147-48.

⁵¹ Leopold Mozart, Versuch einer gründlichen Violinschule (1756), p. 2.

⁵² Syntagma Musicum, vol. 2, p. 26.

⁵³ e.g. used by Johann Fischer in S-Uu imhs 15:12.

⁵⁴ Johann Jacob Prinner, 'Musicalischer Schlissel', US-Wc ML95.P79, f. 47v. GlüxamV, pp. 21, 58, 244. M-HDV, p. 123.

⁵⁵ Tunings c'f'c"f" and c'g'c"f", Johann Pachelbel, *Musicalische Ergötzung* (1695).

⁵⁶ Glüxam*V*, pp. 429-30.

tunings, and were very likely used for these, although we cannot prove this. It may be no coincidence that Britton, who owned two 'high' violins, copied Reading suites requiring the lowest string tuned to c' and d', as well as having Finger's piccolo violin pieces in his library.

Conclusions

Although Finger left his mark on English music in many ways, the extent of his influence on English violin scordatura usage is uncertain, and probably not large. Finger composed using scordatura, but does not seem to have been particularly invested in scordatura violin, perhaps because of its limited commercial appeal. As Finger's arrival post-dates the publication of Readings Ground, any Central European influence on this piece (or the chaconne it derives from) cannot have come from him. Finger might have passed further Central European sources to Reading (inspiring Reading's other suites), but this is by no means certain. Finger could have shared with Reading his experience of working with scordatura on a range of instruments including viola d'amore and piccolo violin, along with his knowledge of continental handgrip notation, but he left considerably more scordatura music for viol than violin. His only extant scordatura violin piece is an arrangement, which does not fully exploit the possibilities of either the instrument or the tuning. Nonetheless, by replacing one of the scordatura viol parts with a scordatura violin, Finger's arrangement underlines a link between scordatura viol and violin which will be examined further in the next chapter, with regard to the English tradition of scordatura playing on the lyra viol.

5. Hidden Repertoire from the Lyra Viol

Well before the arrival of Finger with his scordatura viol music, British lyra-viol players were accustomed to playing in different tunings, with over fifty documented.¹ Lyra-viol music uses tablature to avoid the difficulty of learning new fingerings for each tuning, since it indicates where to put the fingers on each string rather than specific note pitches. Holman argues convincingly that the lyra viol inspired Baltzar to compose for scordatura violin.² This probably applied to other composers too, since the sophistication of the earliest documented English scordatura violin works implies that these were not mere experiments, and that violinists were more familiar with scordatura than the paucity of extant sources might indicate.

A clear link between lyra viol and violin is shown by GB-Ob MS Mus. Sch. F.573, which contains numerous transcriptions of lyra-viol pieces for violin (e.g. **rec. 2.13**).³ However, these are all for violin in standard tuning, despite the original viol pieces using a variety of tunings. There is only one definitive extant example of a lyra-viol piece transcribed for violin in scordatura, an Allemande by John Jenkins, in the Rost Manuscript (**ex. 5.1, rec. 5.01**).⁴ This was a popular viol piece, judging from the number of surviving copies; the Viola da Gamba Society Thematic Index lists nine different viol sources.⁵ The viol original requires high harp-way sharp tuning (*fdefh*, a typical realisation being d'af#dAD). The violin version uses a similar D-based tuning, ad'a'd''. This raises the question of why scordatura violin transcriptions are not more common.

A quote from Hawkins offers a possible explanation. He describes the Oxford music enthusiast Anthony Wood playing the violin in scordatura whilst reading from lyra-viol tablature:

It appears that at the time when Anthony Wood was a young man, viz. about the year 1650, that the tuning of it was scarcely settled; for in the account by him given of his learning to play on that instrument, he says that he tuned it by fourths, and the notation was borrowed from the tablature of the lute, which had then lately been transferred to the viol da gamba.⁶

Playing straight from viol tablature would render written transcriptions unnecessary. This raises the question of whether this way of playing the violin was one of Wood's eccentricities, or whether it was a common practice which later fell out of use. To find an

¹ Traficante, 'Lyra viol tunings', 196-204.

² Peter Holman, 'Thomas Baltzar', 26-29.

³ Dodd, 'Matters Arising', 23-27. Holman, 'Thomas Baltzar', pp. 26-29.

⁴ F-Pn Rés Vm⁷ 673, f. 20.

⁵ VdGS no. 322.

⁶ Hawkins*GH*, vol. 4, p. 384.

answer, we must consider how plausible it is that violinists of the time had the skills to play from tablature, and whether the repertoire available in lyra-viol tablature actually works on the violin.



Ex. 5.1 Jenkins, Allemande, F-Pn rés Vm7 673.

Tablature on the Violin

Regarding the first point, it is likely that violinists in mid-seventeenth-century England would have been equipped to read straight from tablature, because most of them probably played viol and/or lute as well as the violin. It was common for both amateurs and professionals to play several instruments. Court violinist Davis Mell was advertised as a teacher of 'Voyce or Viole';⁷ celebrated viol and lute player John Jenkins turned to the violin in his later years, inspired by Baltzar;⁸ Samuel Pepys played both viol and violin, writing on 15 June 1663 'I up to my wife's closet and there played on my viallin a good while', and on 8 July 1663 'And then to my vial a little.';⁹ and one Francis Garnons from Herefordshire, later a nun at Nieuport, was described in her obituary in 1689 as 'an excelent Mussition both of the Leeraway [i.e. lyra viol], violine & sea Trumpet'.¹⁰ Others discussed earlier who played both instruments include Britton, Withy and Sherard. Traditionally the violin was regarded as a professional instrument with the function of playing for dancing and not genteel enough to be played by amateurs. This only began to change in England from the mid-seventeenth

⁷ John Playford, *A Musicall Banquet* (London, 1651), p. [ix].

⁸ RNorth, p. 298.

⁹ SPepys, vol. 4, pp. 186 and 220.

¹⁰ From R. Trappes-Lomax, ed., *The English Franciscan Nuns*, *1619-1821*, *and the Friars Minor of the Same Province*, *1618-1761* (Catholic Record Society, 1922), quoted by *Who were the nuns?: A Prosopographical study of the English Convents in exile 1600-1800*, https://wwtn.history.qmul.ac.uk/. I am grateful to Peter Leech for this reference.

century onwards. It is therefore likely that during the Restoration period few amateurs would have come to the violin as a first instrument, almost certainly learning the viol first, and thereby becoming familiar with tablature.

Tablature is generally used with fretted instruments and not nowadays associated with violins. However, early treatises show that frets were used on violins for beginners, rather as children nowadays often have stickers on their fingerboards indicating where to place their fingers. Playford recommended this in both his *Introduction* ('it is very necessary for Young beginners to have their Violin Fretted with six frets or Stops on the Neck thereof'),¹¹ and *Apollo's Banquet* ('tie five Frets on the Neck of your Violin, as is on the Neck of a Viol or Lute').¹² He wrote that violin fretting was used 'by some of the most eminent Teachers on this Instrument, as the most facile and easie, to initiate their Scholars'.¹³ A note in the Talbot Manuscript, describing the 'Violin treble' as 'Fretted for Beginners' shows that this practice was still current towards the end of the century.¹⁴ Prelleur, in 1731, suggested marking the finger positions with ink or pasted paper.¹⁵

In his *Introduction* Playford used tablature to explain notes on the violin, so he must have assumed his clientele would understand it.¹⁶ From the 1660 edition onwards he also printed a selection of easy violin pieces in both four-line tablature and staff notation (**ex. 5.2**). He wrote a railing disclaimer: 'yet I do not approve of this way of Playing by Letters, save only as a Guide to young Practitioners, to bring them the more readily to know all the Stops'.¹⁷ His insistence that violin students should move to reading staff notation as soon as possible, rather than relying on tablature (rather like a modern-day teacher objecting to pupils playing from fingerings rather than reading the notes), is a sure indication that some players did exactly this, and that playing from tablature was considered a simpler option.

My own practical experimentation (described below) showed that if one is familiar with how tablature works, it is a straightforward process to 'translate' this onto the violin fingerboard, even without frets. All this suggests that players from the time would have been able to play music notated in tablature on their violins.

¹¹ John Playford, A Breif Introduction to the Skill of Musick for Song and Viol (1658), p. 79.

¹² Playford, *Apollo's Banquet* (1687). Unnumbered page entitled 'Instructions for Beginners on the Treble-Violin'.

¹³ Playford, *Introduction*, 4th edn (1664), p. 112 (first mention) and all subsequent editions.

¹⁴ Robert Donington, 'James Talbot's Manuscript. (Christ Church Library Music MS 1187). II. Bowed Strings', *The Galpin Society Journal*, 3 (1950), 27-45, at 30.

¹⁵ Peter Prelleur, *The Modern Musick-Master* (1731), vol. 5, between pages 4 and 5.

¹⁶ Playford, *Introduction*, 3rd edn (1660), pp. 85-87.

¹⁷ Playford, *Introduction*, 4th edn (1664), p. 112, and all later editions.



Ex. 5.2 Violin tablature, Playford, Introduction (1664).

Playford's Lyra-Viol Publications

I addressed the second question, whether lyra-viol repertoire works on the violin, given that the two instruments have differing numbers of strings and non-identical techniques, through practical experimentation. My investigation was based on Playford's five volumes for unaccompanied lyra viol (*A Musicall Banquet* and the four editions of *Musicks Recreation on the Lyra Viol*), published between 1651 and 1682, because these publications would have been relatively available at the time. No manuscript sources of lyra-viol music were included, since, being privately owned, these would not have been generally accessible to most players. Playford's volumes vary considerably in size and content, as can be seen in **table 5.1**.

The viol tunings used by Playford are shown in **table 5.2**. These tunings all relate closely to common violin tunings found at the time, in both English and continental sources. The viol and lute system of indicating tunings with letters which represent intervals, rather than as absolute pitches, is helpful for comparing tunings of different instruments. For unaccompanied repertoire such as Playford's, the absolute pitch is not fixed, so the music can be played at whatever pitch suits the instrument. My suggested realisations are not the only possibilities.

Date	Title	Lyra- way	Harp- way sharp	Harp- way flat	High harp- way sharp	High harp- way flat	Bag- pipe	Total pieces
1651	A Musicall Banquet	10	8	9	-	-	-	27
1652	Musicks Recreation on the Lyra Viol	16	33	41	4	8	1	103
1661	Musicks Recreation on the Viol, Lyra-way	-	22	64	11	21	5	123
1669	Musicks Recreation on the Viol, Lyra-way	-	69	48	23	12	-	152
1682	Musicks Recreation on the Viol, Lyra-way	-	77	40	-	-	-	117

Table 5.1 Playford's editions for lyra viol and their content, listed by tuning

Table 5.2 Playford's lyra-viol tunings

Tuning Name	Interval Pattern	Possible realisation
Lyra-way	fefhf	d'afcFC
Harp-way sharp	defhf	d'bgdGD
Harp-way flat	edfhf	d'b ^j gdGD
High harp-way sharp	fdefh	d'af#dAD
High harp-way flat	fedfh	d'afdAD
Bagpipe	fhn	d'adD

Playford's 1651 volume (not solely dedicated to lyra-viol music), was something of an experiment, and its success led him to publish *Musicks Recreation* specifically for the lyra viol. The gradual reduction in the number of tunings in the later volumes reflects a declining interest in using a large variety of tunings as the century progressed. Lyra-way tuning, regarded as old-fashioned later in the century, only appears in the first two volumes. A few of the lyra-way pieces appear in later volumes in a different tuning. The harp-way and high harp-way tunings are simple chords, which differ from one another by the position of the third within the chord. Both come in major and minor pairs (termed 'sharp' and 'flat') and are highly resonant within the home key, which made them popular. In Playford, the harpway sharp and flat tunings are the most common and are the only ones which appear in all the volumes. These tunings survived longest when interest in scordatura began to wane in favour of what is now standard viol tuning. It was this pair of viol tunings that Salmon championed as the ideal standard ('An Universal Tuning') in the Salmon-Locke Controversy of the early 1670s.¹⁸

Practical Investigation

Playford's five main tunings formed the basis of my practical study. For each tuning, I tuned the violin in the same interval pattern as the viol tuning, first matching the top four viol strings and then matching the middle four viol strings. Although different pitches are possible, I followed Reading's principle of keeping the a'-string constant. I played all the pieces in each tuning directly from the tablature and recorded whether they worked technically and musically on the violin, either exactly as written or with small adaptations such as could be made easily on the spot, or whether they did not work at all, or at least not without significant adaptation and rewriting. Pieces appearing in identical (or near-identical) formats in more than one of Playford's volumes were not counted as separate pieces. Where the same piece appeared in two different tunings this was counted as two items. According to this system, Playford's volumes contain 311 different pieces altogether, all for unaccompanied lyra-viol. When the violin is tuned to match the middle four viol strings, it is necessary to read the tablature as if the second line represents the top violin string. This was straightforward once I was used to it.

The results showed that whilst a handful of pieces fitted perfectly, in most cases small adaptations were required. For example: occasional low bass notes needed to be transposed up an octave (easy to do where the original viol tunings had strings tuned in octaves), and large chords reduced to smaller chords or unisons (see notes to the recorded examples below, and the tablature originals in **appendix 5.3**). These are exactly the sort of changes which can be seen when the (non-scordatura) violin transcriptions in F.573 are compared with their viol originals. Where the violin is tuned to match the middle four viol strings and thus has no equivalent of the top viol string, occasional high notes or short passages from the top viol string must be realised on the string below. I found myself making these adaptations instinctively after playing a few examples. Sometimes the range was too extensive to be easily adapted, or doing so ruined the musical line. This was more frequent in pieces which were original compositions for viol by established composers, who exploited the whole range of the viol and its idiomatic features, rather than the arrangements of popular ballad tunes which form a large part of the collection. Sometimes a piece could be made to fit, but doing so spoiled a special effect such as large leaps or imitation at different octaves. In these cases I concluded that these pieces did not work on the violin. There were

¹⁸ Salmon, An Essay, p. 51. The term 'An Universal Tuning' is in 'The Contents', p. [iv].

other cases where techniques idiomatic to the viol but not the violin, such as repeated 'bartype' chords (requiring the same fret on three or more strings simultaneously, although not necessarily fingered *barré*), prevented a successful violin realisation, even where the pitch range fitted. The pieces which do fit would make excellent technical studies, requiring controlled chord spreading, neat string crossing and precise intonation, whilst being short and appealing.

