CASE STUDY: ARE MECHANICAL MUSICAL INSTRUMENTS APPLICABLE TO LIVE PERFORMANCE PRACTICE?

UDC (78.087.612.1/.6+782):(7.04:78) G. F. Handel

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Abstract. By comparing a version of 'Alla Fama' from 'Ottone' intended for mechanical performance to one of Handel's specifically intended for a singer, we can more accurately gauge how 'vocal' the ornaments we find in mechanical arrangements of opera areas may be. Although a very large number of vocal pieces are pinned into mechanical organs, this fact alone does not prove unequivocally that the ornamentation style is applicable to a vocal performance. The voice can, of course, be an extremely agile instrument but, as with all instruments, it undeniably has idiomatic pros and cons which make certain ornaments perhaps more suitable to a vocal performance and others to an instrumental one. So, shall we, whenever there is an instrumental arrangement of a vocal piece containing ornaments, interpret this as being a rendition in which the instruments imitate a vocal performance? Or is the vocal line being 'instrumentalized' and therefore treated differently? The answer may be a combination of the two but this case study seeks to demonstrate a clear link between an arrangement for mechanical performance and one made by Handel himself to be performed by a singer thereby affirming the status of mechanical sources as being vital sources of Handelian performance style.

Key words: G. F. Handel, mechanical organs, ornaments, vocal performances

1. Sources

1.1. Handel's vocal ornaments

In 1976, Oxford University Press published *Three Ornamented Arias* (ed. Winton Dean), transcribed from a manuscript in the Bodleian Library¹. This is a fascinating piece of ornamentation evidence since Handel himself added the ornaments, one of the rare occasions that he did so. The manuscript contains two autograph Handel cantatas for solo voice and continuo and, bound between them, six copies of arias in the hand of J. C.

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¹ Bodleian MS Don.c.69

Smith the elder, five from *Ottone* and one from *Floridante*. Four of the *Ottone* arias contain annotated ornaments in Handel's hand, but one "Falsa imagine", having only one small ornamented figure is not included in Dean's edition (Dean 1976, -i-iii). The three arias published are "Affanni del pensier", "Alla Fama" and "Benchèmi sia crudele", all transposed down from their original keys, as they are in the Bodleian MS (ibid). Dean's hypothesis is that Handel added these ornaments to aid a mezzo-soprano singer who was to replace an indisposed soprano performer (either Cuzzoni or Faustina). This seems plausible, though it is in no way verifiable so it is possible these were written for an altogether different, but as yet unknown reason. In either case however the additions are in Handel's hand and Dean's dating of the manuscript to the 1720s seems accurate. The same manuscript is also detailed by Helmuth Wolff, though his interpretation of the source material differs to Dean's, attributing the ornaments to the castrato Gaetano Guadagni and their notation to "an admirer" (Wolf 1972, 101–132). In the case of "Alla Fama" however his interpretation of the notated ornaments is not sufficiently different to merit separate discussion.

1.2. Arrangement for mechanical organ clock

The version of "Alla Fama" in the *Three Ornamented Arias*² will be compared here to a version of the same piece which forms part of the *Aylesford Collection*, now housed in the British Library. The collection contains a huge body of music, much by Handel but also up to 40 other composers, was sold in 1918 by Lord Aylesford and bought by various institutions including The Fitzwilliam Museum in Cambridge, The British Museum³ and the Manchester Public Library. The music had passed to an earlier Lord Aylesford as a bequest from his second cousin Charles Jennens (1700–1773), librettist for many of Handel's works including *Messiah*. Jennens had a passion for the music of Handel alongside a deep desire for completeness, and the collection contained many complete scores of operas, oratorios and other music. He clearly acquired a great deal of this during his close association with Handel as much of the music is in the hand of J. C. Smith the elder and other scribes of the Handel household. The volume comprising this version of "Alla Fama" is now housed by the British Library⁴ and comprises an eclectic mix of various pieces by Handel identified by J. H. Roberts as being in the hand of the scribe he identifies as S2, an assistant to Smith from the late 1720s onwards (Roberts, 1993).

