1. INTRODUCTORY STUDY: ORNAMENTATION ON THE CONTINENT IN THE SIXTEENTH AND EARLY SEVENTEENTH CENTURIES

1.1 The Ars Diminutionis as a Sixteenth-Century Concept of Ornamentation

Ornamentation in music is as old as music itself. In keyboard music this flourishing art was already well established by the fourteenth century, with reference to it in a musical treatise being made as early as the thirteenth century. The sixteenth- and early seventeenth-century vocal and instrumental ornamentation can be seen as an ars diminutionis. Tinctoris defined it thus in 1495:¹

Diminution is the reduction of any large piece into a small one.

Michael Praetorius' comment more than a hundred years later is much the same:²

Diminution is the breaking up and resolving of a long note into many faster and smaller notes.

During this period the concept of ornamentation was not limited only to short ornaments, affecting one note, but also included the embellishment of several notes or melodic intervals lasting for one bar or more: both of which constitute the breaking up of a note value or values. This technique can be traced back to the earliest extant source of keyboard music, the Robertsbridge Abbey manuscript of c.1320, as the following in-


strumental intabulation of a motet shows:  

Ex.1.1 Anonymous, Tribum quem, b. 1-14

Another fourteenth-century source of this technique is the voluminous Codex Faenza. In the fifteenth century, Conrad Paumann gave many examples of embellished ascending and descending intervals and pausae in his instruction book for organists, the Fundamentum organisandi (1452).

It is in the sixteenth century, however, that one finds this art explained in several treatises and didactic manuals. They are directed at both instrumentalists and singers, and their main concern is to provide musical examples, to enable them to master

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5 Apel, CEKM I: 32-51.
the art of embellishing vocal polyphony. There are also several general theoretical works which include chapters on the problems of ornamentation. There are, however, several treatises directed at the viol, other stringed instruments, recorder and keyboard. They are not only concerned with the intabulation of vocal models, but also with the diminution of basic intervals and cadences which are conceived in terms of instruments. All these authors show various ways of substituting one note, or a short melodic passage, with melodic formulas in smaller note values, and of embellishing cadences and intervals with diminutions that link notes together, in each case without affecting the progression upon which the diminution is based. An intabulation by Pierre Attaignant of a chanson by Claudin, *Ung grant plaisir*, is typical of the early sixteenth century:

Ex.1.2  Attaignant, *Ung grant plaisir*, b. 5-8

An example from the later sixteenth century illustrates the excesses into which this technique fell. The diminutions were

added by Girolamo Dalla Casa to a madrigal of Cipriano de Rore:

Ex. 1.3  Dalla Casa, Tanto mi piacque, b. 35-37

An example of diminutions made on a cadence progression comes

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Two simple diminutions of intervals are taken from Adriano Petit Coclico's *Compendium Musices* (1552), a theoretical treatise which includes a discourse on 'Elegant Singing' (De Elegantia, et ornamentu, aut pronuntiatione in canendo): ¹⁰

The original and the embellished versions make the intention clear: the 'elegant' expression of a musical phrase.

A variety of terms were applied to this technique in the sixteenth century: diminutio, minuta, passaggi, gorgia, glosa and coloratura, to name just a few. In Spain this technique was expressed in a musical form, called the Glosa, and in Italy in the Canzoni d'Intavolatura. In the FVB, the same technique can be observed in no. 233, which is a transcription by Farnaby of

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his 15th canzonet 'Ay me, poore heart'. Tregian included five of Philips' keyboard intabulations of popular songs in the FVB. In the short examples which follow, the original is given together with the embellished version:

Ex. 1.6  Farnaby, 24. (FVB II 330:1:1)

Philips based the following example on Orlande de Lassus' 'Bonjour mon coeur'.

Ex. 1.7  Philips, Bon Jour mō Cœur (FVB I 317:1:1)

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The Spanish *diferencias* and English variations on songlike themes and grounds also employ the same technique discussed in this chapter: they all have the changing of a pre-existing musical event in common, and this change is brought about through the *ars diminutionis*.  

Most of the instruction manuals do not differentiate between vocal and instrumental ornamentation as far as the style of embellishment is concerned. In fact, some writers actually state that instrumentalists used the same techniques as singers. For instance, Giovanni Bassano's *Motetti, madrigali et canzoni francese* (1591), states on the title page that the book is intended for *ogni sorte di stromenti* as well as *la semplice voce*.  

The title page of the earliest sixteenth-century tutor, Silvestro di Ganassi's *Opera intitulata Fontegara* (1535), addresses 'wind and stringed instruments as well as those who delight in singing.' Ganassi stresses the importance of the human voice in these matters:

> Be it known that all musical instruments, in comparison to the human voice, are inferior to it. For this reason we should endeavour to learn from it and to imitate it.

The stylistic unity between vocal and instrumental ornamentation, however, started to disappear towards the end of the sixteenth century. This becomes clear from the appearance of treatises aimed at either the voice or particular instruments. Tutors written for the voice alone, for example, include those

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of Maffei (1562)\textsuperscript{16} and Bovicelli (1594).\textsuperscript{17} In range and style, Bovicelli's embellishments are specifically conceived for the voice.\textsuperscript{18} At this time, the first description of the vocal trill was given in Conforto's \textit{Breve et facile maniera} (1593).\textsuperscript{19} (It is also described in Caccini's \textit{Nuove Musiche}.\textsuperscript{20}) This trillo is an idiomatically conceived ornament for the voice, consisting of a rapid repetition of a note, rather than an alternation of two notes.

The treatises written for keyboard instruments feature attempts to codify certain ornamental formulae which frequently occur as diminutions, as distinct from the \textit{passaggi} which substitute for the slower basic intervals of a melody. This marks the beginning of the disintegration of the \textit{ars diminutionis} as a sixteenth-century concept. From then onwards improvised ornamentation yielded to ornamentation which was written out in full, or indicated by means of signs. This process resulted eventually in the elaborate ornament tables of the seventeenth century. The composer's intentions became ever more clearly defined, while less was left to the skill of the performer/improviser. This helped to transform musical style and so bring the musical Renaissance to its end.

\textsuperscript{16} Giovanni Camillo Maffei, \textit{Delle lettere ... Libri due} (Naples, 1562), published in N. Bridgman, 'Giovanni Camillo Maffei et sa lettre sur le chant', \textit{Revue de Musicologie} XXXVIII (1956), pp.3-34.

\textsuperscript{17} Giovanni Battista Bovicelli, \textit{Regole, Passaggi di musica} (Venice, 1594), facs. reprint by N. Bridgman in \textit{Documenta Musicologica} I, vol.12 (Kassel: Bärenreiter, 1957).

\textsuperscript{18} Brown, \textit{Embellishing}, p.48.


1.2 Passaggi and Specific Ornaments

The passaggi and specific ornaments are not easily classifiable into distinct categories, for both are expressions of the same technique, the *ars diminutionis*: the breaking up of a note into smaller rhythmic values. The ornamental formulae are diminutions which, because of their repeated use, crystallized into specific shapes and can be regarded as a fixed variety of diminution. The small size of these formulae contributes to their individuality; consequently they can be named and be indicated by sign. (Smallness is used here in the sense of a limited number of pitches involved, as well as their short duration.)\(^1\)

The sixteenth century referred to these ornamental formulae as mordant (murdant), tremolo and by other names, but in general we may call them graces or ornaments, even though these terms did not exist in the sixteenth century. These stereotyped or specific ornaments are applied to single notes, as opposed to the passaggi (diminutions), which are longer figuration patterns, in effect melodic variation, which substitute the actual notes of a melody. A specific ornament, however, though usually 'small', may sometimes also be 'large', in the sense of a greater number of pitches involved. Similarly, passaggi may occasionally involve only a few pitches, although on the whole they tend to be 'large'. These factors compound the difficulties of classification, for although they are separable, they are also related to each other.

The distinction between passaggi and graces was verbally expressed already in the early sixteenth century, when Martin Agricola wrote that other instrumentalists should decorate their performances the way organists do, i.e. with Coloratur (passaggi).

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as well as Mordantten (graces).\textsuperscript{22} Ganassi's treatise is devoted almost entirely to passaggi: numerous examples for the embellishment of intervals and cadences are given, including 175 examples of the latter on a six-note theme. He makes no clear distinction between passaggi and graces, for the way he describes them implies that he regarded the graces as an elegant expression of the art of diminution.\textsuperscript{23}

The various kinds of expression that depend on grace, as well as on imitation, are easier to explain, as they depend not only on articulation, but above all on the art of divisions. The simplest ingredient in elegant and graceful playing is the tremolo.

The authors from the middle of the sixteenth century onwards vary greatly in detail and terminology and are at times contradictory. Yet the essential techniques are the same, and latitude must be granted for personal preferences and differences from country to country. Of the sixteenth-century sources the Spanish are the most comprehensible, for they draw a clear distinction between the two categories.

Juan Bermudo, in his Declaración, omits a description of ornaments in his 1549 edition, but includes them in the 1555 expanded edition.\textsuperscript{24} In the preface to the former, he remarks:\textsuperscript{25}

\begin{itemize}
\item[\textsuperscript{22}] Martin Agricola, \textit{Musica instrumentalis deudsch} (Wittenberg, 1529), quasi-facs. ed. by R. Eitner, \textit{Publikation älterer praktischer und theoretischer Musikwerke XX} (1896), p.222.
\item[\textsuperscript{23}] Ganassi, \textit{Fontegara}, p.87.
\item[\textsuperscript{24}] Juan Bermudo, \textit{Declaración de instrumentos musicales} (Ossuna, 1555), facs. ed. by M.S. Kastner, \textit{Documenta Musicologica I}, vol.11 (Kassel: Bärenreiter, 1957).
\end{itemize}
Neither do I tell how to execute ornaments (redobles), because the fashion of playing them changes every day, and because current methods of performing them cannot be set down in writing.

In the 1555 edition he distinguishes by implication between glosas (i.e. passaggi) and redobles (ornaments), and in fact condemns glosas:26

The player, above all things, (ought to) take one piece of advice, which is that, in performing music (on his instrument), he does not pour glosses (on the music), but performs it in the manner notated ....... Permit yourself a redoble, and so inconspicuous that one hardly is aware (of it).

Diego Ortiz implies a distinction in Tratado de glosas, when he speaks of mixing quiebros amortiguados (muted 'trills') and passos (passages).27

Tomás de Sancta Maria, in Arte de Taner Fantasia (1565), devotes a whole chapter to the practice of glosas, complete with copious examples, whilst the specific ornaments (de los redobles y quiebros) are discussed in another chapter.28 (The former is in Book I, Chapter XXIII, whereas the latter in Book I is erroneously labelled as Chapter XIX.) Sancta Maria divides the specific ornaments into two distinct classes, i.e. redobles and quiebros.

26 Bermudo, Declaración, fol. 84V f.; and in English, Jacobs, Performance, 1:114-116.

27 Diego Ortiz, Tratado de glosas sobre clausulas y otros generos de puntos en la musica de violones (Roma, 1553), facs. ed. by M. Schneider (Kassel: Bärenreiter, 1936), fol. A iv.

28 Tomás de Sancta Maria, Libro Llamado Arte de taner fantasia (Valladolid, 1565), 2 vols., facs. reprint by D. Stevens (Farnborough: Gregg Press, 1972), 1:fols. 58r f., fols. 46V f.; and in English, Jacobs, Performance, 1:117-118, 152.
Four Italian authors, Zacconi, Viadana, Cima and Banchieri, also distinguish between accenti e trilli on the one hand and passaggi on the other. Their instructions are all directed at singers. Unfortunately they do not clearly define the terms accenti and trilli, except for stating that they are short ornaments.  

In Girolamo Diruta's *Il Transilvano Dialogo* (1593) and *Seconda Parte del Transilvano Dialogo* (1609), however, no clear distinction between the two groups is made. In Part One of the *Transilvano*, *groppi* and *tremoli* are described in detail in a section which deals with diminutions. In Part Two, the first book is devoted to the art of intabulation by means of diminutions, and five kinds of diminutions are described with which to intabulate: minuta, groppo, tremolo, accento and clamatione. By their nature, the first two are in the category of passaggi, and the last three are specific ornaments. The tremoli and groppi are further singled out as diminutions which can be used under special circumstances, where only sparing use of diminution is desired.


32 Ibid., p.257.
The first canzona is in quick notes and has stretto imitations. One who would want to embellish it would only take away from its charm. You cannot use any diminutions except tremoli and groppi. The other canzona I shall partition and intabulate with diminutions of every description so that you can see on which notes they are done.

If one compares this with Bermudo's statement above, a similarity emerges: specific ornaments such as the redoble, tremolo and groppo are sometimes admitted where glosas or passaggi are undesirable, and as such can be classified separately.

The nineteenth chapter of Praetorius' *Syntagma Musicum* vol.3 (1619), is devoted to a codification of the elements that comprise diminutio. He was influenced by the Italian treatises, as he readily concedes, declaring that the greatest aids in his study had been *Le Nuove Musice* of Caccini and the *Regole* of Bovicelli. To Praetorius, the elements of diminutio are diminutiones, modulos, coloratura, accentus, trilli, groppi and passaggi, as the following excerpt attests:

He must know how to handle Accentus artistically and with taste, and to introduce Coloratura (called Passaggi by the Italians) ... how to express the Accentus and affectus; also the Trillern, Gruppen and other Coloraturen. A singer must know the science of making Diminutiones (generally called Coloratura) ...

Praetorius then proceeds to divide diminutions into two classes, those that move by step, and those that move by steps and leaps:

There are different kinds and styles of diminutiones: those that move by step, as Accentus, Tremolo, Groppi and Tirata. The Diminutiones which do not move by step are Trillo and Passaggi.

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34 Ibid., pp.229, 230, 232.
The term *passaggi* is further defined as:

... rapid runs made both by step and skip filling up any interval, which ascend as well as descend. They are placed and made on notes of longer values.

Praetorius is the only author to classify *diminutiones* in this manner, i.e. by their intervallic structure. (Yet there is a small contradiction, as there are a few examples of *Accentus* which move by step as well as by leap.) The term *passaggi* is used by Praetorius for a special category, namely for passages that are not easily classifiable, as he gives no notated examples. Praetorius' classification is in broader terms much the same as those of most sixteenth-century authors, although he is more specific. The *accenti*, *tremoli*, *groppi* and *tirate* are specific in shape, codified by name and placed on one note, whereas the *passaggi* are of non-specific shape, are all codified under one name, and are placed on longer note values. Moreover, they move by step as well as by leap, thus according with the definition of 'large' ornaments.

1.3 The Earliest Records of Ornaments

The earliest description of an ornament or ornamental formula dates back to the thirteenth century. In *Tractatus de Musica* Hieronymus de Moravia describes an ornament for performance on the organ under the term *flos harmonicus*, unfortunately without notating examples. It is performed by depressing or holding the main note for a length of time, while rapidly repeating the upper auxiliary. Three different styles of performance are mentioned, the differences concerning the distance between the held note and the upper note, and the speed of execution. The first type, *flos longus*, is made with the upper semitone added in slow reiteration.

The *flos subitus*, with the same semitone, commences slowly, but has the reiteration accelerating to a rapid tempo. The third type, *flos apertus*, is performed with the upper whole tone and is moderately fast. The term for the reiteration is *vibrationes*; it suggests the repeated striking and release of the ornamental note. The performance may approximate this:

Ex. 1.8

Some of the earliest ornaments indicated by sign are found in the German organ tablatures of the fifteenth and early sixteenth centuries, assuming that one disregards the circles above notes in the *Robertsbridge Codex* (c.1320), since there is no evidence that these were intended as ornaments. The ornaments of the German organists are indicated by a sign consisting of a little loop attached to the lower stem of the note: \( \uparrow \) \( \uparrow \). A compound sign for the chromatically altered ornament appears thus: \( \uparrow \) \( \downarrow \) \( \uparrow \) \( \downarrow \). This sign occurs in great numbers in both the *Fundamentum Organisandi* of Conrad Paumann (1452) and the *Buxheim Organ Book* (c.1470). In these sources, the sign appears mostly in connection with two melodic formulae:

Ex. 1.9

A similar sign \( \downarrow \) is described as *mordente* in Buchner's *Fundamentum* (c.1520). This is a treatise on composition as well as a collection of organ pieces. Buchner describes it thus:


\[ \text{40 Buchner, Fundamentum, pp. 12-13.} \]
In this example you see certain notes on the staff which have a downward line; some of these notes have a curved tail, like this: ☼, other are crossed in this manner: ☼; keep in mind that the notes with curved lines are called mordentes and observe that always two notes have to be struck simultaneously, namely the one marked by the curved line with the middle finger, its lower neighbour with the index finger which, however, must be quickly repeated. The oblique crossed line indicates its raising by a semitone.

In modern notation, this description approximately corresponds to the following:

Ex. 1.10

\[ \begin{align*}
\text{Ex. 1.10} \\
\text{3--} & \\
\text{Q4g;} & \\
\end{align*} \]

This ornament is found in the context of the two melodic formulae above, and also on single notes of longer duration. Sixteenth-century variants of the term mordente are mordant (Ammerbach, 1571) and murdant (Kotter). Kotter gives no verbal description, but includes it in his Fundamentum (c.1513) as murdantes, thus: 41

\[ \begin{align*}
\text{J} & \\
\text{J} & \\
\end{align*} \]

Symbols indicating ornaments are rare outside Germany. In Italian lute music, symbols occur in the Capirola Lute Book; Vitali, who copied this in 1517, added ornament signs to the music and gave a description of how they ought to be played at the beginning of the book. Dotted red numbers are used to indicate that the upper auxiliary must be repeated, and two dots above the fret number (called tremolo sun tast o sollo - a tremolo on one note) imply an alternation between the first fret and the open string, which amounts to using the lower auxiliary. 42 In the second edition of the


Intavolatura di Lauto dell Divino Francesco da Milano et dell' eccelente Pietro Paolo Borrono (1548), signs are added, together with performance instructions. The signs consist of two half circles, or parentheses ( ) which isolate the two notes of the tremolo. The execution is described as a short alternation of the main note with its upper auxiliary.43

Another Italian source, Ganassi's Fontegara (1535), supplies a table of tremoli, with fingering for almost every note on the recorder. The tremolo, indicated by 't', can be made with a semitone, a whole tone or a third:44

The tremolo in thirds is a lively ornament; the interval may be larger or smaller than a third. The semitone tremolo, on the contrary, is a gentle and charming ornament;... Between these two, as a medium ornament, is the tremolo of a whole tone ...

In addition, the lively ornaments are marked with 'v' (vivace), and the gentle ones 's' (suave). No precise performance indication is given, but the chart of fingerings suggests that all begin with the main note, and alternate with the upper semitone, or whole tone or third.

In the Polish manuscript, Tabulatura De Lyublyn Canonicorum Regularium de Crasnyk 1540, the sign is used.45 It could have the same meaning as that of Buchner. Two other signs appearing here are:

Ex.1.11

43 Poulton, Early Music, p.108.
44 Ganassi, Fontegara, p.87.
Parallel passages which have been written out suggest that their interpretation is:

Ex. 1.12

The main characteristic of these ornaments is that they are graces of the alternating type; from this evidence it seems that ornaments such as the slide and appoggiatura (non-alternating) were not yet in use. The other feature emerging from the ornaments just described is the nature of the pitches involved in the melodic shape of each ornament. Except for Ganassi, who also gives examples using the upper third, the main note and upper auxiliary, or the main note and its lower auxiliary, are the constants. The German sources mention the lower auxiliary only. Although the Italian sources employ both the upper and the lower auxiliary, the latter appears in only one source of lute music. It would seem that the ornament with the upper note was favoured, as, indeed, Hieronymus de Moravia had described it already in the thirteenth century. These early tremoli or mordentes may thus be regarded as the first individual ornaments in the literature. But for those discussed in 1.4, the only remaining ornament signs derive from English sources.

1.4 Ornamentation Practice on the Continent Contemporary with the FVB

The following account presents the commonly used standardized ornaments, with the emphasis on those related to keyboard performance. The information is derived primarily from theoretical sources and from music of the period in which these ornaments are found in written-out form. Certain melodic figures which occur so often as to be regarded as ornaments, are also included. In Spanish music, ornament signs are virtually absent, and in

46 White, CEXM VI, p.viii.
Italian music they are used with restraint. The ornaments were intended to be played spontaneously by the performer, a fact which must account for the numerous treatises written on the subject. The cadential ornamentation is almost always written out as part of the musical text, while ornaments such as the tremolo are only occasionally written out in full. The most detailed terminology and descriptions are provided by Tomás de Sancta Maria (1565), Girolamo Diruta (1593, 1609) and Michael Praetorius (1619). Sancta Maria represents the Spanish practice, and Diruta and Praetorius the Italian. There is no surviving French documentation for keyboard performance practice of this period, and apart from Praetorius, few details concerning German ornamentation.

One should note that the information in the treatises may reflect personal preferences of the author and therefore cannot be accepted unconditionally as representative of the general practice of the period or even a particular country. The ornaments described may also have been modified by musicians who varied them or invented others. The reverse may also be true, as the treatises often reflect the more standardized ornaments and general practice, as opposed to the individual wishes of composers or performers.\(^{47}\) The reliability of at least Diruta and Sancta Maria is undisputable, as they were known to famous musicians of the time. Sancta Maria's treatise was examined and approved by the great blind Spanish organist and composer Antonio de Cabezón and his brother Juan. Although published only in 1565, it had already been ready for publication by 1557.\(^{48}\) Juan Bermudo's Declaración (1555) has a preface to the Libro quinto in the form of a letter of recommendation by Cristóbal Morales, a contemporary composer of high rank. In it he praises Bermudo for a text which parallels the practice.\(^{49}\)

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47 For a discussion, see Soehnlein, Transilvano, pp.13-28; and Neumann, Ornamentation, pp.9-75.
49 J. Bermudo, Declaración, n.p.
Diruta's treatise is introduced by his teacher, Claudio Merulo, whose method Diruta admits to be propagating. Merulo states:

... he has treated in an entirely skillful and first-rate manner, everything that one must know in the realm of practice ... every diligent student who values understanding the order of diminutions with which my intabulations deal should strive to have the abovementioned book.

Il Transilvano codifies the culmination of the Venetian school of playing as represented by Merulo, the Gabrieli and Padovano, and it is also the first method in Italy written specifically for keyboard players, whereas the Spanish counterparts address a variety of instrumentalists such as keyboard, harp, guitar and vihuela. Diruta's ornaments were, in fact, still employed by Praetorius in 1619. (Even though he does not acknowledge the source, the tremoli and groppi of Praetorius are the same as those of Diruta.) Praetorius further describes ornaments in terms of both keyboard and vocal performance. Correa de Arauxo's Facultad orgánica (1636) is mentioned here to complete the overall view of the Spanish practice, although he may not have had any influence on the English Virginalists.

1.4.1 Tremolo

A tremolo consists usually of two or more alternations of the principal note with the note above, and sometimes of the principal note with the note below. Diruta condemns the use of the lower note: according to him only organists play it in that manner, whereas on the viola, violin, lute and other instruments the upper note is used. Praetorius also recognizes two forms of the tremolo, but his condemnation of the lower note tremolo is less harsh:

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50 Soehnlein, Transilvano, pp.96-97.
51 Diruta, Transilvano, fol.10; Soehnlein, Transilvano, p.157.
52 Praetorius, Syntagma, p.235.
Tremolo, or Tremulo: is nothing other than a quivering of the voice over a note. Organists call it Mordanten or Moderanten.

