

*Flexible
Arranging
&
Composing*

*- a simple approach to harmony
inspired by Renaissance musicians,
and adapted for practical use today*

by

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These days his chosen instruments are harp, harpsichord and organ, but he started as a clarinettist and has played the dulcimer a lot. He has played, sung and danced everywhere from the streets of Stockholm to the Royal Albert Hall. During the 1990s he was guest professor at Tartu university, Estonia; to train teachers he has travelled from Nizhny Novgorod to Seattle, from Buenos Aires to the forests of northern Sweden, where he now lives in a lake-side farmhouse and works with Macintosh computers producing multimedia presentations to educate the whole person.

www.NewRenaissance.ibs.ee/david



This compendium is part of a larger work-in-progress which will present a whole picture of how musicians conceived music in earlier times

- mediaeval, renaissance, and baroque
- composed and performed
- written and improvised
- sung and played.

Many parts are already in place and accessible for those who have a computer with an internet connection, and include pictures, animations and sound recordings: in time a more-final version will be available on CD-ROM and DVD.

www.new-renaissance.net



You can hear sound recordings of the musical examples in this book at
www.NewRenaissance.ibs.ee/flexible_arranging_composing

Set by David in Barbedor font using InDesign on a Mac - such a lovely experience!

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www.NewRenaissance.ibs.ee/flexible_arranging_composing

Chapter 1, Purpose:

- how the approach can help

Music teachers, leaders, and arrangers

can, with a minimum of time and effort, make new arrangements of both modern and older tunes, which:

- work effectively with **flexible combinations** of voices and/or instruments, and help solve the problems of unlikely or unusual combinations (e.g. 'what can you do with recorder, trumpet, guitar, violin and a singer?' ...), and of groups where not everyone comes every time; and
- can include parts of **several grades of difficulty**, so that performers of greater ability can make satisfying music together with those who are less skilled or experienced.

Those interested in studying harmony

can discover that there was a **common 'language' of composition** in the Renaissance - simple skills known to all educated musicians account for perhaps 95% of the music.

By seeing the process as Renaissance musicians saw it - rather than as it was seen by the late-romantic analysts on whose work most harmony-teaching today is based - anyone who is musically literate can compose in a convincing renaissance style, using much less time and energy than is required by conventional harmony- and counterpoint-teaching.

The method can either be **substituted** for conventional courses, or used as a **preparation** for them - students who spend even a few weeks with this system at the start of, say, a year's course, will understand much more what harmony is about, and produce much more meaningful results, than those who are struggling to memorise chapter after chapter of detailed rules without the broad picture.

And of course, having **understood** the 95% of Renaissance music-making which everyone could do, one is better able to notice what is special in the 5% that marks the works of masters in general, and of individuals in particular.

For musicians who perform earlier music

the method shows

- **the natural order** in which to rehearse parts;
- **how to allocate** voices and instruments to the various parts;
- **how to check apparent mistakes** in written music;
- **how to make polyphonic settings** of tunes that have survived without

harmony, in the same way as renaissance composers did: e.g. Arbeau's dance tunes, the various song collections (*Piæ Cantiones* etc.) as well as tunes which have survived only in settings for lute, keyboard etc.;

- **how to add further parts** to pieces, when you have more musicians than parts;

- **and how to select which parts to use** when you have more parts than musicians.

For the practical musicologist

faced with an incomplete manuscript, here are the tools which will you need to **reconstruct with confidence** what is missing: you can see one example which restored to us a set of delightful renaissance *frottole* at

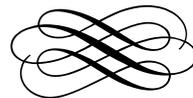
www.NewRenaissance.ibs.ee/gothenburg_fragments

Common for all

is the fact that much of the terminology and way-of-thinking of later eras only really makes sense **when you see how they came to be like that**; and of course that is a reason for knowing about the background to everything you're involved with: not just harmony and not just music.

It seems very likely that Hæckel's biogenetic rule - the notion that in its own development, each individual of a species follows the development of the species as a whole - has an application in the field of culture as well: that in teaching music, for instance, it is natural to follow the chronological development of the subject, starting with unaccompanied melody, modal rhythm (short patterns repeated consistently), and harmony made up of parallel 5ths, 4ths and 3rds, before dealing with more complex forms.

It's equally true to say that you can only understand renaissance harmony properly if you know something about the various styles which were used by **even earlier composers**: and the larger work from which this article is extracted will help to give that understanding. The reason for concentrating on renaissance harmony for the moment is that it is easier to grasp than later systems, while earlier styles often sound 'odd' to listeners nowadays: renaissance harmony is simple to use, yet sounds 'modern'.