At the bottom of the contents list at the start of the volume there is an entry at number nineteen: "Ten Tunes for Clay's Musical Clock". There are actually eleven pieces at this place in the volume and initially the scribe does not seem to have decided upon the best format for transcription. The first three pieces are notated using treble and bass clefs, meaning that the notated ranges are larger (by an octave) than any other known arrangements used in Charles Clay's clocks. That could be a merely scribal error, understandable since it would generally be the format for keyboard music. However in the following eight pieces this is rectified and they are notated either on single or doubled

² Here after referred to as Handel/Dean.

³ William Barclay Squire acquired this and other volumes from the collection for the British Museum (detailed in: Squire 1919, 538–552). It is now in the British Library, which also houses a further volume from the *Aylesford Collection* containing clock music by Handel (R.M.18.b.8/HWV 598-604) and an autograph Handel Sonata composed for a musical clock (R.M.20.g.13./HWV 578)

⁴ Shelf Mark R.M.19.a.1 (HWV 587–597)

⁵ The volume is here after referred to as *Aylesford*.

treble staves, giving them the customary ranges for Clay clock tunes. The pieces included in the manuscript are not given titles, and although many can be identified as arias or other known pieces, usually from operas, others may have been composed specifically for this purpose (See Tab. 1).

Tab. 1 Contents of Aylesford manuscript (BL R.M.19.a.1)

Number	Title/indication	Original source/other Clay sources	Key	Time Sig.	Staves
1		(also in Windsor Castle Clay Clock)	F	С	Treble Bass
2	[Voluntary or a Flight of Angels]	(also in R.M.18.b.8)	C	C	Treble Bass
3		(also in Windsor Castle Clay Clock)	C	C	Treble Bass
4	[Vola l' augello]	Sosarme	C	3/8	Treble Treble
5	Allegro		F	3/4	Treble
6	[Alla fama dimmi il vero]	Ottone	C	3/8	Treble Treble
7	[Deh lascia un bel desio]	Arianna	C	C	Treble Treble
8	[from overture]	Scipione	G	3/4	Treble
9	[Dell'onda ai fieri moti]	Ottone (also in Windsor Castle Clay Clock)	C	C	Treble Treble
10	[In mille dolcimo di]	Sosarme	C	3/4	Treble
11	[In mar tempestoso]	Arianna (also in Windsor Castle Clay Clock)	C	C	Treble Treble

1.3. Charles Clay: background

Little is known of Clay's early life: he seems to have been born in Yorkshire, in the town of Flockton near Huddersfield, yet by 1720 he had established himself as a clock and watchmaker in London just south of St Mary-le-Strand. In 1723 he was appointed Clockmaker to His Majesty's Board of Works, a position which he held until his death in 1740. Clay's only large scale work in this capacity was a commission in 1731 to construct a clock over the gatehouse at St James's Palace. This remained there until it was dismantled in 1831, when it was moved to Hampton Court. In 1736 he was summoned to court and there given the opportunity to exhibit:

"his surprising musical clock, which gave uncommon satisfaction to all the Royal Family present, at which time her Majesty, to encourage so great an artist, was pleased to order fifty guineas to be expended for numbers in the intended raffle, by which we hear Mr Clay intends to dispose of the said beautiful and complicated piece of machinery" (*The Weekly Journal*, 8 May 1736, quoted in: Croft 1948, 1378–80).