Praetorius' statement that the German organists equate the tremolo with the mordant, had been preceded by Ammerbach's Orgel oder Instrument Tabulatur (1571), which declares that mordanten are performed by alternating a note with its neighbour. The term trillo existed at the same time and was applied to both alternation and tone repetition. The alternating type is identical to the tremolo, and is called trillo by keyboard composers such as Valente, Frescobaldi and Trabaci. The trillo made by tone repetition is described by Caccini as a vocal ornament, a controlled vibrato of the throat on one note, gathering speed towards the end:

Conforto's pattern for the trillo is a combination of both types:

Diruta gives the most detailed account of how and when tremoli should be performed. They must be played 'with lightness and agility', and they take up half the value of the note upon which they are made. In order to perform them successfully two things must be borne in mind: the rapidity with which the

54 Caccini, Nuove Musiche, fol. B ii.
55 Conforto, Breve, p.25.
notes are played, and the name, tremolo. According to the translator, Soehnlein, the latter remark may well imply a certain freedom of execution, as the verb tremolare means to tremble or quiver, which implies irregularity. Tremoli ought to be used to begin a ricercare or canzona, 'or wherever else you wish'. Where the one hand plays a single part, and the other has chords, the single part must be adorned with tremoli. Diruta also remarks that 'with due regard for convenience and the discretion of organists ... the tremolo, executed with lightness and at the right moment, can adorn all of the playing and gracefully bring the harmony to life.' These remarks imply that tremoli were the most frequently used ornaments of the time, their function being simply to add elegance to the music.

Tremoli are made on minims, crotchets and quavers, but not on semiquavers, because of their great velocity. Diruta's examples occur on ascending, but more frequently, descending notes:

Ex. 1.16  Tremoli on minims

Diruta's fingering for tremoli in the right hand is 2 3 and 3 4, and in the left hand they are played with 3 2 and 2 1:

Ex. 1.17

The custom of indicating tremoli by sign was still rare at the end of the sixteenth century. In vocal music Bovicelli (1594)

56 Diruta, Transilvano, fols.10,10V; Soehnlein, pp.157-158.
57 Soehnlein, Transilvano, p.158.
58 Diruta, Transilvano, fol.10V; Soehnlein, p.159.
59 Diruta, Transilvano, fol.10V; Soehnlein, p.160.
60 Soehnlein, Transilvano, pp.157, 159.
used the symbol ^ above notes to denote a *tremolo*,\(^61\) while
Cavalieri (1600) employed 't' for a *trillo* of the alternating
variety:\(^62\)

Ex. 1.18

In keyboard music Valente was the first to use 't' for a *trillo*:\(^63\)

... it is necessary in some cadences to apply the
trillo, for clarity, you can see how in the example ...

The t above the g in the right hand represents nothing
but that the said key requires the trillo ...

Ex. 1.19

This direction to play the *trillo* in a cadence is an exception
among sixteenth-century writers. Examples of *tremoli* with a
suffix at cadences (outside the Neapolitan school), are found in
the keyboard compositions of Erbach and Pasquini.\(^64\)

As Valente gives no notated example of this *trillo*, one cannot
be certain whether he expected the same pattern in cadences
as elsewhere, for as a rule he writes out the cadential embel-
lishments in the typical *groppo* pattern.\(^65\) It is therefore

\(^{63}\) Antonio Valente, *Intavolatura de cimbalo* (Naples, 1576),
\(^{64}\) Christian Erbach, *Collected Keyboard Compositions*, ed. by
C.G. Rayner, *Corpus of Early Keyboard Music* XXXVI, no.1
(1971), p.45; and Ercole Pasquini, *Collected Keyboard Works*,
ed. by W.R. Shindle, *Corpus of Early Keyboard Music* XII
(1966), pp.31,33,42.
\(^{65}\) See Ex.1.27.
likely that he required the trillo starting on the main note, in cadences whenever he indicates it. These 't'-signs in cadences appear in the same context as those written out, as can be seen in this example:

Ex.1.20 Valente, Ricercar in Mode 1, b. 26,65,115

Valente employs the 't' in many contexts and on note values ranging from \( \text{\textit{}} \) to \( \text{\textit{}} \), also occasionally on \( \text{\textit{}} \). The first theme of a ricercare is often embellished with 't'-signs, which is in accordance with Diruta's directions.

A later publication connected with the Neapolitan school, Ascanio Mayone's Secondo Libro di Diversi Capricci (1609), gives many written-out examples of groppi commencing on both the upper and the main note, as well as trilli, in cadences. Many examples of the sign 'tr' appear in Neapolitan keyboard music between 1580 and 1600. A later source also introduces the 't' for trillo, which is in fact an alternating tremolo: Trabaci's Ricercate (Napels, 1603). In the Secondo libro (1615), Trabaci terms a trillo with suffix a trillo doppio, and illustrates it thus ('t+'): 

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69 Giovanni Maria Trabaci, Ricercate, canzone Francese, capricci, canti fermi, book 1 (Napels, 1603), Secondo libro de ricercare (1615); in Neumann, Ornamentation, p.291.
The trillo doppio strengthens the above interpretation of Valente's trillo in cadences, whereas the 't_' is a manifestation of the contemporary composer's freedom to invent new signs and ornaments. The trillo in cadences was most likely an innovation of the Neapolitan keyboard school; similar evidence is lacking in the Venetian school. Also, the latter uses the term tremolo and never trillo.

1.4.2 Tremoletto

The tremoletto is a short tremolo which consists of one, or sometimes two, alternations of the principal note and its upper neighbour. It is encountered in both dactylic (~) or more typically, anapestic (~) form. Praetorius says that it is 'better suited to the organ and harpsichord than to the human voice.' The tremoletti are made on crotchets and quavers, on notes which ascend or descend by step. Diruta observes that they are particularly associated with descending passagework which moves by step, and as such can fall on, before, after or even between the notes which they decorate. He nevertheless warns that these latter tremoletti are more complex than the others and should therefore not be attempted by the inexperienced player:

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70 Praetorius, Syntagma, p.235.
71 Soehnlein, Transilvano, pp.161-163. These anticipated tremoletti occur frequently in Merulo's Canzoni.
Diruta favours the use of the tremoletto with the alternating upper note; he gives no example employing the lower note. Similarly, Praetorius illustrates only upper-note tremoletti, using them in both ascending and descending contexts, and in anapestic and dactylic rhythms:

Ex. 1.23

These dactylic tremoli and tremoletti appear written out in both Italian and Spanish sources as part of the keyboard figuration. In Merulo's Canzoni, the tremoletti occur in both ascending and descending passages, although the latter occur more frequently.

There is considerable latitude regarding the fingering of tremoletti. Diruta says:

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72 Praetorius, Syntagma, p.235.

73 C.M. McDermott, The 'Canzoni d'Intavolatura' of Claudio Merulo (Ph.D. dissertation, University of California, Berkeley, 1979). For examples of tremoli in ascending passages see pp.30, 33, 46, 49, 50, 72, 90, 102, 126.

74 Soehnlein, Transilvano, p.162.
When you come to a tremoletto on any note, you must do it with the finger that falls on it... because with these kind of tremoli, you need not follow the rule for good or bad fingers.

This deviation from the rule of 'good' and 'bad fingers' in the case of tremoletti is justified by the speed of the smaller note values, a fact substantiated by Finck, Ganassi and Ortiz in their treatises. Diruta nevertheless remarks later that 2 3 in the right hand is better on 'good' notes, and 3 4 on the 'bad' notes. When the tremoletto falls on a syncopated note or two repeated notes, one should choose the fingers more convenient for continuing the passage.

1.4.3 Mordent

The mordent, in its commonest form, consists of an alternation between the principal note and its lower neighbour. It was a favoured ornament of the early sixteenth-century German organists, who indicated it by sign and called it mordant. The later sixteenth century presents a confused picture of this ornament, as the sources do not always agree.

Two types occur:

(i) The short mordent, which is used in ascending passages on short note values.

(ii) The mordent which can occur on any note value and may be long or short, and which is not bound to any specific context.

Neither of these mordents is distinguished by name from its upper-note counterpart, the tremolo, except by Sancta Maria, who calls the rising and descending type quiebro sencillo.

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75 Soehnlein, Transilvano, p.207.
76 Ibid., p.164.
77 Apart from Buchner's explanation, little is known about its interpretation.
Praetorius terms the second type *tremulus descendens*. Ammerbach’s description of the *mordant* in 1571 applies to the first type:  

Mordanten are done by alternating a note with its neighbour, and if properly used give grace and sweetness to the song. They are of two kinds, rising and falling ...

Ex. 1.24

In Spain, Sancta Maria describes it identically, giving it the name *quiebro sencillo*, to distinguish it from the longer reiterated *quiebro*. Hernando de Cabezón calls the same ornaments *quiebro*, but does not elaborate on the context in which they should be used.

The Italian sources indicate a dislike for the *tremolo* with lower auxiliary, which, according to Diruta, was reserved for organ music. The dual nature of the *tremolo* is confirmed by Praetorius, who also draws attention to the fact that it is known as *mordant* to the Germans. At the same time he echoes Diruta’s dislike of the *tremulus descendens*. In accordance with their comments, both Diruta and Praetorius consistently give examples employing only the *tremulus ascendens* in both ascending and descending passages. Praetorius’ *tremulus descendens* can be seen as the first clear example of the mordent as an independent ornament not connected

78 Rodgers, *Fingering*, p.196.
79 See 1.4.10.
80 See 1.4.1 and 1.4.2.
81 An exception occurs where Diruta writes a mordent in a descending passage: see Soehnelin, *Transilvano*, p.162. In the *Toccata dell'undecimo et duodecimo tono*, Diruta writes out one mordent in an ascending passage (b.3), and two in a descending passage (b.23,25); see L. Torchi, ed., *L'arte Musicale in Italia*, vol.3 (Milan: Ricordi, 1897), pp.167,169.
with either an ascending or descending context. 82 The only other sources which describe the mordent thus are Bermudo, who calls it a redoble, though he uses one name for both the upper and lower note type, and Correa, who calls it a simple quiebro. Significantly, Bermudo states that this ornament was not approved by some players, who regarded it as 'ungraceful', thus echoing Praetorius' sentiments. In Merulo's Canzoni d'Intavolatura for organ the mordent makes rare appearances, usually in ascending passages, and in one example the opening note of a canzona is embellished with a mordent. 83 Correa also advises that the simple quiebro be used at the beginning of works. 84 As a vocal ornament, it appears in Cavalieri's table of 1600 as a monachina: 85

Ex.1.25

Mordents are also found in Bovicelli's Regole. 86

1.4.4 Groppo

The groppo, first labelled thus by Dalla Casa in 1584, stems from the diminution of original note values. It is used 'in cadences and formal closes and is to be played more crisply than the tremolo'. 87 Its typical function is structural, as

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82 I.e., disregarding the early sixteenth-century German mordant.
83 See McDermott, Canzoni, p.14 b.7, p.31 b.9, p.51 b.4, p.66 b.4, p.6 b.1.
84 See 1.4.10.
85 Neumann, Ornamentation, p.24.
86 Bovicelli, Regole, pp.17,43,65,67,80,81. See Pasquini, CEKM XII, p.30, where a mordent on a long note value appears.
87 Praetorius, Syntagma, p.236.
it ornamentally resolves dissonance as an embellishment of the characteristic progression of the discant close: 88

Ex. 1.26

The typical groppo consists of two or more alternations of the suspended dissonance (i) and its resolution (the subsemitone) (ii). It reaches the final note via a two-note figure by first touching the note below the note of resolution (iii):

Ex. 1.27

The cadential groppo is made with quavers, semiquavers, demisemiquavers or mixed values, and is often introduced by an elaborate passaggio: 89

Ex. 1.28

Groppi in Accadentia

The groppo sometimes lacks an upper-note start, and is then prepared by the subsemitone. All of Praetorius' examples are prepared in this manner, whereas Diruta uses both forms: 90

88 John Dowland, Andreas Ornithoparcus his Micrologus, or introduction containing the art of singing (London, 1609), facs. reprint (New York: Da Capo, 1969), p. 84. See also 4.2.2.
89 Diruta, Transilvano, fols. 9v-10.
90 Ibid., fol. 9v.
Both forms are also encountered in the treatises of Bovicelli and Dalla Casa. Praetorius' remark that groppi ought to be played more crisply ('Scherffer') than tremoli, did not pass unchallenged at the time. Dalla Casa implies the existence of unmeasured groppi where he gives an example of a groppo battuto (measured groppo),\(^1\) and Zacconi states that the two notes of a groppo may be repeated as often as time allows.\(^2\) Unmeasured groppi could possibly begin slowly, then accelerate, as Praetorius' example suggests:\(^3\)

Ex. 1.30

Cavalieri's groppolo suggests unmeasured performance, as there are nine semiquavers to the value of a minim. Indeed, it resembles a tremolo with an added suffix rather than an upper-lower note alternation design:\(^4\)

Ex. 1.31

Diruta's fingering for the cadence groppi is: right hand 4 3, left hand 2 3 or 1 2, whichever is the more convenient.\(^5\)

\(^1\) Dalla Casa, Il vero modo, 1:6-7.


\(^3\) Praetorius, Syntagma, p.236.

\(^4\) Neumann, Ornamentation, p.288.

\(^5\) Soehnlein, Transilvano, p.156.
The *groppo* was not only employed in cadences. Diruta writes: 'they are found in different ways ... ascending, descending.'

This is also observed from the examples where the cadence *groppi* are labelled *Groppi in Accadentia*, while the others have no designation. Judging from his examples, consisting of crotchets, quavers and semiquavers, these *groppi* have a different function to those used in cadences. They are actually free diminutions which fill up intervals, and their tempo increases from slow to fast. Such designs stand midway between the typical *groppo*-figures and the freer diminutions (*passaggi*), and they usually include some element of alternation:

Ex.1.32

![Ex.1.32](image)

A third type of *groppo*, of which the last two notes ascend, is also demonstrated by Bovicelli:

Ex.1.33

![Ex.1.33](image)

Conforto calls a similar figure *groppo di sotto*. This figure is used extensively to fill in intervals, often rhythmically varied, especially by Merulo and Gabrieli.

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98 Conforto, *Breve*, p.25.
99 For examples by Merulo, see McDermott, *Canzoni*, pp.49,66, 75,76,82,103; and by Gabrieli, see Torchi, *L'arte*, pp.61,67,77.
1.4.5 **Groppetto**

An important variant of the *groppo*, in which the last two notes descend, will be called *gruppetto* in this study, after Bovicelli. Praetorius calls it *gruppo*, and gives an example in *Syntagma*:  
Ex.1.34

Caccini likewise calls it *gruppo*. This type of *groppo* often fills in the interval of either a third, fourth or fifth. Occasionally it appears as a diminutio of a *tirata* (here a" descending to f"), especially in the *passaggi* preceding a *groppo*:

Ex.1.35

The *gruppetto* may also immediately precede an ordinary cadential *groppo*, so that they are distinguished from each other with difficulty:

Ex.1.36

Schwandt sees it as an ornamented *tirata*:

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101 Praetorius, *Syntagma*, p.239.  
102 Caccini, *Nuove musiche*, fol.c.  
104 Schwandt, *Clausula*, p.28.
Tirata are 'long and rapid little runs up or down the keys, and are conjunct.'\textsuperscript{105} They are usually made of quavers or shorter note values, and consist of stepwise ascending or descending notes in diatonic succession. Tirata are played as rapidly and crisply as possible: 'The faster and crisper they are, the better':\textsuperscript{106}

\begin{ex}
\begin{music}
\newStaff
\time 1
\key f\major
\newKeyline
\newTie
\newRest
\newDottedRest
\newDottedRest
\newDottedRest
\newDottedRest
\newDottedRest
\newDottedRest
\newDottedRest
\end{music}
\end{ex}

They serve to connect the ends of phrases, and fill up the time of longer notes, link up disjunct notes and expand close intervals, for example, converting a second into a ninth:

\begin{ex}
\begin{music}
\newStaff
\time 1
\key f\major
\newKeyline
\newTie
\newTie
\newRest
\newRest
\newRest
\newRest
\newRest
\end{music}
\end{ex}

Because the tirata may descend by step, it often becomes the model upon which tremolotti are made:\textsuperscript{107}

\begin{ex}
\begin{music}
\newStaff
\time 1
\key f\major
\newKeyline
\newTie
\newTie
\newRest
\newRest
\newRest
\newRest
\newRest
\newRest
\newRest
\end{music}
\end{ex}

\textsuperscript{105} Praetorius, Syntagma, p.236.
\textsuperscript{106} Ibid.
\textsuperscript{107} Soehnlein, Transilvano, p.161.
This is confirmed by Diruta, who declares: "Signor Claudio introduces (tremoletti) into his tirate in the Canzone alla Francese."

### 1.4.7 Accento

The **accento** is an ornament of variable shape, but never of the alternating type. It can consist of one or more ornamental notes. The sources suggest that the **accento** was generally associated with vocal music. Praetorius describes it only in terms of vocal performance: 'Accentus results when the notes of the following patterns are drawn into the throat.',

It was nevertheless employed as a keyboard ornament, as illustrated and codified by Diruta. He gives no detailed description, but simply explains it as a vehicle with which one can make diminution:

Ex.1.41

From the example above, the basic melodic line upon which this **accento** is made, can be derived thus:

Ex.1.42

The **accento** therefore takes the form of an ornamental note occurring between two stressed consonant notes. This same pattern was still in use a century later in French music, where it was

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108 Diruta, *Transilvano*, p.20
known as an accent: 111

Ex. 1.43

One source which deals with abstract diminution patterns for all kinds of instruments, is Richardo Rogniono's Passaggi per potersi essercitare nel diminuere. It includes an example similar to Diruta's accento: 112

Ex. 1.44

Rogniono offers related patterns which fall between beats and are made with one ornamental note: 113

Ex. 1.45

Zacconi discusses an accento (only in terms of vocal performance) applied to the intervals of a third, fourth and fifth: 114

112 Richardo Rogniono, Passaggi per potersi essercitare nel diminuere (Venice, 1592), Part II: Il vero modo di diminuere, pp.17-18; and Neumann, Ornamentation, p.97.
113 Rogniono, Il vero modo, pp.17, 20, 22.
114 Zacconi, Prattica, 1:fol.56r.
Two other *accento*-type ornaments discussed in terms of vocal performance are Cavalieri's *Zimbalo* (1600) and Caccini's *Ribattuta di gola* (1601), which are identical: \(115\)

Ex.1.47

As mentioned earlier, *accento* was used by authors such as Zacconi and Viadana as a general term for a variety of small ornaments, to distinguish them from *passaggi*. These *accenti* assume variable shapes and may consist of one to four or five notes. Praetorius illustrates such *accenti* which embellish the unison, as well as the intervals of the second, third, fourth and fifth, both ascending and descending. His examples, taken from Bovicelli's tables of interval diminutions, show both onbeat and interbeat designs: \(116\)

Ex.1.48

Banchieri offers a pattern related to (a) which is called *accenti*. \(117\) Bovicelli is the earliest theoretical source

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117 See Ex.1.52.
to introduce the single-note, onbeat *accento*. Nothing comparable can be found in contemporary treatises: 118

Ex.1.49

Bovicelli's examples appear only in stepwise ascending passages, not in descending ones, nor in intervals larger than the third. The onbeat *accento* is the forerunner of what was to become the Baroque appoggiatura, as its function differs from that of other *accenti*, and indeed other Renaissance ornaments, in that it has an effect on the harmony. This development had its roots in the relationship between words and music - both Zacconi and Bovicelli stress the importance of the text in the choice of an ornament - and this might be an explanation for the absence of a description of such ornaments in terms of instrumental performance during this period. 119

1.4.8 The Slide

The slide - a term not used in the late Renaissance - consists of two or three ornamental notes rising diatonically from below to the principal note. Diruta is the first to describe it as a keyboard ornament, termed *clamatione*. 120 It consists of a dotted note on the beat, followed by a shorter note, leading to the main note as in the example:

Ex.1.50

In his embellishments of a canzona by Antonio Mortaro, Diruta employs a prebeat slide in addition to the others:\footnote{121} Ex. 1.51

\begin{verbatim}
\end{verbatim}

In his interval diminutions Banchieri illustrates onbeat slides spanning the interval of a third under the heading \textit{accenti}:\footnote{122} Ex. 1.52

\begin{verbatim}
\end{verbatim}

Slide-like patterns are frequently encountered in the interval diminutions of Rogniono. He features such prebeat slides appearing in both rising and falling contexts:\footnote{123} Ex. 1.53

\begin{verbatim}
\end{verbatim}

Although not known by a specific term, the slide was used extensively as a vocal ornament. Bovicelli presents prebeat and

\footnote{121} Diruta, \textit{Seconda parte}, p. 181.
\footnote{123} Rogniono, \textit{Il vero modo}, pp. 11, 25, 30.
onbeat slides in dotted rhythm as patterns for the unison and rising second to sixth intervals. The descending fourth shows anticipated slides only, of which one is undotted.\footnote{124} Praetorius reproduces Bovicelli's patterns under the term \textit{accentus}. Bovicelli frequently employs the onbeat dotted slide to begin a piece, the embellished motets in \textit{Regole} being proof of this.\footnote{125} In 1601 Caccini acknowledged this practice as being in common use, but he nevertheless criticized the lengthened first note of the ornament; his personal preference is that the third under the principal note should be played rapidly.\footnote{126} Diruta's keyboard intabulation of Mortaro's canzona confirms the vocal practice of starting a piece with a slide. Both the statement of the subject and the entry of the alto are embellished in this manner:\footnote{127}

\begin{quote}
Ex.1.54 Diruta, Intabulation L'Albergona, b.1-2

\begin{enumerate}[\tabitem]
\item The second entry with its resulting dissonance apparently did not bother Diruta. Caccini on the other hand, says that the \textit{intonazione} (his term for slide) often does not suit the harmony and should therefore not be used; clearly this is an indication that Caccini rejected dissonant slides.\footnote{128}
\end{enumerate}
\end{quote}

\begin{footnotes}
\begin{itemize}[\itemsep=0pt,\topsep=0pt,\parskip=0pt,\partopsep=0pt,\itemindent=0pt]
\item[\footnote{124}]
\item[\footnote{125}]
Ibid., pp.38,42,47,59.
\item[\footnote{126}]
\item[\footnote{127}]
Diruta, \textit{Seconda parte}, p.18; and in Soehnlein, p.263.
\item[\footnote{128}]
\end{itemize}
\end{footnotes}
Slides rarely occur in German and Spanish keyboard sources of the sixteenth century, and then, characteristically, not as ornaments, but as part of the written-out keyboard diminutions. In Italian keyboard literature they appear in dance music. They are, however, not found in the earlier collections which were published at mid-century. Marco Facoli's *Il Secondo Libro Intavolatura di Balli* (1588) and Giovanni Radino's *Il Primo Libro d'intavolatura di Balli d'Arpicordo* (1592) are the first Italian sources to contain an abundance of written-out slides. Both books appeared late in the sixteenth century. Here the slides are used indiscriminately on strong and weak beats, and often occur on ascending intervals of a second.