Chapter 2. The basic concept

Thinking in parts

The first point is that, for the time being - if you've studied any harmony before - we must set aside any ideas we may have about writing **one chord at a time** in all the parts of a piece: and any idea that there is an order of importance among the various chords available (the notion that chords built on the first, fourth and fifth notes of a scale - I, IV, V or tonic, subdominant, dominant - are used more than other chords).

These ideas were first formulated during the 17th century and were not fully worked out into a system before Rameau's treatise on harmony, published in 1722.

In earlier times, the basic approach was to compose one complete voice at a time: and, so far as harmony is concerned, all the notes were of equal importance, except at the beginning and end of a phrase.

You start with a tune having decided either (as one mediaeval author put it) to 'choose the loveliest melody you can think of', or to write one yourself.

You then decide whether it will be in the top part ("*cantus*" in Latin, the 'song'), or in a lower part ("tenor", 'the steady flowing stream' - cf. 'the tenor of an argument').

Notice that the labels used for the voices describe their function or general character, and only later did they come to be associated with a particular range or sound. In the earlier Renaissance it was more normal to put the tune in the tenor, whereas later composers put it in the *cantus* more often: but we will see later how some tunes work better in the tenor, others in the *cantus*.

In any event your finished arrangement will often work well with the tenor performed an octave higher than written, or with the *cantus* an octave lower than written, or with the two parts exchanged: so the question of whether the tune is in *cantus* or tenor need not occupy your energies for long ...

You then add a second part - a *cantus* above your tenor, or a tenor below your *cantus* - in similar rhythm, so that together they make complete two-part harmony.

Very many pieces composed in three, four, five or more parts sound perfectly convincing in two parts, provided you use *cantus* and tenor, and music was performed in this way in the Renaissance when the need arose.

It's not a question of saying that a piece actually sounds better with some of its parts missing, but simply that if there are only two of you to make music together, you need never be short of pieces to use.

The next step is to add a third part and then perhaps a fourth, a fifth, and so on, to make the harmony progressively more complete.

These extra parts were originally in the same range as the tenor, weaving in and out, above and below, crossing it freely, and were thought of as parts 'against' or 'counter to' the tenor, so were called, in Latin, called "*contratenor*".

In some styles the *contratenor* parts are more elaborate than *cantus* and tenor, they move by large leaps and don't fit the words very well (where there are words).

Such parts were evidently written with the thought of their being played rather than sung, and the idea of using voices and melodic instruments together, but on different parts, also works very well with more modern songs.

Then there was a desire to make all the parts equally singable and in the later Renaissance it became normal to separate the ranges of the *contratenores* more, with one below the tenor and one above.

'Low *contratenor*' in Latin is "*contratenor bassus*" and 'high *contratenor*' is "*contratenor altus*" - you find the same root-words in other more-familiar expressions, such as 'base', 'basis', and 'altar', 'altitude'.

Then the names were shortened by missing out the element which was always the same (*contratenor*'), leaving "*bassus*" and "*altus*" in Latin, "bass" and "alto" in English.

Sometimes the Italian form "*contratenor alto*" was contracted to "*contralto*", internationally familiar today as the name of a lady's voice range and sound.

The label "*contratenor*" on its own was used in the later Renaissance to signify "*contratenor altus*", though the reason for this is not obvious.

When sung, such parts were normally taken by men, hence the use of the English form of the name, "*countertenor*", to refer to a male alto.

Otherwise, whatever the form of the name - *contratenor altus*, *contratenor*, *altus*, *contralto* - the meaning is essentially the same.

The low *contratenor* - "bass" - was added first, then the high one - "alto": the reason why the alto part is the least melodic in so many pieces is simply because it was written last.

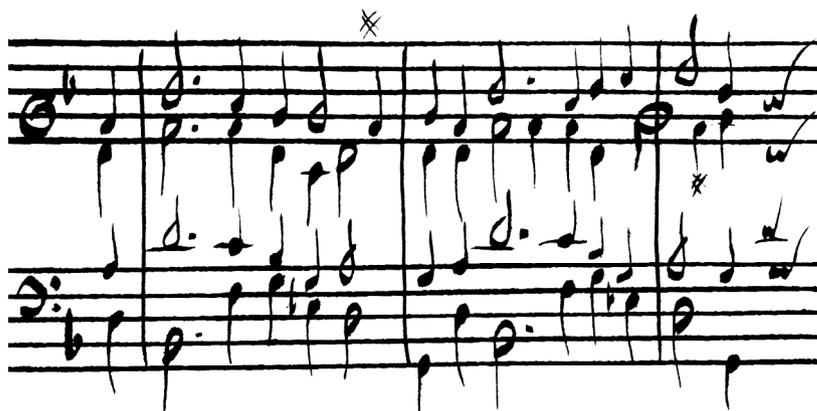
If a fifth part was written, it was labelled "*quintus*" (Lat. 'fifth'), a sixth part "*sextus*" and so on.