The following section of this chapter explores the individual tunings in more detail. See **appendices 5.1** and **5.2** for charts with detailed statistics, and tablature copies of recorded examples (**exx. 5.4-5.12**) in **appendix 5.3**.

Harp-way tunings

 Table 5.3
 Violin realisation of Harp-way tunings

Tuning	Interval Pattern (viol)	Corresponding violin	Possible violin
Harp-way sharp	defhf	def (top viol strings)	cífaící
		efh (middle viol strings)	ae'a'c#''
Harp-way flat	edfhf	edf (top viol strings)	c#'f#'a'c#''
		dfh (middle viol strings)	ae'a'c''

The violin equivalents of harp-way sharp and flat tunings are shown in **table 5.3**. Both tunings are very resonant because of the presence of the third in the chord formed by the open strings. The tuning matching the top four viol strings has a limited range with no bass end.

With the violin tuned to match the top four viol strings I found that around two thirds of the pieces worked on the violin in a straightforward way (**appendix 5.1**). Tuning to match the middle four viol strings gives a pattern which, in its major form, is the most common extant English scordatura violin tuning of the period. It is also used in many folk traditions, including Scottish fiddle and Norwegian Hardanger fiddle music. This tuning worked well for the lower-lying harp-way pieces, which barely use the top viol string (if at all), yet make much use of the fifth string. Many of these were not playable in the first tuning, with its lack of bass end, although some pieces worked with both tunings. Tuning to match the middle viol strings significantly increased the percentage of pieces that could be played on the violin, to 76% (harp-way sharp) and 81% (harp-way flat).

Recorded Examples:

Rec. 5.02 (ex. 5.4): Henry Purcell, 'Ah Cruel Bloody Fate', Musick's Recreation (1682), p. 20.

Harp-way sharp, with violin tuned to match the top four viol strings. The final chord is reduced to a unison, but otherwise this piece fits perfectly on a violin.

Rec. 5.03 (ex. 5.5): Charles Coleman, Almane, Musicks Recreation (1652), pp. 36-37.

Harp-way flat, with violin tuned to match the top four viol strings. The final chord of the second section is reduced to a unison. The final chord of the piece is reduced from five to three notes.

Rec. 5.04 (ex. 5.6): 'Mardike', Musick's Recreation (1682), p. 42.

Harp-way sharp, with violin tuned to match the middle four viol strings. This piece fits perfectly.

Rec. 5.05 (ex. 5.7): Simon Ives, Corant, Musicks Recreation (1669), pp. 26-27.

Harp-way sharp, with violin tuned to match the middle four viol strings. Notes intended for the top viol string (top tablature line) in bars 6 and 13 are realised on the equivalent second viol string (top violin string).

Rec. 5.06 (ex. 5.8): 'Colonel Gerards Tune', A Musicall Banquet (1651), p. 24.

Harp-way flat, with violin tuned to match the middle four viol strings. Unison in bar 1 reduced to a single note. In bars 2, 3, and 9 the lowest note of the chords is omitted, with no significant effect on the harmony. In bar 2 this is compensated for by adding the note an octave higher on the final crotchet of the bar. Notes on the top viol string in bars 3-4 and 7 are played on the string below. The 'bar-type' chord in bar 5 needs to be spread judiciously (the one in bar 4 is a misprint).

Lyra-way tuning

Table 5.4 Violin realisation of Lyra-way tuning

Tuning	Interval Pattern (viol)	Corresponding violin pattern	Possible violin realisation	
Lyra-way	fefhf	fef (top viol strings)	c'f'a'd''	
		efh (middle viol strings)	ae'a'c#''	

As **table 5.4** shows, ae'a'c#" results again when the violin is tuned to match the middle four viol strings of lyra-way tuning. Matching the top four viol strings also produces a very usable tuning, because it contains two related tonal centres: the lower three strings form a tonic chord (here F major) and the top three strings form a chord of its relative minor (D minor).

Playford prints only 21 separate pieces in lyra-way tuning, but using this 'double' approach, almost all were playable (95%), and many worked comfortably in both tunings, as can be seen from the chart in **appendix 5.1**. The lyra-way examples are almost all ballad

tunes and probably the simplest of all Playford's lyra-viol pieces (**rec. 5.07** is typical). This is perhaps because they are the initial items in his first two lyra-viol books, and he did not wish to discourage learners by starting with anything difficult.

Recorded Example:

Rec. 5.07 (ex. 5.9): 'May Time', Musicks Recreation (1652), p. 1.

Lyra-way with violin tuned to match top four viol strings. The final chord in bar 4 is reduced to a unison, otherwise this fits perfectly.

High harp-way tunings

 Table 5.5
 Violin realisation of High harp-way tunings

Tuning	Interval Pattern (viol)	Corresponding violin pattern	Possible violin realisation
High harp-way sharp	fdefh	fde (top viol strings)	d'f#'a'd''
High harp-way flat	fedfh	fed (top viol strings)	d'f'a'd''

Table 5.5 shows the high harp-way tunings. This pair of tunings, also very resonant, has become the standard for the viola d'amore nowadays. On the violin, with only four strings, the lack of bass end proved problematic when playing Playford's examples. The position of the tonic in the chord that forms the open strings meant that fewer pieces in these tunings worked successfully on the violin, due to the way that melodies tended to lie compared with the layout of the strings. The lowest viol strings were not restricted to occasional low notes, but were important for the melody, particularly the fifth string, which allowed the melody to go below the tonic. On the violin, the tonic was the lowest possible note, so parts of these melodies could not be played, yet to put such a section of melody an octave higher often destroyed the musical line. Extensive use was still made of the highest string, so tuning the violin to match the middle four strings of the viol (the same pattern as the top four strings in the harp-way tunings), which would allow the notes of the fifth viol string to be played but not the top string, was not helpful. Nevertheless, almost half of the high harp-way pieces worked on the violin (see appendix 5.1), although on the whole considerably more extensive adaptation (including more shifting and complicated doublestop fingerings) was needed than in other tunings.

High harp-way sharp is the tuning of the viol original of the above-mentioned Jenkins Allemande from the Rost Manuscript, the single extant piece for scordatura violin transcribed from a lyra-viol original. The transcription uses a related rather than identical violin tuning: ad'a'd'' (*fhf*). This common violin tuning, which is easy to retune from

standard, has the advantage of being usable in both major and minor modes without further retuning. It allows a more extensive lower range than if the viol tuning were matched exactly, whilst allowing the special scordatura resonance in D major and the d"-unisons of the original to be retained.

I went through the high harp-way pieces a second time using this violin tuning and achieved a higher success rate than with the tuning which exactly matched the viol strings. I also discovered, to my surprise, that many could be adapted at sight to this tuning, although not all. As **appendix 5.2** shows, 58% were playable at sight for High harp-way sharp and 76% for High harp-way flat (many more worked with practice). It would seem likely that a similar process of using a tuning related but not identical to the viol tuning could work for the Harp-way pieces (ae'a'e'' (*hfh*), another common violin pattern), although I have not tried this.

Recorded Examples:

Rec. 5.08 (ex. 5.10): John Jenkins, Almain, Musicks Recreation (1669), p. 97.

High harp-way sharp tuning, with the violin tuned to match the top four viol strings. The chord at the end of the first section is reduced to a unison. The opening and final chords are reduced from five to four notes. The two-note chord in bar 8 is reduced to a single note and the 'bar-type' chord in bar 9 reduced to two notes.

Rec. 5.09 (ex. 5.11): John Esto, Saraband, Musicks Recreation (1661), p. 92.

High harp-way flat, with the violin tuned to match the top four viol strings. Five-note chords in bars 1, 12 and 16 are reduced to four notes. The first note of bar 10 is played up an octave. The 'bar-type' chord in bar two needs careful spreading. Otherwise it fits well.

Bagpipe

Table 5.6 Violin realisation of Bagpipe tuning

Tuning	Interval Pattern (viol)	Corresponding violin pattern	Possible violin realisation
Bagpipe	fhn	fhn (top viol strings)	ee'b'e"
		hn (middle viol strings)	[a/e']aa'e''

The four-string bagpipe tuning is included here only for completeness (**table 5.6**). Playford published only five separate pieces in this tuning. It also appears in the Manchester Lyra-Viol Book.¹⁹ Matching the viol tuning exactly on the violin is non-straightforward. Keeping the a'-string constant makes the lowest string unresponsive. Tuning the fourth string to a pitch where it rings well causes difficulties at the top end, with the chanterelle on

¹⁹ GB-Mp Brm/832 Vu51, pp. 91-93, nos. 1-6.

the edge of acceptable sound quality and liable to break. I found the most successful compromise to be ee'b'e'', although it was not ideal to lose the pitch stability of the usually constant second string, and the lowest string was weak. As bagpipe tuning is a four-string tuning, all Playford's examples fitted, although 'Simon the King' was unidiomatic for violin due to its many 'bar-type' chords.²⁰ Tuning to match the middle viol strings was more successful sound-wise and enabled the a'-string to remain unchanged (ways to achieve this tuning are discussed in chapter 7). Three of Playford's bagpipe-tuning pieces, which avoid the top viol string, fit perfectly on a violin tuned like this. Of the remaining two, 'Simon the King' fits in range (the few top-string notes are easily played on the second string), but its many 'bar-type' chords remain a problem. 'Room for Cuckolds' does not fit well on just three strings, although it does work in the tuning ad'a'd'', as the lowest string is little used.²¹ As it is not meaningful to draw statistics based on so few examples, no pie-chart has been included in the appendix for bagpipe tuning.

Recorded example:

Rec. 5.10 (ex. 5.12): 'I have been a Piper', *Musicks Recreation* (1661), p. 94. Bagpipe tuning, with the violin tuned to match the middle viol strings. This fits perfectly.

Lies, Damn Lies and Statistics

It is difficult to collect exact statistics about concepts which are inevitably subjective, such as whether a transcription is musically or technically workable. I revised my opinions about what was playable or not as I became more experienced at making adaptations on the spot. There were also times when I struggled to decide whether an adapted piece was musically acceptable, for example, if it sounded fine to a new listener, yet I was aware that certain elements of the original had been lost, such as contrasting octaves, or large numbers of chords. I tried to err on the side of caution, staying as close to the originals as possible and only allowing adaptations if I was convinced they made musical sense and did not infringe the rules of musical grammar, even though Playford's lyra-viol originals sometimes do this. Whether this is due to typesetting errors or disregard for such rules is unclear. I maintained a strict approach, dismissing examples which broke the rules, but it is possible that musicians of the time may have considered more of the adaptations acceptable than I did.

In the Jenkins Allemande from the Rost Manuscript, the transcriber has been significantly unfaithful to the original. When I played this piece as it appears in Playford's

²⁰ Playford, *Musicks Recreation* (1652), p. 80, no. 89; (1661) p. 93, no. 95.

²¹ Playford, *Musicks Recreation* (1661), p. 96, no. 99.

tablature,²² I deemed it unworkable, because there is a whole phrase which lies too low for the violin and makes no sense an octave higher. The Rost transcriber clearly also felt that octave transposition of this phrase would not work, but his solution is simply to have the violin hold a chord for the duration of the passage, until the melody returns to violin range (**ex. 5.3**).²³ If this level of flexibility is permitted, it is possible to make violin versions (in some form or other) of almost all the pieces. My data represent a minimum of possibilities.



Ex. 5.3 Comparison between viol and violin versions of Jenkins Allemande (sounding pitch).

Playford's volumes are aimed at 'yong Practitioners'²⁴ and 'Lovers of musick',²⁵ so contain many straightforward popular ballad and country dance tunes which fit easily on the violin with minimal (at sight) adaptation. However, the more complex pieces, which use the full range of the viol, are hard to adapt at sight. To arrange these for violin, it is necessary to write them out. Once notated, there is less incentive to retain the scordatura tuning, since an important argument for using this was to be able to play from the tablature and thus avoid the labour of transcribing them. This could explain why most extant transcriptions use standard violin tuning.

Conclusions

My study suggests that violinists from early Restoration England would have been able to play directly from viol tablature. Much of the lyra-viol repertoire published by Playford, and therefore available to be bought by those with the means and London connections, works well when played on the violin in this way. It is therefore possible that, far from being an eccentricity of Anthony Wood's, this was common practice. This not only sheds light on the apparently sudden appearance of sophisticated scordatura violin pieces as if from nowhere, but may also explain why so few transcriptions of lyra-viol pieces for scordatura violin remain, since written versions would be unnecessary.

²² Playford, *Musicks Recreation* (1652), pp. 68-69; (1661), pp. 66-67; (1669), pp. 90-91.

²³ Playford versions, bars 22-25. A-ET Goëss MS A, f. 14v, bars 14-17 is similar (see Albert Reyerman, *Goëss A, Pieces for Viol*, ([München]: Tree Edition, 1999), no. 33). No bar lines in the Rost version at this point.

²⁴ Playford, *Musicks Recreation* (1652), title page.

²⁵ Playford, *Musicks Recreation* (1661), p. 1.