By the time this majestic work was exhibited Clay was collaborating with many of the finest artisans of his day. The sculptures on his clocks were provided by the likes of Louis François Roubiliac (later commissioned to design Handel's memorial in Westminster Abbey) and John Michael Rysbrack (responsible for the monument, also in Westminster Abbey, to Sir Isaac Newton). His paintings were supplied by Jacopo Amigoni, resident in London from 1730–39 and eventually settling as court painter to Ferdinand VI of Spain and director of the Royal Academy of Saint Fernando. The music included in Clay's organ clocks (the surviving examples of his work all use a mechanical organ mechanism, though his last and most ambitious project seems to have included several instruments, possibly harpsichord, bells and other percussion) seems to have been provided by a variety of well known composers. His advertised lists include Handel, Geminiani and Corelli. Corelli never visited London and was dead by the time Clay began building his career, but his music was widely venerated and Geminiani, a pupil of Corelli, may well have included Corelli's music in his contributions.

1.4. Parameters and limitations

The first thing to be noted is that both of these sources deal only with the vocal melody. Handel/Dean's ornaments are but attached to the vocal line, nothing added to the instrumental parts. In fact the ornaments break off after bar 46, roughly two thirds of the way through the vocal part of the A section and it appears that the additions may be incomplete, since the other two arias published here, contain a great many ornaments throughout both their A and B sections.

The *Aylesford* arrangement (HWV 592) includes only bars 17–60 of the Handel/Dean aria (the first 41 bars of the vocal A section), omitting bars 34, 41 and 56. Clay's clock tunes were of necessity truncated, since the barrels were only able to play for roughly one minute, so small ritornello bars are often omitted in the interests of including a complete vocal line. We can hardly infer anything from these sources about the performance of orchestral parts and this must be dealt with elsewhere.

From the manuscript alone it is impossible to tell what input Handel had on the *Aylesford* arrangement. We know that he was not disinterested in mechanical instruments, since in addition to this manuscript and the other in the *Aylesford Collection* (R.M.18.b.8.) there is an autograph sonata (HWV 578) written for a musical clock. Handel is also known to have had an interest in unusual instruments. This can be seen from the letter sent by Jennens to Lord Guernsey, and quoted by Donald Burrows:

"Mr. Handel's head is more full of Maggots than ever: I found yesterday in his room a very queer Instrument which He calls Carillon (Anglice a bell) & says some call it a Tubalcain [.....] 'Tis played upon with Keys like a Harpsichord [......] His second Maggot is an Organ of 500£price which (because he is overstock'd with Money) he has bespoke of one Moss of Barnet: this Organ, he says, is so contriv'd, that as he sits at it, he has better command of his Performers [...since...] instead of beating time at his Oratorio's (sic), he is to sit at the Organ all the time with his back to the Audience" (Burrows 2012, 266).

2. COMPARISON

Despite a lack of autograph evidence in the *Aylesford* manuscript we can infer a link from the similarities which we find in the two versions. Handel/Dean adds 12 bars of ornaments to the first 29 bars of the vocal line (after which the ornaments break off). Of these 12 bars, 8.5 are almost identical to their corresponding bars in *Aylesford*. It seems most efficient to analyze each phrase, in turn, since the arrangement is short and leads us succinctly through many of the questions which arise when considering the difference between viable vocal and instrumental practices.



Fig. 1 Bars 1–4 of "Alla Fama": original key is Bb but all have been transposed into C to correspond with *Aylesford* for ease of comparison

As we can see from Fig. 1, *Aylesford* is the only version to add anything to this first vocal phrase, in the form of three trill markings. These contravene advice from Tosi (originally writing in 1723) regarding shakes: "[...it is] very bad to begin with them, which is too frequently done." This initial trill however, is entirely in keeping with additions to vocal lines elsewhere in the mechanical evidence, and there is nothing intrinsically 'un-singable' about it, in fact as Tosi admits, many singers were in the habit of placing trills on opening notes, whether he liked it or not.

