

Rhythmic alteration and articulation in 18th-century French flute music: a reappraisal of Jacques Hotteterre le romain

Gregory Dikmans

During the 1980s, numerous writings appeared which looked critically at the state of research into what has been termed historical performance practice.¹ A number of authors are critical of the 'positivist' or 'objectivist' goal of amassing more and more facts. This approach was aimed at providing the 'scientific' support for a 'code of performance' of universal applicability 'into which the score need only be plugged to set the music aglow with authenticity'.² Laurence Dreyfus believes that, by itself, this empiricist methodology is unhelpful in the study of performance practice, and that a new approach should acknowledge that 'historical performance...[is] an evolving and necessarily incomplete paradigm rather than a set of documented index cards set atop inferences culled from freshman logic texts'.³ Richard Taruskin is 'convinced that 'historical' performance today is not really historical; that a thin veneer of historicism clothes a performance style that is completely of our own time, and is in fact the most modern style around'.⁴ Nevertheless Taruskin sees value for the modern musician in the study of historical evidence: 'Really talented performers are always curious, and curious performers will always find what they need in the sources and theorists—what they need being ways of enriching and enlivening what they do'.⁵ 'It is not the elimination of personal choice from performance that real artists desire, but its improvement and refreshment. And for this purpose original instruments, historical treatises, and all the rest have proven their value'.⁶

Jacques Hotteterre le romain (1674-1763) was active as a composer, theorist, teacher, performer and instrument maker. Happily, much of the relevant source material relating to these activities has survived. Of particular importance to the present study are his three didactic treatises: *Principes de la flûte-traversière* (1707),⁷ *L'Art de preluder* (1719)⁸ and *Méthode pour la musette* (1737).⁹ *Principes* is the best known and most influential of the three, as the flute treatise (which occupies 34 of the 52 pages of text) was the first set of instructions ever published specifically for the trans-

verse flute.¹⁰ In addition to explanations of the technicalities of flute playing (holding the instrument, posture, embouchure and fingerings), it includes important information about the more general aspects of performance practice, such as articulation, rhythmic alteration and the *agréments* which Hotteterre considered 'necessary for playing correctly and with taste'.¹¹ The instructions contained within the pedagogical works can be supplemented by an examination of his published music, in particular his first book of *Pièces* (Op. 2) for flute and basso continuo.¹² This was published the year after *Principes* and includes an *Avertissement* that expands on material discussed in *Principes*. In 1715, when Hotteterre published his second book of *Pièces* (Op. 5),¹³ he reissued Op. 2 in a newly engraved edition.¹⁴ This *nouvelle édition* has a table of *agréments* added to the *Avertissement* and contains a large number of changes to the score of the 1708 edition, especially additional *agréments* and other clarifications of the original text.¹⁵

Hotteterre's instructions relating to rhythmic alteration are brief and quite simple, and should cause us no problems if we are willing to accept the simple meaning of his French.¹⁶ Unfortunately, he does not answer every question the modern performer needs to ask, and it is beyond the scope of this study to offer definitive solutions (if this is at all possible). I will, however, briefly address some of them by drawing on other relevant primary sources, and offering my own suggestions and those found in the secondary source material. I will also suggest how this information may help us come closer to an understanding of the tasteful application of Hotteterre's principles of articulation.

Rhythmic alteration has become one of the most controversial areas of Baroque performance practice. In its broadest sense it includes all the expressive fluctuations of tempo and rhythm which Riemann called *agogics*.¹⁷ However, the issues which concern us here are more specific.¹⁸ These are:

1. the application of the French convention of inequality or *notes inégales*, especially when the

composer does not indicate its use either by an instruction, such as *croche inégales*, or by writing it out in dotted rhythms;

2. the degree of inequality when its use is appropriate (whether indicated or not);
3. inconsistency of notation: for example, when dotted rhythms are written, whether this is an indication of inequality or double dotting;
4. inequality on disjunct intervals;
5. inequality with slurs.

In practice these issues are closely related, or even linked.¹⁹

Inequality is usually defined as the uneven performance of evenly written values.²⁰ The following definition by David Fuller provides a useful background to the issues discussed in this study:

As it existed in France from the mid-16th century to the late 18th the convention of *notes inégales* was first of all a way of gracing or enlivening passage-work, especially improvised diminutions. As styles changed and the figurations born of diminution entered the essential melodic vocabulary, inequality permeated the musical language. Its application was regulated by metre and note values; it always operated within the beat, never distorting the beat itself. The degree of inequality (i.e. the ratio between the lengths of the long and short notes of each pair) could vary from the barely perceptible to the equivalent of double dotting, according to the character of the piece and the taste of the performer. Inequality was considered one of the chief resources of expression, and it varied according to expressive needs within the same piece or even within the same passage; where it was felt to be inappropriate it could be abandoned altogether unless explicitly demanded.