All of this suggests that violin scordatura was more widely used than has hitherto been assumed. My study reveals a whole new area of potential hidden repertoire for scordatura violin, which has not previously been considered and deepens our understanding of English seventeenth-century violin playing. The skills required to play this repertoire, such as reading from tablature, familiarity with scordatura, using complex double stops and improvising adaptations must have been considered normal for players of the time, and represent areas that modern-day HIP violinists could usefully explore.

In addition to the lyra-viol repertoire, which violinists may have played, Playford also published popular pieces specifically for the violin. Some of these also used scordatura, and these will be considered in the next chapter. Appendix 5.1. Success rates of playing Playford's lyra-viol pieces at sight on the violin, matching the pattern of the top or middle four strings of the viol.



Appendix 5.2. Success rates of playing Playford's high harp-way pieces on the violin, using the related but non-identical tuning *fhf*.



Appendix 5.3. Tablature originals of recorded examples from Playford's lyra-viol publications.



Ex. 5.4 Henry Purcell, 'Ah Cruel Bloody Fate', *Musick's Recreation* (1682), p. 20. [Harp-way sharp].



Ex. 5.5 Charles Coleman, Aleman, Musicks Recreation (1652), pp. 36-37. [Harp-way flat].



Ex. 5.6 'Mardike', Playford, Musick's Recreation (1682), p. 42. [Harp-way sharp].



Ex. 5.7 Simon Ives, Corant, *Musick's Recreation* (1682), p. 25. [Harp-way sharp]. (First appears in 1669 edition. 1682 print shown here due to better page layout.)



Ex. 5.8 'Colonel Gerards Tune', A Musicall Banquet (1651), p. 24. [Harp-way flat].



Ex. 5.9 'May Time', Musicks Recreation (1652), p. 1. [Lyra-way].



Ex. 5.10 John Jenkins, Almain, Musicks Recreation (1669), p. 97. [High harp-way sharp].



Ex. 5.1 John Esto, Saraband, Musicks Recreation (1661), p. 92. [High harp-way flat].



Ex. 5.12 'I have been a Piper', Musicks Recreation (1661), p. 94. [Bagpipe].

6. Popular Tunes

Various anonymous scordatura pieces, mostly traditional or popular tunes, appear in late seventeenth and very early eighteenth-century print and manuscript sources. Many of these pieces share common features, such as a limited pool of tunings, all easily retuned from standard, handgrip notation with no tuning instruction or one written in words, only using first position, and sparse notation of chords and unisons. In many cases, they can be played without scordatura, which raises the question of why it was used and notated.

Vernacular tunes are rarely notated before the late seventeenth century, the folk tradition being largely aural. However, the mixed contents of the manuscripts in this chapter show that the owners or copyists were literate players, familiar with both folk and art traditions. That scordatura is immediately present when traditional tunes are first notated indicates that it was not a new concept. Open-chord fiddle tunings are documented in the middle ages,¹ and their use probably continued unbroken in traditional music. Whilst some of the tunings used increase the resonance, the popular ad'a'e'' served primarily to facilitate fingerings. It is also likely that this scordatura was sometimes used but not notated.

Variation forms are shared by both folk and art traditions, but the use of scordatura in traditional variation sets is much more common than in 'art' division pieces (Reading's Chacone is the only known British example). This was primarily an improvised tradition. Many printed examples, limited by the print technology, are very simply notated, but in performance, the idiomatic double-stopping possibilities of scordatura could have been exploited to the full. Fortunately, a few more detailed examples survive in manuscript, which serve as inspiration for practical experimentation to recreate some of these improvised performances, as demonstrated at the end of this chapter.

Printed Sources

With printed pieces, type-setting limitations restricted what could be notated, unless engraving was used. Following the first British appearance of scordatura in print (Readings Ground, Playford, *Division Violin*, 1684), two later publications also contain occasional scordatura pieces (see **table 6.1**).

The Dancing Master is a collection of tunes, each with dance instructions, first published by John Playford in 1651,² and continued after his death by his successors Henry Playford and John Young. A small pocket-size book, it was immediately popular. Volume 1 ran to eighteen editions, each adding

¹ Christopher Page, Voices and Instruments of the Middle Ages: Instrumental practice and songs in France 1100-1300 (London: J. M. Dent, 1987), pp. 126-33.

² First edition *The English Dancing Master*, later editions titled *The Dancing Master*.

new dances and dropping others. Two further volumes appeared in the eighteenth century.³ Although nowadays often considered folk music, many of Playford's dances actually derive from Stuart Court masques.⁴ Later, Restoration theatre music was introduced. Some of this theatre music may originally have been inspired by traditional tunes. There is considerable overlap between tunes in *The Dancing Master* and Playford's other publications. In the theatre, dances were played by a violin band, not a context where scordatura was used, so in tunes acquired via the theatre, any scordatura must have been added later. Perhaps Reading was involved, as he apparently had connections with both the theatre and Playford.

Publication	Date	Tuning ad'a'e", D major	Tuning ae'a'e'', A major	Tuning ae'a'c#'', A major
Playford, Division	1684			'Reading's
Violin				Ground'
Playford, Dancing	1687	'New Year's Eve'	'St. Dunstan, or	
Master			Clifford's Inn'	
	1701	'The Gilford'		
Marsden,	1705	'Old Lancashire	'Broosom Hornpipe'	
Lancashire		Hornpipe or Lon		
Hornpipes		Sclater Hornpipe'		

Table 6.1 Scordatura pieces in British printed sources to 1705

Henry Playford's 1687 supplement to the seventh edition of *The Dancing Master* (tunes alone, without dance instructions), contains two scordatura pieces in handgrip notation, without tuning indications. 'St. Dunstan, or Clifford's Inn', a dance in ¢, tuned ae'a'e'', appears in no further editions (**ex. 6.1**).⁵ The jig 'New Year's Eve' is tuned ad'a'e'', despite only six notes using the adjusted lowest string.⁶ This piece also appears in the tenth edition (1698)⁷ onwards, with the instruction 'Tune the Bass-string to a 4th'. This later version, which includes dance instructions, varies somewhat from the 1687 supplement, which, given that the piece was omitted in the eighth and ninth editions, suggests the later version came from a separate source. 'The Gilford', a dance in ¢ also tuned ad'a'e'', which makes good use of the lowest string, appears in the eleventh edition (1701).⁸ It has no tuning instruction before the fourteenth edition (1709). All the *Dancing Master* pieces (scordatura or not) are

³ Full list of editions in Margaret Dean-Smith and E. J. Nicol, "The Dancing Master": 1651-1728.' Journal of the English Folk Dance and Song Society, 4 (1943), 131-45.

⁴ Keith Whitlock, 'John Playford's *The English Dancing Master* 1650/51 as Cultural Politics', *Folk Music Journal*, 7 (1999), 548-578, especially 556-63.

⁵ No. 22.

⁶ No. 27.

⁷ No. 200.

⁸ p. 257.

extremely simple (**ex. 6.1** is typical). Players must have added their own elaborations in performance, which would have been influenced by the tuning (see pp. 132-33).



Ex. 6.1 'St. Dunstan, or Clifford's Inn', The Dancing Master, 1687 Supplement. [ae'a'e'']

Thomas Marsden's *A Collection of Original Lancashire Hornpipes, Old and New. Containing, Divisions upon each* (1705) was also printed and sold by Henry Playford.⁹ The traditional hornpipe, originally a virtuosic solo dance or rustic round dance in variation form, became fashionable in the later seventeenth century as a choreographed set dance.¹⁰ Composers from Purcell to Handel wrote new examples in binary form,¹¹ but Marsden's twenty-five triple-time hornpipes are all traditional variation sets, based on four-bar strains. The volume contains two pieces in scordatura notation, both with written tuning instructions. 'Old Lancashire Hornpipe or Lon Sclater Hornpipe' is tuned ad'a'e'', although the lowest string (the only one affected by the scordatura) is little used (**rec. 6.02**).¹² 'Broosom Hornpipe', tuned ae'a'e'', has an incorrect key signature, missing the g#'' sign.¹³ Perhaps Marsden was not fully familiar with scordatura notation. However, the notation shows a considered choice has been made between fingered and open string notes, with fingered notes preferred where they would facilitate string crossing (**ex. 6.2**).



Ex. 6.2 'Broosom Hornpipe', bars 28-29. [ae'a'e'']

The *Dancing Master* scordatura pieces also contain occasional fingered notes instead of open strings, but unlike in Marsden, they occur in unexpected places, not explained by string crossing, such as for the tonic at cadences, for example, bars 7-8 and the final note of 'St. Dunstan' (all sounding a's); the final note of 'New Year's Eve' (sounding d'); and the cadence note in bar 8 of 'The Gilford'

⁹ Transcriptions in Offord, John of the Green.

¹⁰ Margaret Dean-Smith, 'Hornpipe (ii)', GMO.

¹¹ Offord, John of the Green, p. i.

¹² pp. 2-3. Offord suggests 'Lon Sclater' is a corruption of 'Lord Stranger', the title in later sources, *John of the Green*, p. 116.

¹³ p. 27.
(sounding d'). It is likely that these are the lower notes of unisons which could not be fully represented by Playford's moveable type (**Rec. 6.04i** shows these unisons in 'St. Dunstan'). Perhaps the lower (fingered) note was chosen for printing, rather than the open string, because once playing the fingered note, only a tiny bow adjustment is needed to create a unison with the open string (it often happens unintentionally). If the open string is played first, neat adaptation to a unison is harder. It would also take only a single pen-stroke to change the written note into an 'English' unison, although no such annotations have survived. Marsden's scordatura hornpipe variations, printed using the same moveable type, are also devoid of double stops or unisons, despite offering plenty of other interest (perhaps these variations were formulated specifically with an awareness of the printing limitation). Tuning instructions are given in words rather than as a chord for the same reason. Engraving is needed to represent chords, as used for *The Division Violin*.

Given the typesetting limitations, it is likely that many more chords and other idiomatic scordatura effects were omitted on the page, but could have been improvised by players. This would explain the presence of scordatura even though none of the above pieces appear to need it in their printed form. **Recs. 6.03** and **6.04i-iv** explore how such improvised decoration might sound (see pp. 132-33). The simplicity of the printed pieces belies a more complex performance practice, which used scordatura tunings to facilitate double-stopping and other scordatura-enabled effects. The fact that double-stopping is not notated is likely a function of the printing technology.

Manuscript Sources

Manuscript	Date (approx.)	Tuning ad'a'e",	Tuning ae'a'c#'',
		D major/minor	A major
Panmure	1675-85	'the Baggpipe tune'	
GB-En MS 9454			
Atkinson	1694/5	'Roger the Caverleyr'	
GB-AS MS			
Sant/Gen/Mus/1/1		'London's Loyalty'	
Bowie	1695		'I Love my Love in
GB-En MS 21714			Secret'
Filmer	1680s/90s		'The Sweades. lera
US-NH Filmer MS 9			way'

Table 6.2 Miscellaneous scordatura pieces in British manuscripts to 1700

The presence of chords in manuscripts, where notation was unproblematic, confirms that chords were used. Two very different manuscripts offer examples in scordatura notation using the very resonant tuning ae'a'c#'', which was probably favoured as much for its striking sonority in A major as for its chordal possibilities. This resonance is attractive to both listeners and players, and ae'a'c#'' is an easy retuning to achieve from standard.

Bowie Manuscript

The first example is 'I love my Love in Secret', in GB-En MS 21714 (**rec. 6.01**).¹⁴ Named after George Bowie, whose name is on the (partly missing) flyleaf, this fiddle manuscript is a small book (oblong octavo, 195x148mm) of 83 folios in its original leather binding, probably compiled around 1695.¹⁵ It contains fifty-six pieces. Most are traditional tunes (jigs, hornpipes, and Scotch measures with variations), but there are also courtly dances, an anonymous ground from *The Division Violin*,¹⁶ and two Purcell pieces.¹⁷ The main copyist is probably the Edinburgh violinist John McLachlan (died 1702), whose work encompasses both traditional and courtly music. Six other hands copied occasional pieces. This manuscript may have been McLachlan's personal copy.¹⁸ There is an IOU note on f. 1 dated 1705, from Bowie to 'MM', probably Margaret McKenzie, McLachlan's wife, the probable owner after McLachlan's death.¹⁹ Seven pieces in the manuscript bear McLachlan's name or initials. Fourteen more have concordances bearing his name in the Balcarres Lute manuscript.²⁰

'I Love my Love in Secret' is in McLachlan's hand, written in handgrip notation with a correct key signature, although without tuning indication. It is a traditional Scotch measure in ξ ,²¹ with five strains, most capitalising on the tuning by ending with a four-note open-string chord of A. There are occasional other double stops, but no unisons. This piece requires deft fingerwork and fast string crossing. Such virtuosic sets indicate performance repertoire rather than mere dance accompaniment and show how simple tunes from other sources might have sounded with extemporised elaboration.

This piece has many concordances, including shorter versions in C without scordatura in Henry Playford's *A Collection of Original Scotch tunes* (1700),²² and the Agnes Hume Manuscript (1704).²³ The Balcarres Lute manuscript (Fife, c. 1700) contains two different lute-tablature versions.²⁴ The first, with three strains ('by mr beck, morisons way'), is in C, for lute in standard D minor tuning. The second, with just two strains ('Mr Lesslies way'), is in D, for lute in D major tuning (the major equivalent of standard). This would be more resonant than the first version as the tuning matches the key, and might suggest the second version is taken from an original for scordatura violin, where the tuning and key match. However, this is not certain as the arrangement of Readings Ground in the Balcarres manuscript (for which McLachlan supplied the melody, another link between him and the tuning

¹⁴ ff. 33v-34. Transcribed in Johnson, *Scottish Fiddle Music*, p. 26.

¹⁵ Evelyn Stell, 'Sources', pp. 47-53. Aaron McGregor, HMS < https://hms.scot/manuscripts/sources/8/>.

