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# Viol-Making in England c.1580-1660.

## ABSTRACT

Viols made in England c.1580-1660 held a leading reputation, yet few survive and little is known about their makers. This study describes a new protocol for gathering information from such instruments. Images of thirty-eight viols, and data collected from them by applying the protocol, are discussed, showing that antique viols provide unreliable evidence about their original state. On top of the effects of wear, damage and alteration, changes in the structural wood of viols over time mean they cannot retain their precise original shape or dimensions. These viols, therefore, are not amenable to the sort of geometric-proportional analysis of shape which is widely considered to describe their makers' intentions. It is also shown to be highly unlikely that either viol-makers or their clients would have mathematically-sophisticated predilections or capabilities, so such techniques would not be employed.

Images of viols in a range of media are shown to give an unreliable record of the viols that were played in England, and to provide good evidence of the shapes and decoration that were familiar to those who made and used viols. The commercial organisation of viol-making is examined, demonstrating that although apprenticeship was important, it was not essential for instrument-making. Viols are shown to have been made in other places besides London, and by non-specialist woodworkers, typically described as joiners. Viol-makers are investigated by replacing conventional ideas of 'schools' of making with a detailed consideration of makers' place in society. The five viol-makers praised by Thomas Mace (1676) are discussed in detail along with others, some of whom are identified for the first time. This characterisation of viol-makers and consideration of extant instruments suggests reforms for our understanding of the nature of viol-making, and calls into question traditional attributions of viols to particular makers.

**Y**Our *Best Provision*, ( and *most Compleat* ) will be, a *Good Chest of Viols; Six*, in *Number*; viz. 2 *Basses*, 2 *Tenors*, and 2 *Trebles*: All *Truly*, and *Proportionably Suited*.

The Best Provision for Viols, and of what Authors.

Of such, there are no *Better* in the *World*, than *Those of Aldred, Jay, Smith*, ( yet the *Highest in Esteem* are ) *Bolles*, and *Ross*, ( one *Bass* of *Bolles's*, I have known *Valued* at 100 *l.* ) *These* were *Old*; but We have *Now*, very *Excellent Good Workmen*, who (no doubt) can *Work* as well as *Those*, if *They* be so well Paid for *Their Work*, as *They* were; yet we chiefly *Value Old Instruments*, before *New*; for by *Experience*, they are found to be far the *Best*.

- Thomas Mace, *Musick's Monument*, (1676), p.245.

# VIOL-MAKING IN ENGLAND C.1580-1660

by

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Department of Music

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Volume I

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# INTRODUCTION

Many people who are familiar with viol music<sup>1</sup> accept that while it can be played on other instruments such as violins,<sup>2</sup> it is desirable to hear it on the sort of instruments the composer had in mind. This study stems from applying this principle (i.e. realising music in a way envisaged by its composer) to English viol music. It is an investigation of the instruments that are essential to achieve this aim, not a study of viol music. Much supporting material is given in the form of appendices, tables, diagrams and illustrations in Volume II, to each of which readers are directed from the text of this volume. For explanations of terms used to refer to the parts of a viol please refer to the glossary and accompanying illustration in Volume II. The designation VME refers to extant viols examined and discussed in Chapter 2, where it is explained fully, as is VDP (Viol Data Protocol), a system for recording information from viol examinations.

Old instruments have long been valued<sup>3</sup> as fine antiques or because they work well, but an understanding of playing music on the sorts of instruments for which it was conceived developed mostly during the last thirty years of the twentieth century, following pioneering work by Arnold Dolmetsch, Francis Galpin and others at the beginning.<sup>4</sup> As a professional instrument-maker since 1974 who has specialised in viols and bows since 1982, I believe that some music, especially viol music, can best be realised by using instruments that produce the sounds expected by its composer.

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<sup>1</sup> This is not to suggest that viols played only idiomatic music written specifically for them. It is probable that a significant proportion of what violists played is now thought of as vocal music. Most untexted English music manuscripts of the period do not specify instrumentation.

<sup>2</sup> Except where specific instruments are discussed, I use the term *violin* to signify all sizes in that family.

<sup>3</sup> The appreciation of old instruments is discussed in Fleming, 'Piece of String'.

<sup>4</sup> Dolmetsch, 'Viols'. Galpin, *Old English Instruments*.

This contrasts with prevalent attitude of today that almost any sort of interpretation, transcription or adaptation of a composition might be equally valid, but my idea is not new. In the words of Mersenne, ‘For although each instrument can serve for playing whatever piece one wishes, nevertheless experience teaches that some succeed better than the others, when they are played on certain instruments, and that what is good on one is not so agreeable or so suitable on another.’<sup>5</sup>

The viol family emerged in late fifteenth-century Spain, Italy and elsewhere.<sup>6</sup> Viols were soon known in England and continental violists were employed at court from the 1510s.<sup>7</sup> Sixteenth- and seventeenth-century England produced the greatest repertory for groups of viols and English viol-making was similarly successful, achieving the foremost international reputation, which is discussed below. Among Italian musicians recruited for the English court in 1540 were members of the Bassano family which included renowned instrument-makers, one of whom had previously been employed as ‘maker of divers instruments of music’.<sup>8</sup> This study starts at c.1580 in order to exclude viols made by the immigrant Bassanos and their English (and possibly Scottish) predecessors, contemporaries and immediate followers, because these deserve closer attention than could be paid in a study covering over one hundred and fifty years.<sup>9</sup>

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<sup>5</sup> Mersenne (Chapman), p.15.

<sup>6</sup> Woodfield, *EHV*, especially Chapter 5. Polk, ‘Vedel and Geige’.

<sup>7</sup> Woodfield, *EHV*, p.206f, and n.2. *BDECM*, pp.1150, 1151f, 594, 573. Holman, *Fiddlers*, pp.71ff.

<sup>8</sup> 1538. *RECM*, vol.vii, pp.80, 272ff.

<sup>9</sup> Thus excluding, for instance, Richard Hume, the earliest recorded viol-maker in Britain (1535), and the early life of John Rose the elder. Woodfield, *EHV*, p.209. Might Hume be ‘Hewme the lute player’ paid in 1552 by Sir Thomas Chaloner, John Rose’s earliest known employer (in the same year)? If so, there might be a personal connection between Hume and Rose. Lansdowne Ms.824, fols.33v, 34v, and 36. Woodfill, *Musicians*, p.255. Hume was paid for making viols for the Scottish court, and the supply of viols to numerous players active there from the late 1530s onwards needs investigation. Woodfield, *EHV*, p.209f. William Lewes was first described as an organ-maker in court records, but from 1525 until his death in 1547 as an instrument-maker. This implies he made a range of instruments, because his colleagues (John de John, Mighel Mercator, William Beton) were still called organ-makers. *RECM*, vol.vii, passim (Lewes first called instrument-maker: p.254). Jasper Gaffoyne was an Italian dancing master but was often paid alongside Lewes and other makers. He was listed with the artificers in 1546/7. *RECM*, vol.vii, passim. *BDECM*, p.462. It is possible that he made instruments.

By 1660 the popularity of viol consort music had declined, although the bass viol flourished both as a continuo instrument and with its own repertory. The new musical environment and changes in the organisation of artificers' work mean that the Restoration acts as a natural disjunction in the progress of English string-instrument-making. Concluding this study at 1660 also prevents relatively copious later evidence from dominating the more sparsely documented earlier period.

Most writers about viols concentrate on their music and refer readers who wish to know about instruments to specialist literature. Meyer barely mentioned viols as artefacts in *English Chamber Music* (1946), and recent publications continue to be predominantly musicological. There is much organological literature about bowed instruments, but it focuses predominantly on violins, so information about viol-making is often omitted and tends to be unreliable when present.<sup>10</sup> Even specialised works which include coverage of early musical instruments have little information about pre-Restoration English viol-makers.<sup>11</sup> Catalogues of collections and exhibitions concentrate on physical descriptions of instruments and offer few comments about why viols have the forms they do.<sup>12</sup> Literature which considers the reputation and importance of English viols and their makers is discussed below. It does not justify Hayes' confident assertion that 'details of [viol-]makers are now so ready to hand in many excellent reference books that any selection here would be ... needless.'<sup>13</sup>

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<sup>10</sup> The most extensive bibliographies of bowed instruments are Edward Heron-Allen, *De Fidiculis Bibliographia*, 5 vols. (1890-94), and Roberto Regazzi, *The Complete Luthier's Library*, (Bologna, 1990). Bibliographies which focus on viols are John B. Rutledge, *MEGAVIOL*, (Durham, NC, 1991), and Taco Stranks, 'A Viola da Gamba Bibliography' in Boer & van Oorschot, *Miscellany*, pp.141-162.

<sup>11</sup> E.g.: *Grove Instruments*; Monical, *Shapes*.

<sup>12</sup> E.g.: Baines, *V & A Catalogue*; Boyden, *Hill Collection*; *British Violin* devotes an unusually large amount of space to makers. Monical, *Shapes* includes some discussion of techniques of construction, as this was the focus of the exhibition of which it is the catalogue.

<sup>13</sup> Hayes, *Viols*, p.83. Appendix 9 includes examples of disagreements among such sources.

An underlying assumption of much organology is that the shape of instruments is very important. Shape is used both for categorising instruments and for identifying makers. Many authors claim that analysing the shapes of surviving old viols can demonstrate their makers' design processes, which are typically thought to involve sophisticated geometrical and proportional relationships. Yet paying this amount of attention to the shape of instruments is anachronistic, as the majority of English texts concerning music 1580-1660 include few or no comments about instruments or their design. There is no mention of the shape of instruments in any of the following:

Adrian le Roy, *A brief and plaine instruction...*, (1574)

Thomas Morley, *Plain and Easy Introduction to Practical Music*, (1597)

Thomas Robinson, *The Schoole of Musicke*, (1603)<sup>14</sup>

Thomas Campion, *A New Way of Making Fowre Parts In Counterpoint*, (1613)

Thomas Ravenscroft, *A Brief Discourse of .... Charact'ring by Degrees*, (1618)

Charles Butler, *The Principles of Musik...*, (1636)

Rene Descartes [transl. Viscount Brouncker], *Compendium of Music*, (1653)

John Playford, *A Brief Introduction to the Skill of Music*, (1654)

or

Christopher Simpson, *A Compendium of Practical Music*, (2nd Edition) (1667).

However, in his *Division Viol* Simpson does mention shape when giving advice about what kind of viol is 'fittest for Division', commenting that 'The *Sound* [should be] quick, and sprightly, like a *Violin*; and *Viols* of that shape (the Bellies being digged out of the Planck) do commonly render such a Sound.' The accompanying illustration shows two viols.<sup>15</sup> The Latin caption in the 1665 edition echoes the English 1659 text, saying that these are the shapes of viol that are suitable for divisions but the first

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<sup>14</sup> Robinson suggests 'a good instrument will please a learner euery way, for it delighteth them to looke and behold it now & then, likewise they loue easie and smooth instruments...'. In other words, it should look good and be easy to play. Robinson, *School*, pl.v.

<sup>15</sup> Simpson, *Division Viol*, (1659), p.2. The 1665 edition is virtually the same, with a parallel Latin translation. Illustrations L01, L02.

is more resonant.<sup>16</sup> As far as I have been able to establish, this is the only comment about viol (or violin) shape written in English before 1660. The inhabitants of the society wherein these viols were created would be astonished at the amount of attention now paid to their design and appearance. Most continental authors are equally silent about instrument design.<sup>17</sup> Chapters 1 and 4 of this study argue that, despite claims to the contrary,<sup>18</sup> neither the users nor makers of these viols had either the interest or capability for a sophisticated mathematical approach to instrument design. Chapters 1 and 2 show why data derived from old viols is inadequate to substantiate such analyses.

In nineteenth-century organological literature the violin was usually regarded as an advanced form of viol, representing the triumph of the fittest among bowed string instruments. Thus, authors claimed that Andrea Amati ‘at first made the older form of violin - the viola da gamba’,<sup>19</sup> that ‘the viol ... is not inaptly termed the grandfather of the violin’,<sup>20</sup> and that ‘The superiority of the Violin over the Viol soon obtained for it the preference’.<sup>21</sup> Engel considered the classical violin design to be unsurpassed,<sup>22</sup> writing: ‘Our present instruments played with a bow attained their highest degree of perfection about the year 1700.’<sup>23</sup> and ‘That no improvement has been made during the last two centuries in instruments of the violin class is a well-known fact.’<sup>24</sup> Other authors went even further: ‘It is freely admitted by all makers and connoisseurs of the instrument that certain of the ancient makers developed the body of the violin to a

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<sup>16</sup> ‘Forma Chelyos utraque Minuritonibus apta, sed Prima resonantior.’

<sup>17</sup> Comments by Praetorius and Mersenne are noted in Chapter 1.

<sup>18</sup> Exemplified by Coates, *Lutherie*, p.1.

<sup>19</sup> Stainer, *Violin Makers*. He also subscribed to the now completely discredited view that Gasparo da Salò ‘certainly assisted in the transformation of the ancient viol-form into that of the violin’.

<sup>20</sup> Clarke, *Violin*, p.5.

<sup>21</sup> Hart, *The Violin*, p.5.

<sup>22</sup> A view that is generally held today.

<sup>23</sup> Engel, *Violin*, p.153.

<sup>24</sup> Engel, *Catalogue*, p.121.

standard of excellence beyond which no improvement is possible.’<sup>25</sup> Establishment figures such as the director of the Royal College of Music despised viols. In his book, significantly titled *The Evolution of the Art of Music*, Parry almost shuddered to describe the coarse and primitive nature of early English instruments and their music, particularly viols, but relished reporting ‘the unsurpassable perfection attained by the great Italian violin-makers.’<sup>26</sup>

The modern view of the viol has emerged gradually. Sandys & Forster had important insights, such as the non-specialist nature of early instrument-makers,<sup>27</sup> but their book differs most significantly from its peers in the way it eschews evolution as the paradigm of musical instrument history. Among other enlightened writers about the viol were Galpin and Hayes.<sup>28</sup> Elements of the current view of the origins of the viol appeared in various places, but its first coherent statement was outlined by Dart, and given substance and depth by Woodfield.<sup>29</sup> Scholars now generally accept that viols and violins emerged at nearly the same time and served different functions in parallel for over two centuries, but the nineteenth-century view is still widely held.

There is no universally agreed ranking of string instrument makers, but most suggested lists focus explicitly on violin-making (ignoring the fact that many of the named makers made both viols and violins), and resemble the following list:

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<sup>25</sup> Moya & Piper, *Tone*, p.72.

<sup>26</sup> Parry, *Evolution*, pp.114f, 150.

<sup>27</sup> Sandys & Forster, *Violin*, pp.87, 104.

<sup>28</sup> Galpin, *Old English Instruments*, (1910). Hayes, *Viols*, (1930).

<sup>29</sup> Dart, ‘Viols’ (1961). Ian Woodfield, ‘The Early History of the Viol’, *PRMA*, vol.ciii, (1976-7). Ian Woodfield, ‘The Origins of the Viol’, (PhD dissertation, University of London, Kings College, 1977). Woodfield, *EHV*.

1. Antonio Stradivari (Cremona)
2. Guiseppe Guarneri *del Gesu* (Cremona)
3. Nicolo Amati (Cremona) and other Cremonese makers
4. Jacob Stainer (Absam, Tyrol)
5. Giovanni Paolo Maggini; Gasparo Bertolotti *da Salo* (Brescia) and other Italians
6. German and French makers
7. Makers from other countries.

Stainer's greatness is recognised, but the fact that until the beginning of the nineteenth century he was rated more highly than all Italians is ignored.<sup>30</sup> This is significant for most extant early English violins,<sup>31</sup> because they are considered more Stainer-like than Italian and consequently are downgraded. That Italian violins still provide the benchmark for importance is shown by this statement from a very recent book. 'The great importance [of a violin made by Robert Cuthbert, London, 1676] lies in the fact that it is one of the earliest English violins to be made on a classical Italian model.'<sup>32</sup> However, while viols have made an extremely small contribution to the formation of the Italian instrument-making reputation, the high reputation of English viols can be traced back to the sixteenth century.<sup>33</sup> Vidal rejected the Italian hegemony, recognising the pre-eminence of early English makers, and described eighteenth-century English makers as 'incontestably superior' to his countrymen,<sup>34</sup> but he was not the first French

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<sup>30</sup> 'The violins of Cremona are exceeded only by those of Stainer.' Hawkins, *General History*, p.688. In *Encyclopédie méthodique*, (Paris, 1785) Stainer violins are described as those of the greatest repute. Stainer heads the list of fine violin makers in F.Galeazzi, *Elementi teorico-practica di musica*, (Rome, 1791), p.80.

<sup>31</sup> Extremely few English violins made before 1660 have been identified.

<sup>32</sup> *British Violin*, p.26.

<sup>33</sup> In the third quarter of the sixteenth century a set of Cremonese violins is believed to have been bought for Charles IX of France. In 1637 the English court bought the first of several 'Cremona' violins, although whether these instruments actually came from Cremona, or the term referred to a style of making, is questionable. English, German and Italian Viols were mentioned in a German inventory of 1573. Baines, 'Inventories'. A 1759 auction listing (where Italian violins follow the Stainers and precede those from Germany, England and the Low Countries) includes thirty-three viols from England, Germany and the Low Countries but none from Italy. *Selhof*, p.251ff.

<sup>34</sup> 'L'Angleterre mérite une mention toute special dans l'histoire des feseurs d'instruments. Dès le commencement du xvii<sup>e</sup> siècle, ses violes avaient une reputation générale .... Lorsque le violon et ses congénères eurent détrôné la viole en Angleterre les luthiers de ce pays se mirent à l'oeuvre avec succes. Les Furber... et beaucoup d'autres, furent des luthiers distingués, qui, pendant le xviii<sup>e</sup> siècle,

author to remark the reputation of English instrument-makers. In the previous century Forqueray thought highly of old English viols and noted that ‘English viols are the ones which one normally plays.’<sup>35</sup> Almost a century earlier than Forqueray, Rousseau described old English viols as those ‘which we particularly esteem in France’,<sup>36</sup> but their reputation was not confined to that country. John Dowland was commissioned by the Danish court to buy English instruments (1601).<sup>37</sup> In the Netherlands, Huygens used his connections with the Master of the King’s Musick in England to acquire a set of six fine old English viols (1638).<sup>38</sup> In Germany, Eisel praises English viols above those of his countrymen, mentioning none from any other country.

Which viols are held in great esteem these days? The very old English ones, those by Tielke of Hamburg, Hoffmann of Leipzig, Hasert of Eisenach, and the old ones by Gottmannshäuser, Unbehagen and Ruppert of Erfurt. Nevertheless, because of their delectable sound and their age, which extends beyond a century, the English ones maintain their rank above all others - one will very rarely get to see one of this kind.<sup>39</sup>

The way that Eisel identifies no individual English viol-makers is typical. I know of only two English viol-makers whose names appear in continental sources before 1759, and of only one who was described before 1660 as having an international reputation.<sup>40</sup> Information about individual viol-makers before 1660 is very scarce, but five were

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maintinrent l’Angleterre à un rang incontestablement supérieur à celui de la France pour le facture des instruments à archet.’ Vidal, *Instruments*, p.141f.

<sup>35</sup> ‘Les Violes angloises Sont celles dont on se sert ordinairement’. Forqueray, *correspondence*. Many examples of English viols are found in posthumous inventories of eighteenth-century French luthiers. For example, Nicholas Bertrand had twenty-three ‘violles angloises’ (1725), Claude Pierray had two ‘basses de violle d’angleterre’ (1730), and Pierre Véron had eleven ‘basses de violle d’Angleterre’ (1731). Milliot, *Luthiers parisiens*, pp.127, 128, 134, 138.

<sup>36</sup> Rousseau, *Traité*, p.22.

<sup>37</sup> *BDECM*, p.355. It is not known whether these included viols.

<sup>38</sup> Crawford, ‘Huygens’, p.44. Huygens also received a gift of a ‘viole angloise’ in 1659. *Ibid.*, p.50.

<sup>39</sup> ‘Welche Viol di Gamben werden heut zu tage in hohen Werth gehalten? Die uhralten Englischen, die Thielckschen aus Hamburg, die Hoffmanischen aus Leipzig, die Haserts aus Eisenach, die alten Gottmannshäuser, Unbehagnischen und Rupperts aus Erffurth; doch behalten die Englischen wegen ihres kostbahnen Klanges und über ein *seculum* hinaus erstreckenden Alterthums den Rang über alle, man wird auch sehr selten eine von dieser Gattung zu sehen bekommen.’ Eisel, *Musicus*, p.44.

<sup>40</sup> Before the makers mentioned in *Selhof*, instruments by Wise and Jasbery were mentioned in a seventeenth-century Italian inventory. For Wise and Jasbery see Appendix 9.



named by Thomas Mace in 1676.<sup>41</sup> They are discussed below in Chapter 5, together with other makers. Most later writers simply paraphrase Mace.

Until modern times, the reputation of a country's instrument making was established partly by word of mouth, but mainly through the spread of the instruments themselves. Robert Dudley, Earl of Leicester, who owned 'Two settes of vyalles in 2 chestes', took musicians when he went abroad in the 1580s.<sup>42</sup> John Coprario accompanied the Duke of Lennox to Germany.<sup>43</sup> The Duke of Newcastle and other viol-loving nobles probably took instruments with them when they fled the Civil War. Numerous English viol players were employed at European courts, including William Brade, Henry Butler, John Maynard, Daniel Norcombe, Thomas Simpson and William Young. These English violists surely took the tools of their trade with them when they worked abroad, and their viols were almost certainly English. There is, however, no evidence to suggest the import of continental viols or violins to England was common. During extensive research, Hulse found that: 'Few references to continental-made instruments survive among the papers of the late Elizabethan and early Stuart nobility.'<sup>44</sup> That at least some were imported is suggested by the specification of a customs duty rate from 1545 onwards,<sup>45</sup> and they occasionally appear in cargo lists. Yet while other instruments (including lutes, but excluding keyboards) came in sets or dozens, viols were rated individually. Also, no distinction was made between varieties of viol, whereas two kinds of virginal were distinguished in 1582, and two categories of Lute

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<sup>41</sup> See above, frontispiece.

<sup>42</sup> *HMC*, Marquis of Bath V, (1980). Adams, *Dudley Accounts*.

<sup>43</sup> *RECM*, vol.iv, p.209. Coprario went abroad on other occasions and, as he supplied viols in England, may even have taken some with him to sell, possibly including a lyra viol which led to Praetorius's remarks. *BDECM*, p.297. Praetorius, *Syntagma Musicum*, p.55.

<sup>44</sup> Hulse, *Patronage*, p.115.

<sup>45</sup> The specified rates were both for imports and exports.

and at least two kinds of string were differentiated consistently over many years.<sup>46</sup> André Maugars, who worked in England 1625-7, said the English surpassed all other nations in viol playing.<sup>47</sup> It is common knowledge in the instrument trade that an effective way to sell an instrument is for it to be heard being played well, so the instruments used by these admired violists would have been a very significant factor in promoting the reputation of English viols.

Two other factors seem likely. The first is a technique of construction characteristic of early English viol-making whereby the belly is arched partly by bending rather than by being entirely carved from the solid.<sup>48</sup> This raises numerous questions, including: why a constructional technique might become associated with only one country;<sup>49</sup> why was it abandoned; how much difference this type of construction makes; and how aware players are of mechanical aspects of their instruments. These questions deserve detailed consideration but are marginal to the approach taken in this study.

Although the scale of viol-making in England is very difficult to quantify, good availability may be the other factor that contributed to English viols' reputation. Viols were owned not only by wealthy people, but also by a wide range of professional and amateur musicians whose instruments are very irregularly documented.<sup>50</sup> The court's acquisitions are better documented<sup>51</sup> but are not numerous. Assuming the '6 Artificiall Instruments' supplied by Daniel Farrant were viols,<sup>52</sup> and that the sets for the king and

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<sup>46</sup> [Commissioners of customs], *Rates of the Custome house...*, (1582). The suggestion that the rate for viols was also applied to violins is improbable. Basford, 'Cuthbert', p.31. Fleming, 'Cuthbert', p.3.

<sup>47</sup> *BDECM*, p.780. '...[les Anglois], qui depuis ont surpassé toutes les autre nations.' Maugars, *Response*, p.17. 'les Anglois touchent la Viole parfaitement.' *Ibid.*, p.30.

<sup>48</sup> Kessler, 'Viol Construction'.

<sup>49</sup> This technique was used by at least one French viol-maker (Kessler, 'Colichon') and may have been used by some German makers.

<sup>50</sup> Fleming, 'Other lumber'.

<sup>51</sup> See *RECM*.

<sup>52</sup> For Farrant see below p.213.

prince in 1604 comprised six viols each, only thirty-five viols were bought by the court between 1580 and 1660.<sup>53</sup> As so few old English viols survive, the possibility that only few were made must be considered, but many other things which were originally numerous, such as certain sorts of prints,<sup>54</sup> are now extremely rare. Lutes were prominent in Tudor and Stuart culture, yet not a single English lute survives. Virginals are significantly more common than lutes in inventories,<sup>55</sup> and Pepys noted how a third of households fleeing the fire of London had a pair of virginals, yet fewer than ten English virginals made before 1660 are known.<sup>56</sup> Other common English instruments from the period, including citterns and violins, are more rare than virginals. The scarcity of old English viols now does not imply they were never common, and nor does the survival of any particular type guarantee that it was typical or characteristic.

The rarity of well-preserved viols may be a somewhat ironic consequence of their high reputation. Forqueray wrote that ‘English viols are the ones which one normally plays’ but added that these ‘excellent English viols’ were rare, partly because of woodworm, and also because most of them were too encumbered with decorations, and their wood was too thick.<sup>57</sup> He also commented that an admired French viol-maker had made a great number of viols ‘with English wood’,<sup>58</sup> i.e. parts of old

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<sup>53</sup> *RECM*, passim. Even if a single, unassisted viol-maker made them all he would still have enough time to sustain a primary career as a joiner or musician.

<sup>54</sup> A large number were published but many survive as unique impressions or are known only from records of publication. O’Connell, *Popular Print*. Watt, *Cheap Print*. Bartrum, *German Prints*, p.106, 154. Landau&Parshall, *Renaissance Print*, p.232.

<sup>55</sup> Fleming, ‘Other lumber’.

<sup>56</sup> Pepys, *Diary*, vol.vii, p.271 (2 September 1666). *Boalch*, p.715. Martin, ‘Two Elizabethan Virginals?’

<sup>57</sup> ‘Les excellentes Violes angloises sont en tres petit nombre, la raison Monseigneur qu’elles ont perdu de leur [?bouté] par leur caducité, que les vers s’y mettent en si grand nombre qu’elles perdent leur son par le manque de vibration; que la plupart sont trop chargées d’ornemens quie les rendent pesantes; et ayant trop d’épaisseur dans le bois.’ Forqueray, *correspondence*.

<sup>58</sup> ‘...Barbet, qui a fait un grand nombre des Violes avec de bois d’angleterre...’ Forqueray, *correspondence*.

English viols. This is much more difficult than making instruments using fresh wood, and demonstrates a continuing emotional attachment to old instruments.<sup>59</sup>

Most scholarly or commercial discussion of viols is predicated on their attribution to a particular maker, workshop or 'school'. The usual options for categorising a relationship between two instruments A and B are:

- A and B were made by the same person
- A and B were made by different people in the same workshop
- A was made by a pupil of the maker of B
- A and B were made by different pupils of the same master
- A and B were made in the same geographical area at roughly the same time
- A and B were made in the same geographical area at different times
- A is a copy of B, made by an unconnected maker
- A was made by an unconnected maker emulating the style of B.

These categories strongly influence instruments' esteem and price, and underlie the terminology of the auction room, as recorded in Appendix 2. The same terminology is used in catalogues of exhibitions and museum collections, but I have never seen one which defines the terms. Ubiquitous reference to 'schools of making' suggests this analysis is universally applicable, but Chapters 4 and 5 explain its limitations for pre-Restoration English viol-makers.<sup>60</sup> Apprentices did not usually enter their father's trade - their master and company was determined by status, prospects, financial considerations and family connections. More importantly, they were rarely apprenticed as instrument-makers.

Organological literature has traditionally assumed that instrument-making practices are stable over long periods and across national boundaries. It is true that, just as

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<sup>59</sup> Fleming, 'Piece of String'.

<sup>60</sup> Discussion of whether this analysis is appropriate for other cultures is outside the remit of this thesis.

books are read not only in the year they are published, viols are used in years other than the one in which they are made. It is also true that wills and inventories give information about decedents' activities before the date of the document, and adult activities occur long after the education that underpins them. Not all contemporaries hold the same attitudes as each other, and the attitudes of any individual change throughout their life. Instrument-making practices are similarly heterogeneous. They may be part of a continuing tradition, an emulation of ancient practices, an experiment, or the earliest manifestation of what would later become a standard procedure. This study recognises that musical, commercial and technical practices change as easily as social conditions, so it relies predominantly on evidence from within the specified culture and does not assume that evidence from other countries and periods is relevant.

The structure of this study evolved during the course of my research. What was originally conceived as an exploration of the design of early English viols based on an experienced viol-maker's detailed examination of exemplars has been transformed by the results of these examinations. In its final form the study presents a critical analysis of methodologies which rely on artefacts to support mathematical and proportional analyses of viols' present form and putative original design, and the substitution of such methodologies by a historiography of viol-makers and their social and aesthetic context. Chapter 1 considers viols as artefacts, focussing on literature which discusses their shape and design. Chapter 2 considers data from specific old viols and their reliability, confirming their unsatisfactoriness as data about shape and design. Because surviving instruments are such corrupt and misleading sources, my principal approach in this study is to focus on viol-makers and the environment in which they worked. Chapter 3 shows that images of viols are generally poor indicators of instruments that

were in use, but that they accurately represent the tastes of the time and could have been used by viol-makers as patterns. Central to my thesis is historical evidence about viol-makers' origins and position in society, their intellectual accomplishments, and the commercial organisation of viol-making. These are discussed extensively in Chapter 4. Biographical information about individual viol-makers is presented and discussed in Chapter 5. The approach taken in this study, and its findings, are summarised in the Conclusions. Supporting material and additional data, particularly concerning extant instruments and individual viol-makers, is presented in the appendices in Volume II.

# Chapter 1

## ANALYSIS OF VIOL ‘DESIGNS’

When trying to understand the original nature of viol music and instruments, the most obvious strategy is to use surviving old viols. This chapter introduces the problems involved in this undertaking, mainly the poor state of preservation of existing viols. This is then followed by a critique of the prevalent approach for understanding viols through their design, exemplified most notably in the work of Coates.<sup>61</sup>

There are several reasons why old viols are an unsatisfactory source of information. English viols made before 1660 are rare. Fewer than one hundred survive,<sup>62</sup> many of which are in museums and cannot be played. Many old viols are too fragile to be used. Viols are often modified as a result of damage.<sup>63</sup> Like violas and cellos, viols are commonly reduced in size, and suffer other significant alterations to fit them for new musical demands.<sup>64</sup> Instruments are altered to change their nature, e.g. by adding an extra line of purfling to make a violin look ‘Brescian’, or converting a viol into a different type of instrument such as a cello or viola. The next chapter will show that, even if a viol could be preserved from all accidents, wear and modifications, the wood from which it is made changes over time, and even old instruments continue to respond to environmental changes.

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<sup>61</sup> Coates, *Lutherie*.

<sup>62</sup> My estimate, based on *Viollist*, discussions with colleagues, and viols described in Chapter 2.

<sup>63</sup> Consumables such as strings and bridges significantly affect a viol’s performance. Fleming, ‘Bridge to the Past’, p.244. Normal use can involve impact damage, extreme temperatures and humidities, damp, mould etc.

<sup>64</sup> Eighteenth- and nineteenth-century alterations to old instruments are described in: Bagatella, *Regole*, p.58; Salabue, *Observations*; Sibire, *Chélonomie*; Tolbecque, *Luthier*.

Some viols ‘served to teach the boy singers, in which purpose they were broken’.<sup>65</sup> This was in Madrid, but similar comments would probably be heard all around England where viols were commonly used for the musical education of cathedral choristers.<sup>66</sup> A viol may spend time as the work equipment of a professional musician, it may decay in an attic once it is considered obsolete, and it may be ‘done up’ to make it saleable as an antique. Consequently, old viols have typically suffered a wide range of traumas which reduce how accurately they represent their original state. As a result, original viols are neither readily available, nor can they reveal precisely what they originally sounded like or how they felt in use.

In order to overcome this difficulty, attempts are made to recreate instruments that are as close as possible to those viols when they were new. However, the reasons noted above limit the adequacy of old viols as models for this purpose. Copyists of old viols cannot make appropriate allowances for divergences from the original form because the original form is unknowable. Furthermore, the origins of old viols are often uncertain, and their commercial value can inspire misleading descriptions, so they cannot be treated with confidence as representative of any specified type.

An alternative to copying an old instrument is to follow its design.<sup>67</sup> This would avoid confusions caused by changes to a viol since it was new. It could also

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<sup>65</sup> 1602. McLeish, ‘Madrid Inventory’, p.119.

<sup>66</sup> Fleming, ‘Points arising’, p.301 and n.4.

<sup>67</sup> A design is considered here to be a maker’s detailed intentions for the finished instrument, principally concerning its shape and dimensions. This design could exist entirely in his mind, or it could be expressed or even worked out on paper or wood which could be used as patterns, jigs or moulds during construction. Coates, discussed *in extenso* below, is explicitly concerned with ‘the luthier’s conceptual design-thinking’. *Lutherie*, p.24.



illuminate factors which influenced the maker when designing his<sup>68</sup> instruments. His approach to viol-making could then be replicated, enabling the development of similar designs and the construction of similar instruments. To pursue this strategy, a surviving design is required, and there are good reasons why such designs might be found. The possibility that purchasers of viols might require designs which comply with a theoretical scheme is discussed below, but a systematic design would have additional benefits for makers:

- It could facilitate communication of the design to an apprentice or other worker.
- The integrity of the design would be maintained when it is copied or transferred from one medium to another, e.g. from a paper sketch to a wooden mould.
- Diminished reliance on unique physical patterns<sup>69</sup> would facilitate their replacement following wear, damage or loss.
- Scaling of the design to produce matched larger or smaller instruments would be simplified.

However, no English designs for viols are known and no evidence of designs for musical instruments is found in English artificers' workshops.<sup>70</sup> On the continent, the best-known early seventeenth-century organological authors showed no interest in instrument design. Praetorius praises the skills of instrument-makers but recognises they are of low education (unable to read Latin).<sup>71</sup> He discusses the sizes and tunings

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<sup>68</sup> At the time of writing, no female viol-makers working in England before 1660 have been identified. Rebecca Miller was described as an instrument-maker, but as the wife of George Miller who completed his apprenticeship in 1664, she is unlikely to have been involved in instrument-making before 1660. *British Violin*, p.29. Elizabeth Hare was a violin-maker and the wife of one of the Millers' apprentices, so she would not have been working before 1660. In 1672 Katherine Carr complained that Captain Sadlington 'pressed her prentice to the trade of instruments out of her shop' and told her 'if she would give him a violin out of her shop, he would release the prentice.' Ibid., and *CSPD*, Charles II, p.472. A warrant was issued to 'discharge ... and allow to return to their habitations John Hugebatt and John Stephkin, pressed ... out of Katherine Carr's shop ... the former being her apprentice and the latter casually there ... one being apprentice to an instrument maker, and the other a musician and the King's servant by patent.' Ibid. It is less than certain that these women made instruments, as they might simply have run the businesses, but further work might yet uncover an English equivalent to Katerina Guarneri. Hargrave, 'Mrs Guarneri'. In the absence of any evidence to the contrary, it is reasonable to regard all pre-1660 English viol-makers as male.

<sup>69</sup> Such as the paper patterns that survive from Stradivari's workshop. Sacconi, *Stradivari*.

<sup>70</sup> Workshop contents are discussed in Appendix 6.

<sup>71</sup> Praetorius, *Syntagma Musicum*, p.21.

of viols and violins, and mentions the English lyra viol with sympathetic metal strings, but he does not mention shape or design, or suggest they are of any importance.<sup>72</sup> The provision of scales shows Praetorius intended his illustrations to be precise and reliable, but their inconsistencies with the text demonstrate his indifference to details of form. For instance, the Viola Bastarda is described as having a ‘longer, deeper body’ than the bass viol, but the illustration (with its scale for comparing sizes) shows it as a smaller instrument.<sup>73</sup> Mersenne, too, was positively indifferent to the shape of instruments. He makes explicit his belief that shape has no effect on the categorisation of an instrument - for instance it does not distinguish a viol from a violin - and that it does not affect its function as a musical instrument: ‘As to the neck and its pegs, one makes them of whatever shape he wishes, as well as the table and the other parts; for it is of little importance...’ And again: ‘Whatever shape is wished is given to the table and to the body of all the other instruments without changing or altering their species, natures or properties.’<sup>74</sup>

The earliest known instrument designs are by the mid-fifteenth century Henri Arnault de Zwolle; these include a lute but no bowed instrument.<sup>75</sup> There are several problems with his lute design including contradictions between the drawing and the text. It diverges from contemporary pictures and surviving instruments<sup>76</sup> and cannot be considered a reliable indicator of normal practice in lute design. Over three centuries

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<sup>72</sup> Praetorius, *Syntagma Musicum*, p.52-6.

<sup>73</sup> Praetorius, *Syntagma Musicum*, Sciagraphia, plate XX.

<sup>74</sup> Mersenne, (Chapman), p.145. ‘Il faut remarquer que l’on donne telle forme que l’on veut à la table, & au corps de tous les autres instrument sans changer ou alterer leurs especes, leurs natures, & leurs proprietéz’. *Harmonie Universelle*, (1636), Book II, Proposition XVII. This refers to plucked and bowed instruments; see Book III, Proposition 1 for a comparable comment about keyboards.

<sup>75</sup> The manuscript (c.1440-50) is Paris, Bibliothèque Nationale MS Latin 7295. A translation is given in Harwood, ‘Lute Design’, and a good illustration in Coates, *Lutherie*, p.108. Arnault made mathematical instruments but he was not a musical instrument maker. Turner, *Scientific Instruments*.

<sup>76</sup> Söhne, ‘Lute design’, p.111.

elapse between Arnault and the next known instrument designs, a period which includes the entire span of this study.

None of the great violin-makers before Antonio Stradivari left any documentary trace of their designs. Moulds and numerous paper and wooden patterns from Stradivari's workshop are preserved in Cremona,<sup>77</sup> but rather than reveal his design processes or ideas, these remnants document construction procedures.<sup>78</sup> The lack of remnants from other makers is consistent with both the possibilities that such documents existed but were not valued (and hence not preserved), or that they never existed.

The earliest known method for creating a bowed instrument outline by following specified drawing procedures was presented to the Padua *Accademia* in 1782 by Antonio Bagatella.<sup>79</sup> Bagatella's method involves dividing a line related to the length of a violin into seventy-two equal parts. Subsequent measurements are expressed in terms of a module, which is defined as one of these parts. The mould<sup>80</sup> which determines the violin's shape is constructed using this module.<sup>81</sup> Bagatella's method was an attempt to copy violins by Antonio and Girolamo Amati but, despite its favourable reception, it neither reveals the Amati method, nor does it generate a satisfactory new violin outline. Its reviewers reported that: 'Violinmakers generally work inadvertently or by gross imitation or in dubious manners which aren't founded

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<sup>77</sup> The relics are listed, and some are illustrated, in Sacconi, *Stradivari*.

<sup>78</sup> Some show compass arcs for the placement of *f*-holes and the widths of a cello scroll. Most Stradivari violin moulds have compass marks which indicate the rib height, demonstrating the typical woodworker's use of compasses for measuring. Pollens, *Violin Forms*, p.13 and passim. Stradivari's documentary remains are unconnected with design. Hill, *Stradivari*, p.177. Chiesa, 'Testamentum'. Chiesa, 'Patriarch'.

<sup>79</sup> Bagatella, *Regole*.

<sup>80</sup> The classic Cremonese system of violin construction involves an internal mould around which the ribs are formed, but the use of such moulds is very far from universal; many viols and violins were made without moulds.

<sup>81</sup> Procedures during construction may cause an instrument's shape to depart, accidentally or deliberately, from that of the mould on which it is made.

on any accurate example', and that 'nothing fixed or methodical has ever been established amongst makers on the argument treated in Bagatella's Memoir'. They knew of no treatise on the construction of violins and had 'never found any useful mention in any collection of works dealing with the Arts.'<sup>82</sup> This shows that Bagatella's approach was innovative, that there was no literature treating instrument design, and implies that such an approach was unknown among violin-makers.

A substantial amount of twentieth-century organological literature addresses acoustics,<sup>83</sup> instrument-makers, and the processes of manufacture and retail, both from historical and contemporary points of view,<sup>84</sup> and numerous attempts to formulate systematic procedures for designing instruments have been published since Bagatella.<sup>85</sup> The overwhelming majority of these publications focus on violins, although in recent decades plucked, keyboard and wind instruments have received some attention.<sup>86</sup> No schemes which are concerned exclusively with the design of viols are known to me, but the same concepts are assumed to apply to viols as violins.

Traditionally, writers about violins do not evaluate their tone quality or ease of playing independently from their appearance, except when an instrument cannot be played. It would not be suggested that a maker could perfect the shape of the scroll while having no interest in his instruments' musical potential, but few writers suggest that early makers attended more to acoustic considerations than the appearance of their instruments. In the case of the violin this results partly from the overwhelming majority of violin-makers since the eighteenth century having been, to a large extent,

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<sup>82</sup> Bagatella, *Regole*, p.38.

<sup>83</sup> Hutchins, *Acoustics* reprints over 100 articles on violin acoustics.

<sup>84</sup> See above, n.10.

<sup>85</sup> Examples are given in Appendix 1.

<sup>86</sup> E.g. Söhne, 'Lute Design'; Fontana, 'Italian Harpsichord'; Adkins, 'Oboe'.

copyists.<sup>87</sup> What they copy is primarily appearance, albeit appearance that has become associated with a desired musical result. This was decried by Moya, who argued that makers could achieve good tone even when they were ‘careless to the last degree as carvers of wood’, and that ‘tone equal to that of Stradivari... has never followed the copying of anything that could be discovered by the most painstaking measurement and study of their instruments.’<sup>88</sup> Despite this, most authors, particularly those concerned with connoisseurship and commerce, concentrate more on appearance than structural matters that might affect sound.<sup>89</sup> In this spirit, it is often suggested that the concerns with geometry and proportion that appear in writings by architects and artists such as Vitruvius, Alberti, Palladio, Piero della Francesca and Dürer, were expressed in musical instruments.

A prominent presentation of this view is Kevin Coates’s doctoral dissertation about musical instrument design (published in 1985),<sup>90</sup> but many comparable analyses and design schemes have been propounded before and since. The following discussion focuses on Coates, but also applies to analogous schemes. Coates believes that musical instrument makers participated in a widespread, long-standing, intense interest in mathematics, and that they incorporated sophisticated mathematical concepts in the design of their instruments. He describes the major classical and renaissance writings on architecture and mathematics (particularly geometry and proportion) as fundamental both to intellectual thought and as features of Christian Art.<sup>91</sup> Among the

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<sup>87</sup> ‘Nous prendrons pour types les violes italiennes du xvi<sup>e</sup> siècle au xviii<sup>e</sup> siècle, car ce sont elles qui ont servis de modèles dans toutes les autres contreées de l’Europe.’ Vidal, *Instruments*, p. 47.

<sup>88</sup> Moya & Piper, *Tone*, p.23.

<sup>89</sup> ‘Acoustical considerations will not arise’. Coates, *Lutherie*, p.2.

<sup>90</sup> Coates, *Lutherie*. The book is virtually identical to the thesis.

<sup>91</sup> Coates, *Lutherie*, passim, p.19. Coates also accepts the traditional mis-identification of the spiral scroll finial on violins as the Ionic volute of classical architecture. Ibid., p.21. Numerous authors including Harvey (*Violin Family*, p.41) anticipate or repeat this, but it is refuted by the facts that

mathematical concepts implicated are proportion (arithmetic, geometric and harmonic), irrational numbers, the Golden Section, root proportionals, and the Vesica Piscis.<sup>92</sup>

In order to support his belief that instrument-makers used a ‘proportional design approach’<sup>93</sup> Coates analyses the shapes of viols, violins and other instruments using the following methodology. Card patterns are made of the outlines of the instruments, and their dimensions checked with callipers. Coates claims that drawings based on these patterns are very accurate,<sup>94</sup> and analyses his drawings in order to demonstrate the use of mathematical ideas. His analysis starts by superimposing ‘a simple device, made by engraving a series of concentric circles on a clear perspex sheet’ which he ‘laid against the contour in question and moved until the two curves coincided.’<sup>95</sup> All his schemes for the analysis and re-creation of instrument designs<sup>96</sup> are derived from extant instruments’ shapes<sup>97</sup> but, as is shown below in Chapter 2, there are many factors which prevent old instruments from retaining their original dimensions or shape.<sup>98</sup> This means that even if his analysis produced the exact shape of the extant instrument, it would not be a perfect match for the instrument when it was made.

It is essential for Coates’s analyses that instruments are laterally symmetrical,<sup>99</sup> so where no component or joint marks a centreline, Coates assumes a notional one.

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violin scrolls are extremely varied, and comparable spirals are ubiquitous both in nature and the works of man. They are predominantly unconnected with Vignola, Vitruvius and other theoreticians.

<sup>92</sup> For descriptions of these mathematical concepts, see Coates, *Lutherie*, Chapter 4.

<sup>93</sup> Coates, *Lutherie*, p.2.

<sup>94</sup> Coates, *Lutherie*, p.24.

<sup>95</sup> For full details, see Coates, *Lutherie*, pp.24ff.

<sup>96</sup> Coates, *Lutherie*, p.2. My side-by-side comparisons of Coates’s drawings with instruments which they represent (e.g. the lyra da braccio, p.6) leaves me unable to accept this claim of accuracy.

<sup>97</sup> The pegbox of the lyra da braccio by Giovanni Maria of Brescia forms part of Coates’s analysis (p.57), but it was made in the twentieth century. David Hill, personal communication.

<sup>98</sup> Wear and repairs are discussed in appendix 5a.

<sup>99</sup> Coates, *Lutherie*, p.24.

Although he recognizes that ‘Not all instruments, for practical reasons, *can* be symmetrical’,<sup>100</sup> Coates claims that symmetry dominates instrument-makers’ designs and he bases his methodology on symmetry being fundamental to their approach. Other authors are less convinced of the pervasiveness of symmetry, even in the finest work of the most renowned instrument-makers. Hargrave states: ‘The outlines of most classical violins, including the more accurate works of Stradivari, have a geometric imbalance between the right and left sides.’<sup>101</sup> Weisshaar and Shipman write: ‘Many of the classic makers were not too concerned with symmetry nor were they slaves to the right angle. Scrolls were *very* freely and often asymmetrically carved. Soundholes were not necessarily centered. The “centerjoint” did not necessarily coincide with the geometric center of the instrument.’<sup>102</sup> Rattray supports this point of view: ‘Perfect symmetry was not a priority with Cremonese makers.’<sup>103</sup> Coates’ methodology eliminates these normal asymmetries instead of taking them into account. Thus the symmetry of the drawings on which Coates’s analyses are based is guaranteed because one half of the drawing is derived as a literal reflection of the other, but the asymmetries of real instruments mean that if an analysis accurately represents one half of the instrument’s outline, it cannot be correct for the other half. There are also differences between the fronts and backs of instruments, so analyses usually fail for at least three-quarters of an instrument’s outline. Critical problems occur when Coates’s drawings are analysed using this approach, despite his recognition that there is ‘no point in proceeding with analysis of a faulty drawing.’<sup>104</sup>

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<sup>100</sup> Ibid.

<sup>101</sup> Hargrave, ‘Tried and Tested’, p.194.

<sup>102</sup> Weisshaar & Shipman, *Restoration*, p.157.

<sup>103</sup> Rattray, *Masterpieces*, p.106, in a description of the ‘Habaneck’ violin by Antonio Stradivari, c1734.

<sup>104</sup> Coates, *Lutherie*, p.24.

Many parts of Coates's procedure are arbitrary rather than objective as they rely on the judgement of the analyst. These judgements include identifying points at which curves are deemed to meet, locating their centres, the match of the instrument to the template curves, and the interpretation of quantified measurements. If an analyst regards certain measurements as credible, or expects certain ratios, this favours the recording of instrument data in ways that reveal these measurements and ratios. For instance, if the ratio of the upper bout to the lower bout is 5:3.95 this may be taken to mean the maker intended 5:4, or if a design is expected to be expressed in units of 2.54 mm, then a measurement of 256 mm is likely to be regarded as ten units.<sup>105</sup> This is especially likely when a wide range of units is considered possible<sup>106</sup> or when a unit is defined as a whole number division of a major dimension.

Coates does not state the extent to which a dimension or curve on an instrument has to diverge from the theoretical ideal before it is eliminated as evidence supporting a geometrical-proportional scheme. He employs a 'general margin of error of 0.5 mm' in the analyses, but where a measurement seems to him to conform to a geometrical-proportional scheme yet lies outside this range, he still admits it to the scheme.<sup>107</sup> Added to the use of a very broad range of mathematical relationships<sup>108</sup> this means essentially that any complex curved shapes can be described as exhibiting some of the relationships which Coates seeks. In most of Coates' analyses of bowed instruments,<sup>109</sup> the middle bout is divided into three or sometimes four arcs, the radii of

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<sup>105</sup> Chapter 2 and Appendix 3a show that the putative accuracy of measurements of old viols is often spurious.

<sup>106</sup> Coates, *Lutherie*, p.22. Smith, 'apparent geometry'. Fleming, 'Piece of String'.

<sup>107</sup> With the deviation stated. Coates, *Lutherie*, p.25.

<sup>108</sup> See above, p.22.

<sup>109</sup> Coates' examples IV, V, VI, VII, X, XI, XII, XIII, XIV, XV, XVI and XIX. Of the other seven of the nineteen bowed instruments, two are cornerless (Coates I and II), two have just one corner (i.e. the middle bout is continuous with the upper bout, Coates VIII and IX) and two have festooned outlines (Coates XVII and XVIII), so this element of analysis is applicable to none of these six.



which are compared with each other and with other dimensions of the instrument in the search for relationships, but no specific justification for this is offered.

For an example of how this analytical methodology is excessively flexible, consider illustrations L05, L06, L07, and L08 which compare the bouts of VME37, one of the best-made and best-preserved old viols in existence.<sup>110</sup> The disparity is often 1 mm or more and it not a simple consistent displacement of the edge. Sometime the two bout profiles match exactly, sometime one is the larger, sometimes the other, with their edges crossing. This means the bouts cannot be divided into sections whose radii are the same, and also that the radii do not have their centres in the same place, which contradicts the way they are described in Coates' analyses. For a section of a disparity curve such as in the lower third of illustration L06 where the two profiles match at the ends and differ by about 1.5 mm in the middle, the difference in the radii of the two bouts is over 10 mm for the section where they approximate to circular arcs (about 55 mm, starting 15 mm from the corner). Where the curve is shallower, the difference between the radii is greater. Illustration L3 shows the appearance of radii which differ by 10-20 mm. Chapter 2 and its illustrations shows that such disparities are at the low end of the normal range of those on the viols examined. It follows that no analysis of the Coates type can adequately describe both sides of any of these viols.

One of the reasons that mathematics produces 'results' is the abundance of mathematical relationships (including series, proportions and geometrical relationships). But the fact that numbers from the Fibonacci series can be detected in an instrument does not mean they were incorporated with the knowledge of the maker, any more than when those numbers appear in the structure of a nautilus shell or the

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<sup>110</sup> Illustrations L04 and L05 explain how such comparisons are made.

arrangement of a sunflower's seeds. Simple ratios like 2:3 or 4:5 resemble musical (harmonic) ratios, but they need not be present because they are thought meaningful. Experienced craft workers develop an 'eye' for pleasing shapes and proportions and produce them effortlessly and unconsciously, yet experience of designing is not necessary for someone to display taste, or to perceive and favour significant proportions such as the Golden Section.<sup>111</sup> In Dowland's *Lachrimae* there are twenty-one pieces, which could be seen as significant because twenty-one combines the numerologically significant numbers seven<sup>112</sup> and three but, as Holman has pointed out, 'a more likely explanation is that it is a convenient number for printed collections'.<sup>113</sup> Accident and taste can provide a sufficient explanation for virtually any proportions found in instruments.

If viols were made using certain proportions, it should be expected that the dimensions of extant instruments would cluster around these numbers, and this is the evidence that Coates takes to support his view of instrument design. However, the data tabulated in Appendices 4h to 4m in Volume II contradicts Coates's view. These tables present the most basic ratios (i.e. those between the length and widths) for comparison in a variety of ways.<sup>114</sup> For reference, Appendix 4p gives all the whole number ratios between 1:1 and 1:12 converted to decimals. Appendix 4h orders the instruments according to their size (i.e. belly length). Appendices 4i, 4j, 4k and 4l order the viols according to the ratios upper-bout-width to length, middle-bout-width to length, lower-bout-width to length, and upper-bout-width to lower-bout-width respectively. Finally, Appendix 4m

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<sup>111</sup> Fechner, 'Golden Section', p.108.

<sup>112</sup> The number seven should be expected to feature prominently in numerologically-aware schemes. Its pervasiveness is noted with awe in Simpson, *Division Viol*, (1665) p.23, yet it does not feature in any of Coates's schemes.

<sup>113</sup> Holman, *Lachrimae*, p.62.

<sup>114</sup> All these ratios are comparisons of measurements taken across the back because neither backs nor fronts represent their original dimension more consistently accurately, but using the back eliminates complications due to the arching.

enables side-by-side comparisons of three of these ratios according to which the viols are ordered independently. Careful scrutiny of these tables shows that the ratios which makers might be expected to aim for, such as the simple musical ratio 4:5 (0.8) are numbers which the instrument ratios rarely match, and to which they do not tend to approximate. Similarly, the data in Appendix 4e fails to show that makers favoured belly lengths of whole numbers or simple fractions (e.g. half) of inches.<sup>115</sup> It is also notable that ratios seem unrelated to the size of instruments (i.e. treble, tenor or bass) and it is particularly notable that individual makers are often represented by instruments whose ratios are at both ends of the range. It is safe to conclude that these makers had no fixed ideas about which proportions were desirable or useful to feature as aspects of their designs.

Detecting a spurious significance in numbers and geometrical relationships is not unique to musical instrument shape analysts - very similar problems occur in other fields. Close parallels to the geometrical/proportional claims about instruments appear in art historians' discussions of Brunelleschi's perspective. Kemp has shown in detail how these arguments are based on inadequate primary evidence, inappropriate later evidence, and ignorance of alternative explanations based on established and less exotic techniques.<sup>116</sup> Among archaeologists, sophisticated mathematical expertise has been attributed to the creators of structures in several ancient civilisations, but the evidence for this rests on the assumption that certain techniques and measurements existed.<sup>117</sup> These circular arguments are closely analogous to the claims made by Coates *et al.* about geometry and proportion in musical instruments. That the viol-

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<sup>115</sup> O'Brien, 'Original state' shows units of measurement to be more significant (in Italian harpsichords) than the relationships between measurements.

<sup>116</sup> Kemp, 'Science', especially pp.136-146f.

<sup>117</sup> These issues are very well explored in Knorr, *review* [of van der Waerden].

makers in this study lacked the expertise necessary to recognise or manipulate the mathematical relationships ‘found’ by Coates is shown in Chapter 4.

Makers of instruments can be aesthetically sophisticated without being bound to any theory. It is shown below that many English writers of the period emphasize both their freedom from theory and that theory does not match either reality or their aesthetic objectives, but first it is worth noting why proportion and other mathematical ideas might be expected in musical instruments. It is conceivable that a patron of instrument-makers might wish an instrument to embody certain proportions in order to reflect the structure of the universe, or because it might be felt appropriate for musical relationships to be explicit in the equipment used for music making, or because the presence of such ideas might support their esteem among those who could detect their cleverness. Artificers might share some of these ideas, or might use proportion during the processes of design or manufacture,<sup>118</sup> or because of acoustic theories. Any of these could lead to simple rational proportions between the sizes of parts of instruments, although it should be recognised that some musical proportions are neither simple nor rational.

In order for any of the above-mentioned possibilities to cause proportion to be used, the person in charge of the design would have to subscribe to a theory wherein proportion is important. Italian theorists are fundamental to Coates and his sympathisers, but even in renaissance Italy, attempts to focus on theories of proportion or perspective, rather than the end result, were criticised by leading art theorists such as Vasari. Michaelangelo’s dictum that the true artist ‘should have his compasses in

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<sup>118</sup> Fontana, ‘Italian Harpsichord’, p.58.

his eye',<sup>119</sup> exemplifies how Italian artists did not rely on formal rules. Architects' work demonstrates similar freedom from the constraints of theory and, as Connors has shown,<sup>120</sup> seventeenth-century architecture books moved away from rule-based theory and from early renaissance books' eagerness to ally themselves with Vitruvius. Wittkower, cited by Coates as an apologist for 'the principle of numerical proportion in art and design',<sup>121</sup> shows that despite Palladio's claims about the importance of expressing musical and other ratios in architecture, his buildings as actually constructed do not match the designs he published and thereby stray from proportionality.<sup>122</sup> To summarise this, in Italy, the country regarded as the source and principal exponent of proportional design, proportion's prominence in theory books does not result in its strict incorporation in the works of artists or architects. It is therefore to be expected that even if instrument-makers were inclined or required to express certain proportions in their designs, the dimensions of their instruments would be a poor guide to these inclinations or requirements.

In England, virtually all authors considered practicalities more important than theory.<sup>123</sup> The earliest English writer about architecture was John Shute, 'Paynter and Archytecte' (and probably engraver<sup>124</sup>) who had been sent to Italy to study architecture c.1550. He notes the aesthetic value of Vitruvius but stresses that practical considerations are more important.<sup>125</sup> Similarly, Balthazar Gerbier commends

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<sup>119</sup> Cited by Field, *Infinity*, p.117.

<sup>120</sup> Joseph Connors, *Slade Lectures on Boromini*, Oxford, 1999.

<sup>121</sup> Coates, *Lutherie*, p.2.

<sup>122</sup> Wittkower, *Architectural Principles*, p.121.

<sup>123</sup> See below, p.153ff.

<sup>124</sup> Hind, *Engraving in England*, vol.i, p.60.

<sup>125</sup> Shute, *Grounds of Architecture* praises Vitruvius and Serlio. Following Vitruvius, he notes the usefulness of many intellectual skills, but they are all justified for practical reasons. For example, he considers a knowledge of music necessary in order to design buildings that are acoustically satisfactory, not in order to incorporate musical proportions. Vitruvius was praised (and translated) by Sir Henry Wotton, but he too considered that Vitruvius was wrong to stress aesthetic considerations at the expense of practicalities. Wotton, *Architecture*, p.1f.

familiarity with classical writers but points out that no ornament should be an impediment to the strength of the building.<sup>126</sup> Nicholas Hilliard, the most distinguished of the very few English writers about art (at this time), praises Dürer's theoretical writings, but denies that the fixed proportions Dürer recommended apply to much of real life.<sup>127</sup> He talks of necessary inaccuracies in painting, and of a contrast between *proportion* and *favour*.<sup>128</sup> The subsidiarity of formal structure to other matters is also found in attitudes to architectural decoration. Some designs were adapted from Serlio,<sup>129</sup> but much more influential were the architectural pattern books by Hans Vredeman de Vries which are 'concerned not with the proportion of the columns or with the design of buildings from plan to façade, but with the decoration of the classical orders; this emphasis corresponded precisely with what English patrons and their masons required.'<sup>130</sup>

It is important to note that in the sixteenth and seventeenth centuries the English word *proportion* was used very much more to mean *fit*, *appropriate*, *reasonable*, or *sensible* than for referring to mathematical relationships, and even when used mathematically it usually meant simply *amount* or *quantity*.<sup>131</sup> As well as Hilliard's *favour*, the term *grace* was used to express aesthetic fitness, including in a context when ideas of proportion could have been invoked. Ling defined Beauty as: 'a seemly composition of all the members, wherein all the parts with a certaine grace agree together.'<sup>132</sup> The influential writer Sir Francis Bacon was certain that for

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<sup>126</sup> Gerbier, *Building*, p.6.

<sup>127</sup> Hilliard, *Limning*, p.60f. Also p.64, concerning Lomazzo.

<sup>128</sup> Hilliard, *Limning*, p.51, 61.

<sup>129</sup> Serlio, *Architecture* and the original Italian editions (1537-47) etc.

<sup>130</sup> Wells-Cole, *Art and Decoration*, p.64. In the early seventeenth century the works of Wendel Dietterlin (published in Strasburg and Nuremberg in the 1590s) were similarly favoured, including by Henry Prince of Wales. Mowl, *Style*, passim and p.154.

<sup>131</sup> 'If he travel without a servant £80 is a competent proportion.' Robert Dallington, *Method for Travel*, (1598) cited by Simon, *Education and Society*, p.347.