Handel/Dean does not add any extra trills in this piece and in fact, adds only one over the course of the entire three arias. This is an interesting comparison point however since it occurs in the middle of a passage of semiquavers, at a moment where technically it might be unexpected for a singer to insert a trill. We know Handel expected a high degree of virtuosity from his singers and wrote differently to accommodate their various strengths and weaknesses. If he included a passage requiring such clarity and technique, then he must have had singers capable of performing this. This would render the opening trills (and indeed most of the ornaments included in mechanical sources) entirely plausible as inclusions in a vocal performance in eighteenth-century London.

⁶ Tosi has been adopted as a reference for the purposes of this paper since his treatise *Opinioni de'cantori antichi, e moderni o sieno osservazioni sopra il canto figurato* (1723) refers specifically to the practice of singing. Tosi was also resident in London at various times, including the 1720s, and certainly aware of the musical style of Handel (the English version of his treatise was published after his death)

⁷ Benchèmi sia crudele, Handel/Dean, bar 104, p 21. Dean adds two additional editorial trills but we will only concern ourselves with Handel's additions here.



Fig. 2 Bars 5-13 of "Alla Fama"

The two different ornaments in bar 6 (see Fig. 2) demonstrate two of the standard options available to the performer when improvising ornamentation. Firstly the Handel/Dean pattern, in which the ornament follows the line of the given melodic material, altering the rhythm and filling in the larger intervals and with faster notes. The alternative version in *Aylesford* however, varies the line using the same material as in bar 11, thereby providing a unifying motif linking the beginning and the end of the phrase.

In the remainder of this phrase, however, we can see some of the key moments of correspondence between the two arrangements. Bars 7-12 (inclusive) are very nearly identical, the only difference (in bar 7) being a termination at the end of the trill in Aylesford which is not marked into the Handel/Dean score. Yet, since terminations are such a common addition to trills we cannot assume that Handel deliberately omitted this; it may well have been that it was such a common "optional extra" that he considered it barely worth mentioning. Tosi describes the "Trillo-Mordente" or "Shake with a Beat" as being "a pleasing Grace in Singing" and goes further to say that "He, who understands his Profession, rarely fails to use it after the 'Appoggiatura', and he that despises it, is guilty of more than Ignorance" (Tosi 1743, 47). The fact that it is specifically notated in Aylesford, perhaps tells us that extra care was taken in this manuscript to emphasize that terminations should be included, rather than leaving this to the discretion of the barrel pinner. If Dean's hypothesis concerning the background to Handel's ornaments is correct then the composer would have expected to use this manuscript only as an aid to his own work with the singer, so there may well have been no need to notate every nuance. As suggested in other case studies: it is possible that small graces such as trills etc were used so frequently as to be considered not as ornaments, but simply as an tool to aid expressive articulation. A composer or copyist, therefore would find little need to notate every one, except at points where they were considered essential or may have been unexpected. The learning of the many varieties and correct placing for trills is a matter for the taste of the singer, as Tosi describes and as such they had little place in the main

musical text (ibid, 41–50). Although there is no doubt that the barrel pinners used by Clay had some musical training, this perhaps reveals something about the level of trust Handel (or his scribe) felt able to place on these craftsmen who, although skilled could not be expected to display the same taste as a great master.

In bars 8–10 the only difference between the two ornamented versions is the addition of a trill and omission of an auxiliary upper note in *Aylesford*. If we assume however, that the trill begins on the upper note this renders the melodic pattern fundamentally the same as the Handel/Dean version with only a rhythmic variation. It would, in fact be a reasonable interpretation of the Handel/Dean turned figure which repeats through these three bars. When we add to this the descending scale in bar 11 landing in bar 12 a third above the original melody, we see a probable sign that the authors of the two ornamented versions were either the same person, or at the very least entirely used to hearing notably similar interpretations of this melodic line and so well known to each other.

The variance which occurs in bar 13 is due to the requisite self sufficient nature of the *Aylesford* arrangement. Since the version is to be performed by the mechanical organ alone, some of the string ritornelli are included to link the vocal phrases together, adapted to fit the range of the organ.