1.4.9 Minuta

Diruta alone mentions the minuta, indicated by the sign 'm'. The only description given is that it 'goes on to the following note by step or by leap'. In its most typical form, it departs from and returns to the note that it embellishes. This is done with even quavers or semiquavers, relying mainly on stepwise motion and up and downward skips of a third. As it retains the original consonances of the notes embellished,

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the minuta is an example of strict diminution (il diminuere osservato). 132 It can be classified as a fixed type of diminution, i.e., a passaggio of a more or less stereotyped shape, rather than as an ornament. Diruta's examples clearly illustrate this, as the minuta's continual movement breaks up an entire melodic line, whereas an ornament appears only on one note as occasional decoration. The examples given by Diruta vary slightly, though within the framework of the abovementioned characteristics. The most typical minuta consists of two groups of four notes each. The first group is contoured thus •••••, while the second follows a related pattern: •••••. They are used in ascending intervals of the third, and stepwise rising and descending notes: 133

Ex.1.55

Two other patterns appear regularly on stepwise ascending notes. The first resembles a dactylic mordant; the second (and more frequent) is always used when the rhythmic values are ↓.↓: 134

Ex.1.56

132  Soehnlein, Transilvano, p.254.
133  Ibid., pp.263,264.
134  Ibid.
1.4.10 **Quiebro and Redoble**

Two ornaments related to the tremolo are found in Spanish sources: the quiebro (from quebrar: to break) and redoble (literally 'redouble'). These two are related to each other, but are yet distinct, for the redoble incorporates one note below the main note. Sancta Maria presents the most detailed account of these two basic ornaments: 135

Ex.1.57

According to him there is only one kind of redoble and that is always made with a tone and semitone. It may involve the tone below and the semitone above or vice versa. Redobles which involve two tones are prohibited: 136

Ex.1.58

The right hand fingering for these is: 32343, and for the left hand 23212/34323. The redoble may be confined to the first four notes, but the appendage of alternating main and upper notes would then be omitted. The redoble is applied only to entire bars, and is thus appropriate for ornamenting semibreves. Sancta Maria points out that the ornament should not be made too long, for it is then less agreeable. 137

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135 Sancta Maria, Arte, 1:fol. 46 ff.; and in Hultberg, Sancta Maria, 1:137 ff.
136 Hultberg, Sancta Maria, 1:139, 2:242.
137 Ibid., 1:137.
Quiebros are divided into two types: the quiebro reyterado (repeated or reiterated) and quiebro sencillo (simple). \(^{138}\)

Ex.1.59

<table>
<thead>
<tr>
<th>Reiterated</th>
<th>Simple</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Descending" /></td>
<td><img src="image" alt="Ascending" /></td>
</tr>
</tbody>
</table>

(a) Descending  (b) Ascending

The fingerings for these are: right hand \(34/23\), left hand \(21/32\). Quiebros are made with either a tone or semitone, except for one kind which uses a tone and semitone. Sancta Maria explains that there are six types of quiebros, of which two are performed on minims and four on crotchets. Although he initially states that quiebros may also be 'performed marvellously on quavers', he later contradicts himself by saying that they are not applied to quavers or semiquavers because of their short duration. \(^{139}\)

For the same reason the repeated quiebro is not applied to crotchets. The one kind of quiebro used on minims is the repeated one which has already been illustrated. The other kind, made up of a tone and a semitone, always has the semitone below and the tone above, starting on the upper neighbour note: \(^{140}\)

Ex.1.60

Sancta Maria also describes 'a new and elegant' way of playing the redoble and repeated quiebro, and recommends them rather than the 'old-fashioned' ones. These new kinds commence with the upper note

\(^{138}\) Jacobs, Performance, 1:153, 2:119.

\(^{139}\) Ibid., 1:153.

\(^{140}\) Ibid., 1:153, 2:120.
which is struck alone, so that the second note is played on the beat:\footnote{Hultberg, Sancta Maria, 1:140.}

Ex.1.61

\begin{figure*}[h]
\centering
\includegraphics[width=\textwidth]{ex1.61.png}
\end{figure*}

The other four types of \textit{quiebros} applied to crotchets (simple \textit{quiebros}) are used in both ascending and descending passages. Two consist of three notes and two of two notes. In ascending passages, both forms may use either a tone or a semitone below and in descending passages a tone or semitone above:\footnote{Ib\textit{id.}, 2:243.}

Ex.1.62

\begin{figure*}[h]
\centering
\includegraphics[width=\textwidth]{ex1.62.png}
\end{figure*}

They are used on alternative crotchets and not successively. Alternate weak beats are the 'better and more elegant way', but they can also fall on alternate strong beats.\footnote{Ibid., 1:143.} The \textit{quiebro} which consists of only two member notes is performed by striking the main note an instant before the ornamental note, and sustaining the main note while the ornamental one is immediately released: '... the second note of the \textit{quiebro} is to be struck so quickly after the first that the two notes almost sound together.'\footnote{Jacobs, Performance, 1:158.} This \textit{quiebro} can be used in ascending and descending contexts, but Sancta Maria recommends that it be performed more often in descending passages, as this is more pleasing to the ear. No examples are given by him, but one can interpret his instructions thus:\footnote{Ibid., 1:158, 2:121.}
Certain exceptions and special rules are added to the information already given. Firstly, the *quiebro* of crotchets for descending passages may occasionally be used in ascending passages, provided that the *quiebro* is performed on a note which precedes a semitone:\footnote{146}

Ex. 1.63

![Ascending and Descending Quiebros](image)

Secondly, in descending passages *quiebros* are sometimes made on two successive crotchets, for grace and elegance. This is justifiable when a semibreve is followed by two descending crotchets:\footnote{147}

Ex. 1.64

![Quiebro Examples](image)

Thirdly, when crotchets first ascend, then descend, the descending form of the *quiebro* is used on the higher note; similarly, when crotchets first descend, then ascend, the lowest note is ornamented with the ascending form of *quiebro*:\footnote{148}

\footnote{146} Sancta Maria, Arte, 1: fol.51r; and in Jacobs, Performance, 1:160, 2:123.
\footnote{147} Hultberg, Sancta Maria, 1:144, 2:244.
\footnote{148} Ibid.
Fourthly, crotchets which follow dotted minims in descending passages are always ornamented.  

Ex. 1.67

Finally, redobles and quiebros on minims may be performed simultaneously or in imitation by the two hands, the latter endowing the music with particular charm.

Sancta Maria's contemporary, Bermudo, in the preface to his first treatise of 1549, declares that he does not 'tell how to execute redobles, as the fashion of playing them changes every day, and because current methods of performance cannot be set down in writing.' In his more comprehensive Declaración of 1555, however, Bermudo discusses redobles, his only term for all the different ornaments. Here he says that redobles can be played in two ways: with either a tone or a semitone, in the mode in which one is playing, this determining the choice of notes on which to ornament.

This rule is not inflexible. The redoble can be made with

149 Hultberg, Sancta Maria, 1:144, 2:244.  
150 Jacobs, Performance, 1:161.  
151 Ibid., 1:165.  
either the note above or the note below, and in both hands simultaneously. He observes that the lower note redoble was held in disfavour by some players, who regarded it as ungraceful.\textsuperscript{153} Bermudo, however, advises that one should learn to use both, as there are occasions where both can be played. It is possible that the lower note redoble referred to here is of the repeated type. (Sancta Maria only gives an example of an upper-note repeated quiebro, whereas the simple type employs both the upper and lower note.)

Bermudo also describes the simultaneous use of redobles. When they occur on the interval of an octave, they cannot be made with the above note only, as this would produce parallel octaves. Instead, when ornamenting the octave, one would use the lower ornamental note on the upper octave note, and the upper ornamental note on the lower octave note, or vice versa. With regard to the intervals of a fifth and third, the example below is self-explanatory:\textsuperscript{154}

\begin{verbatim}
Bermudo does not say whether the ornaments above should be long or short, but the short redobles would resemble the simple quiebros of Sancta Maria. At all times the main and ornamental notes must be consonant. These redobles are performed with adjacent fingers. Bermudo also states that one must learn to play them with any finger, in contrast with the limited finger-
\end{verbatim}

\textsuperscript{153} Johnson, \textit{Spanish Renaissance}, p.86.
Bermudo then describes another redoble, used by 'one of the most distinguished players in Spain', which is made 'with two fingers: one above the beat (i.e. note), and the other below; so that this redoble always remains within (the range of) a third'. Bermudo's remarks can only be interpreted as involving three adjacent fingers, so that the redoble in question resembles Sancta Maria's:

\[ \text{Ex.1.69} \]

This interpretation is further supported by Bermudo's statement:

... The said redoble is a pleasant thing because of the good harmony it makes, principally when one voice enters alone ... Whenever the right hand can remain free with only the soprano to play, it ought to do so in order to be able to perform the redoble.

In the light of this, Johnson's interpretation of this ornament as two notes alternating a third apart, is patently incorrect. The two ornamental notes would not fit the harmony and the main note would not be heard at all when the voice enters on its own.

Luys Venegas, who included many of Cabezón's compositions in his Libro, describes the quiebro only by its fingering. The right and left hand quiebros differ from each other, but Venegas makes no comment on this fact. According to his instructions,

155 Bermudo, Declaración, fol.61.
156 Jacobs, Performance, 1:163-164.
157 Ibid., 1:164.
158 Johnson, Spanish Renaissance, pp.78,81.
the right hand quiebro will approximate the following:

Ex.1.70

This is the same as Sancta Maria's redoble. The quiebro of the left hand would be:

Ex.1.71

It should continue for the full value of the note.\footnote{159}

In the preface to his father's Obras de Música, Hernando de Cabezón also describes quiebros only by fingering. Like Bermudo, he favours the soprano as the ornamented part. In the right hand the quiebro is presumably played with the third and fourth, or second and third fingers:

Ex.1.72

In the left hand it is played with 2 and 3, or 2 and 1:

Ex.1.73

\footnote{159}{Luys Venegas de Henestrosa, Libro de Cifra Nueva para tecla, harpa y vihuela (Alcalá, 1557), facs. reprint in H. Anglés, ed., La música en la Corte de Carlos V, 2 vols. (Barcelona: Instituto Español de Musicología, 1965), 1:159; in Rodgers, Fingering, pp.211-212; and in Johnson, Spanish Renaissance, p.86.}
This is similar to Sancta Maria's simple quiebros. Cabezón also comments on the performance of the quiebros, a topic which is treated only vaguely by other Spanish theorists. They should be played as fast and as briefly as possible, and always with an accent on the main note.\[160\]

Francisco Correa de Arauxo's *Facultad orgánica* was published in 1626, more than sixty years after Sancta Maria's *Arte*, but stylistically he still belongs to the Renaissance. He discusses two kinds of quiebros and two kinds of redobles.\[161\]

Of the former, the first is the simple quiebro which resembles Sancta Maria's simple quiebro for ascending passages:

Ex.1.74

\[\text{\textbf{Ex.1.74}}\]

The second is the repeated or reiterated quiebro, in which, however, there is no repetition:

Ex.1.75

\[\text{\textbf{Ex.1.75}}\]

The simple redoble starts with an inversion of the reiterated quiebro and ends in the same way as Sancta Maria's quiebro reyterado:

Ex.1.76

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\[\text{\textbf{Ex.1.76}}\]

\[\text{\textbf{Ex.1.76}}\]

\[\text{\textbf{Ex.1.76}}\]
The reiterated redoble has an additional lower note appended to the beginning: ¹⁶²

Ex.1.77

The redoble must be used on the penultimate note of unadorned cadences that last one bar or more, and on all unornamented 'greater' or usable semitones that last one bar. (Sancta Maria divides the tone into two unequal semitones; the major or greater one is considered usable and the other unusable. He forbids the use of a quiebro or redoble with the latter, e.g. that above B♭ and E♭, and the semitone below F♯ and C♯.)¹⁶³

Further, the redoble is employed at the beginning of large works on 'mi' (i.e. the semitone between the mi-fa solmization), when playing on the clavichord.¹⁶⁴

The redoble should never be used between two tones, but always between semitones. The quiebro may be used on whole tones, and on the organ, one would always play a quiebro, instead of a redoble, where one voice enters alone. (The sustaining power of the organ generally requires a shorter ornament than the clavichord.) The simple quiebro is used at the beginning of versets or small works, and in the course of such works on unadorned semibreves and minims. They are especially employed in compás mayor (⊕) or fast tempo. In a slow tempo, the simple quiebro may occasionally be applied to crotchets but not to successive ones. In a very slow tempo a quaver followed by semiquavers may be ornamented with a quiebro, but semiquavers are never ornamented. The reiterated quiebro is recommended for the beginning of a long, serious work in a slow tempo, as

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¹⁶³ Jacobs, Performance, 1:174,175.

¹⁶⁴ Jacobs, Correa, p.22.
Correa is remarkable for being the first Spaniard to indicate ornaments by means of a symbol, an 'R' above the note. He stresses freedom in the execution of ornaments, for he says that there is no determined number of notes in a redoble or quiebro. Thus, finally, it appears that composers were free to invent their own ornaments:...

... some masters have invented other redobles, and those I leave for your good education...

This freedom is confirmed by the ornaments written out in Cabezón's keyboard music. Only the redoble and simple quiebro occur frequently, and the redoble often consists of only the first four notes without reiteration. Many of the simple quiebros employ the dactylic rhythm \( \frac{3}{2} \) instead of the usual \( \frac{2}{2} \). The reiterated quiebro is found less often than its inverted form, while both the quiebro of minims and its inversion in semiquavers are often encountered.

1.5 Classification of Ornaments

From the evidence supplied by Renaissance theorists and the music of the period, certain observations can be made. The ornaments described in 1.3 and 1.4 can be classified into three groups, according to their purpose. This aspect is only touched upon lightly in the theoretical sources.

1.5.1 Three Groups of Ornaments

The first group includes those intended purely as decoration, their purpose being simply to add grace and elegance. The

165 Correa, Facultad, fol.xvi - xvi.
166 Jacobs, Correa, p.22.
167 Ibid., p.24.
168 Ibid., p.22.
sources suggest this as the primary purpose of ornaments in the sixteenth century. Ganassi and Diruta specifically mention the tremolo and Ammerbach the mordant in this connection, but the same holds true for most sixteenth- and early seventeenth-century ornaments. These ornaments are occasional decorations and can be made on virtually any suitable note. They are essentially melodic, as the consonances of the notes upon which they occur are retained and therefore the vertical aspect, the harmony, is unchanged.

The second group contains the ornaments which are integrated into the structure of the composition, such as the tirata and the groppo. While they may add grace to the music, they are employed in more specific contexts in a composition. Where the tirata expands the small interval of a second to a larger one, or connects one phrase with another, its function is structural. Similarly, the groppo is employed especially in cadences, where it enhances the structural aspects of the cadence progression. In contrast to the tremolo, the groppo has harmonic significance.

The third group consists of ornaments whose purpose is to compensate for the quick decay of sound on instruments such as the clavichord and harpsichord. One recalls Correa's remark that where a voice enters solo, one starts with a quiebro on the organ and a redoble on the clavichord. The redoble, being the more elaborate ornament, would therefore sustain the sound longer. Diruta suggests the same idea:

... the player should embellish the harmony with tremoli and graceful accenti ... on a quilled instrument ... it is necessary to strike the key more often in a graceful manner ...

Some ornaments were assigned to a particular instrument, without necessarily having to compensate for the acoustical deficiencies of the instrument. Here one has in mind Diruta's and

170 Soehnlein, Transilvano, pp.133-134.
Praetorius' remarks concerning the tremolo with the lower note, which was employed by organists. The point is that the instrument itself may have influenced the player in his choice of ornaments. This is also evidenced in lute ornamentation.

1.5.2 Alternating and Non-Alternating Ornaments

Another mode of classification can be based on the melodic patterns exhibited. Alternating and non-alternating types can be distinguished. The alternating group (1) includes the tremolo, mordant, groppo, redoble and quiebro; this is the largest body of sixteenth-century ornaments derived from one basic form. The non-alternating group (2) includes the accento, slide (clamazione), minuta and tirata. Diruta makes this distinction by implication when referring to ornaments added by the performer as tremoli and accenti. Similarly, it has been seen that Viadana and Cima speak of accenti e trilli. The accenti patterns given by Rogniono, Banchieri and Zacconi never include the alternating type; neither does Praetorius, under the term accentus. The main differences between these groups involve:

- the melodic design: alternating (reiteration involved) and non-alternating (no reiteration);
- group one appears only on the beat, but group two both on the beat and between beats;
- group one exhibits standardized designs, group two not;
- group one is much commoner than group two;
- the ornaments of group one involving the main and the ornamental note are melodic (except for the groppo) as they do not alter the harmony of the note on which they occur; group two may also be melodic, or it may introduce dissonance into the harmony.

Group one can be further subdivided: the main note - ornamental note type (e.g. tremolo), and the ornamental note - main note type (e.g. groppo). These two ornaments are the ones most
commonly found, both in the treatises and the music of the period, vocal as well as instrumental. The groppo's first description as an ornament as late as 1584 is likely to be due to the fact that it served a function other than that of the tremolo. Also, it was traditionally written out in the music, where it was considered part of the decoration of the stereotyped cadential formula.

The main note - ornamental note form is the earliest type of ornament of which there is evidence, as Moravia's Flores harmonici proves. In sixteenth-century sources the dual nature of this ornament often causes confusion, because of the picture presented by the theorists on the one hand, as against the musical evidence on the other. The main - upper and main - lower note alternation are both known as tremolo. They can be found from the beginning of the sixteenth century; in Germany the lower note form was favoured. In Italian lute sources both forms are described, whereas Ganassi's fingering chart for recorder suggests only the upper note tremolo. In the later sixteenth century, the Italian, Spanish and German sources prefer the main - upper note type. The only lower-note form described - and often found in the music - is the short, simple quiebro (= Ammerbach's mordant), which is employed in ascending passages. A third type, Sancta Maria's redoble (also described by Bermudo), which employs both the upper and lower note, is only encountered in Spanish sources. Diruta and Praetorius do not mention the ascending form, and employ the upper-note tremolotto for both ascending and descending passages.

The keyboard literature shows that the short lower-note tremolo is not restricted only to stepwise ascending passages, even though this is its most typical application. At least four sources do not link it specifically with ascending motion: Cavalieri (monachina), Cabezón (quiebro), Correa (simple quiebro) and Bermudo (redoble).
The preference for the upper-note tremolo (reiterated quiebro) can be understood as traditional, or even as a matter of personal preference. Bermudo's remark that the lower-note redoble was regarded by some players as 'ungraceful' is significant in this context. Furthermore, his statement that both forms should be mastered for use in appropriate places proves that the lower-note redoble was certainly used by some players.

It is clear, however, that:

- the lower-note tremolo (reiterated quiebro) was held in disfavour by some in Spain, Italy and Germany, especially by keyboard players other than organists;
- the lower-note tremolo was typically used in German and Italian organ music;
- in Spain the lower-note reiterated quiebro was employed by some players;
- the lower-note tremolo was used with restriction on keyboard instruments other than the organ, in relation to the upper-note tremolo.

An analysis of the various alternating-type ornaments described by Renaissance theorists reveals that the differences between them stem from the following factors:

- Pitches involved. One finds at least three types: main-note and upper-note, main-note and lower-note, and a combination of main-note, lower- and upper-note. The Spanish sources prescribe, specifically, tone or semitone intervals.
- Length of ornament. The tremolo, reiterated quiebro and redoble are much longer than the short tremoletto and simple quiebro.
- The note values upon which they occur.
- The context in which they are applied and the type of composition. Some ornaments are reserved for the beginning of a ricercare or canzona; others are intended only for ascending and descending passages.
- The manner of performance; rapid or slow, measured or unmeasured.
- Their purpose: tremoli are mainly decorative, while the groppi and tirate are part of the structure of the composition.
- The choice of instrument can influence the type of ornament used.
- The time signature and tempo of a composition may influence the ornamentation, and the latter can in turn have a deciding influence upon the tempo.
- The type of ornament may be influenced by a technical feature such as fingering.

Group two, the non-alternating ornaments, exhibit the following characteristics:

- They are encountered much less frequently than the alternating category.
- They are described in the theoretical sources and found written out in the music only toward the end of the sixteenth century.
- They have no standardized patterns as far as pitches involved are concerned, and are therefore of variable shape; as such, they can consist of one or more notes.
- They are essentially melodic; they can, however, introduce dissonance, e.g. Praetorius' onbeat accentus and Diruta's clamatione.
- The contexts in which they appear vary greatly, as the different ornaments require different situations in which they are used.

1.5.3 Comparison between Italian and Spanish Ornamentation

A comparison between the sixteenth-century Italian and Spanish ornamentation reveals many similarities as well as differences. (One should remember that Germany was greatly influenced by the Italian tradition during this period.)
The function of the Italian and Spanish ornaments is the same: they serve as additional graceful decorations of the music. Both write out their cadential embellishments, but only the Italians identify the stereotyped formula used at cadences as a groppo. The alternating-type ornaments agree largely: the Italian tremolo and Spanish quiebro are one and the same thing; the fingering and note values upon which they are made are the same, except that the Spanish sources do not prescribe them for use on notes shorter than a minim. Diruta alone says that they should take half the value of the note upon which they are made. Both sides agree that they should be played rapidly.

The Spanish sources employ no signs to indicate their ornaments (except for Correa, a late source), whereas the Italians use them sparingly (Valente, Trabaci, Cavalieri). Except for Bermudo, no Spanish source mentions a lower-note reiterated quiebro - Diruta and Praetorius alone speak of it, and then unfavourably. The latter also prefer upper-note tremoletti, whereas Sancta Maria and Ammerbach explicitly prescribe the upper- and lower-note type for descending and ascending passages respectively. Neither Sancta Maria's quiebro of minims, simple quiebros that 'cannot be notated', nor his redobles (a reiterated quiebro with a lower note added) are found in Italian sources. The non-alternating group of ornaments are not mentioned by the Spanish sources at all, and they are not found written out in the music to a large extent.

