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A Barretone, an Instrumentt of Musicke: its History, Influences and Development pre-1750

A periphery member of the viol family, the baryton could be said to bridge the gap between the bowed gut and plucked wire instruments of the late sixteenth and early seventeenth centuries, and has been argued to be a fusion of the viola da gamba and bandora.[1] The baryton is thought to have been invented in England at the start of the seventeenth century, although notably, despite earlier references to viols with sympathetic strings, the first reference to the instrument by the name 'baryton' in England does not occur until 1685,[2] and it is therefore questionable what instrument was known in England during the first three quarters of the seventeenth century. Until now, the baryton has been addressed in relative isolation, acknowledging its music and historical references, and only some consideration given to its organological context and construction.[3] With a clear connection to the viol and plucked wire string families, the baryton's lineage is reconsidered here, taking into account the literature available; the debatable role of Daniel Farrant in the baryton's creation; the influence of the poliphant and stump on the baryton's use of additional sets of wire strings; and the position of the often-associated lyra viol. The baryton's construction is also addressed, with a primary focus on the additional sets of wire strings documented during the seventeenth century, illustrated through brief consideration of the oldest extant baryton by Feldlen. Finally, an instrument by Kämbl is examined in depth, demonstrating the adaptations made to many barytons in order to meet the demands of changing musical fashions.

The baryton is identified as a viola da gamba with a set of wire strings running through a hollow, open-backed neck that may be plucked with the left-hand thumb to provide accompaniment. The instrument is noted as having additional sets of wire strings, and so for clarity the manuals are referred to as follows: the first manual is the bowed viola da gamba set of strings, the second is the plucked wire strings housed within the neck, and the third manual runs to the bass side of the instrument, off-board (as will be discussed). Further additional sets are addressed in situ.

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[1] Terence Pamplin, 'The Influence of the Bandora on the Origin of the Baroque Baryton', *The Galpin Society Journal* LIII (2000), pp.221–32; hereafter referred to as Pamplin (2000a). It should be noted that Efrim Fruchtman ('The Baryton: Its History and Its Music Re-Examined', *Acta Musicologica*, vol.34 (1962), pp.2–17, at p.3) describes the metal strings in the neck as 'plucked in a zither-like fashion' and can perhaps be regarded as the earliest reference to the baryton as a fusion of a viol and plucked wire instrument.

[2] The first known reference to the baryton by name in England occurs in an advertisement in the *London Gazette*, dated 23 November 1685, for a concert in London where August Kùhnel performed on the 'barritone'. See Peter Holman, 'An Addicion of Wyer Stringes beside the Ordenary Stringes': The Origin of the Baryton', in John Paynter ed., *Companion to Contemporary Musical Thought* (London: Routledge, 1992), vol.2, pp.1098–1115, at pp.1101–2.

[3] Terence Pamplin was the first author to consider the construction of the baryton. See Terence Pamplin, 'The Baroque Baryton', PhD Dissertation, Kingston University, 2000; hereafter referred to as Pamplin (2000b).

THE ORIGINS OF THE BARYTON

Thought to originate during the first decade of the seventeenth century in England,[4] the baryton experienced a lengthy 200 year process of continual development, and its popularity, although particularly prominent during the Baroque and Classical periods, has spanned to the present day.[5] Like the modern viola d'amore,[6] the baryton enjoyed its greatest success within the Habsburg Empire, predominantly within the Alpine regions of modern Germany and Austria where its unusual sound and visually exciting appearance found favour in the aristocratic households in the seventeenth and eighteenth centuries.

The earliest reference to the addition of wire strings to a viol occurs in 1608/9,[7] when an application was made for the monopoly of the instrument's production. The existence of a viol with additional wire strings is perhaps confirmed in a letter the following year from an Arthur Gregory, claiming he was the inventor of an adapted viol, and requesting that his invention be returned to him for improvement.[8] A second-hand account of the addition of wire strings to a viol is provided by Michael Praetorius in 1619, although he labels the instrument a 'viola bastarda'.[9] Praetorius likens the brass bridge of the instrument to the similar brass bridge of a 'pandora' (bandora),[10] and notes that the instrument had eight strings on the second manual, rather than six or seven as would be expected on a viola d'amore-type instrument. The number of sympathetic strings would allow an octave scale (with a double tonic or accidental) to be tuned to the key of the piece; this would be especially effective if the first-manual strings were also in a non-standard tuning.

Additional descriptions of a viol with wire strings occur in the writings of Francis Bacon (1627)[11] and Marin Mersenne(1635 and 1644).[12] While these accounts shed

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[4] See Rachael Durkin, 'The Viola d'Amore – its Heritage Reconsidered', *The Galpin Society Journal* LXVI (2013), pp.139–47, at pp.139–40.

[5] Pamplin (2000b), pp.4–7.

[6] The modern viola d'amore is a viol with sympathetic strings tuned by wooden pegs in the pegbox like the bowed gut strings, as opposed to the original viola d'amore that was merely a small viol strung with wire. Signs of conversion may be seen where either the neck has been replaced, or the sympathetic strings are attached to the pegbox by metal tuning pins.

[7] Holman (1992), pp.1103–4.

[8] Holman (1992), pp.1104–5. Although Gregory does not explicitly describe a viol with additional wire strings, the content of the letter, as well as the description of the instrument as the 'best ever seene or heard, for sweetness and lowdness' (the word 'sweet' often being used to describe the sound of wire strings), suggests it is the same instrument as described in the 1608/9 application.

[9] Michael Praetorius, *The Syntagma Musicum of Michael Praetorius*, *Volume Two, De Organographia*, ed. & trans. Harold Blumenfeld (New York: Da Capo Press, 1980), p.47–8. It has been suggested by Veronicka Gutmann that the 'viola bastarda' might have been an instrument and a performance style; see Veronika Gutmann, 'Viola bastarda – Instrument oder Diminutionspraxis?', *Archiv für Musikwissenschaft*, 35. Jahrg., H. 3 (1978), pp.178–209. This can perhaps be likened to the division viol.

[10] The significance of this lies in Pamplin's belief that a baryton's second manual was originally strung like a bandora (see below).

[11] Notably, Bacon was the signatory on Edney and Gill's 1608/9 application.

little more light than that already provided by Praetorius, it goes some way to confirm that the instrument was known not only in England, but also in German- and French-speaking lands, and that the addition of wire strings to a viol was a noteworthy invention. Mersenne refers to a similar instrument in 1644, stating that 'King James admired' it, and 'in addition to six gut strings […] [it] has other metal strings behind the neck or fingerboard, which the left thumb plucks so that they sound with the gut strings'.[13] The use of the left thumb is important, and, if Mersenne's reference to James [I] is correct, this species of instrument with a plucked second manual must have existed prior to 1625.[14] It is unclear from Mersenne's writings, however, whether the instrument documented with the plucked lower manual in 1644 was the same instrument he witnessed in 1635.

Four years prior to Mersenne's publication, Peter Mundy wrote that he witnessed a 'barretone' being played by the Englishman Walter Rowe. Mundy's account is key to the exploration of the baryton for several reasons: Mundy describes both the instrument and the playing technique; he names an Englishman as the player; and acknowledges the presence of four sets of strings. Due to the importance of this source, it warrants full quotation here:

> A Barretone, an Instrumentt of Musicke.
> Att my beeing here in Coninxberg I spake with one Mr Walter Row, an Englishman, cheiffe Musitien to the Marquis of Brandenburge, by whome I was Freindly enterteyned. Among the rest of his Instrumenttts hee had one Named a Barretone, itt beeing a base violl with an addition of Many wire strings, which run From end to end under the Finger board, through the F belly of the Instrumentt, which are to bee strucke with the thumbe off the stopping hand: very Musicall, and concordantt with the violl, like 2 instrumentts att once, the playing on the one beeing No hinderance to the other. Itt had allso sundry other wire strings aboutt the head and by the Finger board; butt these and the violl cannott both bee plaide att once, beecause they Must bee strucke with the playing hand, soe thatt they answear one another very harmoniously. In Fine, a very costly Faire Instrumentt, and sweet solemne Musicke.[15]

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[12] Marin Mersenne, *Harmonicum instrumentorum* (Paris, 1635); *Cogitata physico-mathematica* (Paris, 1644).

[13] Translation from Holman (1992), p.1100, which he notes was provided by Tim Crawford.

[14] Holman questions this reference in view of King James I being 'notoriously unmusical'; see Holman (1992), p.1100. However, with considering the number of musicians employed at the Royal Court in the early years of the seventeenth century, it seems unlikely that King James I was adverse to music.

[15] R.C. Temple, *The Travels of Peter Mundy in Europe and Asia 1608–1667* (London: Hakluyt Society, 1925), pp.104–5. Brought to the author's attention by Carol A. Gartrell, *The History of the Baryton and Its Music: King of Instruments, Instrument of Kings* (Lanham, Maryland: Scarecrow Press, 2009), p.7.

