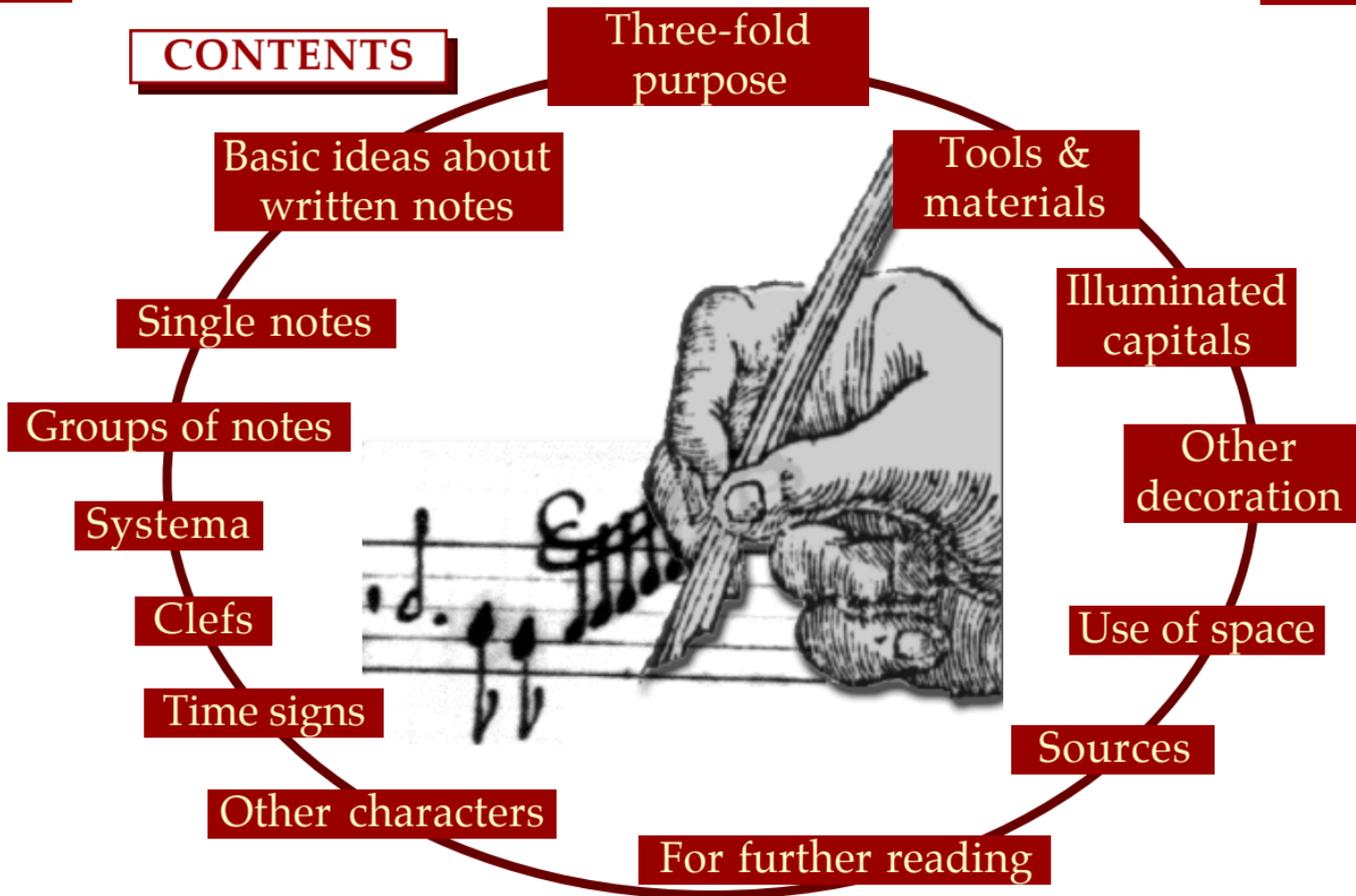


# *MUSICA CALLIGRAFICA*

*Music Writing  
as an experience  
of beauty*



*David Kettlewell*



BASIC IDEAS ABOUT WRITTEN NOTES

This article has a **THREE-FOLD PURPOSE**

One aspect is quite simply to give something for the eye, to compare with the delight which a performance of early music gives to the ear.

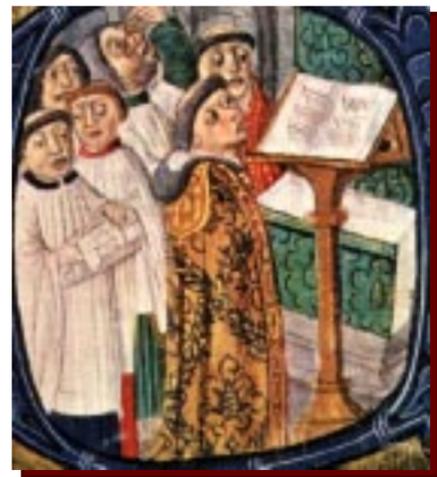
A second is to enhance the everyday experience of dealing with early music: historically-aware music-making needs a historical note-picture.

The third is to inspire anyone who ever uses a pen - or even a computer - to create musical dots, by suggesting different ways of combining beauty with practicality: creating a page which attracts the eye, which creates the urge to realise the signs in sound, and which represents the thinking process which gave rise to the sounds of early music.