So if there are three of you to make music together, and you can hold a part each, *cantus*, tenor and *bassus* will give a very satisfying result: if a fourth musician joins you, you give him the *altus* part (he might come earlier next time ...) - if a fifth arrived he would take *quintus*, and so on.

Experienced professional composers who were familiar with the way things worked, could refine the basic system and give a phrase of notes to one part which properly belongs to another:

e.g. you can make the bass melodic for a moment, and let the tenor have the supporting function; or let the poor old alto sing out the main melody for once while the *cantus* takes the monotonous filling-in function.

This is the process of a master taking licence, or freedoms, with a basic practice; and in this context one can better understand that what was said of the composer Josquin des Pres - that as the master of the notes he could make them do what he wanted, while the others had to do what the notes wanted - is not just a flowery metaphor, but a very real everyday situation: once you see how the system works, the notes do in fact have their own normal pattern of behaviour, relative to one another.



ex. 2-1: Orlando di Lasso, *Madonna mia pieta, vilanesca* from *Le qvatoirsiesme Liure [de] chansons*, 1555

Here a bit of the tune in the tenor is repeated, with the same harmony; but the second time, the second half is varied by changing the *cantus* and *altus* parts around: the altus has the notes which the *cantus* had, at the same pitch, while the *cantus* has the same notes as the altus had, an octave higher.

Notice that as soon as you swap the parts around like this, the piece ceases to work as a 2- or 3-part piece, and you have to have all four parts for the harmonies to sound complete.

In later periods the notes were written with the same relationship to one another, but they were thought of differently: by this time, four parts had become standard, and they were naturally compared with the four humours and the four elements - earth, air, fire and water. With earth at the bottom and air at the top, it felt natural then both to count the relationships from the bass, and to call the melody 'air', '*aria*' in Italian.

With the existing association between 'tenor' and 'the steady flowing stream', it was perhaps natural for that part to be the 'water' part.

Interestingly enough, no-one seems to have been disturbed about how inappropriate it was for the alto part, with its typically monotonous and supportive nature, to be associated with the very different characteristics of the element of fire.

The approach is described in chapter 6.

Application to practical music-making

Hints on mixing voices and instruments effectively, and what to do when you have more musicians than parts, are given in chapter 8.

You will find, incidentally, that modern editors very often take the liberty of replacing the original label '*cantus*' with the modern expression '*soprano*': what is unfortunate about this is that it conjures up modern associations which did not apply at the time the music was created, particularly that the part should be sung by one or more female voices. It is every bit as valid to play a *cantus* part on an instrument, and when top parts were sung in the Renaissance, they were mostly taken by males - a boy, or a man using his *falsetto* voice.

Indeed, the earlier form of the word, "*sovranò*" (It.), just means 'on top' (like the English word "sovereign"), and it was only later associated with a female voice.

3. The Method

3.1. Cantus and tenor

Play and/or sing these excerpts;

- the 'g' clef is the same as the modern 'treble' clef .
- the 'F' is the same but an octave lower .
- if you use recorders, soprano and tenor work well, both an octave higher, so that the tenor reads the lower part as if it were in treble clef.
- the speed of the semibreve is equal to that of your pulse-rate at rest:



The image shows two systems of musical notation. The top system consists of two staves. The upper staff begins with a G-clef and the lower with an F-clef. Handwritten text 'original clefs' is on the left, and 'ranges' with vertical lines is in the middle. The bottom system shows the same two staves with the music transposed so that both parts are within a similar range, with the lower staff starting on a G-clef.

ex. 3-1: cantus and tenor from Dijon, *Bibliothèque Municipale*, ms. 517. fo 201; tr.DK

Look at the melodic intervals

(that's to say, how far up or down one note is from the next) in the *cantus*, counting the starting note as 1, the next note up or down as 2 and so on: e.g.:



A single staff of music showing a sequence of five notes. Below the notes are the interval counts: 2, 1, 2, 2, 2.

ex. 3-2: melodic intervals

and then in the tenor.

Look at the rhythms of the two parts

relative to each other.