Although the practical problem is certainly that of deciding when to alter what appears on the page, the rhythmic convention itself is independent of questions of notation. French composers frequently wrote out inequality with dotted figures, sometimes to resolve doubt, sometimes to ensure a sharply dotted effect, and sometimes for no apparent reason.²¹

Hotteterre first mentions inequality during his discussion of the articulation of quavers in Chapter 8 of *Principes*. He writes:

You would do well to observe that you must not always play the quavers equally, [but] that, in certain time signatures, you make

one long and one short, which is also regulated by their number. When [the number of quavers] is even, you make the first [quaver] long, the second short, and so on for the others. When it is odd,²² you do exactly the opposite: this [practice] is called dotting. The time signatures in which this is most usually done are 2 time, simple 3 time and 6/4 time.²³

In other words, the metrically strong quaver is long, and the metrically weak quaver is short. Hotteterre calls this practice *pointer*. Literally this means 'to dot', that is, to add a dot to a note.²⁴ So *pointer* can be translated as 'dotting' (noun) or 'to dot' (verb). He also uses the adjectival form, *pointée* [dotted], as in *croche pointée* [dotted quaver].

L'Art de preluder includes a chapter which explains the various time signatures, including instructions about which notes are equal and which are dotted in each. For example, in discussing slow common time [*Mesure à 4 temps lents*] Hotteterre says: 'the quavers here are equal and...the semiquavers here are dotted, that is to say, one long and one short'.²⁵ In cut common time [*Mesure du C barré*] he says: 'the quavers here must be equal...unless the composer puts dots'.²⁶ Again this implies that inequality is the result of adding dots.

Lastly, in *Méthode pour la musette* Hotteterre includes a section on note values. After explaining the relative values of the notes, he goes on to describe two meanings of the dot found after a note:

[1] You sometimes put dots after the notes, which augment them by half of their value: thus a dotted minim is worth three crotchets; a dotted crotchet is worth three quavers, etc.

[2] In time signatures where the quavers are unequal, the dot which is after the crotchet makes the equivalent of a dotted quaver; the sort of quaver which follows [such] a dotted crotchet is always short.²⁷

In the first case, the dots (whether written or added by the performer) behave as we would expect. Note that Hotteterre says the dots 'you put' or 'one puts' [*on met*]. It is not clear whether he means the dots the performer adds when playing *pointer*, or the dots added by the composer. He probably means both. In the second case, the written dot added to a crotchet does not behave as we would expect. This is in fact a description of double dotting which can be notated as in Example 1.²⁸ Note that Hotteterre is specific about the effect the dot has on the length of a note (in the first case) and about the length of the dot itself (in the

second case), but he is not specific about the quaver following the dotted crotchet (second case). He does not say it becomes a semiquaver, only that it is 'always short'. This raises further questions. Perhaps he did not need to be specific about the quaver becoming a semiquaver, because he thought it was obvious that this was the case. Or perhaps he left it open, because the short quaver is not always exactly a semiquaver.

This is all Hotteterre has to say about rhythmic alteration in his didactic treatises. More information can be deduced by examining his published music. A comparison of the two editions of his *Pièces* (Op. 2) reveals a number of differences. Hotteterre obviously took the opportunity, in preparing the engraved 1715 edition, to clarify certain points.



Example 1: Hotteterre's description of double dotting.



Example 2: Hotteterre, Allemande *La Royale* from *Pièces* (Op. 2) 1708, bars 1-2.



Example 3: Hotteterre, Allemande *La Royale* from *Pièces* (Op. 2) 1715, bars 1-2.

Examples 2 and 3 bear directly on the present discussion. The time signature is 2, in which, according to Hotteterre, the quavers are normally played *pointer*. In the 1708 edition, he has added dots (and shortened the following quaver to a semiquaver) in the bass line in the first bar, and in the 1715 edition he has done the same in both bass and flute lines. So the quavers, written equally in the flute line of the first edition, are played dotted (*pointer*) as shown in the 1715 edition. Hotteterre does not continue this in the following bars—the first bar is sufficient reminder of what he wants.

As we have seen Hotteterre uses *pointer* to describe both a note value and the convention of *notes inégales*. He does not make a distinction, so it is probable that there is none: a dot is a dot. If there were an important distinction (for example, that the dot means something different in each case), we could reasonably expect that he would mention it in his books intended for beginners. He does in fact attempt to clarify two particular cases. When using the term to describe a note value, such as a dotted crotchet, all such notes will have a dot; however, when using the term to describe the practice of inequality, only every second note will have a dot. Hotteterre clarifies this latter situation by

adding that 'one is long and one is short'. Note that this is a clarification of application and does not imply that the dot is different in each context. The second clarification is the particular case, found in the passage describing double dotting, of the dot after a crotchet in time signatures where the quavers are unequal. In this case the dot does behave differently, so Hotteterre explains the difference (see Example 1).