<sup>132</sup> Ling, *Politeuphuia*, p. 53.

buildings, utility and practical matters should have a higher priority than appearance,<sup>133</sup> and in his somewhat more abstract consideration *Of Beauty*, he mocked theorists when he wrote:

There is no excellent beauty that hath not some strangeness in the proportion. A man cannot tell whether Apelles or Albert Durer were the more trifler, whereof one would make a personage by geometrical proportions; the other, by taking the best parts out of divers faces, to make one excellent.<sup>134</sup>

He was as unambiguous and pithy as ever when he observed that to ‘make a better face than ever was’ a painter ‘must do it by a kind of felicity (as a musician that maketh an excellent air in music), and not by rule.’<sup>135</sup> In 1597 Robert Stickells, the most important English renaissance architect apart from Inigo Jones and Robert Smythson, criticised Vitruvius and theory books as having ‘taken the wrong sense; their inwards works are dead when they show no life in their outward doings.’<sup>136</sup> This introduces a more positive reason (than indifference to prescriptive rules) for why viol buyers might favour the unconventional in their instruments - their search for variety and novelty in all things.<sup>137</sup> English violists would willingly agree with Plutarch’s observation that ‘pleasaunt varietye is in euery thyng delectable: mooste specially in voyces, and thynges made to beholde.’<sup>138</sup> As one modern author has put it, ‘The basic aim of Elizabethan design was that there would be “none other such” as it in existence... The aim was to be unique, not correct.’<sup>139</sup> This attitude emancipates designers from prescriptive systems. It promotes experiment and innovation, both for the shape of

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<sup>133</sup> Bacon, *Essays*, (1625). *Of Building*, 427ff.

<sup>134</sup> Bacon, *Essays*, (1625). *Of Beauty*, 425f.

<sup>135</sup> Bacon, *Essays*, (1625). *Of Beauty*, 426.

<sup>136</sup> Anderson, ‘Architecture’, p.239. That contemporary references to buildings in Stuart England are rare is lamented by David Howarth in a review of Howard Colvin, *The Canterbury Quadrangle, St John’s College*, (Oxford, 1988) in *Burl.*, cxxxi, No.1035, (1989), p.431.

<sup>137</sup> See Gent, ‘Rash Gazer’, pp.386-8 and passim. The English favouring of novelty and complexity over prescriptive and limiting theory is very clearly and comprehensively elucidated in Anderson, ‘Architecture’, pp.267ff.

<sup>138</sup> Plutarch, *Education*, Chapter vii.

<sup>139</sup> Mowl, *Style*, p.160.

viols and their decoration, and matches the emerging belief expressed in the writings of Bacon and Wotton that classical authorities should be rejected in favour of personal observations from nature.<sup>140</sup> Wotton noted how architects freed themselves from such restrictions, explaining that the Ancients proportioned their rooms 2:1 and height = length + half breadth ‘which Dimensions the moderne Architects haue taken leaue to varie vpon discretion: Sometimes squaring the Latitude, and then making the Diagonal or ouerthwart Line, from Angle to Angle, of the said Square, the measure of the Heighth sometimes more...’<sup>141</sup>

It is true that Pythagoras’s ideas about mathematical proportion were revered by renaissance humanists and that important scholars such as Mersenne gave extensive attention to both mathematics and music.<sup>142</sup> Mersenne discusses a geometrical scheme for finding mean proportions, and proportional methods for tuning and for determining fret positions. He does not, however, refer to proportion in the context of instrument design, and he rejects theories that might seek to justify the use of proportion by identifying direct acoustic benefits.<sup>143</sup> He also emphasises the unimportance of shape, and makers’ freedom from prescriptive rules, even for such a mechanical task as setting the frets.<sup>144</sup> Kepler, Fludd, Descartes, Kircher and Leibniz were all interested in both mathematics and music. They believed that mathematical relationships not only expressed the nature of the universe, but represented a manner of causal connection, for example, between material objects and emotion, so they might have

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<sup>140</sup> Wotton, *Education*, p.xxiii. Anne Clifford, a violist and thoughtful patron, attended less to Wotton’s affirmation of Vitruvian ideas than to his thoughts on practical functions of architecture such as hospitality and inheritance. Friedman, ‘Clifford’, 372.

<sup>141</sup> Wotton, *Architecture*, p.67.

<sup>142</sup> E.g. *La Vérité dans les sciences* (1625); *Harmonie universelle* (1636). Different versions of *Harmonie Universelle* are discussed in Fleming, ‘Mersenne’.

<sup>143</sup> See above, p.18.

<sup>144</sup> Mersenne, (Chapman), pp.145, 156, 141. See also Mersenne’s comparison of Galilei and Zarlino’s attitudes to theory. *Ibid.*, p.22.



thought it appropriate for mathematical ideas to be expressed in the objects most intimately connected with music. This possibility is insufficient, however, to establish a connection between mathematics and musical instrument-making, especially if makers lacked the necessary intellectual capabilities, as will be shown in Chapter 4. English caution about the usefulness of theory, including those of Mersenne and Kircher, continued into the eighteenth-century.<sup>145</sup> The analyses and prescriptions given in courtesy books were found more appealing than those of mathematicians or similar theoreticians. Any neo-Platonist Englishman might recognise the mathematical structure of the universe, and the old view that man was a perfect reflection of it. But they would sympathise with Castiglione's position that beauty resulted from forms that functioned well<sup>146</sup> and apply it to musical instruments, always preferring design details that led to effective functioning to those that merely conformed to an idea.

If it is possible to analyse a work in a particular way, this does not mean that the work was formed in that way. For example, in 1851 Augustus de Morgan suggested that mathematical analysis of the length or frequency of words could establish the authorship of a text.<sup>147</sup> Stylometry has subsequently developed to include the use of neural networks.<sup>148</sup> If a computerised mathematical technique like this can establish that Shakespeare wrote a particular play, no-one would be led thereby to claim that he used a computer to manipulate the frequency with which he used each word. He did not, of course, have access to a computer but, more importantly, word frequency was irrelevant to Shakespeare, just as arcane mathematical ratios were irrelevant for pre-1660 English viol-makers, even if they might occasionally have incorporated such

<sup>145</sup> North, *on Music*, p.233 and n.37.

<sup>146</sup> Castiglione, *Courtier*, Book 4, Chapter lviii.

<sup>147</sup> Augustus de Morgan (1851), cited by Matthews & Merriman, 'Bard', p.23.

<sup>148</sup> Matthews & Merriman, 'Bard', p.26.

ratios into their instruments unintentionally. Inigo Jones was the greatest incorporator of neo-Platonic ideas into design,<sup>149</sup> but his description of the monoliths at Stonehenge as belonging to the Tuscan order is an outstanding example of how a false analysis follows from a misunderstanding of motive, and of how false expectations distort perceptions of what exists.<sup>150</sup> Baxandall has explained thoroughly why it is inappropriate to use Italian aesthetic concepts to explain early sixteenth-century German sculpture.<sup>151</sup> I maintain that it is similarly inappropriate to apply alien concepts of mathematical proportion to pre-Restoration English viol-making.

The fact that a technique, theory or fact is in the public domain does not mean that it is universally known, understood or accepted, so no worker in 1580 or 1660 can be assumed to have had access to all mathematics developed by then. Several architectural patrons owned architectural treatises, but this does not guarantee that they read or agreed with them, and it certainly does not guarantee that their employees had access to such work.<sup>152</sup> Although the Copernican system was known in England in the mid-sixteenth century, it was not still not accepted by some forward-thinking intellectuals, including Sir Francis Bacon, in the seventeenth century.<sup>153</sup> Most readers of this thesis would have difficulty with some theories which have long been in the public domain such as Einstein's special theory of relativity (1905), and they are also unlikely to have internalised Euler's general method of solving linear ordinary differential equations (1739), Wallis's lecture on non-Euclidean geometry (Oxford, 1663), or even Apollonius's second century work on conics.<sup>154</sup> Musico-mathematical arcana such as the works of Robert Fludd have been cited as evidence that certain

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<sup>149</sup> Very well described in Toplis, 'Jones's Mind'.

<sup>150</sup> Harris, Orgel & Strong, *Arcadia*, p.82.

<sup>151</sup> Baxandall, *Limewood Sculptors*, pp.143-7.

<sup>152</sup> Girouard, *Smythson*, p.15.

<sup>153</sup> Smith, *Nation State*, p.202.

<sup>154</sup> Fauvel & Gray, *Mathematics*, pp.447, 510, 182ff.

concepts were known,<sup>155</sup> but Fludd was not understood by his intelligent contemporaries. His writings were considered too ‘misterious’,<sup>156</sup> and found so little favour in England that he had to publish them abroad.<sup>157</sup>

English viol makers neither had any internal impulse to incorporate specific proportions in their work, nor did they work for people who would require them to do so. Even if a more objective methodology were to be used, Coates and his sympathisers would still be able to find the proportions and other mathematical phenomena they seek because they do not identify any reason why particular numbers should be used, but instead simply find numbers. Numbers exist throughout nature, so their occurrence in instruments is no proof that they are incorporated intentionally. The next chapter argues that even if numbers are extracted accurately from old viols, the same figures would not apply to these instruments when they were new and consequently are incapable of demonstrating meaningfully any mathematical intent on the part of viol-makers.

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<sup>155</sup> Adkins, ‘Oboe’, p.102.

<sup>156</sup> Isham, *Correspondence*, letter 9/1654. The stylistic innovations of Inigo Jones were not ‘remotely understood’ by his colleagues. Harris, Orgel & Strong, *Arcadia*, p.112.

<sup>157</sup> Herissone, *Music Theory*, p.2.

# Chapter 2

## EXTANT VIOLS

Surviving instruments are the most tangible source of evidence about viol-making, but before using antique musical instruments as sources it is necessary to recognise and account for differences between their original and present states, and to consider carefully the procedures for extracting data from them. The states of extant viols and the problems of assessing them are discussed in this chapter, focussing on changes in their component parts and dimensions since they were made. A protocol (VDP) I developed for collecting data from old viols is described in this chapter, and data from thirty-eight viols are presented in Appendix 4. The chapter concludes with discussion of this data, and of images of the viols.

When a viol is built, extra-musical matters such as whether it is commissioned, intended for the maker to use, or for an unspecified client,<sup>158</sup> affect all manufacturing decisions. If it is for the maker's own use, a viol's most important features might be cheapness and durability, if for a patron the highest priorities might be current fashion or compatibility with an organ of particular pitch,<sup>159</sup> and if for no pre-determined client the most important consideration might be lavish ornament to attract a purchaser. Such factors affect both the maker's original design and his responses to emerging issues. If a flaw is revealed in a piece of wood during making, should it be ignored, or should the piece be discarded? A maker's answer might depend on the instrument's destination.

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<sup>158</sup> There is no positive evidence that English viol-makers before 1660 kept any stock for sale, so it is probable that the owners-to-be of all viols were known while they were being made.

<sup>159</sup> Hulse, 'Newcastle', p.6.

One example of the potential impact of its destination on the shape of a viol is when ribs are being bent. Most extant viols (all of those examined for this study) have ribs which are flush with the edges of the back and belly, unlike violins where the plates overhang. It is easier to shave small amounts off the edges of the plates than to make minute adjustments to rib curvature, so it is normal woodworking practice to glue the plates to the ribs with a slight overhang and then trim them to the ribs. Thus the shape of the ribs determines the outline of the viol. Their final curvature reflects not only the maker's skill and the compliance of the wood to bending, but also the importance the maker attaches to how closely the viol's shape matches his design. In this way a maker's knowledge about his client can affect decisions about shape. Unfortunately, with a single possible exception, the first owner is unknown for all the viols in this study.<sup>160</sup> It is therefore impossible to judge what user- or client-oriented criteria the maker might have used to decide when a rib's curve was satisfactory. More generally, we cannot know whether a curve is exactly as originally conceived, whether it strayed during making (and whether the maker accepted this willingly or reluctantly), or whether it changed later. It is therefore impossible to quantify how close an extant instrument is to its original design.

A maker's decisions account only for the original state of a viol. Later, when the viol becomes a musician's working equipment, a second-hand instrument, a remnant of an obsolete culture, or a treasured antique, these changes of status dominate decision-

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<sup>160</sup> VME33. Heraldic analysis has shown for a coat of arms on belly of this viol that 'Sir Charles Somerset is the only member of his family who is positively cited as using this coat of arms'. Boyden, *Hill Collection*, p.9. See also Appendix 7a. The fact that Sir Charles was aged about fifteen in 1600 persuaded Boyden that the viol would not have been made before 1598, but it is not certain that Sir Charles was the first owner. Michael Maclagan (The Richmond Herald), personal communication, 1981.

making during maintenance, repair, restoration and conservation.<sup>161</sup> There is substantial danger in regarding any feature of an instrument's present state as accurately documenting its maker's intentions unless such factors are taken into account.

When old viols are kept in use, it is virtually inevitable that accidents, ageing, insect attack, or general wear and tear will necessitate work which can compromise the original state.<sup>162</sup> Rather than discard an otherwise sound instrument, damaged parts are replaced. The tale is often told of a woodsman's axe which has had several new blades, and some replacement handles, but it is still the same trusty and familiar old axe. A similar situation is found with old musical instruments.<sup>163</sup> The destruction and replacement of a rib is not considered to change the character of an instrument, but problems arise when this view is maintained following a succession of similar incidents. As more and more original parts are replaced, an old instrument becomes a different entity, but commercial pressures and affection for antiquity mean that an instrument comprising 50% original parts and 50% new parts is still regarded as an old instrument. In a celebrated court case, a respected dealer advertised an instrument made from three composite violins each of which contained fragments of Stradivari instruments as a 'Stradivarius genuine in all its parts'. In another case the belly of a Stradivari violin was made into one violin, its back and ribs formed the basis for another, and both were sold as Stradivari violins.<sup>164</sup> Almost none of the viols I inspected retain all their major original parts in an unaltered state. Some have been altered significantly, others are made up from parts of different instruments, and some contain only one or two original parts, the rest being new. Information about a viol's

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<sup>161</sup> Barclay, *Critical Analysis*, passim.

<sup>162</sup> See Appendix 5a.

<sup>163</sup> See below and Appendix 4c.

<sup>164</sup> Harvey, *Violin Fraud*, p.15 and *passim*.

original state is obscured or lost whenever its body is altered, but this is the nature of the physical evidence on which most discussion of old English viols has been based.

In the sixteenth and seventeenth centuries, references to the repair and alteration<sup>165</sup> of instruments are commonplace. The following list gives a small selection of examples.

- 1552      ‘for the mending of [various lutes]’, ‘for new belyeng of a lute’<sup>166</sup>
- 1606      ‘for mendinge her Ma<sup>ties</sup> Vyalls, Lutes etc’.<sup>167</sup>
- 1613/14   ‘to Mr Newport for altering a lute’<sup>168</sup>
- 1614      ‘for amending and stringing four other vyolls’<sup>169</sup>
- 1616/17   ‘for mendinge a Bass viall’<sup>170</sup>
- 1665/6   ‘for mending and altering several... [lutes, viols and violins] being broken upon removes’<sup>171</sup>
- 1714      ‘Another excellent [viol], bellied by Mr. [Barak] Norman’ and ‘a fine bass violin, new neck’d and bellied by Mr. Norman’<sup>172</sup>

Keyboard instruments were routinely altered by expanding their compass or adding a rank of strings.<sup>173</sup> The alteration of lutes was particularly common, and some sixteenth-century types were systematically bought and re-necked to satisfy seventeenth-century musical requirements, principally the need for more courses of strings.<sup>174</sup> Nurse wrote: ‘Original surviving [lutes] before 1580 are rare, in a fragmentary state, and invariably exhibit questionable features. Lutes by important

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<sup>165</sup> Either at the same time as a repair or independently, e.g. 1607, Payment to ‘Cormack Dermode’ for a ‘New back to your Lordships harp, mending it with plate, & cutting the neck shorter 16s.’ Hatfield, Cecil family papers (Bills 14). See also Chapter 5 for payments to Mashrother/Masseter.

<sup>166</sup> BL, Lansdowne Ms.824, fols.34v, 36.

<sup>167</sup> *RECM*, vol.iv, p.197f.

<sup>168</sup> Chatsworth, Bolton Ms.29, fol.373. Hulse transcription.

<sup>169</sup> Chatsworth, Bolton Ms.95, fol.241. Woodfill, *Musicians*, p.258.

<sup>170</sup> Chatsworth, Bolton Ms.29, fol.512. Hulse transcription.

<sup>171</sup> *RECM*, vol.i, p.68.

<sup>172</sup> Items in the sale of Thomas Britton’s instruments. Hawkins, *General History*, p.793.

<sup>173</sup> *Boalch*, passim.

<sup>174</sup> Lowe, ‘Lute’, p.14f.

makers such as Laux Maler and Hans Frei... in every case have been radically altered by later modifications.’<sup>175</sup> The reduction in size of lutes was described in the Mary Burwell Lute Book (c.1670): ‘We have lutes they call ‘cut’ lutes – that is, when of a great lute they will make a little one, which is done in cutting off something of the breadth and length of every rib, and then joining them together upon a little mould.’<sup>176</sup> A possible early viol alteration is recorded in the accounts of Francis Clifford, fourth Earl of Cumberland. John Thornton was paid for ‘Carrying three Vyolls to Yorke to gett them cutt’.<sup>177</sup> Viols are unlikely to have been converted into violins in England at that time, but they might have been reduced in size, or inlaid.<sup>178</sup> The nature of this cutting is not specified but the fact that the viols returned after only four days implies either very rapid work or that it was not a very dramatic alteration.<sup>179</sup>

Musical fashions and practices change, and the possibility of adapting an instrument for a new use has sometimes been the only factor that allows its survival. The bodies of many treble and small tenor viols<sup>180</sup> have been cut to reduce their width, length and/or depth so that they can function as violas or violins, work which was undertaken by English viol- and violin-makers as distinguished as Barak Norman.<sup>181</sup> Very many bass viols have been adapted for use as violoncellos,<sup>182</sup> for which purpose the neck can be narrowed (as on VME34), but it is usually replaced. All such alterations have an

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<sup>175</sup> Nurse, ‘Design’, p.101.

<sup>176</sup> Dart, ‘Burwell’, p.11.

<sup>177</sup> 4 October 1617. Chatsworth, Bolton Ms. 97, fol.201. Hulse transcription. Woodfill, *Musicians*, p.259.

<sup>178</sup> For inlay, see Appendix 7a.

<sup>179</sup> This cutting was perhaps done by George Mashrother. See below, p.201f.

<sup>180</sup> And possibly pardessus. Milliot, *Luthiers parisiens*, p.130.

<sup>181</sup> For a viol converted by Norman into a viola, see illustration L60. The instrument was re-converted to a viol in modern times. M.Heale, personal communication. See also ‘Analysis of the transformation of a viola into a violin’ in Vettori, *Analysis*, pp.102ff.

<sup>182</sup> Well-known examples include a tenor viol by Henry Smith, 1623 in Dean Castle, Kilmarnock, Scotland (Museum No.61) which was converted for use as a viola (illustration L59) and the bass viol by John Baker, Oxford 1688, in the collection of the Victoria & Albert Museum (No.171-1882) which became a cello. The reversal of a severe alteration is reported in Soubeyran, ‘Restoration’.



impact, sometimes catastrophic, on the preservation of information about the instrument's original form.

The most severe type of alteration involves re-using wood from a viol to make a completely different type of instrument, such as making a violin from the corpse of a bass viol.<sup>183</sup> In such cases some qualitative or detailed information may be preserved, but not about the original instrument's form. Only slightly less dramatic is when wood from a viol is used to make another instrument of the same family. When Forqueray commented that Barbey had made many viols 'with English wood', the international trade in wood was long-established.<sup>184</sup> 'Deal' (softwood) from four countries was rated for English import duty from 1545, and numerous exotic woods were available, including ebony, brazilwood, and snakewood.<sup>185</sup> However, there is no evidence that structural wood for viol-making was exported from England to France, where plenty of suitable or superior wood grew (and still grows). Forqueray was reporting the common phenomenon of old English viols being cannibalised to provide materials from which instruments could be made that conformed to the latest requirements yet retained the cachet of old English viols, a practice which is confirmed by surviving instruments. Rousseau described milder procedures, explaining that it was common in France to thin and set back (often, to replace) the neck of an old bass viol so that it held seven instead of six strings, and so that the strings bore down on the bridge at a

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<sup>183</sup> Illustration L61.

<sup>184</sup> Forqueray, *correspondence*.

<sup>185</sup> Customs, *Rates* and similar later lists. Brazilwood was used both as a dyewood and for furniture. Sir John Gage owned 'A paier of tables of brasell' (1556). Rice, 'Sir John Gage', p.123. Snakewood was described as 'excellent for Joyners worke'. Harcourt, *Voyage*, p.36. Charles I owned several pictures in ebony frames, and a standish made of 'speckled wood' (snakewood). Millar, 'Van der Doort's Catalogue', passim and p.154.

steeper angle. ‘...you will never find an English viol other than where it has been necessary to set the neck *à la Française* to make it easier to use.’<sup>186</sup>

Cannibalisation and re-necking are at the other end of a continuum of alteration severity from reversible modifications such as making an ‘alto’ viol out of a treble by restringing it.<sup>187</sup> In the late seventeenth and early eighteenth centuries viols were less popular in England than formerly,<sup>188</sup> but in France new compositions increased the need for basses. Virtuoso compositions by Marais and Sainte-Colombe extended the demands made of bass viols, but old English instruments could meet these demands if they were modified appropriately by re-necking, and sometimes by cannibalisation. This helps to explain the rarity of unaltered English viols from before the late seventeenth century. The fact that surviving viols so commonly embody post-original requirements emphasises how important it is to investigate in detail the originality of extant instruments.

It is common for old violas and violoncellos to be reduced in size. In the violin world this is not considered *per se* as prejudicial to an instrument’s musical effectiveness. Such work is usually prompted by a belief that the instrument would become more useable or saleable if it conformed to a standard size, and skilful work does not reduce the monetary value of the instrument. An early viola, for instance, has been described

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<sup>186</sup> ‘...& il n’y a point de Viole d’Angleterre, où l’on ne soit obligé de faire mettre un Manche à la Française pour s’en servir commodément.’ Rousseau, *Traité*, pp.22-3. In his preceding sentence Rousseau reported that the English made smaller viols before the French, but his use of the word ‘reduit’ suggests a change of design or intention rather than an alteration of physical objects. ‘Il est vray que les Anglois ont réduit leurs Violes à une granduer commode, devant les François, comme il est facile d’en juger par les Anciennes Violes d’Angleterre, dont nous faisons une estime particulière en France.’

<sup>187</sup> Ganassi was concerned about instruments that were ‘deficient in being too large’. He recommended moving the bridge and fitting strings of a different weight in order to tune a viol to a different pitch. Ganassi, *Regola Rubertina*, p.29.

<sup>188</sup> However, the republication of Simpson’s *Division-Viol* in 1712, and various documents (including trade cards) which mention viols, shows that viol-playing continued, and was familiar, in eighteenth-century England. *British Violin*, Chapter 3.

as being ‘in mint condition’, despite its body having been reduced in length by an inch (c.10%).<sup>189</sup> Large violoncellos of the most celebrated violin makers such as Andrea Amati<sup>190</sup> and Antonio Stradivari,<sup>191</sup> were very commonly reduced in size, and five of the six violoncellos by Andrea Guarneri had been cut before 1902.<sup>192</sup> In the early nineteenth century some writers recorded details of the types of instrument they considered ideal for reduction and procedures they favoured. For example, an Italian Count who had a great influence on violin connoisseurship noted that: ‘Normally the instruments that are a good proposition to reduce are violoncellos and old viols.’<sup>193</sup> The attitude that it is permissible, even desirable, to alter old instruments to meet current needs was commonly applied to viols from the late-seventeenth century until modern times. Viols were widely considered as obsolete or at best marginal to the musical mainstream, so the preservation of their original state was considered to be of little importance. Only during the twentieth century have increasing numbers of people come to understand the importance of minimising alterations.<sup>194</sup> Nevertheless, during most of the time since 1660, alteration of viols has been normal and, as far as reliable embodiment of information about their original state is concerned, the impact is severe and irreversible. Another problem is fake antique instruments, which can be difficult to detect, this problem being exacerbated by the practice of incorporating parts

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<sup>189</sup> A viola attributed to Andrea Amati, described in Riley, *Viola*, p.19. Other examples of viola cutting are given in *Ibid.*, pp.218-221, where the author writes: ‘Many of the great violas ...were reduced in body length. When the operation was done by an accomplished luthier, the results were completely satisfactory’.

<sup>190</sup> The body of a cello ‘Il Re’, 1572, now in the Shrine to Music Museum, Vermillion, SD, USA has been cut (by about an inch), as have ‘all Andrea Amati’s existing violoncellos and nearly all the early Cremonese violoncellos’. Mosconi & Witten, *Amati*, p.69.

<sup>191</sup> Hill, *Stradivari*, pp.116 ff. Only two of the largest size of cello made by Stradivari are known to have survived uncut. Beare, *Stradivari*, p.90.

<sup>192</sup> Hill, *Stradivari*, p.112. Also, ‘Little [Brescian] work has survived in anything like original form’. Dilworth, ‘Speed Merchant’, p.1320.

<sup>193</sup> Dipper & Woodrow, *Salabue*, p.59. At the same time a French writer (presumably following the practice of his adviser, Nicholas Lupot) recommended re-thickening plates to improve Guarneri violins. Sibire, *Chélonomie*.

<sup>194</sup> Although Hill, *Stradivari*, pp.235-9 asked for interference with old instruments to be minimised, many instruments that passed through this distinguished firm (now no longer trading) show signs of regularisation and internal tidying that destroy organological information.

of genuine antique instruments in the fakes.<sup>195</sup> Viols were among the instruments offered by the notorious forger and faker Leopoldo Franciolini in his catalogues of 1897, 1900 and c.1909.<sup>196</sup>

Instruments whose original state is obscured by later work pose a significant problem for this study. Some alterations are obvious to an untrained eye, and experienced appraisers are able to detect more subtle departures from originality. But an important aspiration during repair and restoration is that the work should not catch the eye or even offer clues that an instrument has been damaged. Repairs and alterations are hardest to identify when they were not done recently, because anomalies of patination and wear that signal recent alterations become obscured by subsequent patination and wear.<sup>197</sup> The skills of the most expert instrument-makers mean that some repairs and alterations are extremely difficult to detect, even under the most favourable conditions.

Ideal laboratory conditions, with facilities such as ultraviolet lights, x-rays and powerful microscopes, exceed my fieldwork facilities and those in most instrument-makers' workshops. For this study, therefore, the identification of repairs and alterations relies principally on my experience of examining old instruments during twenty-five years in the musical instrument trade. This supported my awareness of features that indicate deviations from originality, and prompted me to scrutinize appropriate places. Prolonged examination of any instrument continues to reveal further information but, in almost every case during this study, my examinations were limited to a single occasion and the time available for examining each viol was

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<sup>195</sup> A distinction should be drawn between this reprehensible and illegal practice and instruments like VME04 which are largely new and incorporate old parts but with no intention to deceive.

<sup>196</sup> Ripin, *Franciolini*, passim and pp.55, 63 and 79f.

<sup>197</sup> Wear and patination can be advantageous for supporting an instrument's 'life history'.

very short. In anticipation of this, I designed my Viol Data Protocol (VDP) to ensure that examination time was used efficiently and that the data most likely to be of use were collected. I was able to refine VDP between successive applications. This meant that although experimental applications of VDP before data gathering started were sufficient to ensure that the data collected were adequate for their intended use, later observations were an improvement over the earliest ones.

Meaningful comparisons of viols rely on consistent and accurate data, but problems arise when data collection is not regularised, some of which are described below. VDP is designed to be a rational, efficient and comprehensive procedure for collecting the data that is relevant for this study, but it could be modified for other instruments or purposes. The aim is to assemble all information that is practical to collect and is likely to be of value for the present purpose.<sup>198</sup> In order to maximise the usefulness of data about viols for this study, therefore, the data had to be: (a) appropriate for this specific purpose, (b) acquired in a consistent manner, and (c) acquired with as much meaningful accuracy as possible. The importance of collecting any datum is determined by the use for which it is required. An instrument-maker who wishes to build a replica, or even just an instrument closely based on a particular antique, would desire a vast amount of information including accurate dimensions of all parts and their positions relative to one another, arching templates with clear indications of distortion, and colour photographs showing details of finish and condition, together with further data such as x-rays and measurements of weight. The acquisition of all this information would require many hours of access and a large range of equipment in a suitable environment. Much such data is neither practical to collect in normal

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<sup>198</sup> Techniques that require expensive and immobile equipment, such as X-rays, electron microscopy etc., are not relevant, although they may be useful for 'ideal world' or institutional practice.

fieldwork conditions, nor is it relevant to the approach taken in this study. Conversely, information about provenance might not interest the maker of a reproduction instrument, but is essential for identifying and locating relevant viols.

This study considers shapes of viols, which reflect viol-makers' attitudes to their work. Thus, while gross dimensions and some subsidiary dimensions are of interest, aspects of consistency within a maker's work might be more significant. The way the inside of a belly has been worked may reveal an attitude to thickening, but I made no attempt to measure thicknesses as they vary independently of outline and are generally known only to the maker. I noted belly arching (one of the most important influences on how a viol works) only in impressionistic terms because all the viols examined show some degree of distortion or alteration,<sup>199</sup> so quantitative comparisons would be meaningless.



The principal material of which viol bodies are made is wood. Many species are used but almost all viol bellies are made of softwood and the rest of the instrument of hardwood. The technical distinction between hardwood and softwood is based on the microscopic structure of wood, not its resistance to deformation. 'Hardwoods' are *angiosperms* which include broad leaved timber trees, the majority of which are deciduous, but also balsa, well known for its softness. 'Softwoods' are *gymnosperms* which include coniferous trees, the majority of which are evergreen, but also yew,

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<sup>199</sup> Many archings have been altered during repair by techniques comparable with those described by Weisshaar & Shipman, *Restoration*, pp.24-27.

which can be hard and extremely durable.<sup>200</sup> Reliable identification of softwood species is virtually impossible with the naked eye. Conclusive identifications involve an assessment of bordered pits, a structural feature of cells which is visible only by microscopic examination of longitudinal sections.<sup>201</sup> It is generally not possible to attack antique instruments in this way, so identifications usually rest on the observer's familiarity with superficial appearance. There is often considerable variation of appearance even within a log, and many species look very similar to one another, particularly conifers, and especially when the surface is varnished, damaged, repaired and patinated. Examination with the unaided eye, therefore, can establish neither the species of belly wood, nor its country of origin, so typical museum and auction catalogue descriptions of belly wood as 'pine', 'fir' or 'spruce' are usually no more than educated guesses. They are not reliable, and identifications of hardwoods are also often questionable.<sup>202</sup>

No antique viols are in as-new condition, but even if they were their dimensions would vary from when the instruments were new because of the way wood responds to its environment. Appendix 3c gives an overview of wood's dimensional responses to environmental factors. Wood is organic plant matter that consists of cells. Water is contained in the sub-microscopic spaces of the cell walls, although in a growing tree most of it is free to move between the cell cavities.<sup>203</sup> The water exists in two forms. 'Bound water' is held by molecular attraction within the fibrillar structure of the cells of living trees. 'Free water' is simply water within the cell cavities, and is the first to

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<sup>200</sup> Wilson & White, *Wood*, p.1f. The modern distinction was not used by Moxon who used the terms to refer to mechanical properties. *Mechanick Exercises*, pp.198, 211.

<sup>201</sup> Wilson & White, *Wood*, pp.258, 46 and passim.

<sup>202</sup> E.g. VME33 is falsely described as rosewood in Boyden, *Hill Collection*. 'A high proportion of woods described in museum catalogues are falsely identified.' Barclay & Hellwig, 'Materials', p.35.

<sup>203</sup> Wilson & White, *Wood*, p.144.

be lost when wood dries.<sup>204</sup> After a tree is felled, the wood loses water and shrinks. Shrinkage occurs unevenly in different parts of the trunk, and the extent of shrinkage is affected by other factors such as the position relative to the surface of the wood, the size and shape of the pieces, how the pieces are stacked, and the atmospheric conditions during the drying out process. If one part of the wood is more exposed to drying conditions than others it loses water and shrinks more quickly, setting up internal stresses, causing distortion, and leading to surface checking or deeper cracks. Because of this, wood is normally cut into appropriately-sized<sup>205</sup> pieces soon after felling so that it can be stacked to control the rate of water loss. Keeping wood thus to control water loss is termed ‘seasoning’. In the modern timber trade it is common to accelerate and control seasoning by ‘kilning’ the wood. Kilning involves heating the wood in a container which permits the control of humidity and temperature. Suppliers claim that wood which has been expertly kilned is at least as stable as that which has been air-dried, but many instrument-makers (including me) prefer traditionally-seasoned wood. When wood is fully seasoned by either method it still has a moisture content of approximately 12-15%.<sup>206</sup> More importantly, variations in the relative humidity (RH)<sup>207</sup> of the atmosphere affect all wood, not only unseasoned or freshly-seasoned wood,<sup>208</sup> but also ancient wood. A study of wood<sup>209</sup> of between 1 and 3,700 years of age allowed one researcher to demonstrate that if old wood is any less

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<sup>204</sup> Hoadley, ‘Dimensional Response’, p.11.

<sup>205</sup> Details vary for different species.

<sup>206</sup> Plenderleith & Werner, *Conservation*, p.9.

<sup>207</sup> The Relative Humidity of the atmosphere is the ratio of the amount of water present in it (*m*) to the amount that it would hold at that temperature if it was saturated (*M*). This is usually expressed as a percentage thus:  $RH\% = (m/M \times 100)$ .

<sup>208</sup> Wilson & White, *Wood*, p.173.

<sup>209</sup> The samples comprised Poplar of <1, 75-125, 550 and 650 years of age, Ash of <10, 450 and 650 years, Oak of <20 and 400 years, Chestnut of 75-125 years and Fig of 1800 and 3700 years. This experiment did not include any softwood, but the hardwood samples are comparable to the *Acer* or fruitwood from which the backs and ribs of violas are usually made.



hygroscopic than new wood, the difference is extremely small. He concluded that 'Dimensional stability is not a merit that can safely be attributed to old wood.'<sup>210</sup>

Viols in museums are generally kept within a range of RH 50% - 65% at 16-25°C,<sup>211</sup> but RH often strays outside this range in uncontrolled domestic and public environments, so all antique viols have been subject to a much wider range since they were made. Nearly all the wood that forms part of a viol is glued to other parts at its edges. It is not free to move when it expands or contracts and is therefore subject to tension and compression stresses which can result in permanent deformation or fractures.<sup>212</sup> As RH reduces, wood loses water and shrinks. Wood shrinkage can cause joints to fail and/or cracks to form and open up. These effects of low RH are widely recognised, but high RH is equally inimical to the maintenance of original dimensions. When a wooden artefact is subject to any RH outside the range given above there is a residual permanent effect on its dimensions and shape, and it can be catastrophic for its structural integrity.<sup>213</sup> In other words, its dimensions change and/or it breaks. Cracks are obvious and, to some extent, can be taken into account when considering the shape and dimensions of a viol. Permanent dimensional changes that result from variations in RH, on the other hand, are often undetectable except by monitoring the size of components over time, which is generally not done. Because of these long-term changes no antique viols retain their exact original dimensions, and because no instrument is accompanied by a comprehensive record of all the RHs it has experienced, it is impossible to know precisely the amount by which the current dimensions deviate from the original.

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<sup>210</sup> Buck, 'Hygroscopic Behaviour', p.44.

<sup>211</sup> The recommended range for pictures is smaller. Plenderleith & Werner, *Conservation*, p.11.

<sup>212</sup> Hoadley, 'Dimensional Response', pp.3-5.

<sup>213</sup> Hoadley, 'Dimensional Response'.

In summary, it is neither possible to quantify the changes in a viol's dimensions since its manufacture, nor are the current dimensions stable. The amount of day-to-day variation is quite small, probably less than 2 mm in the width of a bass viol, but this would be enough to prejudice significantly proportional analyses of the type described in Chapter 1.<sup>214</sup> Dimensional changes due to structural alterations are more significant, and the combined uncertainty of original dimensions rules out the validity of many comparisons of dimensions. Even if precision is deliberately forsaken in order to maximise the apparent presence of certain proportions, the data from the viols examined for this study reveal no consistency in proportional relationships between major dimensions, and imply that standardisation and consistency were not features of pre-Restoration English viol-making, as can be seen in Appendix 4.

Dendrochronology has been widely and successfully used by archaeologists and art historians to resolve issues of dating. The technique is quite straightforward. The parallel lines that are often visible on softwood are longitudinal sections through structural features that appear as rings on a transverse section. They result from the tree's differential rates of growth during the year. When growth is slower, the cells are smaller and have thicker walls than those laid down during the period of fast growth, so they appear darker.<sup>215</sup> As they represent one period each of faster and slower growth during a year, the rings are known as annual rings, and their number indicates the age of a tree. The width and spacing of the rings is related to environmental conditions which vary from year to year. Dendrochronologists match patterns of the relative spacing of annual rings on the object whose date is sought with spacings in a standard chronology derived from multiple samples of wood whose dates of growth

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<sup>214</sup> See illustration L03.

<sup>215</sup> Wilson & White, *Wood*, p.12.

are known. A chronology of European oak<sup>216</sup> has been used successfully for dating buildings, furniture, and paintings.<sup>217</sup>

A continuous run of 60-80 rings is usually enough for a statistically satisfactory match. This is problematic for the viols in this study because in most cases their bellies are constructed from several relatively narrow strips (rather than two broader pieces which is usual for violins).<sup>218</sup> Consequently, there are often insufficient consecutive rings on any one piece of wood to obtain a reliable match.

The clarity of annual rings is a species characteristic determined by cell structure<sup>219</sup> and not all woods have a clear enough structure for dendrochronology to be practical.<sup>220</sup> However, most bellies of bowed musical instruments present an ideal cross-section through a clearly-ringed species, so they are very good candidates for the technique. A report of some successful applications was given in 1989 by a leading exponent of the technique, Dr Peter Klein.<sup>221</sup> Klein established a chronology for spruce which showed that some 'Stainer' violins included wood that was still growing centuries later than the putative date of the instruments and could not, therefore, have been used by that maker. The combination of dendrochronological examination with hypotheses about the origins of some specific instruments has led Moens to cast serious doubts on the reliability of some of the most important viols in public collections as sources of information about viol construction in the period from which

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<sup>216</sup> Baillie, *Tree-Ring Dating*. Baillie et al., 'Tree-ring chronologies', pp.317-319.

<sup>217</sup> E.g. Klein, 'Analysis of Panels', appendix I.

<sup>218</sup> Appendix 4c. Glossary illustration (vol.II, p.247). Kessler, 'Viol Construction'. Monical, Shapes, pp.14-17.

<sup>219</sup> Hoadley, 'Wood as a Physical Surface', p.4f.

<sup>220</sup> Among species that are not amenable to the technique are members of the family *Aceraceae*, walnut, poplar and fruitwoods. These are the hardwoods most commonly used for the back and ribs of viols.

<sup>221</sup> Klein, 'Analysis of instruments'. The first published dendrochronological investigation of bowed string instruments was Lottermoser, 'Dendrochronologie'.

they appear to originate.<sup>222</sup> This emphasises the need for caution when assessing old instruments.

Dendrochronology can never establish the exact date at which an instrument was made, but it can rule out the possibility that a piece of wood was used before a particular date. It is not possible to establish exactly how long after being felled a piece of wood was used, for two reasons. An unknown number of annual rings is lost when the edges are prepared for joining, and the length of time that the wood was kept between felling and use is unknown. It could have been seasoned briefly or kept in stock for many years. However, most studies are consistent in suggesting that early instrument-makers usually used their wood within a few years of it being felled.<sup>223</sup> If, therefore, the latest dates of five pieces of wood comprising a viol belly were 1610, 1607, 1615, 1621 and 1613, this would strongly imply Jacobean manufacture.

Many of the viols in this study present severe impediments to dendrochronology because the surface to be examined is obscured by varnish and/or dirt. Dendrochronological examination is most effective on a clean and unvarnished surface such as unused wood or the interior surface of a viol belly. Because this is applicable to an old instrument only when it is disassembled,<sup>224</sup> it is usual to examine the outer surface. With appropriate equipment, this often gives satisfactory data. The same equipment can be applied to photographs of bellies, but the factors mentioned above are similarly limiting, and photographic quality can bring additional problems. I submitted my photographs of fourteen viols to the two leading experts in the

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<sup>222</sup> Moens, 'Problems of Authenticity'. Important criticisms of Moens' analysis and conclusions were made in Segerman, *review* [of Moens].

<sup>223</sup> Topham, 'Ring Saga', p.408. Topham, 'Dendrochronological Survey', p.409. Klein, 'Analysis of string instruments', p.38.

<sup>224</sup> Equipment for internal dendrochronological examination is conceivable, but the cost makes its development unlikely.

application of dendrochronology to bowed musical instruments, Peter Klein and John Topham.<sup>225</sup> Field conditions impeded my photography<sup>226</sup> and, added to problems of rings being obscured by varnish, dirt or reflections, and short ring sequences, Klein felt that they were inadequate for him to make a successful dendrochronological analysis.<sup>227</sup> Topham, however, had some success. He was not given information about the viols, but noted that one ‘cross-matched very closely with the decorated Rose viol in the Ashmolean Museum’.<sup>228</sup> This was indeed VME33, which successful identification of a particular instrument demonstrates that photographs can be adequate for dendrochronology. Topham dates the latest ring on this instrument as 1523. The viol therefore seems likely to have been made in the 1530s or 1540s, which would rule out all known English viol-makers except John Rose the elder and Richard Hume.<sup>229</sup> However, dendrochronology can only provide a date before which wood could not have been used, so as some viol-makers may have used wood much longer after it was felled than was usual later, the year this viol was made remains unknown. Topham made measurements of other VME instruments but was unable to provide datings. Dendrochronology can provide valuable information about old viols, but it is necessary to take an instrument to the measuring equipment or to have very high quality photographs. The technique was therefore of little use in this study.



<sup>225</sup> Klein is at the Ordinariat Für Holzbiologie, University of Hamburg. Topham is a musical instrument maker, restorer and researcher in Surrey.

<sup>226</sup> Some problems result from my own weaknesses as a technical photographer, but others include: the photographs were taken principally for purposes other than dendrochronology and did not include the best possible views - the film grain was too coarse - the use of a flash obscured detail - the focus was sometimes insufficiently sharp - the angle of view was not always optimal (it should be perpendicular to the surface) - time limitations constrained the number of photographs which could be taken.

<sup>227</sup> Peter Klein, personal communication.

<sup>228</sup> John Topham, personal communication.

<sup>229</sup> Dauney, *Melodies*, p.96. Woodfield, *EHV*, p.209 and n.23. See above, n.9. The authorship of VME33 is discussed further in Chapter 5.

The criteria I used in selecting viols for examination evolved as follows. My initial list comprised all the viols described in *Viollist* as made in England c.1580-1660, but I also consulted experts to seek others. Three people are prominent among those who helped in this way. Dietrich Kessler and Michael Heale are among the most experienced makers and restorers of old viols. A substantial proportion of extant English viols have passed through their hands. Alison Crum is a well-known teacher and performer on the viol whose international career brings her into contact with many old instruments in the hands of amateur and fellow professional players. These discussions revealed several more viols which will be added to *Viollist* and which increased my list to over ninety instruments, although this includes several duplicates. Reconciling data about viols is difficult because provenance information is rarely available, and because of the imprecision with which they have been recorded (sources often give different information about any viol's maker, year of manufacture, and dimensions). My aim was not to make a comprehensive record of all viols within the remit of this study,<sup>230</sup> but to seek information about viol-making from extant viols. This requires data of known and consistent accuracy, so I had to examine the viols in person. Several factors had to be considered when selecting viols to examine.

- Finite time and funds were available, less than would be required to examine all known relevant viols.
- Many old viols are heavily-altered and/or in poor condition. In proportion to the extent that the original form was obscured, these instruments were assigned a lower priority.
- Relevant viols are widely dispersed, with examples in at least ten European countries, in at least eight states of the USA, and in Japan.

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<sup>230</sup> However, it is likely that the information available to me includes the majority of relevant instruments.

Taking account of these factors, all relevant viols known to me were ranked according to the following criteria.

1. The viol was made in England between 1580-1660.
2. The components of the viol are original.
3. The viol is in good overall condition.
4. The viol is in an accessible location.
5. The owner permits the viol to be included in this study.

This was not a numerical procedure, but a pragmatic method for prioritising visits to viols on my list. Criterion 1 was fundamental, so if a viol was made outside England or outside the specified period it was not admitted. As no surviving English viols were certainly made before 1580, it effectively meant ‘any viol made in England before 1660’. Flexibility would be allowed in the case of later instruments by anyone known to have made viols in England during the period, but in practice this applied to just two viols, whose attributions are in any case questioned in this study.<sup>231</sup> Criteria 2 and 3 require viols to be as representative of their original condition as possible. Recognising that no 350 year-old viol is completely unaltered or in perfect condition, the usefulness of candidates was rated in terms of how closely they approach the ideal. These assessments could not be wholly objective before the viols had been seen; my judgements were based on information available initially. The final two criteria represent the practicalities of fieldwork for this study. Most viols were examined in England but I was able to see several in the USA, France and Austria.

Decades of instrument-making and research have refined my measurement skills until they have become semi-automatic actions which can deal with most normal

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<sup>231</sup> Bass viol, 1666, possibly in the Musikhistoriska Museet, Stockholm, and tenor viol, 1667, in the Victoria & Albert Museum, London (VME17). See below, p.195f.

features found on viols. Generic measuring skills of this type are to be expected in anyone who frequently handles musical instruments or similar artefacts as maker, repairer, restorer, conservator or researcher. However, the choice of which measurements to take, the methods of taking them, and the measurer's expectations regarding what figures are credible and useful, all affect the data that are selected and collected, and vary considerably between people.<sup>232</sup> VDP is designed specifically for myself and others with whom I have discussed its implementation to collect data for my thesis. However, with appropriate instructions, any viol owner would be able to use a version of VDP to obtain data that could form a valuable addition to the data assembled here or to collect data about other instruments or for other purposes.

Accurate measurements are essential, but it is misleading to give a measurement of an antique viol's width that appears to be accurate to a tenth of a millimetre.<sup>233</sup> Giving the width of a viol as 395.4 mm implies that another person measuring the instrument equally accurately will produce the same figure. However, the hygroscopic nature of wood discussed above shows that equally precise measurements on successive days may produce different results. Furthermore, measurements taken by different people are inconsistent, a phenomenon which is not exclusive to people who are inexperienced at measuring instruments. This undermines the usefulness of published data about instruments and is a problem that VDP is intended to overcome. The following comparisons of violin-mould measurements and then of published viol drawings exemplify inter-measurer variability.

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<sup>232</sup> Data collected can even vary between successive editions of a book. Ratray, *Masterpieces*, p.6.

<sup>233</sup> E.g. König, *Viola da gamba*, p.31. My measurements are given to the nearest millimetre although they were made with greater accuracy.



Twelve violin moulds from the workshop of Antonio Stradivari survive in the Stradivari Museum at Cremona.<sup>234</sup> Appendix 3b, Table 1 compares the main measurements<sup>235</sup> of six of them taken by three specialists. This eliminates unfamiliarity with such objects as a factor - a common source of disagreement between successive measurements of an instrument. At the time they took the measurements, Andrew Dipper and Simone Sacconi were distinguished makers and restorers of violins, and Stewart Pollens was a conservator in the department of musical instruments at the Metropolitan Museum of Art, New York.

Some of the disparities have been attributed to humidity,<sup>236</sup> but RH cannot explain the all the variations<sup>237</sup> because the measurements do not differ consistently. Appendix 3b, Table 2 shows the differences between the measurements produced by the three measurers. The data represent four major dimensions of each of six moulds measured by three people, but they do not all agree about a single measurement. This variation means that no valid conclusion can be based on statements that seem extremely straightforward, for example that the length of one mould is greater than another, because if their true measurements differ by 1.5% or less this would be within the range of error.

Appendix 3b, Table 3 shows that Pollens almost always gives the smallest figure for each dimension, and Sacconi usually gives the largest. Dipper always gives the middle measurement for length, the smallest for upper bout width, usually the largest for the centre bout width and is evenly split between smallest, middle and largest

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<sup>234</sup> There are also moulds for other members of the violin family and other instruments. Further moulds are in Paris.

<sup>235</sup> The data are taken from Pollens, *Violin Forms*, p.11 and Woodrow, *Shape of Violins*, p.11.

<sup>236</sup> Woodrow, *Shape of Violins*, p.11.

<sup>237</sup> For variations of length see Appendix 3c.

values for the lower bout width. Predictions of which measurer would give a particular rank of measurement would fail sufficiently often to undermine fatally an assertion that any particular measurer always overstated or understated dimensions. Although no single explanation definitely accounts for all the differences, the data suggest that the three measured the length of the moulds between different points. This is confirmed when Pollens writes that his measurements of the moulds' lengths were taken from the 'left hand corner of top and bottom block recesses' and 'do not include hypothetical projections of top and bottom blocks'.<sup>238</sup> No equivalent information is given about the other measurers' procedures but the measurements they give suggest they thought, perhaps deliberately, in terms of the shapes as conceived by Stradivari rather than concentrating on the absolute dimensions of the objects in front of them. No equivalent explanation can account for the other differences because of the inconsistency of variations.

These mould measurements were taken in circumstances which should produce maximum consistency as the measurers were experts dealing with familiar objects. Even taking the greatest care, my own measurements of old viols were not always identical on different occasions. If measurements vary by a millimetre or more in circumstances such as these, the impression of accuracy given by tenths or hundredths of a millimetre is spurious and misleading, and data from unknown measurers may be of inferior reliability. This applies to straightforward measurements such as the width of a fingerboard, but many viol components of relevance to the present study present much more complex problems. The judgement of exactly where on a viol a measurement should be taken is often made extremely difficult by the state of preservation of old instruments, and subsequent approaches

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<sup>238</sup> Pollens, *Violin Forms*, p.11.

do not always lead to the same decision.<sup>239</sup> All measurements, especially those that involve a curved edge (such as the width of the bouts), provide opportunities for inaccuracy and inconsistency between measurers of an even larger order.<sup>240</sup>

Appendix 3a demonstrates the unreliability of some widely-used data by comparing published measurements of four viols with data I collected from the same instruments. The variation is commonly in the order of 1% but sometimes much greater. Appendix 3d summarises the origins of differences between published measurements. Some authors have even compared instruments on the basis of measurements of illustrations in books<sup>241</sup> despite their highly variable accuracy. Such comparisons are among the least meaningful. Attempts to extract from pictures mathematical relationships between parts of an instrument are subject to similar problems, compounded by factors such as the state of preservation of the picture, artistic competence, programme, and style, yet these factors have not prevented people from interrogating paintings and other images as if they were technical photographs.<sup>242</sup>

My Viol Data Protocol was developed in the light of an earlier project to collect viol data systematically. In 1979 Peter Tourin published his *VIOLLIST: a comprehensive catalogue of historical viole da gamba in public and private collections*. Lists of this type are inevitably incomplete at their first appearance, so the intention was to incorporate new data as it emerged and to publish updated versions. New data

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<sup>239</sup> For exemplification of some of these problems see the illustrations in Volume II, e.g. L56.

<sup>240</sup> Some measurers may work from the most extended point (which is what I have done), but others might measure from where a surface appears to end.

<sup>241</sup> E.g. Woodrow, *Shape of Violins*, p.83.

<sup>242</sup> Papers given at the Symposium on Bowed String Musical Instruments, Edinburgh, 1-3 June 2000 included an attempt by Ulrich Giese to deduce a temperament from the spacing of frets in a painting by Franz Friedrich Frank, and discussion by Toon Moonen of belly design based on a painting by Raphael.

continues to be added but no further full publication has been issued. MacCracken<sup>243</sup> kindly provided me with data from *Viollist* in its latest state, and discussed appropriate techniques for data acquisition. I developed VDP with the intention that information from *Viollist* and my database would be compatible and easily combined.

My input forms for data collection were refined constantly in the light of experience, and consideration of the data has suggested further improvements. For instance, it would have been good to measure the distances from the bottom of an instrument to its back-fold, from the back-fold to the neck, between the bout corners, and between the soundholes. Not all the viols were fitted with a tailpiece, so if Total Length had excluded the tailpiece this would make more instruments directly comparable using this measurement. None of these omissions are problematic for this study. The forms which I developed for my own use consist only of a series of prompts to ensure that all the required data is gathered efficiently and recorded consistently, but a form for independent data gatherers requires clear instructions to ensure its consistent application. Such a form will be much longer than the ones I used.

Two considerations suggested the use of international metric (SI) units for data collection for this study, although the viols would have been made using feet and inches.<sup>244</sup> First, it is an international standard with which everyone using my data is likely to be familiar. Measuring tools calibrated in these units are widely available, so the data should be straightforward to supplement, compare and replicate. Second, in order to maximise objectivity during data collection, the impersonal nature of metric units is useful because it helps to avoid errors resulting from expectation. If, for

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<sup>243</sup> See *Viollist* in Bibliography.

<sup>244</sup> The units were standardised at virtually the modern lengths in 1497. Fleming, 'Piece of String'.

instance, the width of a viol seems to be 15.95 inches, the measurer working in these units may be tempted to assume that the true width, as intended and executed by the maker, is 16 inches. This is credible, but rounding-up the figure would be to give certain measurements or explanations of makers' practices an unfair advantage by biasing in their favour the data that would be used for evaluating alternatives.<sup>245</sup>

Although I rejected this sort of rounding, some data is presented here to the nearest millimetre even when it was measured more accurately. This is because the more precise figure gives a misleading impression of accuracy. The measurement is truly accurate at the point taken, but the feature that is being measured varies more than the range of error in measurement. The equipment I used is described in Appendix 3f.

The data collected using my Viol Data Protocol may be categorised as follows:

- A. Information that identifies the viol: MF number;<sup>246</sup> *Viol*list number; location; collection number; maker; date. Further identification detail, sometimes not referring to the current situation, can include: provenance; exhibition catalogues and other publications; photographs; recordings.
- B. Measurements of the instrument: overall dimensions such as belly length, width of bouts and depth of ribs; more detailed measurements such as distance of soundholes from the edge, and the width and position of purfling.
- C. Qualitative observations: including the nature of wood and other materials; judgements about the quality of work such as purfling; comment on the state of preservation in terms both of originality of components and of damage and repairs; comments about evidence of working methods (e.g. tool marks).

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<sup>245</sup> A good discussion of an equivalent situation for keyboard instruments is given in Wraight, 'Italian Instruments', pp.66ff. Wraight uses mouldings to identify keyboard instrument-makers, but there is no equivalent feature to use for viols.

<sup>246</sup> As this number was used only for my initial listing of potential instruments to examine, it is not included in the data presented here.

D. Miscellaneous/other information: such as whether the owner has requested anonymity; anecdotes about the instrument's acquisition; descriptions of overall condition (e.g. very dusty inside, riddled with woodworm, very many cracks, arching distortions).

The full range of data collected is seen on a sample data collection form in Appendix 3e. Most useful for this study<sup>247</sup> are data which are most likely to reflect the initial state of a viol, so this criterion is used when assessing the value of each datum collected. Appendix 5b comprises three Data Reliability Tables which summarise the principal assessments, arranged according to the above categories. Appendix 5b.1 concerns information that identifies the viol, Appendix 5b.2 is about measurements of the viol, and Appendix 5b.3 concerns qualitative observations.

The accuracy and consistency of qualitative observations are largely determined by the observer. There are no universal standards for describing quality of woodwork, or the colour and transparency of varnish.<sup>248</sup> The range of general observations tends, therefore, to be idiosyncratic, but all details need to be gathered, as they may contain information whose value becomes apparent only later. For instance, an inexperienced investigator may notice that an instrument is dusty inside but be unable to judge whether this means it has not been opened for many years. Similarly, inexperienced observers are unlikely to be aware that faint tool marks or residual traces of glue and varnish can record actions by the original maker or indicate later interventions. It is good organological practice to collect as much information as possible, but for this study it is necessary to focus on information of relevance to viol-making. The measurements I took are not necessarily more accurate than others, but VDP ensures

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<sup>247</sup> Some data were collected only to be contributions for *Viollist*.

<sup>248</sup> Or sound. Fleming, 'Bridge to the Past', appendix, p.244f.

the consistency of their collection, that they are appropriate for this study, and that they are meaningfully comparable.

The data I collected from thirty-eight viols are presented as appendices and illustrations in Volume II of this thesis. An explanation of the images is given before the list of illustrations. Using this material it is possible to investigate consistencies among the viols examined. If some characteristics are found consistently they can help to establish which viols are related, while conversely a lack of consistency would imply that English viol-making in the period was heterogeneous. Not all the data I collected is presented here, partly because of space considerations, but mostly because additional examples would provide no useful new information.

Appendix 4a identifies the viols I examined and assigns to each a unique 'VME' (Viol-Making in England) number. The fact that a viol has been associated with a particular maker for a long time does not guarantee that he made it. Labelling instruments as the work of unknown makers from unknown countries at unknown dates is unappealing to museum curators because it could suggest they are ignorant custodians of unimportant artefacts. Museum visitors find such labels unappealing because they do not provide understanding. Private owners are less constrained as they tend to be more concerned with how well a viol works than its origins, but makers' names are extremely significant when instruments are bought or sold. The importance of attribution is indicated by the auction house term definitions given in Appendix 2. A particularly significant term - 'school of' - implies a level of consistency which the instruments examined here suggest is inappropriate for pre-Restoration English viols. The concept is further questioned in Chapters 4 and 5.

For reasons discussed above, only viols that meet criterion 1 (on page 53) are considered. Information about other viols I examined has been excluded from analysis because it would obscure clarity, but it will be retained for future use.<sup>249</sup> I have further information from diverse sources but with one exception<sup>250</sup> this is excluded because of problems discussed above.<sup>251</sup> Divergence from original state does not bar viols from inclusion (see comments below). However, if after examining a viol, I consider it does not originate in England before 1660, it is excluded. While there is an unavoidable element of imprecision and arbitrariness in the inclusion or exclusion of instruments, my decisions are intended to make the data as meaningful as possible by excluding viols that do not meet criterion 1. For instance, George Miller<sup>252</sup> is a candidate for inclusion because he was working not long after 1660 and might reasonably therefore be thought to have worked before that date. However, a bass viol by him dated 1669<sup>253</sup> is excluded because Miller seems to have completed his apprenticeship only in 1664,<sup>254</sup> and therefore could not have made instruments on his own account before 1660. This leads also to the exclusion of other viols by or attributed to him. These are: a bass viol which has been attributed<sup>255</sup> tentatively to Miller on the basis of the similarity of its belly ornament to that on the viol just mentioned, another bass<sup>256</sup> which has been attributed to Miller, presumably for the same reason, and a treble<sup>257</sup>

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<sup>249</sup> I hope my methodology will be used to study later English viols and viols of other countries.

<sup>250</sup> VME29, photographs supplied and data collected by T.G. MacCracken using VDP.

<sup>251</sup> See also appendices 3a and 3d. Also, Fleming, 'Viol Drawings'

<sup>252</sup> See Appendix 9 for the Miller family of musicians, and others of similar names in Jacobean and Caroline London.

<sup>253</sup> *Violist*, DOLM 5, now in the Horniman Museum, London. DOLM (and FOLGER, BENN, etc below) are *Violist* siglia.

<sup>254</sup> *British Violin*, p.29.

<sup>255</sup> M. Heale, personal communication.

<sup>256</sup> *Violist*, FOLGER 2.

<sup>257</sup> Paris, Musée instrumental du Conservatoire E.980.2.398. It also lacks the characteristic pre-Restoration belly construction. There is another Miller bass viol in private hands. *Violist*, BENN 1. This is in very corrupt condition, according to its owner. Personal communication.



with similar ornamentation, which for the same reason again could be by Miller.<sup>258</sup> See also the introduction to Appendix 9 for the justification of the exclusion of Richard Meares and his work. In another borderline decision, VME36 is included because although dendrochronology proves the belly was made after 1680 and the label is very atypical of English labels of that period, there remains a slight possibility that the back and ribs were made in London in 1621, as the label claims.

I estimate that the thirty-eight instruments to which a VME number is assigned include over one third of extant English viols made before 1660, and I believe they are a representative sample of these survivors. Their condition varies from good working order to severe decrepitude. Very few retain all their major original parts, and in some cases only fragments are by the putative maker. Their limited originality supports doubts that surviving instruments are either representative of all those that were made, or represent their own original state accurately.<sup>259</sup> Summary comments about the originality of the viols examined follow. Further details are given in appendices, especially Appendix 4c and Appendix 9.

- VME01 Made from the body of another instrument, presumably a viol.<sup>260</sup>  
(illustrations F01, L15, L16, L17, L18, L19).
- VME02 Back and lower bout ribs are restored from folded state, and sections replaced. (illustrations F02, L33, L55).