Then look at the harmonic intervals

(the distance between the two, counting the lower note as 1): think of them as mediæval and renaissance musicians did, in three groups:

- perfect consonances: unison, 5th and octave
- imperfect consonances: 3rd, 6th, and 10th
- dissonances: 2nd, 4th and 7th

e.g.:



ex. 3-3: harmonic intervals

The features of the piece and of the style in general - can be summarised like this:

16th C. harmony: *cantus* and tenor

- **Rhythm:** *the two parts have the same rhythm, except for occasional syncopations*

- **Pitch:** - **horizontal: melodic intervals**

1 - (=repeated notes): *some*

2 - (=moving by step): *mostly, and nearly always at the end of a phrase*

3 - (= leaps of a 3rd): *often*

4, 5, 6, 8 - *occasionally*

7, and more-than-an-octave - *not used*

- **vertical: harmonic intervals**

- *perfect consonances (1, 5, 8):*

- *normally at the beginnings and ends of phrases:*

- *occasionally during a phrase so that a part may move by step:*

- *but not normally two the same together*

(consecutive unisons, 5ths, 8ves.)

- *imperfect consonances (3, 6, 10): everywhere else*

- *dissonances (2, 4, 7): there aren't any in ex. 2, although there are some elsewhere in the piece: we'll discuss them later on.*

Renaissance composers worked by applying these general principles to specific cases, and many people will have little trouble doing the same.

If you'd like to start straight away, here is a tune you might use, or you can find one yourself:



ex.3-4: *Mater Christi* (simplified)
Cambridge, Conville and Caius College, ms 727/334, fo. 199

However, in practice the various principles taken together mean that only some combinations of notes will work, particularly when we come to adding third and fourth parts: so it's possible to work out a set of instructions which may be followed step-by-step for those who prefer to work in that way.

This is not how experienced renaissance composers themselves worked, but the approach is based on the teaching books they wrote for their pupils.

I have simplified things a bit at the start here, in particular by using the same rhythm in each part, and by avoiding dissonances altogether: but this will none-the-less produce very usable results, and we will look later on at how they were elaborated upon.

This aspect of the method was evolved with Dr. Robert Edwards, as we explored together the possibility of checking that my teaching was logical and consistent, by using a computer as a student; and it was demonstrated with stunning piece of virtuoso programming on a Casio calculator by Kenneth Medin

The first task is to decide how you think the tune divides up into phrases.

If there is a text, the musical phrases normally correspond with the phrases in the text, and both end where there is a comma or a full-stop.

If there is no text, look for places where you would naturally take a breath - though there may well be scope for different interpretations. Clues may include

- a longer note to end a phrase
- a pause
- a step up or down onto a strong beat

The last two notes of a phrase were referred to in the Renaissance as a 'close', though nowadays it's more usual to use the term 'cadence': it originally meant a 'fall', the way a public speaker's voice falls at the end of a sentence, in most languages.

In later eras, incidentally, it was usual to improvise some kind of decorative or virtuoso passage on the next-to-last note, when the Italian form the word, "*cadenza*" was used, and still is today.

Decide whether the tune is to be in the cantus or tenor; a tune which starts off moving downwards, or one which has a majority of notes below the starting note, will often work better in the *cantus*: whilst a tune which starts off moving upwards, or one which has a majority of notes above the starting note will often work better in the tenor. You can always try it both ways, of course, but a version using mostly 6ths will

often be more satisfying than one using mostly 10ths.

In modern times, Thurston Dart painted an imaginative picture of renaissance composers working in score (i.e. with the parts placed one under another) on a slate or on some kind of re-usable parchment called *cartella*, wiping off the results once the parts were written out*. He considered that this accounted for the fact that renaissance music for playing or singing from only exists in parts, not in score: but in fact 16th- and 17th C. authors tell a completely different story, suggesting that the beginning musician might find it easier to work in score at first, until he is fluent enough to work straight away in parts; they use the name '*cartella*' for the 'little chart' or table of intervals which the student worked from, and which we will look at a bit later on.

It certainly is perfectly feasible to work in parts, and doing so gives some fascinating insights; but even today we may find it easier and quicker to work in score to begin with, so you might like to start off by ruling up yours. If you prefer each part to have its own line, a g-clef (treble-clef) will probably be best for *cantus* and alto, and an F-clef (bass-clef) for the bass: a 'tenor' F-clef (an octave below treble-clef) will usually be best for the tenor, and may sometimes be best for alto too. *Cantus* and alto will often go conveniently on the same line, and you may find it easier to work like that, on three lines instead of four: even more compact is to work on two staves, with tenor and bass also sharing (bass-clef), though that may be a little too crowded.

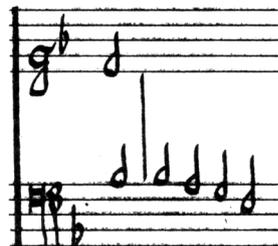
Bar-lines were not common in performers' parts until the 17th century, but they were certainly used in beginners' scores, and of course are natural for later music: in the 20th century musicologists had the idea of putting barlines in between the staves instead of right across them, which may be a useful compromise, though it belongs to no historical tradition.