From the above evidence we can conclude that for Hotteterre a dot after a note, whether written or added by the performer, creates a degree of inequality between the lengths of the long and short notes of each pair that can be expressed as a ratio of 3:1 (3 semiquavers to 1 semiquaver in a pair of quavers—see Examples 2 and 3). In the case of double dotting, the ratio is 7:1. This also has the effect of making the short quavers (the semiquavers) synchronise.²⁹ So a passage of music which had one line moving in equally notated quavers with another line moving in dotted crotchet-quaver rhythm can be written, following Hotteterre's explanations, as in Example 4.³⁰ Example 5 shows how Hotteterre could have continued the passage quoted in Example 3 to indicate the inequality and synchronization of semiquavers.



Example 4: Synchronization of *notes inégales* following Hotteterre's explanations.



Example 5: Hotteterre, *Allemande La Royale* from *Pièces* (Op. 2) 1715, bars 1-4.

Hotteterre does not discuss the possibility of varying the degree of inequality. The only passage which may allow for the possibility of a different ratio between the long and short notes is the one describing double dotting, in which Hotteterre does not specify the note value of the quaver following a dotted crotchet, saying only that it is 'always short'. However, Fuller's aforementioned definition of inequality states that 'the degree of inequality...could vary from the barely perceptible to the equivalent of double dotting, according to the character of the piece and the taste of the performer'. Therefore we need to examine the relevance of this statement to Hotteterre.

Étienne Loulié includes an often quoted discussion of even and uneven notes in his *Elements ou principes de musique* (1696).³¹ He describes four manners of performance. The first manner concerns disjunct intervals and will be discussed below. The fourth manner, a short-long performance notated as a 1:3 ratio in his example, is not relevant to Hotteterre. The second and third manners, however, bear directly on the present discussion:

Sometimes the first half-beat is made a little longer than the second. This manner is called *lourer*; it is used in melodies in which the sounds follow each other in conjunct motion... There is yet a third manner, in which the first half-beat is made much longer than the second, but then the first half-beat should have a dot. This third manner is called *piquer* or *pointer*.³²

In his unpublished *Supplément des Principes ou Elémens de Musique*,³³ Loulié includes Example 6 with the text just quoted. His description of the third manner and the example (*Piqué* in Ex. 6) are in accord with Hotteterre and the 3:1 ratio. Loulié's description of the second manner (*Lourez* in Ex. 6) indicates a milder ratio of 3:2. In arguing against the 3:1 ratio for *notes inégales*, Frederick Neumann has used this passage to suggest

that 'clearly only the *lourer* with its mild unevenness represents *notes inégales*, since the concept of *inégalité* refers solely to evenly written pairs of notes'.³⁴ John O'Donnell answers this argument conclusively: '[b]ut this is impossible, since the literal meaning of *lourer* is 'to slur', and no contemporary writer limits inequality to slurred notes. It was unnecessary for Loulié to define *lourer*, for he would simply have been saying 'to slur' means 'to slur'.³⁵

So Loulié supports the more vigorous 3:1 ratio for *pointer*, which is tongued, and allows a milder ratio of 3:2 for slurred pairs. In light of Hotteterre's vagueness about the length of the quaver following a double dotted crotchet, it is possible that he might also have used the milder inequality when tonguing, if the character of the piece and taste so dictated.

Betty Bang Mather quotes Marie Dominique Joseph Engramelle's *La tonotechnie, ou l'art de noter les cylindres* (1775) as allowing

a possible ratio of 3:1 in his text, but his examples showed only the less unequal ratios of 2:1, 3:2 (the most frequently used), 5:3, 7:5 and 9:7. The latter three relationships may be perceived simply as an agogic accent to our ears, and that is their function and effect.³⁶

But agogic accent is not inequality as defined by Hotteterre and Loulié. The confusion of the two has no doubt led to the 'generalized rubato' and 'audible analysis' which Fuller says is 'practiced by modern players of Baroque music [but] which has nothing to do with *notes inégales* and cannot be justified as a rendition of it or a substitute for it'.³⁷

In his definition of *notes inégales* Fuller also states that this 'rhythmic convention...is independent of questions of notation', and elsewhere that 'there was no clear boundary between dotted rhythms, whether exaggerated or not, and *notes inégales*'.³⁸ Hotteterre sometimes writes the dots and sometimes does not,



Example 6: Loulié, *Supplément des Principes ou Elémens de Musique*.

often within the same piece, and often on notes which would normally be played *pointer* anyway. There seems to be no consistent logic in his notation.