Firstly, Mundy documents the player as Walter Rowe: an English-born gambist and composer. Although this does not necessarily imply that the baryton originated in England, there is the possibility that Rowe took the instrument with him to Germany when he was appointed as a musician at the Hofkappelle in Brandenburg in 1614.[16]

Mundy describes the instrument as having multiple sets of strings, which is further supported in a letter from Constantijn Huygens to Marin Mersenne in 1646, where Huygens comments that a 'viol fitted with brass strings behind the neck and elsewhere' was to be played at the wedding of Friedrich Wilhelm, Elector of Brandenburg, that year.[17] The noting of the strings 'elsewhere' suggests the presence of three or even four manuals, and considering that the player was probably Walter Rowe, the senior court musician,[18] it is arguable that the multi-manual baryton and its player were held in high esteem by the court. For Mundy, as an extensive traveller, the instrument proved novel, perhaps highlighting the baryton's relative scarcity beyond a courtly music setting.

A considerably later source, 47 years after Mundy's account, comes from Daniel Speer's *Grund-richtiger* (1687). Speer describes the instrument similarly to Mundy, but instead of additional wire strings as part of a third, or even fourth manual, Speer states:

> On the right hand side of the belly of this instrument there are lute strings strung well which when touched with the small finger of the right hand sound like an echo in the sound of the instrument.[19]

The description of a third manual, substantially after the time of Mundy and Huygens, suggests that the existence of additional sets of strings was not an anomaly confined to the one instrument played by Walter Rowe at the Brandenburg Court. It should be noted, however, that Speer describes the manual as strung with 'lute strings' implying strings of gut rather than metal.

In light of the reference by Huygens to a viola da gamba with additional strings in 1646, as well as the unrelated account by Mersenne (1644), both lacking any specific term for the instrument, it seems that no standard name for the baryton had been established by the mid seventeenth century. This is further complicated by the similar descriptions of an instrument referred to by Praetorius as a 'viola bastarda' but by Playford as a 'lyra viol', and the lack of title given in the monopoly application of 1608/9. Hence it may be argued that the baryton had no official designation in England prior to August Kühnel's 1685 London concert, and was not discussed in

[16] Gartrell (2009), p.7.

[17] Tim Crawford, 'Constantijn Huygens and the 'Engelsche Viool'', *Chelys* 18 (1989), pp.41–60, at p.46.

[18] Pamplin argues that this statement is in reference to Walter Rowe, and not the named Stephkins given in the letter, due to the phrasing of the sentence written by Huygens. See Pamplin (2000b), p.148.

[19] Daniel Speer, *Grundig-richtiger* (Göppingen: G.W. Kühne, 1687); translation by Hans Reiner, from Pamplin (2000b), pp.71, 92–3.

literature in England until James Talbot's 1695 categorisation of instruments, where the lyra viol and baryton are noted as separate instruments. Importantly, this occurs almost a century after the first viol was fitted with additional wire strings.[20] Therefore, it is possible that the term 'baryton' derived from the Brandenburg courts rather than from England.

DANIEL FARRANT: A PERSON OF MUCH INGENUITY?

Both Gartrell and Holman have addressed the question of who invented the baryton. Compared to other Baroque instruments, viols with additional wire strings had a surprising amount of information available surrounding their origins, as well as suggested names of their inventor, and by extension this has been taken to indicate the inventor of the baryton. Of the various possible originators of the baryton, Gartrell favours Daniel Farrant, whereas Holman favours Arthur Gregory, although he does consider Farrant to have been an instrument maker.[21] Gartrell bases her view on two historical references to Farrant, originally collated by Holman.

The first reference comes from Playford's 1661 edition of *Musik's Recreation on the Viol, Lyra-Way*, where Daniel Farrant is linked to the invention of musical instruments:

> The First Authors of Inventing and Setting Lessons this way to the *Violl*, was, Mr. *Daniel Farunt*, Mr. *Alphonso Ferabosco*, and Mr. *John Coperario* alias *Cooper*; The First of these was a person of much Ingenuity for his several Rare Inventions of Instruments, as the *Poliphant* and the *Stump*, which were Strung with Wire: And also of his last, which was a *Lyra Viol*, to be strung with Lute Strings and Wire Strings, the one above the other; […][22]

If Playford was correct, Farrant did not just invent the sympathetically strung lyra viol, but also the extinct poliphant and stump. Farrant was employed as a musician at the court of King James I in 1607,[23] and was also known as a composer. In addition, an early seventeenth-century composition for lyra viol by Daniel Farrant survives, confirming that at least Playford's association of Farrant with the lyra viol is correct.[24]

The second piece of evidence presented by Holman and Gartrell is a warrant to pay Farrant £109 'for 6 Artificiall Instruments which were made and finished for his

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[20] Robert Donington, 'James Talbot's Manuscript (Christ Church Library Music MS 1187), II. Bowed Strings', *The Galpin Society Journal* III (1950), pp.27–45, at p.28. It should also be noted that the composer Gottfried Finger who composed for, and potentially played the instrument, informed Talbot of the baryton, indicated by the heading 'Barytone-Mr Finger'. See Gartrell (2009), pp.39–48.

[21] Gartrell (2009), p.16; Holman (1992), pp.1111–12.

[22] John Playford, '*Musik's Recreation on the Viol, Lyra Way*' (London: William Godbid, 1661), taken from Holman (1992) pp.1100–1. See also Harry Danks, *The Viola d'Amore* (Halesowen: Bois de Boulogne, 1976), p.13.

[23] Holman (1992), p.1109.

[24] Mary Cyr, 'A Seventeenth-Century Source of Ornamentation for Voice and Viol: British Museum MS. Egerton 2971', *Royal Musical Association Research Chronicle* 9 (1971), pp.53–72, at p.54.

Ma[jes]t[i]es Service' in February 1625/6.[25] Holman argues that these instruments were 'probably viols', suggesting that the significant sum of money indicates that it may have been a chest of viols, and by the fact that Farrant was a violinist and a viol player. Gartrell goes as far as inferring that the statement is about the baryton, and that when associated with Mersenne's 1644 description of a baryton, this provides sufficient evidence that Farrant was the probable maker.[26] It should be noted, however, that Mersenne's statement was, like Playford's, significantly after the event, and the association with the court and James I should not necessarily be taken to indicate Farrant's association with the invention of the baryton, particularly as there were many other musicians, composers and instrument makers associated with the court at this time.

Two further points should be considered. Firstly, the term 'artificial' appears to have been accepted by Gartrell to mean the additional wire strings and their resonant effect, implying a fake, or less direct production of sound. However, a seventeenth-century definition suggests a cosmetically elaborate design as displayed by the instruments of Rose and Jaye, or Tielke, or the level of skill required to make such high quality instruments:

> ARTIFICIAL [*artificiel*, F. *artificialis*, L.]
> artful, done according to the Rules of Art.[27]

It should also be noted that no type of instrument is described, and the assumption that they are viols is due to the number, and their supplier's profession. It could have been a chest of six woodwind instruments, since this is noted in an inventory produced by Johann (Hans) Jakob Fugger of the Bavarian court in Munich, detailing the instruments that were presented for sale to the court.[28] Assuming that the chest, of what have been argued to be 'quiet shawms',[29] was complete due to the status of the intended purchaser, this would demonstrate another family of six instruments. In support of Holman's view, however, a letter dated 26 March 1571 was included alongside the chest of woodwinds advertising a further chest of '6 grossen welschen Geigen' made by the Bassano family of London.[30] Thus, the six instruments could be either viols or shawms, or something else completely; there is no concrete evidence that they were six barytons.

Secondly, Holman argues that the 'Artificiall Instruments' were made by Farrant due to the wording of the warrant. Holman states:

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[25] Andrew Ashbee, *Records of English Court Music* (Snodland: Andrew Ashbee, 1988), vol.3, p.134, highlighted by Holman (1992), p.1109.

[26] Gartrell (2009), pp.9–10, 16.

[27] Nathan Bailey, *An Universal Etymological English Dictionary* (London: publisher unknown, 1675).

[28] David Lasocki, *The Bassanos* (Aldershot: Scolar Press, 1995), pp.212–13.

[29] Lasocki (1995), p.212.

[30] Lasocki (1995), pp.212–3 and endnote no.22, p.229. See p.xxiii for family tree, including birth and death years.

> […] the normal words used in the court accounts when instruments were acquired from musicians was not 'made' or 'finished' but 'bought' or 'provided'. [31]

While this would certainly indicate an instrument made by Farrant, it is also possible that there existed a lack of standardisation, or even an error in the entry. Alternately, it may be suggested that Farrant was to be paid for instruments that were made and finished *for the court*, not necessarily *by* him.