Since at the time this method was evolved, the various part-names were not associated with particular voice-ranges as they are now, you can forget the whole question of range for the time being: provided the tune you start with is singable there should be no problems.

So now you can write in the tune.

Add a second part, *cantus* or tenor;

- if the tune is in the tenor, and its first move is downwards, make the first note of the *cantus* a 5th above the tenor:



ex. 3-5: where *cantus* starts at a 5th

The clef on the lower line is a 16th C. F-clef

- otherwise *cantus* and tenor usually start an octave apart;

*Thurston Dart, *The Interpretation of Music*, 1954/1975, p.132f.

- they may also be a 6th or a 3rd apart, although in the Renaissance these intervals were most commonly reserved for lighter styles - dance music, or songs with funny texts, or about country life.

Pencil a line or a bracket round the last two notes of the tune, and the space where they will be in the other parts: the cadence is dealt with later.

Each note, after the first and up to the pencil line, is normally the nearest note to the previous which is either a 3rd, a 6th or a 10th from the corresponding note in the tune.

'Nearest note' means that you use the same note if you can; if not, you move up or down by step to the next note if you can; if not, you leap a 3rd: you shouldn't need to leap more than a 3rd.

You will find that for as long as the tune moves by stop, the second part will move parallel with it (i.e. at the same interval).

Composers sometimes varied the interval by using an octave when the tune changed direction (and then especially when that was on the tonic, or "doh"), and on the next note changing the interval from a 6th to a 10th or vice versa:

A musical score on a single staff showing a melody with various intervals. Below the staff, the intervals are labeled with numbers: 8, 6, 6, 6... followed by ... 6, 8, 10, 8, 6, 8. The melody starts with a 6th interval, then changes to a 10th interval, and finally returns to a 6th interval.

ex. 3-6: change of interval, 6th to 10th, and back to 6th;
from 'Gaudete', P: Nyland, *Piæ Cantiones*, 1582

You can also change the interval directly, i.e. without using an octave, if the tune leaps a 3rd, or runs up or down a 3rd with a short note (passing note) in between:

Two musical examples on a single staff. The first example shows a 6th interval followed by a 10th interval. The second example shows a 10th interval followed by a 6th interval. The intervals are labeled with numbers 6, 10 and 10, 6 respectively.

ex. 3-7: change of interval, without using an 8ve (Dijon ms 517, of. 201)

A 5th may be used now and then to avoid repeated notes or so that a part may move by step instead of leaping:

Two musical examples on a single staff. The first example shows a 6th interval followed by a 5th interval. The second example shows a 5th interval followed by a 6th interval. The intervals are labeled with numbers 6, 5 and 5, 6 respectively.

ex. 3-8: occasional use of 5ths (Dijon ms. 517)

- but be sure to use only one 5th or 8ve at a time: these intervals, together with the unison, have been called the 'perfect' intervals since the early Middle Ages, because they result from the most basic natural notes in music.

- if you'd like to know more, you could look up 'harmonic series', 'harmonics' or 'natural tones' in a good music dictionary such as Harvard or Grove.

They were the basis of mediæval harmony; renaissance musicians considered their sound very strong, and found it important to separate perfect consonances with the 'sweeter' sound of imperfect consonances (3rd, 6th, 10th).

Hence the principle of avoiding parallel (consecutive) unisons, 5ths and 8ves, which most composers have chosen to follow in normal circumstances, though the intervals can be useful - even exciting - as a deliberate effect.

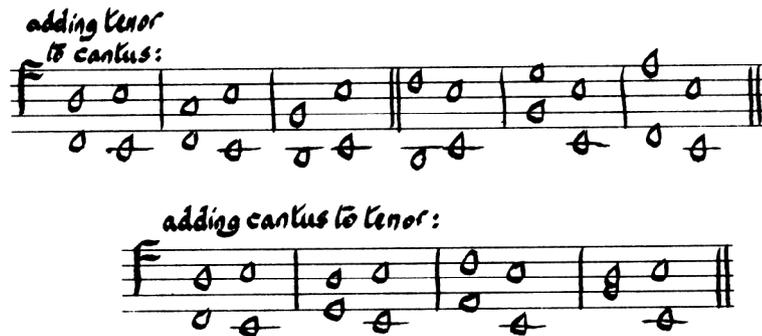
The cadence:

- if the tune is in the tenor, and moves up from the next-to-last note to the last, the *cantus* ends 6-5; unless that would cause the *cantus* to move by a leap of, say, a 4th or more:



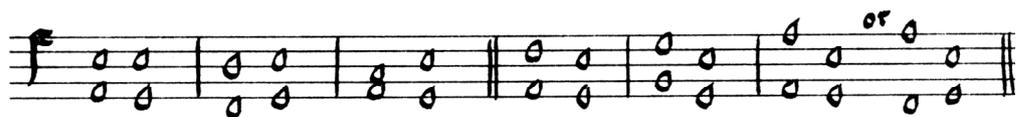
ex. 3-9: cadence ending with a fifth

- otherwise the two parts normally end an octave apart; and the next-to-last note in the part you're writing is the nearest note to the last note which is a 3rd, 6th or 10th (occasionally a 5th) from the tune:



ex. 3-10: cadences ending with an octave

The two parts may also end on a 6th, especially in lighter styles, and if they started on a 6th:



ex. 3-11: cadences ending with a 6th 3.5.