The problem, then, is to decide whether the notated dotting is a reminder to make the rest of the short note values unequal (as I have suggested is the case in the Allemande *La Royale*); to indicate a contrast of mild and vigorous inequality; or whether, following Graham Pont's 'paradigm of inconsistency', the undotted notes are to be played as written. In the absence of any instructions from Hotteterre we will have to judge each case on its context and let taste decide. I do believe, however, that the last possibility is least likely because Hotteterre is so inconsistent that it would be impossible to establish any coherent character in a piece if the notated rhythms were followed exactly.

The unequal performance of disjunct intervals is possible, as shown in the Allemande *La Royale*. Hotteterre sometimes indicates the equal performance of disjunct melodies, or parts of melodies, by instructions in the score such as *croches égales* or *piqué*, or by adding dots above the notes. The problem is knowing his intention when he does not give an indication. Some theorists did associate inequality with conjunct motion and equality with disjunct motion in those situations where inequality would normally be the case. For example, Loulié explains his first manner of performing the half-beats (mentioned above) as follows:

They are sometimes made equal. This manner is called "to detach the notes" [*détacher les Notes*]; it is used in melodies in which the sounds follow each other in disjunct motion, and in all sorts of foreign music, where one never alters them rhythmically except where indicated.³⁹ (Example 7)

Hotteterre makes no specific reference to this practice in *Principes*, but there is one reference in *L'Art de preluder*. In his discussion of simple 3 time, where the quavers would normally be unequal, he includes an example from the beginning of a couplet in a *passacaille* by Lully together with a brief explanation:

[Here is an] example in this same time signature with equal quavers... The quavers are made equal for this reason: it is firstly that they leap by intervals, and over and above this, that they are mixed with semiquavers.⁴⁰ (Example 8)

This is too brief a reference to allow us to take it as a rule with general applicability. Also the language used implies that the more compelling indication of equality in this example is that the quavers are mixed with semiquavers.

Hotteterre often shifts between conjunct and disjunct motion within the same piece, where there are no smaller note values mixed in with the normally unequal notes. This may or may not indicate that the equality and inequality should also shift. For example,



Example 7: Loulié, *Elements ou principes de musique* (1696).



Example 8: Hotteterre, *Couplet de la Passacaille d'Armide* in *L'Art de preluder*, p.58.

a melody which moves in disjunct quavers against a bass moving in conjunct quavers probably implies inequality in both. Again each case needs to be judged on its context with taste being the arbiter.

The practice of slurring notes unequally in pairs, which Loulié and others called *lourer*, has already been mentioned.⁴¹ Confirmation of this practice can be found in Hotteterre's music by comparing the two versions of the Sarabande *La Fidelle* from Op. 2 (Examples 9 and 10). In the 1708 edition the instruction is to play *Coulé & Pointé* (slurred and dotted) and in the 1715 edition it is *Croches inégales et coulées* (quavers unequal and slurred).⁴² Hotteterre has also added the slurs above the quavers in the first bar of the later edition, thus pairing them. As mentioned earlier, Hotteterre does not discuss a degree of inequality other than 3:1; either this or possibly Loulié's 3:2 would be appropriate in performing this *pièce*.

Hotteterre does not discuss the effect of slurs over more than two notes; neither do other French sources of the time. However, the issue has been taken

up in the modern literature. Fuller is correctly cautious when he states that 'the long slur seems at times to be intended to cancel pairing and to suggest to the player that only the first note should be emphasized',⁴³ whereas Mather is unequivocal: '[s]lurs over more than a pair of notes also signaled equality'.⁴⁴ The evidence provided by the music is also unclear. In the *Musette* from his second suite for two flutes Op. 6, Hotteterre slurs the quavers in groups of four and gives the instruction to play *Doucement, et les croches pointées* (sweetly or softly, and the quavers dotted). Unfortunately, it is not clear whether Hotteterre is reminding the player of the normal practice or whether he is asking the player to employ a special practice in this specific case (Example 11).

Various authors have put forward the view that there is a relationship between Hotteterre's articulation syllables (*tu ru*) and inequality.⁴⁵ Others have gone a step further and argued that the use of *tu ru* causes inequality.⁴⁶ However, Fuller argues against this view, saying:



Example 9: Hotteterre, Sarabande *La Fidelle* from *Pièces* (Op. 2) 1708, bars 1-2.