Due to Playford's 1661 comment, and the 1625/6 warrant for payment, historians have viewed Farrant as a musician, composer *and* maker. Consideration should be given to Farrant's personal life, however, as this may explain how he was able to obtain and sell instruments to the court. As first documented by Holman, Farrant married one Katherine Lanier in 1620 in Bishopsgate, within the City of London.[32] Katherine was the daughter of Nicholas Lanier (i) (*c*1523-1612), the noted royal flautist, and Lucretia Lanier née Bassano (1556–1634).[33] Lucretia was the sister of Arthur Bassano (1547–1624), and child of Anthony Bassano (i) (*d*1574), the renowned instrument maker.[34] Anthony (i) has been well documented as a maker, and his son Arthur was also a maker, passing his tools in his will to his own son Anthony (ii) (1579–1658) in 1624.[35] The Bassano family house was situated in Mark Lane, in the parish of All Hallows Barking (Tower Ward), London; a short distance from Bishopsgate where Farrant and Katherine Lanier married, and presumably where they first lived.[36] Considering Farrant's warrant for payment is dated 1625/6, it is possible that he was trained by Katherine's uncle Arthur in instrument making, utilizing their templates and tools, and having their years of Italian craftsmanship instilled. It does, however, seem unlikely that Farrant would rise to be a maker of such high quality in the few years between his marriage and the sale of the instruments. It is more likely that Farrant acted as an agent for his relatives, who were renown for their high quality instruments that would adhere 'to the Rules of Art', whether in their appearance, their tone quality, or both. By acting as an agent, Farrant would order the instruments to be 'made' and 'finished' for the royal court, rather than supplying them from stock. At a price of approximately £18 per item, the instruments were clearly of an exquisitely high standard, when compared to the £20 paid to Alfonso Ferrabosco, Farrant's colleague, for two viols in 1623 and again in 1626/7.[37] It therefore seems unlikely that

[31] Holman (1992), p.1109.

[32] Holman (1992), pp.1109-10.

[33] Holman (1992), pp.1109–10.

[34] Lasocki (1995), pp.43–4.

[35] Lasocki (1995), p.217.

[36] Lasocki (1995), p.35. It should be noted that, according to Lasocki (1995), p.37, Arthur (ii), the son of Anthony (i), had inherited the Mark Lane house from his father and uncles in its entirety by his death in 1624. In addition, there is no known record of where Farrant and his wife resided before inheriting property and land in Greenwich from Lucretia Lanier in 1633; see Holman (1992), p.1110.

[37] Holman (1992), p.1109.

Farrant was the maker of the baryton, or viol with additional wire strings, and that Playford's second-hand account should not be taken at face value. However, without further evidence it cannot be disproved that Farrant may have been an *inventor*, although it seems unlikely that he was involved in the baryton.

In contrast to Farrant's somewhat questionable role in the development of the baryton, there exists an application from 1608/9 for the fitting of additional strings to violins, viols and lutes.[38] Submitted by Peter Edney and George Gill, and supported by Sir Francis Bacon, the application sought to obtain, for ten years, the rights for

> […] the sole making of violles violins and Lutes w(i)th an addic(i)on of wyer stringes beside the ordenary stringes for the bettering of the sound […].[39]

It has been suggested by Holman that the application was submitted on behalf of one Arthur Gregory, a customs officer rather than a courtier, a character plagued by financial troubles and with a 'chequered career'.[40] That a consortium was created between Edney, Gill and Gregory to take advantage of this invention is confirmed in a letter from Gregory to Sir Michael Hicks, where the return of his new invention is requested, and the association between Gregory, Gill and Edney enunciated:

> And for th(a)t yo(u)rself were the meanes of my last presenting of my self w(i)th a violl to my most honnorable L(ord) Tr(easur)er [Cecil] which was made by George Gill & invented by me only to make an evill violl of myne better, w(hi)ch is now the best th(a)t ever was made, I humbly pray youe to be the second meanes th(a)t Nicholas Lanier may deliver it back to Mr Peter Edney to be sent to me that I may make it farre better or send an other beyond it: […] to please his honno(u)r having already made one th(a)t this gent[leman] can tel youe is (& my Let[ter] will enhable it) the best and fayrest th(a)t hath ben ever seene or heard, for sweetnes and lowdnes […][41]

With George Gill as an instrument maker (listed in 1641 as a 'Musicall Instrument Maker'), and Peter Edney a seller of instruments and musical supplies, as well as serving in the royal flute consort,[42] it seems that the consortium of Gregory, Gill and Edney would cover the three main areas for a successful business: invention, production and distribution. The evidence suggests that the consortium was behind the building of a viol with additional strings, rather than Daniel Farrant;[43] while the letter from Gregory to Hicks shows a clear intention to produce further instruments, possibly with wire strings (indicated by his reference to the new instrument's

[38] This is discussed in two writings: Holman (1992), pp.1103–4, and Gartrell (2009), pp.10–11.

[39] Holman (1992), p.1104.

[40] Holman (1992), pp.1105–6.

[41] Holman (1992), p.1104.

[42] Holman (1992), p.1108.

[43] Holman (1992), p.1104, notes that the application was marked as 'stayed', and suggests that it may have been Daniel Farrant who objected.

'sweetnes').[44] With the consortium's connections to the court, the rapid development of the instrument and appreciation amongst the privileged classes, and potential export to the continent would be easily accomplished. This would explain how, just ten years after the application by Edney and Gill, Praetorius was able to describe a viol with additional wire strings in such detail, albeit referring to it as a 'viola bastarda'. In terms of Farrant, while his association with more unusual instruments (as will be discussed below) cannot be ignored, it is presumptuous to assume that he was an instrument maker simply because of his courtly connections: if there was a baryton at court it is very likely that he would have been called upon to play it, and indeed any other rare or novel musical instrument.

THE INFLUENCE OF THE POLIPHANT AND STUMP

Terence Pamplin first argued that the baryton was a fusion of the lyra viol and bandora.[45] His reasons for this stem from the use of a brass bridge on the bandora and viola bastarda as described by Praetorius,[46] the latter often thought to be the lyra viol, and the pairing of the bass viol and bandora in consort music from the time of John Rose.[47] Further to this, in Pamplin's own investigation of the music pre-dating the Esterhazy baryton reign, he suggests that the pitch of the second manual of the baryton was much lower than that required during the Esterhazy era, and concluded that the only wire strings suitable for stringing the second manual to such a low pitch were the type used on a bandora.[48] Certainly, these strings would be readily available by the mid-seventeenth century when the bandora had made headway in Europe. However, due to the multiple manuals on the early baryton, another instrument must be considered as a source of influence: the poliphant.[49]

The poliphant has remained somewhat obscure, referenced only in the writings of William Turner,[50] in Talbot's manuscripts,[51] Randle Holme's *Academy of Armory*,[52]

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[44] The word 'sweet' may imply the resonant effect created by the use of wire strings on instruments during the seventeenth century. For example, John Evelyn in 1679 refers to the old wire-strung viola d'amore as sweet sounding, and earlier in 1661 referred to the wire-strung poliphant as sweet (as will be discussed).

[45] Pamplin (2000a).

[46] See Praetorius / Blumenfeld (1619/1980), pp.47–8. Praetorius' description of the viola bastarda has often been taken to be a mislabelled lyra viol, most probably due to Playford's 1661 account. However, there is no known material evidence to support the existence of sympathetic strings on a lyra viol.

[47] Pamplin (2000a), p.223.

[48] Pamplin (2000a), p.225. These were probably twined strings.

[49] A further instrument to acknowledge is the lyra barberina invented by Ganessi Batista Doni of Italy. It had sets of wire and gut strings, strung on both sides of the body, with one side set up with a curved bridge. In a letter to Mersenne in 1633, Doni described the lyra barberina as having a 'very sweet tone, so that is surpasses the lute and the harp, while partaking of both'. See Claude V. Palisca, 'G. B. Doni, Musicological Activist, and his Lyra Barberina', in Claude V. Palisca, *Studies in the History of Italian Music and Music Theory* (Oxford: Clarendon Press, 1994), pp.467–90, at pp.487–8.

[50] Michael Tilmouth, Some Improvements in Music Noted by William Turner in 1697, *The Galpin Society Journal* X (1957), pp.57–9, at p.58.

John Evelyn's diary,[53] in a 1655 letter from Sir Francis Prujean,[54] and in a footnote from the writings of Sir Francis Kinaston; there are no known confirmed extant instruments.[55] Described as an instrument similar to a lute or theorbo but strung with wire, and possessing a large number of strings, the poliphant sits comfortably within the fashion for increasing numbers of strings and use of wire during the seventeenth century.[56] The earliest known reference, dated *c*1635, is found in the writings of Sir Francis Kinaston, where in a footnote he mentions the poliphant being played by none other than Daniel Farrant:

> Nailes pointed &c: It seems that the harpers in Chaucers time wore their nailes long of purpose to touch their harpe strings more spritely, as being ignorant of the plectrum of the antient Grekes & Troyians, w^{ch} was a ring of gold or copper worne upon the thumbs end, in which there was fastened a point of quill, as farre as I have read I cannot finde, that the antients upon their Lyres, Harpes or Citterns did play any part in descant, but only shooke on one string at once. I have heard that even in the beginning of Queene Elizabeths reign the musick was so poore that those Lutenists that first began to strike 3 or 4 strings at once in part were wondered at as going beyond the usual way of play upon one string at once, & were called Graspers, but now Musick is growne into that performed, as that I have seene my excellent friend Mr Daniell Forant play upon his Poliphon wth several plectrum on every finger upon his right hand.[57]

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[51] Donald Gill, 'James Talbot's Manuscript (Christ Church Library Music MS 1187): V. Plucked Strings-The Wire-Strung Fretted Instruments and the Guitar', *The Galpin Society Journal* XV (1962), pp.60–9, at pp.65–6.