\*\*\*\*\*

There is a vast body of expertise surrounding early music these days: historical performance practice, the restoration of historical instruments and the building of new ones from historical models, knowledge about the conditions under which musicians lived and worked in earlier times, dance and costume - the study of all of these is well advanced.

And yet - what about the pieces of paper which most musicians read while they are playing and singing?



The visual world of today's player or singer of early music is usually characterised by the mechanical regularity, the vertical alignment, the 'barbaric' barlines, of a modern score.

By contrast, the visual world of a musician in Renaissance times features a beautiful evenness tempered by human irregularity, a horizontal alignment, and a visually free representation of the passage of time - it is clearly understood and so does not need to be shown.

The paper a modern musician sees usually represents the parts played by all the voices and instruments: the obvious advantage of this is a visual overview, but at an opportunity cost which usually passes unnoticed - the eye must first establish

which is the relevant information for the player or singer, filtering out and discarding at least 75% of the information it is fed, and in addition it assumes the major part of a task for which it is remarkably unsuited, that of judging how to relate to one's fellows.

The paper a renaissance musician sees normally represents only his own voice, so that the 'overview' is aural: every mark on the page is intended for his notice, and it is his ear which judges how he should relate to his fellow musicians.

We may ask how close to a renaissance experience we can come, if the musician is thinking translated thoughts because he hasn't learnt how to 'think renaissance'. People say 'original notation is far too



esoteric, complicated, clumsy, inconsistent for today's musician to spend his time on': and this may fairly be said of music composed before c.1500, when music-writing was largely the field of professionals. But during the 16th century the number of middle-class town dwellers rose enormously - people with a certain amount of leisure and an idea of making music to restore a weary spirit; and with it grew the demand for a music which was simpler to play and sing, a pedagogical approach which was more people-friendly, and a notation which was easier to read: conditions not so unlike those of the later 20th century...

Sure, you can read Shakespeare's words typeset on a computer and printed with an electronic printing press, you can even get a translation into modern language - and this

approach makes one kind of Shakespeare accessible to many who it wouldn't otherwise reach. But perhaps we can recognise that this is a very different experience from reading his original words, either written by hand or printed with the techniques of his time.

Of course we can't all play and sing from original renaissance manuscripts, not everyone can even travel to the different national museums and libraries to see them: but to get hold of a facsimile reprint, to get pen and ink and make one's own transcripts with original sources as models - this can be a very real enhancement of life, and at many levels, too: in practical music-making, in understanding how someone thought and worked, in creating more beautiful surroundings to work in...



**T**hen there are the questions of what the different marks used in notating music actually mean, and how an understanding of earlier notation can illuminate the playing and singing and teaching of music: these are touched on elsewhere in this publication, and those who have access to a computer and the World-Wide Web can find more detail at the author's 'New Renaissance' web-site:

<http://web.ibs.ee/newren>



**T**he lecture and exhibition which gave rise to this article presented a number of facsimiles, and a few originals, of both manuscripts and printed sources, which are of interest as works of art. They depend to a large extent on the use of colour, and to reproduce them here would both duplicate publications which already exist, and put the price out of the range of an everyday reader.

So the article focuses instead on different ways musical signs can be written, how notes can be combined in groups, and then spaced, laid out on the page, and decorated.

The models used include handwriting on parchment and paper, printing from hand-engraved plates, printing from woodcuts, and printing from pieces of type cast in metal.

When a writer makes marks, what comes out depends very largely on the natural interaction between two elements, a tool and a material: some traditions use a knife and a piece of wood, others a stylus on wax, or a chisel on stone. In some traditions a third element is involved, as when a brush transfers colour onto spun and woven silk, or onto dried and woven grass.

Strange as it may sound, we're concerned here with what happens when a bird's feather is used to transfer colour onto a piece of stretched and dried animal skin.

The skin is usually that of a cow or a pig - that of a calf works better, but is naturally more costly, since the farmer



looses the value of the cow-which-would-have-been.

The chosen bird is a goose or a raven: the chosen quill is the second or third from the front of the wing, and the tool is made stronger by stripping the feathers from it, later by baking it in hot sand.

The colour is mostly black, made by mixing soot, or the gall from the diseased seed of the oak tree, with wine which has been allowed to become sour.

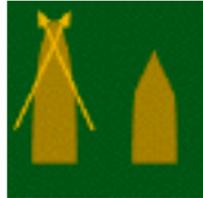
At a certain point in time, people crush their old clothes together to make a pulp which is then spread thin and dried, and write on that: and later still they use trees instead of clothes.



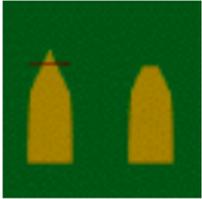
And all of these characteristics have determined the forms of the musical notes which are used today.



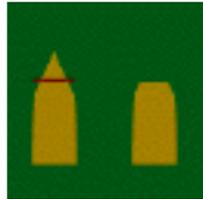
The tip of the quill is first sharpened to a point; then it is cut off blunt, 90° from the perpendicular, and the



place where you make the cut determines how broad the tip is - the nearer the end, the narrower the



tip, the further up the broader. You then cut a perpendicular slit in the tip, so that when you increase the pressure between the tool and the material the tip becomes wider, as



you release the pressure it becomes narrower.