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<sup>258</sup> For these ornaments see illustration L31. Another bass with essentially the same ornament is by Pitts, 1675. *Viollist*, BAINE 5. This may be the viol labelled 'PITTS John London 1679', described in Hill, *English Makers*, vol.ii, p.63 and raises questions about what relationship there might be between Miller and Pitts. There is no evidence that Pitts worked before 1660.

<sup>259</sup> It has been shown above that even viols in perfect and original condition do not maintain their original dimensions.

<sup>260</sup> This viol is discussed in Chapter 5, pp.219ff.

- VME03 Only the belly is attributed to Jaye, but as it is not stave construction this seems unlikely. The unpurpled back with its restored lower bout fold, would be an unreliable guide to original shape even if it was original. (illustrations F03, L33)
- VME04 The carved head was surely made by the same carver responsible for the head on VME37, but whether this head was originally made for this body is uncertain. The only original element of the body is part of the back (the belly and ribs are modern). (illustrations F04, L33, L53, L54).
- VME05 Back and lower bout ribs are restored from folded state, and sections replaced. (illustrations F05, L46).
- VME06 Ribs have been cut (as for viola use), so the back is now flat. The rose is a replacement. (illustrations F06, L33).
- VME07 Only the belly and back are original. (illustration F07).
- VME08 Neck and finial (made of beech) are possibly original? (illustrations F08, L25, L36, L37, L38, L39, L47).
- VME09 Back and lower bout ribs are restored from folded state, and sections replaced. Ribs cut and restored later. (illustrations F09, L29, L36, L37, L38, L47, L57).
- VME10 Lower bout fold present. (illustrations F10, L29, L36, L37, L38, L39, L47).
- VME11 Ribs are new, but the originals, severely cut, are kept with the instrument. (illustration F11).
- VME12 Belly was probably made in the nineteenth century. (illustration F12).
- VME13 Back is altered for lower bout fold, bottom section possibly a replacement, half the depth of the ribs is new. (illustrations F13, L46, L55).

- VME14 Back and ribs are severely damaged, parts replaced, half edging of belly emphasised uneven distance of purfling from edge mean original shape is unclear. (illustrations F14, L29, L36, L37, L38, L47).
- VME15 Only the front, which was built up from a 'bag of bits', is old. (illustration F15).<sup>261</sup>
- VME16 Body is mostly original but ribs are suspiciously shallow. (illustrations F16, L28).
- VME17 Back and ribs are severely altered for an arched lower bout fold, neck original but altered (angle and length). (illustrations F17, L30, L58).<sup>262</sup>
- VME18 Largely original, possibly including neck? (illustration F18).
- VME19 Major body parts (i.e. back, belly and ribs) are original, but many cracks. (illustrations F19, L25, L40).
- VME20 The back and ribs are original but the belly and neck were made by W.E.Hill & Sons in the twentieth century. (illustrations F20, L14, L40).
- VME21 Major body parts are original. (illustrations F21, L40, L52, L45, L26, L27).
- VME22 Mostly original, possibly including the neck (not the finial), but much damage. (illustrations F22, L40, L52, L26, L27).
- VME23 Very coarse finish but body parts are original. (illustrations F23, L12, L13, L22, L23).
- VME24 Major original parts are present, neck altered. (illustrations F24, L09, L10, L30, L35, L48).
- VME25 Major body are parts original, but much damage. (illustrations F25, L30, L34).

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<sup>261</sup> Information from T.Pamplin, personal communication.

<sup>262</sup> The Henry Smith tenor viol has a similar lower bout alteration. Illustration L59.

- VME26 Major body parts are original, apparently in good condition. (illustrations F26, L30, L35, L49).
- VME27 Major body parts are original, but many cracks and repairs. (illustrations F27, L29, L39).
- VME28 Major body parts are original, possibly including neck, and in good condition. (illustrations F28, L39, L46).
- VME29 Major body parts are original, but much damage. (illustrations F29, L24, L41, L42, L43, L49).
- VME30 Major body parts are original, but very extensive half-edging and repairs. (illustration F30).
- VME31 Major body parts are original, but many repairs. (illustrations F31, L30, L34).
- VME32 Major original body parts are present, but very many repairs and severe alterations. Almost all belly edges are damaged and altered. Many belly cracks, one of which was once sewn together with brass wire, traces of which remain. This viol is currently out of use because of its fragile condition. Unusually, the striped back is made of three species of wood, but this appears to be original.<sup>263</sup> (illustrations F32, L48, L56).
- VME33 Major body parts are original, largely in good condition. (illustrations F33, L41, L42, L43, L49).
- VME34 Original parts are present but neck is altered, body is damaged and in poor and declining condition. (illustrations F34, L25, L34, L49, L51).
- VME35 Major body parts are original, but many cracks and repairs. Root of original neck remains. (illustrations F35, L34, L35, L51).

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<sup>263</sup> Striped instruments are usually made from just two species of contrasting colour but this viol's dark outer stripes are plum, the pale stripes are maple, and the dark centre stripe is two strips of the same piece of yew. The ribs are plum, with the lower bout jointed like the central stripe of the back.

- VME36 Belly is later, but a slight possibility remains that the back and ribs are pre-1660. Extensive damage and alterations to all parts. (illustrations F36, L11).
- VME37 All major body parts including neck and fingerboard are original and in good condition. (illustrations F37, L04, L05, L06, L07, L08, L35, L44, L48, L50).
- VME38 Original back, ribs and belly are present but have undergone major alterations and restoration.<sup>264</sup> (illustrations F38, L48, L50).

As noted in Chapter 1, all the viols in this list exhibit both lateral and front-to-back asymmetries, although the amount is very variable. Because upper and lower bouts are most liable to damage and alteration, and middle bouts usually best preserve their original state, I compared the middle bouts of several VME viols. In the case of the well-made and uniquely well-preserved VME37, superimpositions of bout outlines reveal profound consistency.<sup>265</sup> Such internal consistency is sometimes found elsewhere<sup>266</sup> but VME24, another viol by the same maker, is more typical in that the profiles are so different that contextual information is necessary to attribute them with confidence to the same maker.<sup>267</sup> This level of disparity is typical both for viols whose original symmetry has been compromised by circumstances since their manufacture, and for built-in asymmetries. Apart from obvious damage, repairs and alterations, it is impossible to distinguish reliably between some of the asymmetries that have been part of a viol since it was made and those that result from subsequent changes in the wood due to environmental factors (described above) or human intervention. Disparities between parts of a single viol and between equivalent parts of different viols are

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<sup>264</sup> The restoration is described and illustrated in Soubeyran, 'Restoration'.

<sup>265</sup> Illustrations L05, L06, L07, L08.

<sup>266</sup> E.g. VME20 (illustration L14).

<sup>267</sup> Illustrations L09, L10.

typically greater than the examples just given, e.g. on VME36.<sup>268</sup> Although the level of disparity between the bouts on the belly of VME23<sup>269</sup> is similar to VME36, the back bouts match each other quite well<sup>270</sup> which, in the light of apparent crudenesses of manufacture most clearly visible in the rough finish of the wood of the back,<sup>271</sup> is surprising.

The disparity between two aspects (left/right or front/back) of every viol I have seen is at least 1 mm at some point but usually much more, often over 5 mm. As described in Chapter 1,<sup>272</sup> this alone is sufficient to refute the validity of specific Coates-type geometric-proportional analyses of these instruments, although it does not by itself eliminate the possibility that makers could have made more informal use of geometric-proportional methods. The ubiquity of asymmetry makes scientific comparisons of instruments extremely difficult and means that in practice, the most reliable attributions result from observers' extensive experience of this particular class of viols. However, the absolute maximum amount of relevant experience that it is possible to acquire is severely limited, partly because so few such instruments exist, and also because of their divergences from their original state.

Viols by a single maker often resemble one another but are not exactly the same size and shape as each other, either as a whole or in detail. This is evidence that makers were free both from theoretical constraints that insist on certain sizes or relationships between parts of an instrument, and also from the repeatability of shape which is one

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<sup>268</sup> Illustration L11.

<sup>269</sup> Illustration L12.

<sup>270</sup> Illustration L13.

<sup>271</sup> Illustrations L22, L23.

<sup>272</sup> E.g. p.24.

of the principal features of instrument construction which uses a mould.<sup>273</sup> VME29 and VME33 look similar, but side-by-side comparisons show they could not be made on the same mould.<sup>274</sup> No maker would willingly make separate moulds for two such similar instruments unless they had to be used in parallel for a purpose such as mass-production. That viol sizes were not standardised is implied by both Simpson and Mace.<sup>275</sup> The extent of similarity and difference among extant viols can be seen by comparing frontal views and silhouettes of some viols by Jaye, Rose, Turner and Blunt.<sup>276</sup>

The observations made above about whole outlines and middle bouts also apply to soundhole shape and position.<sup>277</sup> An impression of the extent of consistency among a maker's instruments can be gained from comparisons of four bass soundholes by Jaye and four by Rose,<sup>278</sup> but most of the soundholes concerned are of broadly similar design, and it is difficult to quantify the extent of similarities even with these side-by-side comparisons. Superimposing a laterally-reflected silhouette of a treble soundhole on the bass soundhole of the same instrument, and superimposing bass soundholes of different instruments by the same maker, often show significant inconsistencies, as demonstrated in illustration L46. All these superimpositions include manipulations of size and orientation in order to maximise the match, the true disparities being greater than those shown. I have done this to prevent the disparities that are normal (even on apparently symmetrical viols) from overemphasising the differences among the shapes.

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<sup>273</sup> The use of moulds to enable consistent mass production was probably an important contributory factor to the success of early Cremonese violins. Mouldless construction was usual elsewhere.

<sup>274</sup> Illustrations L42, L43.

<sup>275</sup> Simpson is vague about measurements (apart the string length of a division viol) but implies unambiguously that basses come in different sizes. *Division Viol* (1659), p.1f. Mace implies a range of sizes when he writes that viols matching in size should be sought, with the emphasis 'Let your Bass be Large.' *Musick's Monument*, p.246.

<sup>276</sup> Illustrations L33, L35, L36, L39, and L40.

<sup>277</sup> Soundholes are much used for identifying violin-makers.

<sup>278</sup> Illustrations L48, L49.

Illustrations L44 and L45 show how difficult comparisons would be if soundholes and bouts were strictly reflected about the centreline of instruments. Illustration L50 shows the different positioning<sup>279</sup> of soundholes on two bass viols by Jaye and illustration L51 shows the same on two bass viols by Rose. Illustration L52 shows similar positioning of soundholes on two tenor viols by Blunt, although the soundhole shapes themselves are quite different. All this goes to show that while a soundhole shape and position may be judged as characteristic of a certain maker, there is always a significant amount of variation within his work.

Often the outline of a viol by a particular maker seems to resemble that of an instrument by another maker more closely than another viol ostensibly by the same maker. Viols by Rose and Smith, and Rose and Jaye are compared in illustrations L34 and L35. There are many possible explanations: similarities and disparities are illusory; similar viols are by the same maker and the attributions or labels are wrong; similar viols are by different makers, working to the same method and patterns or to the same merchant's specifications; independent makers made similar instruments. Too few reliable instruments exist to permit a conclusive choice between these and other explanations to be made. Furthermore, there are practical difficulties in comparing these viols, not the least of which is their dispersion among museums and private owners worldwide. Published data have been shown above to be problematic, and comparisons of photographs (even my own where many factors are controlled and regularised) give potentially different impressions depending on how they are presented. Compare, for example, the same instruments presented as unedited frontal

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<sup>279</sup> In both cases the treble hole is slightly lower than the bass. On viols where one hole is lower than the other, it is usually the treble which is lower. The reason for this is not known. See also illustration L52.



views, as semi-silhouettes and as silhouettes.<sup>280</sup> After looking at all these, it seems incontestable that prior beliefs and expectations greatly affect perceptions and judgements about instruments.

This chapter has argued that extant viols typically diverge in varied and unquantifiable ways from their original state. They do not present reliable evidence about the whole class of English viols made before 1660, and mostly they do not even provide accurate or reliable information about their own original state. For this reason, the accuracy and usefulness of any discussion of viol-making that is based exclusively or even principally on surviving instruments is severely limited. Possible relationships between labels and instruments and between makers and merchants receive further consideration below, but some questions about whose hands made particular instruments may never be resolved. Other sorts of evidence must therefore be used to illuminate the nature of English viol-making, and this is presented in the remaining chapters.

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<sup>280</sup> Four treble viols by William Turner are compared in Illustrations L36, L37 and L38. Two festooned bass viols attributed to John Rose are compared in Illustrations L41, L42 and L43.

## Chapter 3

### IMAGES OF VIOLS

For the purposes of this investigation, there are two reasons for studying these images: they might portray viols that were in use; and they include information that could have influenced viol-makers' work. This chapter first examines methodological issues that arise when interrogating images for information about instruments, then discusses ways in which images are encountered. Viol-makers inevitably encounter images by chance as part of their visual environment, but they may also encounter them by design when seeking images or being provided with them. Representations of viols are shown to have been widely available and very mobile between media. Connections between images and instruments are then explored through a survey of the media in which they appear. The ensuing discussion of individual media incorporates detailed comments on some well-known images which have been subject to questionable interpretations. Detailed attention is paid to the most important medium for the transmission of images, prints. I do not attempt to identify or discuss all images of viols in all media, but selected examples are cited and illustrated.

Organologists make great use of images because surviving original instruments are rare and unreliable sources of data, but images themselves have great potential to mislead. The most pervasive problem results from their being much less clear and unambiguous than photographs. Even the modern organological class to which an instrument should be assigned is frequently unclear. An image of a bowed instrument typically displays some features which suggests it is a viol and others which suggest it

is a member of the violin family, or some which suggest it is a violin and others which suggest it is a lira da braccio.<sup>281</sup>

In many images uncertainties result from the vague or ambiguous depiction of details. Often, essential components such as the bridge or tailpiece are shown in impractical forms or are simply omitted. Many images show internal inconsistencies, most commonly, incompatible numbers of strings and pegs. Different numbers of strings are quite often shown at different points of an instrument. Other aspects whose accuracy is questionable include the sizes of instruments compared with each other and their players, and the methods by which instruments are held and played. All these problems are compounded by iconographers' consultation of reproductions rather than original images. Reproductions are usually of inadequate quality to convey unambiguously all the information in the original.

Overall, it is safest to recognise that all images of musical instruments are to some extent inaccurate, so each image's reliability should be assessed on the basis of its function and style, and the image's genre, condition and originality.<sup>282</sup> It is helpful when the extent to which the creator of the image intended to give an accurate representation of an instrument, and the extent to which the details of instruments were symbolic or determined by compositional or accidental forces, can be established, but these are much more complex matters than their usual treatment would suggest. For instance, symbolism is widely considered during the analysis of images. Instruments in many images do have a symbolic function, most notably in emblem books and

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<sup>281</sup> Or, in the case of a bass, a lirone. Such features include the: number of strings; presence or absence of frets; shapes of the body, pegbox and soundholes; ratio of the neck length and string length to body size; methods of holding and bowing; musical and social context.

<sup>282</sup> I.e. whether it has been altered.

emblematic title-pages or frontispieces,<sup>283</sup> but also in genre paintings, wall-paintings and elsewhere. However, the symbolic use of instruments is very inconsistent so their meaning is usually far from certain and it is often the case that an instrument cannot even reliably be said to represent a violin, viol or lyra da braccio on the basis of its context. This weakens the evidence images provide about the appearance of any specific type of instrument.

The most acute methodological problem results from images being used both as the object of analysis and discussion, and also as evidence to support or attack a theory. Very often, ambiguous parts of images are interpreted in a way that supports the writer's immediate purpose, and those which are inconvenient for this are either ignored or dismissed as inaccuracies, mistakes, or irrelevant. This applies both to gross features such as size and shape, and to details such as stringing.<sup>284</sup>

The likelihood that any particular image might come within the orbit of a viol-maker depends crucially on its medium and location. Permanently and semi-permanently mounted images such as monuments, ceiling paintings, large prints, or tapestries would be encountered during everyday life in great houses and public places such as churches and inns. Other media were less likely to be encountered casually. Viol-makers would probably not own any paintings but might see them if working as a musician, or if they were deliberately shown by a client. They would be much more likely to see prints,

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<sup>283</sup> For emblem books see Appendix 7b. Title-pages and frontispieces were issued and collected independently of books (e.g. by Pepys. Griffiths, *Stuart Prints* p.145) and were used as design resources (e.g. by Trevelyan, 1608. Wells-Cole, *Art and Decoration*, p.128). Title pages were often the only illustration in a book and so were more likely to have been owned by a patron than a craftsman. *Ibid.*, p.127.

<sup>284</sup> A recent work that relies on questionable interpretations is Planyavsky, *Violone*, e.g. p.69, fig.35. Another is Morton, *Violone*, and correspondence about it in *JVdGSA*, vol.xxxvii, (2000), p.90ff, where Morton cites features of an instrument in a painting as supporting her view, although the putative resemblances are highly ambiguous and questionable. See also Thomas Munck's review of David, *lira da Gamba*, in the Viola da Gamba Society Newsletter, No.111, (October 2000), p.25f.

either in public places or in the possession of colleagues, friends or clients. Prints were also relatively affordable and widely available from shops and itinerant sellers.

When considering the sources of shapes that might be used for viols it is important to recognise that both ornament and figurative designs were completely mobile between media.<sup>285</sup> A knot pattern is equally likely to be found on a book binding or marginal illumination, a garden design,<sup>286</sup> and an embroidered cushion. A particular type of stylised foliage was used for ornamental letters in printing, and on fabric for clothing and hangings.<sup>287</sup> Patterns of geometric shapes were used for ceiling plasterwork, as wooden wall panels and for window glazing.<sup>288</sup> Similarly, a biblical or allegorical scene could be painted on a wall, carved in stone or wood, moulded in plaster, pressed as a medal, woven in tapestry, or used to decorate a piece of silverware.<sup>289</sup> This is not indicative of any poverty of imagination, but was standard and universal practice among artists and designers in all media. Inigo Jones's masque designs, for instance, have been described as a 'hybrid compilation of elements from various sources', and most sketches in his Roman Sketchbook were based on engravings.<sup>290</sup> It is also common for a single image to be used to illustrate disparate things. Because it is normal for them to be re-used over a long period, in different countries, and for a range of purposes, images should not be assumed to illustrate the situation at the time and place at which they were used. Examples illustrative of the multiple uses of images, their signification of mutually exclusive subjects, the longevity of images, and

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<sup>285</sup> Griffiths, *Stuart Prints* p.153f.

<sup>286</sup> Wells-Cole, *Art and Decoration*, pp.17, 125.

<sup>287</sup> See below, p.113f.

<sup>288</sup> Gedde, *Sundry Draughtes*. Wells-Cole, *Art and Decoration*, p.126. Wooden panelling of very similar designs to those of Gedde borders a staircase at Hatfield House, Herts.

<sup>289</sup> E.g. prints by Virgil Solis were used for spice plates. British Museum M.55-f-1946.

<sup>290</sup> Hearn, *Dynasties*, p.160. Harris, Orgel & Strong, *Arcadia*, e.g. pp.52, 58, 68-81, 176.

alterations resulting from their transfer between media, are given in Appendix 6, and further examples are given below during discussion of individual media.

Of the many media in which images occur, some were a constant presence and others would have been seen on a more temporary or casual basis. The materials of which images are made are subject to damage by environmental factors (such as temperature or moisture), verminous, insect or fungal attack, noxious substances, accidents and inconsiderate handling. The most ephemeral images appeared on sets, props and costumes for theatrical or diplomatic occasions such as Queen Elizabeth's progresses, the formal entry of the new King James I into London,<sup>291</sup> visits of ambassadors,<sup>292</sup> weddings, and masques. An overview of factors affecting the permanence of media is tabulated in Appendix 7d. Permanence and ephemerality here refer to the life of images if they are created and then left alone, but many are deliberately altered. Paintings are often modified during repair or conservation, and members or possessions are added to or deleted from family portraits.<sup>293</sup> Some images are defaced for religious or political reasons, and restorers sometime impose their own views of what is or should be included. Many portrait prints are altered by changing their wording and/or altering the image so they show the original sitter at a different age, or a completely different person.<sup>294</sup> Details of images also change during transfers between media such as prints and paintings.<sup>295</sup> Mainly because of changes in fashion,

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<sup>291</sup> The structures themselves were ephemeral but engravings of their designs were republished three times in the seventeenth century. Hind, *Engraving in England*, vol.ii, p.21.

<sup>292</sup> For a continental example of a diplomatic event (1573) recorded on tapestry which depicts the participation of viols see Yates, *Valois Tapestries*, pp.67ff, pl.IV and pl.Xb.

<sup>293</sup> Lewis, *More Family*.

<sup>294</sup> Layard, *Altered Plates*. Hind, *Engraving in England*, passim. Griffiths, *Stuart Prints*, pp.21, 181 and passim. Globe, *Stent*, p.29 and Appendix D.

<sup>295</sup> Leppert, 'Concert', p.15 and fig.12 shows a scene including a lute and viol copied from a print to a painting. I dispute Leppert's view that the instruments were altered to conform to current local fashion. Viol types are too varied to support this view, and the type of lute in the painting was in use twenty or thirty years before the print was made, whereas lutes as in the print continued in use for

very many images have been casually destroyed or allowed to degrade fatally. The nature of those that survive, therefore, resembles that of the corpus of viols discussed in Chapter 2: the reliability of their detail is questionable, and they give only a partial view of what existed at the time they were made. This reduces the value of the organological information contained in them.

Viol buyers could, if they were so inclined, specify some particular decoration or require an instrument of novel shape, or demand that certain proportions were incorporated. However, no document recording any demand of this type is known, and Chapter 1 has shown why proportion was unlikely to be desired or required. Rather, the evidence suggests that the ultimate clients<sup>296</sup> of all sorts of artificers did not get involved with the details of what they required because negotiations and specifications of details were considered by noble patrons to be beneath them. The contract of a carpenter working at Hardwick Hall, for instance, specified the exact size and location for his work, but the decorative details were explicitly left to him.<sup>297</sup> George Shirley gave his tomb-makers precise overall dimensions and a programme for imagery, but details were left to them.<sup>298</sup> Anne Clifford specified the programme of her biographical portrait in great detail, but its composition was left to the painter.<sup>299</sup> That patrons routinely used servants and intermediaries to do deals on their behalf is confirmed in many account books of the court and noble families. It should be assumed that such intermediaries would instruct artificers according to the wishes of

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decades later. It is likely that the painting shows instruments which the painter or his patron owned, but they were neither new nor fashionable. See also Appendix 7e.

<sup>296</sup> I.e. the purchaser rather than the agent.

<sup>297</sup> 'Xpophor Saydgfeld ...to mak a portall ...to the hyght of the flour to be set upp and workmanly finished in everye respect. ...and a coberd at the great chambr dore with arkatrave frisse and cornish as himself shall think fytte for yt place'. Contract (loose leaf in Chatsworth Wage Book MS.4) cited in Stallybrass, 'Hardwick's Buildings', p.357.

<sup>298</sup> Shirley, 'Fermour Accounts', p.185f.

<sup>299</sup> Parry, *Great Picture*, 204. This probably also applies to the Unton memorial portrait discussed below.

patrons if any such wishes were expressed, but there is no evidence that aesthetically sophisticated and complex requirements regarding appearance were ever imposed on instrument-makers. Intermediaries would also have been in a position to promote their own taste, but again there is no evidence that their taste impelled them so to do. The most explicit commission I know of was for an instrument ‘of the fynest sort’,<sup>300</sup> leaving all matters of shape and decoration to be determined by the skills, resources, customs, taste and imagination of the maker.

The taste and imagination of all artificers was predicated on the sources of design which were known to them, so their design sources are examined below, medium by medium. English artists and artificers had a very well established tradition of using foreign sources.<sup>301</sup> This is partly because so many of them were themselves of foreign origin, and also because much suitable material was imported. Henry VIII recruited many foreign artists and decorators, such as the Italian Antonio Toto del Nunziata to decorate Nonsuch palace, just as he recruited musicians.<sup>302</sup> The majority of work by members of the Painter-Stainers Company in the sixteenth and early seventeenth centuries was of an ephemeral nature, such as flags and pageantry scenery but some Painter-Stainers, such as Toto, also made pictures.<sup>303</sup> It is possible to consider the Henrician royal houses themselves as source books for Elizabethan designers and architects,<sup>304</sup> a tradition which continued during the early Stuart period. These houses and their decoration might have become perceived as old-

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<sup>300</sup> ‘Datu[m] to Jo: Rose for an other vyall to bemade xxix<sup>o</sup> octobr of the fynest sort \_\_\_\_ xls’. BL, Landsdowne Ms.824, fol. 33v.

<sup>301</sup> In discussing the period 1489-1527, Purvis, ‘Continental Woodcuts’, pp.115, 120 identifies carved decoration of church furniture as deriving from specific prints e.g. at Boxgrove, Surrey (woodcuts in a book of hours published in Paris c.1500), and in Henry VII’s chapel (prints by Israel van Meckenhem and Dürer).

<sup>302</sup> Thurley, *Palaces*, pp.60ff. Some wall panels, once believed have come from Nonsuch, include instruments among the design. Croft-Murray, *Painting*, p.18 and plates 17-20.

<sup>303</sup> Foister, ‘Foreigners at Court’, p.34, 38 and passim. English members of this Company often complained about ‘foreigner intrusion’. Ibid., p.33.

<sup>304</sup> Thurley, *Palaces*, p.247.



fashioned, but they continued to be an important part of the visual environment. In the same way that late Tudor and early Stuart visual sources extend beyond the British Isles, they reach backwards in time. English artists used work from previous generations as well as contemporary patterns. Hilliard, for instance, recommended copying engravings by the relatively ancient Dürer (1471-1528), and based a miniature on a 1582 engraving by his own contemporary, Goltzius.<sup>305</sup> The visual sources used in England 1580-1660, in short, were predominantly of continental European origin, and originated at all periods since the beginning of the sixteenth century. I will now discuss these sources and other images of viols, starting with paintings.<sup>306</sup>

Viols are rare in English paintings, but their absence in all but a handful of English paintings executed 1580-1660 is particularly surprising in view of their musical and social importance. I have been able to add only two further examples to the four I identified in 1995,<sup>307</sup> when I suggested that this small number can be explained by a combination of factors present in English culture during the period.<sup>308</sup> These factors include a lack of interest in collecting paintings, the conservatism of those who commissioned paintings, and an English tradition of treating allegory and symbolism in ways that do not require the portrayal of musical instruments. Although some of these factors also apply beyond the realm of painting, there are nevertheless some instances where viols appear, which are considered throughout this chapter. The paintings executed in England 1580-1660 which include viols are discussed below in

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<sup>305</sup> See below, n.448. See also Wayment, 'Windows' for stained glass designs based on prints.

<sup>306</sup> For the present discussion *painting* signifies a picture executed in oil, tempera or a similar medium on a wooden panel or canvas that is not in a permanent location.

<sup>307</sup> Fleming, 'Viols in English Paintings', (based on a paper given to 'The Fantasia in England from Alfonso Ferrabosco II to Henry Purcell' Conference, York, July 1995).

<sup>308</sup> Fleming, 'Viols in English Paintings'. There are also few English paintings of viols just before and after the period 1580-1660. These include a painting described in Appendix 7e, and a portrait of Sir John Langham as a boy playing the viol by Johan Kerseboom, 1683 (reproduced in Leppert, *Image*, p.134). Portraits of C.F. Abel are generations later, and whether they show him with English viols made before 1660 is not known.

chronological order. Most are either by, or based on the work of, an artist of foreign origin. These six images provide little useful information about viols. Some images are indistinct, but more importantly, the date and place of manufacture of all the viols depicted is unknown, and there are factors which suggest that most are not representative of viol-making in England 1580-1660.

## Painting 1

*The Family of Sir Thomas More*, after Hans Holbein the Younger.<sup>309</sup>

The painting on which the five known versions of this image are based is lost, so whether the viol, which is only partially visible, reproduces Holbein's pre-1543 original or if the instrument was one seen by Rowland Lockey in the 1590s, is unknowable.<sup>310</sup> The viol could either be figure-of-eight shaped or have distinct bouts. The instrument in Holbein's sketch for this painting<sup>311</sup> has a very spiky outline, and that in his design for a pageant arch for Anne Boleyn has curved lower bouts but pointed upper bouts.<sup>312</sup> Other bowed instruments depicted by Holbein show the distinct large centre bouts which are typical of some Germanic sixteenth-century instruments,<sup>313</sup> which suggests the paintings show a detail supplied by Lockey. However, if this is the case we do not know whether it was based on an instrument Lockey saw and sketched, or on one of the prints he is known to have owned.<sup>314</sup> In the end, no judgement about whether the paintings show an instrument known in late

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<sup>309</sup> Holbein's original was destroyed by fire in 1752. Three surviving copies of this image are discussed in Fleming, 'Viols in English Paintings', pp.3ff. Two further versions, also by or attributed to Lockey, are discussed and illustrated in Lewis, *More Family*.

<sup>310</sup> Fleming, 'Viols in English Paintings', pp.3ff.

<sup>311</sup> Basel, Öffentliche Kunstsammlung, Kupferstichkabinett (inv. no.1662.31).

<sup>312</sup> For the Ann Boleyn sketch see Remnant, *English Bowed Instruments*, pl.149. See also similar instruments in illustration L62.

<sup>313</sup> E.g. an instrument on a table top painted to commemorate Hans Baer's marriage in 1515, in Zürich, Schweizerisches Landesmuseum, and the third of his *Dance of Death* series of woodcuts (*Expulsion from Paradise*), first published in Lyons, 1538. Woodfield, 'gross Geigen', suggests that this characteristic German outline is itself derived from an interest (via prints) in Italian lira da braccios in symbolic paintings.

<sup>314</sup> See Appendices 6, 7c.

sixteenth century England can be confirmed.

## Painting 2

*The Life of Sir Henry Unton*, (c.1596) by an anonymous artist.<sup>315</sup>

The viols depicted seem to have distinctly three-bouted outlines but the images are too small to indicate shapes or details reliably or accurately.<sup>316</sup> This seems to be the only English image of a viol consort from the period 1580-1660. Whether the viols depicted resemble any Sir Henry possessed cannot be established as we have no information about whether the painter could have known them. No viols were in the inventories of Sir Henry's properties at Wadley or Faringdon.<sup>317</sup>

## Painting 3

*The Papist Powder Treason*, (1630) by I.P.<sup>318</sup>

This is based on a print which I believe to be designed and engraved by Richard Haydocke.<sup>319</sup> Haydocke became a fellow of New College, Oxford in 1590 and in 1630 he donated this painting to his college, where it hangs still. The painter is believed to be John Percivall of Salisbury. The instruments are small details in the print and unclear in the painting, but the striped back of one large bowed instrument<sup>320</sup> and the body shape of another suggest they are viols. They are too small to give clear information but resemble instruments in many prints of a type with which Haydocke

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<sup>315</sup> London, National Portrait Gallery (NPG710). Illustration L64.

<sup>316</sup> Fleming, 'Viols in English Paintings', pp.5ff, gives these details at almost actual size.

<sup>317</sup> Fleming, 'Viols in English Paintings', pp.7ff.

<sup>318</sup> Oxford, New College. Illustrations L65, L66.

<sup>319</sup> Hind, *Engraving in England*, vol.ii, p.394 and pl.248 knew only this impression but the Huntington Library, California acquired a second in 1998. Hind dates the print to between 1606-1613 and classes it as anonymous, but it is probably by Richard Haydocke. The case for Haydocke's authorship rests on his gift of this painting, and his other engraved work which includes illustrations for his own translation (Oxford, 1598) of Lomazzo, and several monumental brasses (e.g. in the chapel of Queen's College, Oxford). Hind, *Engraving in England*, vol.i, pp.231ff and pl.122. Legge, 'Gunpowder Plot'. Hölzgen, 'Haydocke'. Corbett & Lightbown, *Frontispiece*, chapter 3.

<sup>320</sup> Fleming 'Viols in English Paintings', p.18.

would certainly have been familiar. Whether they resemble viols he saw in Oxford 1590-1605, or Salisbury where he lived thereafter (and where the painter lived), is unknown.

#### Painting 4

*St. Cecilia*, (between 1632 - 1641) by Anthony van Dyck.<sup>321</sup>

A conventional composition with St. Cecilia playing a viol<sup>322</sup> and an angel playing a lute in the background. The location of the original painting is unknown, but there are two other painted versions. There is also an engraving by Edward Davis, (London, 1673).<sup>323</sup> When van Dyck came to England in 1632, he lodged with Edward Norgate, Keeper of the Organs at court.<sup>324</sup> He could have become familiar with English viols then, if not earlier abroad, or the first time he was in England (1620-1). This viol is clearly different from the one in Painting 5. Although the upper bouts seem to have some concave curvature as they approach the neck, there is a curious stepped detail which might indicate it was in non-original condition when depicted.<sup>325</sup>

#### Painting 5

*Lady Viola da Gamba Player*, (c.1635 - 1640) by Anthony van Dyck.<sup>326</sup>

Even if van Dyck had English viols in mind when planning this and Painting 4, the instruments might have been executed by an assistant with little interest in the organological significance of his work. This viol might be a possession of the sitter, but that would not guarantee it was made in England.

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<sup>321</sup> Larsen, *van Dyck*, No.1034.

<sup>322</sup> Possibly related to Domenichino's painting of *St Cecilia* in the Louvre.

<sup>323</sup> Depauw & Luijten, *van Dyck*, p.293.

<sup>324</sup> *BDECM*, p.835.

<sup>325</sup> A similar detail is found on VME34.

<sup>326</sup> Munich, Alte Pinakothek (inv. no.1308). Larsen, *van Dyck*, No.852. Fleming 'Viols in English Paintings', pp.9ff.

## Painting 6

*Concert*, (late 1640s) by Peter Lely.<sup>327</sup>

The large bowed instrument can reasonably be described as a viol despite its lack of frets, but again it is far from certain that it is representative of instruments in England.<sup>328</sup>

Jeronimo Bassano II (1559-1635) commissioned a portrait of himself with a ‘basson [sic] or bass viol’, but the location of this painting, if it still exists, is unknown.<sup>329</sup>

Undoubtedly there were paintings other than this and those mentioned above which showed viols, but are now lost. However, the lack of viols in English paintings is echoed by their rarity in foreign paintings in English collections, as these consisted principally of portraits. In the 1639 list of Charles I’s unusually large and sophisticated collection, I found only one painting described as including a viol. This work by Hendrick Terbruggen includes ‘a drunken swaggering laffing fellowe... houlding in his left hand a Vyall de gambo’.<sup>330</sup> There were others,<sup>331</sup> but paintings in Charles’ collection would not have been seen by many viol-makers<sup>332</sup> and are unlikely either to have had much direct influence on viol-making in England or to present images representative of local viol-making.

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<sup>327</sup> London, Courtauld Institute.

<sup>328</sup> Fleming ‘Viols in English Paintings’, p.18. Morton, ‘Violone’, p.58.

<sup>329</sup> ‘Vertue Note Books’, p.18.

<sup>330</sup> Millar ‘van der Doort’, p.49. The painting is in the current Royal Collection.

<sup>331</sup> E.g. *Diligence*, which the king and Inigo Jones thought to be by Giulio Romano but is now described as North Italian School. It includes a large cornerless six-string treble(?) viol with a scroll finial and inward-pointing c-holes. MacGregor, *King’s Goods*, p.221 and n.104 and pl.54. Orazio Gentileschi’s *Apollo and the nine Muses*, present location unknown, includes a bass viol. It was painted in England before 1630, probably for Charles, but is Italianate in every respect. Finaldi, *Gentileschi*, pp.22, 24.

<sup>332</sup> A painting which includes some interesting bowed instruments, Rosso’s *The Challenge of the Pierides* (now in the Louvre), was kept in the king’s bedroom. MacGregor, *King’s Goods*, p.206 and pl.21.

Drawings in pen and ink or ‘crayon’<sup>333</sup> were generally made for an artist’s own use, sometimes as studies, often in preparation for a specific portrait painting or print.<sup>334</sup> Topographical and topical subjects were also quite common but these too were usually intended for development in another medium.<sup>335</sup> There was some English drawing of distinction<sup>336</sup> but until the mid-seventeenth century drawing was generally treated as a mechanical process rather than an artistic enterprise.<sup>337</sup> It was only towards the end of the period under scrutiny that substantial collections of drawings began to be assembled in England, and these were mostly studies of heads or details of objects from nature made by artists for their own use.<sup>338</sup> Thomas Howard, Earl of Arundel was in contact with Rubens to obtain ‘touching drawings’ to provide patterns for new decorative objects and as part of his search for particular paintings, but until his studio sale of 1657, most of Rubens’s copies and retouchings were kept in his studio for reference.<sup>339</sup> Arundel shared his interest in drawings<sup>340</sup> with Nicholas Lanier whose star is one of the earliest recorded collector’s marks.<sup>341</sup> Lanier collected drawings, which were ‘not much esteemed’,<sup>342</sup> for himself while he was acquiring paintings for the king. Peter Lely, who came to England early in the 1640s, collected around 10,000 drawings. His assistant, Lankrink, assembled another major collection. However, a widespread appetite for drawings only really developed after the Restoration, as was

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<sup>333</sup> A pencil/pensil was a kind of brush. Peacham, *Gentleman’s Exercise*, Chapter 4. Norgate, *Miniatura*, p.34. Sanderson wrote that pencils should be made from the tails of ‘Chalibes’ (a species of squirrel). *Graphice*, pp.53ff.

<sup>334</sup> Evelyn, *Sculptura*, p.100. Gent, *Picture and Poetry*, p.12.

<sup>335</sup> Wenceslaus Hollar made hundreds of topographical drawings, mostly in preparation for prints. A drawing by Claes Jansz. Visscher of the execution of the gunpowder conspirators (British Museum 1919-5-13-1) was made as a design for a print.

<sup>336</sup> Hilliard, *Limning*, p.46 praised John Bossam, none of whose work survives. British Museum No.1854-6-28-77 is a fine drawing by Balthazar Gerbier. There are numerous fine drawings by van Dyck, Lely etc. Stainton&White, *Drawing*, passim.

<sup>337</sup> Gent, *Picture and Poetry*, p.12. Hilliard, *Limning*, p.48.

<sup>338</sup> John, Lord Lumley was among the few Elizabethans who assembled large artistic collections. His drawings included a book of portraits by Holbein, which later went to Arundel. *Lumley Inventories*.

<sup>339</sup> Rubens owned many drawings by earlier artists and often modified them. Wood, *Rubens drawings*, p.9.

<sup>340</sup> Mainly sixteenth-century Italian.

<sup>341</sup> Griffiths, *Stuart Prints*, p.98.

<sup>342</sup> North, *Autobiography*, p.202.

recorded at the auction (1688) of Lely's collection by his executor, Roger North: 'It was wonderful to see with what earnestness people attended this sale. One would have thought bread was exposed in a famine.'<sup>343</sup> So although the number of drawings in England increased between 1580 and 1660, their content was not such as to include depictions of viols. I know of no English drawings from the period that include viols,<sup>344</sup> although an earlier design by Hans Holbein the younger included a viol player.<sup>345</sup> Some preparatory designs for engravings, jewellery, goldsmiths' work and architecture were drawn.<sup>346</sup> Only a small proportion of these survive, partly because they would be destroyed through use, but also because their perceived worth was limited by changing fashion. There seem to be no English drawings 1580-1660 that are in any way concerned with the construction of instruments, or involve viols as part of a decorative scheme.

Several types of building decoration can include musical instruments.<sup>347</sup> Such decorations include varieties of painting, and three-dimensional techniques such as plasterwork. Before wallpaper, there was a considerable amount of painted decoration, either directly on the surface of the building, or on a canvas or wooden panel which was subsequently mounted in a relatively permanent position.<sup>348</sup> Wall paintings were common in mediaeval England in both domestic and public places.<sup>349</sup> Churches and

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<sup>343</sup> North, *Autobiography*, p.199.

<sup>344</sup> It is possible that viols might be part of masque sketches such as Inigo Jones' *Floating Island of Marcia*, but this image is far too unclear to be sure (or to be informative about viols if any are present). Stainton&White, *Drawing*, p.59f.

<sup>345</sup> A design for a pageant arch for Anne Boleyn (1533), now in Staatliche Museum, Berlin.

<sup>346</sup> See Appendix 6.

<sup>347</sup> For instruments in building decorations before 1580 see Remnant, *English Bowed Instruments*, e.g. pll.137, 138.

<sup>348</sup> Such paintings can be moved. Gentileschi's ceiling painting *Allegory of Peace and Arts under the English Crown* (c.1635-9) was transferred from the Queen's House at Greenwich to Marlborough House sometime after 1711. Garrard, *Gentileschi*, p.113 and n.200. This painting includes a Muse holding a Bowcleffe-like viol. MacGregor, *King's Goods*, p.158, pl.28.

<sup>349</sup> 'In [Ale-houses] you shall see the History of *Iudeth*, *Susanna*, *Daniel* in the Lyons Den, or *Dives & Lazarus* painted vpon the wall'. Lupton, *London Carbonadoed*, p.127.

houses with wall paintings based on Flemish prints survive in Northamptonshire, Essex, Derbyshire, Suffolk, Kent, Buckinghamshire, Oxfordshire and elsewhere.<sup>350</sup> Many wall paintings, especially in religious establishments, were destroyed through the Henrician dissolution and later iconoclasms,<sup>351</sup> but also because of changing fashions and ‘redevelopment’.<sup>352</sup> A late Tudor author noted that in his time ‘every man almost is a builder, and he...will not be quiet till he have pulled down the old house... and set up a new’,<sup>353</sup> whereby much early wall painting was lost. But despite the fashion for hangings (described below), paintings continued to be made. Grove House, Woodford, Essex was built c.1580 and demolished in 1832. The walls of the ‘ball-room’ were painted with twelve ‘subjects of rural life’.<sup>354</sup> One of these included two singers, a lutenist, a harpist and a violinist sitting around a table.<sup>355</sup> Nothing is known about its painter apart from the initials D.M.C.(?) and the date 1617. Although much wall decoration comprised geometric or foliage patterns, or religious imagery, undoubtedly there was much of this sort that might have included viols, such as in depictions of the *Parable of the Prodigal Son*, which is mentioned as wall decoration twice by William Shakespeare.<sup>356</sup>

Another interesting wall painting came from an upstairs room in an Oxfordshire

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<sup>350</sup> Wells-Cole, *Art and Decoration*, pp.210ff. Babington, *Painted Past*. Rosier, *Wall Paintings*, (records over 70 wall paintings in Oxfordshire). Reader, ‘Wall Paintings’, (1935 and 1936).

<sup>351</sup> One survivor which shows four instruments (at least one with a bow) was painted c.1400 in Westminster Abbey Chapter House. Babington, *Painted Past*, p.31.

<sup>352</sup> In the nineteenth century wall paintings were treated with indifference because pictures were not valued as components of a decorative scheme. Reader, ‘Wall Paintings’, (1935), p.244.

<sup>353</sup> Harrison, *Description*, p.279.

<sup>354</sup> A.J.K., p.393.

<sup>355</sup> Described as ‘a sort of *conversazione campestre*’ by A.J.K., p.394 (illustrated on the preceding page). The source might be a print such as Frans Hogenberg’s etching *The Wordly Life of Mary Magdalen*, illustrated in Jongh, *Mirror*, p.121.

<sup>356</sup> Falstaff in *Henry IV*, Pt.II, Act II, Sc.1 and Host in *The Merry Wives of Windsor*, Act IV, Sc.5. See below, p.98.



village.<sup>357</sup> To the right of the central section a lute is being tuned. On the left side is part of a large bowed instrument. Frets and six strings are visible. The source for this cello-shaped viol is probably a Netherlandish print from the third quarter of the sixteenth century, rather than a local instrument, but it is typical of the images that viol-makers would have in mind when deciding what their viols should look like. The fact that it came from a quite modest domestic dwelling and not from a grand or noble establishment indicates how widely this sort of image was distributed. This is possibly the earliest extant painting of a viol in England.

More famous is the frieze (c.1585) at Gilling Castle, Yorkshire which shows six musicians, three of whom play plucked instruments (a lute and two citterns) and three bowed. These instruments have been described as violins of different sizes,<sup>358</sup> but they are not the classic shape for members of that family, which have three bouts and concave curvature at the points where the upper and lower bouts meet the middle bouts. In contrast, all three bowed instruments at Gilling clearly have lobed or festooned outlines, accentuated by dark purfling. There are sufficient examples of instruments with a lobed or festooned outline for this to be deemed a normal shape for instruments, but it is not in itself a good indication as to whether the instrument is better classified as a viol or a violin, any more than is the presence or absence of frets in a picture.<sup>359</sup> The combination of instruments is curious, as is the lack of a bass, unless the largest of the three takes this part. These bowed instruments are not held *a gamba*. The smallest two are clearly held in a way that would be appropriate for violins. However, there are quite a lot of pictures where viol players use some variation of a lap-hold similar to that used for the largest of the three, rather than a leg-

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<sup>357</sup> Illustration L67. From 34 Upper High Street, Thame. Oxfordshire Museums, OXCMS 5989-5992. Airs & Rhodes, 'Wall paintings'. Rosier, *Wall Paintings*, p.7f.

<sup>358</sup> Holman, *Fiddlers*, p.143.

<sup>359</sup> See below, p.111.

hold,<sup>360</sup> so that factor alone is not sufficient to determine the classification. Compare the hold of largest of the three with that of the bass viol in the Unton broken consort.<sup>361</sup> Despite the absence of frets, the combination of its size, festooned shape and more than four strings<sup>362</sup> suggests the instrument is a viol, but this is not conclusive, and the painter might not have known, or cared.

Similar uncertainty applies to a painted ceiling at Crathes Castle, which was completed before 1596. Scottish buildings like Crathes tend to use a different range of source prints, but they include Whitney emblems and grotesques by Etienne Delaune.<sup>363</sup> The small fretted instrument played by Thalia is clearly a fiddle, despite its plain shape and long neck, but it is very tempting to call Melpomene's fretted bass a viol because of its plain three-bouted outline, four soundholes (one in each bout), long neck, frets and underhand bowhold.<sup>364</sup> No source for the Crathes ceiling has been identified but as usual the viol probably resembles a continental print rather than a local instrument.

Viols are included in the wall decoration, probably painted by Paul Isaacson,<sup>365</sup> alongside the Great Staircase at Knole House in Kent. They follow engravings by Crispin de Passe of *The Four Ages of Man* (1596) after designs by Maerten de Vos.<sup>366</sup> Other Netherlandish musical designs at Knole include the alabaster overmantel in what is now called the ballroom.<sup>367</sup> The decorations at Kenilworth for Queen Elizabeth's visit in 1575 included viols, and these may well have resembled those at Knole.

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<sup>360</sup> Such as Veronese's *Feast at Cana*, (Louvre). See also Smith, 'cello bow'.

<sup>361</sup> Both are illustrated in Mowl, *Style*, pp.20, 162.

<sup>362</sup> All three instruments have five strings. Holman, *Fiddlers*, p.143 calls them three sizes of violins.

<sup>363</sup> Wells-Cole, *Art and Decoration*, pp.41, 217. Apted, *Painted Ceilings*.

<sup>364</sup> Illustration L68. See also Apted, *Painted Ceilings*, p.42f. *Lute*, vol.xxvii, (1987), pp.40-1.

<sup>365</sup> Isaacson worked for both Elizabeth and James I and became master of the Painter-Stainers Company. A contemporary Painter-Stainer was called Richard Isaacson. Auerbach, *Tudor Artists*, p.172.

<sup>366</sup> Wells-Cole, *Art and Decoration*, p.212f.

<sup>367</sup> Jackson-Stops, *Knole House*, p.15 ff.

One might expect building decorations to have been executed *in situ* and therefore perhaps to represent local practices. However, the grandest of such decorations was painted on canvas in Rubens' Antwerp workshop then transported to England and mounted on the ceiling of the Banqueting House in 1635.<sup>368</sup> This practice could occur wherever a painting is not directly on a wall. A possible case would be the Pillar Chamber at Bolsover Castle, Derbyshire where the *Five Senses* are painted on wooden panels. These designs follow engravings by Cornelius Cort after Franz Floris (1561)<sup>369</sup> but despite the Netherlandish source of the image, in view of the fact that other murals in the house are painted directly on the walls, and the widespread use of such source prints, it is unlikely that these *Five Senses* were imported from the Netherlands and assembled on site.

Many other wall decorations at Bolsover, which mostly date from the second decade of the seventeenth century, are based on engravings from the Netherlands and elsewhere. Other features at Bolsover, notably fireplaces, are derived from the works of Sebastian Serlio which were first published in Venice in 1537.<sup>370</sup> An English translation of Serlio was not published until 1611<sup>371</sup> although his work was not unknown in England before then and featured in the first book about architecture written in English (1563).<sup>372</sup> While the general style of Bolsover Castle fireplaces is derived from Serlio, decorative details often reflect the particular fondness for music felt by the patrons, Sir

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<sup>368</sup> Other ceilings painted on canvas then mounted *in situ* include Gentileschi's for the Queen's House at Greenwich and Robert Streeter's for the Sheldonian Theatre, painted in 1668/9. Waterhouse, *Painting in Britain*, p.117.

<sup>369</sup> Faulkner, *Bolsover Castle*, p.25. The design resembles an *Auditus* on a ceiling at Boston Manor, Brentford, 1623, after an engraving by Nicholas de Bruyn, 1597. Beard, *Decorative Plasterwork*, pl.16.

<sup>370</sup> For example, Girouard, *Robert Smythson*, p.242 and plates 149-157.

<sup>371</sup> Serlio, *Architecture*.

<sup>372</sup> Shute, *Grounds of Architecture*.

Charles Cavendish and especially his son William Cavendish, later the first Duke of Newcastle.<sup>373</sup>

The ceiling (1619) of the Heaven room at Bolsover may be one of the most important musical paintings in seventeenth-century England. Airborne angels or putti dancing and playing a wide variety of musical instruments are painted directly onto the ceiling. There are wind and percussion instruments together with a viol, violin, lute, harp and virginal. In view of the fact that so many other decorations in the house are based on pre-existing foreign patterns it seems probable that the overall design for the ceiling was imported rather than concocted specifically for this location, but no source has been identified. The ceiling is impressive, but unsatisfactory elements in the portrayal of the harp, lute and virginal lead to questions about the artist's competence, or his familiarity with these instruments, or at least the extent to which verisimilitude was a priority.<sup>374</sup> Alternatively, these elements of the design may be derived from prints which themselves gave less than accurate portrayals of instruments.

Some details of the Heaven ceiling are closely related to items which are known to have been important in the household. Hulse has shown that the music depicted in the corners of the painting exactly matches a published edition of particular interest to the owner.<sup>375</sup> As no print has been identified as the pattern for the viol, it is possible that this was based on one of the Duke's instruments. Another possibility would be an instrument belonging to one of several musicians who were associated with the Duke

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<sup>373</sup> Illustration L69. Comparable details showing viols and other instruments are on the ballroom overmantel at Knole (Beard, *Plasterwork*, plate 9) and above the porch at Hatfield House (see Mowl, *Style*, p.145).

<sup>374</sup> The implausible harp has strings which are totally impractical in length and mounting; the lute has fewer courses than would be expected on an instrument of this period; the shape of the virginal lid does not match that of its body. For the whole ceiling and a detail of the viol see illustration L97.

<sup>375</sup> Hulse, 'Apollo's Whirligig', p.231. The music is from Thomas Ravenscroft's *Pammelia*, (1609) [2<sup>nd</sup> edition 1618] and was significant to Newcastle because of its Robin Hood references.

at Bolsover and elsewhere. These included important viol composers and players, such as Christopher Simpson, William Lawes and Maurice Webster.<sup>376</sup>

The layout of the ceiling is very similar to the companion Elysium room,<sup>377</sup> and the Heaven design may have been concocted to match it while providing a vehicle for items specified by the patron. Even if a foreign pattern was used for the overall design, the details could nevertheless be derived from instruments or types of instrument known in the house. It may be significant that the overall shape of the bass viol on the Heaven ceiling seems to resemble the shape of a division viol that was described as most resonant by Simpson.<sup>378</sup> Simpson may even have come to favour this shape because of an instrument that impressed him when he was at Bolsover, possibly the one depicted on the Heaven ceiling. The viol certainly seems to be shown for a reason, as it is the only instrument not being played or held by one of the putti. It may be there because the Duke wished to display a possession of which he was proud, and as he owned several viols by John Rose<sup>379</sup> it is possible that this is one of them.<sup>380</sup>

As well as the shape, another feature of this viol is of interest. Only part of the back is shown, but it clearly has vertical stripes. It is not clear whether these represent separate pieces of wood or inlaid patterns. Such stripes are unlikely to be painted on a viol, but several surviving viols have backs made from contrasting strips of wood. A print made shortly before this ceiling was painted shows an instrument, probably a

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<sup>376</sup> Hulse, 'Apollo's Whirligig'.

<sup>377</sup> Illustrated in Mowl, *Style*, p.122. The Elysium ceiling is derived from engravings of Fontainebleau by Primaticcio. Wells-Cole, *Art and Decoration*, p.212.

<sup>378</sup> Illustration L01. Not enough of the body is visible to confirm for certain that it has this shape and, like the viol in the More family portrait, it could be a cornerless instrument. Fleming, 'Viols in English Paintings', p.4. The large radius at what would otherwise be the corner of the upper and middle bass bouts supports this possibility.

<sup>379</sup> Hulse, 'Newcastle'.

<sup>380</sup> Raylor, 'Pleasure Reconciled', pp.405, 409 suggests that the sanguine Duke himself should be seen as completing a cycle of the *Four Temperaments*. Maybe he could also be seen as the missing heavenly player of this viol?

bass viol, whose back has contrasting stripes.<sup>381</sup> Some of the Duke's other viols were probably ornamented<sup>382</sup> and the whole building and its decoration demonstrate his great interest and involvement in such issues, so he may well have owned a viol with a striped back.

A patron's intervention in some aspects of wall decoration, such as 'whether the Story be rightly represented, the Figures in true action, the Persons suted to their seuerall qualities, the affections proper and strong', was recommended by Sir Henry Wotton, but he thought most aspects of decorative painting should be left to the artisan.<sup>383</sup> Decoration which reflects the very particular tastes and interests of a patron, such as the Hill Hall decorations for the noted Elizabethan scholar Sir Thomas Smith, was unusual.<sup>384</sup> Sir Thomas chose both classical and biblical subjects, including designs based on prints by the Master of the Die, and on woodcuts by Bernard Salomon in *La Sainte Bible en Francois* (Lyons, 1554), a book which is known to have been in his library.<sup>385</sup> It would be unlikely for someone of more conventional intellect like Sir Thomas Ramsay (d.1590), who owned no pictures and no books apart from a calculating book and statutes, to have expressed any specific wishes about the details of his 'Painted Chamber'.<sup>386</sup> He would have left the choice of subjects to the painter. Usually, when musical instruments are painted on walls and the source is known, its owner is not, such as at Hilton Hall, Hilton, Hunts where a set of prints depicting the

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<sup>381</sup> See above, painting 3. VME04, VME18 and VME32 have striped backs.

<sup>382</sup> Those described as 'The Foole' and 'The Lyon' were probably named after their finials. Hulse, 'Newcastle'.

<sup>383</sup> Wotton, *Architecture*, p.110.

<sup>384</sup> See Simpson, 'Hill Hall', and Strype, *Smith*. The wall paintings at the Carpenter's Hall, London which included depictions of *Noah Building the Ark* and *The Holy Family in the Carpenter's Shop*. Reader, 'Wall Paintings', (1935), pp.252, 253.

<sup>385</sup> Wells-Cole, *Art and Decoration*, p.210. Simpson, 'Hill Hall'. Some of these decorations are now in the Victoria & Albert Museum.

<sup>386</sup> Fairholt, 'Ramsay'.

*Five Senses* by Jan Barra (one of which includes a lutenist) was used.<sup>387</sup>

The other important types of building decoration that can include viols are carved wood and masonry ornaments, and plasterwork. Overmantels, staircases and ceilings are ideal for the prominent display of images, and the sources used for their designs are the same as for wall decorations. Numerous examples of the derivation of such ornaments from prints are given in Chapters 8, 9 and 10 of Wells-Cole, *Art and Decoration*. Wells-Cole points out the close connections between joiners and plasterers,<sup>388</sup> the high quality of work in widely-dispersed cities,<sup>389</sup> and the wide range of sources that were used. Some examples that relate to instruments are given in Appendix 7f, which also shows how instrument details are often altered or omitted when images are transferred between media.

Some examples of instruments carved on staircases can be mentioned, and there are undoubtedly others. At Hatfield House, Herts, one of the sculptural carvings on the Grand Staircase is a boy playing a viol.<sup>390</sup> The accounts of ‘Rowland Buckitt the paynter’, 16 November 1611, include:

For gildinge the organs in the greate chamber £26 13s 4d.; For the payntinge of the timber worke of the greate stayres and for gilding and workeing of the naked boyes and lyones standinge upon those stayres, houldinge of instruments and his Lordshipps armes. £xxv.<sup>391</sup>

The ‘naked boyes’ still stand there but the viol bow is not original and no gilding is apparent. Buckett’s decoration of the organ used grotesques engraved by Lucas

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<sup>387</sup> Thorpe, ‘Roaring Girl’, p.1072. Hind, *Engraving in England*, vol.iii, p.95. Illustration L69.

<sup>388</sup> Wells-Cole, *Art and Decoration*, p.159.

<sup>389</sup> Including Gloucester, Canterbury, Norwich, York, Oxford, Cambridge, Ipswich, Great Yarmouth, King’s Lynn, Newcastle-upon-Tyne, and more isolated houses such as Burton Agnes near Bridlington, Yorks.

<sup>390</sup> I have not examined the carving closely. It is just visible in Mowl, *Style*, p.147.

<sup>391</sup> *HMC Salisbury* (Cecil) Manuscripts XXIV, (1976), p.204. Bills 58/1.

Kilian, published in Augsburg, 1607 which suggests that his German father maintained contacts with home which acted as a channel for such material.<sup>392</sup> No source has been identified for the instruments carved on another staircase, which include several viols.<sup>393</sup> They bear some resemblance to trophies in Hans Vredeman de Vries' *Panoplia*<sup>394</sup> engraved ornaments (Antwerp, 1572) but carvings are usually closer to their patterns than these are to *Panoplia*. At least one of the viols has a festooned upper bout. *Panoplia* has been suggested as the source for carvings on a staircase from Slaugham Place, Sussex which is thought to be work by the outstanding carver based in Newcastle-upon-Tyne.<sup>395</sup> I have not seen this, but one of the subjects is the *Five Senses* of which the figure representing *Auditus* is usually shown with instruments.<sup>396</sup>

Fabrics<sup>397</sup> were a very important part of interior environments, both for their physical properties of insulation and their visual presence.<sup>398</sup> They were used for clothing, cushions, upholstery, 'bed furniture' such as valances, tablecloths, bookbindings, bags, embroidered boxes, mirror surrounds, and for the ubiquitous wall hangings. Shakespeare mentions painted cloth<sup>399</sup> wall hangings more frequently than wall

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<sup>392</sup> Mowl, *Style*, p.149. Wells-Cole, *Art and Decoration*, p.30ff. The use of other German prints by Bernard Salomon, Virgil Solis, Heinrich Aldegrever, Hans Sebald Beham and George Pencz has been recognised. Ibid, p.23. Prints by Wendel Dietterlin were less influential than on the continent, especially compared with those by Vredeman de Vries. Ibid., p.28 and chapter 5.

<sup>393</sup> Now at Herstonceux Castle but originally made for Theobalds c.1582. Summerson, 'Theobalds'. Illustration L70.

<sup>394</sup> *HollsteinD* 337, 338.

<sup>395</sup> Wells-Cole, *Art and Decoration*, p.196.

<sup>396</sup> For other staircases that might include musical instrument carvings see Wells-Cole, *Art and Decoration*, pp.113ff.

<sup>397</sup> The term *fabric* here signifies woven, painted, embroidered or tapestry cloth material. Also appliqué: a lutenist is shown on such a hanging at Hardwick Hall. Wells-Cole, *Art and Decoration*, p.246.

<sup>398</sup> Harrison, *Description*, pp.197, 200, 397.

<sup>399</sup> Rare surviving examples of painted cloths are at Luton Museum (No.254/51) and Hardwick Hall, Derbyshire. Fleming, 'Chest of Viols', p.4. Wells-Cole, *Art and Decoration*, pp.115, 98. According to *The vvorkes of Sir Thomas More, Knight...* (1557), he 'devysed...a goodly hangyng of fyne paynted clothe, with nyne pageauntes...' in his youth. The above-mentioned Rowland Buckett was paid (9 March 1611/12) for 'painteinge 2 picktures uppon cloth, the one is the Angells salutation to the Virgin Marie, and thother is the Angell ap[pearing] to the shippards, for the Chappell at Hatfeild and done by my lords appointment. xxiiiil.'. *HMC Salisbury (Cecil) Manuscripts XXIV*, (1976), p.202. Box G/13. Samuel Pepys seems to have bought some painted cloth in October 1668. Pepys, *Diary*, vol.ix, p.329.



paintings.<sup>400</sup> They are often the dominant item in probate inventories, and few inventories include none. Many fabrics were patterned with geometric or foliage-like designs but images of people and events were also common.<sup>401</sup> Appendix 7g, which lists tapestries that include musical elements in two collections, demonstrates that music and instruments were common elements of fabric designs.