3. 2. Bass

Play and/or sing this piece:

it works well with voices on the top two parts (*cantus* and *tenor*) and a viol (or cello) on the third part (*bassus* - bass-clef), though there are many other possibilities of course.

Here it is the breve which moves at the same speed as your pulse-at-rest.

ex. 3-13: *cantus*, *tenor* and *bassus*: British Library Add. ms 31922, of. 106v., tr. DK

The *cantus* and *tenor* follow the principles already outlined; and the features of the *bass* may be summarised like this:

The function of the bass part (contratenor bassus) is to complete the harmony as far as possible: that means adding a new note which is consonant with both the existing two.

In the Middle Ages it was enough if the third part was consonant with just one of the first two

The need to avoid consecutive unisons, 5ths and 8ves, and to keep the new part mostly below the tenor, was considered more important than the need to fill out the harmony, so that the bass has to double one of the existing notes quite often instead of taking a new one.

*On the first and last notes, if the interval between *cantus* and *tenor* was perfect then the *bass* normally also had a perfect interval.*

If you prefer to work from general principles, use these to add a bass to your version of *Mater Christi* (ex. 4).

In practice, there is only a certain number of possibilities, and they may be reduced to a system:

Each bass note is determined by the interval between *cantus* and *tenor*, in this way:

	interval between <i>cantus</i> and tenor	interval of bass below tenor
first note	5	8
	6	3, 5
	8	1, 8
other notes except the last	3, 10	3*
	6	5*
	5	6
	1, 8	3, 6 (occasionally 5*)
last note	5	8*
	6	3*, 10*
	1, 8	1*, 8*

* in all these cases, the new note is either a unison, fifth or octave from another part:

- look to see if the same two parts had the same interval in the previous chord:
- if so, to avoid parallel perfect intervals, you need to forget the new note and instead use again (or 'double') either the *cantus* note or the tenor, in whatever octave is convenient, like this:

interval <i>cantus</i>-tenor	try doubling this note first	if that still leaves a problem, use this note
3, 5, 10	lower	upper
6	upper	lower

Once you have made sure that you have no parallel perfect intervals, look to see if the new note would make a tritone which you can't eliminate by adding a sharp or a flat: if it does, then again you need to double either the *cantus* or tenor note, following the table just above.

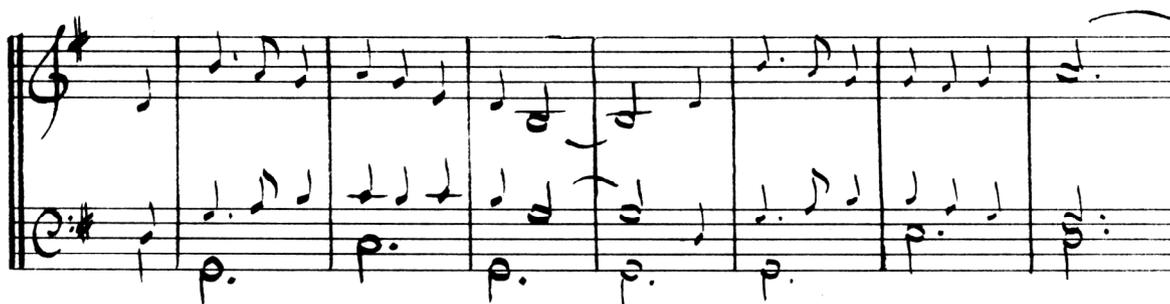
The same alternative notes may also be used to avoid any of these, less-important, problems:

- several larger leaps together, of say a 5th or more;
- more repeated notes than you think desirable;
- harmony which is too modal for your taste: more about this follows. Following the 'numbers system' for *My Bonnie*, for instance, with the tune in the top part, produces minor chords based on the second, third and sixth notes of the scale (when you start on G, that means a, b and e min). It makes an interesting effect for a special purpose, but it's not perhaps what members of an everyday audience expect to hear:



ex. 3-14: 'My Bonnie' - 'modal' version produced by the 'numbers system'