In Table 1.1 all the vocal and instrumental ornaments discussed in this chapter are tabulated.
<table>
<thead>
<tr>
<th>Source</th>
<th>Name</th>
<th>Sign</th>
<th>Notation and fingering</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moravia (c.1250)</td>
<td>Flos longus</td>
<td><img src="image" alt="Sign" /></td>
<td><img src="image" alt="Notation" /></td>
<td>Slow reiteration of upper semitone required</td>
</tr>
<tr>
<td></td>
<td>Flos subitus</td>
<td><img src="image" alt="Sign" /></td>
<td><img src="image" alt="Notation" /></td>
<td>Begin slowly, then accelerate; use upper semitone</td>
</tr>
<tr>
<td></td>
<td>Flos apertus</td>
<td><img src="image" alt="Sign" /></td>
<td><img src="image" alt="Notation" /></td>
<td>Moderate tempo; use upper whole tone</td>
</tr>
<tr>
<td>Robertsbridge Codex (c.1320)</td>
<td></td>
<td><img src="image" alt="Sign" /></td>
<td><img src="image" alt="Notation" /></td>
<td>When chromatically altered, the sign becomes: <img src="image" alt="Sign" /></td>
</tr>
<tr>
<td>Paumann (1452)</td>
<td></td>
<td><img src="image" alt="Sign" /></td>
<td><img src="image" alt="Notation" /></td>
<td><img src="image" alt="Sign" /> Horizontal line indicates a raised semitone</td>
</tr>
<tr>
<td>Buxheim Organ Book (c.1470)</td>
<td></td>
<td><img src="image" alt="Sign" /></td>
<td><img src="image" alt="Notation" /></td>
<td>Make with upper auxiliary</td>
</tr>
<tr>
<td>Buchner (c.1520)</td>
<td>Mordente</td>
<td><img src="image" alt="Sign" /></td>
<td><img src="image" alt="Notation" /></td>
<td>Make with lower auxiliary</td>
</tr>
<tr>
<td>Kotter</td>
<td>Murdant</td>
<td><img src="image" alt="Sign" /></td>
<td><img src="image" alt="Notation" /></td>
<td>Make with upper auxiliary</td>
</tr>
<tr>
<td>Capirola (1517)</td>
<td>Tremolo</td>
<td><img src="image" alt="Sign" /></td>
<td><img src="image" alt="Notation" /></td>
<td>Make with lower auxiliary</td>
</tr>
<tr>
<td>Source</td>
<td>Name</td>
<td>Sign</td>
<td>Notation and fingering</td>
<td>Comment</td>
</tr>
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<td>------------------------</td>
<td>---------------------------</td>
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<td>------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Borrono (1548)</td>
<td>Tremolo</td>
<td>()</td>
<td></td>
<td>Main-note and upper-note alternation</td>
</tr>
<tr>
<td>Ganassi (1535)</td>
<td>Tremolo</td>
<td>t</td>
<td></td>
<td>Fingering suggests main and upper notes</td>
</tr>
<tr>
<td>Bermudo (1555)</td>
<td>Redoble</td>
<td></td>
<td></td>
<td>Simultaneous use of redobles possible</td>
</tr>
<tr>
<td></td>
<td>Redoble of thirds</td>
<td></td>
<td></td>
<td>Used when right hand is free, or when one voice enters alone</td>
</tr>
<tr>
<td>Venegas (1557)</td>
<td>Quiebro</td>
<td></td>
<td>RH 3 4 3 4</td>
<td>Made on ↓; use either tone or semitone</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>LH 1 3 1 2 2</td>
<td></td>
</tr>
<tr>
<td>Sancta Maria (1565)</td>
<td>Quiebro reyterado</td>
<td></td>
<td>RH 3 4/2 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>LH 2 1/2 3 2</td>
<td></td>
</tr>
<tr>
<td>'New kind'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Redoble</td>
<td></td>
<td>RH 3 2 4/3 2</td>
<td>Always made with tone and semitone on ◦</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>LH 2 3 1/2 3 4</td>
<td>'New kind': upper auxiliary played before the beat; fingering then RH 4 3 2 3, LH 1 2 3/2 3 4</td>
</tr>
<tr>
<td>Source</td>
<td>Name</td>
<td>Sign</td>
<td>Notation and fingering</td>
<td>Comment</td>
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<tr>
<td>-----------------</td>
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<td>------</td>
<td>------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Quiebro of minims</td>
<td></td>
<td></td>
<td></td>
<td>Made on ⏯; must have semitone below and tone above</td>
</tr>
<tr>
<td>Ammerbach</td>
<td>Mordant</td>
<td>(a)</td>
<td></td>
<td>(a) made ascending</td>
</tr>
<tr>
<td>(1571)</td>
<td></td>
<td>(b)</td>
<td></td>
<td>(b) made descending</td>
</tr>
<tr>
<td>Valente(1576)</td>
<td>Trillo</td>
<td>t</td>
<td></td>
<td>'t' often found at cadences</td>
</tr>
<tr>
<td>Hernando de Cabezón</td>
<td>Quiebro</td>
<td></td>
<td></td>
<td>Must be played as fast as possible, with accent on main note</td>
</tr>
<tr>
<td>Source</td>
<td>Name</td>
<td>Sign</td>
<td>Notation and fingering</td>
<td>Comment</td>
</tr>
<tr>
<td>---------------------</td>
<td>------------</td>
<td>---------------</td>
<td>------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>Diruta (1593)</td>
<td>Groppo</td>
<td></td>
<td></td>
<td>Used at cadences; must be played crisply</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tremolo</td>
<td></td>
<td>RH 43 LH 23/12</td>
<td>Must be played lightly and agilely, takes up half the value of note; made on ( \text{\textarcdeg} )</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>RH 23/34 LH 32/21</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tremoletto</td>
<td></td>
<td></td>
<td>Made with any finger available on ( \text{\textarcdeg} ); use on step-wise ascending or descending notes; upper-note version preferred</td>
</tr>
<tr>
<td></td>
<td>Clamatione</td>
<td></td>
<td></td>
<td>Use at the beginning of a piece</td>
</tr>
<tr>
<td></td>
<td>Accento</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conforto (1593)</td>
<td>Trillo</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bovicelli (1594)</td>
<td>Groppetto</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cavalieri (1600)</td>
<td>Trillo</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source</td>
<td>Name</td>
<td>Sign</td>
<td>Notation and fingering</td>
<td>Comment</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------</td>
<td>------</td>
<td>------------------------</td>
<td>-----------------------------------------------------------</td>
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<tr>
<td></td>
<td>Zimbalo</td>
<td>z</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Monachina</td>
<td>m</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Groppolo</td>
<td>g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caccini(1601)</td>
<td>Trillo</td>
<td></td>
<td></td>
<td>Described for vocal use only</td>
</tr>
<tr>
<td></td>
<td>Gruppo</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ribattuta di gola</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trabaci(1603)</td>
<td>Trillo</td>
<td>t</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1615) Trillo doppio</td>
<td>t⁺</td>
<td></td>
<td>'Used in cadences and formal closes; must be played more crisply than the tremoli.'</td>
</tr>
<tr>
<td>Praetorius(1619)</td>
<td>Gropppo</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gruppo</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source</td>
<td>Name</td>
<td>Sign</td>
<td>Notation and fingering</td>
<td>Comment</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------</td>
<td>------</td>
<td>------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Tremolo ascendens</td>
<td>![sign]</td>
<td>![notation]</td>
<td>'Organists call the lower note tremolo a mordant; it is not as good as the upper note tremolo.'</td>
</tr>
<tr>
<td></td>
<td>Tremolo descendens</td>
<td>![sign]</td>
<td>![notation]</td>
<td>Praetorius employs the upper-note type only, also ascending</td>
</tr>
<tr>
<td></td>
<td>Tremoletto</td>
<td>![sign]</td>
<td>![notation]</td>
<td><strong>Tirate</strong> are rapid runs up or down the notes.</td>
</tr>
<tr>
<td></td>
<td>Tirata</td>
<td>![sign]</td>
<td>![notation]</td>
<td>Various possibilities of the non-alternating type</td>
</tr>
<tr>
<td></td>
<td>Accentus</td>
<td>![sign]</td>
<td>![notation]</td>
<td></td>
</tr>
<tr>
<td>Correa (1626)</td>
<td>Simple quiebro</td>
<td>![sign]</td>
<td>![notation]</td>
<td>Used at the beginning of a piece on ♪; ♫ in fast tempo and on ♪ in slow tempo; never on ♫</td>
</tr>
<tr>
<td></td>
<td>Reiterated quiebro</td>
<td>![sign]</td>
<td>![notation]</td>
<td>Used on the organ in place of the <em>redoble</em> if one voice enters alone; recommended for the beginning of long, serious works</td>
</tr>
<tr>
<td>Source</td>
<td>Name</td>
<td>Sign</td>
<td>Notation and fingering</td>
<td>Comment</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------</td>
<td>------</td>
<td>------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Simple redoble</td>
<td></td>
<td>R</td>
<td></td>
<td>Used in cadences and at the beginning of larger works on the clavichord</td>
</tr>
<tr>
<td>Reiterated redoble</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frescobaldi</td>
<td>(1637)</td>
<td>tr</td>
<td></td>
<td>'If either hand has to play a trill and the other a passage at the same time, one should not play note against note, but only endeavour to play the trill quickly but the passage slower and with expression, otherwise confusion would arise.'</td>
</tr>
</tbody>
</table>
2. BACKGROUND TO ENGLISH ORNAMENTATION IN THE SIXTEENTH AND SEVENTEENTH CENTURIES

2.1 English Treatises

There is no English treatise from the sixteenth or early seventeenth century in existence which deals with the subject of diminutio or ornamentation as is the case on the Continent. Instruction books for the lute-cithern family had been published in England since 1568,¹ but the equivalents for the viol, wind instruments, keyboard instruments and the voice were either never written or have been lost. A treatise on keyboard playing was licensed for printing in 1597, but no copy has survived.² The evidence is to be found in the registers of the Company of Stationers of London, where the third entry for 7 March 1597 reads:³

William hoskins Entred for his copie in full Court holden this day A booke called A playne and perfect Instruction for learnyng to play on ye virginalles by hand or by booke both by notes and by letters or Tabliture never heretofore sett out by any etc.

The only explanation of ornament signs for keyboard music during this period appears in GB-Lbm Add.31403. The manuscript is dated c.1700 as a whole, but the first section (fols.3-33) contains keyboard music from the beginning of the seventeenth century, having been compiled by Edward Bevin. A table of ornament signs appears on fol.5, where the 'Graces in play' is attributed

² It is listed in Steele, Music Printing, p.100.
to Edward Bevin. The ornament signs are explained in written-out notes, complete with fingering:

Ex. 2.1 'Graces in play'

'Graces before, is here express in notes'

Of these ornaments, unfortunately only the first accords with those found in virginal music of c.1560-1620; the remainder seems to be an attempt at codification by one person.

It is ironical that we do not possess a single English treatise explaining the ornament signs used in virginal music, whereas the subject of ornamentation is discussed in many a Continental source. This is, however, not difficult to understand: on the Continent ornament signs were considerably much less used than in England; more important still, the Continental treatises make it clear that it was expected of keyboard players to add ornamentation impromptu as they performed a composition.
In comparison with the output of the Continent, relatively few books on music were written in England during the sixteenth and early seventeenth century. Early in the period John Dygon translated the fourth book of Gaffurius' *Practica musicae* (Milan, 1496). Apart from the two translations in 1568 and 1574 of Le Roy's lute instruction book (1567), William Bathe's *A Brief Introduction to the True Art of Musicke* (1584) was the first to break the period of silence. The most important books to follow were those by Bathe, Morley, Dowland, Coperario, Campion and Ravenscroft. All are concerned mainly with music theory (routines, terms, sight-singing, counterpoint), the writing of canons and acoustics. In addition, apologias for church music were printed.4

The general lack of sixteenth-century English treatises is demonstrated by Morley's list of theorists he had studied. There, English writers are conspicuous by their absence.5 On the one hand, English theorists relied on Continental authors for much of their material, e.g. Dowland's translation of Ornithoparcus' *Micrologus*; Ravenscroft's *A brief discourse*; and Morley, who draws heavily on Continental treatises. On the other, English theorists showed independence with their progressive ideas, particularly in areas such as solmization, notation, composition and the major/minor key theory.6 The absence in these books of any discussion of ornamentation or melodic embellishment, as well as the lack of instruction books (except for lute) similar to the Continental ones, remains a curious fact, particularly as diminution was an adjunct to part-writing in the contrapuntal theory of this period.

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In Morley's *Introduction* the subject of diminution is discussed, but only as a technique connected with the subject of proportions. He states:

> Diminution is a certain lessening or decreasing of the essential value of the notes and rests by certain signs or rules ...

The only contemporary theoretical work in England dealing with diminution as the melodic elaboration of a simple progression, is Giovanni Coperario's *Rules how to compose*. Dated c.1610, it remained unpublished at the time. Coperario nevertheless enjoyed a high reputation as a composer of both vocal and instrumental music. Fols. 11v to 18 are devoted to a section entitled 'Of Division'. The subject is treated in two sections, namely the diminution of single intervals in one voice, and diminution in four parts. Coperario gives examples of how to make simple intervals more elaborate by breaking them up into smaller note values; the intervals used are the rising and falling third, fourth and fifth. Consisting mostly of passing notes, these diminutions exhibit the same principles as their Italian counterparts, in that they do not modify the function of the structural intervals, yet they do not appear to be taken directly from another source. Here is Coperario's diminution of the rising third:

![Ex.2.2](image)

Compared to other treatises, his choice of intervals is limited, since the Italian writers usually include examples extending to the octave. Coperario's diminutions, too, are less flamboyant than some of the Italian *passaggi*, and an interesting phenomenon of theirs is that they are made only on the first of the two notes

---

7 Morley, *Introduction*, p.43  
9 Ibid., fol.11v.
comprising the interval, contrary to Bovicelli's examples, for instance, where the latter note is often also broken up. The examples for the interval of a fourth therefore resemble pre-beat clamationi: 10

Ex.2.3

2.2 Ornaments in Virginal Music

The ornamentation used by keyboard players of the period is of two kinds: those written out in full in the text - integrated as such into the compositional structure - and those indicated by sign. It is in the use of ornament signs that English keyboard and lute music differs from that of its contemporary Continental counterparts: in the latter, the signs occur only sporadically; in the virginal and lute sources, they abound on every page of music.

The two most common signs used in English keyboard music of the period are the oblique single and double strokes: \[ \text{j} \text{j} \]. Their origin is unknown, but may be connected to the two signs most commonly used by contemporary English lutenists: \[ \times \text{ and } \# \]. With but few exceptions, the Virginalists used only two signs at a time when signs were proliferating in lute music. The earliest extant sixteenth-century English sources, Roy. App. 56 (c.1530) and Roy. App. 58 (c.1540-60), contain no signs. Two other early sources, GB-Lbm Add. 15233 (before 1550) and GB-Lbm 29996 make use of the double stroke. 11 L1 is the earliest important source showing the use of the double stroke: it appears in sixteen of the ninety-four liturgical organ works. The single stroke appears in only one piece of this collection of Tudor organ music, and there it occurs three times in one bar, drawn through the

10 Coperario, Rules, fol.12v.
11 L1, fols.6-45 (c.1547-49), fols.45v-67v, 158-178v (copied round about the reign of Mary); GB-Lbm Add. 15233, fol.6v.
The single stroke is absent from the Mulliner Book (written c.1560-75, and containing Elizabethan and pre-Elizabethan music), while the double stroke is used sparingly. In addition to the double and single stroke (the latter occurs frequently), the Dublin Virginal Manuscript (c.1560-70) employs this sign: \( \text{\textcopyright} \). Virginal music of the later sixteenth and early seventeenth centuries employs the single stroke considerably less often than the double stroke, except in the Cosyn Virginal Book where its occurrence is very frequent. The simultaneous use of two ornaments occurs already in \( \text{Mu} \): \( \text{\textcopyright} \). In the DVM the following combinations are found: \( \text{\textcopyright} \), and in Parthenia In-Violata: \( \text{\textcopyright} \). In addition to the two most commonly used signs, a third, consisting of three oblique strokes, is occasionally encountered. Its first appearance is found in \( \text{Mu} \), in Blitheman's Gloria tibi Trinitas (fol.88\(^v\)). Thomas Preston's Felix Namque (L\(_1\), fol.40) shows multiple crossings of the note stem (\( \text{\textcopyright} \)).

13 \( \text{Mu} \), fols.3-6\(^v\), 8,12,71\(^v\),88\(^v\).
15 \( \text{Mu} \), fol.4\(^v\).
16 Ward, Dublin Virginal MS, pp.2,6,7,8,11.
used three times in succession in the same melodic pattern.\textsuperscript{18} Probably this, too, indicates an ornament. The triple-stroke ornament is otherwise rare, appearing occasionally in Co (fols. 106, 109, 110, 168, 169, 171) and in the second half of Priscilla Bunbury's Virginal Book.\textsuperscript{19} In Wr the signs 'w' or 'f' - unique to this source - are used up to fol.25, in conjunction with double-stroke ornaments.

The placement of the signs on the note stems, and in the case of stemless notes, above or below or through the notehead, is very inconsistent. The significance of this is still uncertain; modern editions do not show the exact placement as they occur in the manuscripts. In the Tudor organ music of L\textsubscript{1}, the double stroke is always drawn through the top of the stem (\textsuperscript{20}), and in the case of a semibreve, through the note: \textsuperscript{20}.

In My Ladye Nevells Booke, which is carefully written out in one hand, both \textsuperscript{20} and \textsuperscript{20} appear. In Parthenia the single stroke appears as \textsuperscript{20} (nos.16,18), whereas in PI (by the same engraver as Pa) \textsuperscript{20} (nos.5,9,10,11,14,15,16,18), \textsuperscript{20} (nos.2,8,9) and \textsuperscript{20} (nos.19,1,2,9) are used. In PI no.9, all three lateral dispositions are used. In Co, Cosyn usually draws the single stroke through the top of the stem of minims and crotchets, but with quavers it passes through the stem: \textsuperscript{20}. Occasionally, he reverts to \textsuperscript{20} and \textsuperscript{20} (fol.40-87, 100-114, 162, 196-199).

One, two or more strokes are occasionally used, not as ornament signs, but as erasures. More ambiguously, the strokes may sometimes be intended as a visual aid to indicate voice leading or badly aligned parts. In the early sixteenth-century source, Roy. App.56, there is an instance where the stems are crossed.

\textsuperscript{18} Stevens, EECM X, p.62, b.19-21.

\textsuperscript{19} J. Boston, ed., Sixteen Pieces from Priscilla Bunbury's Virginal Book (London: Stainer and Bell, 1962).

\textsuperscript{20} L\textsubscript{1}, fols.40,43,171v.
The purpose is probably to show the badly aligned tenor part.\textsuperscript{21} The fact that no other ornament signs are used in this manuscript, strengthens this view. The crossing of a stem as a cancellation sign also occurs in Ll (fol.19\textsuperscript{v}, 63), and in Fo (p.110). In Ll the horizontal line drawn through the stem of a note is certainly intended to cancel the stem of a note erroneously written, e.g. fol.51\textsuperscript{v}, and in PB, thus:\textsuperscript{22} \textsuperscript{\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;\!\;}
only once, in Ro: \(\sim\) \(\sim\). \(^{24}\) The most noteworthy element present in AC and Ro, however, is the replacement of the groppo by a stereotyped melodic formula which includes the double stroke. Even though this formula is sporadically found in earlier sources of virginal music, its repeated use in these two later sources is a new development: \[\text{Ex.2.5}\]

In AC the written-out groppo occurs only three times, and then in one piece (p.29, b.16,24,30), and in Ro only in one piece by Byrd. The use of the stereotyped formula in cadences instead of the groppo leaves little doubt about its interpretation as a groppo:

Ex.2.5 therefore becomes \[\text{Ex.2.6}\]

In the following piece from Ro a groppetto precedes this formula, exactly as the written-out groppetto and groppo follow each other in earlier sources, where it is a stereotyped pattern followed in cadences: \(^{25}\)

Ex.2.6  

\begin{align*}
\text{Glory of ye North, Ro fol.43b} \\
\text{Ex.2.6}
\end{align*}

This evidence supports the interpretation here of the double stroke plus suffix as a groppo. Another noteworthy phenomenon


\(^{25}\) Cofone, Elizabeth Rogers, p.87.
in Ro is the use of both the single stroke and written-out slides in the accompanied songs. Here the sign is used for the solo accompaniment, and the written-out slide for the singer. Concurring passages suggest that they mean one and the same thing.\textsuperscript{26}

Stylistic conflict marked the period 1625-1660. Men such as Tomkins (died 1656), Lugge and Carleton continued to write in a style similar to that of the earlier Virginalists, as opposed to progressives such as William Lawes (died 1645). Tomkins adhered strictly to the use of ornaments as employed by Byrd, Bull and Farnaby, with groppi written out in full. Opposed to this are the collections of music in AC and Ro, which exhibit features of a more homophonic style, and in which the groppo is replaced by an ornament sign. This stylistic ambiguity becomes even more evident if one considers a manuscript contemporary with Ro, GB-Och 1236, which employs various signs and placements: \textsuperscript{\textit{J}}\textit{J}, as well as a comma above the note, thus: \textsuperscript{\textit{J}}

As Caldwell has pointed out, the emergence of the new system after 1650 is somewhat enigmatic.\textsuperscript{27} It is surely an adaptation of the French system to English practice; the retention of certain typically English signs such as the single and double stroke (now placed above the note) highlights English individualism in this matter. This is also proven by the English adaptation of the French tremblement sign (\textit{\textsuperscript{\textit{MW}}}) - which is a trill or shake - as an English sign indicating a mordent. In the absence of sufficient evidence, it is impossible to establish exactly when the old system gave way to the new. It is clear, however, that under French influence the shake starting with the upper note became the fashion in England around mid-century or slightly later. The

\textsuperscript{26} Ro, fols.20b,21b-22,23,41b.

double stroke above the note had almost certainly acquired that meaning by the time Musick's Hand-Maid (1663) was published. In music before c.1660, such as in Ro, where the double stroke is still drawn through the stem of the note, the question is whether the ornament should be interpreted according to the meaning it had held for the Virginalists, or according to the new convention. As the style of the music is different, one might contend that the new meaning is more likely, even though the placing of the ornaments had not yet been stabilized. In Musick's Hand-Maid, the only sign used is the double stroke. In pieces 1-55 the sign is drawn through the stem, whereas in 56-72 it appears above the note. It is significant here that pieces 56-72 were engraved by another craftsman. This suggests that whereas by 1660 the placement of these signs had not yet been standardized, by the 1670's all ornaments were placed above the note, as may be seen in the keyboard music in Locke's Melothesia of 1673. Locke's 'Advertisements to the Reader' lists the names and signs, but not the realizations, of five ornaments. This is the earliest printed reference to keyboard ornaments in England:

Ex.2.7

| 'forefall' | ~ | ~ | ~ | ~ |
| 'backfall' | ~ |
| 'shake' | = |
| 'forefall and shake' | ~ = |
| 'beat' | ~ ~ |

---

28 In French lute music, an upper-note shake (tremblement) had already been described by Basset in 1636, in Mersenne's Harmonie universelle.


30 Matthew Locke, Keyboard Suites, ed. by T. Dart (London: Stainer and Bell, 1964), n.p. The realizations are taken from Purcell's ornament table.
The works of Christopher Gibbons (1615-1676) include all ornaments described by Locke. Locke's ornaments are the first irrefutable printed evidence of ornament signs in English music other than the single and double strokes. The proof of the use of a variety of ornament signs in English lute music goes back to 1620 and earlier, yet remains a curious fact that keyboard players used only two signs, at least up to the 1650's. Locke's pupil, Henry Purcell, included in his posthumous *A Choice Collection of Lessons for the Harpsichord or Spinnet*, 1696, an 'Instruction for beginners' (sic) in which nine ornaments with their symbols and their interpretations are given. The forefall, backfall, shake and beat are explained here, using the same nomenclature and stenographs as Locke. Conspicuous, however, is the absence of Locke's forefall and shake. In addition, Purcell gives examples of backfall and shake (\( \uparrow \)), turn (\( \uparrow \uparrow \)), shake turned (\( \uparrow \uparrow \uparrow \)) and slur (\( \uparrow \uparrow \)). The absence of the slide (Purcell's slur) from Locke's table may be significant: Locke wrote at a time when both Mace and Simpson had labelled this ornament as almost obsolete, and possibly this applied to keyboard music too. Also, Christopher Gibbons does not include any signs other than those of Locke. The hypothesis can therefore be made that the slide came back into fashion during Purcell's time.

2.4 Ornamentation of the Lute-Cithern Family and the Lyra Viol in England: the Early Sources

The lute, being an important, popular sixteenth-century instrument, must have influenced virginal music, and hence also its ornamentation. It is important, nonetheless, to bear in mind that it is the nature of the plucked strings and the limitations imposed by playing technique which give to lute ornamentation its special character. In England, lute tutors do not mention the


virginal at all. In contrast, a treatise such as Sancta Maria's Libro addresses both keyboard instruments and the vihuela equally; Venegas, for instance, describes the quiebro for keyboard and vihuela separately. The English instruction manuals for lute often include related instruments such as the orpharion, bandora and cithern; Robinson's The Schoole of Musicke, for example, also includes the viol. This is not surprising, as the lyra viol was tuned and fingered in exactly the same way as the lute, and its music was performed from lute tablatures.

In spite of the written treatises and the ornamented source material, we have very little information on the subject of lute and lyra viol ornamentation. To aggravate the situation, available facts are often at odds with one another, and there is no standardization of ornament signs. After 1600 the signs used in lute music became more numerous, while lutes and their playing techniques were also constantly changing. In Dowland's life-time the lute grew from six to ten courses, the right-hand finger was used for the first time, and the thumb's use also changed from inside to outside. It is possible that the same situation of change may apply to ornamentation on the lute as well, all of which complicate the issue.

The prevailing attitude in sixteenth-century England toward the study of graces, as well as the lack of instructions, are highlighted by Jean Baptiste Besardus' often-quoted words in Robert Dowland's Varietie of Lute Lessons (1610):

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34 Venegas, Libro, p.159.
You should have some rules for the sweet relishes and shakes if they could be expressed here, as they are on the lute: but seeing they cannot by speech or writing be expressed, thou wert best to imitate some cunning player, or get them by thine owne practice, onely take heed, least in making too many shakes thou hinder the perfection of the Notes.

The difficulty of conveying in words how ornaments should be performed, had been voiced earlier by Rudolf Wyssenbach (Tabulatura uff die Lutten, 1550) and Matthäus Waissel (Lautenbuch Darinn von der Tabulatur und Application der Lauten, 1592), who expressed similar doubts:

Mordanten serve to make the playing lovely ...
Of these things certain rules cannot be described, they must be left to time and practise.

The only English lute instruction book in which the performance of ornaments is mentioned is Thomas Robinson's The Schoole of Musicke (1603). He describes three graces, but gives no signs or any notational examples explaining their performance; nor is his text very clear. A summary of his explanations follows.