¹⁶ f. 15v

¹⁷ f. 21, from *The Maid's Last Prayer* (1693); f. 18v, from *Amphitryon* (1690).

¹⁸ Stell, 'Sources', pp. 50 and 240.

¹⁹ Stell, 'Sources', p. 49.

²⁰ McGregor, *HMS*, as note 15.

²¹ Johnson, Scottish Fiddle Music, p. 14.

²² p. 2.

²³ GB-En Adv. MS 5.2.17, f. 5v, 'Lady Streathelen's tune'.

²⁴ GB-En Acc 9769 84/1, pp. 15 and 136. See Stell, 'Sources', pp. 20-37.

ae'a'c#''), although transcribed for lute in D major tuning, is in the key of A, not D (see p. 91). Concordances also frequently appear in later Scottish fiddle manuscripts.²⁵

US-NH Filmer MS 9

A rather different scordatura piece with notated double stops and unisons is found in US-NH Filmer MS 9, a set of three partbooks, probably copied for Sir Robert Filmer, 2nd Baronet (1648-1720), during the last two decades of the seventeenth century.²⁶ Filmer 9 contains arrangements for two trebles and bass (probably strings) of instrumental suites from London theatre productions between 1682 and 1700, copied in chronological order by a variety of professional hands. Composers include Grabu, Tollett, Finger, Eccles, Paisible, Forcer and Lenton. An A minor suite from an unidentified play is attributed to 'Mr Redding', probably Valentine or Balthazar Reading.²⁷ The relationship between manuscript and theatre seems to be close, perhaps with the partbooks being periodically taken to the theatre for copying.²⁸ This manuscript contains no traditional tunes.

At the back of the first treble partbook (only) is an anonymous scordatura piece in handgrip notation requiring the tuning efh, most likely ae'a'c#".²⁹ The title, in secretary hand, reads 'The Sweades. lera way' (ex. 6.3). 'Lera way' is here a general term for violin scordatura, although it may be significant that *efh* matches the middle strings of viol lyra-way tuning (see chapter 5). There is no tuning indication or key signature, although accidentals are added wherever needed. Unison a's in the first and final bars are 'English'-style, but the c#"-unison at the end of the fourth stave is not. The time signature ¢ is sketched in the margin before each stave. A few beats are missing in the first section, which does not scan, so barlines from around bar 7 onwards appear misplaced with respect to the natural musical stresses. This suggests the piece was copied from an exemplar with neither barlines nor time signature, which have been added by the copyist, without taking missing beats into account. Perhaps an allemande, a simple tune seems to have been artistically decorated in a style reminiscent of lyra-viol music based on theatre tunes, such as found in *Musick's Recreation*. The piece features arpeggiated cadence chords, simple double stops and frequent changes of register, sometimes note by note (e.g. bar 16-19) implying polyphony, all features also used by Reading. Perhaps it is no coincidence that a scordatura violin piece appears in a manuscript associated with theatres where Reading may have worked, and containing a suite possibly composed by him.

²⁵ Listed by McGregor, HMS < https://hms.scot/manuscripts/mstunes/?ms=8>.

²⁶ WollstonIEVM, pp. 90-91. Robert Ford, 'The Filmer Manuscripts: A Handlist', *Notes* 34 (1978), 814-25, at 817-19.

²⁷ First treble partbook, pp. 12-15, both other partbooks, pp. 12-14.

²⁸ WollstonIEVM, pp. 87, 91.

²⁹ p. 86inv.

The title probably refers to a song or dance from a play. We cannot discount a reference to Baltzar, whom North called 'a Sweed',³⁰ although *The Division Violin* (1684) clearly designates him 'A Germaine'.³¹ However, Baltzar was long dead, and the piece is not particularly reminiscent of his extant music. The words could be a tuning description, i.e. 'The Swede's tuning' (the extant scordatura suite bearing Baltzar's name also uses *efh*), although the punctuation suggests otherwise. The piece's position at the back of the manuscript, outside the chronological progression, makes it difficult to pinpoint the copying date. The hand does not match others in the volume, and the piece was probably just notated in a convenient space. However, if contemporary with the rest of the volume, a connection with Reading would be plausible. ae'a'c#'' was Reading's most frequent tuning in GB-Och Mus. 940.



Ex. 6.3 Anon, scordatura piece from Filmer 9. [ae'a'c#'']

Another scordatura tuning, frequently favoured for traditional tunes, but not used at all by Reading is ad'a'e''. Unlike ae'a'c#'', the difference in sonority compared with standard tuning is minimal (see chapters 2 and 7). If resonance were the most important factor, we would expect the scordaturas d'f(#)'a'd'' or ad'a'd'' for D tunes, as used by Reading, who seems to have been primarily interested in sonority. Instead, the purpose of ad'a'e'' seems to be facilitation of fingering on the lowest string in D major/minor, where fourth and high third fingers would otherwise be needed, to make a d' (unison) and c#' respectively. This stretch can be demanding for less advanced players, especially if holding the violin on the chest, as many did. If the lowest string is raised a tone, d' can be played with a (non-stretched) third finger and the fourth finger is not needed at all. Several extant

³⁰ *RNorth*, p. 349.

³¹ no. 13.

pieces using this tuning are quite low-lying and make much use of the lowest string. For those that do not, the ease of playing on it would likely have been exploited in improvised variations. A further advantage is that patterns played on the a'-string can easily be transposed an octave down without having to adjust the fingering on the lowest string, a definite advantage when improvising.

Panmure Manuscript

An example of a low-lying tune with the scordatura ad'a'e'' is 'the Baggpipe tune' in GB-En MS 9454.³² This makes a feature of d'-unisons, which are much easier to play in this tuning. MS 9454 is an oblong quarto volume in its original leather binding, one of two violin books from the collection of the Maule family, Earls of Panmure in Angus, Scotland. Most of the book contains English Restoration court and theatre dances, including some published by Playford. Named composers include Banister, Mell, Clayton and Lully. There are some Scottish tunes reversed at the back. This layout is typical of the so-called 'Panmure scribe', the principal copyist, who also copied other Panmure manuscripts and manuscripts of other Scottish nobles. There are three other hands, notably that of Harry Maule (1659-1734). Stell suggests MS 9454 could be his teenage collection, dating its compilation between 1675 and 1685.³³

Holman asserts that the Panmure scribe is Jeffrey Banister, probable brother of John Banister and a member of the Twenty-four Violins from 1662-84.³⁴ Stell suggests further evidence is needed, although Jeffrey is a plausible candidate, as the copyist was probably English, given the extensive amount of English music copied. He could have been employed by the Maules in London, where visiting Scottish nobles avidly collected English court and theatre music. The Scottish pieces could also have been acquired in London, where Scottish music was fashionable.³⁵ McGregor speculates on a possible Scottish copyist, claiming Scottish string players with suitable English connections were employed by the Lord Chancellors and High Commissioners of Scotland.³⁶

'The Baggpipe tune' (**ex. 6.4**, **rec. 6.03** (opening)), is a three-strain triple-time hornpipe, copied by the Panmure scribe in scordatura notation. There is no tuning indication, but the scordatura key signature is correct. The d'-unisons at the opening and at the end of each strain are notated the modern way, suggesting an awareness of up-to-date continental practice. Stell suggests they represent drones.³⁷ Players of traditional music may sometimes have added drones whether notated or not.

³² f. 12v.

³³ Evelyn Stell, 'Sources', pp. 154-57.

³⁴ Holman*24*, pp. 364-66.

³⁵ Stell, 'Sources', pp. 157, 241-2, 259.

³⁶ McGregor, *HMS* <https://hms.scot/manuscripts/sources/3/>.

³⁷ Stell, 'Sources', pp. 335-36.

This piece has one concordance, in GB-En MS 5777, a violin manuscript belonging to the Kerr family of Newbattle,³⁸ also copied by the Panmure scribe. The deteriorated handwriting suggests a later copy.³⁹ This version has three strains but is not identical to the Panmure version. It is in G, without scordatura or unisons. It is notated in French violin clef, but the first strain was initially copied a third too high, then corrected, which suggests it was copied from an exemplar in treble clef. McGregor speculates that this piece may be Scottish,⁴⁰ but Stell notes that in both manuscripts it is grouped with the English pieces and it appears in no other Scottish sources. She suggests it is a 'fake' Scottish piece, created to serve the fashion for Scottish music.⁴¹ If the copyist was indeed Jeffrey Banister, or another court violinist, this is evidence of scordatura use amongst court circles. If the Panmure copy is from the 1670s, this would fill the gap between the proven use of scordatura in London by Mell and Baltzar in the 1660s, and Reading in the early 1680s.



Ex. 6.4 'The Baggpipe Tune', Panmure Manuscript. [ad'a'e'']

Atkinson Manuscript

Another piece requiring ad'a'e'', probably because it makes much use of the lowest string, is 'Roger the Caverleyr'⁴² in the Atkinson Manuscript.⁴³ This violin tunebook contains 207 traditional tunes, fashionable dances such as minuets and London playhouse tunes from the late seventeenth century. The flyleaf is inscribed 'Henry Atkinson his book 1694/5' and the manuscript evidences a

³⁸ ff. 31v-32.

³⁹ Stell, 'Sources', p. 242.

⁴⁰ McGregor, *HMS*, as note 36.

⁴¹ Stell, 'Sources', pp. 335-36.

⁴² pp. 7-8.

⁴³ GB-AS MS Sant/Gen/Mus/1/1. Available on FARNE.

thriving urban middle-class music scene in Newcastle, where Atkinson (1670-1759) was a hostman (coal factor), completing his apprenticeship and being admitted to the Guild of Hostmen in 1694.⁴⁴

There are several hands, often intermingled, which suggests copyists working together. Although some tunes contain bow-direction indications and ornaments, many are less carefully notated. Tunes (many untitled) include Border and Scottish tunes. Named composers include Banister, Purcell, Tollet, Shore and Farinell, indicating that this is not only a 'folk' collection. Much repertoire overlaps with Playford's publications, *The Dancing Master, Apollo's Banquet*, and *The Division Violin* (including versions of 'Tollet's Ground', 'Farinell's Ground' and 'Johnny Cock thy Beaver'). However, most Atkinson versions are not identical to Playford's, suggesting that they are not directly copied, rather both are drawn from a common repertoire pool, which was probably circulating aurally.

'Roger the Caverleyr', a set of four variations on an English tune,⁴⁵ is one of two pieces in the manuscript in handgrip notation (without tuning indication). Both use the same tuning and are copied in the book's opening hand, probably that of Atkinson himself. 'Roger' is the earliest example of this tune using scordatura.⁴⁶ Later scordatura versions are found in Scotland.⁴⁷ John Playford published an eleven-variation version of this piece in *The Division Violin* (1684),⁴⁸ and Henry Playford published a simple two-strain version in the ninth (1695) edition of *The Dancing Master* onwards.⁴⁹ Neither uses scordatura, nor exactly matches Atkinson's version, although they share the key. This is one of Atkinson's less carefully notated pieces, lacking key signature, time signature, bar lines, rhythm dots and clear quavers (quaver pairs are notated as slurred crotchets). Although confusing to sight-read, this copy would work as an aide-memoire for a player familiar with the tune. A sounding key signature of D and occasional bar lines have been added by a (probably much) later hand in blue ink. There are no double stops or unisons, but in bar 1 and elsewhere, a fingered note is indicated for sounding d', rather than an open string, for no obvious bowing reason. As with the Playford pieces above, this strongly suggests that these notes were played as unisons, but the upper note has been omitted on the page.

The other scordatura piece in the manuscript (also ad'a'e'') is 'London's Loyalty', an English triple-time hornpipe in D minor.⁵⁰ This piece appears without scordatura in the thirteenth edition of

⁴⁴ Stephanie Carter and Kirsten Gibson, 'Amateur Music-Making among the Mercantile Community of Newcastle upon Tyne from the 1690s to the 1750s', in Stephanie Carter, Kirsten Gibson and Roz Southey, eds., *Music in North-East England 1500-1800* (Woodbridge: Boydell Press, 2020), pp. 192-209, especially 196-203; Christopher Marsh, *Music and Society in Early Modern England* (Cambridge: Cambridge University Press, 2010), pp. 53-54 and 211-14.

⁴⁵ David Johnson, *Scottish Fiddle Music*, p. 103.

⁴⁶ FARNE <www.farnearchive.com/detail.asp?id=R0100702>.

⁴⁷ e.g. Robert Bremner, A Curious Collection of Scots Tunes (1759), p. 18.

⁴⁸ 'Roger of Coverly', no. 10.

⁴⁹ p. 167.

⁵⁰ p. 20.

The Dancing Master (1706). Apart from the scordatura, Atkinson's version is very similar to Playford's, but given the date, cannot have been copied from this. The piece must have been circulating aurally or in manuscript before the publication, sometimes played in scordatura and sometimes not. Atkinson's version is less carefully notated than the print, having no time signature, key signature or accidentals. Although quaver groups are mostly clear, some are erroneously notated as crotchets. There are no double stops or unisons. Unlike 'Roger', the lowest string is barely used (for only three notes). The fact that scordatura was maintained despite this suggests that it was used to advantage when improvising additional strains.

Atkinson may not have needed scordatura to facilitate fingering. 'Prince Eugin's March', the only piece containing double stops in his manuscript, has frequent unisons requiring fourth fingers on all three lowest strings, implying a good finger technique.⁵¹ The piece appears from the notation to use standard tuning. However, practical experimentation has shown that it would not only work but also be easier in the tuning ad'a'e'' (d'-unisons only needing third, not fourth finger). Perhaps this is a case of hidden scordatura. If sounding notation does not preclude scordatura use, the possibilities are boundless, and scordatura usage may have been considerably more widespread than hitherto assumed.