The reason is that for many styles, renaissance composers used with equal freedom chords built on all seven notes of the scale: in lighter styles, however, and later on in all style composers placed more emphasis on some chords than others, especially those built on the first, fourth and fifth notes, and many people expect that kind of harmony nowadays. So if you want a more modern effect, use when you can the first, fourth and fifth notes of the scale in the bass (e.g. when you start on G, use mostly G, C and D); and harmonise only some of the melody notes, instead of all of them. You do that by changing the bass note less often, for example only twice-a-bar in pieces in 4/4 and 6/8 time, and only once-a-bar in 3/4 time:



ex. 3-15: 'My Bonnie' - modified to produce a more modern effect

When considering alternatives, bear in mind that most of these 'problems' involve the relationship of two notes, so you can avoid the problem by altering either of the notes. It will normally be easier to leave the first note and alter the second, but sometimes - especially when you are familiar with the system - you can get a better result by altering the first.

Then perform what you've written, with several voices and/or instruments if you can; or if you're alone, sing one (*cantus* or tenor) and play two on keyboard, lute, guitar, harp or whatever, to keep the effect of different parts.

Actually, a lot of three-part pieces produced like this will also work rather well on keyboard alone: if many notes are doubled by tenor and bass, you could try taking all or some of the bass notes down an octave.



3.3. Alto

Try this piece:

DISCANTVS.
G Aude
ALTVS.
TENOR.
BASSVS.

ex. 3-16: *cantus*, alto, tenor and bass - 'Gaudete', P: Nyland, *Piae Cantiones*, 1582

The features of *cantus*, tenor and bass are as described up to now; the alto behaves like this:

When the first and last notes consist only of perfect consonances, the alto also has a perfect consonance above the bass and tenor; apart from that, the alto fills in any harmonies which the bass left unfilled and otherwise doubles any other convenient note - although preferably not a major third 3rd or 10th above the bottom note, and avoiding parallel perfect-consonances and tritones.

It normally uses consonances, but there is now one important exception - 4ths are used between inner parts, but not above the bottom note. It may go above the *cantus* now and then if need be, and may cross the tenor freely.

If the bass has fewer notes than *cantus* and tenor, the alto may have the same rhythm as either the bass or as *cantus* and tenor - the two alternatives produce somewhat different effects

If you're working from basic principles,
use these to add an alto to your *Mater Christi* (ex. 4).

If you're using the numbers, carry on here:

interval <i>cantus-</i> tenor	interval bass-tenor (<i>bass below tenor,</i> <i>unless specified '↑'</i>)	interval alto-tenor (<i>alto above tenor, unless specified '↓'</i>)		
		first choice	alternatives	last resort
1, 8	1, 8	5*, 3†	1, 6‡, 8	-
	3	3*, 4‡	1, 6, 8	-
	5	6‡	1, 4, 8	-
	6	5	1, 8	3
6	1	3	6	1
	3, 10	3*. 4‡	6	1
	5	4	1, 6	-
	8	3	1, 6	-
5	1, 8	3†	1, 5	-
	6	-	1, 3, 5	8
3	1	3↓, 5*, 6‡	1, 3	-
	3↑	5, 6	-	-
	3, 10	-	3, 3↓	1, 6
	6, 8	4↓	1, 3, 5	-
10	1, 6	5*	8, 3	-
	3, 10	6	3	8
	8	5, 6	1	3

* check that the alto doesn't make a tritone above the bass.

‡ not on first or last notes,

† except on first or last notes, when a 5th is preferred for more serious styles.

1. Before you write a note in, see if it is a unison, 5th or 8ve from another part; if it is, see if the same two parts had the same interval in the previous chord; and if so, use a different note to avoid parallel perfect-consonances.