It is difficult to assign some fabrics to a country of origin, even on the basis of the clothing of people depicted. This is particularly true for England where people were attired one day in the French style, another Italian, another Spanish and another day in the Flemish style, according to Lucas de Heere's treatise on the British Isles (c.1575), based on his experiences there.<sup>402</sup> Thus, a tapestry that includes a viol player is described as 'English or French',<sup>403</sup> which reduces the value of the image as a source of information about English viols. As with other media, however, fabrics present the images of viols that were seen at the time, when they influenced perceptions of what viols were like. Also as with other media, the images on fabrics often originate in prints. For instance, the designs for a series of tapestries *The Planets* have been traced to prints by Harman Muller after Maerten van Heemskerck and by Jan Saenredam after Hendrick Goltzius.<sup>404</sup> Other sources for tapestries include Saxton's maps, and prints by and after Virgil Solis, Hieronymous Wierix, Maerten de Vos, Johannes Stradanus and others.<sup>405</sup> These would be found in any weaver's or embroiderer's workshop, but work for a particular location was sometimes done on the spot. For example, Sir George Shirley of Astwell had a complete set of furnishings made in 1592-5 at

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<sup>400</sup> Reader, 'Wall Paintings', (1935), p.246.

<sup>401</sup> Digby, *Tapestry*.

<sup>402</sup> Yates, *Valois Tapestries*, pp.17ff.

<sup>403</sup> London, Victoria & Albert Museum T.136-1991 (not in Digby, *Tapestry*). Illustration L71.

<sup>404</sup> Nevinson, 'Embroidery patterns'. Digby, *Tapestry*, p.61. Digby, *Embroidery*, p.136 and passim.

<sup>405</sup> Wells-Cole, *Art and Decoration*, pp.223ff.

Staunton Harold for use at Staunton Harold.<sup>406</sup> Work taking place under the nose of a patron is the most likely to incorporate designs in books or prints possessed by the patron.

The patterns used for fabrics were the same as for other media: biblical scenes, episodes from classical literature and mythology, fauna and flora, hunting scenes, print series such as the *Five Senses*<sup>407</sup> and the *Ages of Man*, maps, emblem books, herbals, etc.. Some books of patterns for embroiderers were published, but professionals would make their own, and provide selected patterns for ladies to use.<sup>408</sup> A drawing that includes a viol or violin (*Therpsichore*, based on an engraving by Philip Galle after Maerten de Vos) is in the pattern book of the embroiderer Thomas Trevelyon.<sup>409</sup> A popular subject that often includes musical instruments is the *Parable of the Prodigal Son*.<sup>410</sup> A reredos depicting this parable was commissioned as early as the early twelfth century.<sup>411</sup> Twelve sets of this subject were recorded in the 1547 inventory of Henry VIII's tapestries.<sup>412</sup> A *Prodigal Son* tapestry at Chatsworth shows a rear view of a bass viol player.<sup>413</sup> An alternative to tapestry and painted cloth wall hangings was leather which was gilt, tooled and/or painted. There were three pieces of the *Prodigal Son* among other leather hangings at Kenilworth in 1583.<sup>414</sup> Doubtless there were many more in leather, tapestry and painted cloth. Tapestries and other images made in

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<sup>406</sup> Thomson, *Tapestry in England*, p.47.

<sup>407</sup> *Auditus* from a print by Cornelis Cort after Frans Floris was used for a cushion cover at Hardwick's New Hall. Wells-Cole, *Art and Decoration*, p.102. There is a set of the *Five Senses* at Haddon Hall, Derbyshire. Illustrations L71, L72. Also at Haddon is a fine set of wooden chairs with musical scenes (one including a peculiar viol?) on the worn and faded tapestry seats. Illustration L73.

<sup>408</sup> Nevinson, 'Embroidery patterns', pp.11ff.

<sup>409</sup> Wells-Cole, *Art and Decoration*, chapter 14 and p.241. Very few pattern books survive, partly because they were destroyed by use, and also because when they went out of fashion they were no longer valued. Ibid., p.6.

<sup>410</sup> Luke, chapter 15. Some examples are instrument-free, such as a set of Flemish cushion covers, and a single English one from a set (Digby, *Tapestry*, pp.63, 78) but most show instruments when the son is consorting with harlots and dispersing his inheritance.

<sup>411</sup> Thompson, *Tapestry in England*, p.7.

<sup>412</sup> Thompson, *Tapestry in England*, chapter VI.

<sup>413</sup> Illustrations L71, L72. This tapestry was made in Mortlake. Thompson, *Tapestry in England*, p.92.

<sup>414</sup> *HMC*, de L'Isle and Dudley, vol.i, p.279.

England<sup>415</sup> would not necessarily picture local instruments, but *Prodigal Son* and similar images played an important role in forming ideas of what viols looked like.

At a time when images were not disseminated through academic or formalised practical training, and when there were no broadcast media or advertising campaigns, printed images were crucial for the transmission of ideas because they were readily available and portable. The preceding discussion of painting, drawing, building decoration and fabrics makes it clear that prints played the central role in the transmission and dissemination of images. Prints, the print trade and print ownership will now be discussed in some detail, followed by a brief survey of the other principal<sup>416</sup> media in which images of viols appear.

Prints were published in England from 1584 by Edward Allde, and in the early seventeenth century by John Trundle.<sup>417</sup> However, the first specialist English print publishers were John Sudbury and George Humble whose partnership was established by 1603 and for a decade they had a ‘near monopoly on print production in London’.<sup>418</sup> Such publishers and sellers did not stock only native publications. Large quantities of foreign prints were available both from English print sellers and from continental immigrants, starting with Hans Woutneel who was active in England by 1579/80.<sup>419</sup> Woutneel started as a bookseller but was selling prints from 1592.<sup>420</sup> Sixty-seven printsellers who were active in London before 1660 have been

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<sup>415</sup> Such as at Sheldon’s tapestry works (founded c.1561) or the Mortlake tapestry factory (founded on the orders of James I in 1618).

<sup>416</sup> For a Delftware plate showing a lutenist and other musicians see Jongh, *Mirror*, p.27. For a sixteenth-century food mould showing *Orpheus* playing a lute see illustration L69. These are not English, but such items were imported.

<sup>417</sup> O’Connell, *Popular Print*, p.47.

<sup>418</sup> Griffiths, *Stuart Prints*, p.14.

<sup>419</sup> E.A.Arber, *Transcript of the Registers of the Company of Stationers, 1554-1640*, (1875), vol.ii, p.681, cited in Gerard, ‘Woutneel’, p.368.

<sup>420</sup> Gerard, ‘Woutneel’, p.369.

identified,<sup>421</sup> of whom about twenty-four were active before 1625. They are known largely from the appearance of their names and/or addresses on prints, and they represent only a proportion of those in the trade. The earliest known catalogue of an English print publisher is that of Peter Stent, 1654.<sup>422</sup> Many print publishers also published maps, sold books or were stationers.<sup>423</sup> It is likely that some of these offered prints without the addition of their identity to the plate, and as membership of the Stationers' Company was not compulsory, many printsellers were independent of it and do not appear in its records. It is therefore certain that prints were available from sources of whom no trace is known or likely to be found.

Merchants were not the only source of prints, as printmakers in sixteenth and seventeenth-century England sold their own work.<sup>424</sup> There was also a considerable trade in popular prints which were sold by peddlers and, in early sixteenth-century London, by the Frenchman Gyles Godet.<sup>425</sup> Popular prints include images such as monstrous births, executions, aphoristic moral or religious images, and ephemeral political comment, but the greatest number were broadside ballad sheets. Few are likely to have included pictures of viols, but at least one image of street musicians which may include a viol was used, and is reproduced by Holman.<sup>426</sup> Itinerant peddlers left no stocklists but the considerable magnitude of their trade is indicated by existence of licensing procedures and other legislative controls.<sup>427</sup> The fact that so many printsellers were not members of the Stationers Company reduces the

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<sup>421</sup> Globe, *Stent*, Appendix F, pp.212-221.

<sup>422</sup> The earliest known of all print publisher's catalogues is that of Antonio Lafrery, (Rome, 1572). Griffiths, *Stuart Prints*, p.123.

<sup>423</sup> Stent published sixty-seven books, excluding sets of prints. Globe, *Stent*, p.19.

<sup>424</sup> William Rogers, the first Englishman to sign and date a print, sold his own work. Griffiths, *Stuart Prints*, p.14. Wenceslaus Hollar seems to have kept stocks of his prints and sold them directly to collectors until 1642. Godfrey, *Hollar*, p.15. Hollar later added *exc[udit]* to some prints, showing that he was the publisher.

<sup>425</sup> O'Connell, *Popular Print*, p.42f.

<sup>426</sup> Holman, *Fiddlers*, p.131, figure 6.1.

<sup>427</sup> O'Connell, *Popular Print*, p.175.

comprehensiveness of Stationers Company Registers as a record of publications.<sup>428</sup>

The Registers name many prints of which no surviving examples are known, but there are also surviving prints which do not appear in this source.<sup>429</sup> Thus, not only were a wide variety of prints very widely available, but many more were being sold than we can now see or even know of.<sup>430</sup>

While, in theory, anyone who desired prints of foreign origin could obtain them either from a printseller in England or from abroad, the latter would be much easier for a well-connected collector than for a humble artificer. John Evelyn bought prints in the Low Countries (1641), Paris (1643) and Rome (1645),<sup>431</sup> and William Sanderson ‘laboured to be furnished from beyond seas, with Cuts and Prints...’.<sup>432</sup> Nor were collectors restricted to recent publications. Samuel Pepys assembled his collection in the second half of the seventeenth century but many of his prints were by (or were copies of prints by) Albrecht Dürer, Lucas van Leyden and other printmakers active at the beginning of the sixteenth century.<sup>433</sup> Some of Pepys’s early prints may have been newly produced as impressions continued to be drawn from a plate long after its maker had died and after the plate became worn. Plates routinely passed from one publisher to another, and large proportion of Stent’s stock came from plates that had had previous owners.<sup>434</sup>

Prints were accessible to anyone who had the money and inclination to buy them, and the cheaper popular prints would have been affordable by a large proportion of society.

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<sup>428</sup> Globe, *Stent*, p.4.

<sup>429</sup> O’Connell, *Popular Print*, p.43.

<sup>430</sup> Griffiths, *Stuart Prints*, p.105.

<sup>431</sup> Griffiths, ‘Evelyn’, p.60.

<sup>432</sup> Sanderson, *Graphice*.

<sup>433</sup> Aspital, *Catalogue*.

<sup>434</sup> Globe, *Stent*, p.3 and passim. Griffiths, *Stuart Prints*, p.17f. Griffiths, ‘Prints Revisited’, p.116. The re-use of old plates was also common on the continent. Orenstein, *Hondius*, p.9.

Fine prints, however, were more expensive and, although they were much cheaper than paintings, they were still unlikely to be a casual purchase for a person of modest wealth. They were often produced and offered in sets but it was more usual to buy them singly, making up a set over time if required.<sup>435</sup> Print collecting was an unusual activity in England before 1660. Prints are sometimes mentioned in probate inventories but it was very rare to possess more than a few.<sup>436</sup> In the 1620s and 1630s Thomas Howard, Earl of Arundel, employed printmakers to record items in his unique collection of paintings, sculptures and other *objects d'art*,<sup>437</sup> but John Evelyn<sup>438</sup> and Samuel Pepys were the first Englishmen to buy prints systematically and to establish substantial collections.<sup>439</sup> The earliest known list of an English print collection is that of Richard Symonds which he bought in Italy in 1650 and 1651.<sup>440</sup> Evelyn published the first book about print collecting in any language,<sup>441</sup> and advised his friend Pepys about prints, but Pepys did not possess either his 'knowledge of prints or discerning eye'.<sup>442</sup> Pepys' collection of c.10,000 prints was one of the largest in the seventeenth century.<sup>443</sup> A large proportion of his collection survives, together with his catalogue, but not including those which he had framed and varnished, because the varnish

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<sup>435</sup> Sales of single sheets are indicated by a publisher's imprint being on each plate rather than just the title or frontispiece Globe, *Stent*, p.28.

<sup>436</sup> The inventory (1562/3) of John Badcock, Vicar of St Andrew the Less, Cambridge shows his hall was hung with tapestry, painted cloths and five paper pictures (i.e. probably prints). Leedham-Green, *Books in Cambridge*, p.272. At Oxford, John Case owned '8 pictures in frames, 11 pictures in papers' (1599), and the president of Magdalen College, Nicholas Bond, who had several instruments, also possessed numerous pictures and maps and 'xviiij smale paper pictures', (1607). *OUA*. Charles Rainsford, an Oxford joiner, had two pictures when he died in 1617. Oxford Archives 55/3/14. These were probably prints. Rainsford was a witness to the will of the joiner and viol-maker Edward Ilsbery, who bequeathed a 'picture of our Sav[iour] in his manhood' to his sister Alice Raynsford, presumably Charles' wife. Ilsbery is discussed below in Chapter 4.

<sup>437</sup> He employed Lucas Vorsterman and brought Wenceslaus Hollar to England for this purpose. Before this, copies of paintings in the royal collection had been commissioned from Peter Oliver. 'Histories in Lymning are strangers in England till of late Yeares it pleased a most excellent King to command the copieing of some of his owne peeeces, of Titian, which indeed were admirably performed by his Servant, Mr Peter Oliver'. Norgate, *Miniatura*, quoted in Stainton & White, *Drawing*, p.78.

<sup>438</sup> Evelyn started to collect prints in the 1640s.

<sup>439</sup> Collections of popular/ephemeral prints are discussed in O'Connell, *Popular Print*, chapter 9.

<sup>440</sup> Ogden, 'Collection'. It includes sets of the *Nine Muses*, religious subjects, antiquities, landscapes and others, mostly Italian, and some by Northern printmakers.

<sup>441</sup> Griffiths, *Prints and Printmaking*, p.61.

<sup>442</sup> Aspital, *Catalogue*, p.xiii.

<sup>443</sup> Waals, 'Pepys', p.257.

ultimately destroyed them.<sup>444</sup> Collectors sometimes kept prints in individual portfolios but more usually pasted them into albums as Pepys did with the majority of his. This favours the survival of prints aimed at collectors because an album is much more likely to survive than a loose leaf or a print pasted to a wall, although a few prints pasted directly on walls still survive as part of the decoration in the Great High Chamber at Hardwick Hall, Derbyshire.<sup>445</sup>

Van Dyck and Rubens were enthusiastic producers of designs for prints, and used prints to publicise their paintings,<sup>446</sup> but many European painters despised engravers. Nevertheless, painters commonly used prints to supply overall designs and details, and even Poussin worked closely from them when planning paintings.<sup>447</sup> Prints were not highly regarded in their own right in sixteenth-century England, although they were used by such distinguished limners as Nicholas Hilliard and Isaac Oliver.<sup>448</sup> Hilliard recognised the distinction between the designers and executants of prints: ‘Albertus Dure[r] was both inuentor and grauer, as few of the rest of the grauers are’.<sup>449</sup> This distinction is explicit on a large proportion of prints where the designer, printmaker and publisher are identified separately.<sup>450</sup> Where designer and printmaker are different, the design is often followed very closely, but different prints based on a

<sup>444</sup> Aspital, *Catalogue*. Waals, ‘Pepys’.

<sup>445</sup> Illustration L74. See also Appendix 7e.

<sup>446</sup> Depauw & Luijten, *van Dyck*. Hind, *History of Engraving*, pp.126, 164f. A century earlier, Raphael’s fame was spread largely through his use of printmakers (especially Marcantonio Raimondi) to publicise his work.

<sup>447</sup> Lambert, *Image Multiplied*, p.166.

<sup>448</sup> Hilliard praised the prints of Dürer, Hendrik Goltzius and Lucas van Leyden, and recommended copying them. *Limning*, p.48f. The composition of his miniature of George Clifford (?1590) is based on a print by Goltzius (1582). Hearn, *Dynasties*, p.127. Oliver drew on French and Netherlandish work. *Ibid.*, pp.131, 134. Architectural prints by Vredeman de Vries were used by other artists in portraits of *Henry, Lord Darnley, and his Brother Charles Stuart* (1563) and Charles I as Prince of Wales (c.1620). Wells-Cole, *Art and Decoration*, p.78f. Hearn, *Dynasties*, p.212.

<sup>449</sup> Hilliard, *Limning*, p.50.

<sup>450</sup> See Griffiths, *Prints and Printmaking*, p.134, glossary, and passim for good explanations of the distinctions and terms used to describe them.

single design show the limits and variations that result from differing interpretations and levels of skill.

English printmakers were far behind their continental contemporaries in the artistic and technical quality and function of their work, and in the range of subjects treated.<sup>451</sup> Until the mid-seventeenth century, the majority of English-made prints were portraits and title pages, whereas continental prints were ‘regularly used to reproduce designs by the leading painters, to record great events, the appearance of places and costumes, to illustrate books, to promulgate patterns to inspire designers and, above all, to create works of art in their own right.’<sup>452</sup> Some engravers can never be identified because heads of businesses frequently put their names on work produced by everyone in the shop,<sup>453</sup> but it is generally agreed that the best work in England was done by immigrant printmakers. Francis Clein<sup>454</sup> was Netherlands-trained, and settled in London in 1625, after spending fifteen years in Italy and Denmark.<sup>455</sup> He was in charge of tapestry manufacture at Mortlake, but also etched, and designed for other printmakers. Clein and Robert van Voerst came to work for the court but most printmakers came to escape religious or political problems, rather than being attracted by a culture that appreciated print. Continental printmakers who worked in England include Thomas Geminus, the Hogenbergs, Marcus Gheeraerts, the de Passe family, Jan Lievens,<sup>456</sup> Lucas Vorsterman, Wenceslaus Hollar and many others.<sup>457</sup> These

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<sup>451</sup> Most prints made in England 1580-1660 were either fairly crude woodcuts for book illustrations and broadsheets, or engravings for illustrations, title-pages, frontispieces and single sheet prints. Few etchings were made, compared with foreign production, and almost none by Englishmen. Griffiths, *Stuart Prints*, p.31.

<sup>452</sup> Griffiths, ‘Evelyn’, p.59.

<sup>453</sup> Byrne, *Ornament*, p.85. The naming of senior members of an organisation (who did not do the work reported) as authors is customary in modern scientific research publications.

<sup>454</sup> Waterhouse, *Painting in Britain*, p.67.

<sup>455</sup> Howarth, *Patronage*, 58

<sup>456</sup> There might have been two Lievens. Griffiths, ‘Prints Revisited’, p.116.

<sup>457</sup> Others produced work for England, such as Abraham Bosse who was a friend and colleague of Evelyn. Griffiths, *Stuart Prints*, p.165.



immigrants brought both continental techniques and ideas of images with them. Those who worked in England maintained close relationships with the continent, and proofs went back and forth during preparation for publishing.<sup>458</sup> That mid-seventeenth century native English work was still behind the continent in both the quantity and quality of prints produced was recognised by John Evelyn who wrote of their ‘designs ... which are now so lamely, and so wretchedly presented.’<sup>459</sup>

There are many ways in which printed images could have become available to instrument-makers. Continental paintings and prints often show prints displayed on interior walls, but as there are relatively few images portraying realistic English interiors, English pictures from before 1660 that definitely show prints are so rare that I have been unable to identify any.<sup>460</sup> Some books of emblems and patterns were published specifically for craftsmen.<sup>461</sup> Large prints would be seen in public places but the expense of assembling a collection of prints would be beyond the means of most artificers. However, even if instrument-makers did not own appropriate prints, they could still see those belonging to family and colleagues.<sup>462</sup> As prints and book illustrations were provided as patterns for their workers by some patrons (especially of architecture),<sup>463</sup> it is likely that they were provided by some people who wanted instruments.<sup>464</sup> Seventeenth century makers could also have consulted prints in shops.

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<sup>458</sup> Depauw & Luijten, *van Dyck*, p.84.

<sup>459</sup> Evelyn, *Sculptura*, p.101. This view was still held in the eighteenth century. ‘We are even now far behind with the French, if the works of our artists should be compared with those of an Edelinck, a Nantuel, or a Drevet.’ Strutt, *Manners*, p.186.

<sup>460</sup> Prints are often shown pinned to a wall in humble dwellings and inns, but in depictions of more elevated environments it is difficult to identify prints as they were more likely to be framed.

<sup>461</sup> Corbett & Lightbown, *Frontispiece*, p.46. Wells-Cole, ‘Walter Gedde’.

<sup>462</sup> See Appendix 6.

<sup>463</sup> Wells-Cole, *Art and Decoration*, p.22.

<sup>464</sup> The Revels Office bought ‘dyu[e]rs printed patterns’ in 1553, probably for the use of costume designers. Astington, *English Court Theatre*, p.128.

One route through which musical instrument makers had particularly easy access to prints was the complex network of professional and family connections among artists and musicians.<sup>465</sup> For example, Edward Norgate was both painter and instrument-maker, Nicholas Lanier portrayed himself with attributes of both music and art, and Balthazar Gerbier was involved with Norgate and Lanier through both his musical and artistic interests.<sup>466</sup> Rowland Buckett both painted pictures and decorated the organ at Hatfield House.<sup>467</sup> Isaac Oliver was related by marriage to the court composers James Harding and his son Edward, and also to the Laniers and Galliardellos.<sup>468</sup> Another distinguished miniature painter Samuel Cooper is thought to have been a son of John Coprario and was described as ‘one of the best of Lutenists’ of his time.<sup>469</sup> There were undoubtedly direct connections between artists and viol-makers, and possibly some people were both, but I have been unable to identify any.<sup>470</sup> As was usual for viol-makers, printmakers themselves often had other jobs besides print-making. Some occupations, such as scientific and mathematical instrument making, required virtually the same skills (engraving),<sup>471</sup> but others were more obliquely connected. The printmaker Thomas Geminus was a mathematical instrument maker,<sup>472</sup> William Rogers was a goldsmith,<sup>473</sup> Richard Haydocke was a physician.<sup>474</sup> The connections between different occupations provided many

<sup>465</sup> Edmond, ‘Hilliard’, passim. Edmond, ‘Limners’, passim.

<sup>466</sup> Wilson, *Lanier*, passim and pl.29. *BDECM*, p.833ff. Gerbier included both music and artistic activities among topics worthy of being taught. Gerbier, *Academy*.

<sup>467</sup> See above, p.95.

<sup>468</sup> Edmond, ‘Limners’, pp.76ff.

<sup>469</sup> Edmond, ‘Limners’, p.98.

<sup>470</sup> However, see Hoskins and Turner in Appendix 9. See also n.889.

<sup>471</sup> See Clifton, *Directory* for Humphray Cole, Elias Allen and others. Also Hind, *Engraving in England*, for Cole and mapmakers.

<sup>472</sup> Hind, *Engraving in England*, vol.i, p.41f

<sup>473</sup> Hind, *Engraving in England*, vol.i, p.258f. Engraving and etching developed in part from the work of armourers. Hind, *History of Engraving*, chapter 1. Nicholas Hilliard is among the artists who started as goldsmiths. Rowland Lockett’s father was free of the Company of Armourers. Edmond, ‘Limners’, p.97.

<sup>474</sup> Hind, *Engraving in England*, vol.i, pp.231ff. Hölting, ‘Haydocke’.

opportunities for the transmission of a broad range of prints to artificers such as viol-makers.

A print of *King David playing the harp*<sup>475</sup> by Jan Sadeler after Peter Candid (*alias* Peter de Witte) exemplifies different ways a single image can be used. When he worked in Yorkshire in the 1660s, Grinling Gibbons based a carving on this print and it was also used by a contemporary glass painter, Henry Gyles.<sup>476</sup> Long before this woodcarving and glass painting, the same image appeared in other media: drawing, painting and silverware.<sup>477</sup> The overall composition and many details are carefully preserved in the transfers between these five media, but features of musical and organological significance vary. The musical score held by angels is not the same, and details of the string bass instrument such as the shapes of the upper bout, the soundholes and the pegbox, are not always the same.<sup>478</sup> It is also interesting to compare the scroll on the organ which sometimes resembles an architectural volute and sometimes a violin finial. Gibbons's carved version is among those which resemble neither of these,<sup>479</sup> so reliance on his famous accuracy in portraying musical items<sup>480</sup> could lead to misunderstandings.

The goldsmith's craft flourished in several cities including Norwich, Exeter, Chester and York, but the main centre was London. Much metalwork in Elizabethan London was by immigrants, who undoubtedly brought their patterns with them.<sup>481</sup> In the early

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<sup>475</sup> Moens, *Muziek*, p.73.

<sup>476</sup> Esterly, *Gibbons*, pp.41ff.

<sup>477</sup> Volk-Knüttel, *Candid*, p.33, n.6. Fischer, *Music in Paintings*, p.24.

<sup>478</sup> The overall shape of the instrument differs significantly between Candid's preparatory drawing (Hamburg, Kunsthalle. Inv.Nr.21787) and his painting (Frans Hals Museum, Haarlem).

<sup>479</sup> Esterly, *Gibbons*, pp.42f. Fischer, *Music in Paintings*, p.22f. Volk-Knüttel, *Candid*, p.32 and illustration 101.

<sup>480</sup> Sayce, 'Gibbons'. Note the disparities between *Ibid.*, plates 13 and 14.

<sup>481</sup> Schroder, *Silver*, p.56.

seventeenth century, much was imported from Germany.<sup>482</sup> The subjects of imagery used on gold, silver and pewter are the same as for the other media. A set of silver plates made 1568-70 illustrates the *Prodigal Son* using prints by Etienne Delaune and Sebald Beham.<sup>483</sup> Two lutes and a viol appear in this set. Medals are another category of small sculptural metal object; they were collected by Henry, Prince of Wales and others, and sometimes show scenes such as Orpheus or Apollo, often with a lyra da braccio.<sup>484</sup> Similar scenes, usually based on Italian or other prints, are very common on ceramics such as Majolica plates. Although images were quite widespread on jewellery,<sup>485</sup> I know none that depict viols. Nevertheless, jewellers used the same sources as other artificers, and it is not unlikely that images of viols were disseminated in this way.<sup>486</sup>

Stained glass<sup>487</sup> encompassed both religious images (such as the *Prodigal Son*) and secular images. Engravings by Maerten van Heemskerck have been identified as a common source for stained glass.<sup>488</sup> Glass for Sir Francis Bacon's house was based on prints by Marcus Gheeraerts.<sup>489</sup> Other designs for glass were based on prints by Hieronymous Wierix after Maerten de Vos, Jacob Matham after Hendrick Goltzius,

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<sup>482</sup> Schroder, *Silver*, pp.87ff.

<sup>483</sup> Wells-Cole, *Art and Decoration*, p.205.

<sup>484</sup> An early sixteenth-century Paduan medal showing St Cecilia playing an organ, surrounded by a lyra da braccio, harp and lute is in the Ashmolean Museum, Oxford. WA 1888.CDEF.B631. In the same room are five lead plaquettes showing the liberation of Antwerp in 1577. They are based on designs by Maarten de Vos and were probably made by Jaques Jongheling. They were given by Elias Ashmole (1683) and provide an example of de Vos's work in a non-print medium in seventeenth-century England. Many of de Vos's designs include viols and other musical instruments, including *HollsteinD* 49, 106, 538/1, 583/11, 589, 601, 606/1, 606, 690, 726/1, 734/1, 952, 1081, 1086, 1241, 1274, 1300, 1301, 1302, 1303, 1305, 1353, 1385, 1416, 1425/1, 1458, 1462, 1489, 1494/11, 1499, 1503/1, 1508, 1514, 1524, and 1564-7. For the migration of images from prints to plaquettes in Germany, and also to a stoneware jug, see Bartrum, *German Prints*, pp.125, 112f.

<sup>485</sup> Scarisbrick, *Jewellery*, Chapter 3 and figs.30, 31, 46.

<sup>486</sup> Scarisbrick, *Jewellery*, p.41. *Ibid.*, fig.27b shows a 'musician' related to sixteenth-century Netherlandish engravings such as Jacob de Gheyn II, *HollsteinD* 117. See Moens, *Muziek*, pp.94, 120, 128f, 130.

<sup>487</sup> Including designs applied to glass as well as patterns of coloured glass.

<sup>488</sup> Cole, 'Glass-Painting'.

<sup>489</sup> Wells-Cole, *Art and Decoration*, p.90.

and so many similar sources that Wells-Cole wrote ‘In few other media were so many different suites of prints plundered for decoration’.<sup>490</sup> An engraving by Frans Huys (d.1562) of *Master John Blockhead* shows a lutemaker who advertises his work with a stained glass image of a lute.<sup>491</sup> I know of no comparable English glass but viols and other instruments feature in many artificers’ and publishers’ trade signs after 1660.

An important vehicle for the display of social, intellectual, and financial status is the funerary or memorial monument. Tombs and memorial plaques complied with the fashionable aesthetic of their time.<sup>492</sup> They employ a wide range of media, dominated by carved stone and/or engraved brass. Memorial images overwhelmingly represent the deceased or are decorative, but some include scenes and symbols.<sup>493</sup> None which include viols are known, but the instruments on the monument to Matthew Godwin (1586/7)<sup>494</sup> and the lute on Nicholas Stone’s monument to Sir Thomas Bodley (1615)<sup>495</sup> are unlikely to be the only instruments. Stonework was often painted as well as carved,<sup>496</sup> but most traces of this have disappeared. Such painting was predominantly for the addition of colour rather than images, but William Byrd, the Oxford painter and mason<sup>497</sup> devised a method to colour marble such that he could make figures or images, of which numerous examples could be ‘dayly seen’ around

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<sup>490</sup> Wells-Cole, *Art and Decoration*, p.219. He quotes examples in London, Yorkshire, Somerset and Warwickshire. Wayment, ‘Windows’ reports the use of illustrations from *Biblia Pauperum*, and prints by Israel van Meckenhem, Dürer, Lucas Van Leyden and Dirk Vellert. See also Henry Gyles above, p.107.

<sup>491</sup> Moens, *Muziek*, p.105. Other versions are illustrated, and the image’s sexual metaphor is explained, in Jongh, *Mirror*, pp.63ff.

<sup>492</sup> The considerable Flemish influence on late medieval and early Tudor sculpture is discussed by Stone, *Sculpture in Britain*, pp.4, 221, 226 and *passim*.

<sup>493</sup> Especially following the increasing use in the Elizabethan period of civil costume and domestic scenes, and considering those made by Hadocke. Macklin, *Brasses*, pp.277ff. Ibid, pp.290ff.

<sup>494</sup> Exeter Cathedral. Woodfill, *Musicians*, pl.3.

<sup>495</sup> Oxford, Merton College Chapel. Gent, *Albion’s Classicism*, fig.92.

<sup>496</sup> e.g. 1582. ‘to Hawis, of Goddington, for paynting the tombe vs.’. Shirley, ‘Fermour Accounts’, p.181.

<sup>497</sup> Baptised Gloucester, 1 June 1624. I know of no evidence that he was related to Moses Byrd, another painter in Oxford, who took an apprentice in 1592. Hanaster L.5.1, fol.26v.

Oxford, London and elsewhere in 1665.<sup>498</sup> Few such images now survive, and although some might have incorporated viols, none are known to me.<sup>499</sup>

Joiners' advanced decorative work was concentrated on room panelling, chimneypieces, overmantels, screens and staircases, rather than furniture, but there are exceptions.<sup>500</sup> The Eglantine Table at Chatsworth was probably made to celebrate the triple marriage of Bess of Hardwick to the Earl of Shrewsbury, Henry Cavendish to Grace Talbot, and Mary Cavendish to Gilbert Talbot in 1567. Its top, an area of about 40 square feet, is covered with an elaborate marquetry inlay of coloured woods. The colours are faded but the designs are clearly visible. With marquetry there is no possibility of a vague brush stroke or casual pen mark which would allow alternative readings. This inlay comprises complex combinations of family crests and mottos, together with decorative elements which include floral motifs, gaming equipment and about eighteen musical instruments, three of which are bowed. A glance at the old drawing<sup>501</sup> of the inlay suggests that these may be viols, which is how they were described in 1976. However, close examination of the table shows that while all three bowed instruments have unambiguous frets, they also have four strings, apart from the smallest which has three. Prints published only shortly before the table was made (by Jacob Floris, Antwerp, 1566) are a source for some of the inlay but no source for the instruments has been identified.<sup>502</sup> Many decorations at Chatsworth and Hardwick are based on such recently published prints,<sup>503</sup> showing that artificers in England had access to the latest issues as well as material published by previous generations.

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<sup>498</sup> According to Henry Oldenburg, editor of *Philosophical Transactions of the Royal Society*, cited by Cole, 'Byrd', p.193f.

<sup>499</sup> Including by Haydocke (see above), who engraved monumental brasses and included viols on a print.

<sup>500</sup> Wells-Cole, *Art and Decoration*, p.169.

<sup>501</sup> The drawing by Llewellyn Jewitt for *The Reliquary*, (July 1882) is reproduced in Collins, 'Eglantine table', p.276. Details of the table are illustrated in colour in Wells-Cole, *Art and Decoration*, p.249.

<sup>502</sup> Wells-Cole, *Art and Decoration*, p.250.

<sup>503</sup> Wells-Cole, *Art and Decoration*, chapter 15.

The largest and smallest of the three bowed instruments are shaped like conventional violins and have scroll finials, and the other is festooned with a carved head finial.<sup>504</sup> A festooned viola of comparable shape is played by one of the musicians in Joris Hoefnagel's painting *Fête at Bermondsey*, which was made at about the same time as the Eglantine Table, and another is shown in an English painting of about a century later (at Nostell Priory).<sup>505</sup> A festooned mute violin in Edinburgh is probably seventeenth-century.<sup>506</sup> Festooned instruments which may be violins are found in other English images including the frieze at Gilling<sup>507</sup> and the broadside ballad illustration, and there are festooned viols attributed to John Rose and John Strong.<sup>508</sup> The only feature of the Eglantine Table bowed instruments that suggests they are viols rather than violins is the frets. Frets are taken to be one of the defining features of viols, but they are easily removed or added at will, and they can be used on violins, so their presence or absence cannot by itself be conclusive. Taking into account the other features of the Eglantine table instruments, including their outlines, their *f*-shaped soundholes, and the number of strings, they are probably among the earliest English depictions of violins, not viols. The largest of the three is almost certainly the earliest English depiction of a bass violin. Also made for Chatsworth at about the same time as the Eglantine Table is an alabaster overmantel of *Apollo and the Muses* which is based on a print by Frans Huys after Frans Floris, (1565).<sup>509</sup> The bowed instruments are changed from the rather unlikely designs in the print to festooned violins.<sup>510</sup> Considered together with the table, this suggests that instruments of this design may

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<sup>504</sup> Illustration L75.

<sup>505</sup> The painting at Nostell Priory was traditionally described as *The Cabal* by J.B. Medina but see Holman, 'Harp', p.195. Hoefnagel's *Fête at Bermondsey* is at Hatfield House, Herts.

<sup>506</sup> Edinburgh University Collection of Historic Musical Instruments No.329. Illustration L68.

<sup>507</sup> Described as violins in Holman, *Fiddlers*, p.143.

<sup>508</sup> Discussed below, pp.222ff.

<sup>509</sup> Illustration L76. Wells-Cole, *Art and Decoration*, p.252.

<sup>510</sup> For another example of how instruments change when images are re-used see illustration L77.

have existed in the Cavendish household, and provides a pre-Bolsover example of a design modified to reflect the requirements of this important family of patrons.<sup>511</sup>

Although the exceptionally grand Eglantine table was made more than a decade before 1580, it is among furniture which could be seen during 1580-1660, and is also relevant as an example of what might be found later. However, although the great interest of such a piece would mean that information about anything similar would almost certainly be in the public domain, only one comparable piece is known, and its decoration does not include musical instruments.<sup>512</sup> It is therefore unlikely that any survive, and quite possible that no similar pieces were made in England before 1660. Viols are found on continental inlaid furniture (particularly late sixteenth-century German furniture), which was often imported into England.<sup>513</sup> English carved furniture, particularly beds and chests, could also include viols, but although other instruments are known,<sup>514</sup> there seems to be no furniture which shows viols.

No survey of media on which images of viols appear would be complete without consideration of instruments themselves, including viols.<sup>515</sup> A viol on a viol strongly suggests the executant would be well-informed about them. However, although there are examples of viols painted, carved or inlaid on various types of instrument including

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<sup>511</sup> The Heaven ceiling at Bolsover has been discussed above, pp.92ff.

<sup>512</sup> The comparable piece is a table dated 1569 in the Burrell Collection. I am grateful to D.Bostwick for this information.

<sup>513</sup> Fine examples of this type of inlaid furniture in the Victoria & Albert Museum include a cabinet, and a chest from Augsburg (No. 4250-1858) with inlays that include instruments (possibly after a print by Jost Amman). In Möller, *Intarsienmöbel*, illustrations 93, 115, 131, 133, 134, 160, 161, 171, 172, 189 and 196 show instruments which might be viols, although they mostly have only three strings and no frets. Several have festooned shapes, recalling the Eglantine table. It is not impossible that craftsmen of German origin made the table in England, using patterns they brought with them. German prints by Paul Flindt, Nuremberg, 1611, show viols of a similar festooned shape. *HollsteinG* (Flindt) Nos.106, 124. A string instrument carved on an Italian chest is illustrated in Fleming, 'Chest of Viols', p.11. Customs duty was specified for chests from 1545 onwards (Customs, *Rates*) and they are mentioned in many lists of ships' cargo.

<sup>514</sup> The lutenist on a chest at Corsham Court, for instance. Illustration L68.

<sup>515</sup> A lute painted on a virginal lid is visible in a 1591 portrait of Lady Grace Talbot (at Hardwick Hall).



keyboard instruments, lutes and viols,<sup>516</sup> no examples of viols forming part of the decoration of an English viol made before 1660 are known. But even if examples were known, this chapter has shown that such decoration would be unlikely to depict English viols.

Similar designs based on print patterns are found all over England. A pattern may have been made available by a wealthy patron for an architectural project, but soon after it was in craftsmen's hands, it could be found in other, more modest properties in the same county, and later elsewhere around the country.<sup>517</sup> Although work in many parts of the country resembles that in Gedde, *Sundry Draughtes* and the Abbot sketchbook,<sup>518</sup> this shows not that one such volume was shared, but that several craftsmen had independent access to the same sources.<sup>519</sup> Some viols seem to have very distinctive decoration. Yet distinctive-looking designs such as the foliage inlay<sup>520</sup> on the belly of VME33 were not exclusive to the maker of this viol but were based on engravings such as those by Thomas Geminus,<sup>521</sup> Peter Flötner, Franz Brun, Virgil Solis, Master f, Heinrich Reubage, Floris Baltesers and many others which were used in all decorative trades.<sup>522</sup> Designs in exactly this style were published as page

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<sup>516</sup> Tielke's ornaments are based on emblematic prints by Otto van Veen. Hellwig, *Tielke*, pp.91, 219, 318. (Charles I owned a book of emblems by van Veen. Millar 'van der Doort', p.126.) Apollo plays a viol on the engraved ivory fingerboard of a guitar c.1630. London, Royal College of Music 6.

<sup>517</sup> Work by the masons of Longleat has been identified in Wiltshire, Gloucestershire and Hampshire. Wells-Cole, *Art and Decoration*, p.139. The plasterer Charles Williams (who could also paint, write, and make 'Gally disshes and pavements for the same') worked both at Longleat and for Sir William Cavendish (Derbyshire). Beard, *Plasterwork*, p.26f. Also Wells-Cole, *Art and Decoration*, p.48.

<sup>518</sup> Devon Record Office 404M/B1.

<sup>519</sup> E.g. Wells-Cole, *Art and Decoration*, p.127.

<sup>520</sup> This particular decoration is discussed here because no similarly decorated viols are known, so it might be claimed as idiosyncratic. Other motifs such as geometric knots, which are found on numerous viols, are extremely common and widespread in many media. Heraldic images, as used on this viol, are discussed in Appendix 7a.

<sup>521</sup> Only one complete set of Geminus's engraved ornaments survives. All other impressions will have been worn out by use.

<sup>522</sup> Geminus worked at the court of Henry VIII. Hind, *Engraving in England*, vol.i, pp.39ff, plates 25-7. Illustration L78. Flötner: *HollsteinG* No.87. Brun: *HollsteinG* no.127. Master f: Byrne, *Ornament*, fig.14. Solis: *Ibid*, figs.114, 133. Prints by Reubage and Baltesers are collected in an early seventeenth-century English volume: British Museum, 157 c.36. See Griffiths, *Stuart Prints*, p.266f.

borders, historiated initial letters and colophons,<sup>523</sup> embroidered on fabrics, modelled or engraved on silverware,<sup>524</sup> and even painted on the ceiling of a modest village house from the third quarter of the sixteenth century.<sup>525</sup> Viol-makers were artificers who used the same sources and design influences as their contemporaries in other media.<sup>526</sup> If the same ornament were found on two instruments, this would indicate no stronger connection than that both makers used the same source, which was probably widely available over a very long period. Because of this it is impossible to date viols solely through their decoration, and it is impossible to identify and delineate the work of individual viol-makers solely through the occurrence of particular forms and ornaments.<sup>527</sup>

This chapter has shown that in sixteenth and seventeenth-century England, ideas about what musical instruments look like would be dominated by Netherlandish and other continental prints. Viols based on these designs would be dominated by ‘cello-shaped’ instruments, the sort favoured by Christopher Simpson. This helps to explain the mass disappearance of English viols, because instruments of this shape are most easily transformed into violins and cellos. In order to understand viol-making it is necessary to look beyond images and to characterise more generally the trade and those who worked in it. This is the topic of the remaining two chapters.

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<sup>523</sup> Such as those used by William Barley and other English music publishers.

<sup>524</sup> Schroder, *Silver*, pp.65, 71. Scarisbrick, *Jewellery*, fig.27b. Mowl, *Style*, p.172.

<sup>525</sup> Illustration L78.

<sup>526</sup> Artificers in different media collaborated over decorative designs. E.g. the engraver Jan Barra (who worked in England from 1623 or earlier until his death in 1634) engraved some fine grotesques after designs by Nicasius Roussel, jeweller to James I, and dedicated them to George Heriot, goldsmith to the king. Hind, *Engraving in England*, vol.iii, p.95.

<sup>527</sup> In the same way, makers’ use of similar wood is inconclusive if unsupported by additional information. Illustration L27 gives an example of similar wood used on two instruments.

## Chapter 4

### THE CRAFT OF VIOL-MAKING

The influence that the aesthetic environment of purchasers of viols might have on the nature of the viols made for them was assessed in Chapter 3. This chapter now focuses on the character of the men who designed and made viols in England c.1580-1660. Because precise biographical detail about most viol-makers is very sparse, in order to understand their practices it will be necessary first to reconstruct the general character of this group of artificers. Their social position and commercial organisation are considered first, then the intellectual attainments and attitudes that would provide the foundation for their work are described. No detailed orders for viols are known,<sup>528</sup> so my approach is necessarily oblique. It does however set out the context within which viols were made. This survey will provide a framework within which to assess the individual viol-makers discussed in Chapter 5.

Discussion of the nature of viol-makers must be framed first in terms of social status, so it is necessary to set out how this was seen in the sixteenth and seventeenth centuries when social categories were not identical to those of today. Although there were varied views, there was general agreement throughout most of the period about the relative status of different positions. The concept and term 'sort' was well established and widely used, especially by those in authority.<sup>529</sup> The Elizabethan view of sorts was set out clearly by Sir Thomas Smith and amplified by his acquaintance,

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<sup>528</sup> The sort of information that is lacking is exemplified by the correspondence of Isabella d'Este with her instrument-maker, although even this famously pernickety patron wrote about costs and materials rather than shape or details of construction. Prizer, 'Isabella d'Este'.

<sup>529</sup> Wrightson, *Sorts of People*, pp.28-36 and 39.

John Harrison.<sup>530</sup> Smith wrote: ‘we in England divide our men commonly into foure sorts, gentlemen, citizens and yeomen artificers and laborers.’<sup>531</sup> The punctuation of this sentence has caused confusion in the past, but it is now accepted that Smith’s intention was that the second sort is ‘citizens’, the third is ‘yeomen and artificers’ and the fourth sort is ‘laborers’. Smith’s distinctions were drawn mainly on the basis of gentility (either hereditary or acquired), and the possession of land. His first category, Gentlemen, included aristocrats and knights.

Armigerous men entitled to call themselves ‘esquire’ by virtue of their family’s heraldic status, and men who were awarded a knighthood, were indisputably of the first sort,<sup>532</sup> but the right to call oneself ‘gentleman’ was much less clear. The perceived benefits of gentility inclined some people to inflate their status, and many well-to-do professionals called themselves gentlemen. Nevertheless: ‘In large, prosperous towns such as London, Bristol and Norwich, even a wealthy [professional such as an] attorney would not have been as rich as the most successful merchant’,<sup>533</sup> and as wealth has always been one determinant of status, it was merchants who increasingly occupied positions of prominence in society. Gentlemen were not necessarily wealthy,<sup>534</sup> and for Harrison: ‘Gentlemen are those whom their race and blood, or at the least their virtues, do make noble and known.’<sup>535</sup> As there was no statutory restriction on the term’s use, it is reasonable for us to define a gentleman as anyone who was called a gentleman or recognised as such by his contemporaries.

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<sup>530</sup> Smith, *De republica anglorum*. Harrison, *Description*.

<sup>531</sup> Smith, *De republica anglorum*, p.20.

<sup>532</sup> Continuing recognition of this is demonstrated by the chapters devoted to armoury and blazoning in Peacham’s *Compleat Gentleman*, and the additions to the 1661 edition of his *Gentleman’s Exercise*.

<sup>533</sup> Brooks, ‘Professions’, p.114.

<sup>534</sup> See also below, p.159.

<sup>535</sup> Harrison, *Description*, p.113.

The second sort was defined by Harrison thus: ‘Citizens and Burgesses ... are free within the cities and are of some likely substance to bear office in the same’. He noted mobility between the sorts: ‘In [the second sort] are our merchants ... (although they often change estate with gentlemen, as gentlemen do with them, by a mutual conversion of the one into the other)’.<sup>536</sup> Yeomen’s potential for upward mobility was recognised later by Fuller.<sup>537</sup> Successful merchants could be wealthier than professionals, at least in the larger towns.<sup>538</sup> People who only made viols (as opposed to retailing them) are much less likely to be found among the higher two sorts than the lowest two.<sup>539</sup>

Harrison described the third sort, yeomen, as having a ‘certain pre-eminence and more estimation’, than the fourth sort ‘laborers and the common sort of artificers’. He defined yeomen as ‘those which by our law are called *legales homines*, freemen born English, and may dispend of their own free land in yearly revenue to the sum of 40s. sterling, or £6 as money goeth in our times. ... They are for the most part farmers to gentlemen ... or at the leastwise artificers’.<sup>540</sup> For Harrison, ‘The fourth and last sort of people in England are day laborers, poor husbandmen, ...some retailers..., and all artificers.’<sup>541</sup> Apprentices were considered as not yet established in a rank, so although they could rise after completing their term, by default they were considered as in the lowest sort.

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<sup>536</sup> Harrison, *Description*, p.115.

<sup>537</sup> ‘[The good Yeoman] is a Gentleman in Ore, whom the next age may refine...’. Fuller, *Holy State*, p.116.

<sup>538</sup> Brookes, ‘Professions’, p.114.

<sup>539</sup> For possible exceptions see below, pp.190ff. and Appendix10e.

<sup>540</sup> Harrison, *Description*, p.117.

<sup>541</sup> Harrison, *Description*, p.118.

Despite Harrison's inconsistent positioning of artificers in both of the lower two sorts, he was keen to praise and celebrate the England of which they were not only an essential part, but comprised a large portion. He wrote that husbandmen and artificers were 'never so excellent in their trades as at this present',<sup>542</sup> but nevertheless noted the eternal problems of over-hasty work leading to slapdash results, and of how some goods could be imported 'better cheap'.<sup>543</sup> Harrison's view is probably best considered as reflecting the range of society within which artificers could exist. The social standing of an individual would be affected by both his wealth and the status of his occupation; a merchant would be more highly regarded than a shoemaker - unless it was a poor merchant and a wealthy shoemaker.

The seventeenth century was a period when families sought to improve their standing, and the end of which saw rapid developments in the emergence of a middle class. Most people would have accepted the traditional four-fold division of society described by authors such as Smith, Harrison and Stow,<sup>544</sup> and a pragmatic definition of the gentry as *that body of men and women whose gentility was acknowledged by others*.<sup>545</sup> As this definition would be recognised in the society to which it applies, it is used here. Very few artificers would qualify as gentry by this criterion. Musical instrument-making was not a desirable occupation which conferred high status, and there is very little evidence that it was even recognised as a discrete occupation. Such work would not, therefore, be seen as appropriate for anyone who was, or aspired to be, higher than the third sort.<sup>546</sup> As Fuller described his idealised Handicrafts-man, 'He seldom attaineth to any very greate estate: except his trade hath some outlets and

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<sup>542</sup> Harrison, *Description*, p.119.

<sup>543</sup> Harrison, *Description*, p.120.

<sup>544</sup> Modern historians still find such an analysis useful, e.g. 'The Pre-Revolutionary Decades' in *The Collected Essays of Christopher Hill*, vol.i, (1985), (p.14).

<sup>545</sup> Heal & Holmes, *Gentry*, p.19.

<sup>546</sup> The 'sorts' of viol-makers are discussed below.

excursions into wholesale and merchandize.’<sup>547</sup> The fact that it was trading, not making that produced significant wealth applied to all artificers, including viol-makers.<sup>548</sup> Thus, viol-makers remained among the lower sorts.

During the sixteenth and seventeenth centuries, there were organisations devoted to the interests and regulation of people in most occupations even among the lower sorts, so in order to understand the organisational context in which viol-making occurred it is necessary to describe the structure of companies and guilds in some detail. Many companies and guilds had origins in the middle ages.<sup>549</sup> They saw themselves not merely as trade bodies, but as important components of society, and they asserted this partly through their participation in public pageantry. In 1613, when sophisticated and elaborate masques were produced for the court by Ben Jonson, Inigo Jones and others, and when memories of James’s magnificent<sup>550</sup> entry into London as king were still fresh, it was decided that the pageantry of the Mayor of London’s inauguration ‘should surpass all previous displays in magnificence and even outshine the splendor of the court.’ The queen had spent not more than £600 for two masques but a single company’s participation in this mayoral celebration cost nearly £900.<sup>551</sup>

A man’s position within a company hierarchy determined both his rights and responsibilities. The great advantage of a senior position was usually the associated permission to keep extra apprentices but costs, such as funding a feast, could be so

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<sup>547</sup> Fuller, *Holy State*, p.121.

<sup>548</sup> This was not unique to viol-making, but general for artificers. Hill, *Revolution*, p.16.

<sup>549</sup> In the twelfth century there were already guilds of weavers in London, Lincoln, Oxford, York, Winchester, Huntingdon, and Nottingham. Unwin, *Gilds and Companies*, p.42f. The Fletchers trace their origins to 1371. Oxley, *Fletchers*, p.13.

<sup>550</sup> ‘The Conduits of Cornehill, of Cheape, and of Fleetestreete, that day ran Claret wine very plenteously: which (by reason of so much excellent Musicke, that sounded forth not only from each severall Pegme, but also from diverse other places) ran the faster and more merrily downe into some bodies bellies.’ Harrison, *Archs of Triumph*, ‘Lectori Candido’.

<sup>551</sup> Some of the costs of the Grocers’ company are detailed in Unwin, *Gilds and Companies*, p.278.

onerous as to cause bankruptcy, so companies sometimes had to compel people to take the higher posts. Artificers who were not successful financially (such as viol-makers who failed to progress to mercantile activities) could not rise far in a company.

During the reigns of James I and Charles I, some of the lesser companies were absorbed into larger companies,<sup>552</sup> but at the same time some subordinate crafts gained their independence. The Feltmakers were freed from the Haberdashers, the Apothecaries from the Grocers, the Glovers from the Leathersellers, and the Gunmakers and Clockmakers from the Blacksmiths.<sup>553</sup> This would have been an ideal time for a company of viol-makers or instrument-makers to establish itself, but no such organisation appeared.<sup>554</sup> The reason for this is a theme of this study - that instrument-making was not a specialism that could justify representation and control, but typically just one strand of a person's working life, and that most of instrument-makers' working time was probably spent on work other than making instruments.

The formal functions of companies and guilds fall into two general types, one of which is the support of members, the other being the regulation of a trade, a distinction which was recognised by parliament.<sup>555</sup> Ordinances were occasionally, but not usually, copied directly from one company to another, although in all such organisations, the regulations generally address the same concerns. This was true not only for English

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<sup>552</sup> In sixteenth-century Bristol, workers who were formerly known as cofferers and carvers gradually became known as joiners. Goodman 'Elizabethan Woodworkers', p.89f.

<sup>553</sup> Unwin, *Gilds and Companies*, p.262f.

<sup>554</sup> Attempts (1634 and 1637) were made to incorporate a new Company of Gutstringmakers, supported by Nicholas Lanier (the Master of the King's Music), Thomas Day (master of the children of the chapel), his Majesty's drummers, and several established companies, but instrument-makers were not mentioned. Fleming, 'Points arising', p.306. Perhaps instrument-makers objected that a profitable sideline was threatened.

<sup>555</sup> Smith, *English Gilds*, p.xxvi.



companies and guilds, but all over Europe.<sup>556</sup> A brief survey of some European guilds follows the table below which indicates the principal activities of guilds and companies in England.

<p><b>Issues in typical English Guild Ordinances</b></p> <p><i>(Further detail is given in Appendix 8a)</i></p>
Regulations protect the trade from ‘strangers’, ‘foreigners’, ‘aliens’ and members of other companies, i.e. certain work is specified as the right of members of that guild.
Regulations govern apprentices and apprenticeship.
The standard of work and the reputation of the guild are maintained.
Members in financial difficulty receive support.
The rates of remuneration are controlled.
Resources are controlled.
The power of ‘search’ enables officials to monitor work and ensure compliance with guild regulations

The Antwerp Guild of St Luke<sup>557</sup> was exclusively for citizens of Antwerp and regulated the number in any occupation, as well as controlling prices and maintaining standards.<sup>558</sup> In Germany, guilds were banned in Nuremberg until at least 1500, but elsewhere they were powerful and held seats among the regulation makers on the

<sup>556</sup> Smith, *English Gilds*, passim. In Ulm the matters addressed in the statutes of 1496 included the regulation of apprenticeship, the employment of journeymen, and purchases of materials. The same regulations were later copied at Augsburg. Baxandall, *Limewood Sculptors*, p.108f.

<sup>557</sup> The statement ‘musical instrument makers were not amalgamated in a guild’ in Bolink, *Violinmaking*, p.56 means that there was not a specialist guild.

<sup>558</sup> O’Brien, *Ruckers*, p.6ff. Despite the Low Countries being a culture where workers were well organised in structured guilds, working practices varied considerably from one workshop to another, such as among printmakers. Depauw & Luijten, *van Dyck*, pp.20ff.

council.<sup>559</sup> In Füssen, a very important centre of instrument-making,<sup>560</sup> the regulations of the lute-makers' guild (1562) were mostly concerned with apprenticeship and with ensuring that fees were paid, but their tenth regulation explains why non-members were seen as a threat.

Finally, a number of citizens who have not learned the trade here have dared to buy lute staves and to plane them and sell and brand them independently. This, however, is not only a burden for us and hinders us in competition with other towns, but also damages our good name; therefore, in the future no one, no matter who, shall be allowed to practice this branding. Rather, he shall be put out of business by the guild and also punished according to the judgment of the guild, unless he has learned this craft properly and honestly and has become a member of the guild.<sup>561</sup>

Statutes confirmed by Duke Moritz of Moritzburg show that the violin-makers of Markneukirchen established a guild there in 1677, but they may have had some sort of organisation earlier.<sup>562</sup> A guild of instrument-makers was established in Paris in 1599.<sup>563</sup> Some of the most famous French viol-makers belonged to it, but so did makers of organs, harpsichords, wind and other instruments.<sup>564</sup> Italian instrument-makers belonged to a range of organisations, depending on the city where they worked. Venetian lute-makers joined one of the eight branches of the Corporation of the *Arte dei Mazeri* (Haberdashers) which also accommodated makers of other musical instruments and makers of funnels and glasses, as well as haberdashers.<sup>565</sup> Roman lute-makers belonged to a company of Carpenters, and in Bologna, while their trade was recognised, the makers of lutes did not practise instrument-making exclusively

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<sup>559</sup> Baxandall, *Limewood Sculptors*, p.107. The lack of guilds was probably a factor that attracted Dürer's father to settle there. Bartrum, *German Prints*, p.22.

<sup>560</sup> Bletschacher, *Geigenmacher*.

<sup>561</sup> *Füssen Regulations*, p.91.

<sup>562</sup> Jalovec, *Bohemia*, p.13.

<sup>563</sup> Hunt, 'Jurors of Paris', p.110. Parisian mathematical instrument-makers and bell-makers belonged to a Founders' Company (1572) which included founders, coopers, bushel-makers, engravers, and makers of globes and spheres. Turner, *Scientific Instruments*, p.29.

<sup>564</sup> The viol-makers included Claude Pierray, Guillaume Barbey, Louis Guersan and François Lejeune. Hunt, 'Jurors of Paris', p.112f.

<sup>565</sup> Toffolo, 'Lute-Makers in Venice', p.30, 31, n.9.

and were not associated with a particular company.<sup>566</sup> This shows that even in the most productive centres in Europe, where instrument-making was industrialised rather than *ad hoc*, its practitioners were not generally limited to that single activity and were not segregated into specialist organisations.

Many records, especially apprenticeship bindings, complaints about encroachment,<sup>567</sup> disputes between companies, and examinations of offences against company regulations, show that these regulations were implemented. However, the large numbers of disputes and punishments for transgression also show that the regulations do not give a full picture of actual practice. There were also local regulations that limited the control that companies could exercise, particularly over who could undertake work. In a case before his court in 1614, the mayor of London ruled that, according to a custom of London confirmed by parliament in 1384, and despite the *Statute of Artificers* (described below), every freeman ‘who has been an apprentice in London unto any trade by the space of seven years may lawfully and well relinquish that trade and exercise any other trade at his will and pleasure.’<sup>568</sup> This means that no company affiliation was required by a man who had spent seven years in London apprenticed in any trade, regardless of whether he had or had not completed his term. A man would be no less entitled to make musical instruments after seven years as an apprentice butcher or baker than if he had spent the time developing his skills with a carpenter or joiner, even if he had failed to join his master’s guild.

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<sup>566</sup> Pasqual & Regazzi, *Bologna*, p.147. When the English harpsichord and organ maker William Deacons worked in Haarlem in the 1640s he joined the Carpenters’ Guild. Vlam, ‘Rosseters’, p.65. *Boalch*, p.44.

<sup>567</sup> ‘At this daye the payntours, staynours freemen, complayned that one Mr. James Senyor, a strainger to this Corporacion, useth and practiceth the trade or quallitye of draweing drawne workes within this Corporacion, to the hurt and hinderaunce of the poore men complainants, their wives and children.’ 15 August 1634. Guilding, *Reading Records*, p.237.

<sup>568</sup> Rappaport, *Worlds*, p.116.

The geographical area covered by a company's charter was normally the city within which it was located, although it could extend further. In London, the charter of the Joiners (1571) covered two miles around the city, that of the Broderers (1561) covered the City plus Westminster plus the boroughs of Southwark and St Katherine's, and a few charters covered all England.<sup>569</sup> The extent to which these urban-based companies were able to exercise control should be considered in the context of the whole population of England<sup>570</sup> which was predominantly rural and agricultural. It was recognised that different types of occupation were associated with cities,<sup>571</sup> and there is little evidence that viol-making was other than an urban craft. Both resources and customers were most likely to be found in population centres, so viol-making is to be expected predominantly to take place in areas nominally under the control of guilds and companies.

So many of those seeking apprenticeships abandoned agriculture in favour of more urban occupations that the majority of the increase in urban populations has been attributed to incoming apprentices.<sup>572</sup> Stow recognised that London was a magnet for workers from around the country '...drawing from them to her selfe alone ...both all trade of traffique by sea, and the retayling of Wares, and exercise of Manual Artes also.'<sup>573</sup> He argued that this was not surprising, partly because the court paid better and swifter than formerly, and partly because gentlemen went there from the shires and they paid their suppliers better there than they did in the country.

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<sup>569</sup> Unwin, *Gilds and Companies*, p.244.

<sup>570</sup> The population of England rose from 3,600,000 in 1580 to 4,700,00 in 1625 to 5,200,000 in 1660. Wrigley & Schofield, *Population*, p.575.

<sup>571</sup> 'Manual artes or handy crafts, as they have for the most part beene invented in townes and citties, so they cannot any where else be eyther maintained or amended.' Stow, *Survey of London*, p.549.