The Latin name for quill, '*penna*', is used unchanged in some languages (Swedish '*penna*') shortened in others (English '*pen*'), translated in others (Estonian '*sulepea*'): yet others go to an older tradition, using Latin '*stilus*', a pointed cutting tool (French, '*stilo*').

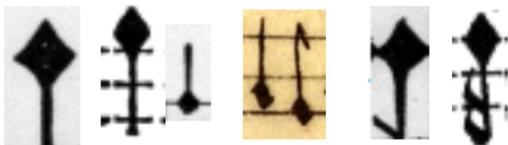
Quills do their job extraordinarily well, but they don't last specially long: if you find them too much work, you can get similar effects using other tools, like a modern pen, a thick soft pencil, the body (rather than the tip) of a short piece of chalk, a felt-tip pen, a computer mouse. But don't let yourself forget that these *are* substitutes and that they don't take the place of the real thing. Then we can value them for their own characteristics, and the results they give us, in their turn...



If you then drag the tool in a horizontal straight line, and make it as long as the tip is broad, you get a square. Continue longer than that point, and you have a horizontal oblong; stop short of it, and you have a vertical oblong. If you drag the tool in a vertical straight line, you have a line which is as thick as the tip of the pen. If you turn the pen 45° and drag diagonally, you get a diamond-shape; drag diagonally without turning the pen, and you get a rhombus. And the various combinations of these,

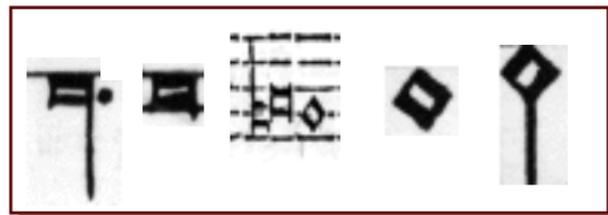


embellished with a stylish mastery of the pen, give us the basic elements of the notes used up to the early 1400s.



When paper started to be used instead of parchment, a problem arose: the acid component of the ink began to eat away at the paper, leaving holes where there had been notes. The solution was to use less ink, by making the notes empty - 'void' - rather than full:

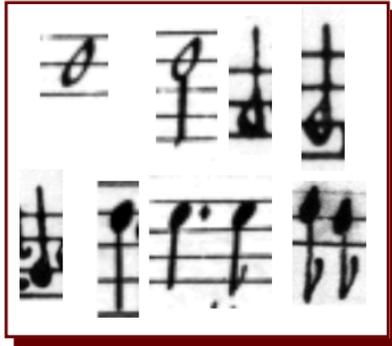
this meant partly using a thinner nib, partly using the pen on its side.



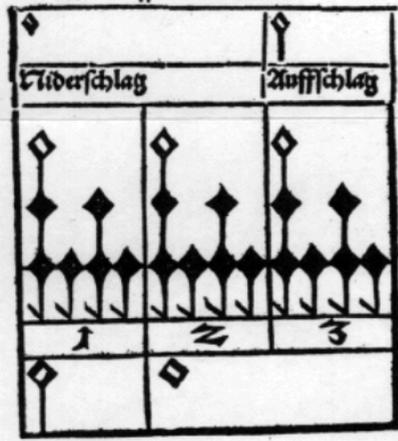
If you write these shapes quickly, with strokes going downwards, it's rather natural that the second stroke - the top right and bottom right - become round rather than square:



And the next step is that the whole head of the note becomes rounded: and then rounded versions of the black notes were added, for the shorter values - although the square versions continued to be used, especially in print, until c.1700.

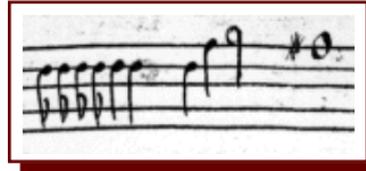
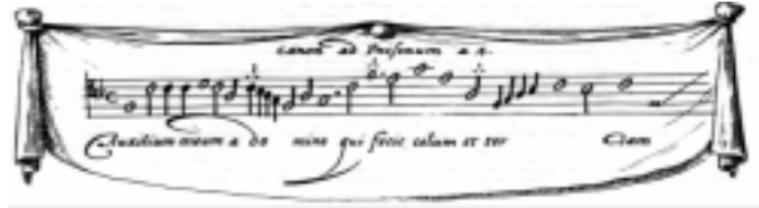


Beringer's *tabella* shows the relationships within the whole system, in *tempus sesquialtera*,  $3/2$  with white semibreves.