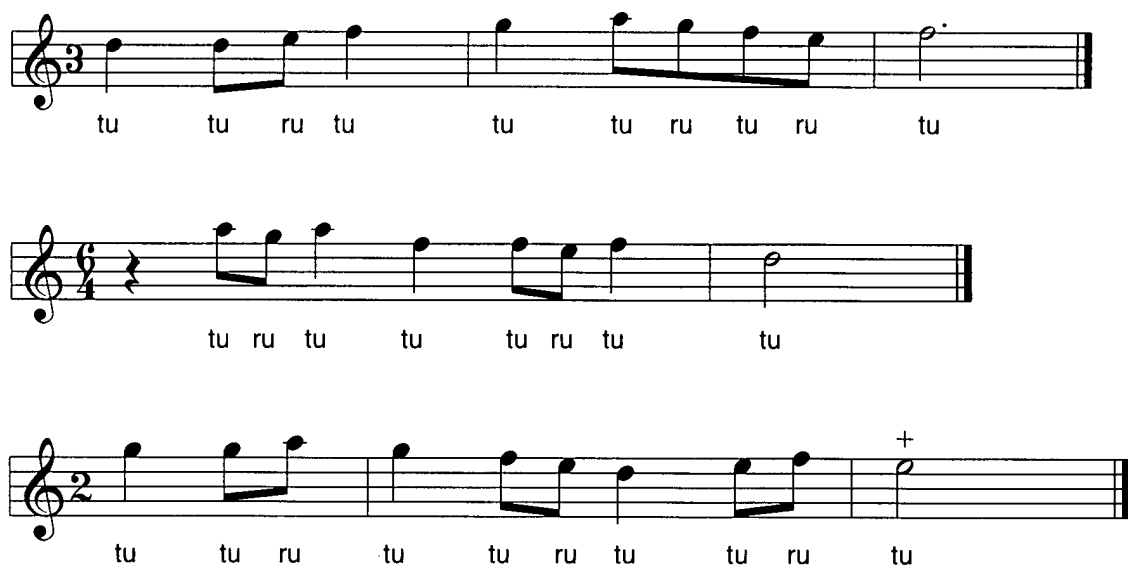
Example 10: Hotteterre, Sarabande *La Fidelle* from *Pièces* (Op. 2) 1715, bars 1-2.



Example 11: Hotteterre, *Musette* from *Deuxième suite de pièces à deux dessus ... Oeuvre VI^{ème}* (1717).



Example 12: Articulation silence with *tu ru* (normal form).



Example 13: The use of *tu ru* (reversed form) in exceptional cases.

there is no necessary connection between playing technique and rhythmic unevenness unless the tempo is very fast or the player unskilled... Inequality was essentially a matter of rhythmic style, not performing technique, and it obeyed laws of metre and expression, not of fingers or tongue.⁴⁷

Fuller's case is supported by the evidence in *Principes*. Hotteterre uses *tu ru* in both its normal and reversed forms for the articulation of unequal notes.⁴⁸ What we can say is that the more vigorous type of inequality (including double dotting) is more easily expressed with the normal form of *tu ru*. This is not so much because of the speed with which one can move the tongue from *tu* to *ru*, but because of the articulation silence which precedes *tu*, the length of which can be varied at will. Indeed, this type of inequality needs the articulation silence. So a figure such as (a) in Example 12 can be played as shown in (b) or even (c), which also create an agogic accent. This type of phrasing is not possible if the reversed form of *tu ru* is used.

Hotteterre explains the use of the reversed form at the end of the section on articulation in *Principes*. He says that 'although these rules [governing the normal form of *tu ru*] apply generally, there are nevertheless some exceptions in certain passages, as you can see here'.⁴⁹ (Example 13)

These passages can be played just as easily with the normal form of *tu ru*; however, Hotteterre says that the reversed form (that is, without the articulation silence between the long and short notes) is used 'for a greater softening or sweetening [of the articulation], and it is taste which decides it'.⁵⁰ The implication is that he equates softness or sweetness with a more legato effect. He then goes on to say:

you must consult this same taste when the tongue strokes seem rough doing them in the way that I have explained in the first examples, and you must decide upon that which seems most agreeable to the ear, without regard to the arrangement of the notes [that is, whether they are odd or even in number, and whether they move by leaps or conjunct intervals], nor the different passages.⁵¹

It is therefore reasonable to suggest that in pieces with indications such as *gayment* or *majesteusement*, the more articulated normal form of *tu ru* is appropriate, while in pieces with indications such as *tendrement* or *douloureusement*, the more legato reversed form of *tu ru*

is suitable. It is also possible that the use of the reversed form of *tu ru* implies a milder degree of inequality, such as Loulié's *lourer* ratio of 3:2.

In this case study I have confined myself to a very specific problem: how one particular performer approached rhythmic alteration in the performance of his own music.⁵² In so doing I hope also to have addressed the need for the specialised and critical study that should support a new approach to historical performance practice, an approach that exploits two modes of interpretation: restoration of meaning and demystification of meaning.

Notes

¹ For example: Laurence Dreyfus, 'Early Music Defended Against its Devotees: a Theory of Historical Performance in the Twentieth Century', *The Musical Quarterly* 69.3 (1983), pp.297-322; 'The Limits of Authenticity: a Discussion', *Early Music* 12 (1984), pp.3-12; Joseph Kerman, 'The Historical Performance Movement' in *Musicology* (London: Faber/Collins, 1985); Nicholas Kenyon, ed., *Authenticity and Early Music: a Symposium* (Oxford: Oxford University Press, 1988); Harry Haskell, 'Playing Bach "his way"' in *The Early Music Revival: a History* (London: Thames and Hudson, 1988); and David Fuller, 'The Performer as Composer' in *Performance Practice: Music after 1600*, eds. Howard Mayer Brown and Stanley Sadie (London: Macmillan, 1989), pp.130-139.