(i) 'Relish'

Frequent references to relishes are made in Robinson's book, and he uses the word both as a general and as a specific term for ornaments employing the upper neighbouring note. It is difficult to determine from the text whether Robinson intends an ornament of the alternating type (such as the tremolo) or not - Poulton believes that it could also mean an appoggiatura from above.

When playing the relish in single stops, Robinson advises:

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37 Poulton, Graces, p.110.
38 Facs. reprint in Casey, Lute, 2:65-120.
39 Poulton, Graces, p.113.
40 Casey, Lute, 1:94.
Now you shall have a generall rule to grace it, as with passionate play and relishing it: and note that the longer the time is of a single stroke, that the more need it hath of a relish, for a relish will help, both to grace it, and also helps to continue the sound of the note his full time: but in a quick time a little touch or jerke will serve, and that only with the most strongest finger.

Concerning full stops, he writes: 41

... so take this for a generall rule, that you relysh in a full stop, with that finger which is most idlest, in any string whatsoever: either a strong relysh for loudnesse, or a mild relysh for passionate attencion.

Casey regards Robinson's 'finger that is most idlest', as important, since it implies that the relish ought to be played by some finger not engaged in stopping. This means that the relish can only be to an upper neighbouring note, since the lower neighbour is produced by removing one of the stopping fingers. 42 This implies that in chords where all four fingers are stopping strings, the upper-note relish would be impossible. Furthermore, Robinson also defines the relish as an ornament played by the left hand. From the quotations above, one learns something about the performance of the relish: longer notes require it to help sustain the sound; on short notes a short, quick ornament suffices. The latter most likely was accented, since Robinson says it should be done 'with the most strongest finger'. The relish also involves dynamics: 'a strong relysh for loudnesse, or a mild relysh for passionate attencion'.

(ii) 'A Fall without a relish'

There is no agreement on the interpretation of Robinson's 'fall without a relish'. Poulton and Spencer see it as an appoggia-

41 Casey, Lute, 1:94.
42 Ibid., 1:95
tura, a tone or a semitone below the note, according to the key. Casey interprets it as a mordent, i.e. an ornament of the alternating type. It is nevertheless clear that, whatever the melodic shape of the ornament, it involves the lower neighbouring note. Robinson reads as follows:

Now to your fall with a relish, or a fall without a relish: take this for a generall rule, that all falls in what stop soever, in a flat note, must bee performed with the neerest finger to the halfe notes, and in a sharp note or stop, with the nearest and strongest finger to a full note. As heere you see underneath for example.

The following is one of the given examples (notes in brackets are Casey's interpretation):

Ex.2.8

(iii) 'A fall with a relish'

This ornament combines the previous two. Robinson says:

In the next where c is in the Treble, because c is sharp, must have his fall from the full note a, and c having had his fall, may so be held still without moving the forefinger, and the relish continued (with the little finger) in d which is under halfe note:

---

44 Casey, Lute, 1:95, 2:75.
46 Ibid.
Should the fall not be regarded as an alternating ornament, the only other interpretation would be an appoggiatura from below, followed by a relish.

By turning to the sources of lute music, one finds the two commonest ornament signs. The one is the double cross: $\square$ or $\#$, which occurs most often, and at times is the only ornament sign used in a manuscript. In the latter case it is used presumably to denote all the various ornaments, for it appears in many different contexts. The other sign is the single cross: $\times$ or $+$. There is a conspicuous resemblance here to the signs employed by the Virginalists: $\blacktriangledown$ and $\blacktriangleleft$.

Early English lute manuscripts bear no ornament signs, while those written or copied after 1600 contain the largest variety and quantity of signs per piece. Barley's A New Booke of Tabliture (1596) uses the double cross $\square$ only, whereas Anthony Holborne's pieces for lute (1599) contain both $\square$ and $\times$. No signs are used in his music for bandora and cittern. 47

Sampson's lute book (c.1609) employs $\blacktriangledown$, $+$, $\times$, $\triangledown$ and $\blacktriangleleft$. 48 From this evidence it appears that the number of ornaments coming into use after 1600 increased tremendously, in comparison to earlier times. It would be difficult, however, to prove that fewer ornaments were used earlier, and that they simply


were not indicated by various signs. The appearance of more ornament signs in English lute music was undoubtedly the result of French influence, as several idiomatic features of French lute ornamentation began to be employed in England c.1615, during the Jacobean period (1603-1625).

The Margaret Board Lute Book (c.1620-30) is a source which employs a great variety of ornaments. Before piece no.111 (fol.32v), the scribe wrote out a table of graces. Only the sign and description of the ornament are provided:

- a pul back
- a fale forward
+ to beat down the finger with a shake
: 3 pricks to be struck upward with one finger
# for a long shake
\( for a slide

Spencer suggests the following interpretations:

- a back-fall (appoggiatura from above)
- a half-fall (appoggiatura from below)
+ perhaps a half-fall repeated
: one right-hand finger playing a chord
# a tremolo beginning and ending on the same note
\( slurring two or three notes with left hand fingers

Five scribes contributed to this manuscript, which accounts for the fact that nineteen signs are encountered in this collection's music:

\[
\begin{array}{ccccccc}
. & + & . & . & . & : & : \\
C & \# & \wedge
\end{array}
\]

In Dowland's lute music the double cross is the most frequent sign, but the single cross (x or +) and other signs (. : :: = = *)

---

49 Spencer, Board, see Introductory study, n.p.
also occur in various manuscripts. Three new ornaments occurred regularly in lute music after c.1615. The one was the backfall, indicated by a comma, the other the backfall and shake combined (',#), and the third the 'shaked beat'. In some sources the sign used for the 'shaked beat' was an upside-down looking comma or a single cross, together with the shake-sign ('#' or 'x'), while in Board only the single cross ('x') was used. What is important about these three ornaments is that they introduce features not earlier in evidence: the backfall and backfall shake introduce the use of upper-auxiliary ornaments with harmonic implications; the upper note may cause a dissonant harmony similar to the groppo, in contrast to Elizabethan ornaments which were essentially melodic. The 'shaked beat' is a forefall 'shaked', just as the backfall shake is a backfall 'shaked'. The backfall probably takes one-quarter of the value of the main note, as the comma is thus described as a backfall in Playford's An Introduction to the Skill of Musick (1654), and illustrated in musical notation. This would only be true if the manner of playing the backfall had not changed between c.1615 and 1654, which is impossible to know.

The variety of signs and their haphazard use in manuscripts are discouraging, as they are placed before, after or below the letter to which they belong, or even between two letters. Various manuscripts of the same work often disagree on the placing of the ornaments and also on the amount of ornamentation. This leaves one with the unanswerable question: was it carelessness on the part of the scribe or was it intentional? The various signs possibly had personal meanings for each writer. In the Board Lute Book, for instance, the variety of ornaments used by each scribe suggests that each felt free to...


51 D. Marriott, 'English Lute Ornamentation', Guitar and Lute, no.10 (July 1979), pp.25-26. The Sampson Lute Book (c.1609) already employed the sign ',#' before 1615.
use his own system. As there is so little concrete evidence concerning ornamentation for the lute of the period, and since the actual intentions of the composers are unknown, one can only speculate on the exact meaning of the signs.

There is one other source which sheds light on this period's ornamentation. It is an undated manuscript (c.1610-1622) and it contains a collection of songs and pieces for the lyra viol. It is known as Robert Downes' Lyra Viol MS (GB-Lbm Egerton 2971) and it includes a table of ornaments for viol. It was written in Downes' hand on a scrap of paper pasted on to the back fly-leaf of the manuscript, and is probably his own attempt to interpret the ornaments found in the solo viol music in the manuscript:

\[
\begin{align*}
\text{relish} & \quad \# \quad \text{shake} \quad \text{with ye hand} \\
\text{falle} & \quad \times \quad \text{tast} \\
\text{traile} & \quad \odot \\
\text{thump} & \quad \ldots \quad \text{with ye bowe} \\
\text{shake} & \quad \uparrow
\end{align*}
\]

Because of damage to the paper, the signs for the 'relish' and 'tast' are illegible.

The three sources, Robinson, Downes and Board, throw some light on the subject even though Robinson gives no signs, but only explanations; the Downes and Board manuscripts conversely offer only signs and names, but no explanations. The interpretation of the two most commonly found ornaments of Elizabethan lute

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music becomes clearer through this evidence. The double cross (#) is interpreted by Downes as 'shake' and by Board as 'for a long shake'. Robinson's 'relish' no doubt means the same thing as their 'shake', because the double cross was the commonest sign in Robinson's time, and Robinson refers to the 'relish' as a general term for ornaments as well as indicating a specific grace. One may therefore accept the fact that the sign # represents a 'shake', equivalent to the keyboard tremolo. The cross ((deck) in Board ('for a long shake') suggests that the scribe who wrote out pieces 111-186 distinguished between long and short shakes by means of signs. This would be true only if the 'pull back' of fol. 32V were the short shake or 'quick jerke' to which Robinson refers. No other English or Continental source confirms this practice. Robinson's 'fall without a relish' seems the closest counterpart of Downes 'falle' (x), and 'a fale forward' (c) in Board, fol. 32V. The sign + ('to beat down the finger with a shake') in Board is a fall extended by shaking, similar to Simpson's 'shaked beat'.

English lute ornaments fall into two distinct categories: those made with the upper and those made with the lower auxiliary note. If Robinson's relish were the same as Downes' shake and that found in Board (likely, because it was the commonest ornament of the period), it would mean that the shake was always made as an alternation of the main note with the upper auxiliary. It is significant that in none of the discussed sources is any reference made to the mordent, either long (as the mirror image of the shake) or short, in the same way as in contemporary Continental keyboard sources. The only quasi-reference to a mordent in English sources is the sign ' used in Board, which is explained in the Manchester Lyra Viol Book as a short mordent. Whether they meant one and the same thing is impossible to ascertain.54 We know from Robinson's explanation ('... in a quicke time a little touch or jerke will serve ...') that short shakes as well as long shakes were employed according to the

54 Spencer, Board, fols.10V, 22V; and Spencer's Introductory study, n.p.
musical context, but whether the long mordent (tremulus descen-
dens) and short mordent (Ammerbach's mordant ascendendo) were
used, remains enigmatic. The double cross (✘) occurs in Eliza-
bethan lute music in situations where such an interpretation
would be possible, and at least one commentator feels that it
should be included in the performance of this music, even though
the sources do not mention it.\textsuperscript{55} The sign ⤇ involves a lower
auxiliary in all the sources described above. In the earlier
sources (before c.1615), the single cross signifies a 'fall',
or appoggiatura from below, but by the late Jacobean period the
sign ⤆ had replaced the single cross as the sign for a 'fall'.
In \textit{Board} the single cross apparently indicates a 'fall' extended
by shaking, but still it remains an ornament involving the lower
auxiliary. The similarity of this latter ornament to the longer
mordent complicates the issue of the use of the mordent in Eliza-
bethan lute sources even further. The single cross may also be
interpreted as a slide if the preceding letter is two letters be-
low the written note. None of the sources discussed mentions a
slide; \textit{Board} is the only one to use this name and a sign(🔗)for
it. The same sign is referred to as 'whole-fall' by Mace, a
much later source. Mace's reference to the effect that it was
an ornament much in use earlier, strengthens this supposition.\textsuperscript{56}

This still does not solve the problem of whether one should as-
sign various meanings to the two commonly used lute ornament signs
of the Elizabethan period: can the double cross signify both
upper-note shake and lower-note mordent, and can the single cross
be seen as indicating an appoggiatura from below as well as a
slide? In view of the differentiation of signs which became the
practice in the Jacobean period, where each ornament received
its own symbol, two hypotheses are possible. Firstly, one can
take the viewpoint that the signs had specific, singular mean-
ings, as Robinson's explanations suggest: the double cross
suggests a long or short shake, the single cross an appoggiatura

\textsuperscript{55} D. Marriott, 'English Lute Ornamentation', \textit{Guitar and Lute},
no.9 (April 1979), pp.31-32.

\textsuperscript{56} See p.98.
from below ('fall'), and the 'fall with a relish' is a combination of these two ornaments: 57

Ex. 2.10

Secondly, in the light of the little information available concerning lute ornamentation of the Elizabethan period, it would also be possible to formulate an hypothesis whereby one could say that the ornaments described by Robinson probably signified the commonly-used ornaments. One might then occasionally interpret the two signs in appropriate musical situations as signifying other, related ornaments popular during the period, such as the mordent (as interpretation of #) and the slide (as interpretation of x).

2.5 Later Sources for the Lute, Viol and Violin

John Playford's Introduction to the Skill of Musick (1654) is the first English source of any kind to include the interpretation of ornaments in musical notation. 58 The table is also found in the seventh edition of 1674, with a few changes, and here it is clear that this table was taken from Simpson's table of ornaments, first published for the viol or violin in 1659.

57 See also Marriott, Lute Ornamentation (April 1979), p.32.
58 As I was unable to obtain a copy of the 1654 edition, my only source of information is Marriott, Lute ornamentation (July, 1979), p.25.
The other important source, for lute, is Mace's *Musick's Monument* published in 1676. In all these sources stenographic signs are used which also appear in the virginal and lute music of the Elizabethan and Jacobean era. As usual, there is some disparity between the sources with regard to the signs and their interpretation, as well as the placement of signs.

Christopher Simpson's *The Division - Viol* (1659) gives the following table:

Ex.2.11

![Diagram of musical signs](image)

As can be seen at the bottom of the table, Simpson obtained his information from Dr. Colman, an expert in these matters. Some similarities to earlier sources, either in the sign used or the written-out form, are apparent. Of these, the demisemiquaver figures in the double relish (\(\begin{array}{c} \hline \end{array}\)) resemble the *groppetto* plus *grppo* which is often found written out at cadence points in virginal music. The springer is identical to Diruta's *accento*, and the sign for the elevation (+) is the same as that found in some of the earlier lute sources already discussed. The backfall resembles the sign found on fol.32v of *Board*.

Simpson also makes interesting general statements about ornaments. He classifies them in two ways: those made with the bow, and those made with the fingers, as Downes did many years before. Those made with the fingers are again subdivided into two groups: 'smooth' graces and 'shaked' ones. The 'smooth' graces are of the non-alternating type, and the 'shaked' ones speak for themselves. One is immediately struck by the similarity of this classification to the accenti e trilli of the Italians, discussed earlier. The 'smooth' graces are more specifically those 'when in rising or falling a Tone or Semitone, we draw (as it were) the Sound from one Note to another, in imitation of the Voyce.'60 One recalls the analogy with the accentus described by Praetorius, which is also explained in terms of vocal performance. From Simpson's table and his text it is clear that the direction of the melodic line determines which type of 'smooth' grace is to be used: ascending, the 'plain-beat' and 'elevation', and descending, the 'backfall' and 'double-backfall'.61 Of the 'elevation' (a slide), he says that it is 'now something obsolete',62 thereby suggesting that it had once been commonly used.

The 'shaked' graces are divided into 'close-shakes' and 'open-shakes'. The 'close-shake' is the equivalent of the vocal trillo described by Caccini and others and would, in effect, constitute a vibrato on the viol. The 'open-shakes' may be equated with the groppo, here used in combination with the 'smooth graces'. The most important feature of Simpson's 'open-shakes' is that they start with the upper auxiliary, not the main note. The groppo design has therefore superseded the tremolo. The 'shaked' beat is simply a 'beat' or forefall 'shaked', the inversion of the 'backfall shaked'. Simpson's verbal description strengthens this reasoning: 'The Beat is the same in nature with the Plain-Beat, the difference only a short shake of the finger before we fix it on the place de-

60 Simpson, Division, p.10.
61 Ibid., pp.10,11.
62 Ibid., p.11.
signed. '63 This is no doubt the same as the ornament described in Board on fol. 32\textsuperscript{v}, 'to beat down the finger with a shake', where Spencer suggests a forefall repeated in alternation with the upper main note. Simpson's 'shaked beat' bears, however, a close resemblance to the later 'beat', as explained by Purcell, which is a mordent preceded by a forefall. Further, the Manchester lyra viol book's sign \', which is a short mordent, is equated with the three dots used by Simpson. In Simpson's case, the compound sign for the 'shaked beat' /\': can likewise be interpreted as a forefall plus mordent, if the sign \': of the Manchester book is the same as Simpson's three dots:

\begin{center}
\includegraphics{Ex212.png}
\end{center}

Simpson also remarks that the above ornament and the plain 'beat' are usually made with a semitone. (There is a similarity here with Praetorius' example of the tremulus descendens, which is also made with the lower semitone.) It is unlikely, though, that Simpson intended it as such; his 'shaked beat' is clearly only the forerunner of what was to become the later 'beat' (= forefall plus mordent) for keyboard instruments.

Another interesting feature of Simpson's table is that for the 'beat', 'springer' and 'cadent' only one sign is used, but its placement and direction of slant determines the difference between them: the upward slanting stroke for the 'beat' is placed between notes, that for the 'springer' above the note, and that for the 'cadent' between notes, but slanting downwards. That the viol was much influenced by vocal ornamentation, is indicated by Simpson's remark that 'any Movement of the Voyce' may be imitated on the viol. Finally, he divides ornaments once again into two categories: firstly, 'masculine' ones, such as 'backfall' and 'shaked beat', which are more appropriate for use in the bass;

\[63\text{ Simpson, Division, p.11.}\]
secondly, 'feminine' ones such as the 'close shake' (vibrato) and 'plain graces' (= smooth graces?), which are more suited to the treble. Nevertheless, these are interchangeable if the situation demands it, e.g., if one wishes to express 'courage or cheerfulness' in the treble or 'sorrow' in the bass. Simpson's table must have been highly regarded, because it was included in the seventh edition of Playford's Introduction to the Skill of Musick. The fashion of changing ornament symbols is reflected in the differences between the 1654 and 1674 editions: whereas the comma ) is used in both for the backfall, two commas designate the 'backfall shaked' in the 1654 edition and a double-backfall in the 1674 edition; in the latter, the 'backfall shaked' is indicated ‘j’.

The second important source is Mace's Musick's Monument (1676) for the lute. The book was published only towards the end of his life (he was born in 1613), and by then lute playing was already a dying art. His explicit directions on ornamentation reflect seventeenth-century English lute practice and he is the most coherent of all writers on the instrument, therefore being a very important source. French lutenists exerted a dominant influence on seventeenth-century lute playing, and Mace can be regarded as an English representative of the French School. He describes the following ornaments as those 'graces commonly in use upon the lute', unfortunately without giving notated examples for all of them:

64 Simpson, Division, p.12.
67 Neumann, Ornamentation, p.67.
(i) 'The shake': .a

The 'first and chiefest' ornament, it can be performed either 'hard (loud) or soft'.
Ex.2.13

(ii) 'Beate': /c

Explained as a quick ornament, it can be made with the lower semitone.
Ex.2.14

(iii) 'Back-fall': ?a

It can be 'shaked' afterwards, becoming a trill. It uses either the whole tone or semitone from above.
Ex.2.15

(iv) 'Half-fall': _a

Always made with a semitone.
Ex.2.16

(v) 'Whole-fall': +a

'A grace much out of use in These our Days'.
Ex.2.17
(vi) 'Elevation': +=a

It is always made on the middle note of three ascending or descending notes.

Mace's tablature suggests an ascending and descending slide:
Ex. 2.18

(vii) 'Single Relish': :=a

'This grace is akin to the true shake: it is played with the fingers as upon a Viol'.

The tablature explains it as a shake which starts with a Backfall (?c), and terminates with two notes in the manner of the groppo:
Ex. 2.19

(viii) 'Double Relish': ::=a

'In Ancient Times the Well and True Performance of It, upon the several Keys, throughout the Instrument (either Lute or Viol) was accounted an Eminent piece of Excellency, though now, we use it not at all in our Compositions upon the Lute'.
Simpson and Mace are interesting mainly for the light they shed on earlier practices. Both refer to the slide (Simpson: elevation, Mace: whole-fall) as an ornament that had become obsolete in their time, but which had been used earlier. Obviously, they refer to its use on the lute and viol specifically, which is not to say that it was also used on the keyboard. Both employ the single cross (x). Their reference to it as a near obsolete ornament leads one to infer that the sign and its interpretation is that which was used earlier. (Both Simpson's and Mace's sign for the backfall is the same as that found in the Board table.) Mace refers to the double relish as a much used ornament in earlier music, and the notation for it in the two sources largely agrees. As will be seen, this ornament is always found in written-out form in the music of the Virginalists. It is clear from both sources that, although they were undoubtedly bound to a new era and subject to new influences, they remained rooted in an English tradition and still retained a few ornaments which had earlier been in common use. Although neither mentioned it, Simpson's 'beat' and 'backfall' (=Mace's 'half-fall' and 'back-fall') had already been in use since c.1620, as they appear in the ornament table of Board as 'fall
forward' and 'pull back', the sign for the backfall being identical in Board, Simpson and Mace. The lack of uniformity which characterizes seventeenth-century signs and their interpretations is also a feature of Mace and Simpson, for here, too, there is not always agreement. Simpson's 'beat', for example, is an appoggiatura from below, whereas Mace's 'beate' is a mordent. Mace's sign for the elevation (/ajax) appears in Board on fol. 20v. Simpson also uses it for an elevation, but obviously he must have meant a 'shaked elevation'. Mace's 'shake', which starts on the main note, is described for use on an open string, which leaves the possibility open that an upper-note shake may otherwise have been used, as in Simpson's case. Indeed Simpson says: 'The shaked Back-fall is also the same in nature with the plain ...' 69

2.6 Contemporary Lute Ornamentation on the Continent

The graces described by contemporary European lutenists will be briefly discussed here. Although the English lutenists need not necessarily have copied their Continental counterparts, they must have been acquainted with their techniques; Le Roy's lute instruction book which was translated into English, and Dowland's inclusion of Besardus' short treatise in Varietie, are evidence of this. The earliest lute ornaments (Capirola, Borrono) have already been discussed, as well as the ornaments described by Sancta Maria which apply as much to the keyboard as to the vihuela.

In 1557 Venegas, in his Libro de Cifra (for keyboard, harp and vihuela), described two quiebros and four redobles. The quiebro is described as 'to shake the finger on the string and fret' or 'to keep it in place and shake with the second and third finger one or two frets higher': the first interpreted by Poulton as a vibrato and the second as a tremolo. 70 The

69 Simpson, Division, p.11.
70 Poulton, Graces, p.109; and Venegas, Libro, 1:159.
Redobles are described by their fingering, which differs in each case. The first method is called dedillo and is made with the second finger of the right hand; the second is called Castillean, which is the crossing of the first finger over the second; the third is the 'foreign' way, which is the opposite of the second, i.e. crossing the second finger over the first; the fourth method is done with the second and third fingers. Unfortunately, these descriptions do not make the actual execution clear. The fact that Venegas discusses them separately from the keyboard quiebros is a definite indication that they were idiomatically conceived for the lute, and not likely to be applied to the keyboard. None of the other vihuelists is clear in his descriptions of ornaments. Luys Milan says that redobles are commonly called 'making dedillo' (dedillo = fingertip) and they must be played fast. Elsewhere he refers to a redoble called dos dedos (dedos = finger). Also, he refers to an ornament as a quiebro; yet nowhere is it explained. Alonso Mudarra distinguishes more clearly between the dos dedos redoble and dedillo redoble. He prefers the dos dedos, but states that if one can play both, it is a good thing, as both are needed at times. The dedillo is for descending passages, and dos dedos for ascending passages and cadences. Redobles are to be made on notes of this value: †, but should the tempo be faster, for example, if the tempo indication is ‡, notes of † may also have redobles. Dos de means a redoble with two fingers, and de di means dedillo. Miguel de Fuenllana describes three ways of playing redobles on the vihuela: firstly the dedillo, secondly dos dedos played with the thumb and index finger, and thirdly played with the first two of the four fingers (sic) of the right hand. It is unfortunate that in spite of the des-


72 Alonso Mudarra, Tres libros de Musica en cifra para vihuela (Sevilla, 1546), ed. by E. Pujol, Monumentos de la Musica Espanola VII (Barcelona: Instituto Espanol de Musicologia, 1949), p.40.