<sup>572</sup> Brookes, 'Apprenticeship', p.55.

<sup>573</sup> Stow, *Survey of London*, pp.562ff.

London certainly was a magnet, but neither individual workers nor significant industries<sup>574</sup> were confined to the capital, and aspiring apprentices moved all over the country. In seventeenth-century Southampton, 60% of apprentices came from outside the area.<sup>575</sup> Hanasters show that Oxford apprentices came from many different parts of the country including neighbouring counties such as Berkshire and Northamptonshire, more distant locations such as Somerset, York, Cambridge and Northumberland, and it was not particularly rare to come from London to serve an apprenticeship in Oxford.<sup>576</sup>

In 1660 the large majority of the population of England still lived outside cities and beyond the reach of guilds and companies,<sup>577</sup> but many workers escaped their control even within cities, as they did throughout Europe.<sup>578</sup> A petition (1580) from the inhabitants of the Precincts of St Anne Blackfriars and Whitefriars claimed the right for: ‘all artificers & Craftsmen whatsoeuer (although theie be no free men of the Cittie) lawfullie to exercise there trades, misteries, & occupacons wi<sup>th</sup>out controllment of the maio<sup>r</sup> or other officers of the cittie.’<sup>579</sup> Affiliation to a guild or company was not a prerequisite for instrument-making, and many viol-makers will have left no trace in guild or company records. A failure to identify instrument-makers in company records cannot therefore be taken to indicate that they did not work in the occupation or geographical area supervised by that company or guild.

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<sup>574</sup> For instance, the Mortlake tapestry manufactory was founded by James I (1619), but the very important and prolific Sheldon tapestry work took place mostly in Warwickshire (1561-1647). Humphreys, *Tapestries*, p.15. Thomson, *History of Tapestry*, p.277.

<sup>575</sup> *Southampton Apprentices*, p.xxix.

<sup>576</sup> For Hanasters, see Bibliography. The apprentices of William Gibbons came to Oxford from ‘Woulledge’ (Essex), ‘Sowtham’ (Warwick), ‘Bucknell’ (Oxfordshire), ‘New Braynforde’ (Middlesex), ‘Chertesy’ (Surrey), Oxford (Oxfordshire), ‘Charringe crosse’ (Middlesex), Abingdon (Berkshire) and Ely (Cambridgeshire). Hanaster A.5.3, fols.320v, 321v, 323, 335v (2), 338 (2), 340, and 341. Christopher Noke, freemason, took on Robert, son of Edmund Campian of London, stationer (1579/80). Ibid., fol.295.

<sup>577</sup> The urban proportion of England’s population was still only about 11% in the middle of the seventeenth century, comprising 8% in London and 3% in rural towns. Smith, *Nation State*, p.166.

<sup>578</sup> Munck, *Europe*, p.182.

<sup>579</sup> Edmond, ‘Limners’, p.64.

Versatility rather than narrow specialism was normal among all sorts of artificers. William Bromley, a joiner who worked at Hardwick Hall from 1592, made wainscot, turned balusters and made furniture as well as ‘mending things in the house’, and his son Henry did similar work.<sup>580</sup> Tombmakers took commissions for other types of carving such as chimney pieces, garden sculpture, carved portrait busts and ornamental figures.<sup>581</sup> The tombmaker Maximilian Colt worked with Richard Norrice (joiner), Abraham van der Doort (painter) and others to construct effigies of deceased royalty for ceremonial processions.<sup>582</sup> Also at court, Davis Mell was a musician, but during the interregnum he was a clockmaker,<sup>583</sup> and Henry Cooke was paid for teaching Latin and writing as well as for singing and playing instruments.<sup>584</sup> Elias Allen, the distinguished mathematical instrument maker, was also a book plate engraver.<sup>585</sup> The techniques of cutting brass for marking out a scientific instrument and those for making an engraved image have a lot in common, in the same way that techniques used in furniture-making are consonant with those of musical instrument-making.

Both within and outside London, artificers who made musical instruments tended not to specialise any more than their contemporaries in other fields.<sup>586</sup> This is consistent with depictions of instrument-makers’ workshops from the sixteenth to the eighteenth

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<sup>580</sup> Stallybrass, ‘Hardwick’s Buildings’, p.381f.

<sup>581</sup> Whinney, *Sculpture*, 235, n.18.

<sup>582</sup> Hope, ‘Funeral Effigies’, pp.555ff.

<sup>583</sup> *BDECM*, p.793.

<sup>584</sup> *RECM*, vol.v, pp.118f, 125.

<sup>585</sup> Elias Allen (d.1653). Clifton, *Directory*.

<sup>586</sup> Similarly abroad. Violin-makers of the Amati, Stradivari, Maggini and Stainer families made viols, and Tielke, Guersan, Bertrand, and Hasert are among the viol-makers who also made violins. A document (1685) recording the employment of Pietro Guarneri of Mantua as a player of viol and violin describes him as ‘Maker of Musical Instruments, and of Violins in particular’. Hill, *Guarneri*, p.28. The inventory of his workshop in 1720, includes violoncellos, guitars, theorbos, lutes, viols, bows and a harp. *Ibid.*, p.42. The will (1692) of Pietro’s father Andrea mentions ‘all the tools, wood and other utensils connected with the craft of the lute-maker, violin-maker and guitar-maker’. *Ibid.*, p.21. See also Bolink, *Violinmaking*, and Milliot, *Luthiers parisiens*.

century all of which show several types of musical instrument, although such images should not be taken as accurate portrayals of real workshops,<sup>587</sup> and none are English.<sup>588</sup>

There are, however, numerous documents which testify to the wide range of work undertaken by instrument-makers. The probate inventory (1557) of Benet Pryme, a Cambridge wait, includes 'vii vyalles & vyolans'. In his 'shoppe' were various parts of musical instruments including wind and keyboard instruments and 'a nest of unp(er)fyte vyalle(e)s', in other words an unfinished set.<sup>589</sup> He clearly made a variety of instruments. If Pryme made the violins he is one of the earliest violin makers identified in any country, and by far the earliest in England. Robert Mallet of Oxford seems to have been fairly specialised, although he made a range of plucked instruments.<sup>590</sup> The viol-maker John Rose is thought to have repaired lutes, the instrument-makers of York were not specialists, and George Gill's privilege application sought control of making types of violins and lutes as well as viols. Henry Jenkins probably made plucked instruments as well as viols and violins.<sup>591</sup> In 1589 Robert Brough, a virginal-maker, was paid for an organ he made.<sup>592</sup> 'Mr. Hill the instrument-maker' was consulted about alterations to both Samuel Pepys's viol and lute, and another instrument-maker patronised by Pepys, Mr Hunt of St Paul's

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<sup>587</sup> A range instruments might be shown in order to be comprehensive rather than to imply they were all present simultaneously.

<sup>588</sup> A well-known example is Jost Amman & Hans Sachs, 'Der Lautenmacher', *Ständebuch*, (Frankfurt, 1568), which specifically notes the making of other instruments besides lutes. 'Auch mach ich Geigen und Quintern'. Illustration L82. Further examples are: Jan Sadeler after Maerten de Vos, 'Jubal and his musical instruments' (Antwerp, 1583) *HollsteinD* (de Vos) No.35 (illustration L81); Francesco Curti after Gio. Maria Tamburini, No.3 from a set of etchings showing trades in Bologna, (Bologna, 1633); J. & C. Lukyen, 'Instrumentmaker', *The Mirror of Human Concern*, (Amsterdam, 1694) cited and illustrated in Dilworth, 'Golden Age', p.769; 'Atelier of a luthier', plate xviii of the section on Lutherie in Denis Diderot *et al.*, *Encyclopédie ou dictionnaire raisonné des sciences, des arts et des métiers*, (Paris, 1767).

<sup>589</sup> Payne, 'Instrumental Music', p.139. Holman, *Fiddlers*, p.124. Appendix 6.

<sup>590</sup> Fleming, 'Points arising', p.302f.

<sup>591</sup> For Jenkins see below, p.218f.

<sup>592</sup> Mateer, 'Byrd and Petre', p.26.

Churchyard, was also concerned with both viols and lutes.<sup>593</sup> The catalogue of the Selhof auction shows that the viol-maker Richard Meares also made violins, that the violin-maker William Baker also made viols, and suggests that one of the Northampton viol-makers also made violins.<sup>594</sup>

That non-specialism was normal among instrument-makers over a very long period is also recorded clearly in payments for repairs and maintenance. For example, at the beginning of the sixteenth century Possant Bonitamps, a minstrel and cornett player at court, was given 10s ‘for mending of organes’,<sup>595</sup> in 1587 10s was paid ‘to Mr Brough virginall maker of London ... for his half yeares fee to kepe my M[asters] wynde instrument at Westho<sup>r</sup>ndon’,<sup>596</sup> and a 1707 advertisement records that Agutter had ‘lately come to Edinburgh’ where he had set up as a maker of ‘the violin, Bass violin, Tenor Violin, the Viol de Gambo, the Lute Quiver, The Trumpet Marine, the Harp’ and that he also mended these and keyboard instruments.<sup>597</sup>

Edward Norgate is an example of how a musical instrument maker was not restricted to specialised instrument-making activities. Apart from his court post as ‘Keeper of the Organs’, he was also a writer and illuminator of royal letters (becoming Clerk of the Signet in 1638), taught heraldry, was a commissioner of brewing, and as a leading connoisseur was involved in major art acquisitions at a time when authoritative

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<sup>593</sup> 17 February 1660. See Fleming, ‘Hill and Hunt’.

<sup>594</sup> *Selhof*: Lot 23 ‘Un [Violon] de Richard Mearen London’; Lot 65 ‘Un [Basse ou Violoncelle] de Richard Mearens, London’; Lot 90 ‘Un [Viola da Gamba] de Guillaume Bakker, in Oxon. 1673’; Lot 75 ‘Un [Viola Dessus] Northampton 1610’. Instruments owned by the Duke of Chandos (1720) included a ‘Violincello or Bass Violin’ and a viola by Meares. *British Violin*, pp.17, 34. A Meares violin was exhibited at the British Violin Making Association Conference, Dartington (September 2000).

<sup>595</sup> 21 June 1504. *BDECM*, p.170.

<sup>596</sup> Accounts of John Bentley, 7 October 1587. Mateer, ‘Byrd and Petre’, p.26.

<sup>597</sup> *Edinburgh Courant* 13 May 1707, cited in Dilworth, ‘English Sophistication’, p.271.



knowledge of art was still rare in England.<sup>598</sup> Norgate's friend and colleague Nicholas Lanier was another musician whose highly developed tastes and skills in art were recognised through employment at court.<sup>599</sup>

Viols are made principally of wood. The trades which predominantly involve woodwork are carpentry, joinery and turning, but also the more specialised occupations of the coffer-maker, chair-maker, wheelwright, ships carpenter, and many others. Virginal-making was recognised as an occupation to the extent that it was mentioned as the master's trade in apprenticeship bindings, and its practitioners were named by organisations disputing entitlement to certain work,<sup>600</sup> but there was no English guild or company specifically for virginal-makers. This contrasts strongly with the situation in continental Europe. In Antwerp, for instance, although the Guild of St Luke was not exclusively concerned with instrument-making,<sup>601</sup> it regulated the numbers and practices of instrument-makers, and from 1557 membership was compulsory for harpsichord- and virginal-makers.<sup>602</sup>

In parallel with the lack of an English company of virginal-makers, there was no English organisation devoted to the specific interests of viol-makers, violin-makers, lute-makers, harp-makers, trumpet-makers or any other specific or generic musical instrument-makers. It seems there was once a recognised occupation of organ-making,<sup>603</sup> but it was not represented by a guild or company. This lack of any named organisation is significant evidence that instrument making was not the principal

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<sup>598</sup> *BDECM*, pp.833ff. Wilson, *Lanier*, p.61. Auerbach, *Tudor Artists*, pp.135ff.

<sup>599</sup> Wilson, *Lanier*.

<sup>600</sup> E.g. the complaint of the Painter-stainers. See below, p.132.

<sup>601</sup> Its members included painters, engravers, printers, glaziers, goldsmiths, potters, chest-makers and other trades (some of which were mercantile rather than artisanal) as well as musical instrument makers such as the Ruckers family. O'Brien, *Ruckers*, p.6.

<sup>602</sup> O'Brien, *Ruckers*, p.13.

<sup>603</sup> For 'Orglemakers', see below, p.131.

activity of those who did it. Musical instrument-makers are found scattered within the records of many different companies, as are scientific instrument-makers.<sup>604</sup> However, unlike scientific instrument-making, there are records of musical instrument-making in England from at least two hundred years before 1580, so it was not a newly developed occupation which had to be accommodated within existing support and statutory structures.<sup>605</sup> The fact that scientific instrument-making was relatively newly established cannot have been the only reason that practitioners were spread among so many companies<sup>606</sup> because despite the existence of a long-established company, joiners are found in thirty-six different companies.<sup>607</sup> While there was no guild or company which catered specifically for the interests of musical instrument-makers, the dispersal of the practitioners of a particular trade among a variety of companies was far from unprecedented and a named organisation was clearly not indispensable.

At least sixty-six virginal-makers have been identified as members of the Joiners company,<sup>608</sup> which suggests the relationship between joinery and virginal-making was recognised widely. There were many disputes where one company objected to work they considered theirs by right or legislation being taken by members of another company. If virginal-makers had felt that their speciality was under threat, they would have organised themselves into a company to protect their interests. The fact that they

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<sup>604</sup> There may be more than a parallel relationship between the makers of musical and scientific instruments. Henri Arnault de Zwolle, who is well known for his technical drawings of musical instruments, was a pupil of the important mathematical instrument-maker Jean Fusoris (c.1355-1436) and was described in the fifteenth century as a 'builder of clocks and astronomical devices'. Page, 'String-Instrument making', p.49 also mentions Benvenuto Cellini's praise of his architect father's designs for organs, viols and other instruments, but as both Giovanni Cellini (d.1527/8) and Arnault de Zwolle (d.1466) worked neither within the period nor in England, they cannot be considered exemplary of the practices under examination in this study.

<sup>605</sup> Page, 'String-Instrument making'. Turner, *Scientific Instruments*. Crawford, 'Instrument Makers', p.328f. Brown, 'Instrument-making'.

<sup>606</sup> Mostly in London, where scientific and mathematical instruments were made by members of at least forty-five different companies. Crawford, 'Instrument Makers', p.329.

<sup>607</sup> Crawford, 'Instrument Makers', p.328.

<sup>608</sup> Thirty-two apprentices were bound before 1660. *Boalch*, p.715f.

did not is consistent with the ability of members of any company to undertake virginal making. This also applies to viol making.

The closest thing to an English company of instrument-makers appears in a late-mediaeval list (1422) of all the crafts in London.<sup>609</sup> The ‘Orglemakers’ are the penultimate of the one hundred and eleven crafts named in the list. Many specialisms which did not have formal organisations are listed (including Chariotmakers, Lanternmakers, Piemakers, Tablemakers, and Writers of Court Letters), so the inclusion of Orglemakers in the list does not imply that there was a company or guild which regulated organ-makers or looked after their interests. There are no Orglemakers in the ‘list of companies at the mayors feast in 23 of Henry viii’,<sup>610</sup> nor in any other list of companies or guilds I have seen. It is safe to conclude that there was no formal organisation devoted to organ-makers. Page has speculated that mediaeval organ-makers may also have made stringed instruments.<sup>611</sup> Although his evidence refers to an earlier period than is considered here, it does seem highly probable that, as those who made musical instruments may not have specialised even to the extent of restricting their activities to one class of instruments, (such as keyboard, or plucked instruments), this was a standard practice from the earliest times.

In the same way that the term ‘Orglemakers’ describes an activity and not an organisation, the term ‘Virginal-maker’ had some currency. When Isaac Bryne of Bristol took apprentices in the first half of the seventeenth century, he was sometimes

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<sup>609</sup> ‘A list of the names of all the crafts exercised in London from of old, and still continuing in this ninth year of King Henry V’. This list is reproduced in Unwin, *Gilds and Companies*, p.167 and transcribed in *Ibid.*, Appendix A, p.370f. There is no mention of harp-makers, minstrels or any other occupation with musical connotations, apart from the orglemakers.

<sup>610</sup> Stow, *Survey of London*, pp.540-542.

<sup>611</sup> Page, ‘String-Instrument making’, p.49f.

described as ‘virginallsmaker’ and at other times as ‘instrumentmaker’.<sup>612</sup> In a complex complaint by the Painter-Stainers, the fourth of their grievances was

That against all Lawe and reason, The severall Artificers hereafter menc[i]oned doe breake into the Art of Paintinge to the greate deceipte & wronge of the People of this Nation: Such as are Bricklayers, Carpenters, Wyermakers, Boxmakers, Imbroydermakers, Turners, Joyners, Drum makers, Coachmakers, Virginall makers, Plummers, Glaziers, Smiths, Armorors, ... but more especially the Companie of Plaisterers.<sup>613</sup>

Most of the artificers mentioned in this list were represented by formal companies or guilds, but this applies to neither virginal-makers nor drum-makers. Many early modern surnames were derived from, and/or descriptive of, occupations such as Joiner, Carpenter, Turner and Shoemaker.<sup>614</sup> The most common such musical names are probably Harper<sup>615</sup> and Organ/er, although Luter also exists, and there were even people called Viall in Oxfordshire.<sup>616</sup> Most of these names were probably derived from activities as musicians but Harpmaker clearly indicates instrument-making.<sup>617</sup> That no surnames such as Violmaker, Violinmaker or Luthier are known stands as further evidence that these activities were not seen as a principal occupation at the time that such names were evolving.

The nature of guilds and companies was not constant, and several renewed or updated their charters between the early sixteenth century and 1660. Regulations, structures and activities were identical neither for all occupations, nor even for the same

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<sup>612</sup> Goodman ‘Bristol Apprentices’, p.11.

<sup>613</sup> BL, Harl. 1099.

<sup>614</sup> And Archer, Baker, Butcher, Cartwright, Chandler, Draper, Farmer, Fletcher, Furber, Goldsmith, Mason, Miller, Tailor, Turner, Weaver etc etc.

<sup>615</sup> Decorations in the Hall of the London Company of Carpenters include a rebus (1579) of the name of the Master of the company, Thomas Harper, which is a harp. Fairholt, ‘Carpenters Hall’, p.284.

<sup>616</sup> Robert Viall of Shutford made his will in 1587. Oxford Archives 68/3/4. Richard Viall, husbandman, of Tadmarton made his will in 1599. Oxford Archives 68/3/9. His son, Thurston, made a will in 1639. Oxford Archives 68/3/22. Robert Sergiant married Margeret Vyoll on 7 October 1650. Parish register of All Saints, Oxford.

<sup>617</sup> Page, ‘String-Instrument making’, p.46f.

occupation in different cities, and conflict between companies dealing with similar types of work was common. The Joiners and the Carpenters of London, for example, disputed which of them had the right to each of many jobs as narrowly defined as picture-frame making.<sup>618</sup> In seventeenth-century Worcester, however, Joiners and the Carpenters were members of the same company,<sup>619</sup> and in York, the Ordinances of the Carpenters and Joiners, 21 July 1563, said that the company represented a 'Unyon of the crafts' of 'joynars, carpentars, carvers, whelewrights and sawiars'.<sup>620</sup> Although the woodworkers of Newcastle all came under the 'House Carpenter's Company' (incorporated 1582), the joiners split from the carpenters and established the 'Company of Joiners of Newcastle-upon-Tyne' in 1589.<sup>621</sup> Nowhere among all these detailed specifications of woodworking crafts was musical instrument-making considered worthy of a mention as either a principal or subsidiary occupation.

Although the management and regulation of apprenticeship was principally in the hands of guilds and companies, some aspects of apprenticeship had been subject to statutory regulation for many years before 1580. An early sixteenth-century example states that no stranger could take an apprentice who was not English-born.<sup>622</sup> However, the principal statutory instrument that applied 1580-1660, now known as the *Statute of Artificers*, was enacted in 1562/3. A central clause of the act is:

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<sup>618</sup> The dispute was resolved in 1632. Jupp, *Carpenters*, p.295ff. Edward Gault, a trumpeter, may have belonged to neither the Carpenters nor the Joiners, yet he could 'give direction for making of the frames for the pictures: and can guild them also.' India Office Library, East India Company, Factory Records Miscellaneous XXV, 15, cited in Woodfield, *Age of Exploration*, p.26. See also Richard Norrys below, p.167.

<sup>619</sup> Smith, *English Gilds*, p.209.

<sup>620</sup> *York Memorandum Book*, p.279.

<sup>621</sup> Wells-Cole, *Art and Decoration*, p.199.

<sup>622</sup> 14 & 15 Hen.VII.C2. It also stated that strangers' wares would be given identifying marks by wardens of the city. The statute applied within the City of Westminster, and within two miles from the city of London. *Statutes*.

It shall not be lawful for any person, other than such as now do lawfully exercise any art, mystery, or manual occupation, to exercise any craft now used within this realm of England and Wales, except he shall have been brought up therein seven years at the least as apprentice.<sup>623</sup>

The intention of the act was to regularise all urban England to follow the sort of practices that had evolved over preceding centuries as the ‘custom’ of the City of London and other corporate towns, where the regulatory bodies had been guilds and companies. London and Norwich were exempted as their inhabitants were to keep to their established manners and customs, which had been the pattern for the act.<sup>624</sup> According to the *Statute of Artificers*, anyone under the age of twenty-one could be compelled to be bound as an apprentice, but in practice, the act was not systematically enforced in smaller towns and villages, and it was eventually repealed in 1814.<sup>625</sup> The impracticality of expelling established workers who had evaded the system was widely recognised and sometimes, particularly where sons were brought up in a trade by their fathers, people were considered ‘legal’ workmen if they had completed seven years work without formal indenture.<sup>626</sup> Apprenticeship was also seen in part as an answer to social problems such as vagrancy, and Acts of 1597 and 1601 gave justices powers ‘to apprentice children of all parents thought unable to keep them’. These acts also allowed for parish apprentices, where the function was essentially to maintain them and keep them out of trouble, rather than to teach them a trade.<sup>627</sup> Apprenticeship in England 1580-1660 is more accurately described as a form of social control rather than a training scheme.

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<sup>623</sup> 5 Eliz.C4. *Statutes*. The *Statute of Artificers* also required local authorities to regulate wages in many crafts and trades and made 24 the minimum age of completion of apprenticeship.

<sup>624</sup> The only other exemption was Godalming.

<sup>625</sup> Brookes, ‘Apprenticeship’, p.54.

<sup>626</sup> Rule, *Experience of Labour*, p.97f.

<sup>627</sup> Pinchbeck & Hewitt, *Children*, pp.225, 234ff.

The details of apprenticeship varied between companies, cities and over time, but a typical indenture stipulated that an apprentice:

his said master faithfully shall serve, his secrets keep, his lawful commands everywhere gladly do. He shall not commit fornication nor contract matrimony within the said term. He shall not play at cards, dice, tables or any other unlawful games. He shall not haunt taverns nor playhouses, nor absent himself from the master's service day or night unlawfully.<sup>628</sup>

The following table summarises the characteristics of apprenticeship.

<b>The Characteristics of an English Apprenticeship</b>
Binding was by indenture with a recording of the agreement.
The master was usually paid for the binding.
The master provided no remuneration other than board and lodging. <sup>629</sup>
A minimum of seven years had to be served before a trade could be exercised independently.
Completion of apprenticeship conferred a right to exercise that trade.
An <i>in loco parentis</i> relationship was established between master and apprentice, which included the supervision of private life <sup>630</sup> and the right to inflict corporal punishment. <sup>631</sup>
Apprentices were not allowed to marry. <sup>632</sup>

<sup>628</sup> Rappaport, *Worlds*, p.234.

<sup>629</sup> Money or other rewards were sometimes promised on completion.

<sup>630</sup> Carpenters had to ensure their apprentices went to church and behaved, that they did not go to 'Ale houses Taverns Plays Unlawfull Games or Such like' and that they did not grow idle or refuse work. Marsh, *Records of Carpenters*, vol.i, p.viii.

<sup>631</sup> One of the ways the guilds controlled their craft was by the punishment of offenders against their regulations. The usual sanction was a fine, and work could be defaced or destroyed. In 1543 an apprentice was stripped naked in the Hall of the Goldsmith's Company and beaten. Such actions were not rare and could be a reason for apprentices failing to complete their term. Prideaux, *Goldsmiths Company*, p.51.

<sup>632</sup> Apart from the regulations which prevented apprentices from marrying, marriage in England was 'dependent upon the availability of the means of earning a livelihood'. Wrigley & Schofield, *Population*, p.158.

The *Statute of Artificers* made apprenticeship necessary for most trades, but both the starting age and the length of apprenticeships varied widely. The following examination of the ages at which apprenticeships started and finished is necessary in order to describe the careers of viol-makers. The statutory minimum term was seven years, starting at a minimum age of fourteen, and the term could not finish before the apprentice was twenty-four years old. In practice, apprenticeships often started at age sixteen or older, and frequently exceeded the seven year minimum. In sixteenth-century London, the average length of apprenticeship was nearly eight years, and most apprentices did not begin before the age of twenty or attain freedom until twenty-seven or twenty-eight.<sup>633</sup> Apprenticeship in the London company of Longbowstringmakers was usually for seven or eight years, but there are examples from the second decade of the seventeenth century of between ten and thirteen years.<sup>634</sup> Similarly, apprenticeship in the London Carpenters' company was for a minimum of seven years but was often eight, nine or ten years. Carpenters' apprenticeships usually started at eighteen or nineteen but sometimes it was twenty-one or even older.<sup>635</sup> In Southampton, 53% of apprenticeship contracts were for more than seven years in the 1610s, although the proportion declined to 8% after 1670.<sup>636</sup> In Oxford, the joiner Edward Ilberye took seven apprentices for terms of between eight and eleven years, and the musician William Gibbons (father of Orlando the composer) took nine apprentices for terms of between seven and ten years.<sup>637</sup> Mid-sixteenth century Bristol apprenticeship terms were often longer than seven, and sometimes as long as fourteen years.<sup>638</sup> In general

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<sup>633</sup> Rappaport, 'Social Structure', (1983), pp.115-7. 'The canon law tradition ended infancy in the seventh, childhood in the fourteenth, and adolescence in the twenty-eighth year'. Wrigley & Schofield, *Population*, p.216, n.33.

<sup>634</sup> Oxley, *Fletchers*, p.130.

<sup>635</sup> Jupp, *Carpenters*, p.363.

<sup>636</sup> *Southampton Apprentices*, p.xix.

<sup>637</sup> Ilberye's apprentices started between 1571 and 1585/6. Hanaster A.5.3, fols.132, 282, 283, 284, 314v, 335v, 338; the mean length of their term was nine years. Gibbons's apprentices started between 1582 and 1586; the mean length of their term was eight and two thirds years.

<sup>638</sup> *Bristol Apprentice Book*, passim.



therefore, though no doubt with exceptions and variations across the country, if the name on a viol label indicates a formally qualified maker (i.e. one who had completed an apprenticeship), he would be at least twenty-one years old and often twenty-eight or older.

In London (1631) Roger Adson was apprenticed to the musician Ambrose Beeland in the Drapers Company for fifteen years but, like most of Beeland's apprentices, never achieved freedom.<sup>639</sup> This was far from unusual, and in sixteenth-century London the majority of apprentices never completed their term.<sup>640</sup> Some died, others ran away, and many left their master when they felt they had learnt enough to set up on their own account, although this would have to be somewhere beyond the reach of City or Guild regulations (if they had served fewer than seven years as an apprentice in the city). Long apprenticeships were valuable to masters as they provided a source of cheap labour, which is why the number of apprentices allowed to a master was an important feature of company regulations. The apprentices would have been less keen on lengthy terms because of the restrictions on their personal life, but failure to complete a specified term could mean missing the benefits of Freedom, permission to trade, and any money, clothes or tools that had been agreed. I found no indication that the length of a term was related to the nature of the trade, in any city.

Perhaps because they were predominantly unmarried young men of the lower 'sorts', apprentices had something of a poor reputation, although Rappaport found no evidence of riots nor an 'epidemic of instability for which, we are told, London was

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<sup>639</sup> *BDECM*, pp.9, 140. Beeland was a City Wait, and a Tenor Violin at court 1639-1642 and after the Restoration. Adson was not the only musical apprentice taken by Beeland. *BDECM* p.139.

<sup>640</sup> Only 41% of 44,169 apprentices who started between 1490 and 1599 completed their term. Rappaport, *Worlds*, p.311. Of 47 apprentices to mathematical instrument-makers in the Grocers' Company before 1660, only 20 became free. Brown, 'Instrument-making', p.9.

notorious'.<sup>641</sup> The common view was that apprentices were the: 'dreggs, and branne of the vulgar: fellowes voyd of worthy blood, and worthy breeding ...the ordinary balls, plaid (by the hand of Iustice) into the *Bridewells*, ...yea perhaps, not Apprentices at all, but forlone companions, masterlesse men ...who preying for mischiefe, and longing to doe it, are indeed the very Authors of all that is vile....'. This was passionately repudiated by Edmund Bolton who cited royal patronage, lack of condemnation in *The Governour* and the mutual nature of indenture, among the factors which rendered apprenticeship a respectable condition.<sup>642</sup> Even Bolton accepted that 'Apprenticeship, as it is a degree, so is it the lowest degree, or classe of men in London.' However, he chose to view the glass as half full rather than half empty, asserting that apprenticeship was 'but a stage' in reaching a higher degree.<sup>643</sup>

As we have seen, the nature of guilds and companies in seventeenth-century London was such that no relationship between the nominal identity of a company and the occupations of members was either required or expected. It was common, even usual, for the company which a man joined to bear little or no relation to the work he did.<sup>644</sup> A company was more likely to be chosen because of its status, because it was affordable, or because personal connections would ease entry, rather than because it controlled a particular occupation. A Clockmakers Company was established in 1631, but only a small proportion of mathematical instrument-makers chose to join that company<sup>645</sup> rather than another, perhaps because it was an offshoot of the Blacksmiths,

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<sup>641</sup> Rappaport, 'Social Structure', (1983), p.107f. However, apprentices and journeymen rioted against aliens living in the city in 1517. Ibid., p.111.

<sup>642</sup> Bolton, *Cities Advocate*, 'Epistle Dedicatory' and passim.

<sup>643</sup> Bolton, *Cities Advocate*, p.38.

<sup>644</sup> In a court case the artist Rowland Locket described himself 'as a citizen and Armourer of London', showing that he had followed the not uncommon practice of securing his freedom of a City company by patrimony: but he is 'vsinge and professinge for his livinge... the Arte and skill of lymeinge and drawinge of pictures.' His father was a crossbow-maker. Edmond, 'Limners', p.97.

<sup>645</sup> Which most closely approached a description of their activity.

or because it was lower status than the Grocers, where many are found.<sup>646</sup> It is therefore no surprise that the distinguished musician and composer John Bull became a Freeman of the prestigious Merchant Taylors Company in 1606, although he was no tailor.<sup>647</sup> The Merchant Taylors were important enough to have the King, the Prince of Wales, and many Courtiers as guests at a feast they held in 1607.<sup>648</sup> At the feast the prince said he would not only become free of the Company himself but also required any lords present that were not already free of other companies to follow his example ‘whereupon three ambassadors, eighteen nobles and some seventy gentleman signified their willingness to do so.’<sup>649</sup> Admittance to such a high-status Company would represent a very significant advancement for a humble musical instrument-maker<sup>650</sup> such as William Bull, a court trumpet player and maker, who was the son of a carpenter. He was apprenticed in the Haberdashers Company, another of the ‘Twelve Great Livery Companies of London’,<sup>651</sup> in 1664 and his son rose to be a fellow of Corpus Christi College, Cambridge, and vicar of Brasted, Kent.<sup>652</sup>

All viol-makers, in the absence of evidence to the contrary, must be assumed to have belonged to the third ‘sort’ alongside other artificers. Instrument-makers were socially inferior to most of their clients,<sup>653</sup> although some evidence that instrument-makers

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<sup>646</sup> Brown, ‘Instrument-makers’, pp.12ff. Crawford, ‘Instrument Makers’.

<sup>647</sup> 15 December 1606. *BDECM*, p.208. He was also involved in supplying, tuning, building and advising about organs. *BDECM*, pp.209, 211.

<sup>648</sup> Unwin, *Gilds and Companies*, p.198. They were welcomed by verses devised by the poet Ben Jonson, John Bull played on a ‘very rich paier of organs’ all through dinner, and other music was provided by men and children of the Chapel Royal.

<sup>649</sup> Unwin, *Gilds and Companies*, p.199.

<sup>650</sup> Similarly, the carver Grinling Gibbons was admitted to the Drapers’ Company in 1672, no doubt in part because of the ‘strong social advantages to membership’. Esterly, *Gibbons*, p.61. The violin-maker Robert Cuthbert became free of the prestigious Goldsmith’s Company in 1660. *British Violin*, p.27.

<sup>651</sup> Herbert, *Livery Companies*.

<sup>652</sup> Byrne, ‘Bull’, pp.67, 70.

<sup>653</sup> They would not necessarily be inferior to waits or itinerant musicians, but would be inferior to many court or noble house musicians.

could be assigned to a higher 'sort' than mere artificers is discussed below.<sup>654</sup> As superiors in both a commercial, and commonly in a social sense, any ideas that a client might express about how an instrument ought to be would take precedence over the views of a maker. The idea that an instrument-maker might be an inspired genius or an artist with a vision about the form of his instrument is utterly alien to this culture. The maker served the client, so the client, if he so wished, was the ultimate arbiter for all aspects of design. This could have an impact on major features such as size, shape, number of strings, tuning, materials and decoration. A client would not, however, be likely to express, or even to have, an opinion about matters such as constructional techniques.

Apprentices came from a wide range of origins. Some were poor orphans or the children of labourers, while others were the younger sons of gentry, but boys of different 'sorts' were not equally likely to have the same master. Parents were encouraged by some visionaries such as Thomas Fuller to choose a trade to match the natural inclinations of the child, but in practice the selection was dominated by cost and status.<sup>655</sup> Family background and connections were other factors which affected a boy's chance of acceptance as an apprentice into the more desirable Companies.<sup>656</sup> In early seventeenth-century London, 17% of Haberdashers' apprentices had fathers who claimed the rank of gentleman or above, compared with only 2% of Carpenters.<sup>657</sup> Apprentices whose fathers were described as 'gent' were increasingly well represented during the period, but this was always much more pronounced in the more prestigious wholesale and retail trades than in the handicrafts, where there was hardly any increase at all. Even in most prestigious trades the proportion of 'gents' was below 20%, and

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<sup>654</sup> See Appendix 10e, and below, p.190f.

<sup>655</sup> Earle, *Middle Class*, p.92.

<sup>656</sup> Rappaport, 'Social Structure', (1984), p.121.

<sup>657</sup> Brookes, 'Apprenticeship', p.70.

the majority of gentry apprentices came from families who occupied the borderline between the yeomanry and the greater gentry.<sup>658</sup> Furthermore, many fathers may have styled themselves ‘gent’ just in order to enhance the acceptability of their son to a particular company.

Documents which record the fathers’ occupation of longbowstringmakers who started their apprenticeship in London 1604-1618 survive. The fathers included thirty-three yeomen and one musician but there are no hereditary longbowstringmakers among the one hundred and twelve apprentices, whose fathers followed a total of thirty-seven different occupations.<sup>659</sup> This is extreme, almost as if the fathers were making desperate efforts to avoid having their sons continue their trade, but the disjunction of trade across generations was not unique to longbowstringmakers. The financial and status considerations mentioned above meant that it was common, and in the case of London a change of trade may have been the norm, partly because some trades were available there that could not be sustained in the country. Nor was this disjunction between the occupations of father and son limited to London. In Southampton, the proportion of occupations shared by father and child was just 9% in the 1610s and increased only to 27% after 1670.<sup>660</sup> In Bristol, it was not usual for the apprentice to be bound into the same trade as the father,<sup>661</sup> and Hanasters show that sons who followed their father’s occupation were a small minority in Oxford.<sup>662</sup>

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<sup>658</sup> Brookes, ‘Apprenticeship’, p.61f.

<sup>659</sup> Oxley, *Fletchers*, p.135.

<sup>660</sup> *Southampton Apprentices*, p.xxxiv.

<sup>661</sup> *Bristol Apprentice Book*, passim.

<sup>662</sup> Hanasters A.5.3, L.5.1, L.5.2, L.5.3, passim. Of William Gibbons’ apprentices, the father of one was a musician (i.e. himself) and the others were four tailors, two husbandmen, a yeoman and a butcher.

All grants of freedom of the city of York were recorded in registers which are complete and extant,<sup>663</sup> so York can be used for a case study of inherited occupations. As in most cities, freedom was obtained in one of three ways: by Servitude, meaning the full apprenticeship had been served; by Patrimony, i.e. as the child of a freeman; or by Redemption, where freedom was obtained by purchase or was given as a reward for some service rendered to the city.<sup>664</sup> The freedoms given in the York register with no indication of reason were probably all by apprenticeship as freedom by both redemption and patrimony is noted. In the case of freedom by patrimony, the occupations of both fathers and sons are usually stated, so it is possible to calculate the frequency with which sons followed their father's trade.

Appendix 8b shows all three hundred and twenty-five admissions to the freedom of York by patrimony at ten year intervals from 1540 to 1680. These data show that fewer than half the sons followed the same trade as their father. In the case of musical occupations (minstrels, musicians, and instrument-makers) it was even less likely for the occupation to pass from father to son. Among all the grants of freedom from 1540-1690 there were exactly one hundred cases where at least one of the father or son followed a musical occupation.<sup>665</sup> Of these, fifty-one were by patrimony and in just sixteen of these cases (31%) both the father and son were in musical occupations. That a musical occupation was less likely than average to be passed from father to son is not what might be predicted on the basis of the situation in sixteenth- and seventeenth-century London where several families of musicians were continually prominent in court positions for successive generations.<sup>666</sup> Among the instrument-makers gaining the freedom of York, in only one of six instances did a son follow his father's

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<sup>663</sup> Transcribed in *Freemen of York 1* and *Freemen of York 2*.

<sup>664</sup> *Freemen of York 1*, p.xiii.

<sup>665</sup> *Freemen of York 1* and *Freemen of York 2*.

<sup>666</sup> Holman, *Fiddlers*, passim. It is also not what is suggested by the many dynasties of violin-makers.

occupation and become an instrument-maker. There are too few cases for statistical significance, but this does suggest an even smaller likelihood of the inheritance of instrument-making than other musical occupations. That this was not a new phenomenon in York is shown by the fact that none of the seven organ-makers who took up the freedom of the city between 1431-1488 seem to have been related to one another or to have had, or have been, descendants following the same trade.<sup>667</sup>

With one possible exception, the only evidence that even the most revered viol-makers might have been anything other than ordinary artificers is their occasional designation as ‘Mr’. This is a form of address to which only gentlemen were entitled, but it was applied very loosely,<sup>668</sup> and this encouraged many who did not meet the semi-formal criteria for gentility to use it. Even some of the less important workers on building sites were styled ‘Mr’,<sup>669</sup> so the term is very far from a conclusive indicator of social position. It is much more probable that all viol-makers, or at least the overwhelming majority, were common artificers and belonged to the lowest ‘sorts’. The relative unattractiveness of the trade to families who had achieved gentle status is shown by examination of apprentices’ fathers’ occupations. Entering the trade of musical instrument-making might represent an improvement in personal circumstances for a day labourer or itinerant musician who would normally be considered as of the fourth ‘sort’, but for most people it would simply be a maintenance of the *status quo*. I found no proof that the father of any viol-maker active before 1660 was of higher status than Yeoman, although Sir Robert Bolles would qualify if it could be shown that it was his son that Mace praised.<sup>670</sup>

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<sup>667</sup> Page and Jones, ‘Representations’, p.153.

<sup>668</sup> Some people appear variously with and without the title within a single set of accounts or even a single document.

<sup>669</sup> Airs, *Country House*, p.165.

<sup>670</sup> Mace, *Musick’s Monument*, p.245. See below, p.190f.

In 1689 a contract was signed by Nathaniel Agutter of Higham Ferrers (Northamptonshire), Gent., and ‘Ralph Agutter of the parish of St George Southwerk in the County of Surrey Violin Maker sone and heir of the said Nathaniel Agutter’.<sup>671</sup> Ralph Agutter’s date of birth is not known but as his first child was christened in 1672, he might have been born c.1650.<sup>672</sup> The fact that his father was described as a gentleman could have implications for Ralph’s education and attitudes, but as his apprenticeship and working life was probably entirely after 1660, he is not exactly relevant to this thesis. Yet, as far as I have been able to discover, he is the first, and possibly only, seventeenth-century string instrument-maker whose father was described as a gentleman. Ralph himself was called ‘Mr.’ in an advertisement in The London Gazette, 11 June 1685,<sup>673</sup> and on several occasions other makers were referred to by this title,<sup>674</sup> but it must be emphasised that this is no guarantee of status. Unless John Ross/Rose was the entertainer of the Duchess of Suffolk in 1561,<sup>675</sup> the first time he was called ‘Mr’ was the posthumous advertisement of viols made by him,<sup>676</sup> and most viol-makers are called ‘Mr’ only in documents that use the title indiscriminately.

Thomas Mace would certainly have considered himself a gentleman writing for others of his sort, yet he provided instructions for complex lute repairs to be executed ‘*by your self, or by your own Directions to any Country Work-man*’.<sup>677</sup> That Mace made at

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<sup>671</sup> The document (26 February 1689) concerns a mortgage of Irchester Rectory, Northamptonshire. Northampton Record Office, O.314.

<sup>672</sup> Dilworth, ‘English Sophistication’, p.268. See above for why he might have been born earlier.

<sup>673</sup> See Appendix 7a.

<sup>674</sup> To those mentioned in Fleming, ‘Points arising’ may be added Mr George Mashrother (Chatsworth, Bolton MS.97 fol.199v), Mr John Ward of York (Chatsworth, Bolton MS.177 fol.190), ‘To Mr Vaux for harpsicall strings’ (HMC 78 Hastings MSS, vol.I, p.376, cited by Woodfill, *Musicians*, p.263), and ‘Mr Thom. Aldred’, (Chatsworth, Hardwick MS.29, f.269). Hulse transcription.

<sup>675</sup> See below, p.180.

<sup>676</sup> In *Tripla Concordia: Or, A Choice Collection of New Airs, in Three Parts. For Treble and Basse-Violins*, (1677).

<sup>677</sup> Mace, *Musick’s Monument*, p.55-61.



least one instrument is shown by his description of the ‘Dyphone or Double-Lute’ as ‘made with *My own Hands*, in the *Year* 1672.’<sup>678</sup> Although Mace gave these instructions, he recognised that many of his readers would consider such work to be ‘a *Thing* too far below Them to undertake’, but he offered the advice anyway so that at least those who were ignorant of such matters could avoid being ‘*Gull’d*’.<sup>679</sup> Mace was pleased to describe the biblical King David as an instrument-maker, but he definitely classed organ-makers as inferior to himself.<sup>680</sup>

The likelihood of makers coming from other than the lower sorts of people became significantly greater after 1660 in line with the general development of the place of apprenticeship within society. Just after 1660, Richard Hudson, who was described as a ‘gent.’ when he married in 1641/2, was appointed ‘keeper of his Majesty’s lutes and viols’.<sup>681</sup> Although it is unlikely that a gentleman would be an instrument-maker, there were numerous such people with responsibilities for the supply or maintenance of instruments at court who could claim gentle status and would therefore be considered to be of the ‘second sort’.<sup>682</sup> To these should be added any who were Gentlemen of the Chapel Royal.

How much hands-on experience of making they had is not clear, and undoubtedly it varied according to the circumstances and skills of each individual. Some may have made instruments entirely by themselves, others may have sub-contracted some or all of the work to others. A person might have felt able to work on one broad category of instrument (e.g. bowed or plucked) but have sent work on other types of instrument

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<sup>678</sup> Mace, *Musick’s Monument*, p.203.

<sup>679</sup> Mace, *Musick’s Monument*, preface.

<sup>680</sup> Mace, *Musick’s Monument*, ‘An Epistle to all Divine Readers’, and p.11.

<sup>681</sup> Appendix 10c.

<sup>682</sup> Appendix 10e.

(e.g. brass) to people with appropriate knowledge and skills. It is likely that most instrument players and all designated makers would have had sufficient generic skills to do routine repairs, at least, on many types of instrument. It made sense for the court to pay someone like John Hingeston, who was primarily a composer and musician (especially a keyboard player), for the specific responsibilities of tuning and repairing keyboard instruments.<sup>683</sup> Hingeston's official positions were described in many ways but essentially he had two places, one as a viol-player and the other in charge of instruments.<sup>684</sup> It is true that a court post often represented a financial benefit rather than a participatory activity,<sup>685</sup> but the nature of Hingeston's skills and the activities for which he was paid suggest a close connection in his case.<sup>686</sup>

The last warrant listed in Appendix 10d proves that at least some of the work was sub-contracted outside the court. Hingeston's employment at court started in 1660, but records show similar practices there in the previous century. In 1579 for instance, Edmund Schettes was paid for putting a pair of virginals into playing order after transporting them from Greenwich to Whitehall and back so they could be painted by Lodowijke Theewes.<sup>687</sup> Payments to Hingeston quoted in Appendix 10d, and another recorded by the Treasurer of the Chamber for 'stringing, penning, and repairing

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<sup>683</sup> On his death these responsibilities passed to his apprentice, Henry Purcell. 'Warrant to swear and admit Henry Purcell in the place of keeper, mender, maker, repairer, and tuner of the regals, organs, virginals, flutes and recorders and all other kinds of wind instruments whatsoever ... and assistant to John Hingeston, and upon the death or other avoidance of the latter, to come in ordinary with fee. 10 June 1673'. *RECM*, vol.i, p.126. The last clause was actuated on 17 December 1683. *RECM*, vol.i, pp.208, 232 and vol.v, p.82

<sup>684</sup> Appendix 10c.

<sup>685</sup> An example is a petition of Emilia Lanier against Clement Lanier 19 February 1634/5. Emilia inherited from her late husband Captain Alphonso Lanier 'a patent for carrying loads of hay and straw: 6d for every load of hay and 3d for straw' which she surrendered to her brother but had not received the full financial compensation agreed. *RECM*, vol.viii, p.111.

<sup>686</sup> Appendix 10d.

<sup>687</sup> 'from Grenewiche to Whitehall for a payre of virginalles paynted whiche Lodowicke at hir Ma<sup>ts</sup> Comanndem<sup>t</sup> and from thens backe ageyne for himself his man and trymmyng them...', *RECM*, vol.vi, p.121. Theewes was a harpsichord maker from Antwerp who was established in London but not employed directly by the court. *Boalch*, p.191. (This spelling of Theewes's surname follows Darryl Martin, 'Two Elizabethan Virginals?', *GJSJ*, vol.liii, (April 2000) p.166, n.27.)

Harpsichords, preparing an Organ in the Banqueting-house, and mending the Organ at Whitehall, and other services'<sup>688</sup> suggest, but do not prove, that he himself worked on keyboard instruments.<sup>689</sup> Yet at exactly the time (1621-1645) he was working for Francis Clifford, fourth Earl of Cumberland, his employer paid other instrument-makers from Hingeston's home city of York,<sup>690</sup> and not Hingeston himself, to provide and maintain his keyboard and other instruments.<sup>691</sup>

Hingeston's predecessor Edward Norgate<sup>692</sup> seems to have been personally involved in work on instruments. His skills as an artist were employed for 'gilding and painting the new organ at Hampton Court' in 1637, but the woodwork was done by the 'joiners, carvers and others ymployed in repairing the s[ai]d organ' who were paid at the same time.<sup>693</sup> Such collaboration is often found where instruments are large and complex, particularly organs.<sup>694</sup> It is not clear whether it was Norgate who executed the carved work in the organ loft at Hampton Court, or whether he was paid to have someone else do it.<sup>695</sup> Robert Henlake, a predecessor of Norgate, appears to have been even more intimately involved with the actual making because £20 was 'paid unto him for a payre of Virginals by him made for her Ma<sup>ty</sup> use' in 1607/8, and he was also paid 'for his pains ... being sent ... to repaire a wind Instrm<sup>t</sup> for her ma<sup>ty</sup>,'<sup>696</sup> These records may indicate a gradual decline in the amount of hands-on instrument work that holders of

<sup>688</sup> From 29 September 1667 to 25 March 1669.

<sup>689</sup> 9 April 1669. *RECM*, vol.v, p.162.

<sup>690</sup> Including George Mashrother. See below, pp.200ff.

<sup>691</sup> Hingeston seems not to have received money for this employment although he was provided with 'livery, board and lodging in return for his services.' Hulse, 'Hingeston', p.23.

<sup>692</sup> Edward's son Arthur held the post of Keeper and Repairer of Organs jointly with his father in 1642, but at the restoration in 1660 it was Hingeston who had the place, possibly because Arthur had died during the interregnum. *BDECM*, p.833.

<sup>693</sup> *RECM*, vol.iii, pp.89, 94, 154.

<sup>694</sup> In 1611 Rowland Buckett 'paynter' was paid for 'gilding the organ and payntinge of the timber worke of the greate stayres and for gilding and workeing of the naked boyes and lyones standinge uppon those stayres, houldinge of instruments and his Lordshipps armes'. *HMC, Calendar of the Manuscripts of...the Marquess of Salisbury*, xxiv (1976), p. 204.

<sup>695</sup> 21 January 1638/9. *RECM*, vol.iii, p.101.

<sup>696</sup> *RECM*, vol.iv, p.199, p.200.

instrument posts at court undertook. Such a decline would be consistent with the gradual professionalisation and increasing specialisation of many occupations during the seventeenth century, especially after the Restoration.

Hingeston was paid for a 'Base Vyall for the Private Musicke' in 1662<sup>697</sup> as well as for other viol work mentioned above, but most holders of court instrument-making (or keeping) posts seem to have had no connection with viols.<sup>698</sup> This does not mean that they would decline to do minor repairs, but the musicians who used the instruments might have been just as capable. The musicians who were to use instruments would expect to take the lead, or at least be involved, in their acquisition. It was common for the people whose musical posts at court did not specify any responsibilities for instruments to be involved in their acquisition, manufacture and maintenance.

Unfortunately, it is usually impossible to tell whether a payment was made to the person who carried out work or whether it went to an intermediary.<sup>699</sup> A warrant assigned 50s. to 'John Heydon, one of his Ma<sup>ts</sup> Musicons [tenor violin], in the behalf of himselfe and his fellowes, for mending the Violins w<sup>th</sup> Bowesticks and other necc[essit]ies'.<sup>700</sup> This could mean either that he carried out repairs and supplied accessories, or that he simply obtained the bows &c and thereby made the violins usable. The lutenist Robert Johnson was nominally employed as a 'Lute', which signified a musician, but also undertook responsibility for maintaining Prince

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<sup>697</sup> *RECM*, vol.v, p.119.

<sup>698</sup> Within the period 1580-1660 these were William Treasurer, Edmund Schettes, Robert Henlake, Andrea Bassano, Edward and Arthur Norgate, and Thomas Craddock.

<sup>699</sup> William Lewes was an instrument maker at court. Sometimes he was paid directly, but on 14 Feb 1530/1 £8 6s 8d was 'paied to phillip [van Wilder] of the Chambre, for willm Lewys for 5 payer of Virginalles'. *BDECM*, p.722. See also Payne, 'Provision', pp.5, 6, 7, 8.

<sup>700</sup> 14 December 1621. *RECM*, vol.iv, p.110.

Charles's lutes,<sup>701</sup> and received 10s. for mending his 'base' lute in 1617.<sup>702</sup> This, too, is open to alternative interpretations regarding who carried out the work. However, another warrant states unambiguously that £60 was 'to be paid to Cuthbert Collins, his Majesty's trumpeter, for twenty trumpets made by him'.<sup>703</sup> Collins did not have a post as an instrument-maker, but he did make instruments. A later court trumpeter, William Bull (c.1650-1712) was also employed by the court as a trumpet-maker, and included this fact in his advertisements to the general public, but such completely unambiguous records of instrument-making by court musicians within the period 1580-1660 are very rare.<sup>704</sup> John Bull was involved in the supply of instruments although he did not have any formal responsibility for them, and he probably did not make them. This is shown by a Privy Council warrant excusing Thomas Boultele from military service 'he being used and employed in her Majestie's service by Mr. Dr. Bull, her Majestie's Musition, in making of musicall instruments',<sup>705</sup> a clear example of instruments being made for a court musician by someone with no formal court post, and by Bull's failed attempt in 1609-10 to supply an organ for Archduke Albert, Governor of the Spanish Netherlands.<sup>706</sup>

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<sup>701</sup> *BDECM*, vol.ii, p.631.

<sup>702</sup> He was paid at the same time for the supply of a lute, three books and 'Jerman', 'Romish' and other strings. *RECM*, vol.iv, p.219.

<sup>703</sup> 22 February 1639/40. *RECM*, vol.iii, p.104 and vol.viii, p.126.

<sup>704</sup> *BDECM*, p.213f. Byrne, 'Bull', p.67.

<sup>705</sup> 7 January 1598/9. *RECM*, vol.viii, p.49. There might be a connection between Boultele and 'a passenger called Boulton' who was examined for the Privy Council, 3 February 1607/8. James Beversham and William Sandford reported that '[we] cannot discover Boulton to be either Jesuit or priest but one born in Holderness nigh Hull, skilful in music and desirous to have seen Holland or Spain.... We...find in Boulton's trunk certain instruments for the amending of virginals, singing books and such like...'. *HMC*, Salisbury (Cecil) MSS, vol.xx, p.43. However, it is more likely that Boultele should be identified with Tom Boulte who was paid 18d for viol strings on 12 March 1600, and 3s in January 1603 'for Violl stringes and a bow for mie base Violl'. Washington, Folger MS 1772.1, cited by Mateer, 'Byrd and Petre', p.28. Boulte may have been related to a musical servant of Sir William Petre, Tom Bolt. *Ibid.*, pp.28, 32f. The broken Hampton Court organ, portatives and regals were sold to John Boulton, a goldsmith, on 22 November 1649. Gouk, 'Instruments', p.397f. A virginal in Warrington Museum was made by Thomas Bolton, 1684, but no relationship with Petre's servant has been established. *Boalch*, pp.20, 249.

<sup>706</sup> *BDECM*, p.209.

The impact that provision of information or patterns by the commissioners and purchasers of viols might have on visual aspects of viol design was discussed in Chapter 3. Having established the origins and organisation of viol-makers, it is now necessary to characterise their capabilities, particularly literacy and numeracy, as these determine the extent to which they would be able to comprehend or make use of texts or formalised design schemes.

The nature and standard of educational provision varied according to social position. While apprenticeship could be treated as a stage on the way to higher things, principally for the sons of gentry in mercantile occupations, apprentices were not expected to be learned, and were often not even literate. Kempe wrote that the education of children was important, ‘yet such is the corruption and iniquitie of our time, that most men are found very carelesse and slake to do their duetie therein’.<sup>707</sup> The proposals of most educational reformers in the sixteenth and seventeenth centuries were focused on schools. Schools were not seen as the natural place for artificers, but Samuel Hartlib suggested four different sorts of schools, the first of which was ‘for the vulgar, whose life is mechanical’, the second being for the ‘gentry and nobles, who are to bear charges in the commonwealth’.<sup>708</sup> Milton suggested that practitioners such as architects and engineers might pass on their skills in schools,<sup>709</sup> but the authors he recommended, who included Quintilian, Aristotle, Plato and Cicero, would be unlikely to appeal to artificers such as joiners or carpenters.

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<sup>707</sup> Kempe, *Education*, [dedication].

<sup>708</sup> The third sort was for ‘scholars who are to teach others humane arts and sciences’, and the fourth for ‘the sons of prophets who are a seminary of the ministry.’ Hartlib, *Considerations*, p.21f.

<sup>709</sup> Milton, *Of Education*, p.5.

Schools primarily taught Latin, but many were of poor quality with teachers who were barely older and more literate than pupils,<sup>710</sup> and their teaching of Latin was conspicuously unsuccessful. Robert Record wrote the first book on geometry in English because ‘many, and especially those about the Court, do not understand Latin.’<sup>711</sup> A continental visitor to Eton in 1599 ‘could not discover a single student able to talk to me in Latin’.<sup>712</sup> John Bull had degrees from both Oxford and Cambridge, but when he was appointed the first Gresham Professor of Music and started lecturing in 1597, he had a special dispensation to speak in English as he was unable to lecture in Latin,<sup>713</sup> and Shakespeare, who had attended the free grammar school in Stratford-upon-Avon, left with ‘small Latin, and less Greek’.<sup>714</sup> Yet Latin was the international language of scholarship, many formal and official documents were written in Latin, and university lectures were usually given in Latin.<sup>715</sup> Many books in Latin were written, published and bought, although the mere possession of a book, even today, is no guarantee that it has been read.<sup>716</sup> Overall, only a small proportion of adults had the skill, the inclination and the opportunity to use secular Latin (or other foreign language) texts, and among these, artificers (including viol-makers) were extremely rare. They were therefore immune from continental writings about architecture and art as well as those about music, mathematics or musical instruments, including the works of Alberti, Vitruvius, Palladio, Serlio, Lomazzo,

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<sup>710</sup> O’Day, *Education and Society*, p.58. In 1642 the teaching profession was still in desperate need of reform, according to Fuller. ‘There is scarce any profession in the Commonwealth more necessary, which is so slightly performed.’ *Holy State*, p.109.

<sup>711</sup> Recorde, *Pathway*, [dedication]. For a similar observation, see Harrison, *Description*, p.228 and n.6.

<sup>712</sup> Platter’s *Travels*.

<sup>713</sup> Chartres & Vermont *Gresham*, p.17.

<sup>714</sup> Jonson, *Shakespeare*.

<sup>715</sup> Some concepts involved in instrument-making were not thought too arcane for early sixteenth-century Latin learners: ‘Boxen pypes be lyghtlyer tyrlde through/ or made holowe:than yuery pypis’. Horeman, *Vulgaria*, p.108. ‘A man never so cunynge in his craft:can nat do his parte very wel if he lacke his tooles’. Ibid., p.236. ‘I wolde haue an instrument to boore yuery’. Ibid., p.237.

<sup>716</sup> Especially when it is a work that is perceived as prestigious to own but difficult to understand, such as Stephen Hawking’s *A Brief History of Time*, (1988).

Dürer, Gerle, Agricola, Praetorius and Mersenne,<sup>717</sup> until English translations were available, although they could look at any illustrations.

Even the ability to read English was far from universal among artificers. In the mid-sixteenth century over half of the senior members of the Carpenters Company were unable to sign their name.<sup>718</sup> Literacy was not essential for artificers and craftsmen to carry out their work successfully,<sup>719</sup> and although some people of this sort are listed among those who attended grammar schools, the majority of grammar school pupils were of higher status.<sup>720</sup> The fact that Elizabethan and Stuart culture produced literary achievements as great as those of Shakespeare and Milton obscures the fact that more than two thirds of men and 90% of women could not even write their own name at the time of the civil war.<sup>721</sup> Levels of literacy closely mirrored social status, although the social position of any particular person is far from an infallible predictor of literacy. As Cressy writes: ‘The gentle and clerical elite were well distanced from the yeomen and tradesmen, who in turn maintained a solid superiority over the husbandman and labourers. Women were mostly illiterate.’<sup>722</sup> Even among people of the first and second ‘sorts’ there were many who signed only with a mark,<sup>723</sup> and ‘even among the social elite it was not absolutely necessary to have full possession of literacy. ...Gentility was not revoked by illiteracy, although it may well have been inconvenienced.’<sup>724</sup>

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<sup>717</sup> Those which were in not Latin were in equally incomprehensible foreign languages. Praetorius published *De organographia* in German because ‘makers and players of organs and instruments are for the most part not conversant with the Latin language’. Praetorius, *Syntagma Musicum*, p.9.

<sup>718</sup> Shelby, ‘Education of masons’, p.3.

<sup>719</sup> Cressy, *Education*, p.4.

<sup>720</sup> Powell & Cook, *Facts*, p.136.

<sup>721</sup> Cressy, *Literacy*, p.2.

<sup>722</sup> Cressy, *Literacy*, p.119.

<sup>723</sup> Heal & Holmes, *Gentry*, p.258. Cressy, *Literacy*, p.57.

<sup>724</sup> Cressy, *Literacy*, p.123.



Before 1660 the majority of London apprentices were young men from rural areas and from the smaller provincial towns and villages. The majority of the increase in the population of London (from about 55,000 in 1520 to 475,000 in 1640) has been attributed to the influx of apprentices from outside London.<sup>725</sup> Therefore the education of apprentices should be seen in the context of rural and small-town practices and standards rather than those of London and the larger cities. Apprentices in London were less illiterate than elsewhere,<sup>726</sup> but individuals' levels of literacy mirrored closely the requirements of their particular occupation, so a London woodworker would still be unlikely to be able to read.<sup>727</sup> According to Eisenstein, 'Even ... where letters were mastered by shopkeepers' sons, apprenticeship learning and unwritten recipes were the customary channels for transmitting the tricks of all trades.'<sup>728</sup> The absence of certainty about the level of literacy required for instrument-making means that the literacy of apprentices brought up in that trade cannot be detailed, but the extreme rarity of books or documents in the inventories of instrument-makers and joiners,<sup>729</sup> combined with the complete absence of any documentation relating to the component activities of musical instrument-making (apart from records of payments for the supply and maintenance of instruments), implies that literacy was both unnecessary and unusual among viol-makers.