[52] London, British Library, Harley MS 2034, fol.207b for detailed description and image as discussed here.

[53] John Evelyn, *The Diary of John Evelyn*, compiled by Guy De la Bédoyère, trans. by Joan Evans (Woodbridge: The Boydell Press, 2004), p.122.

[54] Duke of Rutland, *The Manuscripts of His Grace the Duke of Rutland*, compiled by the Historical Manuscripts Commission (London: Eyre and Spottiswoode, 1889), vol.2, p.5

[55] An instrument by Venere, preserved at the Kunsthistorisches Museum in Vienna, item: SAM62, may be the closest extant instrument to the poliphant. In addition, it is noted by Gerhard Stradner that the same instrument is included in an inventory dated 1696 where it is described as 'an extraordinary and wonderful instrument which combines three instruments in one: namely a lute, a harp and a cittern, the work of Wendelin Venere'. See Gerhard Stradner, 'Musical Instruments in an Inventory by Andreas Mantova Benavides, Padua 1696', *The Galpin Society Journal* LV (2002), pp.61–103, at pp.67 and 78–9.

[56] One such example of the increasing number of strings can be found in the descriptions of Jean de Maire's seventeenth-century invention, called the Almerie. It is described in a letter of 1640 by de Maire to an unknown recipient, as '[…] informe of a Lute but a great deale bigger with 34 or 35 simple strings, of which 6 are but fingered with the left hand.' See Sheffield University Library, Shelfmark: Hartlib Papers 63/8/1a–b, 3a–b and 5a–b. With thanks to Benjamin Hebbert for bringing this to the author's attention (personal communication).

[57] Oxford, Bodleian Library, MS. Add. C. 287, II, 156. With thanks to Benjamin Hebbert for bringing this to the author's attention and supplying the transcription (personal communication).

This reference to Farrant playing the poliphant supports at least part of Playford's 1661 claim, although does not substantiate Farrant as the inventor of the instrument, even though the term 'his' may be taken to mean *invented* or *produced by*. Certainly, any invention of Farrant's could be produced in the Bassano workshop.

John Evelyn remarked that the instrument was rare in 1661:

> I went to that famous Physitian, Sir Fr: Prujean […]: He plaied to me likewise on the Polyphone, an Instrument having something of the Harp, Lute, Theorbo &c: it was a sweete Instrument, by none known in England, or described by any Author, nor used but by this skillfull & learned Doctor […][58]

It is clear that the poliphant was not the only instrument to lose popularity towards the end of the seventeenth century as William Turner writes that the orpharion, bandora, guittern and cittern were also 'laid aside'. He also notes them all to be 'old *English Instruments*'. The poliphant, in Turner's opinion, was:

> […] an Instrument surely not to be despised, considering its rare Structure, and the esteem had of it by Learned, and therefore most Judiciousy, Musical Persons of this Age, viz. Sir *F. Pruscan*, and *Dr Rugely*.[59]

The first detailed description of the poliphant is found in a letter from Sir Francis Prujean to the Countess of Rutland in 1655, six years before he played the poliphant for Evelyn:

> The polyphon is an instrument of so different a stringing and tuning that its impossible to play what is sett to it on any other hand instrument. There are three rows of strings one under another, eight or ten small short trebles which ly under the frets, there are onely five strings stopped, and yet there are on it above forty single strings. Nothing can resemble the harp so much as it. I am casting about to get one for your Ladyship, and am in hope to find it.[60]

Holme's entry from the *Academy of Armory* describes the instrument in slightly more depth than Prujean. The image accompanying the description resembles the body shape of the bandora as portrayed by Mersenne (1635),[61] and shows an unusual double-neck construction, with the locations of the pegs indicated, although not accurately drawn in number (see Figure 1).

> A polyphant of some called polyphon. It is an hollow yet flat kind of instrument, containing three dozen & 5 wier strings to be played upon.

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[58] Bédoyère (2004), p.122.

[59] Tilmouth (1957), p.58.

[60] Rutland (1889), p.5. The instrument described here by Prujean is perhaps most comparable in form to the instrument by Venere discussed above.

[61] Marin Mersenne, *Harmonie Universelle,* ed. & trans. Roger E. Chapman (The Hague: Martinus Nijhoff, 1957), p.81.

> On the right side the neck are 3 pins; on the left side above 9 pins; & at the bending or corner in the middle of the neck 5 pins; & below the neck on the top of the body are 8 pins fixed, as the figure it selfe will give you the best description of it.
>
> There is on the body a crooked Bridge & 3 small sound holes.[62]

Figure 1. *Drawing of the Poliphant, from Randle Holme, Academy of Armory drafts, London, British Library, MS Harley 2034, folio 207b (courtesy of the British Library, London).*

Talbot provides the most detailed listing of the poliphant,[63] describing not only the physical measurements, and stringing, but also the playing technique that proves to be surprisingly familiar:

> NB The strings of the 2 first Nutts are touched with the 4 Fingers of the right hand, the 3rd with the Thumb ditto. The 4th behind by the Thumb of the left hand whilst the 4 fingers manage the Fretts. The Knott is somewhat Below the 3d Nutt.[64]

Firstly, the instrument is described as having four manuals of strings, each attached to their own individual set of pegs. This is clearly illustrated in Holme's documentation, whereby three sets are situated at the neck and pegbox, and the fourth on the body of the instrument. Talbot states that the first two manuals are plucked with the '4 Fingers of the right hand', although it is not clear if both of these manuals are fretted. The thumb of the right hand played the third manual, and hence it was situated to the bass side of the instrument. The curious description is that of the fourth manual, which Talbot describes as played with the thumb of the left hand. Further to this, Talbot describes the position of the fourth manual, as:

> On the 4th or highest Nutt which is 6'. 4". above the 3rd & lies more backward on the head & streight are 9 strings all single & open Basses which pass under the 3d Nutt & its strings: these 9 strings have 6 Bridges whereof the 4 lowest carry each one, the 5th two, the third three strings.[65]

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[62] London, British Library, Harley MS 2034, fol.207b. Highlighted by Ian Harwood, 'Poliphant', *Grove Music Online*, consulted 22 January 2013. It should be noted that Holme significantly shortens the description of the poliphant in the published version of his book, reading 'The Poliphant, is an instrument made much like a Lute, but it is strung with wyre'. There is also no accompanying image. See Randle Holme, *Academy of Armory* (Chester: Randle Holme, 1688), Book III, Part II, p.61, and his first draft of the book: London, British Library, Harley MS 2027, fol.272a.

[63] See Gill (1962), pp.63–5 for a short commentary and full transcription.

[64] Gill (1962), pp.63–4.

[65] Holman (1992), pp.1110–11.

As with the baryton, Talbot describes the poliphant as having two manuals, with one manual passing behind the other. Moreover, Talbot confirms that the bass manual plucked by the left thumb has nine strings. This is the number found on several extant barytons: the 1647 Feldlen;[66] the 1679 Hans Kögl;[67] the 1684 Johannes Seelos;[68] and the *c*1685 Tielke.[69] It is therefore possible that the open bass manual of Baroque instruments had a standard number of strings, although whether this originated in England or on the Continent remains unknown, and thus cannot be taken to indicate that the baryton and poliphant stemmed from the same workshop.

Talbot and Holme describe the poliphant as having four manuals, although Prujean describes it has having only three. While Daniel Speer's description of the baryton clearly states only one additional set of 'lute strings' besides the usual two manuals, Mundy and Huygens also hint at a fourth set of strings. Mundy describes the baryton has having 'sundry other wire strings' situated 'aboutt the head and by the Finger board'.[70] The latter of these sets would appear to be a third manual similar to that described by Speer, but the former is questionable. By describing the strings as near the head, or pegbox, it perhaps implies strings that run off-neck, in the style of a lira da braccio; these strings may have attached to pins in the side of the neck, similar to the three pins to the right-hand side of the neck on the poliphant known to Holme. Unfortunately, research is yet to identify an instrument with evidence of such additional strings, but the accounts by Mundy and Huygens combined with the descriptions of the poliphant certainly suggest that the baryton in use at the Brandenburg court was essentially a bowed poliphant. It may also be suggested that the 'bowed-poliphant' baryton design was an early model, and the instrument witnessed by Speer had been subject to continuous development, resulting in instruments with only an occasional additional third manual.

In light of the above discussion of the poliphant, it is appropriate to briefly consider the 'stump': an obscure instrument that Playford (1661) believed was invented by the same person as the poliphant and sympathetically-strung lyra viol. Only one musical score has been identified and there are no known extant instruments. However, Gill reports that music for the stump was notated in six-line French lute tablature for seven strings, with lower diapasons indicated by the numbers one to eight below the stave.[71]

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[66] According to the catalogue entry, the 1647 Feldlen baryton preserved at the Royal College of Music, London (RCM 204) has six bowed strings and nine plucked strings, plus four later sympathetic strings; see Elizabeth Wells and Christopher Nobbs, *Royal College of Music, Museum of Instruments Catalogue: European Stringed Instruments* (London: Royal College of Music, 2007), pp.148–9, at p.148. There is also a baryton made by Feldlen in 1656 preserved at the Gesellschaft der Musikfreunde, Vienna, item: GdM 44. The nine original hitchpins above the nuts have been removed, leaving visible holes, and a replacement tuning pin block added to the rear of the pegbox.