Fig. 3 Bars 16-29 of "Alla Fama"

In bars 13–15 the un-ornamented violin part continues in the *Aylesford* arrangement for three bars and the Handel/Dean version merely follows the melody of the original.

The main points of similarity in the phrase shown in Fig. 3 (the last phrase that is ornamented in Handel/Dean) occur in the final three bars. The figurations found in bars 27 and 28 are identical in both versions and the material used here has clearly informed other ornaments in both versions. The rising semiquaver scale pattern beginning with a descending third found in bar 27 is also found earlier in bar 20, in Handel/Dean. This figure is found in the original musical text later in this section (bar 36) demonstrating a use of thematic material from the original melody in the ornaments. The Handel/Dean

arrangement follows this in bar 21 with the triplet semiquaver motif similar to bar 28, which is perhaps unsurprising since these parts of the phrase are a sequence. This triplet pattern is also used in *Aylesford* in bar 23, as another unifying feature. The remaining ornaments follow the melodic line: Handel/Dean follow exactly, whilst *Aylesford* follows the melodic shape with added rhythmic changes, expressive trills and accented appoggiaturas. These appogiatura figures, found in *Aylesford* bars 19, 21 and 26, seem to be ornaments which would be well suited to a vocal performance, since they allow moments of 'lift' in the melodic line, in which a singer could take breath.

After this point there are no more ornaments in Handel/Dean and it is therefore fruitless to draw further comparisons. The *Aylesford* arrangement continues, using descending scales to fill in intervals (bars 30–31), and imitation (in diminution) of the rising scale pattern seen in bar 36 of the original, to decorate the rising sequential pattern in bars 33–36. This ornamented sequence does increase in intensity with a longer ascending scale in bar 36 as the arrangement reaches its zenith, before the final four bars resolve with the ornaments again following the basic melodic shape (See Appendix).

3. CONCLUSIONS

It seems clear that these two arrangements were made either by Handel himself or by Handel and another person extremely well acquainted with the ornaments used by the composer and his performers. The primary conclusion of the study therefore is that the *Aylesford* arrangements must be imbued with an importance hitherto not granted to them, as serious sources for Handelian embellishment. An example of this disregard can be found in the introduction to the very publication by Amadeus (Forrer 2010) of all known pieces by Handel for musical clocks (with the exception of Sonata HWV 578). Here the editor recommends them as "an ideal addition to pupil literature, for example as sight reading practice". Certainly this is a case of 'damning with faint praise' since the music contains far more historical significance that mere sight reading exercises.

Some further conclusions, taking into account this new significance, can be added to those of the previous case study, drawn from the placing and type of trills in the *Aylesford* manuscript.

- Firstly regarding terminated trills: in this case, all trills which resolve either to the same note or the one above have a termination. However all trills which resolve downwards remain plain.
- Secondly regarding the ornamentation of sequential patterns: performance of sequences has same level of ornamentation throughout (or even the same ornaments repeated)

There are of course many further questions raised by the study of these two sources. When were the ornaments in Handel/Dean expected to be applied? In the opening is it a section or only on the Da Capo? Which direction did the trills move in? Was the barrel pinner in the *Aylesford* arrangement expected to add any more to the score? Was the singer of Handel/Dean required to add their own *graces* to the melodic embellishments detailed here? How applicable are the organ trills etc. to a vocal performance?

With regard to the earlier questions of the trill direction and whether any more would have been added by the barrel pinner, these will be addressed in the following section, comparing the notated arrangements. We can now assume, at the very least sanctioned, if not actually set down by Handel, to the final versions of the same pieces found in Clay's clocks.

The aria here discussed, even it its original form, is quite florid, but even so it seems Handel perceived some decoration as essential. Tosi, as others do, makes recommendations that the opening section of a *Da Capo* aria requires little in the way of embellishment.