The general state of numeracy resembles that of literacy. There is no good reason to believe that English viol-makers of this period had sufficient mathematical education

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<sup>725</sup> Brookes, 'Apprenticeship', p.55. Recruitment through apprenticeship reached a peak in most towns by 1640 and declined thereafter. Ibid., p.63.

<sup>726</sup> Cressy, *Literacy*, p.129.

<sup>727</sup> It is not known whether literate youths were recruited when necessary or if they learnt on the job, so it is unclear whether this association is a cause or effect. Cressy, *Literacy*, p.134.

<sup>728</sup> Eisenstein, *Printing Press*, p.553. Not all skills were passed on even this way. Fuller noted that 'Some Artisans will have their cunning die with them. That none may be the better for it, and had rather all mankind should lose, then any man gain by them.' *Holy State*, p.121.

<sup>729</sup> See Appendix 6. This will also be discussed in Fleming, 'Other lumber'.

to devise or implement the complex types of scheme suggested by Coates *et. al.*<sup>730</sup> Almost no books were available to teach mathematics in schools until Robert Recorde's publications in the mid-sixteenth century.<sup>731</sup> These focussed on 'casting accounts' and arithmetic (for which literacy was unnecessary). Arithmetic was not part of the core school curriculum and was sometimes available only at extra cost, as indeed was writing.<sup>732</sup> Basic innumeracy was an 'ordinary defect', wrote John Brinsley in 1612. 'I call it ordinary because you shall haue schollars, almost ready to go to Vniuersity, who yet can hardly tell you the number of pages, sections, chapters, or other diuisions in their books, to find what they should.'<sup>733</sup> Here Brinsley states clearly that the inability even to read numbers was common among people who reached a much higher level of formal education than the majority of the population, and implies that the usual standard was even lower. Mathematical competence was neither usual nor expected. According to one late Elizabethan author: 'arithmetic, music, geometry, and astronomy ... are now smally regarded [in both Oxford and Cambridge universities].'<sup>734</sup> The low status of mathematics among university-educated people was emphasised in 1570 when Sir Henry Savile identified indifference as the primary reason why the standard of Oxford mathematics was lower than previously. For the average student, wrote Savile, 'mathematics just does not seem an important component of his education'.<sup>735</sup> This high-level innumeracy is confirmed by the regulations for the chair of geometry which Savile established at Oxford in 1619. Apart from lecturing, the professor had to teach simple numerical calculation to scholars. Such provision of remedial mathematics for undergraduates shows how

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<sup>730</sup> See above, Chapter 1.

<sup>731</sup> Such as *Ground of Arts*, (1551).

<sup>732</sup> O'Day, *Education and Society*, p.61. Hence the ability to read was more widespread than the ability to write.

<sup>733</sup> Brinsley, *Ludus literarius*, p.25.

<sup>734</sup> Harrison, *Description*, p.72.

<sup>735</sup> Fauvel & Goulding, 'Oxford', p.54.

grammar schools commonly failed to ensure that even university scholars were equipped with basic numerical skills.<sup>736</sup> It cannot be assumed that the ‘university of life’ provided a better mathematical education than grammar school and university.

The main branches of mathematics that might be of use to a viol-maker are geometry and arithmetic, but neither of these were routine accomplishments for artificers any more than they were for their most elevated clients. Noble children might receive some mathematical education but this always stressed practical skills useful for navigation or fortification, and rarely included theory such as of the architectural orders.<sup>737</sup> The subsidiarity of theory to practice in mathematics was often emphasised, and also applied to drawing, architecture and other subjects.<sup>738</sup>

The grace, and disgrace of the following traine,  
*Arithmetike, Geometrie, Astronomy,*  
Rests in the *Artisans* industrie, or veine,  
Not in the Whole, the Parts, or Symmetrie.<sup>739</sup>

Mediaeval grammar schools would have paid lip service to the quadrivium but its components would not have occupied a major part of the curriculum. Therefore mediaeval boys would have had little contact with Euclidean geometry, even in the often corrupt form in which it was available. Master masons would not even have been exposed to the corrupt versions of Euclid available at university.<sup>740</sup> It is extremely unlikely that any mediaeval masons went to university, and if they saved up enough money for their sons to attend, it would be in order to get a different, better

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<sup>736</sup> Fauvel & Goulding, ‘Oxford’, pp.59f.

<sup>737</sup> Rudd, *Practicall geometry*, ‘To the Reader’. Cleland, *Instruction*, p.90f.

<sup>738</sup> James VI, *Basilicon Doron*, p.113; Dury, *School*, p.56f; Bacon, *Of Building*, (1624), p.427; Milton, *Of Education*, p.4. Roger Ascham criticised overmuch study of music, arithmetic and geometry. ‘Mark all mathematical heads which be only and wholly bent to those sciences, how solitary they be themselves, how unfit to live with others, and how unapt to serve in the world.’. *Scholemaster*, p.23.

<sup>739</sup> Brooke, *Certaine workes*, p.45.

<sup>740</sup> Shelby, ‘Geometrical knowledge’, p.397.

job.<sup>741</sup> Thus, there was no tradition of formal geometry among even the artificers who might have the greatest use for it - masons. But all artificers needed to be able to measure, and needed enough arithmetic to calculate prices. The first book devoted to measuring and pricing was Leonard Digges' *Boke called Tectonicon* (1556) and the consistent need for such a work is shown by the fact that the eighteenth edition (1656) was essentially unchanged from the first.<sup>742</sup> By the time of the Restoration other books were available for 'Meckanick men, such as Carpenters, Joyners...and the like; which for the most part are ignorant of Arithmatick',<sup>743</sup> but evidence of a widespread improvement in numeracy, geometrical skills, or other mathematical competence is elusive and probably non-existent.

John Dee was very conscious that mathematics was not normally used by artisans, and went so far as to define 'A Mechanicien, or Mechanical workman' as one 'whose skill is, without knowledge of Mathematicall demonstration, perfectly to worke and finishe any sensible worke, by the Mathematicien principall or derivative, demonstrated or demonstrable.'<sup>744</sup> Here Dee recognises that artisans were skilled but, while not denying that a post-hoc mathematical analysis may be useful to describe a procedure or judge the result, he states unambiguously that the craftsman himself is innocent of a mathematician's knowledge and works independently of mathematical theory. Mediaeval and Renaissance workshop practice consisted of tried and tested procedures based on tradition and experience. Variety and innovation resulted from an individual's implementation of standard methods rather than on generative theory. Workers had no reason even to suspect there were theories that could codify underlying principles in their creative procedures, they simply followed the rules and

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<sup>741</sup> Shelby, 'Education of masons', p.9ff.

<sup>742</sup> Harris, *Architectural Books*, Ch.4.

<sup>743</sup> J.B., *Carpenters-Rule*, 'To the Reader'.

<sup>744</sup> Dee, *Preface*, p.8.

practices that were either laid down by guild regulations or demonstrated by their masters, or they worked out novel procedures for themselves.

Although viol-makers could manage without literacy or numeracy, they would need some level of skill with tools. It is difficult to characterise precisely the general level of artificers' competence. Surviving examples of their work often demand our admiration because of the skill demonstrated, but many may have survived only because they are the pick of the bunch,<sup>745</sup> and the majority of work, which does not survive, may have been of poorer quality. There will have been instrument-makers and repairers at each end of a continuum of quality and competence, just as there are today. The most fortunate (or wealthy) people may have had a John Rose to mend their instruments, but most probably had to rely on a local carpenter or musician,<sup>746</sup> or someone who would undertake the task regardless of whether his skills were adequate, perhaps like Mace's 'Ignorant, Careless, or Knavish Work-man'<sup>747</sup> or a character in a play by Henry Chettle, (1592):

There is another Iugler, that beeing well skild in the Iewes Trumpe, takes vpon him to bee a dealer in Musicke: especiall good at mending Instruments: he iugled away more instrumentes of late, than his bodie (being taken) will euer be able to make good.<sup>748</sup>

Just as literacy and numeracy were unusual among artificers (and far from ubiquitous among their superiors), their use of tools may typically have been pragmatic rather than sophisticated. The Rule is probably the simplest tool used by a woodworker, and is the most basic piece of equipment with a mathematical component, but even this was not universally mastered. Even post-1660, Moxon's attempts to provide practical

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<sup>745</sup> Even so, 'Inaccuracy is a widespread feature of baroque lute-making.' Hellwig, 'Construction', p.139.

<sup>746</sup> Such as Edmond Hanney. See below, p.169.

<sup>747</sup> Mace, *Musick's Monument*, preface.

<sup>748</sup> Chettle, *Kind-Hartes Dreame*, p.53.

education for artificers still had to include a detailed description and instructions for the Rule. He felt it necessary to explain that:

The use of the *Rule* is to measure Feet, Inches, and parts of Inches, for which that Purpose, are marked upon the flat and smooth sides of the *Rule*, and numbred with Inches, and hath every Inch divided into two halves, and every half into two quarters; so that every Inch is divided into eight equal parts; And these Inches are numbred from one end of the *Rule* to the other; which commonly in all is 24 Inches: Which is a Two-Foot *Rule*.<sup>749</sup>

Moxon recognised that explanations of the other lines drawn or engraved on rules (used for calculating area and volume) would probably be beyond the capabilities of his readers, so he confined his instructions to the most basic: ‘The manual Use of [the rule] is, either to measure length with it, or to draw a straight Line by the side of it, or to Try the straightness or flatness of their Work with.’<sup>750</sup> The modest level of many artificers’ competence implied by these very explicit descriptions had long been recognised. John Dee, for example, noted the scarcity of capable artificers,<sup>751</sup> and George Weymouth attributed discrepancies between ships which were supposed to be built from the same design to makers’ indifference to accuracy or fidelity to designs: ‘Yet could I never see two ships builded of like proportion by the best and most skilful shipwrights in this realm ... the chiefest cause of their error is because they trust rather to their judgment than to their art, and to their eye than to their scale and compass.’<sup>752</sup>

The distinction between the noble arts and the mechanical or manual arts was widely recognised and carried strong implications as to who might practise each kind. Edward VI challenged this when he wrote that youth should be brought up in practical

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<sup>749</sup> Moxon, *Mechanick Exercises*, pp.103-4.

<sup>750</sup> Moxon, *Mechanick Exercises*, p.104.

<sup>751</sup> Dee, *Preface*, fol.21v.

<sup>752</sup> Pett, *Autobiography*, p.lxxi. Weymouth’s reputation for theoretical knowledge of shipbuilding is not well supported by his *Jewell of Artes*, (BL, Add. MS.19889) which he presented to James I in 1604.

occupations such as ‘husbandry, working, graving, gilding, joining, printing, making of cloths, even from their tenderest age.’<sup>753</sup> In the next century Edmund Bolton was particularly keen that apprenticeship should be seen as an honourable occupation even for the high-born.<sup>754</sup> He provided very detailed explanations of how it was possible to learn through apprenticeship without compromising social status, as is indicated in the title of his book *The Cities Advocate ...Whether apprenticeship extinguisheth Gentry? Containing a cleare Refutation of the pernicious common errour affirming it, swallowed by Erasmus of Rotterdam, Sir Thomas Smith ...and others*. Later, William Penn wrote that all children, ‘though of the highest ranke’ should be taught ‘some gentile Manufacture in their minority’. The occupations he considered appropriate included making mathematical and musical instruments. His eight justifications for the activities he listed may be summarised as follows:

- Such children would be less subject to be ‘cousened by Artificers’.<sup>755</sup>
- They would become more industrious.
- They would do good quality work, being keen to excell ordinary workmen.
- They may experiment more efficiently than others would on their behalf.
- They could contribute to knowledge.
- The activity would encourage them to be patrons.
- It would keep them from ‘worse occasions of spending their time and estates’.
- ‘As it will be a great Ornament in prosperity, so it will be a great Refuge and stay in adversity and common calamity.’<sup>756</sup>

With the last of these, Penn implies that mechanical skills could be of practical use, but not that the high-born would be learning a trade, except as something to fall back on in hard times. This echoes Thomas Powell who noted that most gentlemen lived from hand to mouth, on credit, funded solely by income from lands.<sup>757</sup> Powell

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<sup>753</sup> Simon, *Education and Society*, p.283.

<sup>754</sup> For later examples of similar attitudes see Barclay, *Critical Analysis*, p.58.

<sup>755</sup> This is reminiscent of Mace’s advice about supervising lute repairs. See above, p.145.

<sup>756</sup> *W.P. to Hartlib*, p.6.

<sup>757</sup> Powell, *Tom of all Trades*, p.4.

recommended those trades which include ‘some Art, Craft or Science, by which a man may live... and have imployment in the most stormy times at home, when Merchants and Shopkeepers are out of use.’<sup>758</sup> He was keen to stress that mechanical skill was nothing to be ashamed of, assuring his readers that it is ‘no matter of difficultie, burthen or disgrace, for a Shopkeeper, yea a Merchant, or a Gentleman’ to have one of these skills to supplement his resources. He even claimed to know of ‘an Earl who was not ashamed to attain the craft of farrier’.<sup>759</sup> When John Evelyn visited Sir Francis Prujean in 1661 he was shown his ‘Laboratorie’ and ‘his other workhouse [i.e. workshop] for turning and other Mechanics’.<sup>760</sup> This knight may not have worked on musical instruments but such a thing would not be unprecedented; in the early sixteenth century a man described only as ‘Sir Thomas’ was paid for ‘kyppying ye orgayns’ and ‘for setting Home of ye organs’.<sup>761</sup>

As Bolton indicated, few writers considered such activities desirable for the higher strata of society. Henry Peacham (1622) criticised Atestino, Duke of Ferrara for addiction to such ‘trifles’ as ‘Turning and playing the Ioyner’.<sup>762</sup> Richard Braithwait (1630) did not recommend mechanical or artistic skills for his *English Gentleman*. Thomas Fuller (1642) made no mention of such skills or even sensibilities for either the ‘true Gentleman’ or the ‘true Nobleman’ in his fulsome descriptions of ideals.<sup>763</sup> Nevertheless, examples can be found in several mechanical or creative pursuits where practitioners were of higher sorts or at least aspired to high social status, particularly

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<sup>758</sup> Implying it was more desirable to be a merchant than a craftsman. Powell, *Tom of all Trades*, p.33.

<sup>759</sup> Powell, *Tom of all Trades*, p.34.

<sup>760</sup> 14 August 1661. Evelyn, *Diary*, p.294. Evelyn was also impressed by Prujean’s performance on the polyphon. Ibid. Prujean wrote to the Countess of Rutland in 1655 that ‘I am casting about to get one for your Ladyship’ but he never succeeded and must have decided that his Mechanical skills would not enable him to make a polyphon. *HMC Rutland II*, p.5.

<sup>761</sup> 1538, 1539. Ouvry, ‘Wing accounts’. The title ‘Sir’ here might refer to a religious position rather than a knighthood.

<sup>762</sup> Peacham, *Compleat Gentleman*, p.100.

<sup>763</sup> Fuller, *Holy State*, Book Two, Ch.24; Book Four, Ch.12.



painters and comparable artists. The most distinguished English sculptor at the end of the sixteenth century, Epiphanius Evesham, was the fourteenth son of the Squire of Wellington, Hereford.<sup>764</sup> Several important artists including Sir William Segar, George Gower<sup>765</sup> and Sir Nathaniel Bacon were noble, and others, such as Nicholas Hilliard,<sup>766</sup> asserted their status fervently. Peacham was just one among several writers who promoted the fitness of painting as an activity for gentlemen, although these writers were careful to distinguish portraits and ‘histories’ from the decorative work of Painter-Stainers.<sup>767</sup> Attitudes to limning (miniature painting), and to some printmaking later in the seventeenth century, were more sympathetic.<sup>768</sup> Peacham rejected the normal view of painting in the seventeenth century, that it was at best a utilitarian skill for a gentleman. Some earlier authorities such as Elyot<sup>769</sup> based their views on classical authors, saying that painting and designing were of use entirely for practical purposes such as designing ‘engynes of warre’ or for describing enemy country.<sup>770</sup> This is consonant with reasons adduced by those who wished to promote the learning

<sup>764</sup> This pupil of Richard Stevens was responsible for the tomb of Radcliffe, last Earl of Sussex, and was employed to produce that of Sir Christopher Hatton. Esdaile, *Refugee Sculptors*, p.258f.

<sup>765</sup> In his self-portrait (1579) Gower ‘proclaims his status as an artist to be greater than his status as a gentleman by birth, a startling claim in England where a painter was still viewed as little more than an artisan.’ Hearn, *Dynasties*, p.107.

<sup>766</sup> Hilliard, *Arte of Limning*, pp.42, 46.

<sup>767</sup> Peacham, *Compleat Gentleman*, Ch.XIII. Peacham, *Gentleman’s Exercise*, Ch.1. The full title of *Gentleman’s Exercise* includes: ‘for all young gentlemen and others; as also serving for the necessary use ...of divers Trades-men and Artificers as namely painters, joiners..cutters and carvers...’. Braithwaite excluded ‘Manuall and Mechanick labours’ from labours fit for gentlemen, but included painting among acceptable recreations. Braithwaite, *Gentleman*, pp.47, 169. The Book of Ordinances of the Painter-Stainers Company (1581/2) ordained that ‘no one should use the art [of painting], unless he had been apprenticed for seven years to a Painter ... excepting always gentlemen exercising the art “for recreation or private pleasure”’. Englefield, *Painter-Stainers*, p.78. Picture painters were not members of the Painter-Stainers company. Foister, ‘Foreigners at Court’, p.41. Evelyn, *Sculptura*, Chapters 1 and 2. Elector August of Saxony worked as cabinet maker, turner, locksmith and general metal-worker. Heine, ‘wire drawing bench’, pp.45, 54. King Francis I of France liked to draw and paint. Browne, *Ars Pictoria*, p.26. It has been suggested that etching was ‘part of [French] aristocratic education’ by the mid-seventeenth century. Griffiths, ‘Evelyn’, p.62.

<sup>768</sup> Hilliard was a limner. Norgate, *Miniatura* focuses on limning. John Evelyn’s *Sculptura* was ‘the first manual for the print collector in any language’. Griffiths, ‘Evelyn’, p.61. Evelyn was one of the first Englishmen to etch. Prince Rupert was critically important to the early development of mezzotint in England. Hind, *History of Engraving*, p.262.

<sup>769</sup> Elyot’s *Governour* (1531) allowed painting and carving by youths, but these activities should only be pursued in secret or private by adults. Strong, *English Icon*, p.51.

<sup>770</sup> Pears, *Discovery of Painting*, p.181.

of mathematics,<sup>771</sup> and with attitudes to architecture. One author encapsulated the prevailing attitude to painting thus: ‘Graphice, or [the] Art of Paynting... is not now accounted ingenuous or fit for a Gentleman’.<sup>772</sup> A similar attitude to work such as instrument-making is nicely appended to a warning against being seen to be too good at music (i.e. as good as a professional).<sup>773</sup> Peacham was tutor to Henry, Prince of Wales, and selectively quoted *Basilicon Doron* for three sets of manuscript emblems.<sup>774</sup> Emblem XII in the third set portrays a tall tree standing proud of its surroundings. This illustrates the message: ‘Delight not also to bee in your owne person a player upon instrumentes, especially on such as commonly men win their liuing with; nor yet to be fine of any mechanick craft.’<sup>775</sup> The continuing low status of instrument-making in modern times has been described by Barclay, who particularly notes makers’ silence about their craft.<sup>776</sup>

The skill of a viol-maker was not the only factor impacting on the way viols were designed and made; another was the commercial organisation of makers. Independent workers are subject to different constraints and influences from those who work as part of an organisation, whether they are apprentices, employees (journeymen) or subcontractors. Apprentices and employees may be assumed to do exactly as they are told, so far as they are capable, without having much input into decisions about what is to be done. However, if the man whose name appears in the instrument commissions the work from outside workers, he may have to rely on whatever they offer, and exercise choice only by selecting the person who does the work. In the case of

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<sup>771</sup> See above, pp.153ff for a discussion of numeracy.

<sup>772</sup> G.B.Knight, *The Third Universitie of England*, (1631), appended to Stow, *Annales*, p.1085. However, he noted the necessity of such skills for heralds, who must be gentlemen.

<sup>773</sup> As stressed in Castiglione’s *Courtier*.

<sup>774</sup> Oxford, Bodleian MS Rawl.poet.146. Others are in the British Library: MSS. Royal 12.A.lxvi, and Harl. 6855.

<sup>775</sup> This passage is in James VI, *Basilicon Doron*, p.152.

<sup>776</sup> Barclay, *Critical Analysis*, section 3.4.

completely independent individuals, all decisions are in the hands of the maker, although they are always subordinate to the wishes of the client, even to the extent of determining who should carry out parts of the work, such as a carved head for a viol. Before 1660, the extent to which people other than those who made the bodies of viols also carved the heads, is unknown, but the separation of these tasks was common later.<sup>777</sup> When Samuel Pepys had a viol made for him in 1663, he made separate arrangements with the maker of the instrument in 'Bishopsgate-street', and an unnamed man in Wapping who carved the head,<sup>778</sup> but he gave control of details to a professional musician.<sup>779</sup> Evidence of similar collaboration before 1660 is extremely elusive. This contrasts greatly with continental practice, particularly in Italy. Italian lute-making was an industrial-scale process that involved many specialists for different aspects of manufacture, and possibly the subcontracting of work to independent workers or organised groups of people.<sup>780</sup> The inventory of an Amsterdam violin-maker includes many more instruments than one person could have made.<sup>781</sup> At the time of his death in 1670, Jan Bouwmeester possessed a wide range of new and old instruments, some in playing order and others unfinished or decrepit. In his house were over twenty viols, over eighty violins, and over forty each of wind and plucked instruments, as well as keyboard instruments, a harp, and making/maintenance stock including hundreds of violin pegs, wood, strings and cases.<sup>782</sup> He also had snakewood

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<sup>777</sup> Most eighteenth-century Parisian viol-makers used heads from the same supplier, and 'There is no evidence of English makers carving their ornamental heads.' Monical, *Shapes*, p.19. 'There is no evidence...[that Barak Norman] carved the heads himself.' Ibid., p. 93. Therefore the fact that the heads of VME04 and VME37 are by the same carver does not guarantee that that man made the rest of either or both viols.

<sup>778</sup> June-August 1663. Pepys, *Diary*, vol.iv, pp.174, 232, 242, 284.

<sup>779</sup> 17 July 1663. 'I heard the famous Mr. Steffkins play admirably well..... I commit the direction of my viall to him.' Pepys, *Diary*, vol.iv, p.233.

<sup>780</sup> Ongaro, 'Tieffenbruckers', passim. Pasqual, 'Maler', p.6f. Király, 'Lutemakers', p.8.

<sup>781</sup> Bolink, *Violinmaking*, pp.47f. The inventory was made 29 July 1670 following Bouwmeester's death, and is given in full in Ibid., pp.82-89. I am grateful to Fred Jacobs for help with this Dutch document.

<sup>782</sup> One variety of strings was described as 'Roomsche snaren tot bassen' i.e. Roman strings for basses. One of his keyboards was English 'Een Engelse clavercimbael'. Bolink, *Violinmaking*, p.83.

for making violin and viol bows.<sup>783</sup> This great quantity of instruments and materials implies that Bouwmeester must at least have acted as a merchant,<sup>784</sup> and probably had employees or subcontractors to carry out much of the making and repair/maintenance work. Such commercial arrangements were much more prevalent among instrument-makers than has traditionally been recognised. Recent work by Hargrave undermines the traditional view of the classical Italian violin-makers as inspired super-skilful individuals, and promotes a recognition of famous ‘makers’ as managers of extensive businesses, so the instruments with their labels could have been made by any of numerous unknown makers rather than by the stars themselves.<sup>785</sup>

The Heal and Banks Collection of trade cards in the British Museum has many examples which show that the practice of merchants selling instruments by a variety of makers was an important part of the English music trade from the late seventeenth century onwards.<sup>786</sup> Benjamin Carr, for instance, ‘at the violin and hautboy ...sells all sorts of music and musical instruments’;<sup>787</sup> John Johnson, a recognised violin-maker, advertised that he sold ‘all sorts of musicall instruments viz: Bass Violins, Viols, Violins...’;<sup>788</sup> Peter Thompson was a musical instrument maker who ‘...Makes mends & sells all sorts of Musical Instruments, Vizt: Violins, Bass Violins, Viols, ...’ as well as wind and keyboard instruments;<sup>789</sup> and the firm of Longman Lukey & Broderip advertised a vast range of instruments including: ‘Kitts and small Violins ... Tenor Violins and Violoncellos ...Double Basses ...Bridges for Kitts, Violins, Tenors, Viol de Gambo’s and Basses ...Violin Bows Pillar’d or Plain ...Ditto with screws’ as well

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<sup>783</sup> ‘Twee stucks letterhout: een tot fioolstocken ende een tot stocken van fiolen de gamba’. Bolink, *Violinmaking*, p.84.

<sup>784</sup> See Milliot, *Luthiers parisiens*, pp.127ff for many comparable eighteenth century French examples.

<sup>785</sup> Hargrave, ‘Undercover Agents’. Hargrave, ‘The Amati Method’.

<sup>786</sup> Harvey, *Violin Family*, p.89 and passim.

<sup>787</sup> Heal and Banks 88.14. (n.d.)

<sup>788</sup> Heal and Banks 88.42. (Johnson fl.1750-1762).

<sup>789</sup> Heal and Banks 88.81. (c.1750).

as all sorts of strings.<sup>790</sup> Several of these later trade cards describe the merchants specifically as musical instrument sellers, rather than makers,<sup>791</sup> but no trade cards or viol labels datable to before 1660 make explicit any co-operative or agency arrangements.

People who published or sold music as well as making instruments are named in some publications. John Playford was the first to be recorded as both maker and publisher (1648) but he was almost certainly a seller rather than a maker. Although this combination of activities was common after the Restoration it was rare before 1660. Among those identified as both instrument-makers and publishers in the later seventeenth century are Richard Meares (c.1669), John Carr (c.1672), Richard Hunt (1676), Richard Carr (1685), Ralph Agutter (1695), John Hare (1695), John Young (c.1698), and Barak Norman (1699).<sup>792</sup> The extent to which these individuals sat at a workbench or acted as agents for those who did is variable and has yet to be delineated adequately.

The names on at least some viol labels definitely do not record the maker, and some of them make this explicit. A bass viol label shows that in the 1670s John Shaw made viols to be ‘sold by John Carr his master’.<sup>793</sup> Another viol label may record an attempt by a maker to avoid being marginalised by the merchant who sold his instruments. The printed label says: ‘Sold by John Fuller / Over against the Fleece / Tavern in Cornhill 1680.’ but the words ‘made by / Thos. Collingwood / and’ are added in

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<sup>790</sup> Heal and Banks 88.58. (c.1750).

<sup>791</sup> For example, [John] Hare (1697), Heal and Banks 88.58, and John Young (1706?), Ibid., 88.93,.

<sup>792</sup> Humphries & Smith, *Publishing*.

<sup>793</sup> For Shaw see below, p.215, and the terminology diagram, p.247.

manuscript at the top.<sup>794</sup> It may even be the case that the majority of labels in viols record agents through whom they were sold rather than makers. This would be consistent with the low social and commercial status of many makers compared with merchants, and their absence from guild records. Simon Ives bequeathed a bass viol made by Muskett, the ‘man’ of Thomas Alred or Aldred, which might have had Aldred’s label in it, if any.<sup>795</sup> This might have been the only viol Muskett ever made, but it is possible that a substantial proportion of the more famous Aldred’s work was made by Muskett or similar underlings who were not specialists or even trained viol-makers but were general assistants and handymen working under his supervision. It is not unlikely that the names of other famous viol-‘makers’ should be understood in the same way, i.e. that they are brand names rather than indicative of who carried out the work.

I have argued above that viol-makers were not involved in that activity on a full-time basis, but did other work which typically dominated the way they saw themselves, i.e. they would be described by themselves and by others as woodworkers or musicians rather than as instrument-makers. Towards the end of my research I was checking some documents in the Oxford Archives, including Hanasters.<sup>796</sup> These are a rich source of information about the nature of apprenticeship and relationships among workers in Oxford, and I discovered evidence therein that demonstrates for the first time, and conclusively, that at least some viol-makers were actually joiners.

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<sup>794</sup> Lot 131, in Puttick & Simpson’s Catalogue of Tuesday October 26th, 1915. Hill, *English Makers*, vol.i, p.71.

<sup>795</sup> For Aldred see below, p.197f.

<sup>796</sup> For Hanasters, see *Oxford Archives* in the Bibliography. It was not possible for me to explore the Hanasters fully because of the late stage my study had reached, and also because two days after my initial discoveries the Archives closed for several months while moving to new premises.

It was common to employ joiners to work on organs and other keyboard instruments. In 1539 a Buckinghamshire church bought ‘a pekke of colles for the ioiner, when he did mend the orgayns’ worth six pence, for such work.<sup>797</sup> In 1617 a joiner was paid 8d ‘for mending the virginalles at Hardwicke’,<sup>798</sup> and at court in London a payment was made in 1622 to ‘Richard Norryes, Joyner, for workmanship by him p[er]formed & mat[e]rialls imployed for ... taking down & altering the Organ case at St James and ... for making frames for Pictures.’<sup>799</sup> Between 1622 and 1758 at least sixty-six men were bound as apprentices to harpsichord-makers in the Joiners Company, London.<sup>800</sup> For these, and for many other joiners, work on musical instruments was probably just one of many and varied types of work for which they considered themselves qualified. How many of them undertook both instrument-making and non-musical joinery cannot be known precisely but all joiners, including instrument-makers, would acquire skills during their apprenticeship that are more broadly applicable than just to musical instrument making. It is likely that they would have made maximal use of such resources, and that any capable woodworker who could make instruments would also be happy to undertake other work.

That the connection between joiners and instrument-makers was closer than simply supervisor and assistant or contractor and sub-contractor is also indicated by the descriptions of George Styddie, ‘instramentmaker or joyner’, who became free of York in 1585, and Edward Ilsbery<sup>801</sup> of Oxford, who described himself in his will (1609) as

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<sup>797</sup> Ouvry, ‘Wing accounts’, p.228. The organ and ‘ornaments’ had come from Woburn and cost £9.

<sup>798</sup> Hulse transcript, Chatsworth, Hardwick MS.29, fol.525.

<sup>799</sup> *RECM*, vol.iv, p.225.

<sup>800</sup> *Boalch*, p.715f. Not all harpsichord makers belonged to the Joiner’s Company. Thomas Hitchcock and his descendants, for instance, belonged to the Haberdashers. *Ibid.*, p.91. Barak Norman was a member of the Weaver’s Company, and other viol-makers belonged to the Fletchers and the Drapers Companies. *British Violin*, passim.

<sup>801</sup> Variations of this name in the Hanasters include: Ilberye, Ilbery, Yelburye, Yeldbury, Yelberie, Ildburye, Ilbury.

‘Joyner or Instrerment macker’.<sup>802</sup> These people both worked and were thought of as joiners *and* instrument-makers. We can be sure that George Styddie actually made instruments for reasons discussed elsewhere,<sup>803</sup> and the same reasons suggest that Islbery’s was more than a courtesy title. Research into Oxford apprenticeship bindings not only confirms that Ilsbery made musical instruments, but also reveals that he made viols.

It was common for apprenticeship indentures to specify that after an apprentice had completed his term, the master would give him certain items. These items were not standardised, even among the apprentices of one master, but usually included some clothing (typically ‘duplices vestes’<sup>804</sup> in Oxford) and/or a sum of money. Working tools are usually not specified in the Hanaster contracts, and I found none offered to apprentices bound between 1580-1610 in the occupations of basketmaker, barber, blacksmith, boatmaker, bookbinder, butcher, clockmaker, cutler, glasier, glover, goldsmith, painter, shoemaker or turner.<sup>805</sup> The rare contracts which included the provision of working equipment usually gave only a broad indication of what was involved, but on several occasions the city wait William Gibbons was committed to providing specific musical instruments. Not all of the nine apprentices he took 1582-1586 were to receive instruments, but during this period he was contracted to provide a sackbut, three cornets, a treble viol and two treble violins.<sup>806</sup> Another musician, Leonard Maior, promised lutes to some of his apprentices,<sup>807</sup> and Hugh Bosley’s

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<sup>802</sup> Fleming, ‘Points arising’, p.304. Illustration L84.

<sup>803</sup> See below, p.206.

<sup>804</sup> The indentures were written predominantly in Latin until 1622/3. Thereafter the formula was ‘double apparrell fitting for such an apprentice’ or something similar. I am grateful to Diana Greenway for informing me that this means a doublet. A doublet could not only be worn, it could be pawned in cases of financial difficulty. Boulton, *Neighbourhood and Society*, p.90.

<sup>805</sup> Tools were specified with similar infrequency in comparable records at Norwich and Bristol. Goodman ‘Elizabethan Woodworkers’, p.87.

<sup>806</sup> Hanaster A.5.3, fols.320v, 335v, 338 (2), 340 (cancelled), 341. Illustration L85.

<sup>807</sup> Including three who started their terms in 1601, 1604 and 1610. Hanaster L.5.1, fols.107, 122, 191v.



apprentice was to get a ‘Treable vilyn’ seven years after he started his term in 1616.<sup>808</sup>

One of two apprentices taken by John Gerard in 1630 was to receive an instrument.<sup>809</sup>

Such arrangements were not unique to Oxford. Specific instruments are mentioned in several Bristol apprenticeship bindings between the mid-sixteenth and mid-seventeenth centuries, including viols (1548-9), a violin (1587), rebecs, shawms, trumpets, a clavichord and a ‘Bandore or Instrument that he can play best on’.<sup>810</sup> Some of the Bristol contracts involved instrument-makers, but in these cases instruments did not form part of the contract. Contracts that explicitly prepared apprentices to make musical instruments are rare but not unknown: Isaac Breed, son of a woolcomber, was apprenticed to a musician called Edmond Hanney for ten years, ‘to learne that trade as allso the making of instruments and such other things as the said Edmund now useth.’<sup>811</sup> At the end of his term Isaac was to have 20s. or two instruments. This Southampton binding, and one with the musician and instrument dealer John Gerard in Oxford, shows that there were people far from the court who both played music and were also involved in instrument-making or supply, although which activity was the dominant occupation is not revealed.<sup>812</sup>

The Hanasters record a few apprentice carpenters and several joiners who stood to receive tools appropriate for their trade when they completed their apprenticeships. These were sometimes specified as enough to do certain work ‘All tooles sufficient to

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<sup>808</sup> Hanaster L.5.2, fol.29v.

<sup>809</sup> Thomas Curtis was to receive ‘one Instrument wch he the said Thomas can best use’. Hanaster L.5.2, fol.199v.

<sup>810</sup> Goodman ‘Bristol Apprentices’.

<sup>811</sup> 6 September 1633. *Southampton Apprentices*, p.73.

<sup>812</sup> See above, n.809. See also n.589 for Benet Pryme (d.1557).

make a pece of waynscott seeling’,<sup>813</sup> sometimes comprehensively ‘everie kynde of tooles’,<sup>814</sup> and sometimes the tools were detailed individually ‘A broad axe, a hand sawe, two chissells two augers, two planes, A mallet, a hamer, a wymble and a square’.<sup>815</sup>

Edward Ilberye and his son Edward Ilsbery were among the Oxford joiners who sometimes promised tools to their apprentices. That Ilsbery was an instrument-maker as well as a joiner has already been established by his will, but the Hanasters further reveal that he was a viol-maker. After completing their seven-year terms, two of his apprentices were to receive ‘so many & such tooles as shalbe sufficient & fitt for y<sup>e</sup> making & finishing of a Chest of vyalls’. These two apprentices were Thomas, son of Thomas Thickpeny, a clerk of Oakham in Rutland, who was bound in 1605<sup>816</sup> and John, son of Thomas Stacy, a husbandman of Stanton St John in Oxfordshire, who was bound the following year.<sup>817</sup> Stacy was a common surname in Oxfordshire. There were musicians of this name in Oxford but whether Ilsbery’s apprentice was related to them is not known. Musical instruments are mentioned in the contracts of none of the other three apprentices taken by Edward Ilsbery or the seven taken by his father (to whom Edward himself had been apprenticed as a joiner in 1582).<sup>818</sup> William Stavesacre, whose apprenticeship with the elder Ilberye started in 1571, was to have ‘one instrument of his instruments’,<sup>819</sup> but in this case ‘instrument’ almost certainly

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<sup>813</sup> For a joiner, 1576/7. Hanaster A.5.3, fol.283. See also illustration L86.

<sup>814</sup> For a joiner, 1587/8. Hanaster A.5.3, fol.350.

<sup>815</sup> For a carpenter, 1589/90. Hanaster A.5.3, fol.359.

<sup>816</sup> ‘...et talia instrumenta quot et qualia erunt sufficiend et apta ad faciend et p[er]ficiend sex viols Anglice so many & such tooles as shalbe sufficient & fitt for y<sup>e</sup> making & finishing of a Chest of vyalls’. Hanaster L.5.1, fol.137. Illustration L87. This confirms that six was a standard number for a set or chest of viols. Fleming, ‘Chest of Viols’, n.15.

<sup>817</sup> ‘...et talia instrumenta quot et qualia sunt necessar ad faciend et p[er]ficiend chest vialar Anglice so many and such tooles as are necessarie to make & finishe a chest of vialls’. Hanaster L.5.1, fol.147. Illustration L87.

<sup>818</sup> Hanaster A.5.3, fol.314v.

<sup>819</sup> ‘unm instrument...’ Hanaster A.5.3, fol.132. Illustration L88.

does not mean a musical instrument, because the same Latin formula was also used to indicate woodworking tools. A later apprentice of Ilberye was to receive one ‘Instrument sufficient ad faciend matror angl[ic] all Tooles sufficcient to make a pece of Waynescott seeling’,<sup>820</sup> so Stavesacre was more likely to receive a woodworking tool rather than a musical instrument, especially taking into consideration that there is no evidence the elder Ilberye was associated with musical instruments. The use of the English word ‘instrument’ to indicate a tool can be traced back to the fourteenth century and was still current in 1676.<sup>821</sup>

According to William Henley, there was a viol-maker called Gilles York, whose entire entry in Henley’s dictionary is: ‘1605-1612. Little known work.’<sup>822</sup> ‘Little known work’ often indicates that Henley knew of one instrument or none, so although these dates seem precise, they could be pure speculation by the author of this widely consulted but notoriously unreliable dictionary. The only other reference to Gilles York is in the catalogue of the Selhof auction, 1759,<sup>823</sup> which may have been Henley’s source. The Selhof catalogue is written in a mixture of French and Dutch which shows evidence of incompetent translation and transliteration, a lack of familiarity with idiomatic English, and a poor understanding of musical instrument labels, all of which lead to solecisms of transcription. For example, it is probable that ‘Henr. Geaye in Soutwark 1632’ (Lot 80) is really Henry Jaye of Southwark and that ‘Guillaume

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<sup>820</sup> This part-English, part-Latin is typical of many entries. Latin was abandoned for apprenticeship indentures in the Hanasters after 1623. This apprentice was also to receive 6s 8d and the usual doublet on completing his term of ten years, starting in 1577. Hanaster A.5.3., fol.283.

<sup>821</sup> *OED*. Horeman indicates a tool used in musical instrument making, translating ‘I wolde haue an instrument to boore yuery’ as *Requiro cestrum*, having earlier indicated that boxwood pipes were easier to bore than ivory ones. ‘Boxen pypes be lyghtlyer tyrlid through/ or made holowe:than yuery pypis.’ is his translation of *Fistulae buxæ facilius excauantur: q eboree vel eburnæ non eburna. Vulgaria*, pp.237, 108. Mace’s advice about maintenance for lutenists starts ‘First, you must be provided of some certain *little necessary Instruments or Tools*’. *Musick’s Monument*, p.55.

<sup>822</sup> Henley, *Dictionary*, p.1255.

<sup>823</sup> *Selhof*, p.253. Acquaintanceship with the Selhof catalogue is apparent in Henley and other violin dictionaries.

Bakker, in Oxon. 1673' (Lot 90) is William Baker of Oxford.<sup>824</sup> Taking into account such errors, 'Jorks Duelling, Northampshire 1610' (Lot 87) can be reinterpreted as the label of an instrument maker by the name of York, dwelling<sup>825</sup> in Northamptonshire. Similarly, the sale included a viol by 'Parkel Dwelling, in Northampshire' (Lot 97), which may indicate a maker named Parkel (or something similar such as Parker, Parkes or Baker),<sup>826</sup> also dwelling in Northamptonshire.

*Selhof* describes Lot 93 as 'Un [Viola da Gamba] de Gillis York, Northampshire'. Reassessing this in the light of the above suggests the possibility that John Gilles (who repaired the royal viols in 1618) might have been an instrument maker who lived in or came from York.<sup>827</sup> York was a significant centre for instrument-making, possibly one of the most important outside London.<sup>828</sup> The association with Northamptonshire stated in *Selhof* seems to undermine this interpretation, but a man who had work connections with York, Oxford and Cambridge could well have lived in Northamptonshire. This might be reflected on a label such as 'Gillis, York, Northamp[ton]shire', implying that Gilles was formerly in York but now worked in Northamptonshire. The fact that no instrument maker with the forename or surname Giles, Gilles or York attained the Freedom of the City of York in the sixteenth or seventeenth centuries<sup>829</sup> could signify that Gilles failed to achieve his desired status there. Such a failure could have precipitated his emigration from the city, although he

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<sup>824</sup> If this identification and the attribution to him of the 'Viola da Gamba', *Selhof* Lot 90 are correct, it proves that Baker made viols as well as violins. The violins are discussed in Trevelyan, 'William Baker', pp.68-76 and *British Violin*, p.23.

<sup>825</sup> The labels of Richard Blunt include the word 'dwelling'. See below, p.208.

<sup>826</sup> Anthony Wood played music c.1656 with an Oxford University musician named John Parker whom Edward Lowe found much too 'common'. This could indicate that Parker pursued 'mechanical' activities such as instrument-making, or it might simply refer to his background or personal habits. *Anthony Wood*, vol.i, p.204f. A court musician named Robert Baker was erroneously listed as Parker in 1637. *BDECM*, p.53f.

<sup>827</sup> See below, p.212.

<sup>828</sup> See below, pp.200ff.

<sup>829</sup> *Freemen of York* 1. *Freemen of York* 2.

might have left for personal reasons. An instrument-maker on the move might well have been attracted to Oxford where the thriving musical culture meant there was plenty of trade.<sup>830</sup> As an immigrant to this city he could have become known by his origin and in due course adopted the name of that city, York, as his surname. He could later have moved to Northamptonshire, possibly to work with a maker who was already established there named 'Parkel'.<sup>831</sup> However, I will now describe further documents which I have found, which show that this speculative scenario, while credible, is wrong. Giles did move from Northamptonshire to Oxford, but he was born near Northampton and had no direct connection with the City of York.

An instrument maker described only as 'Mr York' appears in a list of creditors appended to the probate inventory of Robert Mallet, an instrument-maker in Oxford.<sup>832</sup> York was a common surname, so there are inevitably numerous candidates for such a summary description, but one man stands out as most likely. This is Egidius, son of Henry York of Kislingbury which is about two miles west of Northampton. There are no traces of Egidius' work as an instrument-maker, but in 1599 he was bound as an apprentice<sup>833</sup> for seven years to the joiner Edward Ilsbery whose instrument making has just been discussed.<sup>834</sup> A marginal note in one of the Hanasters reveals that Egidius was also known as 'Gyles'.<sup>835</sup> The probate inventory (1617) of Richard Read, the Oxford composer, notes that a 'table and frame and forme' of his was in the custody of Giles Yorke.<sup>836</sup> Giles Yorke was among the witnesses when Read made his

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<sup>830</sup> Wainwright, *Musical Patronage*, pp.13ff. Fleming, 'Other lumber'. Fleming, 'Points arising', pp.301-5.

<sup>831</sup> *Selhof* gives no date for 'Parkel' so he could have been an apprentice of York, or there may have been no connection between them.

<sup>832</sup> Mallet seems to have specialised in plucked, especially metal-strung, instruments. Mallet's probate inventory (1612), is discussed in Fleming, 'Points arising', p.302f.

<sup>833</sup> Hanaster L.5.1, fol.89. Illustration L89.

<sup>834</sup> Above, e.g. p.167.

<sup>835</sup> Hanaster L.5.2., fol.47v. Illustration L89.

<sup>836</sup> This discussion is foreshadowed in Fleming, 'Points arising', p.305, n.17.

will in 1616 and he was also one of the appraisers for the probate inventory of the Oxford instrument-maker Robert Mallet's widow, Ellen or Elinor, who died in 1620.<sup>837</sup> Two daughters of Giles Yorke, Sarah and Agnes, and Catherine Yorke who was probably a third, were baptised on 26 Sep 1611, 19 Mar 1612 and 8 Nov 1614 respectively at All Saints, Oxford.<sup>838</sup>

I believe all these records concern one man whose biography is as follows.<sup>839</sup> Giles York was born in Kislingbury, Northamptonshire and baptised there on 1 September 1582.<sup>840</sup> In 1599, his father Henry, a husbandman, sent him to Oxford (where he was sometimes known as Egidius) to become the third apprentice of the joiner Edward Ilsbery. Ilsbery took to making viols and contracted to provide two of his apprentices with viol-making tools when they completed their terms. The first of these was bound in 1605, which is before Giles' apprenticeship term was due to finish. Although Ilsbery had been taking apprentices since 1590,<sup>841</sup> this is the earliest evidence that he had any connection with musical instruments. It shows that he was involved in viol-making while Giles York was one of his apprentices. 'Egidius' became Free of the City of Oxford in 1611,<sup>842</sup> and took on three apprentices, all of whose fathers were described as yeomen. They were William, son of William Sabin of Kislingbury, Northamptonshire (1610),<sup>843</sup> Henry, son of Edward Jones of Bampton, Oxon (1611),<sup>844</sup>

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<sup>837</sup> Mallet was buried 20 June 1612 and his wife on 11 June 1620. Oxfordshire Archives, Transcriptions of parish registers of All Saints (or All Hallows), Oxford, by Oxford Family History Society, 1990.

<sup>838</sup> Ibid.

<sup>839</sup> See also Appendix 10a.

<sup>840</sup> 'Gyles York the sonne of Henry Yorke was baptised the ffirst day of Septemb<sup>r</sup> 158[2]'. Northampton Record Office, Kislingbury Parish Register 190P/1.

<sup>841</sup> The first was Robert, son of John Wyans, a tailor in Oxford. Robert was bound for eight years, at the end of which he was to receive 'so many tooles as shalbe sufficient to make a playne peece of waynscott'. Hanaster L.5.1., fol.12v.

<sup>842</sup> Hanaster L.5.1., fol.293v. Illustration L86.

<sup>843</sup> Hanaster L.5.1., fol.203v. See also Appendix 10a.

<sup>844</sup> Hanaster L.5.1., fol.214v.

and Arthur, son of William Hinton of Oubourne, Bucks (1617/18).<sup>845</sup> The first of these was probably a relative (cousin?) of Giles as he came from the same village, and shared the surname ‘Sabyn’ with Giles’s mother.<sup>846</sup> I have no further information about Henry Jones. The third apprentice, Arthur Hinton or Henton, seems to have specialised more than either Ilsbery or York. He took two apprentices, both for terms of nine years. The first (1628) was William, son of William Kimberly, a musician of Titherington, Gloucestershire,<sup>847</sup> and the second (1631) was Thomas, son of Richard Young, a yeoman of Minchington, Buckinghamshire.<sup>848</sup> In neither case was the apprentice to receive any tools, instruments or even money at the end of their term, but in both cases the Hanaster described Arthur Henton as ‘instrumentmaker’. I have found no evidence that either William Kimberly or Thomas Young ever practised as instrument-makers. This suggests that the instrument-making activities of this line peaked with Henton, and his apprentices concentrated on conventional joinery.

The question of *Selhof* Lot 87 ‘Jorks Duelling, Northampshire 1610’ remains tantalisingly unresolved.<sup>849</sup> It could mean that Giles York divided his time between Oxford and Kislingbury, or it could indicate that another viol-maker called York, possibly unrelated, worked in Northamptonshire when Giles was working in Oxford. It is also possible that ‘Northampshire’ indicates a viol made for Giles York away from

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<sup>845</sup> Hanaster L.5.2., fol.47v.

<sup>846</sup> ‘Henry Yorke & Agnes Sabyn were married the ix<sup>th</sup> day of October. 1574’. Northampton Record Office, 190P/1. See also Appendix 10a.

<sup>847</sup> Hanaster L.5.2., fol.174. Illustration L88.

<sup>848</sup> Hanaster L.5.2., fol.216v.

<sup>849</sup> The indication of a county rather than a city on a label is surprising as the main function of the information is to direct new customers to the maker. The only other example I know is VME16, which lacks its original label. See below pp.226ff.

his Oxford workshop (he did not become free of the City of Oxford until the following year).<sup>850</sup>

It is worth trying to outline the lives of men such as Edward Ilsbery, Giles York and Arthur Henton, instrument-makers of whom no surviving work can be identified, because, at least in terms of their documentary obscurity, they are typical pre-1660 English viol-makers.<sup>851</sup> The records show that these and other instrument-makers should be characterised not as followers of an instrument-making tradition who were trained in arcane techniques developed by successive generations of specialists, but rather as common woodworkers who may have become involved in instrument-making on an occasional or casual basis.<sup>852</sup> Even after three ‘generations’ of instrument-making, they were still called joiners, the term which probably represents best the majority of their work. This makes it highly unlikely that viol-makers were a breed apart from other artificers. It should be seen as an important determinant of their approach to instrument-making, and implies that they used the same skills, techniques and design sources as their fellow artificers. The following chapter concludes this study by examining in detail most of the identified and putative English viol-makers of this period (others are mentioned in Appendix 9). There is little documentary evidence about the majority of individuals, but by taking them together it is possible to form a view about them as a group.

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<sup>850</sup> Illustration L86. It is not impossible that Henley saw a viol labelled ‘Gillis York, Northampton’ or similar. However, Giles York must have been in Oxford in 1610, 1611 and 1617/18, as he took apprentices in those years. He may have moved back to Northamptonshire later, perhaps taking his apprentices with him, or the label might refer to his origin rather than his place of work.

<sup>851</sup> A consequence of this study is that they become less obscure than many other makers.

<sup>852</sup> Perhaps including ‘Bishop’. See Appendix 9. For multiple job descriptions and occupations other than those involving musical instruments see Boulton, *Neighbourhood and Society*, e.g. p.71.



# Chapter 5

## VIOL-MAKERS

This chapter considers individual viol-makers known to be active in England c.1580-1660. The five named by Mace are examined in detail, followed by discussion of other viol-makers, some of whom are identified here for the first time. In the course of this, the important methodological issue of whether a name in a document refers to a viol-maker of that name is discussed and exemplified.<sup>853</sup> Summary information about viol-makers is given in Appendix 9. Extant instruments are discussed in this chapter only when they illuminate possible working practices or relationships between makers.

Comments or judgements about makers and their work can be based on two types of evidence, instruments and documents. The viols in this study have been discussed in Chapter 2, but other information about their makers is extremely sparse, and almost nothing of substance and authority has been written about the individuals who created the instruments. John Rose was the subject of an important journal article in 1978,<sup>854</sup> but no other English viol-maker before 1660 has received any attention more focused than an entry in a dictionary. Extensive research about Henry Jaye, the other leading English viol-maker of the period, identified only one document dated during his lifetime that refers to him.<sup>855</sup>

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<sup>853</sup> Whether a named individual made viols, and whether a person who was paid for making, repairing or supplying instruments carried out this work, are discussed above in Chapter 4.

<sup>854</sup> Pringle, 'Founder'. Most information reported and opinions expressed in this article are accepted here.

<sup>855</sup> Research I carried out for the *New Dictionary of National Biography*.

English viol-makers' obscurity as historical individuals is both a cause and effect of the paucity of relevant documents chronicling their activities and biographies. It is therefore very tempting, as it must be during any historical research, to assume that documentary appearances of names about which information is sought refer to the individuals of interest. But the occurrence of a viol-maker's name in a parish record or court account is not by itself enough to establish that the person referred to is the viol-maker. This problem often occurs when tracing genealogical connections or master/apprentice relationships, and is particularly acute when considering one-off payments. It is exacerbated by the ubiquity of inconsistent spelling (common even within a document), which can give the appearance of there being more individuals than is actually the case, by the fact that fathers and sons or other relatives often bore the same name,<sup>856</sup> which has the opposite effect, and also by the unsurprising fact that many instrument-makers have very common names. John Ross or Rose provides a good example of this type of confusion, and is discussed below.<sup>857</sup> Exactly the same problem occurs in comparable research:

One of the greatest difficulties is disentangling instrument makers with the same name who were working at the same time, and who in some cases were in the same guild. It is particularly common with fathers and sons or nephews and uncles, but also occurs when two masters who are apparently unrelated have the same relatively common name.<sup>858</sup>

This was written about scientific instrument makers, but the name problem is even more of a constraint to understanding the musical instrument makers in this study because there are fewer surviving works, their labels are less reliable than a name

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<sup>856</sup> Parents even sometimes gave the same name to two sons in case one died. Edmond, 'Limners', p.118.

<sup>857</sup> For another name with many spellings, see below, pp.200ff for Mashrother.

<sup>858</sup> Clifton, *Directory*, p.xiii. A musical example would be Christopher Simpson, author of *The Division-Viol*, whose father and a nephew bore the same name. Urquhart, 'Simpson'. In the same part of the country, a musician called James Simpson was granted freedom of the City of York in 1612. *Freemen of York 2*, p.62. James's father Robert was also a musician. It is unclear whether James and Robert were connected with any of the Christophers as Urquhart mentions that there were several Robert Simpons.

scratched or engraved on a brass instrument, and pre-1660 guild records are less informative.

The famous passage from *Musick's Monument* which is reproduced as the frontispiece of this study is important not only as the first authoritative statement by a seventeenth-century English writer which approves of specific English viol-makers,<sup>859</sup> but also as possibly the first to name any.<sup>860</sup> These five names appear in many dictionaries of instrument-makers, and as very few other early English viol-makers are ever mentioned, it is widely accepted that these were the most important.

Of the five, Ross and Jay are now the best known, mainly because of the number of their instruments which survive. The next best represented by surviving instruments seems to be Smith, followed by Aldred and Bolles. Unfortunately, not a single surviving instrument may currently be attributed with confidence to either Bolles or Aldred, and only three viols by Henry Smith are known. This is a very small number of instruments to represent sixty percent of the most renowned early English viol-makers, but even these few are insecure as representatives of Mace's opinion because he gives only surnames. Mace's five names are considered next, in this order: Ross, Smith, Bolles, Jay, and Aldred.

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<sup>859</sup> Although Mace suggests that his contemporary viol-makers are possibly not as good as the old ones, he writes that early lute-makers 'The *Work-men* of Those Times' did not set up the action of lutes as well as modern makers. *Musick's Monument*, p.40.

<sup>860</sup> Some mentions in accounts and inventories are given below, but none include evaluative comment. In the section 'What kind of Viol is fittest for Division', Simpson described the shape and size he favoured, but made no comment about makers, age or country of origin. Simpson, *Division Viol*, (1659), p.1f.

A viol-maker who is now usually known as John Rose was called John Rose in some sixteenth-century documents,<sup>861</sup> on the labels in viols,<sup>862</sup> and by an historian in 1631.<sup>863</sup> He was referred to as Rosse in some early seventeenth-century documents<sup>864</sup> and as Ross in 1667<sup>865</sup> and 1676.<sup>866</sup> Although it is known that a father and son called John Rose were instrument-makers, extant instruments cannot be attributed definitively to one or the other because neither the date of manufacture of most of the instruments, nor the date of death of the father, are known for certain.<sup>867</sup> The viols cannot therefore illuminate the nature or development of the Roses' individual styles or working practices.

Many other people with names close to *Rose* were involved with music and instruments. John Roos repaired cathedral organs in fifteenth-century York.<sup>868</sup> In December 1561 'Mr. Rose and his daughters' played music for the Duchess of Suffolk when she was ill.<sup>869</sup> 'Rooes' who mended a lute for the same household three months later may have been the same man,<sup>870</sup> and could also be the same as 'Jo: Rose' who mended Sir Thomas Chaloner's lutes in 1552.<sup>871</sup> The latter Rose has been taken to be

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<sup>861</sup> Pringle, 'Founder', p.502.

<sup>862</sup> Tenor viol, 1598 (Hill Collection No.5). Bass viol, undated (Victoria & Albert Museum No.803-1877). The name is Latinised to 'IOANNES ROSA' in the plucked instrument [probably a bandora according to Peter Forrester, *GSJ*, vol.iii, (2000), p.348.] at Helmingham Hall, which is dated 1580. These three labels are reproduced in Pringle, 'Founder'.

<sup>863</sup> 'In the fourth yere of Queen Elizabeth, Iohn Rose, dwelling in Bridewell, devised and made an Instrument with wyer strings, commonly called the Bandora, and left a Son, far excelling himselfe in making Bandores, Voyall de Gamboes, and other Instruments'. Stow, *Annals of England*, p.869.

<sup>864</sup> Pringle, 'Founder', p.503f.

<sup>865</sup> Pringle, 'Founder', p.504.

<sup>866</sup> Mace, *Musick's Monument*, p.245.

<sup>867</sup> 1563 is possible but the Bridewell burial register for that year is lost. Pringle, 'Founder', p.504. C.1597 has also been suggested, presumably because Rose the younger may have left Bridewell then as a consequence of the death of his parents. *British Violin*, p.10f.

<sup>868</sup> 1465/6. Page, 'Representations', p.153 and n.11.

<sup>869</sup> 'To Mr. Rose and his daughters which played before herr Grace in herr sycknes'. *HMC*, Ancaster (1907), p.465.

<sup>870</sup> March 1561/2 'To Rooes when he mended Mr. Peregrines lute 10s.'. *HMC*, Ancaster (1907), p.466. The provider in January 1561/2 of a '...lute for Mr. Peregrine and Mistress Suzan 46s 8d.' was not specified. *Ibid.*, p.461.

<sup>871</sup> BL, Lansdowne MS.824 fol.34v and fol.36.

John Rose the viol-maker because of a commission for a viol in the same batch of documents.<sup>872</sup> However, the large number of people bearing this name undermines the conclusiveness of this piece of evidence, and even calls into question the assumption that there were no more than two viol-makers of this name.<sup>873</sup>

In late sixteenth-century London, 'Iohn Rosse' worked on scenery, costumes and props for stage productions. He had the skills of a joiner and carver, making for example a chariot for the Muses in 1572, and he constructed machinery for special effects in plays.<sup>874</sup> This could be 'Iohn Rose of brydwell' who, in 1568, received a reprimand from the Mayor & Aldermen's Court for puppeteering, and who has been taken to be the younger viol-maker.<sup>875</sup> At about the same time in Cambridge, there was an organ maker called Hugh Rose,<sup>876</sup> and much later Johan Roos made viols in eighteenth-century Sweden.<sup>877</sup> More significantly, there are two bass viols made by a man called Johann/John Roos in Amsterdam,<sup>878</sup> dated 1585 and 1587.<sup>879</sup> Verbal reports of such instruments could lead to confusion and could even be partly responsible for the assertion that John Rose had a high reputation abroad. This international reputation is indicated by only a single document which noted that:

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<sup>872</sup> Pringle, 'Founder', p.502.

<sup>873</sup> Fleming, 'Hill and Hunt' reports a later example of instrument-makers bearing a common name.

<sup>874</sup> Astington, *English Court Theatre*, pp.137ff.

<sup>875</sup> Woodfield, *EHV*, p.224. Puppets are illustrated as turners' work in Comenius, *Orbis pictus* (London, 1659 edition), p.142.

<sup>876</sup> Discussed in Freeman, 'Organ Builders'. Also, 'To Hughe [Rose] mending the instrume[n]t and virginals... vs.'. Trinity College, Cambridge, Senior Bursar's accounts 3, fol.46v. (1586-7) cited in *REED*, vol.i, p.318.

<sup>877</sup> *Boalch*, p.158.

<sup>878</sup> A painting showing *Orpheus with a lira da gamba* was executed by Jan Roos (b.Amsterdam, 1591) between 1614 and 1622. David, *Lira da gamba*, front cover and illustration 10.

<sup>879</sup> I have not yet examined these two viols, currently in the The Hague, Gemeentemuseum, Nos.1952x0143 and 1952x0144. Their labels have been published as 'Johann Roos, Amsterdam, 1585' (Vannes, *Dictionnaire*, p.306), but more recently as 'John/Johan Roos Amsterdam 1587' and 'London 1585' [1952x0144] in Bolink, *Violinmaking*, p.73 and p.80, n.45. Michael Latcham of the Gemeentemuseum (personal communication) informs me the labels say 'John Roos/1587' [1952x0143] and 'John Roos/1585' [1952x0144], so whether there is a connection between either of these viols and any John Rose of London is still unclear.