73 Miguel de Fuenllana, Libro de Musica para vihuela intitulado Orphénica lyra (Sevilla: Martin de Montesdoca, 1554), fols.5v-6; and Johnson, Spanish Renaissance, pp.109-110.
criptions, one cannot ascertain exactly how these redobles were played. It is nevertheless an affirmation of the fact that various ornaments were in use in Spain at mid-century, and that two distinct kinds of redobles were in use.

The lute manuscript Arie e Canzoni in musica di Cosimo Bottegari (1574), contains Italian music for voice and lute. The symbol appears a few times and could be an ornament similar to the tremolo. The very existence of this sign in an Italian lute source is extraordinary, since I know of no other Italian source which employs it; it is possibly not an ornament sign, as the signs #, x and + in Francesco da Milano's music indicate that the note or chord should sound 'as long as the consonance thus produced is perfect.' The same possibly applies here.

Kapsberger describes a trillo in his Libro Primo d'Intavolatura di Chitarone (1604). It is indicated by two dots above the tablature number, and seems to be a tremolo with the upper auxiliary, as it is always placed on an open string. He also gives two signs indicating a slur and an arpeggio. Pietro Melii's Intavolatura di Liuto Attiorbato Libro Secondo (1614) uses a capital T to mark places where he desires a tremolo.

Nicolas Vallet is the earliest French lutenist to give explicit directions about ornamentation. In Secretum Musarum (1615) he explains two ornaments. The first is indicated by a comma , which is an appoggiatura from above. The second is a single cross (x), which is similar to the first, but indicating that it should be repeated two or three times, according to the length of the written note, therefore being a tremolo commencing with the upper auxiliary. In the example Vallet adds

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76 Dodge, Ornamentation, p.321.
77 Poulton, Graces, p.111; Dodge, Ornamentation, p.322.
78 Text published in Dodge, Ornamentation, p.323.
a turn of two notes, which he writes out in the tablature, and this would equal a groppo. It is significant that at the time of Vallet's writing, the backfall comma and backfall plus shake (',♯') began to appear in English lute manuscripts (e.g., the Sampson Lute Book).

Alessandro Piccinini describes three ornaments in his Intavolatura di Liuto e di Chitarrone Libro Primo (1623). He uses signs for tenues and slurs only, but not for ornaments, 'since the places where tremoli should be made are infinite, I have not wished to obscure the tablature by making any'. He adds, 'in all places where there is a pause ... there must be a shake, sometimes one sort of shake, sometimes another, according to convenience'. Elaborate directions are given for three tremoli, which he calls first, second and third. The first should last for the whole value of the note, and Piccinini seems to imply the use of the semitone above the main note. The second is fast and short, and uses the lower semitone, therefore being a mordent; it 'may be done in an infinite number of places, and yields a lovely grace'. The third is a vibrato, which is not often used, as it takes the hand out of its playing position.

Finally, Basset, writing in Marin Mersenne's Harmonie universelle (1636), introduces seven symbols, which is his attempt at classification. According to him, the ornaments of his time 'have never been so frequent as they are at present.' Clearly, at that time ornament signs were not very diverse, for he says of the comma: 'Now the one which is formed in this fashion: ) is called tremblement ordinarily, and most people use no other character to express all the different sorts'. By adding a dash or dot to the basic sign, he distinguishes between an ornament which uses a semitone, from that using a tone. The basic

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79 The original text of this and the following appears in Dodge, Ornamentation, pp.322-323.

ornaments described are:

(i) Tremblement: Apparently a tremolo with the upper auxiliary, or sometimes an appoggiatura from above.
(ii) Accent plaintif: An appoggiatura from below.
(iii) Martelement: A Mordent, using the lower auxiliary.
(iv) Verre cassé: A vibrato.
(v) Battement: A long tremolo? It is practised more upon the lute than the violin.
(vi) Accent plaintif and battement: Combination of (ii) and (v).
(vii) Accent plaintif and Verre cassé: Contrary to the description, the given tablature letters suggest a mordent plus verre cassé.

Judging from the Continental evidence, one concludes that the English lutenists had developed an individual system of indicating ornaments. It is at once evident that they used signs more abundantly and at an earlier date than their European counterparts (but for Capirola and Borrono). The Spanish employed no signs, and the Germans began using them only much later than 1600. Vallet's two ornament signs resemble the two used by the English: the single cross (x) and the comma (>). Vallet's description of the comma accords with that given on fol.32v in Board, but the single cross employs the upper auxiliary and not the lower, which seems to have been standard in English lute music. On the Continent, Mersenne describes only the appoggiatura from below. For the rest, the signs used on both sides have little in common, strengthening the belief that there was little standardization. The English double cross is not found in lute music outside England (except for Bottegari). The tremolo (the equivalent of the early English shake) is the most commonly described ornament of the Continentals, therefore confirming the fact that it was the one most often used on the

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81 Mersenne, Harmonie, pp.107-109; Poulton, Graces, p.111; and Dodge, Ornamentation, pp.324-325.
Continental and in England. The appoggiatura from above is the next most often mentioned (Kapsberger, Melii, Piccinini, Mersenne). In England, in contrast to this, the appoggiatura from below is the ornament first to be described (Robinson), whereas the later Board Lute Book mentions both and gives separate signs for each. The English and Continental lutenists agree on two ornaments: the shake or *tremolo* with upper ornamental note and the fall (appoggiatura), using the lower ornamental note. Robinson's 'fall with a relish' has a counterpart in Mersenne's *accent plaintif plus battement*, but is nowhere else described. Neither is the slide in Board mentioned elsewhere on the Continent. The mordent is described by both Piccinini and Mersenne. As with the English, a clear distinction is made between ornaments utilizing the upper note and those with the lower ornamental note. An example is Piccinini, who describes two *tremoli*, one with the upper, and one with the lower auxiliary note; Mersenne gives them different names and signs (*tremblement, martelement*).

In Tables 2.1 to 2.5 the ornaments discussed in this chapter are tabulated.
<table>
<thead>
<tr>
<th>Source</th>
<th>Name</th>
<th>Sign</th>
<th>Notation and Fingering</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>GB-Lbm Add.15233 (before 1550)</td>
<td></td>
<td>😋</td>
<td></td>
<td>Double stroke</td>
</tr>
<tr>
<td>GB-Lbm Add.29996 (c.1547, and c. the reign of Mary)</td>
<td></td>
<td>-</td>
<td></td>
<td>Single stroke occurs only in one piece</td>
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<tr>
<td>GB-Lbm Add.30513</td>
<td></td>
<td>⋆</td>
<td></td>
<td>Triple stroke</td>
</tr>
<tr>
<td>Marsh's Lib.D.3.30 (c.1560-70)</td>
<td></td>
<td>⋆</td>
<td></td>
<td>The single stroke does not appear in this source</td>
</tr>
<tr>
<td>Parthenia In-Violata (c.1625)</td>
<td></td>
<td>⋆</td>
<td></td>
<td>This sign occurs only in this source</td>
</tr>
<tr>
<td>All sources of virginal music written c.1560-1650</td>
<td></td>
<td>😋</td>
<td></td>
<td>Simultaneous use of ornaments</td>
</tr>
<tr>
<td>GB-Lbm Royal 23.1.4</td>
<td></td>
<td>⋆</td>
<td></td>
<td>Not the same as the triple stroke</td>
</tr>
<tr>
<td>Priscilla Bunbury's Virginal Book(c.1630)</td>
<td></td>
<td>😋</td>
<td></td>
<td>It occurs only in the second half of this manuscript</td>
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<tr>
<td>GB-Lbm Add.30485</td>
<td></td>
<td>😋</td>
<td></td>
<td>These two signs are used in conjunction with double-stroke ornaments, up to fol.25 of Wr</td>
</tr>
<tr>
<td>Source</td>
<td>Name</td>
<td>Sign</td>
<td>Notation and fingering</td>
<td>Comment</td>
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<td>-------------------------------------------------------------------------</td>
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<tr>
<td>Anne Cromwell's Virginal Book (1638)</td>
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<td></td>
<td></td>
<td>The double and single strokes in this source appear above the note stem and through it</td>
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<tr>
<td>GB-Och 1236</td>
<td></td>
<td></td>
<td></td>
<td>Only one appearance</td>
</tr>
<tr>
<td>GB-Lbm Add.10337 (1656)</td>
<td></td>
<td></td>
<td></td>
<td>The fingering and notation are original</td>
</tr>
<tr>
<td>Edward Bevin: 'Graces in play' (c.1700 or earlier)</td>
<td></td>
<td></td>
<td></td>
<td>'The graces, before, is here exprest in notes'</td>
</tr>
<tr>
<td>Source</td>
<td>Name</td>
<td>Sign</td>
<td>Notation and fingering</td>
<td>Comment</td>
</tr>
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<td>------------------------</td>
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<td>------------------------</td>
<td>--------------------------------------------------------------------------</td>
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<tr>
<td>Musick's Hand-Maid</td>
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<tr>
<td></td>
<td>(1663)</td>
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<tr>
<td></td>
<td>Forefall</td>
<td>-</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Backfall</td>
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<td></td>
<td>Shake</td>
<td>-</td>
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<tr>
<td></td>
<td>Forefall and shake</td>
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<td></td>
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<tr>
<td></td>
<td>Beat</td>
<td></td>
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<tr>
<td>Locke: Melothesia</td>
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<td>(1673)</td>
<td>Forefall</td>
<td>-</td>
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<td></td>
<td>Backfall</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shake</td>
<td>-</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Forefall and shake</td>
<td>-</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Beat</td>
<td></td>
<td></td>
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<tr>
<td>Purcell (1696)</td>
<td>Shake</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Beat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plain note and shake</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fore fall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Back fall</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Turn</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shake turn'd</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Slur</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Battery</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

In the latter part of the book the double stroke is no longer drawn through the stem of the note.

No note examples are supplied.
<table>
<thead>
<tr>
<th>Source</th>
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<th>Sign</th>
<th>Notation and fingering</th>
<th>Comment</th>
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</thead>
<tbody>
<tr>
<td>Robinson (1603)</td>
<td>Relish</td>
<td></td>
<td></td>
<td>Employs upper auxiliary note</td>
</tr>
<tr>
<td></td>
<td>Fall without</td>
<td></td>
<td></td>
<td>Appoggiatura from below</td>
</tr>
<tr>
<td></td>
<td>a relish</td>
<td></td>
<td></td>
<td>(possibly a mordent too?)</td>
</tr>
<tr>
<td></td>
<td>Fall with</td>
<td></td>
<td></td>
<td>Combination of Relish and Fall</td>
</tr>
<tr>
<td></td>
<td>a relish</td>
<td></td>
<td></td>
<td>Appoggiatura from above</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Appoggiatura from below</td>
</tr>
<tr>
<td></td>
<td>Pull back</td>
<td>♂</td>
<td></td>
<td>'To beat down the finger with a shake' (≠ a forefall 'shaked'? )</td>
</tr>
<tr>
<td></td>
<td>Fall forward</td>
<td>♀</td>
<td></td>
<td>'Three pricks to be struck upward with one finger'</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A long shake</td>
</tr>
<tr>
<td>Board Lute Book</td>
<td>Shake</td>
<td>#</td>
<td></td>
<td>Vibrate?</td>
</tr>
<tr>
<td>(c.1620-30)</td>
<td>Slide</td>
<td>&lt;</td>
<td></td>
<td>Alternation between main and upper note</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Forefall?</td>
</tr>
<tr>
<td>Downes (Lyra Viol)</td>
<td>Relish</td>
<td></td>
<td></td>
<td>Backfall</td>
</tr>
<tr>
<td>c.1615</td>
<td>Shake</td>
<td>#</td>
<td></td>
<td>Backfall 'shaked'?</td>
</tr>
<tr>
<td></td>
<td>Fall</td>
<td>♂</td>
<td></td>
<td>Beat 'shaked'?</td>
</tr>
<tr>
<td>Sampson Lute Book</td>
<td></td>
<td></td>
<td></td>
<td>Beat 'shaked'?</td>
</tr>
<tr>
<td>c.1609</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Cosens Lute Book</td>
<td></td>
<td>♂</td>
<td></td>
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</tr>
<tr>
<td>c.1600-15</td>
<td></td>
<td>#</td>
<td></td>
<td></td>
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<tr>
<td>Source</td>
<td>Name</td>
<td>Sign</td>
<td>Notation and fingering</td>
<td>Comment</td>
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<td>---------------------</td>
<td>-----------------------</td>
<td>------</td>
<td>------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Playford (1654)</td>
<td>Backfall</td>
<td>(a)</td>
<td>(\downarrow a)</td>
<td>'A smooth grace'; it takes a quarter of the value of the main note</td>
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<tr>
<td>Simpson: The Division-Viol Beat (1659)</td>
<td>Backfall</td>
<td>(a)</td>
<td><img src="image" alt="Backfall notation" /></td>
<td>'Smooth graces'</td>
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<tr>
<td></td>
<td>Double-Backfall</td>
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<td><img src="image" alt="Double-Backfall notation" /></td>
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<tr>
<td></td>
<td>Elevation</td>
<td>(+a)</td>
<td><img src="image" alt="Elevation notation" /></td>
<td>A slide</td>
</tr>
<tr>
<td></td>
<td>Springer</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Cadent</td>
<td></td>
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<tr>
<td></td>
<td>Backfall shaked</td>
<td></td>
<td><img src="image" alt="Backfall shaked notation" /></td>
<td>'Shaked graces'</td>
</tr>
<tr>
<td>Source</td>
<td>Name</td>
<td>Sign</td>
<td>Notation and fingering</td>
<td>Comment</td>
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<td>-------------------------------</td>
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<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Simpson</td>
<td>Close shake</td>
<td></td>
<td></td>
<td>'Shaked graces'</td>
</tr>
<tr>
<td></td>
<td>Shaked beat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elevation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cadent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Double relish</td>
<td></td>
<td></td>
<td>'Groppetto plus groppo'</td>
</tr>
<tr>
<td></td>
<td>Or thus:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mace: Musick's Monument (1676)</td>
<td>Shake</td>
<td>/a</td>
<td></td>
<td>Main-note start, with upper auxiliary alternation</td>
</tr>
<tr>
<td></td>
<td>Beate</td>
<td>/c</td>
<td></td>
<td>Mordent</td>
</tr>
<tr>
<td></td>
<td>Back-fall</td>
<td>/a</td>
<td></td>
<td>Appoggiatura from above</td>
</tr>
<tr>
<td></td>
<td>Half-fall</td>
<td>/a</td>
<td></td>
<td>Appoggiatura from below, semitone specified</td>
</tr>
<tr>
<td></td>
<td>Whole-fall</td>
<td>+a</td>
<td></td>
<td>Slide</td>
</tr>
<tr>
<td>Source</td>
<td>Name</td>
<td>Sign</td>
<td>Notation and fingering</td>
<td>Comment</td>
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<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Mace</td>
<td>Elevation</td>
<td>✡</td>
<td></td>
<td>Slide up and down</td>
</tr>
<tr>
<td></td>
<td>Single relish</td>
<td>:a</td>
<td></td>
<td>Similar to the groppo ('akin to the true shake')</td>
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<tr>
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<td>Double relish</td>
<td>::a</td>
<td></td>
<td>Groppo plus groppetto</td>
</tr>
<tr>
<td></td>
<td>Slur</td>
<td>a</td>
<td></td>
<td>Sliding up with left hand, as many notes as possible</td>
</tr>
<tr>
<td></td>
<td>Slide</td>
<td>a</td>
<td></td>
<td>Same as slur, used only descending, never more than two or three notes at a time</td>
</tr>
<tr>
<td>Springer</td>
<td>Springer</td>
<td>á</td>
<td></td>
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<tr>
<td>Sting</td>
<td>Sting</td>
<td>~a</td>
<td></td>
<td>Vibrato</td>
</tr>
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<td>Sign</td>
<td>Notation and fingering</td>
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<tr>
<td>Capirola</td>
<td>Tremolo</td>
<td>..</td>
<td>Two kinds: upper or lower auxiliary used</td>
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</tr>
<tr>
<td>(1517)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Borrono</td>
<td>Tremolo</td>
<td>()</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Venegas</td>
<td>Quiebro</td>
<td></td>
<td>A tremolo and vibrato</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Redoble</td>
<td></td>
<td>Described by fingering</td>
<td></td>
</tr>
<tr>
<td>Milán</td>
<td>Redoble</td>
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<td>Two types redobles: dedillo and dos dedos</td>
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</tr>
<tr>
<td></td>
<td>Quiebro</td>
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<td>Dedillo: descending;</td>
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<td>Dos dedos: ascending</td>
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<td>Trillo</td>
<td>..</td>
<td>Tremolo?</td>
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<td>(1604)</td>
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<td>Melii (1614)</td>
<td>Tremolo</td>
<td>T</td>
<td>Tremolo</td>
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<td>Vallet (1615)</td>
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<td></td>
<td>Note from above</td>
<td></td>
</tr>
<tr>
<td></td>
<td>x</td>
<td></td>
<td>Repeat two or three times</td>
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<td></td>
<td></td>
<td></td>
<td>note from above</td>
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<td>Piccinini</td>
<td>Tremolo</td>
<td></td>
<td>Three kinds:</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>(1) Lasts whole value of note, uses upper auxiliary</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>(2) Short mordent</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>(3) Vibrato</td>
<td></td>
</tr>
<tr>
<td>Source</td>
<td>Name</td>
<td>Sign</td>
<td>Notation and fingering</td>
<td>Comment</td>
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<td>------------------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Pieta Royalle</td>
<td>Accent plaintif</td>
<td>†</td>
<td></td>
<td>Vibrato</td>
</tr>
<tr>
<td>Mersenne (1635)</td>
<td>Tremblement</td>
<td>›</td>
<td></td>
<td>Start with upper auxiliary</td>
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<tr>
<td></td>
<td>Accent plaintif</td>
<td>›</td>
<td></td>
<td>Appoggiatura from below</td>
</tr>
<tr>
<td></td>
<td>Martelement</td>
<td>× or ∨</td>
<td></td>
<td>Mordent</td>
</tr>
<tr>
<td></td>
<td>Verre cassé</td>
<td>‰</td>
<td></td>
<td>Vibrato</td>
</tr>
<tr>
<td></td>
<td>Battement</td>
<td>∞</td>
<td></td>
<td>Long tremolo?</td>
</tr>
<tr>
<td></td>
<td>Accent plaintif</td>
<td>∞</td>
<td>and battement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accent plaintif</td>
<td>†</td>
<td>and verre cassé</td>
<td>Described as a mordent and vibrato combined</td>
</tr>
</tbody>
</table>
CHAPTER 3

3. THE PRINTED EDITION OF THE FITZWILLIAM VIRGINAL BOOK: A CRITICAL COMMENTARY OF THE ORNAMENTATION

3.1 Background to the Printed Edition

The original printed edition of the complete FVB available is that edited by J.A. Fuller Maitland and W. Barclay Squire, first published in 1899 by Breitkopf & Härtel. Dover issued a reprint in 1963, and in 1979-80 a revised edition with numerous corrections was issued under the editorship of Blanche Winogron. A careful comparison of ornamentation between a microfilm of the original manuscript (Tr) and the printed edition (FVB), reveals many discrepancies, these being mainly printer's errors and editorial misjudgements. Bearing the extensiveness of the collection in mind (418 hand-written, or 936 printed pages), a few misprints might well be considered inevitable, but taking into account the great number of errors in the FVB, the proofreading must have been careless. The FVB is not the only work to suffer in this way; mistakes have likewise been discovered in MB editions in pieces where Tr is the only source.¹

In spite of the revised edition's title page claim to be a 'corrected' version, most of the original ornamentation errors persist. In fact, while a few mistakes were rectified, new ones were made in the corrected edition. In Bull's Pavana of my L Lumley (FVB I p.149), for instance, four ornaments are missing in the printed edition of 1963. Yet the editor corrected only two of the four ornaments in the revised edition of 1979-80, even though they all occur in one bar.² Nonetheless, the editor

¹ For instance:
FVB I 48:3:3 B.1 not in MB XXVIII p.122, b.37.
I 51:5:1 S.6 left out in MB XXVIII p.124, b.93.
I 138:1:2 S.2 left out in MB XIV p.124, b.2.
I 141:4:1 B.2 no ornament in Tr, MB XXIV p.44, b.16

² FVB I 149:1:2, A.4, T.7.
claims in the Preface that 'it was only after a thoroughgoing
critical reexamination of the entire collection was undertaken
by the present Editor ... that the full extent and nature of
the corrections was realized.' Taking the number of errors in-
to account, it becomes evident that little attention was given
to ornamentation when the earlier edition was revised and that
the editor was unaware of the extent of error, for it is further
stated that the printer's errors include 'occasional omission
of ... a few ornaments ...'.

A detailed comparison of both the 1963 and 1979-80 editions with
a microfilm of the original manuscript, forms the basis for the
list of errors and textual deviations recorded in the following
pages. This list deals with errors and peculiarities concerning
ornament signs in the FVB (1979-80), of which misprints form the
greatest part. There are three categories:

- ornaments which appear in Tr, but which are omitted in the
  FVB,
- ornaments which have been added in the FVB but which do not
  appear in Tr,
- ornaments placed on the wrong note.

Editorial misjudgement has caused certain signs to be printed
as ornaments, when they are in fact slips of the pen, or correc-
tion signs, or signs whose meaning is uncertain. The exact
shapes as they appear in Tr are reproduced here. Ornament signs
or parts thereof which are blotted or incomplete, indistinct or
difficult to read or indentify, are all mentioned. In these
cases the appropriate ornament in the collated source is given
as a guide.

The commentary on the text and the abbreviations are presented
thus:

- The number and title of the piece appear as in Tr, followed

---

4 Ibid.
by the composer's name and the page number in Tr in brackets.

- Thereafter the FVB page and bar number indication are given, with the Tr page number again in brackets.

- To identify the notes, voices are indicated by the letters S A T B and followed by a number, so that S.3 indicates, for example, the third note in the soprano.

- Notes are counted individually, whether tied or not, e.g. in \( \text{\textbullet\textbullet\textbullet}\) the last note is counted as the third. Rests are not counted, e.g. in \( \text{\textbullet\textbullet\textbullet}\) the last note is counted as the fourth. For example: 2:6:1 A.2 \( \neq \), read: on page 2, system 6, bar 1 the second note in the alto bears a double stroke on a minim.

- Where divisi occurs in one of the voice parts, or where uncertainty may arise, the note pitch is indicated in brackets, by means of the Helmholtz system.