Practical Experimentation: Embellishment

Original embellishment

First I explored extant pieces containing original embellishments, and recorded 'folk' examples in two different keys and tunings.

Rec.	Work	Tuning
6.01	'I love my love in secret', Bowie Manuscript	ae'a'c#''
6.02	'Old Lancashire Hornpipe or Lon Sclater Hornpipe', Marsden (1705)	ad'a'e''

Then, using pieces which have survived only in simple form, I experimented with different types of ornamentation, such as players might have added in performance. Although the distinction between 'folk' and 'art' music of the time was not clear cut, I attempted embellished examples of each kind, taking inspiration from extant music and allowing my own creativity to be led both by the nature of the original melody and what was idiomatic to the scordatura tuning in each case. This produced some passages which were playable only in the relevant scordatura and others which would also work in standard tuning, but were nonetheless inspired by the scordatura.

⁵¹ p. 125.

'The Baggpipe Tune', Panmure Manuscript [ad'a'e'']

The form of this typical 'folk'-style hornpipe allows improvisation in bars 1 and 3 of each strain, with bars 2 and 4 remaining constant. I made much use of the bottom string (its fingering being facilitated by the tuning) and of drones, inspired by the notated unisons, the simple harmony, and the title. Other features include short patterns repeated at different octaves (simplified by the tuning), chords which lie comfortably under the fingers, and melodic figuration inspired by extant examples, especially **rec. 6.02** which uses the same tuning.

Rec.	Content		
6.03	'The Baggpipe Tune', whole piece		
	0:01-0:28	Original three strains (ex. 6.4)	
	0:28-2:55	Sixteen new strains	

'St Dunstan, or Clifford's Inn', The Dancing Master (1687) [ae'a'e'']

The binary form and modulation in this piece make it particularly suitable for more 'art-style' embellishment. The opening simple form of the melody is presented as notated apart from added unisons in bars 7-8 and in the final bar (see discussion above). I created three 'doubles' featuring different techniques as indicated.

Rec.	Content
6.04i	'St Dunstan, or Clifford's Inn', Original version (ex. 6.1).
6.04ii	Double: Drone style. With the changing harmony, it sounds more artistic than rustic.
6.04iii	Double: Style brisé, inspired by Baltzar's variations in F. 573.
6.04iv	Double: Running semiquaver divisions, inspired by Mell and Finger.

Conclusions

Only three tunings are documented in the popular and traditional repertoire discussed above, all of which are common and easily adapted from standard tuning. The key range is limited to A or D major/minor. This suggests that rather than exploring a wide range of sonorities, as Reading did, these players principally used scordatura to facilitate the notes and effects they wanted. The most common tuning in the above sources (ad'a'e''), not used by Reading, was seemingly favoured by 'folk' players for D major/minor. The more resonant tunings ae'a'e'' and ae'a'c#'' are used for A major. All these tunings facilitate certain unisons or drones (even if not notated).

Tunes notated with scordatura in one source but without it in another suggest a flexible approach both to tuning and notation. Sounding notation may also sometimes have been played using scordatura, which suggests that scordatura usage may have been more widespread than the extant sources of scordatura notation indicate. This might explain why Playford confidently printed a scordatura piece (Readings Ground) on the first page of *The Division Violin*, with no further explanation, assuming that his clients would not find this unfamiliar.

In printed pieces, type-setting limitations restricted what could be notated, so a simple piece with apparently unnecessary scordatura belies a more complex performance practice of improvised elaboration shaped by the scordatura tuning, as my practical demonstrations have illustrated. To make the most of the different tunings, a violin must be appropriately strung. This, along with further investigation of how scordatura contributes to the desired sound aesthetic of the time, will be examined in the next chapter.

7. Stringing and Sonority

The use of different tunings raises a host of practical questions. The first part of this chapter discusses stringing issues, and the second part considers scordatura within the sound aesthetic of the time, building on findings from chapter 2. Practical experiments are presented at the end, but referred to throughout.

Stringing

Seventeenth-century British violin scordatura tunings involve string pitches up to a fifth higher and a major third lower than standard. To address how violins might have been strung for scordatura, it is necessary to understand some basic facts about resonating strings in general and gut strings in particular.

How strings work

The laws governing the pitch of a vibrating string (Mersenne's Laws) were first described by Mersenne in 1637.¹ Sounding pitch is determined by three factors: vibrating length, weight and tension. Varying any one of these whilst keeping the others constant changes the pitch. Since the vibrating string length of any particular violin is fixed, different pitches for the open strings are obtained by altering the weight and/or tension of the strings. Increasing the tension will raise the pitch and vice versa. If the tension is constant, a heavier string will give a lower pitch, a lighter string a higher pitch. Where all strings are made of the same material, weight is directly proportional to diameter.

In this study I used pure gut for all four strings, as would have been common practice in the seventeenth century.² I used a pitch of A=415Hz.³ It is worth noting that heavier and lighter tension set-ups (using slightly thicker or thinner strings) are possible at any pitch standard according to individual preference. The relative changes resulting from scordatura alterations apply regardless of overall pitch standard or set-up preference.

Equal tension

Treatises before the mid-eighteenth century clearly indicate that, unlike today, equal-tension violin stringing was considered ideal.⁴ Examples range from Mersenne (1637) to Leopold Mozart (1756).⁵ This creates an even feel across the instrument under fingers and bow. Equal tension across all four strings is achieved (in standard tuning) by increasing the diameter by half to determine the

¹ Marin Mersenne, *Harmonie Universelle*, Part 2 (1637), pp. 123-26.

² Barbieri, 'Roman and Neapolitan', 158, 162-63. The Talbot manuscript (1690s) describes four gut strings. Donington, 'James Talbot's Manuscript', p. 30. Leopold Mozart still refers to gut G strings, *Versuch* (1756), p. 6. ³ See p. 7.

⁴ Scaling tension is first described only in 1767. Barbieri, 'Roman and Neapolitan Gut Strings', 172-73.

⁵ Mersenne, Harmonie Universelle, Part 2, pp. 179-80, 123-26. Leopold Mozart, Versuch, pp. 5-6.

size for a string a fifth lower, or (equivalently) reducing by a third for a fifth higher.⁶ The ratios 3:2 for the fifth and 2:1 for the octave can be used to calculate gauges that give equal tension for other intervals in non-standard tunings. However, it is essential to measure these gauges under tension on the instrument to avoid incorrect results, since strings of different thicknesses stretch different amounts under tension.⁷

Seventeenth-century players did not have micrometers to measure string diameters in fractions of a millimetre. They had to be more pragmatic. Strings were sold, not by precise measurement, but according to the number of gut strands used to make them. Thus, a violinist might buy a bunch of two- or three-strand strings for his chanterelle.⁸ As individual guts vary in size, there would be a range of diameters within the bunch. Peruffo's experimentation making three-gut strings produced gauges between 0.66 and 0.75mm.⁹ Players would select thinner or thicker strings by eye and feel. Experienced users can develop a surprisingly sensitive awareness of small differences in string gauge without resorting to technology. However, this process must have led to ballpark rather than exact proportions, hence considerable variation from the equal-tension ideal, something Leopold Mozart disapproved of.¹⁰ Mersenne commented of violin string proportions that 'ce qui ioüent de cet instrument n'obseruent pas ces grandeurs si exactement'.¹¹

Restringing or retuning?

The equal tension of a violin in standard tuning is lost as soon as the strings are retuned for scordatura. This raises the question of whether scordatura was achieved simply by retuning, or by restringing to maintain the equal tension. No seventeenth-century bowed-strings treatise addresses this. Lute sources suggest that an uneven feel (and sound) is undesirable:

you must so suit your strings, as (in the tuning you intend to set it at) the strings may all stand, at a proportionable, and even stiffness, otherwise there will arise two great inconveniences; the one to the performer, the other to the auditor. And here note, that when we say, a lute is not equally strung, it is, when some strings are stiff, and some slack.¹²

⁶ 'Eine Discant-Violin hat vier Saiten / und muß eine vor der andern immer rahner oder zärter seyn / und zwar um ein Dritt-Theil', Daniel Speer, *Grundrichtiger Unterricht der musikalischen Kunst*, (1697), p. 189.

⁷ Mimmo Peruffo, 'Equal tension'.

⁸ Both are documented throughout the eighteenth century. Three-strand strings were stronger than two, but not necessarily thicker, depending on the size of the guts used. Barbieri, 'Roman and Neapolitan Gut Strings', 165-66.

⁹ Peruffo, 'Italian violin strings'.

¹⁰ Leopold Mozart, *Versuch*, p. 5.

¹¹ Mersenne, *Harmonie Universelle*, Part 2, p. 180.

¹² Mace*MM*, p. 65.

Leopold Mozart in the eighteenth century also objected to uneven violin strings (although not specifically in relation to scordatura): 'wenn eine Seyte gegen die andere etwa zu schwach oder zu stark ist, so kann unmöglich ein gleicher und guter Ton herausgebracht werden.'¹³

The problem with retuning is that a gut violin string has a pitch range of only about a fifth within which it speaks well, sounds attractive, and is manageable under the bow. Edgar terms this range the 'comfort zone'.¹⁴ Higher than this the string will 'screech' (potentially overstraining the instrument or breaking); below this it is weak and unresponsive. Within the comfort zone, the sound becomes brighter and the string more responsive as the pitch/tension rises, or softer-edged and less responsive as it is lowered. The ideal sweet-spot lies in the centre of the comfort zone (see **PE. 7.1**). **PE. 2.3** also showed how the sound colour changes with lighter or heavier strings at a given pitch. Lowering the tension of the top string affects the sound of the whole violin. Edgar describes it as 'seeming to draw a veil over the sound'.¹⁵ Equally, raising the tension of the lower strings brightens the whole instrument, not just the lower strings themselves.

Restringing versus Retuning from equal tension

It is entirely practical to take a violin strung with equal tension in standard tuning, and retune small pitch changes such as a tone in either direction, as shown in chapter 2. However, larger pitch changes (such as raising a string by a fifth) are problematic because they take the relevant strings out of their comfort zone. My experimentation found that such large tension changes cause extreme unevenness of sound and feel that cannot be mitigated with bow technique. They also seriously unsettle the stability of the instrument. Restringing to maintain equal tension causes no such issues. It enables the increased resonance of scordatura without upsetting the instrument's equilibrium, thus maintaining an even sound and feel, which is preferable for player and listeners (**PE. 7.2**).

It makes sense for a violin used exclusively in a single scordatura tuning to be permanently strung with equal tension specifically for this tuning. However, if playing regularly in a range of tunings (as Reading apparently did), endless restringing becomes impractical. Not only does it take time, but strings were expensive, and constantly putting them on and off an instrument shortens their playing life. Retuning is implied where scordatura is used to achieve particular sound effects resulting from string-tension changes, whether that is Baltzar's use of scordatura to sweeten his sound; Biber's exploitation of scordatura sound effects for religious symbolism in his 'Mystery Sonatas'; or his

¹³ Leopold Mozart, *Versuch*, p. 5.

¹⁴ EdgarEoF, p. 45, n. 27.

¹⁵ EdgarEoF, p. 52.

compatriots' 'humbling' instruments in Lent.¹⁶ Retuning is also unavoidable in three extant continental pieces requiring a change of chanterelle pitch mid-sonata.¹⁷

One set-up for everything?

PE. 7.2 showed that if one set of strings is to be used for a wide range of tunings, starting with equal tension in standard tuning is not realistic. I experimented to establish a single compromise setup that ensured that no string is taken beyond its comfort zone when retuning for all British tunings, nor any string raised more than a tone above its 'equal-tension' pitch, to avoid straining the instrument. With this 'universal' set-up, in standard tuning, a high tension (i.e. heavy string) is needed for the chanterelle, which will be lowered up to a major third in scordatura. This is consistent with Playford's advice that a violinist 'must wind up his first or Treble-string as high as it will bear'.¹⁸ The gauge I chose is approximately that of a medium equal-tension d" (all equal-tension pitches are calculated in relation to the second (a'-)string. See table 7.1). This allows it to be comfortably raised a tone to e", but also lowered to c" without excessive loss of sonority. A seventeenth-century player would simply have selected one of the thicker strings from his chanterelle bunch. The third string, which is raised by up to a major third, needs to be lighter than in standard tuning equal tension. The gauge is approximately that of a medium equal-tension e', so it can be comfortably raised or lowered by a tone. Again, a seventeenth-century player would probably have selected a thin-looking example from his third-string bunch without further measurement. The fourth string, which is raised by up to a fifth, needs to be extremely light. The gauge is approximately that of an equal-tension c', which can go up a tone or down a fourth (perhaps simply a 'fat third string' to a seventeenth-century player). The second string never changes. Columns A and B of table 7.1 show suggested gauges (these are not the only possibilities, as stringing success varies according to individual instruments and personal taste). PE. 7.3 shows the results.

Whilst this set-up is usable, in that it allows all the tunings to be achieved without extreme tension upheavals, there is still considerable unevenness of sound and feel, as well as time needed for the strings to settle. The higher three strings work relatively successfully (particularly the top string, which at this gauge is more responsive all round), but the tone quality of the lowest string is only just acceptable at the lower pitches. This means that it is in the most common tunings (including standard) where the fourth string is low, that the uneven sound and feel under the bow is particularly evident.

¹⁶ EdgarEoF. Robert Rawson, 'Music for Lent and Holy Week: Musical Manifestations of the idea of Humility', unpublished paper, 48th International Musicological Colloquium 'Piety and Music: The repertoire, practice and theology between sacred and secular.' Masaryk University, Brno, 4–6 November 2013.

¹⁷ Marini, 'Sonata Seconda d'inventione', op. 8, p. 34; Biber, *Sonatae Violino Solo* (1681), no.6; Anon, CZ-Kra A572, no. 6.