² Fuller, 'The Performer as Composer', p.117.

³ Dreyfus, 'Early Music Defended', p.313.

⁴ Richard Taruskin, 'The Pastness of the Present and the Presence of the Past' in Kenyon, *Authenticity and Early Music*, p.152.

⁵ Taruskin, 'The Pastness of the Present', p. 203.

⁶ Taruskin, 'The Pastness of the Present', p.206.

⁷ *Principes de la flûte traversière ou flûte d'Allemagne, de la flûte à bec ou flûte douce, et du haut-bois, divisez par traitez* (Paris: Christophe Ballard, 1707). Facsimile reprint of 1720 *nouvelle édition*, Genève: Minkoff, 1971. Facsimile reprint of [1710] Amsterdam edition with German translation, Kassel: Bärenreiter, 1941; reprinted 1958.

Modern English translations: David Lasocki, *Principles of the Flute, Recorder and Oboe* (London: Barrie & Rockliff, 1968; London: Barrie & Jenkins, 1978). Paul Marshall Douglas, *Rudiments of the Flute, Recorder and Oboe* (New York: Dover, 1968). Gregory Dikmans, *Principles of the Transverse Flute, Recorder and Oboe* in 'The Performance Practice of Early 18th-Century French Flute Music: a Critical Translation of Jacques Hotteterre's *Principes de la Flûte Traversière*, Commentary and Recording of Selected Works' (Diss. La Trobe University, 1991).

⁸ *L'Art de preluder sur la flûte traversière, sur la flûte-à-bec, sur le hautbois et autres instruments de dessus* (Paris: Auteur and Foucault, 1719).

⁹ *Methode pour la musette* (Paris: J.-B.-C. Ballard, 1737/8).

¹⁰ Thomas E. Warner, *An Annotated Bibliography of Woodwind Instruction Books 1600-1830* (Detroit: Information Coordinators, 1967), p.xiii, notes that Jambe de Fer's *Epitome musical* (1556) contains 'the first fingering chart and printed mention of the transverse flute so far discovered. In addition, Jambe de Fer briefly describes correct flute embouchure; but even

so, his treatise primarily discusses theoretical aspects of music and, therefore, is not intended as a woodwind tutor'.

¹¹ *Principes*, p.3: 'les agréments nécessaires pour jouer proprement & avec goût'. All translations are my own unless otherwise stated.

¹² *Pièces pour la flûte traversière, et autres instruments, avec la basse continue ... Livre premier. Oeuvre second* (Paris: C. Ballard, 1708).

¹³ *Deuxième livre de Pièces pour la flûte-traversière et autres instruments, avec la basse ... Oeuvre V^e* (Paris: Autheur, Foucault, 1715).

¹⁴ *Premier livre de Pièces pour la flûte-traversière, et autres instruments, avec la basse ... Oeuvre second. Nouvelle édition. Gravée sur l'Imprimé, et augmentée de plusieurs agréments, et d'une démonstration de la manière qu'ils se doivent faire* (Paris: Autheur, Foucault, 1715).

¹⁵ Consequently these two editions of Op. 2 represent an extremely useful source for the study of the tasteful application of *agréments* in a musical context.

¹⁶ Much of the controversy this century surrounding rhythmic alteration has arisen when scholars have attempted to read extra meaning into the language and terms used by the French theorists.

¹⁷ H. Riemann, *Musikalische Dynamik und Agogik: Lehrbuch der musikalischen Phrasierung* (Hamburg, 1884).

¹⁸ There is another issue: whether or not to resolve clashes between binary and ternary rhythms. This is not an issue in Hotteterre's music, so we need not concern ourselves about it here. For a summary of the debate on all aspect of rhythmic alteration in Baroque music see Fuller, 'The Performer as Composer', pp.130-139.

¹⁹ For an account of these issues, which presents the evidence, outlines the arguments, offers sound solutions and gives references for the most important primary and secondary sources, see John O'Donnell, 'The French Style and the Overtures of Bach', *Early Music* 7 (1979), Part 1: pp.190-196, Part 2: pp.336-345. This article also contains important information on other aspects of French style, the overture and tempo.