3.2 Errors Occurring in the FVB (1979-80)

3.2.1 FVB Volume I

1 Walsingham Doctor Jhon Bull (p.1)
   2:6:1 (p.1) A.3 \( \neq \) (b')

2 Fantasia Jhon Munday (p.9)
   20:2:2 (p.10) S.2 \( \neq \)
   20:3:3 (p.10) S.3 \( \uparrow \)

3 Fantasia Jhon Munday (p.12)
   23:4:2 (p.12) S.6 \( \downarrow \)
   S.9 \( \downarrow \)
   26:6:2 (p.13) B.5 The lower line is vague and short \( \neq \)

4 Pavana Ferdinando Richardson (p.14)
   27:1:1 (p.14) S.8 \( \neq \) Indistinct (\( \neq \) in Wr, f.75b)
   27:4:2 (p.14) A.3 \( \leftarrow \) (horizontal line) (not in Wr, f.75b)

6 Galiarda Ferdinando Richardson (p.16)
   32:4:3 (p.16) S.9 \( \uparrow \)
<table>
<thead>
<tr>
<th>No.</th>
<th>Title and Composer</th>
<th>Source Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Fantasia</td>
<td>William Byrd (p.19)</td>
</tr>
<tr>
<td>10</td>
<td>Jhon come kisse me now</td>
<td>William Byrd (p.23)</td>
</tr>
<tr>
<td>11</td>
<td>Galliarda to my L. Lumley's Paven</td>
<td>Doctor Bull (p.27)</td>
</tr>
<tr>
<td>12</td>
<td>Nancie</td>
<td>Thomas Morley (p.28)</td>
</tr>
<tr>
<td>13</td>
<td>Pavana</td>
<td>Doctor Bull (p.30)</td>
</tr>
<tr>
<td>17</td>
<td>Galliarda</td>
<td>Doctor Bull (p.34)</td>
</tr>
<tr>
<td>18</td>
<td>Barafostus' Dreame</td>
<td>(Anon) (p.35)</td>
</tr>
<tr>
<td>25</td>
<td>Praeludium</td>
<td>(Anon.) (p.41)</td>
</tr>
<tr>
<td>26</td>
<td>The Irishe Ho-Hoane</td>
<td>(Anon) (p.42)</td>
</tr>
<tr>
<td>31</td>
<td>The Quadran Pavan</td>
<td>Doctor Bull (p.49)</td>
</tr>
<tr>
<td>32</td>
<td>Variation of the Quadran Pavan</td>
<td>Doctor Bull (p.54)</td>
</tr>
</tbody>
</table>
34  **Pavana**  Doctor Bull (p.63)
127:6:3 (p.65) S.9  # Sign indistinct

38  (No title)  Doctor Bull (p.70)
140:5:3 (p.72) S.1  The lower of the 2 lines is very faint and thin ✈

39  **Pavana**  Rob. Jhonson. Sett by Giles Farnabie (p.72)
142:1:1 (p.73) S.4 ✇
142:2:4 (p.73) A.7 ✇
142:6:1 (p.73) S.1 ✇
143:2:3 (p.73) A.1 ✇

41  **Pavana of my L. Lumley**  Doctor Bull (p.76)
149:1:1 (p.76) S.3 ✇ The lower line is short. Co has ✇, none in Bu, D₂
149:1:2 (p.76) T.2 ✇ The lower line is only on the left side of the stem; no ornaments in Bu, D₂; Co has ✇
   A.4 ✇
   T.7 ✇

42  **Goe from my window**  Jhon Munday (p.78)
153:1:3 (p.78) T.1 ✇ Not in Tr
153:3:4 (p.78) T.10 ✇ The top line is short, but distinct
154:3:3 (p.78) S.4 ✇ The note is wrong, it should read S.5 ✇
155:3:1 (p.79) B.3 ✇
   B.7 ✇
155:3:3 (p.79) B.9 ✇
156:4:4 (p.79) T.4 ✇

47  **Variatio**  Doctor Bull (p.87)
176:5:1 (p.89) T.15 ✇

48  **Galiarda**  Doctor Bull (p.89)
178:5:1 (p.90) S.1 ✇
179:5:1 (p.90) B.13 ✇ (misprint ♩ ♩)
52 Fantasia  William Byrd (p.97)
193:6:1 (p.97) S.11,12 should read c", d" ♩

54 Spagnioletta  Giles Farnabie (p.100)
201:2:1 (p.100) S.5 ♩

55 For Two Virginals  Giles Farnabie (p.101)
202:1:1 (lower system) (p.101) S.5 ♩

56 Passamezzo Pavana  William Byrd (p.102)
203:1:3 (p.102) S.1 ♩ Lower line short (Ne and Fo ♩)
204:6:2 (p.102) T.8 ♩

58 The Carmans Whistle  William Byrd (p.106)
214:1:4 (p.106) S.5 ♩
214:2:4 (p.106) S.3 ♩
215:3:1 (p.107) A.2 # B.2 ♩
215:3:2 (p.107) A.3 ♩
216:5:3 (p.107) S.10 ♩
217:4:2 (p.108) S.4 ♩

60 Treg Ground  William Byrd (p.111)
228:3:1 (p.112) S.8 ♩ (e')
233:6:4 (p.115) S.2 ♩

61 Monsieurs Alman  William Byrd (p.114)
235:1:2 (p.115) T.4 ♩
235:3:2 (p.115) S.7 ♩
235:3:4 (p.115) S.7 ♩

62 Variatio  William Byrd (p.116)
244:3:4 (p.118) A.11 ♩

64 Sellinger's Round  William Byrd (p.120)
248:3:3 (p.120) S.4 ♩
248:4:3 (p.120) B.1 ♩
248:6:1 (p.120) A.3 ♩
249:2:5 (p.121) B.1 ♩ is very indistinct
251:2:5 (p.122) Last chord right hand: ♩
252:3:3 (p.122) S.1 ♩
66 O Mistris Myne William Byrd (p.125)
   262:3:4 (p.126) T.6 Not in MS
   262:4:3 (p.126) T.6 Not in MS
   262:4:5 (p.126) T.6 Faint, short lines

67 The Woods so Wild William Byrd 1590 (p.127)
   263:5:2 (p.127) S.1

68 Walsingham William Byrd (p.129)
   267:4:2 (p.129) A.6
   270:4:1 (p.130) S.1
   271:3:3 (p.130) S.8
   273:5:3 (p.131) B.13

91 Pavana Bray William Byrd (p.169)
   361:1:2 (p.169) Second chord (c'e'g')
   362:4:3 (p.169) S.5
   S.9

94 Galiarda William Byrd (p.173)
   371:4:3 (p.173) S.5 The top of the ornament consists of a thick blot; it was probably not intended as an ornament. In 371:5:1 the ornament is not repeated in the imitation.
   371:5:1 (p.173) S.3 is a very indistinct

95 Toccata Giovanni Pichi (p.174)
   373:5:3 (p.174) Second chord right hand

101 Ut, re, mi, fa, sol, la William Byrd (p.187)
   395:2:3 (p.187) S.2
   396:6:1 (p.188) S.11
   399:1:3 (p.189) B.3

102 Ut, mi, re William Byrd (p.190)
   401:2:4 (p.190) S.2
   S.4
   T.6

104 All in a Garden Green William Byrd (p.194)
   412:1:1 (p.194) B.2

109 Felix Namque 1562 Thomas Tallis (p.201)
   428:6:1 (p.201) A.6 is blotted
3.2.2 FVB Volume II

110 Felix Namque Thomas Tallis (p.205)
   1:5:1 (p.205) A.1
   7:6:4 (p.208) S.7 is ambiguous in Tr

113 Pawles Wharfe Giles Farnaby (p.212)
   17:4:1 (p.212) S.4 ♫ is wrong, it should be S.5 ♫
   17:5:3 (p.212) S.5 ♫
   18:1:2 (p.212) S.12 ♫

114 Quodlings Delight Giles Farnaby (p.213)
   19:3:3 (p.213) S.8 ♫ not in Tr
   19:5:2 (p.213) S.1 ♫

117 Praeludium (Anon) (p.215)
   25:2:3 (p.215) S.3 ♫

119 In Nomine John Bull (p.219)
   34:1:4 (p.219) T.1 ♫
   35:5:2 (p.219) T.1 ♫ There is a blot in Tr, which makes it difficult to determine whether there is a double stroke

121 Pavana Lachrymae Jhon Dowland, sett foorth by William Byrd (p.222)
   45:2:2 (p.223) B.5 ♫

122 Galiarda James Harding, sett foorth by William Byrd (p.223)
   47:1:2 (p.223) S.1 ♫ not in Tr
   50:2:2 (p.224) S.1 ♫ not in Tr

123 Pavana Thomas Tomkins (p.225)
   51:1:1 (p.225) S.5 ♫
   51:1:2 (p.225) S.2 ♫
   53:6:1 (p.226) S.1 ♫
   56:3:1 (p.227) Right hand, first chord ♫

126 The Maydens Song William Byrd (p.231)
   70:1:1 (p.232) B.5 ♫

127 Put up thy Dagger, Jemy Giles Farnaby (p.233)
   74:5:2 (p.234) S.2 no ♫ in Tr
   5:4 (p.234) B.1 ♫
128 **Bony sweet Robin** Giles Farnaby (p.235)
77:3:1 (p.235) S.9 ♩ not in Tr
79:1:3 (p.235) A.5 ♩
79:6:3 (p.236) S.3 ♩

130 **A Grounde** Thomas Tomkins (p.239)
87:4:1 (p.239) S.5 ♩
92:3:3 (p.241) S.1 ♩
3:3 (p.241) S.3 ♩
3:3 (p.241) A.4 ♩
93:6:2 (p.241) A.3 ♩

131 **Barafostus Dreame** Thomas Tomkins (p.241)
94:3:1 (p.241) T.4 ♩
95:3:1 (p.242) S.3 ♩

133 **The Quadran Paven** William Byrd (p.245)
104:5:2 (p.246) A.3 ♩

135 **The King's Hunt** Doctor Bull (p.250)
116:5:2 (p.250) A.9 ♩ A blot makes the stroke doubtful
117:3:3 (p.251) B.7 ♩

136 **Pavana** Doctor Bull (p.252)
121:1:3 (p.252) B.2 ♩ Horizontal thick line, doubtful as a single-stroke ornament
124:4:2 (p.254) A.3 ♩ not in Tr

143 **Rosasolis** Giles Farnaby (p.262)
148:2:1 (p.262) T.7 ♩ Tr has only one faint line

146 **Alman** Rob. Johnso (p.267)
159:2:2 (p.267) S.3 ♩ There is no ornament in Tr

150 **Malt's come downe** William Byrd (p.269)
167:4:2 (p.270) S.9 ♩

154 **Galiarda** Thomas Morley (p.274)
178:2:4 (p.274) S.4 ♩ The lower line is blotted
179:4:4 (p.275) A.1 ♩

155 **La Volta** William Byrd (p.275)
181:3:1 (p.275) S.1 No ♩ in Tr
157 **Wolseys Wilde** William Byrd (p.276)
184:1:3 (p.276) T.4 ♩ appears in Tr, not ♩

160 **Rowland** William Byrd (p.278)
191:1:1 (p.279) T.5 ♩

164 **Galliard** William Byrd (p.281)
198:2:1 (p.281) S.7 ♩
198:4:2 (p.282) A.4 ♩
198:5:2 (p.282) A.4 ♩
5:2 (p.282) S.7 ♩
199:5:2 (p.282) S.5 ♩, S.7 ♩

167 **Pavana** William Byrd (p.284)
205:5:2 (p.285) S.1 ♩
206:1:4 (p.285) T.2 ♩
2:1 (p.285) S.2 ♩
3:3 (p.285) A.2 ♩

168 **Galiarda** William Byrd (p.285)
208:2:3 (p.286) A.2 ♩
208:6:1 (p.286) S.1 ♩

169 **Pavana** Thomas Morley (p.286)
212:5:1 (p.287) B.8 is difficult to read. The stem is broken, thus ♩
It is uncertain whether an ornament is intended.

172 **The Queenes Alman** William Byrd (p.289)
218:5:3 (p.290) S.5 ♩

177 **Miserere** William Byrd (p.295)
233:3:1 (p.295) T.3 ♩ above chord; rather indistinct

182 **Pipers Paven** Martin Pierson (p.298)
240:5:2 (p.299) S.5 ♩
241:2:1 (p.299) S.7 ♩

181 **Sr. Jhon Graves Galiard** W.B. (p.307)
258:4:2 (p.307) S.6 (d") ♩ The double lines in the FVB are vague

191 **Fayne would I Wedd** Richard Farnabye (p.309)
263:2:3 (p.309) S.3 ♩

199 **A Maske** Giles Farnabye (p.310)
265:3:3 (p.310) B.3 ♩ Indistinct horizontal line
203 Corranto  (Anon)  (p.311)
267:2:1' (p.311) S.6 ♫ looks like ♫

207 Worster Braules  Thomas Tomkins  (p.312)
269:1:4 (p.312) S.1 ♫
   S.2 ♫
   S.3 ♫
   S.4 ♫
269:2:3 (p.312) S.1 ♫
269:3:2 (p.312) A.3 (d") ♫ ambiguous in Tr

208 Fantasia  Giles Farnabye  (p.312)
270:3:1 (p.312) S.3 ♫ is faint
   S.5 ♫
   S.7 There is no ♫ in Tr
270:3:1 (p.312) S.3,5 are faint. The sign below the note is added to ♫, thus:
270:5:4 (p.312) S.4 ♫

214 Pavana Chromatica  William Tisdall  (p.315)
278:1:2 (p.315) A.6 The ♫ is not in Tr

220 Pavana  William Tisdall  (p.328)
307:4:3 (p.328) S.2 ♫

236 27. (no title)  Giles Farnaby  (p.343)
340:2:1 (p.343) A.4 ♫ is faint

238 Fantasia  29. Giles Farnaby  (p.346)
347:3:1 (p.346) S.1 ♫

239 The L. Zouches Maske  30. Giles Farnaby  (p.347)
350:2:1 (p.347) S.8 ♫ The lower line is thin and short; ♫ is more likely in view of the imitation of the first bar
   2:2 (p.347) S.1 ♫
352:1:4 (p.348) B.9 ♫

240 Groude  31. Giles Farnaby  (p.349)
354:2:2 (p.349) S.8 ♫.
251 **The Leaves bee greene** 2. William Inglot (p.362)  
381:2:2 (p.362) A.1

252 **Pavana** William Byrd (p.364)  
384:1:1 (p.364) In the first right hand chord the ornament on the middle note is missing \$\$

253 **Galiarda** William Byrd (p.365)  
387:2:1 (p.365) S.10 \$

S.11 \$ S.10 is clearer than the faint S.11

254 **Pavana** William Byrd (p.366)  
389:2:1 (p.366) S.2 \$
389:6:4 (p.366) S.5 \$
390:6:3 (p.367) S.1 \$

255 **Galiarda** William Byrd (p.367)  
392:4:3 (p.367) S.5 \$ is not in Tr

256 **Pavana** William Byrd (p.368)  
394:1:1 (p.368) S.4 \$ is very faint in Tr

1:2 (p.368) S.1 \$
397:1:3 (p.369) S.3 \$ is not in Tr

257 **Pavana Fant** William Byrd (p.370)  
398:1:1 (p.370) A.3 \$ is not in Tr

262 **The Duchesse of Brunswick's Toye** Doctor Bull (p.377)  
412:1:4 (p.377) S.4 \$

265 **Corranto. Lady Riche** (Anon) (p.378)  
414:4:6 (p.378) S.1,4 Neither ornament is in Tr

5:5 (p.378) T.3 \$ has a very short horizontal stroke

267 **A Gigge** Giles Farnaby (p.379)  
417:1:1 (p.379) S.1 \$

S.3 \$

271 **The Primerose** Martin Peerson (p.381)  
422:4:1 (p.382) S.1 \$ faint
In spite of some ornamentation errors having been eliminated in the FVB (1979-80), the fact that the subject was neglected is once again proven by the presence of other, new mistakes in the 'corrected' edition, not one of which is to be found in the FVB (1899/1963). In five instances ornaments are omitted, and in another an ornament is added where none exists in Tr. All the mistakes given below are found in 3.2, but ought to prove useful to those who do not possess the later edition of 1979-80.

3.3.1 Mistakes peculiar to the New Edition, FVB (1979-80)

Volume I:

38:3:4 (Tr p.19) A.5 (f#) There is no d' in Tr.
373:5:3 (Tr p.174) The second chord in the right hand should read . (The ornament has been omitted in the new edition.)

Volume II:

1:5:1 (Tr p.205) A.1 (Omitted in the new edition.)
181:3:1 (Tr p.275) S.1 is not in Tr. (This has been incorrectly added by hand, therefore it is not a misprint.)
218:5:3 (Tr p.289) S.5 (The note values have been corrected, but the ornament has been omitted.)
387:2:1 (Tr p.365) S.10 , S.11 ; S.11 is very faint.
3.3.2 Corrections Introduced into the New Edition, FVB (1979-80)

Volume I:

23:1:1 (Tr p.12) S.1 o (a") There is no ornament; FVB (1963) has g" o.

23:2:3 (Tr p.12) A.6 j

53:1:2 (Tr p.26) S.16 has no double stroke.

58:2:1 (Tr p.28) T.3 There is no j (c')

T.6 j

131:3:3 (Tr p.67) T.9 j (c') Tr has \[\]

149:1:2 (Tr p.76) T.2 j (Tr has \[\])

T.4 \[\]

Volume II:

218:5:3 (Tr p.290) S.5 to 8 j j j j

398:1:1 (Tr p.370) A.1 (d') has no 乐队

3.4 Non-Ornament Stenographic Signs in Tr

In autographs of virginal music, signs which were never intended as ornaments, occasionally appear. Unless these are identified for what they are, they may add greatly to the confusion surrounding single- and double-stroke ornaments. Many of these signs were printed in collections of virginal music because the editors failed to understand their meaning. Rather than leave them out, the editors incorporated them into the text, as has been the case with the FVB. Comparison with other virginal autographs reveals them to be cancellation signs, either of the note value, the note stem or of an ornament. Occasionally none of the above reasons applies, in which case the sign may be either a slip of the pen on the part of the copyist, or cryptic. In the FVB four such signs occur: the horizontal line (single or multiple \[\]), the horizontal line flanked by two vertical lines ( \[\]), the double stroke flanked by two vertical lines ( \[\]), and a cross (+).
3.4.1 The Horizontal Line Through the Stem

In the case of a minim, the horizontal line drawn through the stem of a note, thus: $\hat{j}$, cancels the stem, altering the note value to a semibreve. In another example, $\hat{j}$ becomes $\hat{j}$. The sign also appears in other virginal music autographs. In the Tudor organ music of $L_1$, the horizontal single line is definitely intended to cancel the erroneously written stem of a note, in other words to alter the note value. It may be found in nos. 18,37,55,56,57 and 60, where $\hat{j}$ is meant to be $o$. In this manuscript, the horizontal line is always much thicker than those of the double strokes of the ornament and also in the one instance of the oblique stroke. In no. 55 (folio 51$^v$, EECM 10, p.41, b.129, tenor E), the horizontal line converts the value of an erroneously written crotchet ($\hat{t}$) to a minim ($\hat{j}$). Another source in which the horizontal line cancels the stem of a note ($\hat{j}=o$) is the Mulliner Book (Mu, fols. 92,96$^v$).

In FVB I 60:2:1, the horizontal line is used once by Tregian as in the above-mentioned examples. It indicates a wrong note value in the manuscript, where $\hat{f}$ should read $\hat{f}$. In the FVB this has been interpreted as a single-stroke ornament ($\hat{f}$). This has baffled many a scholar, for its peculiar location on the bottom note of a chord makes the accepted interpretation as a slide impossible. The horizontal line is also found in FVB I 27:4:2, A.3. It must be a slip of the pen, as there is no ornament in the other copy, Wr fol. 75b. In FVB II 414:5:5 T.3, the cross-line is very short ($\hat{j}$), and is unlikely to be either an ornament or a cancellation sign. In FVB II 121:1:3 B.2, the thick horizontal line at the top of the stem could be an inkblot: $\hat{j}$. It is not to be found in the collated sources Fo, D₄ or Co. In view of its unique appearance, it is unlikely to be a horizontally drawn single-stroke ornament.
The horizontal line occurs twice in Tr in conjunction with the double stroke:

\[
\begin{array}{c}
\text{FVB I 153:3:4 T.10 } \text{(very short top line)} \\
\text{II 412:1:4 S.4 }
\end{array}
\]

These have been reproduced as double strokes in the FVB. They cannot be regarded as triple-stroke ornaments, for in the sources where such ornaments occur they all present the same lateral disposition: \( \text{\textbullet} \) - slanting upward. The paucity of other such signs in Tr weakens the theory that they were simply carelessly written by the copyist. The horizontal line is not intended to cancel the double stroke, for the sign employed for that in Tr is \( \text{\textbullet} \). As the note values in both instances are correct, the horizontal line cannot indicate a change in note value. In PI \( \text{\textbullet} \) is found as a composite ornament, but again its isolated appearance in the FVB makes it unlikely to be a cancellation sign. In the case of FVB I 153:3:4 there is no other source to collate with, but in the case of FVB I 412:1:4, the reading in Bu is a double-stroke ornament. One concludes that in both cases they are slips of the pen. In many virginal sources multiple strokes through the note stem are used to cancel the note completely, as in \( \text{\textbullet} \) p.110 (\( \text{\textbullet} \)), \( \text{\textbullet} \) fol.19\( \text{\textbullet} \), 16\( \text{\textbullet} \) (\( \text{\textbullet} \)) and fol.63 (\( \text{\textbullet} \)). Here the strokes slant more or less in an upward direction, one line being drawn through the note head. No such example is found in Tr.

3.4.2 The Horizontal Line Flanked by Vertical Lines

There are two instances of an almost horizontal line flanked by vertical lines drawn through the stem of the note, for example, FVB I 72:1:3 A.2 \( \text{\textbullet} \). Here the horizontal line slopes slightly downward. It indicates the cancellation of the stem, changing the note to a blackened one, in accordance with the black notation (which is stemless) throughout the piece. In FVB II 381:2:1 (\( \text{\textbullet} \)) the horizontal line is flanked by two vertical lines which do not extend below the horizontal.
As there is only one double-stroke ornament in the piece, this isolated sign cannot indicate an ornament. The vertical lines may well be the cancellation of the accidentally drawn horizontal line. PB is another source containing a sign of similar shape, where the sign \( \text{\textdagger} \) is used to neutralize a note flag.\(^5\)

3.4.3 The Flanked Double-Stroke Ornament

The sign \( \text{\textdagger} \) is used in Tr to cancel the double-stroke ornament and should not be confused with the sign \( \text{\textdagger} \) of the DVM.\(^6\)

\[
\begin{array}{lll}
\text{FVB I} & 71:1:1 & S.1 \text{\textdagger} \\
73:1:1 & A.2 & \text{\textdagger} \\
86:2:3 & A.3 & \text{\textdagger} \\
127:6:3 & S.9 & \text{\textdagger}
\end{array}
\]

(In Bu this ornament has been removed.)

3.4.4 The Cross

A cross (+) is used to draw attention to grammatical irregularities: it appears between the two staves in I 119:4:4, where attention is focused on the dissonant first quaver.\(^7\)

3.5 Alignment of Ornaments

It remains to be proved whether significance may be attached to the position of ornament signs on the stem of the note, or, in the case of stemless notes, above, below or through the note. One can speculate that the position distinguishes between ornaments which are either on or before the beat (for which there is no equivalent in Continental sources), or to indicate a specific

\(^5\) Boston, Priscilla Bunbury, p.371.

\(^6\) See 2.2.

\(^7\) See the editorial note in MB XIX, no.127e, p.236.
type of ornament. In Tr, which is written throughout in a very careful, neat hand, the position of most ornaments is consistent throughout the manuscript, although exceptions occur which are not reflected in the printed edition. In the FVB a policy of normalization has been followed, placing double and single strokes about two-thirds up the stem, without reference to their original position in Tr.

3.5.1 Alignment of the Single Stroke

In Tr, the most puzzling aspect regarding the positioning of ornament signs is the manner in which the single stroke is written. Most single strokes appear as upward slanting lines at the top of the stem: \( \text{J} \). However, a sizeable number of single strokes are drawn through the stem: \( \text{J} \). In a few rare instances the single stroke appears as a horizontal line, where circumstances rule it out as a cancellation sign; here, slips of the pen are a distinct possibility, especially in a collection as large as Tr. Most of these different single strokes appear slanting upwards about two-thirds of the way up the note stem, and a few halfway up the note stem. In a few cases it is only a very short horizontal stroke. In three pieces single strokes are placed successively above or below the note head. Twice the ornament is drawn through the stem where the note is tied over the bar line (\( \text{J} \)), and at least here it must have been done because of the horizontal flag of the tied note. Noticeable, too, is that most of these strange alignments are found in conjunction with crotchet and minim note values.