¹⁸ Playford, *Introduction*, 10th edn (1683), p. 106.

String	A. Equal-tension	B. 'Universal' set-up	C. High-bass set-up
	gauges, ¹⁹ mm	gauges, mm	gauges, mm
1	0.58 (e")	0.65 (d'')	0.65 (d")
11	0.87 (a')	0.87 (a')	0.87 (a')
111	1.30 (d')	1.16 (e')	1.09 (f')
IV	1.95 (g)	1.46 (c')	1.30 (d')

Table 7.1 Possible string gauges in different set-up.	s. (Brackets show equivalent equal-tension pitch)
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Two instruments/set-ups

A more satisfactory solution is to use two separate stringing set-ups: one for high-bass tunings, and one for tunings which do not represent a large deviation from standard (the most common scordatura tunings), such as columns C and A of **table 7.1** respectively. Within each set-up the pitch changes remain small. It is most convenient to use two violins (which could include piccolo violin for the high-bass tunings). However, both set-ups can be used on a single violin. Although this necessitates some restringing, it is more efficient than restringing for each tuning, as each set-up covers several tunings (see **table 7.2**). It is generally only the lower two strings which need to be changed (a slightly heavier chanterelle can be used throughout). During my experiments I discovered a quick and practical way to change between the two set-ups, involving only one string replacement and therefore minimal wear on strings. This involves cross-stringing for the high-bass tunings.

Tunings appropriate to	Tunings appropriate to 'High-	In-between
'Standard' set-up	bass' set-up	
gd'a'e''	d'f#'a'd''	be'a'd''
ad'a'e''	d'f'a'd''	b♭f′a′d′′
ad'a'd''	c'f'a'c''	
ae'a'e''	c'f'a'd''	
ae'a'c#''	c#'f#'a'c#''	

Table 7.2	Britis	h tunings	suited to	o particu	lar string	set-u	ps
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Cross-Stringing

The only documented use of cross-stringing for violin is Biber's 'Resurrection' Sonata.²⁰ This requires the re-entrant tuning gg'd'd", which cannot be achieved simply by retuning the strings from standard, as the second string would become unworkably weak and the third string dangerously taut. Swapping the two middle strings solves the problem, giving more appropriate string gauges for the required pitches. This can be achieved simply by crossing the strings in the pegbox and behind the bridge, so that that each is placed in the other's grooves at the nut and bridge (**figs. 7.1a** and **7.1b**). This is quick and straightforward to achieve, and the newly positioned strings soon settle in pitch.

¹⁹ All gauges measured under tension (not the same as packet size).

²⁰ *BiberRS*, no. [11], pp. 47-53.

Edgar observes a slightly reduced resonance from the two middle strings, since their touching at the crossing point behind the bridge reduces the resonating length between bridge and tailpiece.²¹ My own experience is that the difference is small and more audible to the player than listeners, particularly in a resonant acoustic.





Figs. 7.1a and 7.1b Crossed strings for Biber, Resurrection Sonata.

Biber did not invent cross-stringing. It is already documented in England for the lyra viol in Playford's 1652 *Musicks Recreation*. The piece 'Simon the King', in 'The Bag-pipe Tuning', *fhn* (e.g. d'adD on a viol), carries the instruction 'changing the 5. string into the fourth strings place, and Tune it an eighth to the 3. string' (**fig. 7.2**).²² Playford was too canny a businessman to publish radical innovations in a book aimed at beginners, which suggests that cross-stringing was not unusual. *fhn* also appears as 'Lancashire Pipes' in the Manchester Lyra-Viol Book (c. 1660-80).²³ Cross-stringing is not specifically described here, but is essential if playing on the top four strings without restringing. (An alternative tuning given as '4458' (*ffhn*) allows the middle four strings to be used instead, therefore avoiding the need for string changes. In this case the tablature must be read as if the top line refers to the second string.)

²¹ See EdgarEoF, pp. 74-79.

²² p. 80, no. 89.

²³ GB-Mp Brm/832 Vu51, pp. 91-93, nos. 1-6.



Fig. 7.2 Bagpipe tuning instruction, Musicks Recreation (1652).

I tried Bagpipe tuning on the violin when investigating lyra-viol tunings. As noted in chapter 5, tuning all four violin strings to match viol Bagpipe tuning was unsatisfactory because of the large pitch range. However, for pieces not using the top viol string, the three-string tuning *hn* (fifth, octave, e.g. [a]aa'e") is possible. This tuning can be achieved by simple retuning, although the pitch takes a long time to settle. The third string, lowered by a fourth, sounds and feels very weak, but this can be somewhat mitigated by tuning the (unused) fourth string up a tone to the same pitch, so it adds some tension and resonates in sympathy. The weakness of the third string is just tolerable in pieces where it functions largely as a drone. It would be less comfortable if used for melody, but the fourth string, tuned to a, can be used for melody instead, if needed. A brighter, more substantial sound can be achieved by crossing the lower two strings, enabling the tuning [e']aa'e'' with little upheaval to the string tensions. It resembles the common tuning ae'a'e'', but with the bottom strings crossed (**fig. 7.3**). Both lower strings can function as drones or melody as needed.



Fig. 7.3 Crossed strings for [e']aa'e''.

Experimentation with this crossed-strings tuning showed that repositioning the strings was unproblematic, despite the lack of outer strings to hold the bridge steady (unlike with Biber's tuning),

and the pitch settled quickly. The sonority is generally bright and resonant. I tried this on three violins. On only one was a slightly reduced resonance of the two crossed strings noticeable. This was less significant in a good acoustic, and audiences were not aware of it. Having the thick fourth string in the third string's place (a high point on most bridges) noticeably alters the string levels for the bow (how much depends on the curvature of the individual bridge), but it is possible to adapt to this. If necessary, string levels can be adjusted with cork, leather or folded paper. The fourth string adds sympathetic resonance and can be used for improvised decoration. See **PE. 7.4**. Although not documented for violin (there is little need for it in 'art' music), similar tunings with adjacent octaves existed for the medieval fiddle,²⁴ and (crossed strings or not) were probably used in an unbroken tradition since the middle ages amongst vernacular players. That this tuning is not documented for violin could simply be due to the largely non-literate nature of the folk tradition.

High-bass stringing

To return to 'high-bass' violin scordatura tunings, these are documented in Britain only amongst Reading's suites (see **tables 3.1** and **7.2**), but at least five of his ten tunings fall into this category. Another two (lowest string b' or bb') are more safely achieved with a high-bass set-up than a 'standard' set-up, although they can work with a light standard set-up.

Restringing a high-bass set-up from standard tuning would require changing the lowest two strings. However, using crossed strings, only the lowest string needs to be replaced, with a suitable gauge for f'/f#'. This is then crossed into the third string slot; the original third string (d' in standard tuning) is already an appropriate gauge for the fourth string in high-bass tunings. Thus, the new tuning is achieved with minimal disruption to the instrument. Unlike with Bagpipe tuning, this cross-stringing pattern has minimal effect on bowing levels, as the crossed strings are more similar in size (**fig. 7.4**). In terms of sonority, all the high-bass tunings contain thirds which make them extremely resonant, and the crossed strings seem to make little acoustical difference. Having discovered this practical technique, I continued to use it throughout my study.

²⁴ See Jerome of Moravia's tunings 1 and 3 from his 'Tractatus de musica' (c. 1280). Page, *Voices and Instruments*, pp. 126-33.



Fig. 7.4 Crossed strings for 'high-bass' tunings.

Conclusion

It is possible to use one stringing set-up for all seventeenth-century British violin tunings, simply retuning the strings as needed. However, the necessary use of a heavy chanterelle and significantly light lower strings make this stringing far from ideal, especially for tunings close to standard. Using two principal set-ups, one for 'standard-type' and one for 'high-bass' tunings mitigates the issue, whilst avoiding the need to restring for every new tuning. Cross-stringing facilitates changing between set-ups on one instrument, an important discovery stemming directly from my practical research. Nowadays, I am aware of no other players using this technique for violin scordatura outside Biber's 'Resurrection' Sonata, which is generally regarded as highly unusual. However, the convenience of the technique (alongside evidence of its use on the viol) leads me to conclude that it was probably used regularly on the violin in the seventeenth century, and Biber's sonata is not innovative in this respect.

Sound Aesthetic

Having considered the variety of approaches players may have taken to stringing their violins appropriately for scordatura, the question arises of why they used it, given that so much of the scordatura repertoire is playable in standard tuning. The answer lies in the sound aesthetic of the time and what sound qualities were considered valuable. These differ somewhat from the modern aesthetic, which prioritises projection, brilliance and evenness of tone. With no recordings to refer to, we are reliant on contemporary written descriptions of sounds. These give an incomplete picture, partly because of the difficulty of describing sound timbres in words, and because the meaning of words can subtly shift over time. Practical investigation offers some insight into the extant descriptions.

'Sweet' and 'harmonious'

The single most common term used in seventeenth-century writings to describe a desirable stringed-instrument sound is 'sweet'. Mace equated 'the Pure Sweetness of the Instrument' with 'the Soul or Spirit thereof'.²⁵ He advised against bowing viols near the bridge or plucking lutes with nails to achieve a sweeter sound.²⁶ These techniques make the sound softer-edged rather than brilliant and projecting, which suggests that 'sweet' carried the sense of tender or gentle. It was often specifically associated with scordatura, perhaps also referring to the enhanced resonance. Salmon, favouring harp-way lyra-viol tunings over standard tuning, wrote that music masters 'generally set their sweetest Airs, and pleasantest Suits of Lessons that way.'27 Evelyn was amazed at the 'sweetness & novelty' of the viola d'amore, a scordatura instrument renowned for its resonance, writing 'I never heard a sweeter Instrument'.²⁸ The very name 'viola d'amore' implies tenderness. Leopold Mozart described its sound as 'lieblich'.²⁹ The scordatura violin in Johnann Valentin Meder's 'Himmlischen Valet-Music' is designated 'uno Violino dolcisono', ³⁰ and Schmelzer left a scordatura violin piece titled 'Sonatina l'amorosa'.³¹ Perhaps it is no coincidence to find the Latin word 'dulcis' in song settings featuring scordatura instruments, such as the anonymous cantata 'O dulcis Jesu', for soprano, scordatura violin and basso continuo;³² and Georg Schmetzer's 'O dulcis amor Jesu!', for alto, two scordatura violas and basso continuo.³³

As we saw in chapter 2, Mell's sweet tone was valued over Baltzar's virtuosity, and Baltzar, whose sound was described by contemporaries as 'rough', used scordatura to sweeten his sound. Experiments in chapter 2 showed that with the tuning ae'a'c#'', the tone not only became gentler and softer-edged, but more resonant than standard tuning. This aura of sustained resonance (akin to the after-ring of a bell, unstopped harp strings, or a piano with the sustaining pedal down) is another sound quality which seems to have been greatly valued. North described Baltzar's scordatura music as 'very harmonious'.³⁴ Playford also used 'very Harmonious' to describe similar sustained resonance on a lyra viol with sympathetic strings.³⁵ This is a different meaning of 'harmonious' from today. Although the modern meaning of 'concordant' existed at the time, sympathetic scordatura resonance is not always concordant, often clashing with other sounding notes, although the overall effect

²⁸ JEvelyn, p. 603, [20 November 1679].

³⁴ *RNorth*, p. 349.

²⁵ Mace*MM*, p. 241.

²⁶ Mace*MM*, pp. 249, 73.

²⁷ Salmon, An Essay, p. 49.

²⁹ Versuch (1756), p. 4.

³⁰ PL-GD Ms. Joh. 194. Title page.

³¹ A-Wm Ms. XIV 726, no. 1.

³² D-DI Mus. 2. E. 534.

³³ S-Uu Vok. Mus. i hs. 34:17 and D-DI Mus. 2. E. 25.

³⁵ Playford, *Musicks Recreation* (1661), Preface, p. [i].

remains attractive. Early dictionaries give a different definition of 'harmonious'. Bullokar's *An English Expositor* (1616, reprinted throughout the seventeenth century) defines it as 'Sweet, pleasant, delightful to the eare', and 'Harmonie' as 'Delightfull musicke of many notes'.³⁶ Cockeram's, *English Dictionarie* (1623, also reprinted throughout the century) offers an almost identical definition.³⁷

The value placed on sustained resonance is underlined by the 'Rule of Holds', described by Mace and Simpson, who advocated holding down the fingers as long as possible to increase the sustain of stopped notes. For Mace, omitting to do this was one of two 'Very Grand Faults' and 'Gross'.³⁸ French viol sources call this technique 'tenue'; it is fundamental to the lute and harpsichord *style brisé*.³⁹ The technique must have applied to violin-playing too. Early treatises do not give this level of detail, but Leopold Mozart considered keeping fingers down 'eine Hauptregel'.⁴⁰

Degrees of Resonance

Scordatura facilitates sustain within and close to the home key. However, there are differences between the levels of resonance and brightness in different tunings, for example, tunings containing the third of the chord are noticeably more resonant (in their home key) than open chords. **PE. 7.5** explores the resonance of different British tunings. Some differences are more apparent to the player than listeners (therefore not the easiest to capture on microphone), but player experience was important in the context of the time, where small-scale music-making predominantly happened at home for personal enjoyment, rather than to an audience. Any listeners would be close by, not at a distance as in a modern concert hall.

The extra resonance of scordatura comes at a price. Many tunings, especially those with a third in the chord, significantly reduce both the pitch range (with sometimes only an octave between the outer strings), and the possible harmonic range. **PE. 7.6** shows how quickly the resonance disappears when moving away from the home key, and how some notes even within a key are more resonant than others, creating a level of unevenness of tone which seems to have been tolerated.