John Rose together with Jone his wife are of right virtuous and honest conversation and the said Rose hathe a most notable gift given of God in the making of instruments even soche a gift as his fame is sped thorough a great part of Christendom and his name as moche and now both for virtue and conning commended in Italy than in this his natural contery.<sup>880</sup>

If any Italian acknowledgement of Rose exists, it is in not the public domain, so the claim is unsupported. His great international reputation is indicated solely by this English source, which was giving a favourable report of him in the course of establishing a property lease, and cannot be regarded as secure. The only trace of his reputation in a continental source of which I am aware is from well over a century after his death. One of thirty-four viols in *Selhof* is described as ‘Un Viola da Gamba, de John. Rose in Brattwell 1599.’ (Lot 78).<sup>881</sup> Rose is the only viol- or violin-maker in this list who is described as ‘fameux Auteur’, but others (Amati, Stainer, Ruggieri, Gofriller, Bertrand, Meares, *et al.*) may have been considered too well-known to require such a description. Evidence supporting the Rose reputation in his own country is found in an inventory of instruments belonging to the Duke of Newcastle in 1636. Three of the twelve viols mentioned are described as ‘made by Rose the younger’ and another as a ‘Violl of Rose his making’.<sup>882</sup> This seems to be the only instance where the maker of a viol is named in an English inventory before 1660.

It is also worth considering whether there might be a connection between Ross/Rose in England and similarly named people in the same area of activity abroad, such as the

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<sup>880</sup> Court Books of Bridewell, 8 August 1561, quoted in Pringle, ‘Founder’, p.502.

<sup>881</sup> *Selhof*, p.253.

<sup>882</sup> Hulse, ‘Newcastle’. I am grateful to Dr Hulse for showing this inventory to me before publishing it. The three were described as ‘Counter-tenners Violls made by Rose the younger which I suppose belonged to the Chist’ which implies they were part of a larger set, probably of five or six instruments. Fleming, ‘Chest of Viols’, p.3 and n.15. That *chest* could mean a collection rather than a set is shown by the chest of nine viols belonging to Ives. See below, p.198.

contemporary Italian Jewish Rossi family, based in Mantua,<sup>883</sup> which included many distinguished musical figures.<sup>884</sup> There were also two virginal-makers by the name of Rossi in Milan in the second half of the sixteenth century.<sup>885</sup> Although, theoretically, Jews were unwelcome in Tudor England, two very important groups of Jewish Italian musicians were employed at the English court from around 1540, among whom were viol players and makers.<sup>886</sup> However, the lack of such records as denization,<sup>887</sup> and the fact that Ross/Rose was buried in a churchyard suggests that his family was neither immigrant nor Jewish.<sup>888</sup> That he was English-born is confirmed by the phrase ‘this his natural contery’ in the Bridewell Court Book quoted above, where his description also has a Christian flavour. It is safe to conclude that he was not related to the Italians. There is also no indication of a relationship with the English violin-maker Thomas Rosseter, who was living in The Hague in 1639.<sup>889</sup>

<sup>883</sup> A similar problem of identifying individual Italian lute-makers from their name alone is recognised in Ongaro, ‘Tieffenbruckers’, p.47 and n.1.

<sup>884</sup> The most famous was the composer Salamone Rossi (probably 1570-c.1630) who was a contemporary of Monteverdi at Mantua.

<sup>885</sup> Neither of them were called Giovanni. *Boalch*, p.159. They were probably unconnected with the Mantuan Rossi family. Birnbaum, *Jewish Musicians*, p.42 reports that the name Rossi was widespread among Italians, both Jews and gentiles.

<sup>886</sup> Prior, ‘Jewish Musicians’. Lasocki, *Bassanos*, Ch.6. Holman, *Fiddlers*, Ch.4.

<sup>887</sup> Two of the joiners from ‘the dominion of the Emperor’ who were denizens in 1544: John Roose of Salisbury, Wiltshire, born at ‘Stoken’, had been in England for seven years; John Rose, born at ‘Colleyne’ [Cologne?] had been in England for twenty years. Page, *Denization*, p.208. They do not seem to be connected with viol-making in London. Similarly, I know nothing which connects viol-making with numerous John Roses in London recorded in Kirk, *Aliens*; e.g. John Rose, a servant in St Saviours parish 1541 [i/36]; John Rosse, another stranger servant, in St Albans, Woodstrete 1544 [i/91]; John Rosse, stranger in ‘St Olyffes’ parish 1547[i/136]; John Rosse, alien Dutchman 1549 [i/140]; John Rouse, alien in ‘Showe Lane’ 1541, [i/56]; John Rows, stranger in ‘Shoe Lane’ 1544 [i/94]; John Rowse, stranger in ‘Shoolane’ 1549 [i/181]; John Rose of Flanders, St Georges Parish 1571 [ii/123], Jhon Rose of the Dutch Church in the ‘Hamlet of Ratcliffe’ 1571 [ii/147], and others. The inhabitant of Shoe Lane demonstrates a typical inconsistency of spelling (assuming they are the same person).

<sup>888</sup> However, members of the Bassano family, who were almost certainly of Jewish origin, belonged to, and were buried in, churches. Roger Prior in Lasocki, *Bassanos*, p.96.

<sup>889</sup> In the same city lived a lute-maker called James Rosseter. He could have made a bass viol (now in California) described in *Viollist* as by James Rassester, 1656. James was known as a painter from 1680. Also at The Hague was a lute- and violin-maker and musician called Philip Rosseter (d.1708) who sometimes signed himself ‘Phillip Rossers’. He was probably the son of Philip Rosseter, (b.1602) and the grandson of Philip Rosseter, the English Court lutenist (d.1623). Vlam, ‘Rosseters’, pp.66ff. *BDECM*, pp.973ff. Jeffreys, *Rosseter*, p.77.

His commission for ‘for an other vyall to bemade xxix<sup>o</sup> octobr of the fynest sort’<sup>890</sup> suggests the elder Rose was considered to be an advanced maker in 1552, implying he was born at the latest by c.1520, and perhaps twenty years or more earlier, in which case his skills and reputation would have been established long before the arrival of the Italian viol player/makers. If it could be established for certain that he was born before 1520, it would become virtually certain that it was his son who was buried in 1611,<sup>891</sup> because effective working by such an ancient man would surely have merited comment at a time when life expectancy was much shorter than it is now.<sup>892</sup> There are, however, some examples of longevity which suggest that a maker born in the first quarter of the sixteenth century might still be active in 1609, the latest date that has been attributed to any Rose instrument.<sup>893</sup> A surviving instrument by the lute-maker Martin Schott is dated 1680, yet Schott is thought to have been born before 1600.<sup>894</sup> Antonio Stradivari (b.1644) was still making violins at the age of ninety-three.<sup>895</sup> Such longevity was not unknown in England. The composer William Byrd was over eighty years old when he died in 1623. Another contemporary of Ross/Rose, William Portington, died in London aged eighty-four in 1628, having risen to be Master of the

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<sup>890</sup> Landsdowne Ms.824, fol.33v.

<sup>891</sup> Unless it was yet another instrument-maker of this name.

<sup>892</sup> According to Harrison: ‘some do live an hundred years, very many unto fourscore; as for threescore, it is taken but for entrance into age, so that in Britain no man is said to wax old till he draw unto threescore’. *Description*, p.449. A modern estimate for the period 1580-1660 is that although life expectancy at birth was between 33 and 42 years, approximately 8-9% of the population were over 60 years old. Wrigley & Schofield, *Population*, pp.216, 230-1 and passim. Three centenarians died in the London parish of St Peter’s 1575-95. Edmond, ‘Hilliard’, p.98. Richard Hickes of the Sheldon Tapestry Works died in 1621 aged c.97. Digby, *Tapestry*, p.73. An English etching by Jan Lievens may show ‘Robert South, aged 112’. Godfrey, *Hollar*, p.85. Numerous prints and paintings portray Thomas Parr, who died in 1635 aged 153 (allegedly). *DNB*. Hind, *Engraving in England*, vol.iii, pp.250, 255. Numerous newspaper reports demonstrate the public’s continuing interest in unusually old people. Oxford, Bodleian Library, Douce Adds.138, e.g. No.588 about James Lack who died 1807, aged 105 having ‘flattered himself... that he should live to the age of Old Parr’.

<sup>893</sup> A bass viol by ‘John Ross, 1609’ was item No.508 in the Galpin Society 1951 exhibition. The present location of this instrument is unknown, and its catalogue entry raises doubts about the date. Its four strings and carved lion’s head would be typical for an instrument that had been converted to a cello in nineteenth-century Germany. The label was ‘written on linen’, unlike all the labels I have seen in old viols, which are on paper, parchment or vellum. This suggests it was at best a copy of an original label, and it might be completely spurious.

<sup>894</sup> Schott made lutes and violins. Jalovec, *Bohemia*, p.84.

<sup>895</sup> Nicolo Amati (Stradivari’s teacher) lived 1596-1684, also in Cremona, Italy.



Company of Carpenters, a post which he held for forty years.<sup>896</sup> The discussion of George Gill below<sup>897</sup> shows that at least one other English viol-maker of this period might have lived almost to the age of ninety, although the span of his instrument-making is unknown.

There is no acknowledgement in contemporary documents that individual English viol-makers were noteworthy, and they may generally have been recorded in another, non-musical occupation. In the accounts of the Cavendish family, among many viol and other musical references, a payment of £1 is recorded 'Given by my Lo[rd] to John Rose'.<sup>898</sup> This bare record might be assumed to be of the viol-maker, except that it was made in 1612, the year after the viol-maker of that name was buried.<sup>899</sup> There were numerous other contemporary John Roses with no identifiable musical connection, such as John Rose of St Andrew, Holborn who was an Innholder, John Rose (son of a tailor of the same name) who was apprenticed in Oxford, and a John Rosse whose widow was called Joan (the name of the viol-maker's wife according to the Bridewell Court Book).<sup>900</sup> Several Roses at the time of Rose the elder instrument-maker were carpenters, a likely occupation for a viol-maker, but no connection has been established (or ruled out).<sup>901</sup> Much later, Johannes Rosse, son of a carpenter called

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<sup>896</sup> Jupp, *Carpenters*, p.171.

<sup>897</sup> See below, pp.219ff.

<sup>898</sup> Chatsworth, Hardwick MS.29 fol.265.

<sup>899</sup> The parish register of St. Bride records the burial of 'Jhon Rosse Instrumetmaker' on 29 July 1611. Illustrated in Pringle, 'Founder', p.503.

<sup>900</sup> The will of John Rose, Innholder was proved 8 September 1596. Hill, *English Makers*, vol.ii, p.82. The Oxford apprenticeship (to Thomas Allen, tailor) was dated 21 October 1633. Hanaster L.5.2., fol.247. At least 33 people with the name Rose/Rosse/Roose died in Oxford 1540-1640. Cheyne, *Oxford Probate Records*. Administration of the goods of John Royse alias Rosse late of St Alphage, Cripplegate was granted to 'Joan, relict of the said John', 30 May 1617. Hill, *English Makers*, vol.ii, p.82. A tradesman's token in the Guildhall Museum (No.1020) whose obverse shows 'John Rose. In Token Hous = a sugar loaf J.E.R.' also has no known connection with the viol-maker. Ibid., p.85.

<sup>901</sup> 'John Rosse hath promysed to pay to Rychard Sand[er] at mydsom[er] day next comyng [a debt]', 1 June 1554. Marsh, *Records of Carpenters*, vol.iii, (fol.81). 'Resd of thoms Hube for tornyng ov[er] of John Rosses [apprentice]', 1556. vol.iv, (fol.125). 'Receipts at the making of Freemen. Receaved of John Rose [and 20 others] at iijjs iiijd the piece', 1584. Ibid., vol.v, (fol.422). John

Richard Rosse was apprenticed to another carpenter called Thomas Heake.<sup>902</sup> There was at least one other instrument-maker in London called John Rose, but he made mathematical and philosophical instruments c.1777, and there is no evidence of a connection with the musical instrument makers.<sup>903</sup>

No independent evidence that any of the above-mentioned bunch of Roses were related has come to light, apart from the comment in Stow's *Annales* which tells us that there were a father and son who were both instrument-makers called John Rose, the son 'far excelling' the father:<sup>904</sup>

In the fourth yere of Queen Elizabeth, Iohn Rose, dwelling in Bridewell, devised and made an Instrument with wyer strings, commonly called the Bandora, and left a Son, far excelling himselfe in making Bandores, Voyall de Gamboes, and other Instruments.<sup>905</sup>

This passage has been known to organologists for a long time, being noted in the eighteenth century by Sir John Hawkins<sup>906</sup> and by many nineteenth- and twentieth-century authors. Its antiquity and familiarity have led to an uncritical acceptance that it denotes a simple truth. However, the lack of biographical detail means that assumptions, such as that two instruments labelled John Rose are by the same person, are at best insecure. Failures to acknowledge that a 'Rose' viol might have been made before 1552 or as late as 1610 are likely to recur because of the length and clumsiness of expressions such as 'made by John Rose or Ross the elder (*fl.*1552) or John Rose or

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Roose's apprenticeship was transferred from Mr Howtinge to Roberte Maskell, 1583. *Ibid.*, vol.vi, (fol.94).

<sup>902</sup> 7 August 1664. Marsh, *Records of Carpenters*, vol. vol.iv, p.125.

<sup>903</sup> Clifton, *Directory*, p.237.

<sup>904</sup> The Duke of Newcastle's instruments included three 'Counter-tenners Violls made by Rose the younger' and one 'Violl of Rose his makeing'. Hulse, 'Newcastle', appendix.

<sup>905</sup> Stow, *Annales*, p.869.

<sup>906</sup> 'The John Ross mentioned in the [advertisement in *Tripla Concordia*, 1677], was the son of the person mentioned in the *Annals of Stowe* by the name of John Rose...'. Hawkins, *General History*, p.686.

Ross the younger (probably *d.*1611)' compared with 'by John Rose', but it is to be hoped that all writers will accept the particular uncertainty that is a consequence of a 'Rose' attribution. After four hundred years, records of contemporaries with similar names are inevitably confusing and can make conclusive identifications almost impossible. It is an inescapable fact that 'John Rose', with variations of spelling, was an extremely common name, so all references to individuals who bore it should be regarded as references to separate people unless and until there are clear indications to the contrary. This also applies to many other viol-makers. Occurrences of their names should be treated with as much caution as 'John Rose'.

For Smith, three surviving viols suggest that he was a good maker, but no documents which illuminate his life are known apart from labels in these instruments which give Henry Smith's address as 'over against Hatton house in Holborne'.<sup>907</sup> Hatton House was the residence of a notable musical patron,<sup>908</sup> but Smith's adjacency does not imply a connection with the owner any more than a St Paul's Churchyard address implies a connection with the church. However, Christopher Hatton III (*d.*1670) became Steward of Higham Ferrers, Northamptonshire and the nearby manor of Irchester in 1636.<sup>909</sup> Perhaps Henry Smith was connected with Ralph Agutter,<sup>910</sup> and/or was of Northamptonshire origin?<sup>911</sup> Smith/Smyth was as common a surname in seventeenth-century Higham Ferrers as elsewhere. A Henry Smyth had a daughter there in 1600, and another Henry, son of William Smyth, was christened on 1 November 1604.<sup>912</sup> This could be the viol-maker.

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<sup>907</sup> Illustration L83.

<sup>908</sup> Wainwright, *Musical Patronage*, *passim*.

<sup>909</sup> Wainwright, *Musical Patronage*, p.11.

<sup>910</sup> See above, p.143f.

<sup>911</sup> Northamptonshire was shown above to be the origin of some viol makers. See also Appendix 10a.

<sup>912</sup> NRO, 167P/1.

Following the discussion above of Ross/Rose's name, the question arises of whether there was only one viol-maker with the very common surname, Smith. *BDECM* records about a dozen Smiths who were employed by the court in a musical capacity in the hundred years before *Musick's Monument* was written.<sup>913</sup> Two Henry Smiths (one died between 1670 and 1675, the other in 1688) probably lived too late to have made the extant viols which are dated 1623-1637. There is no evidence that these two Henry Smiths made viols, and it is very unlikely that one of them was the Smith that Mace praised,<sup>914</sup> but they provide another example of the potential of common names to stimulate ideas or provoke assumptions that turn out to be unjustified. The very next burial recorded in the register of St. Bride Parish, 29 July 1611, after that of 'Jhon Rosse Instroment maker' was that of a Henry Smyth,<sup>915</sup> but he was described as a 'prisoner in the flete' rather than as an instrument-maker. The date means he could not have made the surviving Smith viols,<sup>916</sup> but it does not rule out the possibility he was Mace's Smith. However, although the fact that there are three extant viols by a man called Smith does not prove that he is the one praised by Mace, it is a reasonable hypothesis which should be retained with the caveat that it is provisional, until and unless it becomes possible to confirm or disprove it, especially as these three instruments bear strong resemblances to viols by Rose and Jaye, two of the other viol-makers named by Mace.<sup>917</sup>

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<sup>913</sup> One who definitely made instruments is 'Bernard' Smith, the famous organ-maker.

<sup>914</sup> They were still alive when Mace described his five makers in the past tense (see Appendix 9), but see the discussion of 'Bolles' below.

<sup>915</sup> Illustrated in Pringle, 'Founder', p.503.

<sup>916</sup> Similarities between viols by Smith and Rose sustain the possibility that Smyth the prisoner might have made viols. See above, Chapter 2 and illustrations, e.g. L34. The maker of the dated viols was not necessarily the maker praised by Mace, and might have been a relative of the prisoner. 'John Hoskens' was in the same prison in 1609 (the date on the only known John Hoskins viol - see appendix 9) and died there in 1610, but no connection between the viol-maker and the prisoner has been established. Edmond, 'Limners', p.99. The possibility that viol-making was an occupation possible for prisoners in England cannot be ruled out. It would be an interesting pre-echo of the great Cremonese violin-maker Giuseppe Guarneri del Gesù, who produced some 'notably fine examples' while he was in prison. Hill, *Guarneri*, pp.89ff.

<sup>917</sup> Illustrations L34, L35.

No instrument by Bolles appears in *Viollist* where, although dates of his activity are given as 1600-1620, no evidence for these dates is declared. No documents which illuminate his life are known. There is, however, a possibility that a viol mentioned in a twentieth-century letter was the work of the maker praised by Mace. If it was, Mace's description of Bolles as an 'old'<sup>918</sup> maker would seem curious by modern standards. The letter was written on 11 February 1937 by Arthur F. Hill from the Bond Street address of his firm to E. T. Leeds at the Ashmolean Museum in Oxford.<sup>919</sup> Hill offered the Ashmolean 'a most charming pipe, tabor and bells of a Morris dancer, which was made by an Oxford man.' He probably offered both these and the following instrument to the Ashmolean because of the Oxford connection. The final sentence of Hill's letter was: 'We have a treble viol made by Boles, a maker who worked at Oxford about 1675, and this must certainly come to you.' This viol never reached the Ashmolean, and no further information about it is available.<sup>920</sup> Its present location is unknown, so its survival cannot be confirmed. Hill's statement of Boles's date may have been erroneous, as he may have based a judgement on its style and workmanship rather than a dated label or biographical information. This is normal practice among violin dealers and connoisseurs. His description of Boles as an Oxford maker implies the instrument was labelled, as there is no recognised school of Oxford viol-making identifiable by stylistic traits, but labels are commonly undated, and often only partially legible. Hill's description of Boles as 'about' 1675 implies that the label was undated and perhaps that Hill associated the name with Mace. Labels have been forged since at least the seventeenth century,<sup>921</sup> but no forger in 1937 would be likely

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<sup>918</sup> The use of the word 'old' will be discussed in Fleming, 'Piece of String'.

<sup>919</sup> *Hill Archive*, Blue Box.

<sup>920</sup> Confirmed by David Hill, personal communication.

<sup>921</sup> Vidal, *Instruments*, pp. 93, 122f. Abele, *The Violin*, p. 74. Harvey, *Violin Fraud*, p. 10. Hargrave, 'Undercover Agents', p. 1106.

to chose such an obscure individual as ‘Boles’ of Oxford. The spelling of Boles is easily explicable; this is the way Bolles is commonly pronounced, and it is likely to have been so interpreted by a secretary who typed Hill’s letter. Alternatively, the viol may have been labelled ‘Bolles’, and Hill may have considered Bolles to be no more than a variation of Boles.<sup>922</sup> There can be no certainty that a maker to whom an instrument which might no longer exist has been attributed is connected with a similarly-named maker whose sole appearance is in a single source, but the possibility cannot be ruled out. Mace’s Bolles may have lived and worked in Oxford, perhaps associated in some way with Ilsbery, York, Henton or other Oxford makers.

My searches through PCC and similar records have not produced any record likely to be of Mace’s Bolles. There was, however, a distinguished man of this name whose connection with viols has been established as important, Sir Robert Bolles, Bt., (1619-1663).<sup>923</sup> Sir Robert was the patron of Christopher Simpson and the dedicatee of the first edition of the *Division-Violist*.<sup>924</sup> John Jenkins may have resided with him.<sup>925</sup> He lived at Scampton, Lincolnshire where the family had several properties. His royalist inclinations during the civil war probably brought him into close contact with William Cavendish, Duke of Newcastle,<sup>926</sup> who had an interest in viols and was a notable patron of music, supporting Christopher Simpson among others.<sup>927</sup> An inventory shows that in 1636 Cavendish possessed at least twelve viols as well as violins and numerous other instruments.<sup>928</sup> Twenty-six years later, the probate inventory of Sir

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<sup>922</sup> Boles is among the variant spellings that are recorded for the Bolles family discussed below.

<sup>923</sup> The following biographical information is derived principally from Urquhart, ‘Bolles’.

<sup>924</sup> The second edition was dedicated to his son, Sir John Bolles. Sir Robert Bolles, Bt. was named among the original subscribers to Mace, *Musick’s Monument*, in the list printed near the beginning of the book. As Bolles died in 1663 and the book was not published until 1676, this might indicate continuing support of Mace by Bolles while the book was being written.

<sup>925</sup> *BDECM*, p.624.

<sup>926</sup> Urquhart, ‘Bolles’, p.18.

<sup>927</sup> Hulse, ‘Apollo’s Whirligig’.

<sup>928</sup> Hulse, ‘Newcastle’.

Robert Bolles shows that he shared Cavendish's enthusiasm for viols, and owned more viols than are noted in the aforementioned inventory of Cavendish's instruments.<sup>929</sup> In the 'high Gallerie' at Scampton Bolles had 'a boxe with a duoble [sic] base violll and two trible viollls' valued at £10, 'a deale boxe with a Theorbo and a Lute' valued at £5, and a 'paire of Organs' valued at £60. The 'Musick roome' contained '1 presse & 2 chists for viollls', '3 boxes', and 'a p[ai]re of Harpsecords out of order & 13 viollls', as well as table, chairs, stools and two pictures.<sup>930</sup> The thirteen viols in the music room, together with the harpsichord, were valued at £20. 'M<sup>r</sup> Simpson's Chamber' contained only minimal furnishing and nothing musical, but if Simpson's own viol was present it would not be assessed as part of the household.

Sir Robert Bolles's interest in viols is manifest in his patronage of Simpson and his possession of many instruments, but was he connected with viol-making? Although manual or 'mechanical' work would normally be considered far from acceptable for an eldest son<sup>931</sup> of gentry status, this possibility was debated during Bolles's lifetime, as discussed above in Chapter 4. Sir Robert's social standing and documented activities make it highly unlikely that there was any period when he could have been making instruments, but it would be possible that a son or other relative followed that path. The only close relative<sup>932</sup> who might have been the one recognised by Mace was Robert's second son, also called Robert (1647-1671). The family finances were so

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<sup>929</sup> 'An Inventory of the household goods of S<sup>r</sup> Robert Bolles Baronett Late of Scampton in the County of Lincolne deceased as it was taken by Robert Dawson and William Darby March the 24<sup>th</sup> 1663/4.' LCC Admon 1664/157. The estate was valued at £2821-8-8 including £1667-0-4 for livestock and crops. Cavendish probably owned other viols besides the twelve mentioned as the 1636 inventory did not include all his properties. Hulse, 'Newcastle'.

<sup>930</sup> This may be a rare example of a single source referring to the storage of viols in both a press and in chests, but the imprecision of the punctuation means it is not certain that the press was for viols. Fleming, 'Chest of Viols'. It is also possible that the boxes may have been used for the storage of instruments or music, as boxes were used for this purpose in the high gallery. Ibid., p.9 and n.35.

<sup>931</sup> Robert's brothers were all dead by the time he was thirteen years old. Urquhart, 'Bolles', p.27. This is below the statutory minimum age at which apprenticeship could start.

<sup>932</sup> I do not have information about relatives who are remote from the main line of descent.

unsatisfactory that Robert's elder brother John was 'declared an outlaw for debt' in 1671<sup>933</sup> and by 1674 Robert had still not received legacies from his grandfather or father. These are exactly the sort of circumstances that William Penn and Thomas Powell envisaged when they encouraged high-born children to learn skills such as instrument-making,<sup>934</sup> although a more lucrative occupation might have been preferred. It may be significant that Mace taught music to Robert Bolles II at Cambridge in the mid 1630s,<sup>935</sup> as Mace could have stimulated Robert's interest in viols at that time. This may have encouraged a favourable assessment by Mace of any viol-oriented activities by members of the Bolles family and could have led him to include Robert II in his list of five makers because of an occasional essay in viol-making. However, Mace's £100 anecdote suggests that several instruments were made by the Bolles he mentioned. The evidence that Robert Bolles II was the viol-maker praised by Mace is not strong, but the possibility remains.

The fourth of Mace's makers considered here is 'Jay'. After 1660 there are several records such as apprenticeship indentures and freedoms which associate English viol-makers with particular Companies,<sup>936</sup> but they are exceedingly rare before that time. The most important such record is a document dated 9 December 1606 which has recently come to light in the Corporation of London Record Office and which refers to Henrye Jaye.<sup>937</sup>

It is ordered that [the Fletchers' Company] shall take into their sayd Companie fower<sup>938</sup> psons to be made free of this Cittie by Redempcon and ... it is lykewyse

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<sup>933</sup> Urquhart, 'Bolles', p.23.

<sup>934</sup> See above, p.159f.

<sup>935</sup> Urquhart, 'Bolles', p.17.

<sup>936</sup> E.g. Richard Meares [I], Fletchers' Company; Barak Norman, Weavers' Company; George Miller and John Hare, Drapers' Company. *British Violin*, pp.16, 18, 29.

<sup>937</sup> I am very grateful to Andrew Fairfax for alerting me to this document.

<sup>938</sup> The fourth man is not mentioned again.



ordered that Thomas Barnard ffloris Bernard & Henrye Jaye being Instrumentmakers, shalbe all of them made free of this Cittye by Redempcon.<sup>939</sup>

Apart from this document, no connection between Thomas or Floris Barnard and instrument-making is known, but this Henry Jaye was probably the one praised by Mace. He is regarded as one of the greatest and most important of English viol-makers, and more extant viols are attributed to him than to any other English maker before 1660.<sup>940</sup> The Barnards are discussed below.<sup>941</sup>

My assiduous searches uncovered no record of Jaye's parents, or of his birth, baptism, apprenticeship, employment, trade activity, marriage, children, death, burial, will or probate. Nor does he appear in *RECM*, *BDECM* or *CSPD*. Quite a lot of information is available about another Henry Jaye of Southwark, a wealthy member of the Feltmakers Company who became an Alderman, died in 1620, and had a son of the same name, but there is no evidence that either of these Henry Jayes had any connection with viols or music, and I am confident that they are distinct from the viol-maker. Another contemporary Henry Jaye who is unconnected with the viol-maker was born in London to a father named Thomas, but the first record of his activities is in Antwerp (1606) where his 'scandalous' speeches against the King of England were reported.<sup>942</sup>

Relieved of these red herrings, it is now possible to use information assembled in Chapter 4 to reconstruct some features of the life of Henry Jaye the viol-maker. In

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<sup>939</sup> CLRO, REP 27, fol.313. For the full entry see illustration L90.

<sup>940</sup> Twelve 'Jaye' viols have been examined for this study. See Chapter 2 and Appendix 4.

<sup>941</sup> See pp.210ff.

<sup>942</sup> Rogers, 'Jaye', p.86. He is known to have published thirty-four books (almost all of a religious nature) of which fourteen were in English, and is thought to have stayed abroad because of his Catholic faith.

order to claim responsibility for an instrument by presenting his name on an instrument's label, Jaye would have had to finish his apprenticeship. The earliest reported date of a Jaye viol is 1610,<sup>943</sup> which, if Jaye had completed an apprenticeship by then, means he was born in 1586 at the latest. However, the document quoted above suggests revising this backwards, because he would probably have been working as an instrument-maker for several years before 1606 in order to be identified as one rather than as a joiner. This implies that Jaye was born no later than 1580, and probably some years earlier. As his earliest reported viol is 1610, he might not have made many or any before then, but have worked as a joiner or an instrument-maker in the general sense discussed in Chapter 4.

The level above apprenticeship in the hierarchy of a London company was that of journeyman, but even journeymen were not allowed to set up business in the City of London on their own account. For this, freedom was essential.<sup>944</sup> If Jaye had completed an apprenticeship<sup>945</sup> by 1606 he would have attained freedom by Servitude because Servitude was cheaper than Redemption. The fact that he did not join by Patrimony indicates that his father was not Free of the City of London, either because he had not reached the necessary rank within a Company or because he lived outside the City's jurisdiction. His father may have been too poor to become free by Redemption and he may never have risen above the level of labourer or journeyman, in which case freedom would not have been granted. That Jaye the viol-maker felt it was worth paying six shillings and eight pence to become Free of the City of London by

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<sup>943</sup> 'We have recently seen in a well-known auction room a fantastically shaped Bass Viol of small size, of which, however, only the back, sides and carved head were original, with the label 'Henrie Jaye, dwelling in Southwarke 1610.'. Galpin, *Old English Instruments*, p.67. The location of this viol is unknown, as is that of 'A Treble Viol signed by [Jaye] in 1632', which lacks its head and is illustrated in Galpin's plate 16. It was No.506 in the 1951 Galpin Society exhibition in London.

<sup>944</sup> Rappaport, *Worlds*, p.242.

<sup>945</sup> Not necessarily with an instrument-maker.

Redemption shows he intended to trade in his own name. It also shows, for reasons explained above,<sup>946</sup> that he had not been apprenticed for seven years in the City.

The establishment of Jaye's date of birth as 1580 or earlier reveals the 1667 date of VME17 as anomalous, because the instrument does not look like the work of an eighty-seven year-old. This suggests that there might have been two Henry Jayes, father and son, as there were two John Roses in nearby Bridewell. The discussion of Rose's age shows that it is not impossible for an old man to continue making instruments successfully. Nevertheless, it is unlikely that Jaye was capable of fine work at such an age, and there is another document which provides strong evidence that whoever made the late Jaye instrument/s was not the instrument-maker of 1606. This document lists the names and addresses of all members of the Fletchers Company of London in 1641.<sup>947</sup> Thomas and Floris Barnard/Bernard who attained freedom at the same time as Henry Jaye both appear in it,<sup>948</sup> but he is absent, although there is a Robert Jaye.<sup>949</sup> Henry Jaye's absence implies that he was dead by 1641. Significantly, all the extant dated instruments except two, one of which might not exist, are from before that year.<sup>950</sup> Another fact that supports the death of Jaye being before 1667 is Mace's inclusion of him among the makers of whom he wrote '*These were Old*'.<sup>951</sup> If Jaye was still active as a viol-maker less than a decade before *Musick's Monument* was

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<sup>946</sup> See p.123.

<sup>947</sup> London, Public Record Office, E.179/251/22.

<sup>948</sup> Florris Barnard of Blackman Street is the fifth of seven names in a list titled 'All these have serued [as] Wardens'. London, Public Record Office, E.179/251/22, fol.93. Thomas Barnard of Fleetstreete is the second of fifty-seven names in the list of 'The names of the other Freemen Of the same Company'. Ibid., fol.94.

<sup>949</sup> Robert Jaye of 'St Tho: Southwork' is the penultimate name in the list of 'The names of the other Freemen Of the same Company'. LPRO, E.179/251/22, fol.96.

<sup>950</sup> The two late instruments are the V&A tenor viol, 1667 and the bass, 1666 in Stockholm. The Musikmuseet in Stockholm where the latter instrument is recorded (*Viollist* notes 'might not exist'), has not responded to my repeated requests for confirmation of the viol's existence.

<sup>951</sup> *Musick's Monument*, p.245. See above, frontispiece.

published, Mace is unlikely to have described him as one of the ‘Old’ makers,<sup>952</sup> although he would certainly have been a very old man.

If Henry Jaye was dead by 1641, who made the 1667 viol and any others dated later than 1641? Robert Jaye is the obvious candidate but there is no record of a Robert Jaye making instruments. He lived in Southwark and it is possible that he was a son, cousin or other relative of Henry Jaye, who also lived there. Robert may have worked for Henry, and could have continued to use any patterns or designs after Henry’s death, but as there are no records of apprentices or other any workers associated with Henry Jaye it is impossible to confirm whether Robert did this or if it was someone else. Similarities between the 1667 viol and earlier ones (1629 in Nuremberg and 1624/7 in Paris) show they are connected and strongly suggest that they are all products from a single establishment, but further study is necessary in order to eliminate the possibility that the later instrument was made by an independent near-contemporary, based on Jaye’s work. Dendrochronological examination of all the ‘Jaye’ viols, together with side-by-side comparisons, might be conclusive.

No great significance should be attached to the fact that Jaye and the Barnards were admitted to the Fletchers’ Company, despite the fact that several later instrument makers were associated with this company, including Richard Meares<sup>953</sup> in London and William Baker in Oxford. It is probable that William Baker did actually work as a fletcher around 1670 because a condition imposed when he became Free of Oxford<sup>954</sup>

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<sup>952</sup> Another possibility is that Mace’s ‘Old’ referred to what had become an obsolete style of making involving stave-construction fronts.

<sup>953</sup> *British Violin*, p.16

<sup>954</sup> Baker was originally from Oxford, and it is possible that he moved back to Oxford from London at this time to flee the plague. *British Violin*, p.23.

was that he followed only the trades of fletcher or instrument-maker.<sup>955</sup> It is less likely that Jaye worked as a fletcher. In fact, the admission document suggests that the Fletchers Company of London, a company of very modest status, was so keen to remedy their dwindling numbers that they would admit anyone, even an instrument-maker.

The fifth and last maker mentioned by Mace was Aldred. Mace mentioned no forename, but he is likely to have meant Thomas Aldred who supplied instruments, including six viols with their chest, to the Duke of Devonshire.<sup>956</sup> No extant instrument by Aldred can at present be identified, but at the beginning of the twentieth century the Hills reported a manuscript label in a viol as ‘Thomas Aldred / in Holborn, London, 1639’.<sup>957</sup> Several dictionaries record a maker of 1629 or ‘c.1630’, who in 1928 was described as ‘T.-A. Hosborn, London’.<sup>958</sup> Morris described him as ‘A maker of lutes and viols’ which, as no English lutes from this period are known to survive, suggests that a label in a viol may have been the source of his information and that Morris simply made up the rest.<sup>959</sup> However, despite not having seen the ‘Hosborn’ label, Lütgendorff suggests that ‘Thomas Alfred Hosborn’ is a mis-reading of ‘Thomas Aldred, Holborn’.<sup>960</sup> I accept this very credible interpretation. It implies that a second viol made by Aldred, 1629 may have survived at least until the late nineteenth century, but if it did, knowledge of its location has since disappeared from the public domain.

<sup>955</sup> Hanaster, L.5.4., cited by Trevelyan, ‘William Baker’, p.66.

<sup>956</sup> 1 July 1612, ‘To Mr Thom. Aldred for vi vialls and a chest xii<sup>l</sup> x<sup>s</sup>’. Chatsworth, Hardwick MS.29, fol.269. June 1613, ‘To Mr Aldred for a bandora twoe pounds xv<sup>s</sup> vi<sup>d</sup>’. Chatsworth, Hardwick MS.29, fol.321. Hulse transcripts.

<sup>957</sup> A viola da gamba with this label was ‘offered from Donai 30.3.1906’. Hill, *English Makers*, vol.i, p.6.

<sup>958</sup> Vidal, *Instruments*.

<sup>959</sup> E.g. Poidras, *Dictionary*.

<sup>960</sup> Morris, *British Makers*.

<sup>960</sup> ‘In einer in Paris 1878 ausgestellten Baßviola wurde dieser Name gelesen. Leider konnte ich diese Viola nicht zu Gesicht bekommen. Ich glaube, daß der Zettel richtig gelesen werden mußte: Thomas Aldred (Name), Holborn (Wohnort)’. Lütgendorff, *Geigenmacher*, vol.ii, p.229. Vannes, *Dictionnaire* accepts this interpretation.

It is also possible that one label said 1639 rather than 1629, or *vice versa*, in which case only one viol by Aldred may have survived into modern times. A further possible reading is Hosken, suggesting a possible relationship with John Hoskins.<sup>961</sup>

Some authors suggest that Aldred was active around 1560, but if that was true then some viol work done in 1643<sup>962</sup> would imply that there were at least two Aldreds, perhaps not even from contiguous generations.<sup>963</sup> There is no contemporary record of Aldred before 1612, so it is more likely that it was the same person working in 1643 than that these modern books are correct. The authors probably felt that the comment about Aldred being one of the ‘Old’ makers implied that he should have been working more than a century before Mace’s book was written, but Mace was apparently happy to describe his near contemporaries as ‘Old’, so this can be discounted.<sup>964</sup> However, as the earlier sources name Aldred<sup>965</sup> and two later ones Alred,<sup>966</sup> it remains possible that these are separate viol-makers, possibly different generations of the same family. A codicil to the will of Simon Ives, proved 7 Jul 1662, mentioned a chest of nine viols, comprising five trebles, three tenors and a bass.<sup>967</sup> The chest was made by Thomas ‘Alred’, but another viol was made by his servant ‘Muskett’ about whom nothing more is known.<sup>968</sup>

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<sup>961</sup> For Hoskins see Appendix 9, and terminology diagram p.247. An Oxford instrument-maker was known variously as Henton and Hinton. See above, p.175.

<sup>962</sup> A viol was repaired by ‘Alred’ in January 1643 for the fifth Earl of Bath. Hulse, *Patronage*, p.120.

<sup>963</sup> Hart, *The Violin*, p.149. Lütgendorff, *Geigenmacher*. Morris, *British Makers*, p.57f. *IGI* records numerous men called Thomas Aldred or similar, including in London, Surrey, Suffolk, Essex, and Yorkshire (including at St. Peter, Leeds: see Mashrother below), but I have been unable to identify any of them as a viol-maker.

<sup>964</sup> It is possible that all five of Mace’s ‘Old’ makers were active during his lifetime. Some may even have been younger than him.

<sup>965</sup> 1612, 1613.

<sup>966</sup> 1643, 1661/2.

<sup>967</sup> *Grove*. This codicil confirms that the term *chest* does not signify a particular number of instruments. Fleming, ‘Chest of Viols’.

<sup>968</sup> Ives’s will, parish of Christ Church, London, dated 4 Feb 1661/2 is in the Greater London Record Office. The information about viols is a codicil in Ives’s hand. I am grateful to P.Holman for information about the will. For Muskett see above, p.166.

The eminence attributed to five viol-makers by Mace makes it remarkable that none of them appear in *RECM* which records in detail the acquisitions and instrument dealings of one of the most important English sources of patronage – the royal court. If they were as good as Mace suggested, why are there no traces of them working for the most desirable and important patron? One possibility is that Mace's opinion was not widely shared. Mace backed up his esteem of Bolles with the anecdote of a bass viol being assigned the vast value of £100,<sup>969</sup> but apart from this there is only limited independent contemporary support for his opinion of the five named makers, as there is so little documentary evidence concerning the existence or activities of any specific English viol-makers. The probable explanation has been indicated above in discussions of who carried out work on instruments at court and the relationship between the maker of a viol and the name on its label.<sup>970</sup> It was normal for the acquisition of instruments, both for the court and for private individuals, to be made through an intermediary, so this intermediary is usually the person whose name appears in accounts or other records. This is the most likely reason that Mace's five makers have such a low profile among records of instrument purchases. But because records of transactions generally refer to the person who obtained the instruments for the court rather than the person who made them, it remains possible or even probable that the five might have made instruments that were bought for court use, even though they were not named in court documents.

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<sup>969</sup> See above, frontispiece. £100 is more than is known to have been paid for any bowed instrument in England before the Restoration, and may be more than three times the price paid for any other viol. The £56 reported to have been paid for a bass viol to 'Mr Edney' by William Cavendish, Earl of Devonshire, in November 1605 (*BDECM*, p.379) is an error and should be £5. A few months previously, the Privy Purse paid for 'Vyolls viz. one sett for the king, £40; one other sett and a base vyol for the prynce, £32'. *RECM*, vol.iv, p.232. Mace's £100 is also questionable because he reports that Charles I bought a lute by Maler for exactly the same price. *Musick's Monument*, p.48. £100 may not have been merely a vernacular cliché, however, as Evelyn reported that £100 had been paid for prints by Lucas van Leyden by 'one that as well understood the value of mony, as of that rare Collection' (*Sculptura*, p.63), and in 1671 the young Grinling Gibbons asked £100 for his first work in London. Esterly, *Gibbons*, p.20ff.

<sup>970</sup> See above, pp.145ff.

## OTHER VIOL-MAKERS

The five viol-makers famously named by Mace and discussed in the first part of this chapter are the early English viol-makers who have received most attention, but their mention by Mace does not prove that they are important and does not suggest they are typical. The following discussion examines other viol-makers I have been able to identify, together with contextual information which places them in society and in relation to one another. For reasons discussed above, it is often impossible to be certain whether a person actually made viols or was an intermediary, or to which person a documentary source refers, and many of the makers discussed below exemplify these problems. The makers are not considered in any strict order. My research found evidence of significant musical instrument making in York and makers from that area are considered first.<sup>971</sup> This leads to further consideration of makers with the surname York, followed by some makers represented by extant instruments and others who are known only from documentary traces. The chapter concludes with a consideration of possible relationships among certain viol-makers, and questions the attribution of some well-known viols. Further information about the makers mentioned here, and others, is given alphabetically in Appendix 9.

There are several documents which record payments for work done by George Mashrother, instrument-maker of York, for Francis Clifford, fourth Earl of Cumberland.<sup>972</sup>

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<sup>971</sup> It is likely that further research can reveal instrument-making in other cities such as Bristol, Norwich, Chester etc.

<sup>972</sup> For Mashrother see also Hulse, *Patronage*, p.123.



<i>year</i>	<i>date</i>	<i>work for which Mashrother was paid</i>
1612	7 July	work done since the last time he was paid <sup>973</sup>
1612	19 December	mending instruments <sup>974</sup>
1617	22 May	making seven bows, mending the viols that went to Skipton, and for ‘his pains ...being sent for to amend some instruments’ <sup>975</sup>
1617	19 November	supplying lute and viol strings, and mending lutes <sup>976</sup>
1622	22 December	‘Bringing a Virginnall w <sup>th</sup> a wynde Instrument in it’, and ‘mending two Theorboes and one lute’ <sup>977</sup>
1624	[various]	(with George Brownlesse <sup>978</sup> ) for making, repairing and tuning organs <sup>979</sup>

The rarity of the name Mashrother makes it practically certain that this is the ‘Geo. Mashroder, instromentmaker’ who was granted the Freedom of the City of York in 1597.<sup>980</sup> He was described as ‘George Marsherrudder, the organ mender’ when he supplied viol strings for York Minster.<sup>981</sup> Members of this family appear in York documents with numerous variations of spelling, including Maschrother, Masherother, Massherother, Masherother, Masherodder, Masheroder, Mashroder and Masbrother.<sup>982</sup> A mid-sixteenth century widow named Masherudder was probably another relative.<sup>983</sup> It is relatively straightforward to work out relationships among the Mashrothers of

<sup>973</sup> Chatsworth, Bolton MS.94 fol.183v, cited by Woodfill, *Musicians*, p.258.

<sup>974</sup> Chatsworth, Bolton MS.94 fol.185, cited by Woodfill, *Musicians*, p.258.

<sup>975</sup> Chatsworth, Bolton MS.97 fol.199v, cited by Woodfill, *Musicians*, p.258.

<sup>976</sup> Chatsworth, Bolton MS.97 fol.202, cited by Woodfill, *Musicians*, p.259.

<sup>977</sup> Chatsworth, Bolton MS.99 fol.223v. Hulse transcription.

<sup>978</sup> Brownlesse worked on another organ with Mashrother at Sheriff Hutton near York. Hulse, *Patronage*, p.123, n.60. Eight men with variations of the surname Brownlesse were admitted to the freedom of the City of York 1572-1646 including three named George and four named John. They were mostly tailors, butchers or bakers; none can be identified as Mashrother’s assistant. *Freemen of York 2*, pp.13, 16, 47, 50, 56, 75, 89 and 104. Others were baptised, married or buried between 1637 and 1677, but none of these were named George. *IGI*. See Appendix 10b.3.

<sup>979</sup> Chatsworth, Bolton MS.100 fol.196, fol.197. Hulse transcription.

<sup>980</sup> *Freemen of York 2*, p.41. See below, p.205.

<sup>981</sup> 1624-5. Payne, ‘Provision’, p.8.

<sup>982</sup> *IGI*. *Freemen of York 1*, pp.223, 230, 240, 256 and 262. *Freemen of York 2*, pp.21, 36 and 103.

<sup>983</sup> The will of Elizabeth Lord of York 1550, formerly Prioress of Wilberfoss [Reg. Test. xiii. 705] includes as almost the last bequest: ‘To moder Masherudder, widdoo, a kercheve’. *Testamenta Eboracensia*, p.308.

York and Leeds. They were possibly related to some people with similar names in the Scarborough area of Yorkshire (Massruder, Mashrutter<sup>984</sup>), and to others in southern England.<sup>985</sup> Possible relationships between the male Mashrothers of York, based on Freedoms, parish records, and baptismal and marriage records from *IGI*, are shown in Appendix 10b. Because the name is unusual and was subject to constant variation of spelling, it seems reasonable to assume that ‘George Masseter, instrument-maker of York’, who appears in the same set of Cumberland accounts, at the same time, doing the same sort of work, was simply another variation in the spelling of George Mashrother, and that his ‘man’ in 1633 was George Brownlesse.

<i>year</i>	<i>date</i>	<i>work for which Masseter was paid</i>
1611	2 May	his boy brought some things to Londesborough for the music <sup>986</sup>
1611	6 May	‘divers things’ including the supply of viol strings, mending instruments, and making a ‘Citharen’ <sup>987</sup>
1633	8 November	(with his man) tuning the organ and mending other instruments <sup>988</sup>
1642	October	supplied a drum <sup>989</sup>

This interpretation is supported by the fact that both Mashrother and Masseter were involved with a range of instruments, and by the absence of the name Masseter from York records of the time.<sup>990</sup> The fact that no Masseter became free of York would not by itself indicate that a man of this name did not exist, as George Brownlesse, whose

<sup>984</sup> The will of ‘John Mashrutter, Hundemanbye’ was dated 7 November 1605 and proved on 9 April 1606. *Wills in the York Registry*, Yorkshire Archaeological Society Record Series, vol.vxxvi (1899). Hunmanby is about 10 miles from Scarborough. In April 1592 the lease of some land in Hunmanby was granted to Robert Hales, composer and Court musician. *RECM*, vol.vi, p.56. *BDECM*, p.532f.

<sup>985</sup> John and Charles Mashrother/Masherutter had families in London. *IGI*. Bardsley’s *Dictionary* mentions Peter Mashrether’s marriage in Chigwell, Essex 1584. One person with the name Mashrother was married by licence of the Vicar General of the Archbishop of Canterbury in the period 1694-1725. *VG*.

<sup>986</sup> Chatsworth, Bolton MS.94 fol.88, cited by Woodfill, *Musicians*, p.256.

<sup>987</sup> Chatsworth, Bolton MS.94 fol.182, cited by Woodfill, *Musicians*, p.257.

<sup>988</sup> Chatsworth, Bolton MS.172 fol.166, cited by Woodfill, *Musicians*, p.259.

<sup>989</sup> Chatsworth, Bolton MS.180. Hulse transcription.

<sup>990</sup> No-one by the name of Masseter appears in *Freemen of York 1* or *Freemen of York 2*, in *IGI* for York, or in any of the parish registers of York and surrounding areas I have inspected.

instrument work is recorded, was not granted freedom.<sup>991</sup> Nevertheless, the distinction is maintained consistently in the Cumberland accounts so in the absence of decisive information, we must treat them as separate people and not succumb to the temptation to simplify. It is not possible to be certain whether it was Masseter or Mashrother or someone else in York to whom three viols were sent ‘to get them cut’ in October 1617,<sup>992</sup> but the context suggests it was George Mashrother.

George Mashrother stated in his will<sup>993</sup> that because he had paid ‘accordinge to my abillity’ for the maintenance and education of all his children except his son Alexander, Alexander should receive household goods to the value of £50. Like his father, Alexander was an instrument-maker who was admitted to the Freedom of the City of York, George in 1597 and Alexander in 1645.<sup>994</sup> George’s date of birth is unknown,<sup>995</sup> but it is likely to have been around 1570 by reasoning similar to that applied to Jaye.<sup>996</sup> His will suggests that whereas he sent his other children<sup>997</sup> to school, he took Alexander as an assistant or apprentice in lieu of formal education, and he intended to rectify this uneven distribution of his tangible assets after his death. George seems to have considered instrument-making as less attractive than work that might be obtained after education. He may also have considered formal education,

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<sup>991</sup> He was not free as an instrument-maker, but he might have been freed as a tailor or butcher. See Appendix 10b.3.

<sup>992</sup> Chatsworth, Bolton MS.97 fol.201, cited by Woodfill, *Musicians*, p.259. Whether this cutting involved a reduction in size, or work such as inlay, is also indeterminable. See Appendix 7a.

<sup>993</sup> Appendix 10b.2. The will was dated 6 October 1644, and proved in York on 7 July 1649.

<sup>994</sup> See below, p.205.

<sup>995</sup> His birth is not found in parish registers, probably because his father John, a brazier, was a recusant Catholic. Aveling, *Recusancy*, pp.185 (1576), 186 (1577), 201 (1583). However the family’s Catholicism seems to have been abandoned before 1604 as no-one by the name of Mashrother (or any of its variants, or Masseter) appears in Peacock, *Catholics*. No-one in Peacock, *Catholics* can be identified with any other York residents mentioned here.

<sup>996</sup> See above, p.194.

<sup>997</sup> This probably means Alexander’s two brothers Thomas and John, both born before him, but could also include some or all of his five or six sisters.

possibly even reading and writing,<sup>998</sup> to be unnecessary for an instrument-maker, or at least a lower priority than practical experience. Finding himself unable to afford to educate all his children, he persuaded Alexander to make do with working for him, with the promise of money or equivalent later. Described in his will as ‘of Leeds’, George asked to be buried in Leeds parish church. There is no obvious reason why George would move from York to Leeds, but it was most unlikely to be to benefit from greater local trade. It is possible that he fled from civil war conflict in York, which was taken by Royalists in 1644, but it is more likely that he became infirm in his old age<sup>999</sup> and went to live with relatives in the Leeds area, possibly Anna Mashrother<sup>1000</sup> who was described as ‘of Brigade, Hunslet’ (Hunslet was adjacent to Leeds) when she married John Fenton at Saint Peter (Leeds parish church) on 3 January 1631.<sup>1001</sup>

Alexander Mashrother was baptised on 23 July 1616. He married Bridgett Robinson on 12 November 1656 at St John Ousebridge, York but this did not last long, possibly because Bridget died following the birth of their daughter Ann in 1656. Alexander married again on 20 December 1658 at St Martin, Coney Street, and Mary Skaife bore him three daughters and a son, Thomas. Mary must have been his third wife and Bridgett his second as he was also named as the father of a girl and a boy who were baptised in the 1640s, but I have found no further details of this marriage. The parish records of St Martin, Coney Street record that ‘Alexander Mashrother was buried the

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<sup>998</sup> George could sign his name, an ability which is conventionally taken as a sign of literacy. The very shaky signature on his will probably indicates terminal infirmity rather than a poor hand. This may also apply to Edward Ilsbery. Illustration L84.

<sup>999</sup> He was ‘sicke in body but of good and p[er]fect mynd and memory’ when he made his will.

<sup>1000</sup> She was probably George’s daughter who was baptised Anne on 21 August 1610. George bequeathed ten shillings to his ‘Grand Child George ffenton’, who was probably Anne’s son.

<sup>1001</sup> Hester Mashruther married John Proctor 18 October 1637 at St Martin, Coney Street, York but this marriage is also recorded as an event in Leeds, possibly because her spouse lived there. Eight of George’s children were baptised at St Martin, Coney Street, York between 19 October 1607 and 19 October 1619, but no Hester was recorded. It might have been George’s daughter Elizabethe who married Richard Cascocke at St Martin, Coney Street on 1 May 1633 but Elizabethe and Hester could be from a different branch of the family.

25<sup>th</sup> day of february Anno 1670.’<sup>1002</sup> It is common for instrument-makers to be identified only by a single document such as a grant of Freedom, but in Alexander’s case, his occupation is confirmed in the baptismal records of his children. No record of Alexander Mashrother’s work as an instrument-maker has come to light, and no further biographical information about him is known.

George and Alexander Mashrother were not the only instrument-makers to gain the Freedom of the City of York. Within the period 1580-1660 there were seven:<sup>1003</sup>

- 1585 George Styddie.<sup>1004</sup>
- 1597 George Mashrother.<sup>1005</sup>
- 1606 John Raper.<sup>1006</sup>
- 1616 John Ward.<sup>1007</sup>
- 1630 John Chase.<sup>1008</sup>
- 1644 Richard Harland.<sup>1009</sup>
- 1645 Alexander Mashrother.<sup>1010</sup>

We lack definite information about what kind of instruments most of these seven made, or whether they specialised in any one sort. However, the fact that organ-making was specified as an occupation in these records<sup>1011</sup> suggests that people

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<sup>1002</sup> York, Borthwick Institute.

<sup>1003</sup> Those makers whose father was named (see below) achieved freedom by Patrimony, the others by Redemption. Another instrument-maker George Clay, was admitted slightly later, in 1679. ‘Georgius Clay, instrumentmaker.’ *Freemen of York* 2, p.153.

<sup>1004</sup> ‘Geo. Styddie, instrumentmaker or joyner, fil. Thomae Stiddy, dier.’ *Freemen of York* 2, p.28.

<sup>1005</sup> ‘Geo. Mashroder, instrumentmaker, son of Johannis Mashroder, brasier.’ *Freemen of York* 2, p.41.

<sup>1006</sup> ‘Joh. Raper, instrumentmaker.’ *Freemen of York* 2, p.55. His son George became Free of York as a cordiner in 1641. Ibid., p.96. A John Raper married Anne Kaye, 5 April 1608 (Whitehead, *St. Crux*) but his was quite a common name so this might not be the instrument-maker.

<sup>1007</sup> ‘Joh. Ward, instrumentmaker.’ *Freemen of York* 2, p.66. His son Nathaniell became Free of York as a pinner in 1655. Ibid., p.118. Other John Wards were made free of York in 1592, 1605, 1645, 1658, 1683, etc. Ibid., pp.35, 52, 102, 122, 159. Richard Ward, ‘musiconer’ became free in 1625. Ibid., p.76.

<sup>1008</sup> ‘Joh. Chase, instrumentmaker.’ *Freemen of York* 2, p.81.

<sup>1009</sup> ‘Ric. Harland, instrumentmaker.’ *Freemen of York* 2, p.100.

<sup>1010</sup> ‘Alex. Mashbrother, instrumentmaker, son of Geo. Masbrother, instrumentmaker.’ *Freemen of York* 2, p.103.

<sup>1011</sup> 1545 ‘Johannes Heweson, parishe clerk, fil. Johannis Heweson, de Ebor., organmaker.’ *Freemen of York* 1, p.266. 1608 ‘Stephanus Britten, organmaker.’ *Freemen of York* 2, p.57. This might be the

described as instrument-makers were less specialised. Thus, although the reason George Mashrother was described as an instrument-maker rather than organ-maker despite the fact that he made organs may simply have been imprecision by the writer, it was probably because he made other instruments as well. This also applies to John Raper, who was recommended in 1622 by the Archbishop of York to make an organ for the church of the Holy Trinity, Kingston-upon-Hull as ‘...being a man of known quality and skill in the making of musical instruments, and well approved of for his honest performance in matters which he undertaketh.’<sup>1012</sup> There can be no doubt that all the instrument-makers who became free of York actually made musical<sup>1013</sup> instruments and that they were not simply described this way because of their affiliation to a company or guild, because there was no company of instrument-makers in York, or anywhere else in England.<sup>1014</sup> The temporal spacing of the freedoms suggests the possibility that only a certain number of instrument-makers may have been allowed to be free of York at any one time, and that Alexander Mashrother may have taken a place vacated by the death of his father.

Apart from instances where people were called organ-maker, virginal-maker, harp-maker or lute-maker, the term used throughout England was instrument-maker.<sup>1015</sup> It appears that the earliest surviving English-made violin is by Jacob Rayman, 1641. He is thought ‘not to be associated with viol making’, but he was described as an

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‘Stephen Bretton, an organmaker’ who did some work in the church of St. Stephen, Norwich in 1598. Freeman, ‘Organ Builders’, p.48. In the 1530s and 1540s Gyllam/e the ‘orgon maker of London’ built and mended York organs. Webb, *Accounts*, vol.i, pp.8, 194, 250.

<sup>1012</sup> This organ was never built. Smith, *Hull Organs*, p.6.

<sup>1013</sup> By the time of the Civil War, the scientific/mathematical instrument making industry was still little developed in England and was overwhelmingly based in London. None of the York instrument-makers’ mentioned here are known as scientific instrument makers. However, the first English-born scientific instrument maker was Humphray Cole (d.1591) who worked in London but came from the north of England. Clifton, *Directory*.

<sup>1014</sup> See above, Chapter 4 for discussion of guilds or companies for viol-makers.

<sup>1015</sup> Unless they were categorised under another occupation such as joiner, or a more general term such as artificer, as were many court employees such as the instrument-maker William Treasurer and artists including Laurence Hilliard and Peter Oliver. *RECM*, vol.vi, p.78. Edmond, *Hilliard*, p.185.

instrument-maker in the record at St Saviour, Southwark of the birth of his son Jacob, which would be consistent with making a variety of instruments, including viols.<sup>1016</sup> As far as I have been able to establish, no-one in England<sup>1017</sup> was described specifically as a viol-maker or violin-maker before the entry concerning ‘Wise’ in Samuel Pepys’s diary, 16 July 1663.<sup>1018</sup>

York is a common surname, so it is not surprising that there was at least one ‘Mr York instrument-maker’, who is difficult to disentangle from contemporaries of the same name. A Thomas Yorke of Blackfriars appears in an early seventeenth-century document together with Richard Blunt<sup>1019</sup> of Little Wood Street, but even in the absence of the evidence presented in Chapter 4, this would not guarantee that Thomas was Mr York the viol-maker, or that Richard Blunt was the viol-maker of that name. Christopher Simpson, the father of Christopher Simpson (the author of the *Division-Violist*), was described in official documents as a cordwainer, but he was actually an actor,<sup>1020</sup> so the fact that Yorke and Blunt joined the Company of Cordwainers counts neither for nor against the possibility that they made instruments. However, the document describes them as ‘both shoemakers by trade’, which is more conclusive.

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<sup>1016</sup> This parish register entry (27 November 1642) is illustrated and transcribed somewhat inaccurately in *British Violin*, p.20f. A more accurate transcription is: ‘Jacob S[on] of Jacob Raman, Instrumintmaker’.

<sup>1017</sup> The earliest mention of the profession of violin-maker in the Netherlands seems to be 1622. Bolink, *Violinmaking*, p.118. Cittern-makers there started to call themselves violin-makers around 1650. Ibid., p.57. Makers of a wide variety of instruments are still called the equivalent of ‘lutemaker’ in French, Italian and German.

<sup>1018</sup> Pepys, *Diary*, vol.iv, p.232. Harvey’s view of Christopher Wise as a violin-maker who made viols rather than a viol-maker who made violins (*Violin Family*, p.399) is consistent with his claim that ‘England’s distinguished viol-makers... ignored [the violin]’ (Ibid., p.13), which extant instruments by Wise, Barak Norman, Richard Meares and William Baker prove to be false. See also Wise in Appendix 9.

<sup>1019</sup> They were both admitted to the Freedom of the City of London by Redemption, 6 December 1614. Corporation of London Record Office, REP 32.163v.

<sup>1020</sup> Urquhart, ‘Bolles’, p.16.