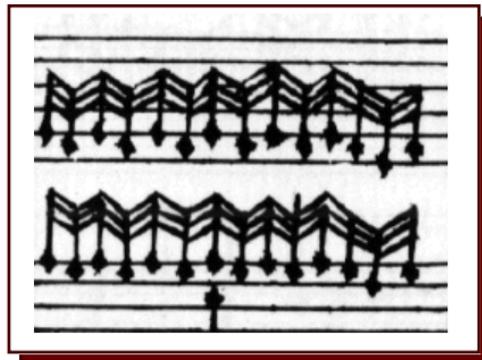
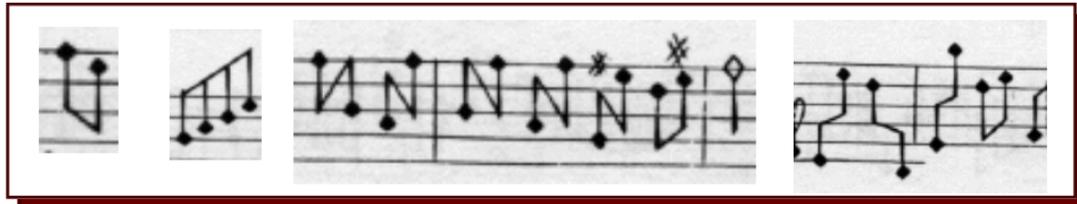
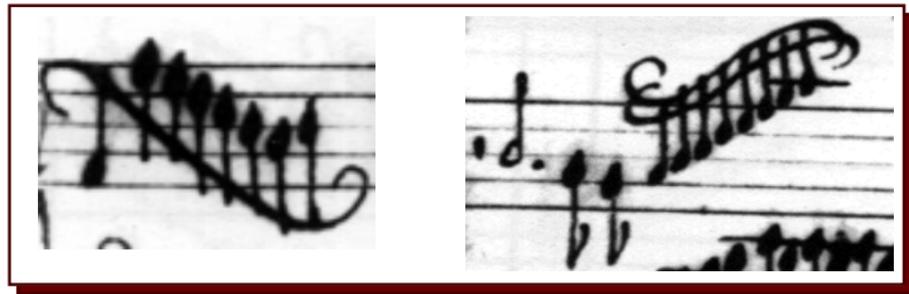


## GROUPS OF NOTES

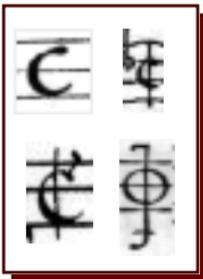
With fast-moving music some arrangement was gradually felt to be needed to help the eye find groups of notes quickly. The simplest way to show this was by spacing - members of the same group closer together, members of different groups further apart:



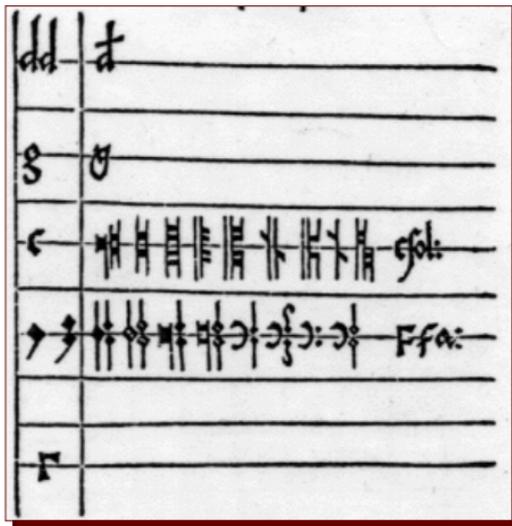
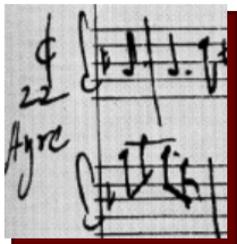
But as time when on and note pictures became more and more complicated, various ways of joining groups of short notes were used:



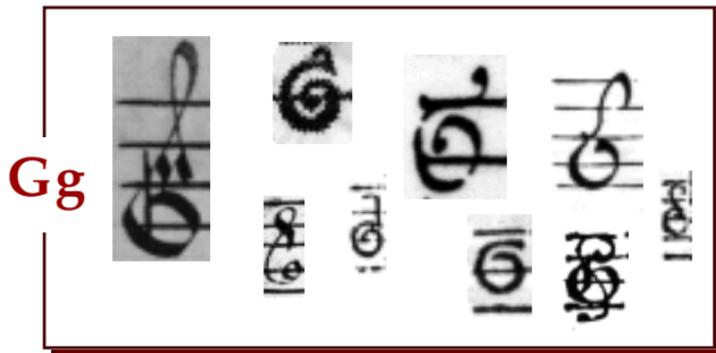
For the most part the signs for time were based on a classic 'C-shape', to stand for the half-circle which theory demanded: though we may meet with an occasional flourish:

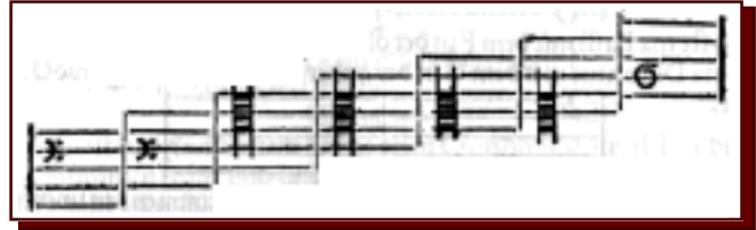
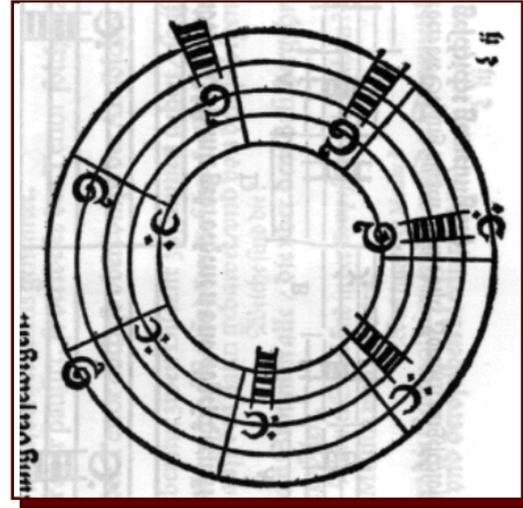
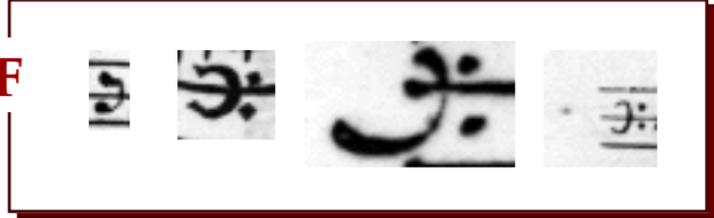
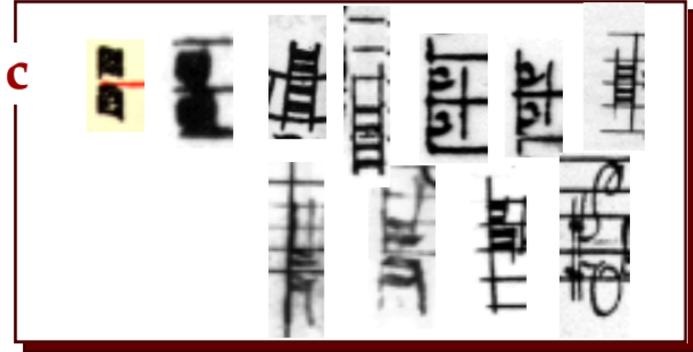


and it might sometimes be written to the side of the note system (stave), allowing for more notes per page:



Much more variation can be seen in the writing of the clef signs, from examples which are no more than the letters which they show, to others where the scribe seems to have been at pains to hide any connection with something as humble as a letter of the alphabet. Agricola's chart gives us a clear point of departure:

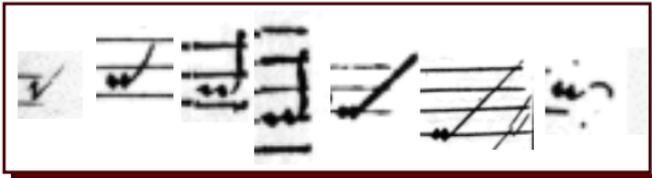




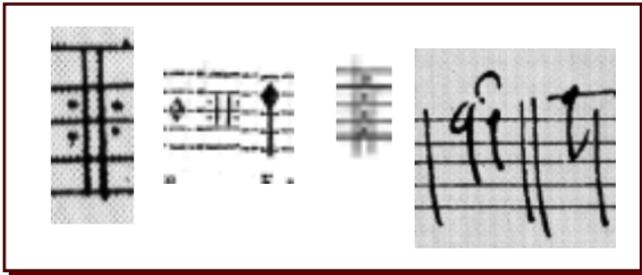
While Conrad Pauman's *tabulatura* and Maternus Beringer's *tabelle* show the relationships between them:



The **custos** - the 'guardian' which shows the height of the next note - could be anything from a simple tick to the more formal double-downstroke, finishing upwards:



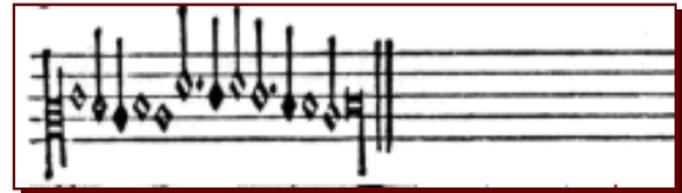
**Repeat marks** were usually a double bar-line, full or half, sometimes with two pairs of dots, sometimes with four in a row, sometimes with none:



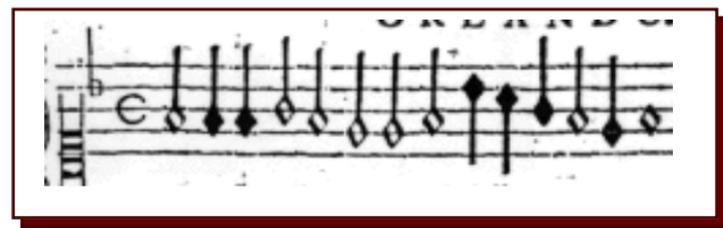
When drawing the note system by hand there is perhaps not a lot of scope for individual expression: the variables are how many of the lines to show at one time (between three and 11), how far apart to space them, and what colour - red was used to great effect well into the 18th century:



When movable type began to be used, the system was printed separately first:



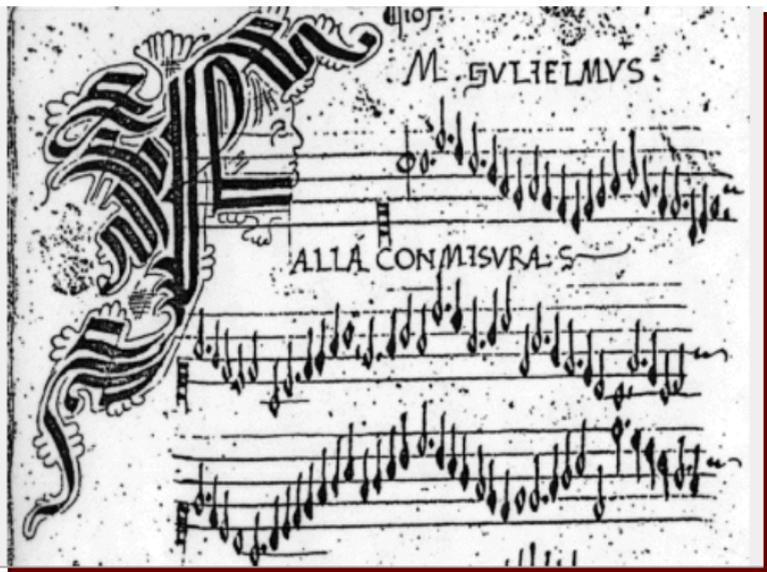
- but the new technique was more costly than producing an illuminated manuscript, and later printers developed separate pieces of type to build up the system, with varying degrees of success:



The use of illuminated capitals in musical documents is little different from their use in text documents:



- although the musical signs give some special opportunities for integrating the capital with the page layout:



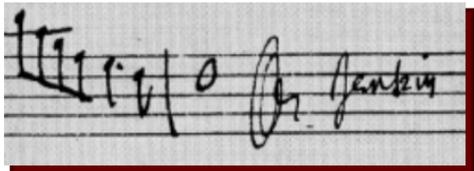
- or with the subject:





Many of these rich treasures have been made available at affordable prices by publishers like Alamire

Less elaborate decoration includes everything from a little curly squiggle as the writer finishes off a page -



to a full-blown labyrinth:



- from a simple frame

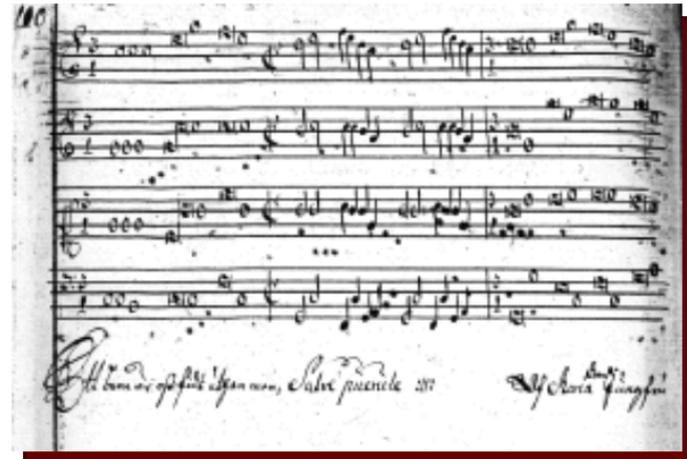


- to a "marble sculpture"...



Finally, having taken in impressions of a wide variety of separate elements, it's perhaps most inspiring of all to look at how renaissance scribes used the space on the page: to notice - in an era when everyone is his own desk-top publisher, paper is cheap, and web-space even cheaper - how seldom there is any wasted space on a renaissance page, and yet each is still free of any sense of crowding, clutter or any kind of stress.

Actually, I think this is a skill, or rather a subconscious awareness, which each of us has to a degree, and can develop yet further; I never count notes or consciously measure the use of space in advance: and yet, after reading the piece through a few times to begin with, nine times out of ten I reach the final notes just at the end of the paper. I usually 'time' an egg by feeling when it's ready, too...





*E* i vnae glorioe anae in Coelestis Ser.  
 uo' cae in Sancto Spiritu p'p'et' D'ni, ser.  
 uo' D'ni, ser.

*E* i vnae glorioe anae in Coelestis Ser.  
 uo' cae in Sancto Spiritu p'p'et' D'ni, ser.

*E* i vnae glorioe anae in Coelestis Ser.  
 uo' cae in Sancto Spiritu p'p'et' D'ni, ser.



*E* i vnae glorioe anae in Coelestis Ser.  
 uo' cae in Sancto Spiritu p'p'et' D'ni, ser.  
 uo' D'ni, ser.

*E* i vnae glorioe anae in Coelestis Ser.  
 uo' cae in Sancto Spiritu p'p'et' D'ni, ser.

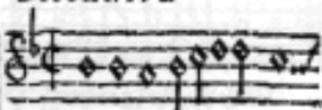
*E* i vnae glorioe anae in Coelestis Ser.  
 uo' cae in Sancto Spiritu p'p'et' D'ni, ser.



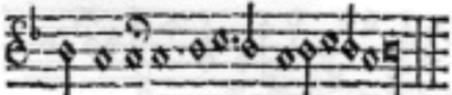


DISCANTVS

**G**

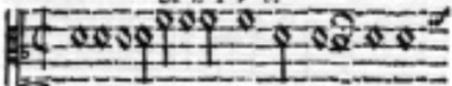


*Gaudete, gaudete Christus*

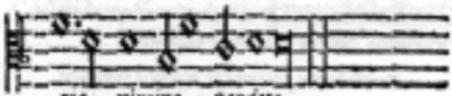


*est natus ex Maria virgine, gaudete.*

ALTVS.