In Table 3.1 a list is given of single-stroke ornaments other than those drawn through the top of the note stem, excepting the horizontal lines already discussed. The exact alignment and degree of slant are given as they occur in Tr. The alignment in collated sources is given in brackets.
3.5.2 Alignment of the Double Stroke

This ornament is treated with more consistency in Tr than is the case with the single-stroke sign. It ordinarily occurs about two-thirds up on the note stem (\(\text{T}\)), slanting upwards. Only rarely does it occur at the top of the stem (\(\text{U}\)), where it is more a matter of carelessness than of imparting new significance to an ornament. More exceptionally, the ornament is found above the note stem: \(\text{U}\). Other ambiguities occur only on stemless notes and chords. With semibreves, the double stroke is as a rule placed above the note, the double stroke drawn through the note being the exception (\(\text{F}\)). In chords, the ornamented note has the double stroke either close to it \(\text{F}\) or through it: \(\text{F}\). Whether these placings have special meaning or not has yet to be established. The original alignment of double strokes in Tr is not reproduced in the FVB, except in a few instances where the position of double strokes on the middle note of a chord is shown.

A list of the exceptions, i.e. double strokes drawn through, above or below the note, is given in Table 3.2.

3.6 Coloration (Blackened Notation)

The ornamentation of blackened or coloured notes in Tr is consistent.\(^8\) The ornament appears above the note when it is standing alone (\(\text{U}\)), and where the lower note of a group of two or more is to be ornamented, the sign is placed below that note: \(\text{U}, \text{F}\). It is drawn through the note head itself only when the note occurs in the middle of the chord: \(\text{U}\). In the FVB the coloration has been translated into modern notation, examples of which appear in FVB I pp.51,66,72,214,224 and 248; FVB II pp.14,15,79,92,94,138,305,317,412 and 414.

---

3.7 Duration of Notes and Ornaments

As the value of the note upon which an ornament is made is of crucial importance - it is a factor influencing the length of the ornament in execution - it is necessary to understand the composer's original intention. In this example, it is clear that the composer intended the ornament to last for the full value of the tied notes:

Ex.3.1 Richardson, Galiarda (FVB I 93:4:4)

There are, however, many examples where the original notation has not been preserved in the printed musical text, so that \( \text{f} \) in Tr becomes \( \text{f~f} \), \( \text{~} \) is given as \( \text{~} \), and \( \text{~} \) becomes \( \text{~} \) in the FVB, resulting in a distorted view of the original. Particularly noteworthy are the semibreves which are often divided into two tied minims, the reason for this being not because they straddle a barline. Often, only one of these minims is ornamented: \( \text{f~f} \). In this way one may clearly distinguish between shorter and longer ornaments, should the latter be taken as \( \text{~} \). The correct note values of the particular cases as they appear in Tr, are given in Table 3.3.

3.8 Note Value Ambiguities

In Tr one encounters the practice of notating triplets and groups of short notes in a single metric diminution, i.e. semiquavers are written as demisemiquavers and demisemiquavers as semi-demisemiquavers. This phenomenon is due to the practice

\[ \text{See 1.4, where treatises recommend that ornaments take up half the value of the note.} \]
of coloration which was applied in the notation of virginal music. Tregian's practice is, however, far from consistent. Although most examples are written in a single metric diminution, there are sporadic examples written in a single metric augmentation, or even in a double metric diminution. In FVB I:271, for instance, all three deviations appear within a span of four bars. It may well be that the sources at Tregian's disposal utilized these note values. In all of Peter Philips' works in Tr, the demisemiquavers are consistently written as semi-demisemiquavers, while this is not the case in the works of Byrd and Bull in Tr. Adjacent bars may have eight demisemiquavers and eight semi-demisemiquavers juxtaposed, the one group notated correctly, the other in a single metric diminution (e.g. FVB I 83:3:1,2).

3.8.1 Notations in a Single Metric Diminution

In Tr, groups of six sextuplets notated as the equivalent of a crotchet appear as demisemiquavers, thus corresponding to a modern sextuplet of semiquavers:

Ex.3.2 Tr Modern values

```
    6
```

Groups of eight notes corresponding to the value of a crotchet appear as semi-demisemiquavers, rather than as demisemiquavers:

10 The editors of the FVB realized this, and discussed it in FVB I, Introduction, p.xv; see also M.B. Collins, The Performance of Coloration, Sesquialtera and Hemiolia (Ph.D. dissertation, Stanford University, 1963), p.175.

11 The works of Byrd and Bull are preserved in many different sources, which may be used to confirm or authenticate the notation in Tr. The MB editions mention the differences between the sources, e.g. MB XIV, XIX, XXVII and XXVIII.
It is important to be aware of these notational irregularities when comparing Tr with the FVB, where the note values of such passages have been modernized. One may easily blame the copyist for carelessness (indeed this is sometimes the case), since certain editors of virginal music do not explain this phenomenon. The MB editions of virginal music are an example, where only the varying number of alternations between the sources is mentioned.

It is necessary to know the original notation, for although one could normally adapt the note value to a single metric augmentation, there are ambiguous cases where the grouping of notes provides more than one interpretation: \( \frac{1}{8} \) in the original may be transcribed as either \( \frac{1}{4} \) or \( \frac{1}{8} \), for example FVB I 260, II 108. The written-out ornaments affected by this manner of notation involve groppi, groppetti and tirate. Six-note groppi often occur as two plus four (\( \frac{1}{8} \)\( \times \frac{1}{8} \)), or as a group of six notes. Eight note groppi occur either as four plus four notes (\( \frac{1}{8} \)\( \times \frac{1}{8} \)), two plus four, or one group of eight notes. The grouping is entirely left to the composer's (scribe's?) fancy, with an apparent measure of carelessness. The majority of 'incorrect' note values are groups of four, six or eight demisemiquavers notated in a single metric diminution as semi-demisemiquavers (\( \frac{1}{8} \) notated as \( \frac{1}{4} \)). Semiquaver sextuplets (\( \frac{1}{8} \)) are almost uniformly notated as demisemiquavers, and in a few cases, eight semiquavers are written as demisemiquavers. There are also two cases of quavers notated as semiquavers. In Table 3.4 these notations in a single metric diminution are given.

\[ \text{Ex.3.3} \] Tr Modern values

\[ \begin{array}{c}
\text{Original} \quad \text{Modern values}
\end{array} \]

\[ \begin{array}{c}
\text{\( \frac{1}{8} \)\( \times \frac{1}{8} \)} \quad \text{\( \frac{1}{4} \)}
\end{array} \]

\[ \begin{array}{c}
\text{\( \frac{1}{8} \)\( \times \frac{1}{8} \)} \quad \text{\( \frac{1}{4} \)}
\end{array} \]

12 MB XIX, p.xvi.
3.8.2 Notations in a Double Metric Diminution

In a few cases semiquavers are notated as semi-demisemiquavers. They are tabulated in Table 3.5.

3.8.3 Notations in a Single Metric Augmentation

There are a few instances of notation in a single metric augmentation, and in at least one case it is due to the coloration of a whole section written in a single metric augmentation, e.g. FVB I:53. A list of these appears in Table 3.5.

3.8.4 Inconsistent and Incorrect References

In the FVB most of the notations in a metric diminution or augmentation have been corrected without comment, but in a few cases they are inconsistently referred to in footnotes, e.g. FVB I 83:3:1 and I 260:4:2, 5:1. Incorrect references to the original note values are made on pp.76,111,112,127,452 and 459 of FVB II. A list of these is also given in Table 3.5.

3.9 Textual Variants in Virginal Music Sources

A comparison of the pieces in Tr with the same preserved in other sources exemplifies the problems involved in establishing a definitive text. A collation of sources reveals variants in both the text and the ornamentation. This is largely due to the fact that music printing in England was still in its early stages, the first printed book of virginal music (Parthenia) having been published only in 1612/13. Most virginal music from this period was therefore copied by hand. Because of the variants it is not always possible to ascertain the original intention of the composer, nor to distinguish it from the additions and omissions of the copyist. A collation of sources may sometimes date a copy as an earlier or later version, depending on the textual variants.
3.9.1 Textual Variants in Dr. Bull's Juell

A collation of four sources of Dr. Bull's Juell (FVB II p.128, Tr no.138, p.255), reveals the textual differences which are typical of those found in other sources when collated: they differ in detail in matters such as the indication of accidentals, rests, number and distribution of voice parts, constituent notes of passages and ornament signs.

In Ex.3.4 sixteen bars of Dr. Bull's Juell are reproduced. Taking Bu as the point of reference, the variants in Me, Co and Tr are marked thus: . It is evident that variants in note values (i.e. rhythmic changes) and the layout of chords are substantial. Differences between chord notes and dissolution of chords are apparent in b.1 (Me, Co), 4(Co, Tr), 6(Me), 7(Tr), 8(Me, Tr, Co), 9(Co, Me), 10(Co, Me, Tr) and 12(Tr, Co, Me). Rhythmic differences occur in b.1 (Co, Tr), 2(Co), 3(Co, Tr), 4(Me), 12(Me, Co, Tr), 13(Tr), 15(Me), 16(Me). Parts where texts differ completely occur in b.2 (Co), 3(Me, Tr), 4(Co), 9(Me), 12(Me, Co, Tr), 13(Tr), 14(Co, Tr) and 15(Me). A study of all four sources reveals that, in spite of the differences, the sources never stray far apart. At any given moment the relationship between each is clearly recognizable. None of the four sources seems to be more closely related to any particular one more than the others (except perhaps Bu and Tr). Two or more sources may agree at various places, sometimes within one bar. In b.3, for example, the right hand agrees in Me and Tr, whilst the left hand is identical in Tr and Co. One concludes that each of the four versions is a valid text: each was made from differing copies. Me is sixteen bars longer than Bu and eight longer than Co and Tr, while Bu and Me are slightly more elaborate than the other two.

3.9.2 Variants in Ornamentation

When considering the differences in ornamentation between various sources of the same piece, the independence between
Ex. 3.4 Bull, Dr. Bull's Juell (MB XIX no.141, p.210)
them emerges as the most striking feature. Not only does the number of ornaments differ from one to the other, but no two agree completely on their placement, the type of sign used, or the written-out ornamentation. Frequently, a sign in one source is substituted by a written-out ornament or an ornamental figure in others. In the Galliard Saint Thomas Wake by Bull (Tr no. 36), this is the case in b.23,39,40,49,60 and 61. The readings in Tr differ from the primary source Pa (no.11) and are supported by Co (p.122) in two instances. The readings in the corresponding sources are given below in the primary source, Pa, in Ex.3.5:

Ex.3.5 Bull, Galliard St. Thomas, Wake! (MB XIX no.126b, p.147)

b.23 Pa:

\[\text{Music notation image}\]

Tr:

b.39,40 Pa:

\[\text{Music notation image}\]

Tr: 

b.49 Pa:

\[\text{Music notation image}\]

Tr: 

Four sources of a Byrd Pavana follow, illustrating the differences in the occurrence of ornaments (Ex. 3.6). All ornaments in all sources are listed, as well as other small differences in the text which affect the ornaments. The signs used to indicate the differences, are:

- ✓ : This denotes that the ornament in Tr also appears in the particular source.
- ✗ : The ornament in Tr is not found in the particular source.
- # : A double-or single-stroke ornament appears in the source concerned, the note upon which it is made being encircled in Tr.

Different note values are notated on separate staves.

The following discussion concerns the ornament signs in Ex. 3.6.

- Number of ornaments in each source. Wr, Ne and Tr are within fair agreement, Ne having the most ornaments. Wr and Tr have almost the same and D2 has very few by comparison:

<table>
<thead>
<tr>
<th>Source</th>
<th>Number of Ornaments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ne</td>
<td>91</td>
</tr>
<tr>
<td>Tr</td>
<td>83</td>
</tr>
<tr>
<td>Wr</td>
<td>81</td>
</tr>
<tr>
<td>D2</td>
<td>8</td>
</tr>
</tbody>
</table>

- Ornaments which accord in all four sources. Only three ornaments are common to all four sources (b.1, 26, 35). This represents 3.6% of the Tr total. The number of common ornaments is higher for the three sources Ne, Wr and Tr, namely 28, which represents 33.7% of the Tr total. Differences between individual sources are fewer:
Ex. 3.6

Byrd, Pavana (FVB II 384)

Wr (fol. 4)  ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
D₂ (p. 62)  ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
Ne (fol. 67)  ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓

Tr (p. 364)

Wr ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
D₂ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
Ne ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓

Wr ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
D₂ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
Ne ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓

Wr ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
D₂ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
Ne ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓

Wr ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
D₂ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
Ne ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓

Wr ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
D₂ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
Ne ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
Wr  
D₂  
Ne  

Wr  
D₂  
Ne  

Wr  
D₂  
Ne  

Wr  
D₂  
Ne  

Wr  
D₂  
Ne  

Wr  
D₂  
Ne  

Wr  
D₂  
Ne
<table>
<thead>
<tr>
<th>Comparison</th>
<th>Number of Ornaments</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tr and Ne</td>
<td>42</td>
<td>50.6% of Tr total</td>
</tr>
<tr>
<td>Tr and Wr</td>
<td>31</td>
<td>37.3% of Tr total</td>
</tr>
<tr>
<td>Ne and Wr</td>
<td>66</td>
<td>72.5% of Ne total</td>
</tr>
<tr>
<td>D₁ and Tr</td>
<td>4</td>
<td>4.8% of Tr total</td>
</tr>
<tr>
<td>D₁ and Wr</td>
<td>7</td>
<td>8.6% of Wr total</td>
</tr>
<tr>
<td>D₁ and Ne</td>
<td>6</td>
<td>6.5% of Ne total</td>
</tr>
</tbody>
</table>

These calculations reveal that Ne and Wr are in closer agreement with each other than with Tr, which is a more independent source.

Ornaments unique to each source. Thirty-five ornaments, or 42.1% of the ornaments in Tr do not concur with any of the other sources. This contrasts with Ne which has far fewer (twelve, or 13.1%), and Wr (twelve, or 14.8%), and D₁ which has none. This indicates that Tr either copied this piece from a revised or reworked text, or that he modified it himself, the sources to which Tregian had access being unknown. The independence of Tr as a source for this piece is further seen in its use of single-stroke ornaments, none of which are found on the same notes in the other sources.

The independence of the texts is further revealed by the fact that the various sources agree at different moments: Wr, D₁, and Ne may have a double-stroke ornament where Tr has none (b.24, 53). While Ne and Wr have more in common, there are still thirteen instances where Ne and Tr accord with each other, whereas Wr does not. Differing signs occur on the same note in the various sources: in b.50 (Tr has \( \text{\textdagger} \), Wr and Ne have \( \text{\textdagger} \)); b.57 (Tr has \( \text{\textasteriskcentered} \), Wr and Ne have \( \text{\textdagger} \)); in b.56 (Wr has \( \text{\textdagger} \), Ne has \( \text{\textdagger} \)). Tr is also the most independent text as far as written-out ornaments are concerned: b.64 and 67 have different ornamental figurations before the groppi, whereas Wr, D₁, and Ne agree. The number of notes and note values differ, nevertheless, greatly in all four sources: in b.22, all sources have eight notes for the groppo, with Tr being the sole one to write it in a single metric diminution. In b.63,64 and 67 the
note values between Ne, Wr and D₂ agree, but the number of notes in the groppi is different. Except for b.64, Tr consistently employs eight semi-demisemiquavers.
### Table 3.1

**Alignment of the Single Stroke**

**FVB I**

<p>| 25:1:3 | S.2 | $\uparrow$ |
| 54:1:1 | S.1 | $\uparrow$(Co $\uparrow$) |
| 56:4:1 | S.8 | $\uparrow$(Co $\uparrow$) |
| 57:4:1 | S.3 | $\uparrow$ |
| 74:2:1 | S.17 | $\uparrow$ |
| 75:1:3 | A.5 | $\uparrow$ |
| 77:2:2 | S.4 | $\uparrow$ |
| 131:5:3 | S.1 | $\uparrow$ |
| 132:4:3 | S.1 | $\uparrow$ |
| 196:1:3 | S.1 | $\uparrow$ |
| 2:2 | S.3 | $\uparrow$ |
| 2:3 | S.1 | $\uparrow$ |
| S.3 | $\uparrow$ |
| 3:1 | S.2 | $\uparrow$ |
| 202:1:1 | S.5 | $\uparrow$ |
| 218:4:1 | S.7 | $\uparrow$ |
| 4:3 | S.8 | $\uparrow$ |
| 5:1 | S.1 | $\uparrow$ |
| 5:3 | A.6 | $\uparrow$ |
| 221:5:2 | S.10 | $\uparrow$ |
| S.13 | $\uparrow$ |
| 229:3:3 | S.8 | $\uparrow$ |
| 231:5:3 | A.1 | $\uparrow$ |
| 233:4:1 | A.3 | $\uparrow$(Fo $\uparrow$, Wr $\uparrow$) |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>242:2:3</td>
<td>S.8</td>
<td></td>
</tr>
<tr>
<td>254:1:3</td>
<td>S.8</td>
<td></td>
</tr>
<tr>
<td>262:3:1</td>
<td>S.1</td>
<td></td>
</tr>
<tr>
<td>3:3</td>
<td>S.1</td>
<td></td>
</tr>
<tr>
<td>358:6:2</td>
<td>A.7</td>
<td></td>
</tr>
<tr>
<td>401:1:1</td>
<td>S.6</td>
<td>(through stem because of tie?)</td>
</tr>
</tbody>
</table>

**FVB II**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>51:1:1</td>
<td>S.5</td>
<td></td>
</tr>
<tr>
<td>75:3:1</td>
<td>T.6</td>
<td>(virtually horizontal)</td>
</tr>
<tr>
<td>117:1:3</td>
<td>B.11,13,15</td>
<td></td>
</tr>
<tr>
<td>117:2:1</td>
<td>B.9</td>
<td></td>
</tr>
<tr>
<td>117:2:2</td>
<td>B.3,5,7,9</td>
<td></td>
</tr>
<tr>
<td>2:3</td>
<td>B.1,3,5,7</td>
<td></td>
</tr>
<tr>
<td>3:1</td>
<td>B.9,11,13,15</td>
<td></td>
</tr>
<tr>
<td>3:2</td>
<td>B.5,7,13,15</td>
<td></td>
</tr>
<tr>
<td>3:3</td>
<td>B.1,3,5,9,11,13,15</td>
<td></td>
</tr>
<tr>
<td>193:5:1</td>
<td>S.1</td>
<td></td>
</tr>
<tr>
<td>203:1:1</td>
<td>S.5</td>
<td></td>
</tr>
<tr>
<td>208:5:2</td>
<td>S.5</td>
<td></td>
</tr>
<tr>
<td>217:1:1</td>
<td>S.9</td>
<td></td>
</tr>
<tr>
<td>265:3:3</td>
<td>B.3</td>
<td>(indistinct horizontal line)</td>
</tr>
<tr>
<td>270:3:1</td>
<td>S.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S.3,5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>have additional—below notes:</td>
<td></td>
</tr>
<tr>
<td>386:3:3</td>
<td>A.1</td>
<td></td>
</tr>
<tr>
<td>387:2:1</td>
<td>S.10</td>
<td></td>
</tr>
</tbody>
</table>
TABLE 3.2  

ALIGNMENT OF THE DOUBLE STROKE

**FVB I**

<table>
<thead>
<tr>
<th>Alignment</th>
<th>Character</th>
</tr>
</thead>
<tbody>
<tr>
<td>23:1:3</td>
<td>S.7</td>
</tr>
<tr>
<td>2:3</td>
<td>S.5</td>
</tr>
<tr>
<td>37:5:2</td>
<td>S.1</td>
</tr>
<tr>
<td>114:2:2</td>
<td>S.1, S.3</td>
</tr>
<tr>
<td>3:1</td>
<td>S.3</td>
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| 132:3:2   | S.1       |
| 3:3       | S.1       |
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| 183:3:2   | A.3       |
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| 226:2:3   | S.1       |
248:2:5  right-hand chord \( \text{upper line not through note} \)
250:6:4  first chord right hand \( \text{upper line not through note} \)
6:5      first chord right hand \( \text{upper line not through note} \)
251:2:5  right-hand chord \( \text{upper line not through note} \)
254:2:2  right-hand chord \( \text{upper line not through note} \)
274:1:2  S.1 \( \text{upper line not through note} \)
1:3      S.1 \( \text{upper line not through note} \)
274:2:1  2:2, 2:3, 2:4, 2:5, 2:6 \( \text{upper line not through note} \)
391:2:3  right hand last chord \( \text{upper line not through note} \)
401:2:4  A.5 \( \text{upper line not through note} \)
406:5:4  second chord right hand \( \text{upper line not through note} \)
408:2:1  third chord right hand \( \text{upper line not through note} \)

**FVB II**

51:3:2  A.1 \( \text{upper line not through note} \)
53:3:1  first chord right hand \( \text{upper line not through note} \)
56:3:1  first chord right hand \( \text{upper line not through note} \)
92:4:3  right-hand chord \( \text{upper line not through note} \)
94:3:1  last chord right hand \( \text{upper line not through note} \)
97:6:2  S.2 \( \text{upper line not through note} \) (given as \( \text{upper line not through note} \) in the FVB)
233:3:1  T.3 \( \text{upper line not through note} \)
234:5:2  T.1 (d) \( \text{upper line not through note} \)
258:4:2  right-hand chord \( \text{upper line not through note} \)
269:1:3  second chord right hand \( \text{upper line not through note} \)
269:2:2  A.1 \( \text{upper line not through note} \) \( \text{upper line not through note} \)
271:5:1  A.4 \( \text{upper line not through note} \)
293:5:1  S.1 \( \text{upper line not through note} \)
317:1:1  second chord left hand \( \text{upper line not through note} \) (coloration)
384:3:1 right-hand chord
3:5 first chord right hand
387:3:1 S.2
388:3:2 second chord right hand
fourth chord right hand
388:3:3 right-hand chord
391:2:1 A.1
400:2:3 S.4
422:1:1 right-hand chord
422:1:2 right-hand chord
425:3:3 S.3, S.5
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Demisemiquavers Notated as Semi-demisemiquavers

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<td>391:3:2; 6:1</td>
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<td>394:3:3; 4:1; 5:1</td>
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<td>396:5:2; 5:3; 6:1</td>
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<td>313:5:3</td>
<td>397:2:4; 3:1; 6:1; 6:2</td>
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<td>316:1:3</td>
<td>403:6:1,2</td>
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Semiquavers Notated as Demisemiquavers

FVB I

404:1:2; 5:3; 6:2
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422:2:2; 2:4
423:3:3
428:6:2
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438:1:3; 3:1; 5:3
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447:4:1
450:4:2
452:4:2; 5:1
456:4:2; 5:1; 5:3
458:3:1; 4:3; 5:1,2
459:2:3; 4:1; 4:2; 5:1
460:4:1
461:3:1; 4:1,2; 5:1; 5:2; 6:2 84:5:2
463:5:1
468:5:2
469:5:2
478:4:3
481:5:2
484:6:2
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486:5:1
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212:3:1; 3:2
323:4:1,2
335:1:1

FVB I

207:1:2
208:4:3; 6:2
212:3:1; 3:2
323:4:1,2
335:1:1
TABLE 3.5

NOTATION IN A DOUBLE METRIC DIMINUTION

Semiquavers Notated as Semi-demisemiquavers

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193:6:1,2
195:3:3

**FVB II**

76:4:1 A.1 - 8
111:2:1 S.6 - 13
112:2:3; 6:3
158:6:2
452:6:1

NOTATION IN A SINGLE METRIC AUGMENTATION

Demisemiquavers Notated as Semiquavers, and Semiquavers as Quavers

**FVB I**

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FVB II

108:1:2  S.5 - 8, A. 4 - 7
1:3      S.5 - 8, T. 7 - 10

INCORRECT REFERENCES IN THE FVB TO Tr

FVB II

76:4:1   in Tr
111:2:1  in Tr
112:2:3  in Tr
6:3      in Tr
127:2:2  in Tr
452:6:1  in Tr
459:4:2  in Tr