A fine tenor viol by Richard Blunt is preserved in the Ashmolean Museum, Oxford.<sup>1021</sup>

The label is lost but is recorded as follows:<sup>1022</sup>

Richard Blunt  
Dwelling in London  
in Fetter Lane  
1605.

The Hills record one other label of Blunt:<sup>1023</sup>

Richard Blunt  
Dwelling in Holborn  
in London.  
1605

The addresses mentioned above suggest the possibility that one or more of these Richard Blunts might be connected with Thomas Blunte, a virginal-maker noted in the parish records of St. Giles, Cripplegate (1594),<sup>1024</sup> but no relationship has been established. Poorer artificers often moved to places such as Holborn and Bishopsgate because they could not afford to set up within the city walls.<sup>1025</sup> Fetter Lane ran south from Holborn Bars which became Holborn as it ran west. Little Wood Street ran north into Cripple Gate, about three quarters of a mile east and slightly north of Fetter Lane. According to the visiting chaplain of the Venetian Ambassador, people of like occupation lived near each other in London.<sup>1026</sup> The mediaeval locations of trades,<sup>1027</sup>

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<sup>1021</sup> Hill No.6, described in Boyden, *Hill Collection*, p.12 as a 'Small Bass (Lyra) Viol'. VME21.

<sup>1022</sup> The information about the label given in Boyden, *Hill Collection*, p.12 is derived from Hill, *English Makers*, vol.i, p.42. Thurston Dart's transcription is 'Richard Blanke bewling(?) on London in ffetter lane 1605'. Dart, 'Ashmolean', p.9. But, as Boyden writes, no evidence to support Dart's suggestion that the name should be read as Blanke is known. Possibly Dart was thinking of Edward Blanke the composer, or Jasper Blanckart, a continental virginal-maker who came to London in 1566 and worked first for William Treasurer and later on his own account. *Boalch*, p.18.

<sup>1023</sup> Hill, *English Makers*, vol.i, p.42.

<sup>1024</sup> *Boalch*, p.19. At least one virginal-maker called Edward Blunt worked in London after 1660. Ibid. The younger Edward Blunt was apprenticed (in the Joiners Company) to the harpsichord-maker Stephen Keene who was born in Oxfordshire c.1640. *Boalch*, p.102.

<sup>1025</sup> Unwin, *Gilds and Companies*, p.245.

<sup>1026</sup> July 1618. 'There is one particular quarter full of apothecaries' shops on either side of the way ... another is inhabited entirely by booksellers ... other streets of feather sellers ... a suburb of gunsmiths'. Busino, *Diary*, p.164.

<sup>1027</sup> Unwin, *Gilds and Companies*, p.34.



and the well-known concentration of booksellers near St Paul's, support this view but detailed studies of London and Southwark have shown that both courtyards and major thoroughfares accommodated a broad and heterogeneous range of occupations.<sup>1028</sup> Similar levels of wealth/poverty, proximity to materials or customers, or a desired independence from City authorities might draw artificers of a certain type to a particular location,<sup>1029</sup> but the fact that an instrument-maker lived in a certain street is not by itself a sufficient reason to predict that others would be found nearby. Nor does proximity establish any commercial connection. London was populous but did not cover a vast area, so a man could easily walk or travel by boat from the east end of the City to the separate City of Westminster in the west, and back, in a morning.

The only other viol traditionally attributed to Richard Blunt is a bass in the Museum Bellerive, which is catalogued as being made in the year 1591.<sup>1030</sup> I have not examined this viol but König's illustration gives cause for concern regarding the attribution: there is only a single line of purfling, and neither the body outline nor the soundholes resemble the Ashmolean instrument. The lion's head finial is very Germanic in character, so this or even the whole instrument may have been made in Germany and later acquired a Blunt label. Another viol which may have been the work of Richard Blunt was described in 1759 as 'Ricard Blunff, London 1604'.<sup>1031</sup> A tenor viol formerly attributed to William Addison is here reattributed to Blunt (see Appendix 9).

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<sup>1028</sup> Boulton, *Neighbourhood and Society*, passim, especially pp.175ff. See also *ibid*, p.85f for multiple use and occupation of premises by unconnected people.

<sup>1029</sup> Edmond, 'Limners', p.63.

<sup>1030</sup> König, *Die Viola da gamba*, p.88f.

<sup>1031</sup> *Selhof*, Lot 91. This possibility was noticed in Lütgendorff, *Geigenmacher*.

‘Blunt’ is not a very common name, but no documentary trace of Richard Blunt the viol-maker has been positively identified. There is however, one will of a Richard Blunt in PCC<sup>1032</sup> which was made 26 September 1629.<sup>1033</sup> In it, he is described as a yeoman of Mixbury, a rural village about eighteen miles north of Oxford.<sup>1034</sup> The will indicates a close relationship between this Richard Blunt and a man called Welliborn<sup>1035</sup> Gill. An instrument-maker called Gill is discussed below. Richard Blunt’s bequests were dependent on whether Gill had repaid a debt. That the relationship was at some point cordial is implied by the fact that Richard named one of his sons Welliborn. Although it contains no indication of any musical or instrument-making interests, the connection of the name Richard Blunt to someone called Gill make this will noteworthy. However, there was another Blunt whose connection with an important musical patron provides what is probably a stronger claim to be the viol-maker. This person, identified in the accounts of Sir Francis Willoughby simply as ‘Blunt’, was paid ‘for nine weeks lodging the musicians’ in 1574.<sup>1036</sup> Either the will or this payment would be compatible with instruments dated between 1591 and 1605.

Apart from the 1606 and 1641 documents cited above, no trace of Floris Barnard is known, but there is a will (dated 14 September 1660) of Thomas Barnard of Lambeth,

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<sup>1032</sup> As many wills of the less wealthy were not proved in PCC, there is only a modest chance that a viol-maker would be found there.

<sup>1033</sup> PCC 56 Audley, fol.448-448v is a copy of an original will Oxford Archives 5/3/17. This will was proved by his son William Blunt in 1632.

<sup>1034</sup> Other Blunts living nearby included Thomas (d.1560), Elizabeth, widow, (1576), George, (1604), and Anne, described as a gentlwoman, (1612). Closer to Oxford were William, (1617) and Margaret, (1636).

<sup>1035</sup> Also spelt Wellsborn, Wellisborn and Wellsberne. A James Welsborne was apprenticed to the London virginal-maker John Player (from Gloucestershire) in the Company of Joiners, 1684. *Boalch*, p.716. There is no positive sign of a connection with George Gill.

<sup>1036</sup> January 1574. The Willoughby family had properties in Warwickshire and Nottinghamshire. *HMC Middleton Mss.*, p.441, cited by Woodfill, *Musicians*, p.275. A later example of an instrument-maker and painter providing lodging for a colleague is when Edward Norgate accommodated Anthony van Dyck (1632). *BDECM*, p.835.

Surrey, Citizen and Fletcher of London.<sup>1037</sup> The Barnards were contemporaries of Jaye so Thomas would have been very old in 1660, and as his will does not mention his colleague and namesake Floris (his brother?), this suggests Floris was already dead. Thomas's relatives bore the surnames Warmington, Harris, Michell, Baynes and Garner. None of these names are known in connection with viol-making, and nor are those of the witnesses Thomas Holmes, Bridgett Clifton and John Clifton Sen.<sup>1038</sup> The bequests are all monetary and no mention is made of any working equipment or anything to do with music. Thomas Barnard lived on 'Fleetstreete' in 1641, so Thomas Barnard of Lambeth twenty years later may be unconnected, but there was only one man of that name in the Fletchers Company in 1641.<sup>1039</sup> Although neither Thomas nor Floris Barnard are noted elsewhere in connection with instruments or music, it is possible that they might be descended from the Italian Jasper Bernard/Barnard who was employed as a sackbut at the English court, having arrived from Venice sometime after Michaelmas 1525.<sup>1040</sup> Jasper came with Alvisse Bassano who was later established as an instrument-maker in the Charterhouse.<sup>1041</sup> Alternatively, there could be a connection with John Barnard, a lay-clerk at Canterbury Cathedral and probably later a minor canon of St Paul's Cathedral London. He was

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<sup>1037</sup> PCC 46 Laud 1662, fol.362v. Other possible but less likely Thomas Barnards in PCC include Thomas Barnard, carpenter, Whitby, Yorks (1654), and Thomas Barnard, paintersteyner, St Mary Magdalen, Bermondsey, Surrey (1677).

<sup>1038</sup> Thomas Barnard's cousin was Jane Harris. A John Harris from Gloucestershire was apprenticed to the virginal-maker Stephen Keene (who came from Oxford) in London in 1675, and a Nicholas Mitchell to Edward Blunt in 1704. *Boalch*, pp.80, 715. A spinet by J.Holmes of Norwich, 1706 is reported in *Boalch*, p.93. The boy William Cavendish was taught to sing by a Thomas Banes (1598). Price, *Patrons*, p.109. 'Baynes' was an alias of a wind and string player called Robert Parker (d.1639) who worked for the City of London and was replaced at court by Robert Strong. *BDECM*, p.867f. He could be the maker named 'Parkel' (see above, p.172) but I know of nothing that connects him with either instrument-making or Northampton.

<sup>1039</sup> A set of music type first used in this year (for John Barnard, *First Book of Selected Church Music*) has curious inconsistencies, suggesting the maker might have come from other than a type-manufacturing background. Krummel, *Printing*, pp.97ff. Could it be by one of the instrument-making Barnards?

<sup>1040</sup> *BDECM*, p.147.

<sup>1041</sup> The Bassanos were living in the Charterhouse by 1544. At least one of Alvisse's brothers was also involved in instrument making, and so were some of his descendants. Lasocki, *Bassanos*, p.211.

closely connected to the music copyist Stephen Bing and taught him the viol.<sup>1042</sup> Any relationship between the instrument-making Barnards and John or Jasper remains no more than a possibility because of the commonness of the surname and uncertainties that remain about the life of John Barnard.<sup>1043</sup> Several sixteenth-century denizations of men by the names of Barnarde, Baynarde and Bernard occurred but none were called Thomas or Floris or seem connected to instrument-making.<sup>1044</sup> It is only their association with Jaye that implies Thomas and Floris Barnard had anything to do with viol-making. They were described as instrument-makers in 1606, but they may have improved their circumstances by focusing on other activities later. Alternatively, their instrument-making may have continued, but occupying only a minor part of their lives as they spent more time working as fletchers, or perhaps as some sort of merchant, the most lucrative of common occupations. Mercantile activities would be highly appropriate for anyone with the ambition and financial resources to hold a senior position in a London Company, as Thomas Barnard did.

In 1618 an instrument-maker recorded as ‘John Gilles, Instrument maker’ was paid ‘for mending and repairing his Ma<sup>ts</sup> Instruments the violls, according to a bill of Alphonso Ferrabosco, one of his Ma<sup>ts</sup> Musicons’.<sup>1045</sup> It would be useful to know more about this Gilles who was deemed fit to repair the royal viols, and it has been suggested the source perhaps ought to be read as ‘Giles’.<sup>1046</sup> While it is true that the spelling of ‘Giles’ in contemporary documents was subject to variation, as so many names were, and that ‘Gilles’ was common among those variations, there is one indication that ‘Gilles’ may be the preferable reading in this case. In the same year as

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<sup>1042</sup> Boyer & Wainwright, ‘Barnard’, p.621.

<sup>1043</sup> Willets, ‘Barnard’, pp.36-39.

<sup>1044</sup> Page, *Denization*, pp.14, 18, 21. No Thomas or Floris Barnard/Bernard appears in Kirk, *Aliens*.

<sup>1045</sup> Lord Chamberlain’s warrant, Greenwich, 29 June 1618. *RECM*, vol.iv, p.102.

<sup>1046</sup> *RECM*, vol.ix, p.139. A.Ashbee, personal communication.

the royal viols were repaired, a ‘mr Gilles’ provided some viol strings for Sir Henry Slingsby of Yorkshire. Slingsby’s son (also called Henry and later knighted) learnt the viol at Cambridge in October 1618 when he was about sixteen years old.<sup>1047</sup> At present, nothing more is known about John Gilles. Gilles/Giles was a common name<sup>1048</sup> and a specific musical or instrumental reference would be necessary to identify anyone of that name as the instrument-maker.

In the preface to the 1661 edition of *Musick’s Recreation on the Viol, Lyra-way*, John Playford credited Daniel Farrant with the invention of the poliphant, the stump, and the addition of sympathetic strings to ‘a Lyra Viol’.<sup>1049</sup> Farrant was sometimes grouped with the Violins and Lutes at court, but basically he was a viol player and composer.<sup>1050</sup> On 27 February 1625/6 he received £109 for ‘6 Artificiall Instruments which were made and finished for his Ma<sup>ts</sup> service’.<sup>1051</sup> Holman has suggested that the way this wording differs from the usual way that instrument acquisitions are described in court accounts seems to confirm that Farrant made the instruments and that these were probably a ‘particularly fine set of viols’.<sup>1052</sup> However, there is no independent evidence that Daniel Farrant was involved in instrument-making, and Holman shows that Playford’s claims for Farrant as an inventor of instruments are insecure.<sup>1053</sup>

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<sup>1047</sup> ‘To mr Gilles for vyole stringes xiiij’. Household accounts of Sir Henry Slingsby of Red House. Yorkshire Archaeological Society, Leeds, 10th December 1617 to 3rd February 1618. YAS MS. DD56/J/3/3, fol.171. ‘ffor a vyole bowe ijs’; ‘...to mr Richardes in ffull sattisfacon for 3: weeks teachinge mr Henry of the vyole xxvjs vjd’. YAS MS. DD56/J/3/3, fol.174. It is unclear whether both references concern the son or if the strings were for the father.

<sup>1048</sup> Men called John Gilles/Gyles died in Oxfordshire in 1626, 1629, 1638, 1644 and 1674. Oxford Archives: b.69, fol.124; b.100, fol.12; 297/3/46; 297/3/64; 27/2/23.

<sup>1049</sup> Quoted in Hayes, *Viol*, p.127.

<sup>1050</sup> *BDECM*, p.398ff. Farrant held Court posts 1607-1642, died 1651. *BDECM* classes Farrant as an instrument-maker.

<sup>1051</sup> *RECM*, vol.iii, p.134. The mean cost of the instruments was £18-3-4 each, a *pro rata* value exceeded at court before 1660 only by organs, a harp and three or four viols.

<sup>1052</sup> Holman, ‘Addicion’, p.1109.

<sup>1053</sup> Holman, ‘Addicion’, p.1110.

Holman also notes that a contemporary court musician, Peter Edney,<sup>1054</sup> was paid for supplying viols and other musical items on a number of occasions, but accepts that Edney was ‘probably acting as an agent’.<sup>1055</sup> The imprecision of court accounts means that although Farrant was a viol player and it would be unsurprising for him to obtain and supply viols for the court, the evidence that he actually made these six instruments is inconclusive, so their maker is not known for certain. As court musicians were sometimes paid for supplying instruments other than those they were employed to play,<sup>1056</sup> it is not even certain that these six instruments were viols, although it is highly probable. Farrant might have provided detailed specifications for the six instruments and thereby qualify as their ‘inventor’. There is, in sum, only circumstantial evidence that Farrant should be counted among viol-makers, or even instrument-makers.

John Crouch was a court violinist and wind instrument player from at least 1679, and was also a composer and publisher.<sup>1057</sup> There are several violins labelled ‘John Crouch at YE 3 LUTES’, dated 1674-82 at Drury Lane or Princes St.<sup>1058</sup> These addresses match information about the court musician so it is almost certain they are the same person. Crouch is therefore an example of a court musician who was active as an instrument-maker outside the court, yet there are no records of him supplying any instruments to the court, or even being paid for one acquired for his own use, as was common for instrumentalists. Crouch’s personal relevance to this study is limited because all records of his activity are after 1660, and there is nothing which connects

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<sup>1054</sup> For Edney see below, pp.219, 227f.

<sup>1055</sup> Holman, ‘Addicion’, p.1108. *BDECM* accepts that Edney was not a maker.

<sup>1056</sup> John Maria Lugario (Groom of the Queen’s Privy Chamber) was paid for a ‘little lute’, 1 Oct 1607. *RECM*, vol.iv, p.199. Jerome Lanier (Sackbut, Flute) was paid ‘for a greate base Vvall’, 24 Jan 1624/5. *RECM*, vol.iii, p.134. John Woodington (Violin) was paid ‘for a Basse Viol’, 21 July 1632. *RECM*, vol.iii, p.66. Henry Cooke (Lute and Voice, Master of the Children of the Chapel) was paid ‘for two violins’, 29 November 1662. *RECM*, vol.v, p.113. Pelham Humphrey (Lute, Voice, Master of the Children of the Chapel Royal) was paid for ‘2 base Violls’, 27 July 1673. *RECM*, vol.v, p.147.

<sup>1057</sup> *BDECM*, p.323.

<sup>1058</sup> Hill, *English Makers*, vol.i.

him to viol-making. However, among the composers who appeared alongside him in a publication advertised in 1687 was J.Carr. This was John Carr, the music publisher, who provides a link with another court employee, John Shaw. A bass viol auctioned in 1991 is labelled ‘Carved and Made by John Shaw and sold by John Carr his master,’<sup>1059</sup> at the Middle Temple Gate in the \*\*\*\*, 1673.’<sup>1060</sup> There are surviving violins labelled as by Shaw 1656 and 1674,<sup>1061</sup> suggesting he worked on both viols and violins at the same time, but the maker of these has been identified as Thomas Urquhart who is only known to have made violins.<sup>1062</sup> On 1 February 1687/8 a warrant was issued ‘to swear and admit John Shaw as musical instrument maker to his Majesty.’<sup>1063</sup> In 1688/9 he received £12 10s for a bass violin and case, and other work.<sup>1064</sup> There is no hard evidence that he made viols before 1660, but as he may have made violins then and is known to have made viols later, it is probable. John Shaw, therefore, can be identified as a viol-maker who worked formally for the court as well as independently.<sup>1065</sup> He was making instruments when *Musick’s Monument* was published, so perhaps he was one of those viol-makers who Mace thought could work as well as the ‘Old’ ones<sup>1066</sup> if they were paid well enough?

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<sup>1059</sup> The description of John Carr as his ‘master’ does not signify that Carr had anything to do with instrument-making, but that he was in charge of Shaw’s commercial transactions. John Hingeston’s place as a court viol player was taken by Robert Carr, but no relationship between him and John Carr has been established. *BDECM*, p.233.

<sup>1060</sup> Lot 57, Sotheby’s auction, Sussex, 4 December 1991. Present whereabouts unknown, information from catalogue. See terminology illustration Vol.II, p.247 (photographs provided by R.Rose). A photograph of the label in Hill, *English Makers*, p.92 (illustration L83) suggests the wording concludes ‘at the Middle Temple Gate in [something] / streete’. This is probably Fleet Street but the reproduction is too unclear to be certain. John Carr’s shop was later in the new Middle Temple Gateway in Fleet Street, which was designed by Roger North in 1684. Wilson, *Roger North*, p.xvii and n.6.

<sup>1061</sup> Hill, *English Makers*, vol.ii, p.92.

<sup>1062</sup> *British Violin*, p.26. This suggests mercantile activities, a more profitable and higher status occupation than instrument-making.

<sup>1063</sup> *RECM* vol.ii, p.17. Also pp.121, 122.

<sup>1064</sup> He was also paid for ‘mending the King’s instruments’, supplying strings (including ‘catleens’), bows, bridges and ‘pins’ (pegs). *RECM*, vol.ii, p.22.

<sup>1065</sup> His place at court was surrendered on 24 June 1692 when he was replaced by John Walsh, who was also a music publisher. *RECM*, vol.ii, pp.46, 125.

<sup>1066</sup> Mace, *Musick’s Monument*, p.245, partially reproduced as the frontispiece to this thesis.

The name problem is particularly acute for an instrument-maker named Ward. The Earl of Cumberland's accounts record that 'Mr. John Ward of York' was paid for supplying 'several sorts of strings for the musicians' (8 December 1638).<sup>1067</sup> It seems reasonable to assume this was 'Joh. Ward, instrumentmaker', who was granted the freedom of the City of York in 1616.<sup>1068</sup> However, in a striking parallel to the situation regarding composers of this name,<sup>1069</sup> there were many John Wards in sixteenth- and seventeenth-century York and it is entirely possible that more than one was involved in instrument-making, or at least the supply of strings.<sup>1070</sup> The Ward who supplied viol strings and mended viols for York Minster probably made viols, but cannot be confirmed as the maker of a 'sett of violls' for the Minster for £5 in 1618 because George Mashrother was providing viol strings for them at that time.<sup>1071</sup> Further clarification of people with such a common name as John<sup>1072</sup> Ward might be possible, but would be beyond the scope of this study.

The name problem is also extremely serious for William Turner. His name was shared by many contemporaries active in musical fields including composers, a publisher of a work containing music, and a child/gentleman of the Chapel Royal. As well as bearing a very common name, this viol-maker worked in London where pre-1666 records are fragmentary and distributed among numerous repositories. He is represented by at least seven extant viols, which is more than anyone apart from Jaye and Rose, so the

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<sup>1067</sup> Chatsworth, Bolton MS.177 fol.190.

<sup>1068</sup> *Freemen of York* 2, p.66.

<sup>1069</sup> See Ford, 'John Ward'; Payne, 'John Ward'; Brookes, 'John Ward'; and correspondence in the Newsletter of the Viola da Gamba Society of Great Britain from Robert F.Ford (Newsletter 91, October 1995, p.19), Ian Payne (Newsletter 92, January 1996, p.17f) and Roger Bowers (*Ibid.*, p.18f). William Byrd is among many other composers whose common names cause confusion. Harley, *William Byrd*, passim, Harley, 'Byrd and his Circle', p.7.

<sup>1070</sup> Strings were supplied not only by music specialists but also by general merchants. Fleming, 'Points arising', pp.305-10.

<sup>1071</sup> Strings supplied twice in 1639. Payne, 'Provision', p.8.

<sup>1072</sup> In London an organ-maker named William Ward was paid by the court between 1615 and 1623. *BDECM*, p.1127. On 28 February 1621/2 he was assisted by three men. *RECM*, vol.iv, p.111. Might one have been cousin John from York?



impediments to further knowledge about him are highly regrettable. Nevertheless, hope remains that future study of mid-seventeenth century parish records, guild archives and municipal documents will reveal more about this important but shadowy figure. Turner is especially interesting because his instruments differ from those of his contemporaries and immediate predecessors. This may be because he came to viol-making by an unusual path, or he might be a one-off who is unrepresentative of widespread practices. His use of two-piece bellies (on some instruments) and single purfling (on all) is reminiscent of violin-making practice. Perhaps he was influenced by violin-making (his own?),<sup>1073</sup> or maybe his work represents a transitional phase between traditional English viol-making and a more international style of string-instrument making which evolved during and after the Commonwealth.<sup>1074</sup> Or maybe William Turner was a merchant who had viols made in a particular way for him to label and sell. Both his work and the question of why we have so many more instruments by him than by his contemporaries demand further attention.

There is little danger of confusing the musical instrument seller John Gerard who died in 1635<sup>1075</sup> with the famous herbalist of that name who died the same year.<sup>1076</sup> The former was an obscure musician and instrument-seller in Oxford, whereas the herbalist was born in Nantwich, died in London, and left numerous traces of his life, not least the very popular herbal he wrote.<sup>1077</sup> Gerard of Oxford took on two apprentices not long before he died. The first was Thomas Curtis, the son of a Wiltshire musician.<sup>1078</sup> At the end of his seven-year term Thomas was to receive the usual doublet but also

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<sup>1073</sup> No violins by Turner have been conclusively identified, but he might have made some. He was a contemporary of Jacob Rayman who made the earliest known extant English violins.

<sup>1074</sup> All the dates on his labels (1647-1656) fall within one decade during the Civil War and Interregnum.

<sup>1075</sup> Fleming, 'Points arising', p.302.

<sup>1076</sup> *DNB*. A William Turner published a herbal in 1548.

<sup>1077</sup> *DNB*. The herbal was first published in 1597, with a much expanded second edition in 1633.

<sup>1078</sup> 'Thomas Curtis sonne of Luke Curtis of Laccocke'. 21 Sept 1630. Hanaster L.5.2., fol.199v.

‘three pounds of lawful English Money and one Instrument w<sup>ch</sup> he the said Thomas can best use’. His was certainly a training in practical musicianship. Gerard’s second apprentice, Francis Taylor of Oxford,<sup>1079</sup> was not to receive an instrument. In both these apprenticeship contracts, Gerard is described as a musician, but he may have introduced his apprentices to the instrument trade. There is no evidence that Gerard himself made instruments,<sup>1080</sup> but as instrument dealing is often associated with maintenance, he and his apprentices probably participated in activities peripheral to making such as replacing bridges, pegs and other consumables, and carrying out repairs, and they might have been drawn into making.

Two factors make Henry Jenkins of Maidstone, Kent particularly notable among viol-makers, his musical family and his occupation.<sup>1081</sup> Henry’s son John Jenkins became one of the greatest English composers, a renowned performer on the lyra-viol and lute, who is represented by more surviving compositions for the viol than any other Englishman. Henry was a successful provincial carpenter.<sup>1082</sup> In his nuncupative will he left a ‘Trebble Viall’ to each of his sons Henry and William, and a ‘Bandore’ to John. Nuncupative wills are commonly made when the testator is too weak and close to death to make and sign a longer will, and Henry was buried on 22 December 1617, two days after the will was made. It is quite rare for musical instruments to be mentioned in wills,<sup>1083</sup> so the fact that they were specified in these grim circumstances shows the importance that Henry attached to his. Nine instruments are mentioned in the inventory of Henry’s estate, including ‘Seven Vialls & Violyns’. It is unusual and surprising for a carpenter who was not a professional musician to be able to afford, let

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<sup>1079</sup> Son of Edward Taylor, a tailor of Oxford, deceased. 1630-1. Hanaster L.5.2., fol.201v.

<sup>1080</sup> Fleming, ‘Points arising’, p.302.

<sup>1081</sup> The facts presented about Henry Jenkins are derived from Ashbee, *Jenkins*, pp.14ff.

<sup>1082</sup> He was made a Freeman of Maidstone in 1592.

<sup>1083</sup> Fleming, ‘Other lumber’.

alone wish to own, numerous viols, violins and other instruments. As a successful carpenter, Henry was probably capable of making these instruments, so he probably did. This applies to his bandora and cittern as well as the viols and violins. Henry Jenkins is the only instrument-maker I have found described as a carpenter rather than a joiner, but it is more likely that further instances are yet to be identified than that this is unique.<sup>1084</sup>

George Gill was described in 1608/9 as ‘servant to the prince’ in his unsuccessful joint application with Peter Edney for a privilege ‘for the sole making of violles, violins and lutes w<sup>th</sup> an addicon of wyer stringes besides the ordenary stringes for the bettering of the sound’.<sup>1085</sup> His only other appearance in court records was when he was described as ‘Musicall Instrument Maker’ in the establishment book, 1641.<sup>1086</sup> Between these two dates, a man of this name was admitted to the Freedom of the City of London by redemption into the Company of Clothworkers.<sup>1087</sup> There is, however, no evidence to identify George Gill the clothworker as the instrument-maker, and nor is it likely that the instrument-maker wrote the two *in nomines* ascribed to ‘Mr Gill’.<sup>1088</sup> It has been suggested that George Gill (the instrument maker) made keyboard instruments, but although this is not unlikely, there is no record of him doing so.<sup>1089</sup> However, the label in a remarkable viol in the Horniman Museum bears the words ‘George Gill’. This viol is VME01. Although the style of lettering strongly suggests that its label is an

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<sup>1084</sup> The work of carpenters and joiners was entirely comparable. See above, e.g. p.133. For another possible carpenter viol-maker see Addison in Appendix 9.

<sup>1085</sup> It was claimed that he held a post serving Henry, Prince of Wales, but no payment for this is recorded. March 1608/9. *RECM*, vol.iv, p.22. The application is discussed in Holman, ‘Addicion’.

<sup>1086</sup> *RECM*, vol.iii, p.113. Among others named in the same document were Edward Norgate ‘Organ Keeper & tuner’ and William Allaby ‘A Musition extr[aordinary] & stringer of y<sup>e</sup> Lutes’.

<sup>1087</sup> See Appendix 9.

<sup>1088</sup> The compositions may be by ‘Arthur Gill’, musician to Thomas Sackville, Earl of Dorset, who was paid £10 on 4 April 1608 as one of nine musicians. Holman, ‘Addicion’, p.1107. A Robert Gyll/Gill was mentioned variously as the servant and apprentice of the musician Henry Walker in his will (PCC 94 Cope), but no connection with George has been established.

<sup>1089</sup> *Boalch*, p.70.

attempt at archaic writing by a rather naïve modern writer, this is a very unlikely name for a forger to have chosen because Gill is an obscure musical figure who is not widely known as an instrument-maker. The label therefore probably reproduces information on an original label, now lost. No other instruments are attributed to George Gill. It is not possible to establish exactly when this viol was made, but on the assumption that the label reproduces an original one, the best estimate is between 1608/9 and 1641.

Holman has suggested that George Gill who applied for the privilege was baptised and buried at East Quantoxhead, Somerset.<sup>1090</sup> There is no proof that this George was the instrument maker, but his brother Andrew described himself as ‘Instrument maker’ in his will.<sup>1091</sup> If the East Quantoxhead records refer to just one man, and if this George was the viol-maker, he would have been in his thirties at the time of the privilege application, in his sixties when he was ‘Musicall Instrument Maker’ to the court, and almost ninety years old when he died. If Gill worked in Somerset he may have undertaken work for Arthur Gregory, a customs officer of Lyme, Dorset who claimed responsibility for a modification, possibly the addition of sympathetic strings, that transformed an ‘evill violl’ into ‘the best th[a]t ever was made’.<sup>1092</sup> Even when Gregory wrote to Sir Michael Hickes ‘I will make youe [a viol]...’,<sup>1093</sup> he might have meant supply rather than make, and the work could have been done by someone else, such as Gill. It is possible, nevertheless, that Gregory made viols with his own hands, and that Customs Officer should be added to the list of occupations in which viol-makers spent a proportion of their time.

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<sup>1090</sup> 3 August 1574, 5 April 1664. Holman, ‘Addicion’, p.1106.

<sup>1091</sup> 7 February 1615/16. London, Public Record Office PROB 11/27, quire 44, cited by Holman, ‘Addicion’, p.1107.

<sup>1092</sup> Holman, ‘Addicion’, p.1104f.

<sup>1093</sup> Hulse, ‘Hickes’, p.226.

The most extraordinary feature of VME01 is its size. With a belly length of a mere 312 mm (12 1/4 inches), this is the smallest English viol. It is 15 mm (5%) shorter than the tiny Jaye treble (VME02), and shorter than many pardessus, which are the smallest members of the viol family (excluding viol-shaped kits).<sup>1094</sup> A scenario which would explain the anomalous size, and which cannot be ruled out, is that the instrument was built as a pardessus using parts of an original viol made by George Gill. This might have been done by Gill himself in the mid-seventeenth century, or by someone else, probably in the eighteenth century.<sup>1095</sup> If the instrument was made this size before 1641, it would anticipate the first recognised reference to a pardessus (1699) by over half a century.<sup>1096</sup> If it is not a pardessus, the instrument is probably the clearest early English example of a consort viol being constructed from the wood of an existing instrument. Such work would be carried out either because an instrument was too broken to repair in the same form, or because that style of instrument was no longer required.<sup>1097</sup> Another major possibility is that George Gill made the instrument using parts of a viol by another maker.

Regardless of the function of VME01, its component parts have clearly been re-cycled from a bass viol or large tenor viol that is closely related to the festooned bass viol in Ashmolean Museum (VME33). This famously elaborate and highly decorated instrument is attributed to 'John Rose' in Boyden's catalogue of the Hill Collection,<sup>1098</sup> although no indication is given as to which John Rose is meant. The catalogue is

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<sup>1094</sup> Consideration of the absolute sizes of viols is outside the remit of the present study, but the Gill viol might provide evidence of relevance to I. Harwood's 1981 theory about two pitch ranges for English viols. This theory was explained in Harwood, 'Double standards', and discussed further by Harwood at the Symposium on Bowed Musical Instruments, Edinburgh, (June 2000).

<sup>1095</sup> The Museum acquired the viol in 1948 and has no information regarding whether the instrument was ever in France.

<sup>1096</sup> Inventory of Jean Rousseau, cited in Herzog, 'Quinton', p.10. An English source which has not yet been published in full, (NRO, Finch-Hatton MS 2133) may provide a reference to the pardessus from the third quarter of the seventeenth century, but my research on this document is incomplete.

<sup>1097</sup> Large tenor viols in particular become obsolete when consort music falls out of favour.

<sup>1098</sup> Boyden, *Hill Collection*, p.9f.

guilty of another common fault in describing the ‘ornate body outline’ as ‘characteristic of [Rose’s] work’. It is impossible to judge which features are characteristic of a maker’s work without first establishing which instruments that maker made. The only unquestionable Rose instrument which has an ornate body outline is not a viol but a plucked instrument (1580), now at Helmingham Hall,<sup>1099</sup> but all known bandoras<sup>1100</sup> have similarly complex outlines. Even if the two festooned bass viols (VME29 and VME33) are accepted as having been made by ‘Rose’, most of the extant work by ‘Rose’ is less decorated and of simpler shape, so if anything could be considered characteristic, it should be a plainer style. Furthermore, the plucked instrument is dated 1580, so unless it can be confirmed that the elder Rose died before then, it could have been made either by him or his son, especially considering the invention of the bandora is attributed to the father.

Pringle points to the ‘magnificent purfled arabesques’ on the belly, the purfling knots on the back and ribs, the choice of wood for the back and ribs, and the way the wood figure corresponds with the outline of the back, as features which support the attribution of VME33 to Rose.<sup>1101</sup> However, while some of these features are indeed consistent with work in other instruments by Rose, they can also be found on instruments attributed to other makers. The burr wood of the back and ribs, for instance, is extremely similar to that on the ‘John Strong’ treble viol in Washington (VME16) and the Gill viol in London (VME01).<sup>1102</sup> VME16 and VME33 also have in

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<sup>1099</sup> Pringle, ‘Founder’, p.501ff. An alleged festooned treble viol by Rose, converted to a viola d’amore, was reported by Hayes, *Viol*, p.49, but an authoritative view of it is that ‘the photograph ... would never lead one to believe that the instrument was other than a German one ... I believe the whole thing to be a forgery.’ Hill, *English Makers*, vol.ii, p.81.

<sup>1100</sup> Illustration L66 shows a bandora.

<sup>1101</sup> Pringle, ‘Founder’, p.509.

<sup>1102</sup> The wood of VME33 is certainly not rosewood as suggested in Boyden, *Hill Collection*, p.9. Pringle, ‘Founder’, p.509 suggests walnut, but I think it is elm. It is not possible to confirm an identification of the wood without microscopic examination of the cell structure. Hayes, *Viol*, p.48 suggests the wood of VME16 is ‘the root of the ash’, but again, I think it is probably elm.

common a festooned outline, the unusual 5-ply purfling, and flame-shaped soundholes. The purfling knots on VME33 are substantially different from those on a Rose tenor viol (VME20)<sup>1103</sup> and, as Pringle points out, purfling knots are not the exclusive prerogative of Rose. While complex purfling knots are common on pre-1660 English<sup>1104</sup> viols, they are rarely, if ever, duplicated exactly on separate instruments. The purfling knots on VME33 are also very different in style from those on the instrument with the most similar outline, a bass viol at Oberlin, Ohio (VME29).<sup>1105</sup> As VME29 is attributed to Rose because of its similarity to VME33, it cannot support an attribution for VME33. Only the bodies of VME01, VME33 and VME29 can be assessed for the purpose of attribution. The head and pegbox of VME01 are modern violin fittings, those on VME33 are probably eighteenth-century French work, and while those on VME29 are surely appropriate for the viol, they were acquired separately and combined with the body for the current owner of the instrument.<sup>1106</sup> The relationship of VME01 to VME33 is clearly established by the great similarity of the wood of the back and ribs, but even more by remnants of ‘magnificent purfled arabesques’ which are visible on its belly and are extremely similar to those on VME33. Purfling knots on the back and ribs of VME01 are also exactly the same style as those on VME33.<sup>1107</sup> The flame-shaped soundholes on the three festooned instruments are unusual for English viols but they resemble one another, despite those

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<sup>1103</sup> Described as a Small Bass (Lyra) Viol in Boyden, *Hill Collection*, p.11. While it would be possible to use an instrument of this size for the lyra repertory, the best interpretation of contemporary evidence regarding sizes suggests that even small bass viols were larger than this, and this is very much the sort of size that was suggested for a tenor. VME20 could have functioned as a bass in the circumstances described in Harwood, ‘Double standards’.

<sup>1104</sup> Purfling knots and other decorations are also found on violins, such as the viola by Jacob Rayman (London, c.1650) illustrated in Harvey, *Violin Family*, plate 92, and the cello by Barak Norman (London, c.1720), *Ibid.*, plate 83. Such decorations are especially common on violins of the Alemannic school, as may be seen throughout Adelman, *Die Alemannische Schule*.

<sup>1105</sup> The outlines are similar, but not identical. Illustrations L41, L42, L43.

<sup>1106</sup> Illustration L24.

<sup>1107</sup> Illustrations LF01, L15, L16, L17, L18, L19, L20, L21. The purfling knots on the back and ribs of VME33 are a similar style as those on VME20 (a tenor viol by Rose) but are quite different from those on VME29.

on VME16 showing signs that they had at one point been converted to C-holes.<sup>1108</sup> Among extant English viols it seems that all and only those with festooned outlines have flame-shaped soundholes.

To summarise the above, VME01 was made from parts of a pre-existing instrument (hereafter ‘PI’) which was probably a bass viol or a large tenor viol. Materials and decoration<sup>1109</sup> show there is a close relationship between PI and VME33, and there are similar reasons to connect VME33 with VME16. The simplest explanation for these similarities would be that VME01 was made by George Gill from a viol that he had made earlier and was broken, or of a type no longer required. This would leave the problem of its anomalously small size unresolved, as would any explanation that involved it being made before the end of the seventeenth century. If Gill made PI, he might also have made VME33, VME16 and maybe VME29. Other possibilities include that another person made all four instruments, or that there was no connection between their makers. While providing strong circumstantial evidence of a connection, it must be recognised that even if the wood for three instruments came from the same tree, this would be insufficient to prove that there was a working relationship between the makers. Independent instrument-makers of today obtain their wood wherever it is available so they often have sources in common, especially when a batch of wood is special in some way as is this remarkably beautiful burr. There is no reason to doubt that earlier makers did the same.<sup>1110</sup>

Referring to VME16, it has been recorded that the name ‘John Stroud’ was ‘attached to Lot 143 in Puttick & Simpson’s sale catalogue of June 21<sup>st</sup>, 1892 ...described as an

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<sup>1108</sup> Illustration L28.

<sup>1109</sup> In this case the accumulation of similarities overcomes the caution I expressed in Chapter 3.

<sup>1110</sup> Topham, ‘Dendrochronological Survey’, pp.408, 410. See also Vol II, Appendix 8a, p.318, n.190.



‘Antique Viol’.<sup>1111</sup> There is a manuscript label in the viol at present, but the writing reveals it to be a modern insertion which presumably uses information from an original label, now lost.<sup>1112</sup> Assuming the original label indicated accurately that the instrument was made by John Strong, Strong becomes another candidate for the maker of PI, VME33 and VME29. The latter possibility seems to have been recognised by Vannes, who wrote: ‘On suppose qu’il fut le constructeur d’une basse de gambe attribuée a Lord Sommerset’, but this was probably based on a misunderstanding of the label wording ‘John Strong Sommerset’.<sup>1113</sup> It is not impossible that the label was intended to assert that the viol was made by Strong for Charles Somerset or the Earl, but this sort of information would be unique among pre-1660 labels. Among later makers, however, labels reporting some variety of agency became common.<sup>1114</sup>

John Strong is another common name, but there are some avenues of enquiry that might lead to a positive identification. Strong was the name of a family of string and wind players at the court. Stephen Strong, a musician of St Giles, Cripplegate (London), had musical sons John (1611-1675), Stephen (1613-1665), Edward (1615-1663) and Robert (1622-1694). John and Edward were associated with another court wind and string player, Robert Parker (d.1638).<sup>1115</sup> The missing label of the Washington viol was undated, so it is not possible to confirm whether this John Strong

<sup>1111</sup> Hill, *English Makers*, vol.ii, p.103. The Strong viol was sold to the present owner by Arnold Dolmetsch, who made the neck and head. Its provenance includes C.J.Read of Salisbury, and the ‘South Kensington Museum’. Ibid.

<sup>1112</sup> Lütgendorff, *Geigenmacher*, vol.ii, p.500 described the label as printed, with the wording ‘John Strong Sommerset 16..’. Hayes, *Viols*, p.48 considered that ‘this viol certainly belongs to Elizabethan days’ so he may have recognised the current label as misleading, or it may have been inserted between 1922 and 1930.

<sup>1113</sup> Vannes, *Dictionnaire*. This French writer also shows a misunderstanding of English nobility, as an earl would not have been called ‘Lord’. He may have been thinking of Hawkins’ statement ‘Kircher mentions an Earl of Somerset as the inventor of a certain kind of Chelys or viol of eight chords [i.e. strings or courses], which contained all the secrets of music in an eminent degree, and ravished every hearer with admiration.’ Hawkins, *General History* p.441f (a footnote says there is no trace of this instrument). The wording ‘John Strong Sommerset’ is given in Hayes, *Viol*, p.48.

<sup>1114</sup> As was shown in Chapter 4.

<sup>1115</sup> *BDECM*, p.1057ff. The possible misreading of Parker as Parkel has been noted above.

was alive at the right time to have made it. John, Robert and Edward were paid a total of £50 for three bass violins ‘bought by them’ on 3 September 1662.<sup>1116</sup> This wording is common for instrument acquisitions at court and does not imply that they made the instruments. Nevertheless, as court musicians were sometimes involved in instrument-making, it is possible that this John Strong, or a relative, made viols.

Another Strong who might be connected with viol-making is ‘Sampson Starck al[ia]s Strong’, son of ‘Sampsonius Starck al[ia]s Strong’ of Oxford. Sampson was apprenticed to the musician John Baldwin in Oxford in 1602/3,<sup>1117</sup> but I have found no further information about him or whether he had a relative called John.<sup>1118</sup> Another Oxford man, however, is an even more promising candidate, being connected with people with known interests in viols including the viol-maker Giles York. Richard Read, the Oxford composer, nominated his ‘loving friends Mr John Strong and Mr William Gryse’ to oversee his will, dated 19 March 1616.<sup>1119</sup> John Strong and Giles York were two of the witnesses to Read’s will, and another was William Sabin, who was apprenticed to Giles York.<sup>1120</sup> Martha, the wife of William Gryse, was bequeathed Read’s ‘Base viol w<sup>ch</sup> shee hath now in keeping’. An Oxford probate inventory for John Strong dated 19 January 1625 is probably not that of a viol-maker as there is no indication of any musical interest or any tools, workshop equipment or wood, but he could have been Read’s witness.<sup>1121</sup>

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<sup>1116</sup> *RECM*, vol.i, p.36.

<sup>1117</sup> Sampsonius was a painter by trade. Hanaster L.5.1., fol.113v. William, son of William Garrett of Begbroke, Oxon (a labourer) was promised double apparel ‘and one Cloake & one good Instrument’ at the end of his eight years apprenticeship with Baldwin. Hanaster L.5.2., fol.213v.

<sup>1118</sup> ‘Sampson Stronge alias Starkey’ was described as limner in his probate inventory of 1611. *OUA*. This was probably the father.

<sup>1119</sup> *OUA*.

<sup>1120</sup> Viol-making by York and Sabin was discussed above in Chapter 4. The fourth witness was Jarvase Jones, a wealthy Oxonian who possessed a viol and other instruments. *OUA*.

<sup>1121</sup> *OUA*. His estate value of over £490 would be astonishingly large for an instrument-maker.

Apart from the word ‘Sommerset’ on the missing original label of VME16, the circumstantial evidence of John Strong’s association with Oxford viol-makers makes him presently the most likely person to be the viol-maker of that name. The label information does not provide a serious impediment to this as Strong may have lived and worked in Somerset before and/or after being in Oxford. It is reminiscent of the label connecting Giles York with ‘Northampshire’.<sup>1122</sup> Strong may even never have lived in Oxford but have been acquainted with Read for other reasons, such as a mutual interest in music and instruments. Read specialised in music for broken consort, so he must have known the metal-strung plucked instrument maker called Robert Mallet who worked in Oxford. However, it seems that Mallet specialised in plucked instruments, so Read may have had to look elsewhere for a viol.<sup>1123</sup> It is possible that John Strong made viols for this composer, perhaps including the one Read left to his friend’s wife.

Peter Edney, George Gill’s co-applicant for the privilege in 1608/9, provides a further possible connection between Strong, Gill and the festooned viol in Oxford. Thomas Campion wrote a masque for the marriage (26 December 1613) of Robert Carr, Earl of Somerset, to the Earl of Essex’s divorced wife, Frances Howard.<sup>1124</sup> Edney was known to the Somerset household, as in 1619 he was paid ‘for the dyett, lodging, apparell and teaching in musicke of one of the Pages belonging to the Countesse of Somersett’.<sup>1125</sup> As Edney was involved in the supply of viols to other high-ranking patrons such as William Baron Cavendish and the Earl of Salisbury, might he not also have supplied them to the Earl of Somerset and his wife? Masques were notoriously

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<sup>1122</sup> See above, pp.172, 175.

<sup>1123</sup> Read appraised Mallet’s possessions for probate. Fleming, ‘Points arising’, p.303.

<sup>1124</sup> This is not Robert Carr the court violist. A description of the masque and some of its music was published in 1614, which was published as a facsimile in 1973.

<sup>1125</sup> *RECM*, vol.iv, p.104.

expensive, and the Somerset wedding masque was performed in the ‘Banqueting roome at Whitehall’. Viols as elaborate and as obviously expensive as VME33 would be ideal for such a lavish and showy occasion. Part of the decorative scheme of VME33 is a coat of arms painted on the belly.<sup>1126</sup> These arms have been identified as appropriate for Sir Charles Somerset,<sup>1127</sup> sometime after 1598.<sup>1128</sup> Sir Charles would have been another likely patron for Edney to serve and, having perhaps profited from providing him with VME33, Edney could have been encouraged to offer a similar instrument, VME29, for the wedding masque.

Uncertainties about the makers of many viols cannot be resolved, and are exacerbated by the absence of the original ‘John Strong’ and other labels, but the similarities between instruments remain. Having compared features of the Gill viol with the festooned instruments in Oxford, Oberlin and Washington, it has been possible to reassess their attribution, but not to identify their makers conclusively. It is possible that VME01, VME33, VME29 and the VME16 were all made by, or based on, the work of one person, John Strong, but the connection between them may be more complex. Gill and Strong could have worked together, or one might have taught the other, but the lack of firm dates for the instruments and the bareness of these makers’ biographies makes it impossible fully to delineate such relationships. Gill appears to have spent most of his life in East Quantoxhead in Somerset. Strong may have lived nearby and have met and/or worked with him there. It has been shown that at Court House, East Quantoxhead and other West Country houses, prints from the Low Countries were important sources for design and decoration.<sup>1129</sup> The use of these prints by the woodcarvers and plasterers of local houses means they were also available for other

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<sup>1126</sup> Coats of arms on instruments are discussed in Appendix 7a.

<sup>1127</sup> Not a relative of the Earl of Somerset.

<sup>1128</sup> Boyden, *Hill Collection*, p.10.

<sup>1129</sup> Wells-Cole, *Art and Decoration*, p.106f. See above, Chapter 3.

local artificers. Instruments with complex outlines occur in such prints, although I have not seen one that closely resembles VME33 or VME16.<sup>1130</sup> The prints reveal the taste of at least some local patrons, and festooned instruments would fit well into the sort of aesthetic environment they clearly favoured. Highly decorated viols might be thought most appropriate for clients of high social status, the nobility and court circles, with whom Gill was connected. We cannot tell whether viols as elaborate as VME33 would have prompted straightforward admiration, or whether this might have been tinged with caution about ostentation, but although few such instruments survive, Forqueray's comment<sup>1131</sup> implies that there were once many.

The individuals described in this chapter exemplify many of the characteristics that the preceding chapters would predict for pre-Restoration English viol-makers. Even the five makers named by Mace are obscure compared with quite minor musicians, who are themselves low in fame, riches and social status. This is because viol-makers are essentially artificers, a section of society which left few documentary details of its activities.<sup>1132</sup> London-based makers are particularly difficult to assess because of the dispersal and loss of records,<sup>1133</sup> but their lives are likely to resemble those of their provincial contemporaries, here exemplified in most detail by the Oxford makers described in Chapter 4 and the York makers described earlier in this chapter. There may have been some people who spent all their time making viols or other particular musical instruments, but it seems probable that most viol-makers were essentially

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<sup>1130</sup> VME16 is very similar to instruments in a painting of *Herzog August with his family* by Albert Freyse, c.1645. (Braunschweig, Landesmuseum). Viols with festooned outlines were made in early seventeenth-century Nuremberg. Martius & Schulze, 'Busch und Hiltz', passim. See also the appendix to Fleming, 'Viol Drawings'. It would be interesting to know whether these viol-players are using German instruments or English ones, perhaps made by Strong, Rose or Gill.

<sup>1131</sup> 'les excellentes Violes angloises Sont en tres petit nombre, la raison... que la plupart Sont trop chargées d'ornemens qui les rendent pesantes....'. Forqueray, *correspondence*, p.206.

<sup>1132</sup> Including viols, as shown in Chapter 2.

<sup>1133</sup> Partly as a consequence of the fire in 1666.

woodworkers of a more general sort (and sometimes musicians) for whom instrument-making was a part-time activity. Hence they described themselves, like Edward Ilsbery, as both joiner and instrument-maker.<sup>1134</sup> Few demonstrate the education, connections, and possibly the aspiration to rise through the principal route of mercantile activity, but names we now recognise such as Rose, Jaye and Smith, may represent those who took the step of becoming a trade name and not confining their activities to the workbench. Viol-makers are very rarely found in records relating to guilds<sup>1135</sup> (Jaye being the outstanding exception), which emphasises how they typically endured employed status rather than becoming masters of their own destiny. It is, however, possible that further research into companies such as Carpenters and Joiners may identify woodworkers who also made viols, as many are already known who made keyboard instruments.<sup>1136</sup>

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<sup>1134</sup> Illustration L84.

<sup>1135</sup> They did however attain freedom of the city in Oxford and York, which is in some ways equivalent.

<sup>1136</sup> *Boalch*, p.715f.

## CONCLUSIONS

Viols were important components of musical culture in England c.1580-1660, and in order for us to understand and appreciate their music fully, we need to hear it played on representative instruments. English-made viols were of high international repute and, partly because of this esteem, most have been consumed by use or serial modification to adapt them for later musical requirements. Chapter 2 has shown how, because of wear, damage, alteration, and the way that wood changes over time, the few surviving viols represent the work of their makers with very limited accuracy. In order to understand these viols without being confused by their present state, it is necessary to understand how their makers approached viol-making. This study has described the nature and working arrangements of viol-makers as a group by examining the possibility of theory underlying their design practices, considering the influence of their aesthetic environment, and presenting detailed information about individuals. A widely-held view about viols is that their shapes are aesthetically sophisticated forms designed in the light of theories of proportion expressed in Italian theoretical publications. This opinion is often derived as an extrapolation from consideration of violins. I dispute this view, and although this thesis does not discuss violins directly, my work suggests a re-examination of views about them.

The discussion of theories and attitudes to theories in Chapter 1 questions the relevance of foreign theory to English viols. Chapters 4 and 5 show that ordinary viol-makers were not wealthy educated men with sophisticated intellects; their ‘sort’ were for the most part poor, illiterate and innumerate. As common artificers, their skills and

techniques were based on accumulated experience of what worked (both practically and aesthetically) rather than on texts or theory. Their primary concern in instrument-making was survival rather than the expression of ideals such as embodying the numerical structure of the universe in their instruments. Their sort would prefer mechanical procedures to techniques requiring calculations, and few would have any understanding of mathematics or geometry other than as workshop procedures. There is no evidence that viol-makers had either a mathematical agenda (the intention to incorporate certain proportions or geometrical relationships in their instruments) or the ability to implement one. There is no reason to expect these artificers to use mathematically complex or sophisticated procedures at any stage in their work, despite claims by Coates and other modern authors that instrument-makers employed the sorts of proportional relationships that were mentioned by Italian architect-theorists. Furthermore, Chapter 2 has shown how even if viol-makers did employ such design or construction techniques, the current state of their instruments after three hundred years of use, damage, alteration and environmental influence is such that it is impossible to extract measurements that are meaningful for the purpose of mathematical analysis. The geometrical-proportional analytical approach is a dead-end for understanding these viol-makers' work. It does not represent how viol-makers thought and worked, and the nature of surviving old viols as physical objects reduces the efficacy of the methodology to below an acceptable level.

Viol-makers of the greatest personal resource and ambition would seek to progress beyond instrument-making. For artificers, the normal route for advancement was not through improving the quality of their work, but its quantity. This could be achieved either by increasing the numbers of subordinate workers (apprentices and journeymen) or through more diverse mercantile activities, such as selling related goods or the



produce of other workshops. It is well documented that instrument-makers after 1660 sold a wide range of instruments, published and sold music, and sold unrelated goods such as books and cutlery. Before that time it seems it was usual for viol-making just to be one among a range of activities that an artificer, typically a joiner, might pursue.

Viols are both tools for music-making and objects whose appearance may be appreciated, yet there is almost no detailed information about specific acoustic or visual requirements which viols had to satisfy. It is to be expected that there would be dialogue between users and makers regarding viols' effectiveness as tools, and improvements that might be tried. No such discussions would be recorded if a maker was building an instrument for his own use, and would be very unlikely to be recorded if the user was illiterate or poor. But there is no evidence of this sort of instruction or communication even from the most educated and socially and financially elevated clients. Apart from general descriptions and unrevealing designations such as 'fine' or 'good', I know of only two comments about the appearance or performance of viols: Gregory's invention to improve his 'evill viol' (1609/10), and Simpson's comments about violin-shaped viols being more resonant (1659). Viol players, including many professional musicians, were not exclusively from the culturally more sophisticated higher sorts, and those from the lower sorts might be expected to concentrate on practical rather than aesthetic aspects, but even among the higher sorts there was little interest in specifying details of artefacts, or demanding that they conform to aesthetic theories. The few theoretical writings that address aesthetic aspects of functional objects (such as buildings), show that even leading cultural theoreticians such as Francis Bacon and Henry Wotton were concerned to ensure that practical aspects had a higher priority than appearance. This suggests that the purchasers of viols had at most an informal or casual interest and their input into viol-making is unlikely to have

extended beyond the point at which an instrument was commissioned, when basic matters such as overall size might be established. It is not possible to be certain whether the performance (tone quality, volume, ease of handling, etc.) or appearance of viols were higher priorities for either makers or users, but the absence of any documented discussion implies that responsibility for both superficial and practical details was chiefly in the hands of the maker. Makers' own educational and cultural backgrounds were therefore the dominant factors in viol design and viol-making.

Although many distinguished musicians and others were named in court and other accounts as the providers of viols, they were generally agents rather than makers. As a consequence, the majority of named payees may be intermediaries (mainly household servants or merchants) rather than makers. Furthermore, the possibility remains that labels in English viols made before 1660 might not identify the person whose hands constructed the instrument, but rather the master of a workshop or the merchant who supplied them. The label could therefore resemble the modern concept of 'designer label' where the name of the founder, manager, or owner of a business is attached to work executed by assistants, apprentices, employees, subcontractors and successors. Such a conception is fundamentally incompatible with the traditional view that fine violin- and viol-making was sustained by successive generations of inspired individuals refining their skills in order to realise their tonal and aesthetic visions, with lesser makers working in the same way but to a lower standard. However, in the twentieth century it is generally understood that the nominal makers of a wide range of non-musical products, such as fashion clothing, play a range of different roles. Owners of paintings 'by' Van Dyck or Rubens understand that parts of the paintings were executed by landscape specialists or studio trainees, and owners of woodcuts 'by' Hans Holbein the younger know that he was responsible for the design, but the wood

was cut by Hans Lützelburger. The distinction between conceiver and executant allows the continuation of a brand after the death of the originator so that no recent purchaser of a new Rolls-Royce motor car, for example, would expect Mr Rolls or Mr Royce to have had a hand in its making. This phenomenon can reconcile a 1667 'Jaye' label (VME17) with the death of Henry Jaye before 1641 but should not be taken to imply a set of rigid, formalised procedures that guarantee consistency.

It would be misleading to describe English viol-makers in terms of 'schools' and the other categories imported from traditional historiography and connoisseurship in the violin trade, unless the term is restricted to indicating country of origin. Chapter 4 describes a brief succession of Oxford instrument-makers, but also shows that in the musically active city of York, musical trades were less likely to pass from one generation to the next than other types of occupation, and there was only a single instance where both master and apprentice (George Mashrother and his son) are recorded as instrument-makers. The isolation and independence of makers needs to be recognised. Resemblances between viols may result more from the phenomenon which in evolutionary biology is called convergence, rather than because makers followed established procedures or prescriptive theories. In biology, convergence is promoted by factors such as food supply, the physical nature of the environment, and predation. Analogous factors for viols include the size of players, the physical characteristics of gut strings and wood, and the vocal origins of polyphonic music.

English viol-makers of this period are difficult to identify in documentary records. Chapter 5 has shown that this is partly because many had common names, but also because documents do not identify them as viol-makers. Guild membership was not compulsory for viol-making, and as the majority of apprentices never even completed

their term, mature viol-makers cannot be expected routinely to appear in company or guild records. Most viol-makers whose backgrounds are revealed in this study are found to be joiners who did not concentrate exclusively on viol-making but also made other instruments and did other sorts of work. They were not described as viol-makers by themselves or their contemporaries and may not even have been thought of as specialist musical instrument-makers. Some master-apprentice relationships are found but there is very little evidence of viol-making continuing across generations within a family, so the case of the famous father and son John Rose is exceptional rather than typical. While contemporary portraits are found of all sorts of patrons, composers, musicians, painters and architects, and of some of the more elevated artificers such as the ship designer Phineas Pett and scientific instrument-makers including Elias Allen and John Browne, there are no extant pictures of English viol-makers or indeed of any English string instrument-makers before 1660. Their continuing obscurity is indicated by the absence of known viol-makers such as John Strong and Richard Blunt from the very latest edition of *Grove*, although such makers should be mentioned in any work that seeks to give an comprehensive and accurate picture of pre-Restoration musical instrument making. Mace's famous five names are the selection of one man writing perhaps a generation or two after these people were active. They should not be seen as representative of ordinary viol-makers, as they may constitute a small subset of makers who are exceptional not only in the quality of their work, but in their working practices.

The traditional view of London as the dominant centre of instrument-making needs reassessment. Chapters 4 and 5 have shown that viol-making occurred not only in several major cities, but sometimes even in relatively rural locations. The sparse evidence of instrument-makers in London might in part be the result of the destruction

and dispersal of London records, but it might also indicate that London's status as the centre of gravity of viol production is justified more by mercantile activity than manufacture. I am confident that future research will reveal significant viol-making activity in places such as Chester, Norwich, Newcastle, Bristol and Cambridge, and believe the nature of these viol-makers will echo that of those I have identified in Oxford and York.

A matter of key importance for delineating the characteristics of viol-makers and changes in viol-making is the reliable identification of the makers of surviving instruments. An attribution can be seen to be valid when an instrument retains its original label, although it has been shown that this might indicate a source rather than a maker. Original, unmoved labels are rare, so as an attribution cannot rely on dimensions or relationships between parts, it must normally rest on the assessor's overall impression. Some unusual cases such as VME22 occur where combined similarities of shape, size, and wood can lead to a strong claim for common authorship and to an attribution, but this is rarely possible and even then, other explanations can be provided for the individual factors. It is important to recognise that most attributions are guesses of variable quality. My work shows that the extent to which objective scientific judgements can be made is very limited because of the small number of exemplars and the shortage of reliable attributions which can form the foundation of an authoritative reference canon. It remains the case, therefore, that the most reliable attributions come from observers with the largest experience of the field. In my experience, people with the most extensive familiarity with these viols are sometimes the most cautious when contemplating attributions. This study suggests that others would be wise to share their caution.

Much of this study is devoted to establishing how little is known for certain about pre-Restoration English viols and their makers. However, it provides a view of viol-making which can form a foundation for understanding the topic, and suggests new questions and approaches that could offer further reward. Some modern authorities are questioning the established view of classical violin-makers, and examining whether traditional attributions are sustainable in the light of more objective assessments of who worked on instruments. This study has argued that although certain names may be associated meaningfully with viols made in England c.1580-1660, they do not indicate reliably who actually did the making. Further research will probably reveal more detail about known viol-makers and identify others, but the majority are likely to remain anonymous craftsmen, as they always were. The quality of a surviving viol is not affected by information about who made it, only our attitudes to it are.