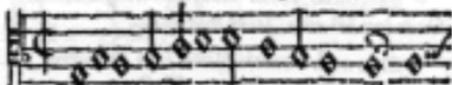


*Gaudete, gaudete Christus est natus ex Ma-*

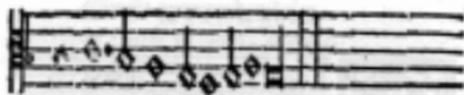


*ria virgine, gaudete.*

TENOR

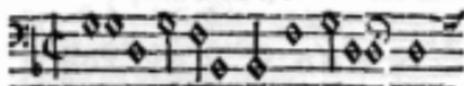


*Gaudete, gaudete Christus est natus ex*  
F Maria



*Maria virgine, gaudete.*

BASSVS.



*Gaudete, gaudete Christus est natus ex*



*Maria virgine, gaudete.*

*Tempus ad est gratia, hoc quod optabamus,  
Carmina laetitia deuocè reddamus.*

*Deus homo factus est Natura mirante,  
Mundus renouatus est à Christo regnante.*

*Ezechielis porta clausa pertransitur,  
Unde lux est orta, salus inuenitur.*

*Ergo nostra concio psallat iam in lustro,  
Benedicat Domino, salus Re; nostro.*

## SOURCES OF ILLUSTRATIONS

- key on next page

frontispiece - collage from  
Virgiliano and Beau Chesne; DK

p.3. CUL

p.7.1. Marshall

p.7.2. Prevost

p.8 left. DK

p.8 right. North

p.9.1. DK

p.9.2. collage

p.9.3. collage

p.9.4. Dijon

p.10.1. collage

p.10.2. Beringer

p.10.3. Diletto

p.10.4. Wexio

p.10.5. Ballard

p.11.1. Diletto

p.11.2, 11.5. Locke

p.11.3. Virgiliano

p.11.4. Simpson

p.11.6. Walsh

p.12.1. collage

p.12.2. Jenkins

p.12.3. Agricola

p.12.4. collage

p.13.1, 13.2 collage

p.13.3, 13.4. Beringer

p.13.5. Pauman

p.14.1, 14.2 collage

p.14.3. Thuolouze

p.14.4. Petrucci

p.15.1. Scotto

p.15.2. Phalesio

p.15.3. Rohan

p.15.4. Alamire

p.16.1. Falla

p.16.2. CUL

p.17. Occo

p.18.1. Jenkins

p.18.2. Wexio

p.18.3, 18.4 Lodi

p.18.5. Pecci

p.18.6. Diletto

p.19.1. Gassenhawerlin

p.19.2. Wexio

p.20. Diletto

p.21. Lodi

p.22. Dijon

p.23. Piaec

### FOR FURTHER READING:

- Bessler, *Geschichte der Musik in Bildern*
- Willi Apel, *Notation of Polyphonic Music*
- literature on music iconography
- DK, <http://web.ibs.ee/newren>
- etc.

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## SOURCES OF ILLUSTRATIONS

– FOR ALL THREE ARTICLES,

### MUSICA CALLIGRAFICA, MUSICA POETICA REDIVIVA AND MUSICA PEDAGOGICA PRACTICA

**Agricola**, *Musica Figuralis* (Wittemberg, 1532)

**Alamire**: anon., *Graduale* c. 1500

**Albert**: Heinrich Albert, *Kurbs=Hütte* (Königsberg, 1645)

**Antico**: Andrea Antico, *Canzoni nove* (Roma, 1510)

**Avditvs**: 'Avditvs/l'Ovye' ('Hearing') by Abraham Bosse (+1676), New York Public Library

**J.S.Bach**, 'Brandenburg' Concerto no. 6.

**Ballard**: Henry du Mont, *Motets* (Paris, 1681), printed by Christophe Ballard

**Banchieri**: Adriano Banchieri, *L'Organo Suonarino* (Venetia 1607-1638)

**base danse**: Henry VIII's ms (London, British Library, add.ms.31922)

**Beau Chesne**: John de Beav Chesne & John Baildon, *Divers sortes of hands* (London, 1602)

**Beringer**: Maternus Beringer, *Musica* (Nürnberg, 1610)

**Botticelli**: S. Botticelli (1445-1510), 'The Three Graces', from *La Primavera* (Galleria Uffizi, Firenze)

**Campion**: Thomas Campion, 'Awake, thou heavy spright', *Two Books of Ayres* (London, c.1613)

**Claudin**: Claudin de Sermisy, 'Languir me fait', reprinted in Joost Jansen (ed.) *Septieme Livre* (Amsterdam, 1644)

**Coclico**: Adrian Petit Coclico, *Compendium Musices* (Nürnberg, 1552)

**collages** from: Agricola, Ballard, base danse, Beringer, Diletto, Falla, Matthysz, Occo, Odhecaton, Ortiz, Paumann, Phalesio, PiaeC, Thoulouze, vdBist, Wexio