An advantage of open-chord tunings is that both the tonic major and minor can be used without retuning, albeit at the price of less resonance than a tuning containing a third. As scordatura tunings are generally less harmonically versatile, scordatura pieces rarely modulate beyond the dominant or relative minor/major. Seventeenth-century players were accustomed to harmonic

³⁶ John Bullokar, *An English Expositor teaching the interpretation of the hardest words used in our language. With sundry explications, descriptions, and discourses. By I. B. Doctor of Phisicke.* 1st edn (1616).

³⁷ Henry Cockeram, The English Dictionarie: or, An Interpreter of Hard English Words (1623).

³⁸ Simpson, *The Division-Violist*, p. 5. Mace*MM*, pp. 254, 84, 249-50.

³⁹ Robert A. Green, 'Jean Rousseau and Ornamentation in French Viol Music', *Journal of the Viola da Gamba Society of America*, 14 (1977), 4-41, at 17-19.

⁴⁰ Leopold Mozart, Versuch, 2nd edn (1770), p. 58. (Not in 1756 edition.)

restrictions imposed by meantone keyboard temperaments, so, although scordatura limitations are greater, they were probably largely accepted as payoff for the special scordatura sonority.

Open strings

Another technique favoured for reasons of resonance was the preference for open strings over stopped equivalents. Mace recommends this for the lute 'because an Open String is more sweet, and Freer of Sound than a stopt String.'⁴¹ Again, the concept of sweetness is connected with resonance. Scordatura tunings enhance open-string resonance. Salmon favoured harp-way viol tunings: 'that the most frequent Notes be always struck open' so that 'the whole Viol, with an unstop'd freedom, may eccho forth a full Consort-Stroke.'⁴² Seventeenth-century violin treatises ignore the subject, but North, in his notes for 'The Musicall Grammarian' (1726) approvingly described a new practice of 'sounding all the notes under the touch, and none with the strings open', rather than 'the old way of using the open strings', suggesting that open strings were previously preferred.⁴³ This is confirmed by extant scordatura handgrip notation (indicating fingerings rather than pitches), which shows open strings overwhelmingly favoured. This necessitates increased string crossing (especially as scordatura generally reduces intervals between the strings), which can present significant technical challenges in fast passagework.

PE. 7.7 shows that the resonance of open strings must have been valued above neatness and evenness of tone. The ringing on of as many notes as possible was favoured, even if this was not every note. A perfectly even sound without this resonance would not have been considered 'harmonious'. By the mid-eighteenth century, the aesthetic had changed. Leopold Mozart advised against open strings to avoid unevenness of tone: 'weil die leeren Seyten gegen den gegriffenen zu laut sind, und gar zu sehr in die Ohren dringen.'⁴⁴

This change is part of a larger aesthetic shift, which evolved during the course of the eighteenth century to reflect changing social and musical circumstances in which the violin was played.⁴⁵ In the early eighteenth century, with the musical prestige of Italy and the influx of Italian players to London, 'England had virtually become a musical province of Italy'.⁴⁶ The Italian preference for heavier strings and a louder brighter sound, as described by Raguenet, was imported along with new Italianate compositional forms such as the concerto.⁴⁷ Public concerts became increasingly common and performance venues became larger. This drove the desire for a more full-blooded sound

⁴¹ Mace*MM*, p. 68.

⁴² Salmon, An Essay, p. 49.

⁴³ *RNorth*, pp. 233-34.

⁴⁴ Leopold Mozart, Versuch (1756), p. 107.

⁴⁵ See Boyden's overview of the development, *The History*, pp. 172-74, 281-84 and 447-48.

⁴⁶ Boyden, *The History*, p. 316.

⁴⁷ See chapter 2, note 66.

(Leopold Mozart describes 'einen rechtschaffenen und mannbaren Ton'),⁴⁸ which could carry to the back of a concert hall and be heard over an orchestra, with increasing emphasis on virtuosity and brilliance.⁴⁹ The aesthetic change was also reflected in violin building, with increasing demand for the more powerful flat-bellied instruments of Stradivari and Guarneri over previously favoured sweeter-sounding Amati models.⁵⁰ At the same time, the bow underwent a dramatic transformation, growing in length and weight, especially of the head, to facilitate the new sound ideal, and culminating around 1680 in the Tourte-style bow.⁵¹ This aesthetic remains today, with tone projection and even sound forming an essential part of modern-day violin training.

Conclusion

In the seventeenth century, sustained resonance was favoured, even at the cost of other limitations (neatness, harmonic range, pitch range, and evenness), along with a soft-edged gentle tone, very different from the focus on brilliance, projection and even tone which is valued today. Scordatura violin tunings facilitated this desirable sound. The change of aesthetic in the eighteenth century was probably one reason why scordatura eventually fell from favour outside folk music, which places less emphasis on modulation and evenness of tone.

⁵⁰ Boyden, *The History*, p. 281, 314, 329.

⁴⁸ Leopold Mozart, Versuch (1756), p. 54.

⁴⁹ Boyden, *The History*, p. 314.

⁵¹ Boyden, *The History*, p. 312.

Practical Experimentation

All comparative examples were performed on a single instrument.

PE. 7.1 Pitch/tension changes of a single gut string to illustrate the effect on sound-colour

The recording shows a top string tuned as high as realistically possible, then tuned down tone by tone and the sound colour noted. The results are as follows:

Rec.	Pitch	Sound result
7.01i	g"	(absolute upper limit, danger of breakage). Squeaky, difficult to control.
7.01ii	f"	very responsive, bright sound
7.01iii	e"	good bright sound
7.01iv	d"	less bright sound, but still responsive
7.01v	c"	soft edged sound, little projection
7.01vi	b♭′	weak, unresponsive, doesn't speak properly (out of comfort zone)

The same experiment with the other strings yielded equivalent results.

PE. 7.2 Restringing versus Retuning from equal tension

This demonstration compares retuning (from equal tension in standard tuning) with restringing to maintain equal tension, with large pitch (tension) changes. As there was a serious risk of overstraining the instrument, I used a student violin with a deliberately light set-up. I played both scales and pieces. Tracks and tunings as follows:

	Rec.	Retuning	Rec.	Restringing
d'f#'a'd''	7.02i	scale	7.02ii	scale
	7.02iii	R3/1	7.02iv	R3/1
c'f'a'c''	7.02v	scale	7.02vi	scale
	7.02vii	R5/1	7.02viii	R5/1

Retuning in this way takes the lower strings out of their comfort zone and makes the sound (and feel) extremely uneven, as the recordings show. Even a light g-string (1.7mm) tuned up a fifth sounds strident and puts immense strain on the instrument, yet a correspondingly light top string tuned down to c" is so weak as to be barely viable. This spoils the musical effect. It is impossible to mitigate such extreme unevenness of sound with the bow and it took numerous attempts to record clean versions.⁵² The large tension changes also upset the stability of the instrument, which is slow to settle into the new tuning. Restringing to maintain equal tension in the new tuning allows an even sound and feel under the bow across the whole instrument to be maintained.

⁵² Edgar eloquently describes the same effects, EdgarEoF, p. 67.

PE. 7.3 A universal set-up?

This demonstrates the single stringing set-up established in **table 7.1**, column B for a range of tunings. All British tunings were tried. As many require similar tension changes, a selection showing particular features were recorded.

Tuning	Scale rec.	Piece rec.	Piece	Tuning feature
gd'a'e''	7.03i	7.03ii	Baltzar, John Come	low bottom string
			Kiss (opening)	
ae'a'c#''	7.03iii	7.03iv	R16/1	low-ish bottom string, lowered
				chanterelle
b♭f'a'd''	7.03v	7.03vi	R11/1	medium bottom string
d'f#'a'd''	7.03vii	7.03viii	R3/1	high bottom string
c'f'a'c''	7.03viiii	7.03x	R5/1	low chanterelle

Although this stringing is usable for all the tunings, without straining the instrument, it is not ideal. There is still much unevenness in certain tunings which spoils the musical effect. This is worst in the 'low-bass' tunings, with a very weak fourth string. The strings settle more quickly than in **PE. 7.2** but the larger changes still take considerable time to settle.

PE. 7.4 'I have been a Piper', Playford, Musicks Recreation (1661), p. 94

This piece is presented two ways, first with the tuning [a]aa'e'', achieved by tuning the third string down a fourth, and second with the tuning [e']aa'e'', achieved with cross-stringing. The second way sounds brighter and feels more even under the bow. The first tuning has a very weak third string (in sound and under the bow), although the sound is somewhat supported by the fourth string tuned to the same pitch.

Rec.	Tuning
7.04i	[a]aa'e'' (simple retuning)
7.04ii	[e']aa'e'' (cross-stringing)

PE. 7.5 Comparison of different British scordatura tunings by key

This section explores sonority by tuning, building on the experiments in chapter 2. Most scordatura tunings enhance resonance in their home key, but not all equally. The following recordings compare different British tunings (including standard) used for a single key, to determine their differing effects on resonance and brightness within that key. All are played on the same instrument in a dry acoustic. Stringing set-ups are based on the 'standard' and 'high-bass' set-ups as described in **table 7.1** columns A and C. For tunings with fourth string b or b^b, two versions are considered, one using retuning from 'standard', and one retuning from a 'high-bass' set-up.

Whilst experimenting, I played Reading's (and other) pieces specifically written for each tuning. Designed to make the most of each tuning idiomatically, these pieces vary hugely in terms of range, chords/single line, florid/plain, use of high positions etc., which makes comparison non-

straightforward. Therefore, when recording, I played a single allemande for each key grouping, using all tunings in that group. This allows broad comparison, but disadvantages the tunings the piece was not composed for. Although some of their effects are diminished in the recordings, they are described in the commentary.

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Rec.	Tuning	Comment	
7.05i.i	gd'a'e''	Least resonant.	
7.05i.ii	ae'a'e''	Brighter and more resonant (resonance of e'-string particularly audible at 0:51-2, 1:05-6, 1:16 and 1:36-1:42).	
7.05i.iii	ae'a'c#''	Very resonant (e.g. chord 0:09), but softer-edged, especially top string (e.g. 0:01-0:08).	

These results reflect the chapter 2 findings. Standard tuning is least resonant despite the a'and e''-strings giving some resonance in this key (and A minor, see below). Fingerings required for some of the chords in R14/1 (designed for ae'a'c#'' tuning) do not allow the best resonance of ae'a'e'', as fewer open strings can be used. ae'a'c#'' consistently attracted the most audience comments throughout my study. It is so resonant that the strings resonate with speech, without being bowed. This is probably the reason it was so popular.

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Rec.	Tuning	Comment
7.05ii.i	gd'a'e''	Least resonant. Running thirds tricky.
7.05ii.ii	ae'a'e''	More resonant and bright. Responsive lower strings (e.g.
		0:07) and brighter at top (e.g. higher notes 0:42-0:50)
7.05ii.iii	be'a'd'' (standard set-up)	Most resonant in this piece. Very responsive fourth string
		e.g. 0:07.
7.05ii.iv	be'a'd'' (high-bass set-up)	Resonant like 7.5ii.iii but softer-edged.

This piece, with its running sounding thirds, is more idiomatic for its intended b'e'a'd" tuning than standard tuning, which would sound brighter in a piece not requiring shifting and extensions (which shorten the string length, reducing brightness) to play it. Similarly, the double stops in R8/1 prevent the player from exploiting all the open-string possibilities of ae'a'e", which would otherwise sound more resonant in this key. We might expect be'a'd" to show similar resonance to standard tuning, but here it is more resonant than gd'a'e" and even ae'a'e", because Reading tailored the composition to make the most of this tuning.

iii. B♭ major, R11/1	1
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Rec.	Tuning	Comment
7.5iii.i	gd'a'e''	Least resonant. No d''-unisons.
7.5iii.ii	b♭f'a'd'' (standard set-up)	Very resonant, also brighter. d''-unisons.
7.5iii.iii	b♭f'a'd'' (high-bass set-up)	Very resonant like 7.5iii.ii but softer-edged. d''-unisons.

This is another example where the chords are more idiomatic for the scordatura than standard tuning, although they are less frequent than in R8/1 above, which facilitates tuning comparisons. As in **recs. 7.05ii.iii-iv**, the high-bass version of the scordatura is softer and sweeter-sounding than the standard, because the fourth string is lowered rather than raised, which impacts the sound of the whole instrument.

Rec.	Tuning	Comment
7.05iv.i	gd'a'e''	Least resonant. Especially noticeable on chords and cadences e.g. 0:03, 0:30, 1:15. No d"-unisons.
7.05iv.ii	ad'a'e''	Similar resonance to gd'a'e" but brighter overall. Fourth string more responsive and fingering easier. No d"-unisons.
7.05iv.iii	ad'a'd''	More resonant, but less bright, especially top string (e.g. 0:01). d''-unisons e.g. 0:06.
7.05iv.iv	d'f#'a'd''	Most resonant (noticeable right from the start). Note resonance of f#'-string at 0:57 and chord at 0:34. d''-unisons e.g. 0:08.

<u>iv. D major, R3/1</u>

See 7.5v below for commentary.

<u>v. D minor, R4/1</u>

Rec.	Tuning	Comment	
7.05v.i	gd'a'e''	Least resonant. Especially noticeable on chords and	
		cadences e.g. 0:03 and 1:15.	
7.05v.ii	ad'a'e''	Similar resonance to gd'a'e" but brighter overall.	
		Especially audible at top end e.g. 0:37 and 0:56-1:06.	
		Fourth string more responsive and fingering easier.	
7.05v.iii	ad'a'd''	More resonant, but less bright, especially top string	
		(sounds more reedy).	
7.05v.iv	d'f'a'd''	Most resonant. Note resonance of f'-string at 0:22, 0:34,	
		0:42, 0:59 and chords/arpeggios at 0:03 and 1:20.	