[67] Pamplin (2000b), pp.28–9, and Gartrell (2009), pp.127–8; instrument at the Staalisches Institut für Musikforschung, Berlin, Germany, item: 4655

[68] Pamplin (2000b), p.24–5, and Gartrell (2009), p.134–5; instrument at the Oberösterreichesches Landesmuseum, Linz, Austria, item: 62

[69] Pamplin (2000b), p.35–6; only the neck survives and this is in a private collection.

[70] Temple (1925), pp.104–5.

[71] Gill (1962), p.66.

The piece entitled 'Alman to the stumpe by F. P. […]' has been dated by Brian Jeffrey as *c*1613 and is believed to have been originally written by the lutenist Robert Johnson, and then transcribed for the stump by someone with the initials F. P.[72] The numerical notation of the bass notes is identical to that used in early baryton music, whereby the bowed manual was written in French lute tablature, and the additional manuals were indicated by numbers. Indeed, had this single manuscript not been identified, some might argue that Playford's description of a wire-strung instrument called the stump was erroneous. As noted by Michael Tilmouth, however, an inventory of Belvoir Castle made in 1671 includes a stump listed alongside other instruments in the music room; perhaps in his quest to source a poliphant for the Countess of Rutland, Prujean instead provided a stump.[73]

While no extant stump has been identified, it is possible to suggest a possible precursor to the instrument. In 1609, Thomas Robinson published his 'New Citharen Lessons', instructions for instruments 'from Foure course of Strings to Fourteene course'. In the preface, Robinson details the 14-course instrument as follows:

> For first, you shall have strange lessons with strange tunings for the foure stringed Citharen…& withall a third Citharen; (which invention was first begun by an Italian in Italy, but altered, and strings augmented by me.) Containing fourteen course of strings most full, sweete and easie, for the which Citharen, I must remaine a thankeful debter, and wellwiller to a most kind and loving Gentleman and scoller of mine, Master Edward Winne, an attendant of the Right Honorable Robert Earle of Salisburie[74]

The illustration of the 14-course instrument, repeated frequently throughout the book, shows seven double courses of fretted strings, and seven single diapasons running to the bass side of the neck, while Robinson describes the stringing as 'These seven with frets are double strung / al the other single / twisted'. Interestingly, Robinson includes five pieces for the 14-course 'citharen'. In these works numbers below the stave, although used sparingly, indicates the bass diapasons, in the same manner as the Alman arranged for stump by F. P. Most notably in bar 39 of tune 48, entitled 'Paauana Passamezo', the diapasons are used with no fretted strings, indicated by the rhythmic flag notation placed above the stave where no other notes are notated, thus confirming the use of string numbers rather than fingering indications. The numbers used are '7…432' indicating the seven diapasons; this, notably, is only one string short of the eight diapasons in the music for the stump. However, there is a slight tuning difference between the music written for the 14-course citharen and the stump, suggesting that although not identical instruments, the stump may have been a variant of Robinson's 14-course citharen.[75]

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[72] Brian Jeffrey, 'The Lute Music of Robert Johnston', *Early Music* 2/2 (February 1974) pp.105–9, at p.109.

[73] Tilmouth (1957), p.59. The short inventory reads 'one organ, two virginals, two harps, one viol, one "stump," one guitar […]', and can be found in Rutland (1889), p.347.

[74] See the preface to Thomas Robinson, *New Citharen Lessons* (London: William Barley, 1609); an original copy is preserved at the British Library, London.

[75] With thanks to Darryl Martin for his valuable input on this issue (personal communication).

Furthermore, Gill has argued that Talbot describes the stump, although the description is part of the text about the orpharion. The description likens the instrument to the theorbo and seems similar, apart from the bass diapasons, to Robinson's 14-course citharen. Additionally, it is not made in England:

> Some like the English Theorbo carrie 5 double 8ve ranks of open Basses on 5 Nutts on long Head besides those (7) on the Plate. (made at Brussels)[76]

While the instrument described by Talbot may have been an orpharion with an extended neck, it is also possible that it was an adapted theorbo strung with wire, supported by Randle Holme's description of a wire-strung theorbo towards the end of the seventeenth century.[77] Compared to the baryton and poliphant, the stump appears to have been of a more simple design, and its relationship to them is still unclear. It has been argued that the theorbo was introduced to England from Italy *c*1605 by Inigo Jones, and that prior to this instruments like the poliphant were not known.[78] If the poliphant was developed as a result of the theorbo's introduction to England, and the baryton a reaction to the poliphant, then it appears that the two instruments appeared round about the same time, between 1605 and 1609/10. This, unfortunately, does not account for the stump, if it is indeed a development of Robinson's 14-course citharen, as it would therefore appear between 1609 and *c*1613. Certainly, both the poliphant and baryton were held in high esteem, were probably expensive instruments and played only in a privileged setting. The stump's connection with the poliphant is somewhat dubious: other than Playford's 1661 account, the use of wire strings and numerical notation for the bass diapasons, there is little to connect it with the poliphant or the baryton. There is also the question of whether the poliphant and baryton were truly invented in England.[79]

THE INFLUENCE OF THE LYRA VIOL

The lyra viol has received much attention in the literature, writers having investigated both its form and suitable repertoire. With no confirmed surviving instruments, however, it has been unclear what exactly differentiated the instrument from a division viol or viola da gamba, and references to instruments with additional sympathetic strings have served to complicate matters further. The earliest piece for lyra viol is dated 1601, although the instrument may have been known prior to this.[80]

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[76] Gill (1962), pp.62, 66.

[77] See MS Harley 2034, fol.207b.

[78] Holman (1992), p.1111.

[79] If the Venere *c*1590 'poliphant' (Kunsthistorisches Museum, Vienna, item: SAM62) is an authentic, unaltered instrument, then the poliphant could no longer be regarded as an instrument of English origin; a full examination of the instrument may clarify this issue. Playford states in his '*An Introduction to the Skill of Musick*' (1674), that Queen Elizabeth I played upon the poliphant (see Holman (1992), p.1110), and if correct would place the development of the instrument pre-1603, and may have been similar to the instrument by Venere.

[80] See Frank A Traficante, 'The Mansell Lyra Viol Tablature', PhD Dissertation, University of Pittsburgh, 1965, p.189, where it is noted that in 1593 Sir Philip Sidney used the term 'base Lyra'. According to Traficante, the earliest known book of lyra viol music is Robert Jones, *The Seconde*

Notably, like the early baryton, music for the lyra viol was written in French lute tablature rather than staff notation, permitting the use of open tunings; this differs from the more virtuosic notated music of the viola bastarda with which the lyra viol has often been compared.[81]

The lyra viol's structure and dimensions are also not certain due to the lack of surviving instruments and written descriptions. Thomas Mace in his *Musick's Monument* of 1676 describes the assembling of a chest of viols, and dedicates a significant portion of the text to the addition of lyra viols in comparison to other instruments listed:

> And now to make your *Store* more *Amply-Compleat*; add to all *These* 3 *Full-Seiz'd Lyro-Viols*; there being most *Admirable Things* made, by our *Very Best Masters*, for *That Sort of Musick*, both *Consort-wise*, and *Peculiarly* for 2 and 3 *Lyroes*. Let them be *Lusty*, *Smart-Speaking Viols*; because, that in *Consort*, they often *Retort* against the *Treble*; *Imitating*, and often *Standing instead of That Part*, *viz* a *Second Treble.*
> They will serve likewise for *Division-Viols* very Properly.[82]

Mace describes the instruments as 'full-seiz'd', suggesting that it may have been available in several sizes. In a similar vein, in 1626 Alfonso Ferrabosco was paid £20 by the Royal Court for a 'greate Bass Vyall', and a 'great Lyra',[83] while in 1593 Sir Philip Sidney described an instrument as a 'base Lyra'.[84] Perhaps the instrument known to Mace could function as both a treble viol (as a melody instrument) and a division viol, showing an instrument with great versatility. In terms of the lyra viol's vibrating string length, a similarity may be drawn between it and the lute as per Talbot's measurements, placing the French lute at 27 inches, and the lyra viol at 28,[85] although it should be noted that the English lute noted by Talbot has a far shorter treble string length of just 23½ inches and noted by Prynne as being a small instrument.[86] The use of a lyra viol in place of a division viol can also, in light of Talbot's measurements, be deemed feasible when considering Christopher Simpson's recommendation for a division viol with a string length of 30 inches,[87] although it is

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Booke of Songs and Ayres, Set out to the Lute, the base Violl the playne way, or the Base by tablature after the leero fashion (published 1601). An original copy is preserved in the British Library, London.

[81] Traficante (1965), p.56, suggests that the English counterpart of the viola bastarda was the division viol and not the lyra viol, on account of the musical styles employed.