**CUL Dd 8.18**: Cambridge University Library, ms Dd 8.18, f.129v. (15thC)

**CUL 5943**: Cambridge University Library, Add. ms. 5943, c.1420

**Danish**: anon., [Danish School] (c.1616), *Music Making* (Musikhistorisk Museum, Copenhagen)

**Dicksee**: Sir Frank Dicksee (1853-1928), *La Belle Dame Sans Merci* (Bristol Museum & Art Gallery)

**Dijon:** Bibliotheque Publique, ms 517 (c.1475)

**Diletto:** Simone Verovio (ed), *Diletto Spirituale* (Roma, 1586)

**Falla:** M[agister] Gulielmus, *Falla con misuras* (c.1470)

**Fontegara:** Sylvestro Ganassi, *Fontegara* (Venetia, 1535)

**Gafari:** Franchino Gafari, *Practica Musica*, (Venetia, 1496)

**Gamba:** trad., *La Gamba*, after Ortiz

**Gassenhawerlin:** Christian Egenolff (ed.), *Gassenhawerlin* (Franckfurt/Meyn, 1535)

**Ghent:** St. Cecilia, Ghent altar

**Glareanus:** Heinrich Glareanus, *Dodekachordon* (Basel, 1547)

**Gonzaga:** Andrea Mantegna (1431-1506), *The Gonzaga Family* (the Palace, Mantua)

**Hammersmied:** Andreas Hammersmied, *Kirchen= und Tafel=Music* (Zittau, 1662, Växjö copy)

**Honthorst:** Gerrit van Honthorst, *Evening music* (1623) (Statens Musuem for Kunst, Copenhagen)

**Jenkins:** John Jenkins, Ayre (etc), London, British Library, Add.Ms.31,423

**Lawes:** Henry Lawes, 'Come Chloris', in Playford, same as Chap. 2., ex.2

**Locke:** Matthew Locke, *Melothesia* (London, 1673)

**Lodi:** Simone Verovio (ed), *Lodi della Musica* (Roma 1594?)

**Luzzaschi:** Luzzasco Luzzaschi, 'O primavera', *Madrigali* (Roma, 1601)

**Matthysz:** Paulus Matthysz (ed), *Der Gooden Fluyt Hemel* (Amsterdam, 1644)

**North:** Roger North, Notes of me (c.1695), in John Wilson (ed), *Roger North on Music* (London, 1959)

**Occo:** Brussels, Royal Library ms IV.922, 'Occo Codex' (c.1530)

**Ortiz:** Diego Ortiz, *El Primo Libro ... delle Glose* (Roma, 1553)

**Praetorius:** Michael Praetorius, *Musæ Sioniaë* (Wolfenbütel, 1607) (also used for other publications)

**Marshall:** parchment deed, 1824, author's collection 1822, an agreement between William and Matthew Marshall to hire a cottage

**Mersenne:** Marin Mersenne, *Harmonie Universelle* (Paris, 1636)

**MonteVerde:** Claudio MonteVerde, 'Dio, se tu sapesi oime', from *Due Lettere Amoroze* (Venezia 1623)

- Morley:** Thomas Morley, *Introduction* (London, 1597)
- Orfeo:** Claudio MonteVerde, 'Ritornello', *Orfeo* (Venetia, 1607)
- Ornithoparcus:** Andreas Ornithoparcus, *Micrologus* (1517, and later)
- Palestrina:** Ioannes Palestrina, 'Kyrie', from *Missa Papæ Marcelli*, tr. DK
- Passe:** Simon de Passe, '...met goet accort...', 1612
- Paumann:** Conrad Paumann, *Fundamentum Organisandi* (Nürnberg, c.1470)
- Pecci:** Tomasso Pecci & Mariano Tantucci, *Canzonette* (Venetia, 1599)
- Penna:** Lorenzo Penna, *Li Primi Albori Musicali* (Bologna 1684)
- Petrucchi:** *Odhecaton* (Venezia, 1501)
- Phalesio:** Orlando di Lasso, *Villanelle* (Anversa, 1582), printed by Pietro Phalesio & Giouanni Bellero
- PiaeC:** Theodoricus Petri, *Piae Cantiones* (Gryphisualdia (Greifswald), 1582)
- Playford:** John Playford (ed.) 'Be light and glad', *Introduction to Musicke* (London 1674, tr.DK)
- Prevost:** 'Gloria', fragment from a choir book printed by Nicholas Prevost (Paris c.1520)
- Rohan:** *Les Grandes Heures de Rohan*, Paris, Bibliotheque Nationale, ms.latin 9471, c.1425)
- Schlick:** Arnolt Schlick, *Tabulaturen* (Meintz, 1512)
- Scotto:** Hieronymus Scottus, *Villancicos* (Venetia, 1556)
- Simpson:** Christopher Simpson, *The Division-Viol* (London, 1665/7)
- Syntagma:** Michael Praetorius, *Syntagma Musicum*, tomus 3 (Wolfenbüttel, 1618)
- Thoulouze:** Michiel Thoulouze, *Lart et instruction de bien dancier* (Paris, c.1496)
- Timm:** Reinhold Timm (?) (+1639), *Rhetoric* (Rosenborg, Denmark)
- vdBist:** Martin vander Bist, *Traicté de Musique* (Anvers 1622) (Bibliothèque du Conservatoire Royal de Musique de Bruxelles, ms. 9.940)
- Virgiliano:** Aurelio Virgiliano, *Il Dolcimelo* (c.1600: ms: Bologna, Civico Museo Bibliografico)
- Walsh:** John Walsh, *The Division Flute* (London, 1706)
- Wexio:** Växjö, Landsbibliotek, mus.ms.4a (c.1620?)