Sections iv and v are similar and build on the chapter 2 Mell experiments. The first three tunings of both (gd'a'e'', ad'a'e'' and ad'a'd'') yield the same results as before, with ad'a'e'' slightly brighter than standard tuning, and ad'a'd'' more resonant and softer-edged. The new tunings added here which contain thirds (d'f#'a'd'' and d'f'a'd'') give strikingly more resonance than the other three tunings, although at the cost of limited pitch range.

Rec.	Tuning	Comment	
7.05vi.i	gd'a'e''	Least resonant. No c"-unison.	
7.05vi.ii	c'f'a'd''	Resonant and bright. Open string resonance 0:02-0:04.	
		No c''-unison.	
7.05vi.iii	c'f'a'c''	Resonant and soft-edged, especially on top string e.g.	
		0:15-0:28 and 0:51. c''-unison (0:46).	

vi. F major, R5/1

The fact that c'f'a'd" has similar resonance to c'f'a'c" despite containing a note not found in an F chord is because this top string is frequently fingered (although less so in this example than in its intended suite R6). Reading exploits the difference in brightness between these tunings in the different characters of his suites R5 (sweet, introverted) and R6 (upbeat). Audiences commented on the sweetness of c'f'a'c".

Rec.	Tuning	Comment
7.05vii.i	gd'a'e''	Least resonant. Very noticeable in silences after chords at 0:36, 0:47, 0:52.
7.05vii.ii	ae'a'c#''	More resonant. Resonance of c#"-string (0:08, 0:12, 0:51). Softer-edged.
7.05vii.iii	c#'f#'a'c#''	Most resonant. Resonance of f#'-string (0:15, 1:06) as well as c#''-string (0:09, 0:13). Also soft-edged.

VII. Γ # IIIIIIUI. Λ Σ	vii.	F#	minor.	R13	/1
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ae'a'c#" is Reading's only tuning based on a tonic chord (A) used for a piece in the relative minor, which possibly represents an experiment. Whilst more resonant than standard tuning, ae'a'c#" is less resonant in F# minor than A major (compare **rec. 7.05vii.ii** with **rec. 7.05i.iii**). Unsurprisingly, c#'f#'a'c#", the tonic chord of F# minor, is the most resonant in R13/1.

Comparison between different tunings used for the same key reveals that some are more resonant than others. Tunings which form a chord matching the key of the piece are more resonant than those which do not. Tunings which are chords containing thirds are more resonant than open chords, although more restrictive in pitch range. A third at the top of a chord rather than lower down (ae'a'c#'', c'f'a'c'', c#'f#'a'c#'') has the most noticeable effect. This explains why ae'a'c#'' was so common, as the only tuning of this type which is straightforward to tune from standard and without too limited a pitch range. Tunings not forming a chord may be less resonant in themselves, but allow greater harmonic range. They facilitate certain fingerings, leading to more reliable intonation, which itself improves resonance. Unisons also add resonance. Tunings requiring strings to be raised in pitch sound brighter, and tunings requiring strings to be lowered sound softer-edged, regardless of resonance. As observed in chapter 2, these differences are less striking in a big acoustic. In addition, any string even slightly out of tune, noticeably reduces the overall resonance. Playing a piece in tunings not intended by the composer, as I have done here, highlights how skillfully Reading tailored each piece to make the most of its tuning.

PE. 7.6 Variation in resonance within a scordatura tuning

I played scales in different keys on a violin tuned ae'a'c#'' in a dry acoustic, using open strings unless specified. I tried to bow equally as far as possible.

Rec.	Tuning ae'a'c#''
7.06i	A major
7.06ii	A major (without open strings)
7.06iii	E major
7.06iv	D major
7.06v	C major
7.06vi	F major
7.06vii	B♭ major
7.06viii	A♭ major

The recording demonstrates that resonance and sustain is greatest in the home key of the tuning (A), reducing dramatically as the tonality moves away from this. Resonance also varies between notes within a key. Open strings are the most resonant, followed by stopped primary notes of A major (often sharing open-string pitches) which provoke sympathetic resonance. Secondary notes of the key are less resonant. Even d' rings less (7.06i, 0:19; 7.06iv, 0:01, 0:14). The first open string (a') in B^b major sticks out (7.06vii, 0.05). The same experiment using different tunings produced similar results, for example in the tuning d'f'a'd'', sounding g' and e' speak noticeably less well. This makes playing evenly in pieces harder, something I was acutely aware of when performing or recording (the 'dead' notes provoked comments from the engineer).

PE. 7.7 String crossing with open strings versus fingered notes

This experiment explores variations 45-46 from R17, involving fast running semiquavers. Reading's handgrip notation shows open strings wherever possible, which necessitates demanding string crossing with the bow. As this is difficult to play neatly at speed with an even sound, this type of fingering would be unthinkable to modern players, who would minimise string crossing by using fewer open strings. The recordings demonstrate the passage in both ways.

Rec.	
7.07i	Minimal string-crossing version
7.07ii	Reading's version

Ex. 7.1 shows the fingerings used for each version in handgrip notation, with finger numbers added where necessary (if no fingering is indicated, first position and open strings are used). Various fingering alternatives are possible for the minimal string-crossing version. To ensure smooth bowing, I aimed to keep each six-semiquaver figure on a single string whilst avoiding high positions. Where this was impractical (bar 4), I avoided changing string for just a single note.

Reading's version sounds more resonant throughout. The minimal string-crossing version is easier to play smoothly and neatly, but the sound is more 'dead' (the difference is more striking 'live' than on the recording, and very audible to the player). Although Reading's version is audibly messier (despite my string crossing improving with practice), the extra resonance from the open strings more than compensates for any loss of bowing neatness. Similar 'messiness' is audible on the performance recording of R17 (e.g. **rec. 3.11**, 6:16). Reading clearly made a conscious choice to use open strings for the sake of resonance, despite the technical difficulty and loss of neatness.





Conclusions

The experiments in this chapter make clear that sonority, albeit based on a different aesthetic from today, was of central importance to seventeenth-century musicians. It is therefore likely that they would have chosen stringing set-ups which enabled the best sonority in terms of resonance,

responsiveness and (where possible) evenness. Although it is possible to find a compromise stringing that allows all tunings to be played, this is not ideal for player or listeners so was probably not favoured. It is more likely that two principal stringing set-ups were used for scordatura, perhaps using cross stringing as a practical way to move between the two on one instrument.

8. Conclusions

This study has used an integrated methodology, combining traditional and practice-led approaches to explore the practices of scordatura violin in late seventeenth and early eighteenthcentury Britain, which has led to insights which could not have been achieved by traditional research methods alone. My project has engaged with the significant scordatura practitioners in Britain, the scope and quality of the repertoire, the practicalities of its use, and the aesthetic sound world and expressive potentials of scordatura. I have demonstrated how scordatura was a significant practice within the emerging culture of solo violin performance in late seventeenth-century England. I hope that this work will play a part in increasing interest in and appreciation for the distinctive British contribution to solo violin playing in the Baroque period, and that it will encourage performers to explore early British repertoire more fully and creatively.

My research has established that there were several scordatura cultures in Britain in the seventeenth century: a vernacular ('folk') practice, which was probably a continuation of a tradition stretching back to the middle ages; a native lyra-viol school, which probably influenced violin scordatura usage as the violin grew in popularity; and an imported practice from Central Europe. Although separate cultures, there seems to have been a certain amount of overlap and mutual influence.

The most significant composer of scordatura violin music in seventeenth-century Britain was Valentine Reading, who was unquestionably influenced by the Central European school. He was probably well-known in England in his day, using his specific scordatura interest to make a name for himself in the face of Matteis. Continental influence is also apparent in the first movement of the scordatura suite in GB-Och Mus. 1125, which brings into question the traditional ascription of this suite to Baltzar.

My study has led to a better understanding of why scordatura was used, even where pieces are playable in standard tuning. The principal reason for scordatura relates to sonority within the sound aesthetic of the time. Not all tunings affect sonority to the same extent, so choice of tuning was a balance between practicality (ease of retuning) and resonance. Even if the different sonority was only audible to the player, this is significant because it will still affect the performance. Players probably selected different tunings depending on the context, for example, favouring a brighter sound when playing for dancers and a more mellow sound for chamber music. The traditional explanation, that scordatura is used for technical facilitation (for example enabling open-string chords and easier fingering on the lowest string) is partly true, but these advantages come at the price of other technical difficulties such as increased string crossing, as well as a limitation of key and note range. A further insight is that sounding notation does not necessarily imply standard tuning and scordatura was more widely used than the extant sources of handgrip notation indicate. There is probably much more such hidden scordatura to be found. I have given various examples, but a comprehensive study of this is beyond the scope of this PhD. I hope that performers of British solo violin repertoire will be encouraged to try different tunings even where they are not notated. This will unlock a wider expressive palette for the repertoire and enable different possibilities for ornamentation. Violinists willing to read tablature (like their seventeenth-century colleagues) will find that the lyra-viol repertoire offers a range of attractive short pieces which can be used to increase familiarity with scordatura and develop chordal and string-crossing skills.

Players today are often wary of scordatura, particularly tunings which involve considerable deviation from standard. I hope this study will allay some of the fears and encourage more violinists to use scordatura. A major practical finding which has emerged from my work is the use of cross-stringing, which was probably relatively common in the past. This makes tunings which are often avoided by modern performers considerably easier to handle. In order to make the repertoire more accessible, I hope to build on this project by producing a full critical edition of the Reading suites and, in addition to live performances, a high-quality recording on appropriate instruments, which will benefit players and listeners.

The place of scordatura within the desired sound aesthetic of the past is undeniable, and should not be ignored by players who want to explore the sound world of seventeenth-century England, which is so different from our own. The modern HIP movement has a way to go in this area. However, many other factors can influence the sonority besides the tuning. These include the instrument used, its stringing, bridge and sound-post set-up, the bow, the acoustic, the technical ability of the player (which can mitigate certain limitations of tuning and acoustic), and even the temperature and humidity, which affect how gut strings respond. Perhaps there is a grain of truth in Praetorius's comment that, regardless of tuning, the most important thing is to perform well: 'es sey nicht groß dran gelegen / wie ein jeder seine Geigen oder Violen stimmet / wenn er nur das sine just / rein und wol darauff praestiren kan.'¹

¹ Syntagma Musicum, vol. 2, p. 44.

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Tuppen, Sandra, 'Music Manuscripts from the 17th and 18th Centuries in the British Library', *The Public Domain Review* (December, 2013), <https://publicdomainreview.org/essay/music-manuscripts-from-the-17th-and-18th-centuries-in-the-british-library>

Recordings

Ensemble Shirokko Hamburg, The Division Violin, (Ambitus, 2007). AMB96941

Wood, Patrick, Thomas Baltzar: Complete Works for Unaccompanied Violin (MSR Classics, 2007). MS1224

Thematic Inventory of British Scordatura Violin Pieces

This is a thematic inventory of British scordatura works up to 1705. All pieces written in handgrip notation (even if only in part) are included, but not pieces extant entirely in sounding notation, even if I have speculated that they might have been played in scordatura. Entries are ordered by composer (or publisher), and within that, by source, followed by the order they appear within the source. Titles of pieces in quotation marks are transcribed as they appear in the source. Brackets indicate editorial titles. Concordances of complete movements which use violin scordatura are included. Concordances for other instruments, or limited to one or two bars are not, but are discussed in the main text. I hope that this inventory will enable further concordances to be established in future. **Table 9.1** cross-references pieces by tuning, and clearly demonstrates which tunings are most frequent. The inventory format is as follows:

Composer

	Source			
Inventory number	Position T in source	ītle	Tuning	Other reference number
	Concordance i Incipit	information		

Table 9.1 Pieces categorized by tuning

Tuning	Inventory no.		
ad'a'd''	9, 14, 18, 19		
ad'a'e''	1, 2, 3, 10, 12, 13, 16, 17		
ae'a'c#''	4, 5, 6, 29, 31, 32, 33, 34		
ae'a'e''	8, 11, 15, 24, 26, 27		
b♭f'a'd''	28		
b♭f′c′′g′′	7		
be'a'd''	25		
c'f'a'c''	22		
c'f'a'd''	23		
c#'f#'a'c#''	30		
d'f'a'd''	21		
d'f#'a'd''	20		



3.

4.



2. p. 20 'Londons Loyalty' ad'a'e''

GB-En MS 21714 [Bowie Manuscript]

ff. 33v- 'I Love my Love in Secret' ae'a'c#'' 34r

Later concordances listed in Angus McGregor, 'Manuscript Tune Index', https://hms.scot/manuscripts/mstunes/?ms=8>.





(?) Baltzar, Thomas

f. 27

GB-Och Mus. 1125

6.

6.1.

'A Set of Tunings by Mr Baltazar' ae'a'c#'' Almand

Concordance: CZ-KRa A909, no. 4, Allemanda.









Finger, Gottfried



6

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¹ Rawson inventory: RRFinger, pp. 149-323.





















Jenkins, John



Marsden, Thomas (ed.)

pp. 2-3



'Old Lancashire Hornpipe or

Lon Sclater Hornpipe'

Thomas Marsden, A Collection of Original Lancashire Hornpipes, Old and New. Containing, Divisions upon each (1705)

ad'a'e''

10.

Mell, Davis



















Playford, Henry (ed.)





Reading, Valentine





³ R numbers refer to Reading suites.











R1/3













[#]









R5/3





182









R6/3









R7/3

















R9/3

























R11/3















R13/3

R13/2

31.2. no. 53 [Courante]









R14/3









R16/2

193



34. no. 64 Chacone ae'a'c#'' R17 Concordances: John Playford, *The Division Violin* (1684), no. 1, 'Readings Ground'; Ob MS Mus. Sch. C.95, pp. 28-29, 'Mr Reding his Ground'.