[82] Thomas Mace, *Musick's Monument* (London: T. Ratcliffe & N. Thompson, 1676), p.246.

[83] Holman (1992), p.1109.

[84] Traficante (1965), p.189.

[85] See Donington (1950), pp.33–4, and Michael Prynne, 'James Talbot's Manuscript (Christ Church Library Music MS 1187): IV. Plucked Strings-The Lute Family', *The Galpin Society Journal* XIV (1961), pp.52–68, at pp.53–54.

[86] Prynne (1961), pp.65-6.

[87] Christopher Simpson, *The Division-Viol or The Art of Playing Extempore upon a Ground*, (London: William Godbid, 1665), p.1.

widely accepted that viol sizes can vary greatly. The description of a lyra viol as 'full-sized', 'great', or 'bass' suggests an instrument that existed in an array of sizes, akin to the standard viol or violin families. In support of this there are barytons in European collections that are of a reduced size (see Figure 2), perhaps indicating a family of barytons,[88] and by extension there may also existed a family of lyra viols.

Figure 2. *Small baryton attributed to Johannes Udalichus Eberle, dated mid-seventeenth century, preserved at the Stadtmuseum, Munich (photo courtesy of the Stadtmuseum, Munich).*

Alternatively, it is possible that the terms used to denote size may originally have indicated an instrument of similar size and playing position to the viola da gamba. This would also serve to differentiate the lyra viol from the old lira da gamba, or lirone, and lira da braccio that had off-board drone strings. Its similarity with the old bowed lyras perhaps lies in its chordal style of playing, and thus perhaps it can be suggested that the lyra viol gained its name, and was partially influenced by the old bowed lyras. However, when considering Tobias Hume's 1605 *The First Part of Ayres*, the influence of the lute cannot be confined to just string length and use of tablature notation. In the footnote of the foreword to the 'understanding reader', Hume wrote:

> If you will heare the Viol de Gambo in his true Maiestie, to play parts, and singing thereto, then string him with nine stringes, your three Basses double as the Lute, which is to be plaide on with as much care as your Violl of sixe stringes.[89]

The lyra viol is regarded as a six-string instrument, and Hume makes no further mention of the use of double gut courses in his later publication for two bass viols and other instruments.[90] There are no further known references to a viol strung in the manner described by Hume, and so the success of such an instrument remains unknown. Perhaps the first lyra viols were strung with lower-register double courses like a lute, but the fashion for single strings, like the rest of the viol family, resulted in its demise.

The lyra viol has long been associated with the baryton and viola d'amore due to references of viols with sympathetic strings. However, the only seventeenth-century reference to a lyra viol with additional wire strings comes from Playford (1661), who also remarked that 'Time and Disuse has set them aside'.[91] It is therefore possible to

[88] Durkin (2013), pp.139–40. Despite their late dates (mid to late eighteenth century), it suggests that smaller instruments did exist alongside full-size instruments, and that perhaps due to their small size they may have been converted into another instrument or lost.

[89] Tobias Hume, *The First Part of Ayres, French, Polish, and others together* (London: John Windet, 1605). With thanks to Benjamin Hebbert for bringing this to the author's attention (personal communication).

[90] Tobias Hume, *Captaine Hume's Poeticall Musicke* (London: John Windet, 1607).

[91] Playford (1661), preface.

question Playford's accuracy in specifically citing a lyra viol rather than a division viol or viola da gamba. The earliest reference to viols with additional wire strings comes from the Edney and Gill monopoly, with a first-hand account of a viol described by Francis Bacon in his posthumous 1627 publication, which importantly does not specify a particular type of viol. Mersenne gives further support to Bacon's comments in 1635, although again no type of viol is specified. Considering Hume's 1605 description of a viol with nine strings, the lowest three strung as double courses, it seems that the lyra viol had been the subject of some modification during the first quarter of the seventeenth century. Thus, by extension further experimentation with the lyra viol would seem plausible. However, other than Playford's account there are no other references to a lyra viol with sympathetic strings. If the lyra viol did at one time have sympathetic strings, it was arguably a short-lived fashion with no lasting influence in England.

It therefore seems that the lyra viol was initially distanced from the division viol and viola da gamba by its ability to play chordal music (perhaps implying a lesser curved bridge than other viols) and also perhaps by the use of lower register double courses like the lute. There is not enough evidence to conclude that it had sympathetic strings. Its name may suggest the instrument had 'half a harp in its throat',[92] but until more substantial evidence is uncovered, or extant instruments identified, the lyra viol can only be regarded fundamentally as a bowed gut-strung lute.

THE BARYTON'S CONSTRUCTION AND ADDITIONAL STRINGS

The baryton is essentially a viola da gamba with a wide and hollow neck accommodating a second manual of plucked wire strings. According to Pamplin, early barytons are in most cases shaped with upper bout corners, and no lower bout corners, with the 'curved S shape of the waist and lower bouts [to] stiffen and strengthen the body unit'.[93] The shape can be argued as somewhat specific to the baryton, although iconographical evidence and extant instruments of the viol family with similar, although not identical festooned outlines co-date the extant early barytons listed by Pamplin.[94]

Barytons, like many viols and violas d'amore, have undergone conversions and adaptations to sustain their usability. Pamplin argues that second-manual strings on the baryton have been changed from those of lower pitch, probably twined strings, to higher pitched 'normal' strings, thus raising the tessitura to that suitable for music of the Esterhazy period.[95] It is perhaps this change that resulted in many of the early

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[92] Martin Heinrich Fuhrmann, *Musicalischer-Trichter* (Frankfurt an der Spree: the author, 1706); from Pamplin (2000b), p.67.

[93] Pamplin (2000b), p.42.

[94] For example, a painting by Albert Freyse (1645) showing Duke August the Younger and his family playing a consort of viols, includes a viol of almost identical shape to the traditional baryton outline. The painting is preserved at the Braunschweigisches Landesmuseum, Braunschweig, Germany; see Annette Otterstedt, *The Viol: History of an Instrument*, trans. Hans Reiners (Germany: Bärenreiter, 2002), p.107.

[95] Pamplin (2000a).

extant barytons having adaptations made to their securing mechanism for the second manual. Pamplin demonstrates that the second manual of the early baryton was hitched at the pegbox, as can be seen on the 1647 Feldlen, and terminated at a wrest bar on the front of the instrument that held the metal tuning pins.[96] Later, in order to cope with an increased number of strings and perhaps increased tension, the wrest bars were often changed. Various methods for raising and securing the strings developed, such as individual bridges that also serve as terminals for each string, as seen on an 1785 example by Simon Schödler,[97] and metal bridges or wrest rails that carry the strings above the body before continuing over the lower edge of the instrument where they are hitched to pins. For example, a baryton made in 1745 by Johann Andreas Kämbl, and discussed in more detail later, clearly shows the former shadow and filled holes of an early wrest bar, and instead now has a metal wrest rail, also placed at the diagonal, with the strings passing over the rail and terminating in the lower rib with hitchpins.

With a unique neck construction, the treble side of the baryton has a traditional viol fingerboard, with the earliest intact extant example by Feldlen retaining a channel between the fingerboard and neck to allow the tying of frets. This channel is cut due to the large covered section, or cover board, to the bass side that houses the second manual, preventing frets being tied in the conventional fashion. The cover board, although often fairly plain in many extant instruments, perhaps due to the loss of a decorative panel, acted as an area to display a maker's or carver's skill, much like the pegbox.[98] An example of such execution can be seen on the 1686 Tielke baryton, where an exquisitely carved pegbox and attractive bird's-eye maple back are complemented by an intricately designed cover board.[99]

The 1647 Feldlen baryton preserved at the Royal College of Music is believed to be the oldest surviving baryton (see Figure 3).[100] It has been suggested that the instrument was designed for six bowed and nine plucked strings, and that the four strings to the bass side of the fingerboard are a later addition. [101] However, a key design feature of this instrument is the way in which the cover board mimics the fingerboard: a clear border shape is outlined in a similar fashion to the apparently

[96] Pamplin (2000b), p.65.

[97] Baryton by Simon Schödler, dated 1785, preserved at the Musikinstrumenten Museum, Leipzig University, item: 856. See Gartrell (2009), pp.133–4 for images.

[98] Cover panels may have been made of wood, as seen on the 1647 Feldlen, or ivory as seen on the *c*1720 instrument by Sainprae preserved at the Victoria and Albert Museum, London, item: 1444-1870.

[99] Instrument inscribed 'Joachim Tielke / in Hamburg fecit / Anno. 1686'; preserved at the Victoria and Albert Museum, London, item: 115–1865. For images see Howard Schott and Anthony Baines, *Catalogue of Musical Instruments in the Victoria and Albert Museum* (London: V&A Publications, 1998), at figures 14A – D.

[100] It should be noted that a further possible baryton, now a cello, is preserved at the Royal Northern College of Music, Manchester, item: V3, labelled '*Henrie Jaye: in Southwarke 1615*', as noted by Pamplin (2000b), p.106, although its provenance is questionable. With thanks to Michael Fleming (personal communication).