²⁰ For a summary of the evidence relating to *notes inégales* and its application within and outside France see David Fuller, 'Notes Inégales', *The New Grove Dictionary of Music and Musicians*, ed. Stanley Sadie, vol. 13 (London: MacMillan, 1980), pp.420-427. This article should be read in conjunction with Fuller, 'Notes and *Inégales* Unjoined: Defending a Definition', *Journal of Musicology* 6.1 (1989), pp.21-28, where the author revises some of his statements and clarifies some points. For an opposing, and now largely discredited, view see Frederick Neumann, 'The Notes Inégales Revisited', *Journal of Musicology* 6.2 (1988), pp.137-149. Neumann's other writings on performance practice, including articles on inequality and dotting, have been brought together in Neumann, *Essays in Performance Practice* (Michigan: UMI Research Press, 1982).

²¹ Fuller, 'Notes Inégales', p.420.

²² That is, a group of quavers beginning after a quaver rest placed on the beat.

²³ *Principes*, p.28: 'On sera bien d'observer que l'on ne soit pas toujours passer les Croches également, & qu'on doit dans certaines Mesures, en faire une longue & uue [sic] breve; ce qui se regle aussi par le nombre. Quand il est pair, on fait la première longue, la seconde breve, & ainsi des autres. Quand il est impair, on fait tout le contraire; cela s'appelle Pointer. Les Mesures dans lesquelles cela se pratique le plus ordinairement, sont celles à Deux temps, celle du triple simple, & celle de six pour quatre.'

²⁴ In some sources there is confusion about where the dot is placed: above the note, to indicate staccato (or in some cases

equality-in practice this amounts to the same thing), or after the note, to indicate rhythmic alteration. For example, Sebastian de Brossard, *Dictionnaire de musique* (Paris: Christophe Ballard, 1703) equates both the terms *pointer* and *piqué* (from *piquer* to prick) with the Italian *staccato* or *spiccato*. O'Donnell, 'The French style and the overtures of Bach', p.338, explains this equivalence as follows: '*Piquer*...is another word describing articulation, indicative of very detached performance, similar to the Italian *staccato* (translated by [Roger] North as "stabb")... Its application to the "piquant" French dance style led to its equation with *pointer*, "to dot".'

²⁵ *L'Art de preluder*, p.57: 'les croches y sont égales et...les double croches y sont pointée c'est à dire une longue et une breve.'

²⁶ *L'Art de preluder*, p.57: 'les croches y doivent estre égales...a moins que le Compositeur n'y mette des points.'

²⁷ *Méthode pour la musette*, p.35: 'On met quelque fois des points après les Notes, ce qui les augmente de moitié de leur valeur: ainsi, une Blanche pointée vaut trois Noires; une Noire pointée vaut trois Croches, &c. Dans les mouvements où les Croches sont inégales, le point qui est après la Noire, fait un équivalent à la Croche pointée; de sorte que la Croche qui suit une Noire pointée, est toujours brève.'

²⁸ This passage has been quoted by several modern writers in support of double dotting. See, for example, O'Donnell, 'The French Style and the Overtures of Bach', p.337.

²⁹ Graham Pont has put forward a 'paradigm of inconsistency' which argues against the need to make such a synchronization or regularization, that composers may have intended the inconsistencies found in their scores. This paradigm goes against what Hotteterre is saying about the performance of his own music and can create unnecessary problems of ensemble. See Graham Pont, 'Rhythmic Alteration and the Majestic', *Studies in Music* 12 (1978), pp.68-100, and 'Handel and Regularization: a Third Alternative', *Early Music* 13.4 (1985), pp.500-505. For responses to this last article see Frederick Neumann, 'Graham Pont's "Paradigm of Inconsistency"', *Early Music* 14.3 (1986), pp.403-406; David Wulstan, 'Glorious Uncertainty', *Early Music* 14.3 (1986), pp.406-409; and Graham Pont, 'A Third Alternative', *Early Music* 14.3 (1986), pp.409-411.

³⁰ Michael Collins, 'A Reconsideration of French Overdotting', *Music and Letters* 50 (1969), p.118, uses a similar example to demonstrate synchronisation. He comments: 'It no doubt seemed quite obvious that if four even quavers were played alternately long and short, then the quaver following a dotted crotchet had to be played shorter than its normal value to keep the parts synchronized'.

³¹ Étienne Loulié, *Éléments ou principes de musique* (Paris: Christophe Ballard, 1696). Facsimile reprint (Genève: Minkoff, 1971). Translated by Albert Cohen as Étienne Loulié. *Elements or Principles of Music* (New York: Institute of Mediaeval Music, 1965). Loulié (c1655-c1707) was a 'musician and theorist...who published three theoretical works and also left unpublished studies in MSS... His writings contain practical, systematic and enlightened contributions to the prevalent musical ideas of the time' (Albert Cohen, 'Loulie', *The New Grove Dictionary*, vol.11, p.256).

³² Translation: Cohen, *Étienne Loulié*, pp.29-30.

³³ This is an incomplete revision of the 1696 edition. Cohen, *Étienne Loulié*, incorporates the pertinent emendations and additions into his translation. Example 6 is transcribed on p.67.