"In the first they require nothing but the simplest Ornaments of a good Taste and few, that the Composition may remain simple, plain and pure; in the second they expect that to this Purity some artful Graces be added, by which the Judicious may hear, that the ability of the Singer is greater; and in repeating the Air, he that does not vary it for the better is no great Master" (Tosi 1743, 93–94).

However in a footnote, Tosi specifies that he is referring in this section, to "the general dividing of Airs to which the Author often refers"; i.e. to the melodic embellishment or variation of the melody. The phrase "simplest Ornaments of a good Taste" refers to the small additions such as trills, mordents, ports de voix etc. so clearly these should be included at all times. So perhaps what we see in the *Aylesford* manuscript is the final A section of a *Da Capo* aria, used as a standalone piece for reasons of time limitation. On the other hand, in the other Handel/Dean arias there is a large amount of melodic embellishment in the B section, and this musical material only ever occurs once. So clearly it is not always necessary to perform a melody "pure" before embellishments are added.

With regards to the final question of how far we can accept instrumental sources as evidence for vocal performance, there are many writers who recommend that instrumentalists should learn from a good singer and vice versa and that the ornaments should be the same for all, as exemplified by Monteclair in his *Principes de Musique* of 1739:

"As music is the same for both the voice and the instruments we should use the same names and agree unanimously on the best symbols to represent the ornamentation of a melody (Monteclair 2008)."

Tosi suggests that the over use of "Beats, Shakes, and Prepares, is owing to Lessons on the Lute, Harpsichord, and other Instruments whose sounds discontinue, and therefore have need of this Help." He does not specify how much is over use however, the *Aylesford* manuscript, aimed as it is at an organ performance, does not have any need for help in terms of sustain. Many mechanical renditions use long sustained notes with no decoration, so there can be no question that this was simply a keyboard style.

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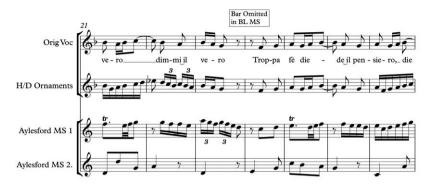
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APPENDIX Alla Fama Comparison Score









STUDIJA SLUČAJA: DA LI SE ORNAMENTI IZ KOMPOZICIJA ZA MEHANIČKE INSTRUMENTE MOGU PRIMENITI U VOKALNOJ IZVOĐAČKOJ PRAKSI?

Poređenjem verzije arije 'Alla Fama' iz Hendlove opere 'Otone', namenjene izvođenju na mehaničkim instrumentima sa onom u originalu napisanom za vokalnog solistu, možemo tačnije oceniti u kojoj meri su ornamenti u aranžmanima za mehaničke instrumente "vokalni". Iako postoji veliki broj kompozicija napisanih za mehaničke orgulje, ova činjenica nije sasvim pouzdan dokaz da je taj ornamentalni stil mogao biti primenjen i u vokalnoj praksi. Glas može biti u tehničkom pogledu veoma spretan instrument, ali kao i svi drugi instrumenti, poseduje svoje specifične karakteristike i mogućnosti koje neke ukrase čine pogodnijim za vokalno izvođenje, a druge za izvođenje na instrumentima. Na primer, ako uzmemo u obzir instrumentalni aranžman vokalnog dela koji sadrži ukrase, da li bi ga trebalo protumačiti kao instrumentalnu imitaciju glasa? Ili je vokalna linija "instrumentalizovana" i samim tim drugačije tretirana? Pravi odgovor bi se mogao naći u povezivanju oba tumačenja, a u ovoj studiji slučaja želimo da ukažemo na očiglednu vezu između aranžmana za mehaničke iznstrumente i onog koji je Hendl namenio vokalnom solisti i tako potvrdimo važnost muzike za mehaničke instrumente prilikom proučavanja vokalnog stila G. F. Hendla.

Ključne reči: Hendl, mehaničke orgulje, ornamenti, vokalna interpretacija