[101] Wells and Nobbs (2007), pp.148–9.

original fingerboard,[102] and is completed with a matching, separate ivory nut (see Figure 4). Had the nut been one piece with the fingerboard's nut, it may have been assumed that it was purely decorative, but the setting of the separate nut, that presently has four string grooves cut into it, as well as the decorative design of the cover board, implies that this provided the position for the third manual described by Speer.

With the strings of the third manual situated on the bass side of the baryton, evidence from the 1647 Feldlen suggests that they were attached to ivory pins, identical to those found on englische violets and violas d'amore, located directly behind the bass-side nut (see Figure 5). This is in contrast to the rank of nine metal pins found on the Feldlen, and other barytons, that run along the top of the fingerboards above the nuts, that are purely anchors for the second manual; the strings travel upwards and then over the lower open edge of the pegbox before progressing down the rear of the neck. While it would be possible to utilize the row of metal pins to anchor the third manual, it may be viewed that by placing them at the rear of the neck or pegbox, it ensures that they passed tautly over the nut. It should also be noted that the four pins on the Feldlen are located on the bass side of the instrument, in line with the surplus nut. Considering that the cover board and first-manual fingerboard are decorated in a similar manner, plus the presence of a grooved nut, and position of the ivory pins at the neck, it is possible to suggest that the third manual was an original feature, or at the very least an addition made early on in the instrument's creation, perhaps at the point of decoration.

Figure 3. *Baryton by Magnus Feldlen, dated 1647, Royal College of Music, London, RCM 204 (photo courtesy of the Royal College of Music, London).*

Figure 4. *Top of neck of baryton by Magnus Feldlen, dated 1647, Royal College of Music, London, RCM 204 (photo courtesy of the Royal College of Music, London).*

Figure 5. *Ivory pins of third manual of baryton by Magnus Feldlen, dated 1647, Royal College of Music, London, RCM 204 (photo courtesy of the Royal College of Music, London).*

In describing the use of the additional manuals, Mundy documents that they cannot be sounded together with the first manual as they are plucked by the right hand. This suggests that the strings lie at some distance from the level of the first manual, and perhaps on the instrument known to Mundy the strings ran close to the body in the style of a lute. Speer, in contrast, implies that the strings are more accessible, so that they may be played with the 'small finger of the right hand' as it passed, being a free finger in viola da gamba bow grip. Therefore, Speer's third manual must be raised above the body of the baryton in order to give ready access to the bowing hand, and it may be suggested that the answer to this problem may be found in observing the unique design of the baryton's bridge: a wide-set and asymmetrical design, not

[102] Pamplin (2000b), p.61.

replicated on any other instrument, that has been assumed to exist only to span the lower second manual. Certainly, a second manual with up to 22 strings (as in the case of the 1686 Tielke) on seventeenth-century instruments requires an extended and somewhat unbalanced-looking bridge in order to give the strings sufficient spacing so they can be plucked at the neck. Pamplin has confirmed that none of the early barytons he examined have their original bridges (and in most cases neither their fingerboards nor tailpieces), and upon 'visual inspection alone, [the oldest bridge] would appear to be from the Seelos 1684 instrument'.[103]

In order to allow bowing of the lowest string of the baryton, any additional strings must be sufficiently low enough to allow the bow to pass without being sounded. By running the third manual over the lower extended section of the baryton bridge, the strings would pass high enough to be above the cover board, accessible to the small finger of the passing right hand, and provide clearance from the second manual below, but would be low enough to avoid conflict with the bow (see Figure 6).[104] Furthermore, it is arguable that had a third manual not existed, then baryton bridges would have been more rounded towards the bass side, or more elaborate, taking advantage of an uninterrupted section for decoration. The strings would terminate with tuning pins in the wrest bar alongside the second-manual strings, as can be seen on the 1647 Feldlen.

Figure 6. *Illustration of the three sets of strings on the baryton, and how they would be situated around the bridge (drawing by Rachael Durkin).*

The ability to accompany the bowed first manual with two plucked manuals, as seen on the Feldlen baryton, would surely prove more melodic potential than the stop-start limitations of the instrument described by Mundy. There are, however, a few pieces of music written for the instrument as described by Mundy, which appear to show the bowed-manual stopping in order to perform on the third manual: nowhere in the music is the player required to play the first and third manuals together. Importantly, there are also no indications for playing the fourth manual, so it is possible that the third and fourth manuals were notated together, notation for the fourth manual being a continuation of the numerical notation used for the third. A dance movement from the Kassel collection with the initials 'W. R.' (probably Walter Rowe) demonstrates this notation and stop-start nature of the music, although it is unclear if there are just three, or perhaps four manuals in total.[105] In light of the documentation by Mundy, the

[103] Pamplin (2000b), p.63.

[104] Pierre Jacquier also suggests this reason for the existence of the asymmetrical bridge and provides a similar illustration. See Pierre Jacquier, 'Le baryton à cordes: une method de recherché en lutherie', in Christophe Coin (ed.), *Amour et sympathie: actes des rencontres internationals autour des instruments à cordes sympathiques, Limoges 28.29 Novembre 1992* (Limoges: Edition Ensemble Baroque de Limoges, 1995), pp.101–71, at p.148.

[105] Gartrell (2009), pp.148–50. Work typeset by Gartrell from the manuscript. It has been noted that there are several inaccuracies in the transcription (see Jeremy Brooker, Review: The Baryton and its Music, *The viola da Gamba Society Journal* 4 (2010), pp.103–12, at p.110), but it still clearly shows the stop-start nature of performing on the baryton known to Walter Rowe.

initials ‘W. R.’ on the dance movement, and the notation of two sets of figures indicating the second, third and perhaps fourth manuals, it is most likely that the music written was intended for the instrument witnessed by Peter Mundy, written and played by Walter Rowe in Brandenburg. In addition to this, there is a movement by Gottfried Finger that also utilizes a third manual, calling for a ‘violit’ to perform the section of the work; it has been suggested by Robert Rawson that the term ‘violit’ indicates the third manual of the baryton, and the natural pauses at the start and end of the ‘violit’ section would allow the bow to be set down by the player.[106]

It should be noted that the lost third manual was not completely forgotten in the passage of time: Pamplin documents four late instruments that have three manuals of strings. However, the third manual’s arrangement, string number and function appears to vary with each instrument, with only one baryton – an unusually shaped and probably significantly altered instrument dated 1779 and attributed to Johann Joseph Stadlmann – perhaps closest to the original Baroque three-manual design.[107]

A BARYTON BY JOHANN ANDREAS KÄMBL

A full-sized baryton by Johann Andreas Kämbl of Munich is preserved at the Bayerisches Nationalmuseum in Munich, item: MU30. With a date of 1745, the instrument is a later example in the baryton’s pre-Esterhazy lineage, but it clearly shows the changes that were made to barytons during the second half of the eighteenth century.

Kämbl was a maker based in Munich, and apart from barytons, he is also known to have made violins, viols and mandores.[108] The instrument in question has been stamped with the intertwined initials ‘MJ’, that, according to the Bayerisches Nationalmuseum were probably the initials of Maximilian III Joseph, Elector of Bavaria. As highlighted by the museum’s catalogue, Charles Burney witnessed a performance by the Elector in 1773 and commented that he was an excellent gambist, as well as a player of the violin and cello;[109] perhaps he also owned the baryton.

Typically, the instrument has upper lobe corners only and an S-shaped waist, while the lower lobe is decorated with small mid-lobe corners (see Figure 7). The instrument has pairs of comma flame sound holes (similar to those on the 1647

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[106] Jeremy Brooker, ‘Like Two Instrumentts Att Once’, *The Consort* 59 (Summer 2003), pp.16–36, at pp.30–1.

[107] This instrument is preserved at the Metropolitan Museum of Art, New York, item: 89.4.1851. Pamplin (2000b), pp.72–5, notes the somewhat unusual shape of the instrument and attributes the design to Félix Savart (1791–1841). It could therefore be argued that if the iron plate bearing the initials and date of Stadlmann are on the intended instrument, that the baryton has been altered considerably by Savart, although has retained the original maker’s plate.

[108] Kämbl is listed in the various maker directories as a violin maker, and at the time of writing a violin by him, dated 1749, is advertised for sale in Canada. A surviving viol, possibly a former wire-strung viola d’amore, is preserved at the Edinburgh University Collection of Historic Musical Instruments, item: 1056. A Mandore by Kämbl is preserved at the Händel-Haus in Halle, Germany, item: MS-167.

[109] Bettina Wackernagel, *Musikinstrumente des 16. Bis 18. Jahrhunderts im Bayerischen Nationalmuseum* (Munich: Bayerisches Nationalmuseum, 1999), p.89.

Feldlen shown in Figure 3), as well as an intricate rosette, that is currently partially obscured by the fingerboard. The baryton is strung with six gut strings on the first manual, and 13 metal strings on the second manual behind the neck, that run across an iron wrest bar and terminate at small hitchpins in the lower rib, either side of the hook-bar. The pegbox currently has 19 pegs, although three holes have been filled, suggesting that the instrument originally had 22 strings in total. It appears that there are no replacement pegs within the set, with all pegs of a uniform design, and close in colour to that of the pegbox. At the top of the pegbox there is a carved head of a bearded man wearing a black hat, and the fingerboard and tailpiece are decorated in a matching ivory design.