³⁴ FN3 in Neumann, *Essays in Performance Practice*, p.120.

³⁵ O'Donnell, 'The French Style and the Overtures of Bach', p.338.

³⁶ Betty Bang Mather, *Interpretation of French Music from 1675 to 1775: for Woodwind and Other Performers* (New York:

McGinnis & Marx, 1973), pp.3-4. Engramelle (1727-1805) was a 'French builder of mechanical instruments... The description (in his *La tonotechnie*, 1775, and Bédos de Celles) of his invention of a numbered dial (*cadran*) and its use in "notating" the studded barrels of mechanical musical instruments were important in his own time and constitute an invaluable source of information today on French late Baroque performing practices' (Hans-Peter Schmitz, 'Engramelle', *The New Grove Dictionary*, vol.6, p. 202).

³⁷ Fuller, 'The Performer as Composer', pp.138-139.

³⁸ Fuller, 'The Performer as Composer', p.135.

³⁹ Translation: Cohen, Étienne Loulié, p.29.

⁴⁰ *L'Art de preluder*, p.58: 'Exemple, de cette même espee de Mesure avec les croches egales... Ce qui fait que les croches sont egales dans cette occasion, c'est premieremt. de ce qu'elles sautent par intervalles, et par dessus cela de ce qu'elles sont mellées avec des doubles croches'.

⁴¹ Mather, *Interpretation of French Music*, p.39, explains the origin of this practice as follows: 'This practice...came from attempts to imitate the non-detached, slightly long-short and loud-soft performance of the instruments known as the *loure*, *cornemuse*, and *musette* (all members of the bagpipe family) and the *vielle* (hurdy gurdy). These instruments possessed a drone and were therefore incapable of clean articulations. The only means players of these drone instruments had of defining the beat was to lengthen and strengthen the long first note of pairs fitting within the beat'.

⁴² These instructions could be a warning not to play the quavers in the bass line equally as would normally be the case in an Italian sarabande with similar constant quaver motion, as Hotteterre explains in his discussion of simple 3 time in *L'Art de preluder*, p.59.

⁴³ Fuller, 'Notes Inégales', p.422.

⁴⁴ Mather, *Interpretation of French Music*, p.3.

⁴⁵ See, for example, Mather, *Interpretation of French Music*, p.32.

⁴⁶ See, for example, Bradford Arthur, 'The Articulation of Hotteterre's *Tu-Ru*', *The American Recorder*, 14.3 (1973), p.81.

⁴⁷ Fuller, 'The Performer as Composer', pp.137-138. In a footnote to this passage he cites other sources that have argued that inequality is the consequence of playing techniques: Sol Babitz, *Rhythmic Freedom: a Historical Table in the Light of Wind-Instrument Tonguing* (Los Angeles, 1974); N. Powell, *Early Keyboard Fingering and its Effect on Articulation* (diss., Stanford U., 1956); and G. Houle 'Tonguing and Rhythmic Patterns in Early Music', *American Recorder*, 6 (1965), pp.4-13.

⁴⁸ The following list (by no means complete) gives some of the most important studies that deal with Hotteterre's articulation syllables: Arthur, 'The Articulation of Hotteterre's *Tu-Ru*'. pp.79-82; David Lasocki, 'The Tonguing Syllables of the French Baroque', *The American Recorder* 8.3 (1967), pp.81-82; Lasocki, 'Pronunciation', 'History of *tu* and *ru*' and 'Articulation' in *Principles of the Flute, Recorder and Oboe*; Mather, *Interpretation of French Music*, pp. 32-39; Betty Bang Mather with Dean M. Karns, 'Articulation of Dance Rhythms in Concert Pieces' (Ch. 14) and 'Grouping Unslurred Quick Notes' (Ch. 16) in *Dance Rhythms of the French Baroque: a Handbook for Performance* (Bloomington and Indianapolis: Indiana University Press, 1987); and Dikmans, 'The Performance Practice of Early 18th-Century French Flute Music', pp.93-110.

⁴⁹ *Principes*, p.30: 'Quoyque ces Regles soient générales, elles admettent cependant quelques exceptions, dans certains passages, comme on le peut voir icy'.

⁵⁰ *Principes*, pp.30-31: 'Cela ce fait pour un plus grand adoucissement, & c'est le goût qui en décide'.

⁵¹ *Principes*, p.31: 'On doit donc consulter ce même goût, lorsque les coups de Langue paroîtront rudes en les faisant de la maniere que je les ay expliquez dans les premiers Exemples, & l'on doit s'arrêter à ce qui semblera le plus agréable à l'Oreille, sans avoir égard à l'arrangement des Notes, ni aux differents mouvements'.

⁵² I am not proposing, however, that the results of this research are relevant to all French Baroque music, or even necessarily to all French Baroque flute music.