Figure 7. *Baryton by Johann Andreas Kämbl, dated 1745, Bayerisches National Museum, Munich, item: MU30 (photo courtesy of the Bayerisches Nationalmuseum, Munich).*

The instrument shows clear signs of modification. Most notably the neck has been replaced: it is of a different colour to the body, more towards the ochre end of the spectrum, in contrast to the body's hues of red. Also, there are angular cuts on the heel of the neck, further suggesting a neck removal and replacement. It should be noted that standard baryton construction involves the top block and neck being constructed as one piece.[110] Besides the diagonal cuts either side of the neck, there is a further straight cut approximately 25mm behind the button, creating a cut-off triangular shape for the new neck to fit into. Further to the cuts, the new neck has also been nailed into the top block, which would be unnecessary in an original baryton neck. The heel of the neck is decorated in strips of black wood, probably ebony, on both sides at the join with the rib, and in place of the button. Had the neck been an original feature, the button would have been formed as a continuation of the back, as seen in many other unaltered barytons. In addition, there is damage to the top of the back, both fragmented wood and eroded varnish, suggesting that the instrument suffered some damage during the conversion.

When the conversion of the neck occurred remains unclear; if the stamped initials 'MJ' are those of Maximilian III Joseph, then it is likely to have been undertaken during the period 1745–77, the *terminus ad quem* being the death of Maximilian in 1777.[111] Notably, a converted viol, possibly a former wire-strung viola d'amore by Kämbl, dated 1736, also bears the initials 'MJ'.[112] Although the two instruments are by the same maker and display the same stamp, the initials were probably added by the owner rather than the maker. If branded collectively, perhaps both instruments

[110] See Pamplin (2000b), pp.50–2 for further information.

[111] Hans Schmid and Robert Münster, 'Maximilian III Joseph, Elector of Bavaria', *Grove Music Online*, consulted 27 April 2013.

[112] Edinburgh University Collection of Historic Musical Instruments, item: 1056. This instrument is of identical form to what may have been an old wire-strung viola d'amore by Paulus Alletsee, dated 1725 preserved at the Germanisches Nationalmuseum, Nuremburg, item: MIR784. Kämbl married Alletsee's daughter, and so may have worked in Alletsee's workshop, and it is possible that Alletsee made the body of the instrument, or that Kämbl used the same templates and moulds as his father-in-law.

were once part of the same collection, and perhaps Kämbl supplied instruments to the Elector of Bavaria.

There is some uncertainty as to whether or not the fingerboard and tailpiece are original. Since the fingerboard obstructs the delicately carved rosette, that must have been intended to be seen, it is perhaps a replacement. Alternatively, the fingerboard may have been removed from the original neck unit, and re-attached to the present neck, but a difference in length between the necks has resulted in the fingerboard overhanging the rosette. Also, the decorative inlay on the rear of the instrument is echoed more elaborately on the fittings, perhaps making it more likely that the fingerboard and tailpiece are original, albeit recycled, features.

In addition, the tailpiece shows signs of alteration that may indicate the current stringing is not original. Presently, there are two rows of holes drilled into the tailpiece: one row of seven small holes, nearest the bridge; and one row of six larger holes currently in use, set closer to the hook-bar. If the tailpiece is an original feature of the instrument, it is possible that the baryton originally had seven bowed first-manual strings.[113] Indeed, with 22 peg holes present in the peg box, and assuming the replacement neck copied the original number of strings, it can be suggested that there were originally seven bowed strings, and 15 supplementary strings. The previous number of supplementary strings is confirmed by the lower hitchpins, which currently total 13, with two additional filled holes. Prior to this setup, however, the instrument shows clear evidence of a former wrest pin rail, as found on other early instruments such as the 1647 Feldlen. On the Kämbl baryton, there are 14 plugged holes along the length of the wrest pin rail's shadow, and it is assumed, due to the spacing, that the middle foot of the current wrest bar hides the final hole, again totalling 15 strings (see Figure 8).

Figure 8. *Shadow and damage of old wrest pin rail, and new raised wrest bar of baryton by Kämbl dated 1745, preserved at the Bayerisches Nationalmuseum, Munich, MUS-41-1 (photo by Rachael Durkin, courtesy of the Bayerisches Nationalmuseum).*

In light of the evidence, it can be suggested that the baryton formerly had a neck and pegbox like those found on the 1656 Feldlen and 1679 Kögl barytons, where the first manual is attached to traditional lateral pegs, and the additional strings are hooked to hitchpins above the nut, and tuned by wrest pins in the wrest rail.[114] It is therefore possible to suggest that the Kämbl baryton is an eighteenth-century instrument made to a seventeenth-century design, which was later altered to bring it up to date.. Alternatively, it may have been Kämbl who, in 1745, modified a much older instrument. This is perhaps made plausible by the branded initials of 'MJ' occurring on the replacement part of the heel, rather than the remaining original portion of the

[113] Although the present nut only has six string grooves cut, it appears to be a later addition, since the ivory is of a different colour to that of the fingerboard and tailpiece.

[114] See Gartrell (2009), pp.121–2 for 1656 Feldlen information and images, and pp.127–8 for 1679 Kögl.

neck or elsewhere. Whether the instrument had a third manual is debateable; with a replacement neck there is unfortunately no evidence of strings to examine. With a quota of 15 additional strings, it is possible that all were allocated to the second manual, providing a compass of a chromatic octave and a minor third. However, it may be argued that an arrangement of 12 second-manual strings, providing a chromatic octave without doubling the tonic, and a third manual of three strings would be agreeable. What is certain is the use of 15 strings in the second manual after the neck was replaced, with no evidence of a third manual present on the current neck (see Table 1). It should be noted that of the five seventeenth-century instruments examined by Pamplin, the 1647 Feldlen is the only instrument not to have been extensively remodelled. In terms of the alterations made to the Kämbl baryton, the replacement of the neck may be likened to the evolution of the 16(84) Seelos, as catalogued by Pamplin.[115]

Table 1. *Suggested stringing arrangements of the 1745 baryton by Kämbl.*

	Timescale		
Manual	Original	After neck replaced	Present
First	7	7	6
Second	12	15	13
Third	3	0	0

[115] Pamplin (2000b), pp.26–7; the instrument is preserved at the Oberösterreichisches Landesmuseum, Linz, item: Wessely 37.

Table 2. SHORT CATALOGUE ENTRY FOR A BARYTON MADE IN 1745 BY JOHANN ANDREAS KÄMBL
(All measurements in mm)

Maker	Johann Andreas Kämbl, Munich, Germany
Date	1745
Collection	Bayerisches Nationalmuseum, Munich
No. of first manual strings	6
No. of second manual strings	13
Second manual string attachment	Currently to pegs in the pegbox, passing over the wrest bar and continuing to hitchpins in lower rib. Formerly, probably attached to hitchpins above the nut, and fixed to wrest pins in the wrest rail.
Pegbox	22 holes, three filled in. Finial of a bearded man with a black hat. Top string of the first manual is fed through an aperture in pegbox edge.
Front	Spruce. Edges flush with ribs, and finished with black mastic.
Back	Sycamore. Flat with slight slope to shoulder. Edges flush with ribs and finished with black mastic. Decorated back, with inlaid mirrored design at the top and bottom, and simple decorative purfling in addition to edge purfling.
Neck	Replacement. Different colour to body. Open hollow neck for second manual. Decorative panel for cover board may be missing due to exposed end of decorative ebony that is used at the neck/rib join.
Sound holes	Pairs of flamed commas
Full Length	1320
Body Length	654
Lower bout width	406
Middle bout width	265
Upper bout/fold width	334
Rib height	140
Current string/stop length	645/415

CONCLUSIONS

In consideration of this new body of research, viewable as an extension of the work conducted by Holman, Pamplin and Gartrell, it seems compelling that there are many areas of the baryton's lineage that may be further explored. It can be said for certain that barytons would have had three manuals towards the middle of the seventeenth century, and that the unique bridge construction seen today serves as the legacy of this lost set of strings. Just as Pamplin argued that the bandora was the source for the baryton's second manual, it can now be argued, with acknowledgement of the baryton's third, and possible fourth manual, that perhaps the poliphant was the instrument's direct inspiration, although there is no doubt that the poliphant (and perhaps the stump) were heavily influenced by the bandora and orpharion. If the

baryton is of English origin, serious consideration should be given to the partnership of Edney, Gill and Gregory, rather than Farrant who, it seems, happened to be a famous name with fortunate connections. It is also notable that there appears to be no clearly documented association between the lyra viol and baryton, and thus the reference to sympathetically-strung lyra viols by Playford should not be assumed to indicate the baryton. From this new body of work, the music for seventeenth- and early eighteenth-century baryton should be considered carefully, as the use of numbers below or on the stave may indicate a third or even fourth manual. Additionally, it may also be possible, with further research, to identify extant poliphants and stumps that are currently categorised in collections as different instruments.