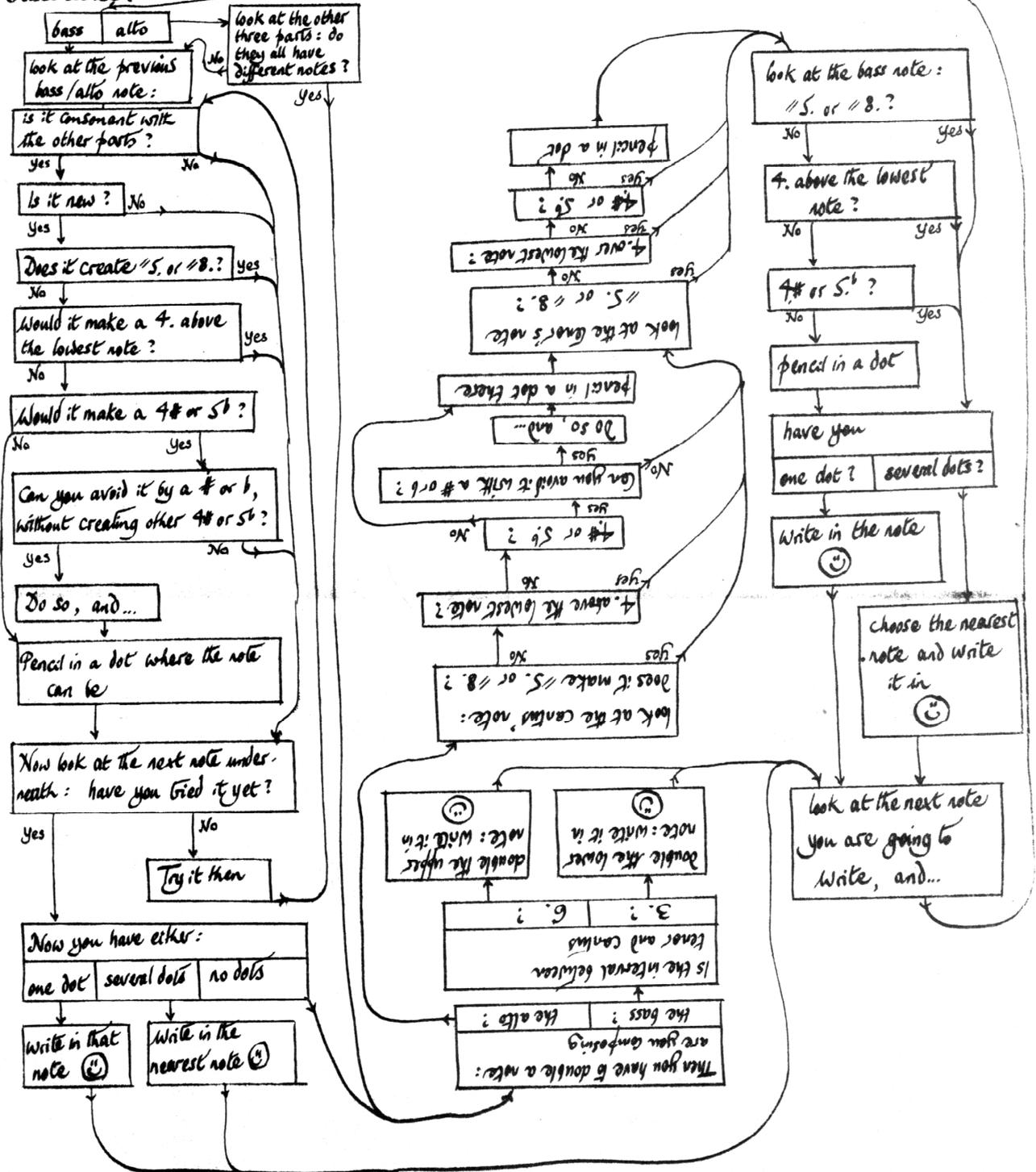
2. Then see if the new alto note would make a tritone: if so, eliminate it by a sharp or flat, or if that doesn't work, use a different note.

3. If the bass has the third or seventh note of the scale (e.g. if you start on G, then B or F# in the bass), you can choose between a 5th or a 6th for the alto: choosing the 6th will often give the more modern effect (e.g. in modern terms, a G-major chord rather than a B-minor).



You may like to use this Flow-Chart instead of the tables when you add a third and fourth part (bassus et albus). Follow the chart for every phrase of music:

1. First note: bass unison with tenor; alto 5. above tenor.
2. Last note: bass 8. under tenor; alto 5. above tenor.
3. Other notes:



Once you've got used to it, you can do it without the chart, of course: but it's important to think clearly and systematically if it's to work smoothly.

3.4. Chord Instruments

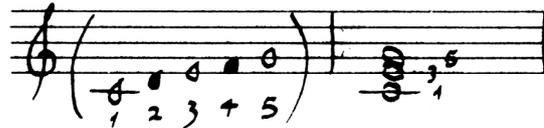
Up to now we have only been thinking about music in single lines, and indeed the whole point of this system is that you don't think in terms of chords while you're producing the parts.

But once you have got this far, you can choose to think of the result as a series of chords, and if you work out the nature of each, you can notate it by a symbol which can be read by a guitarist, and perhaps a pianist.

People did start doing this around 1600, although at first it was only common for guitarists, not lute-players.

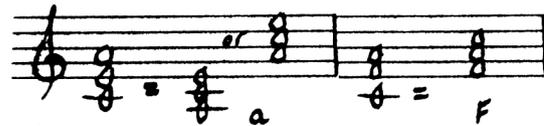
Among keyboard-players, Italian harpsichordists who played for dancing were used to filling out the sound with full chords, though others who considered themselves more 'serious' musicians frowned on the practice. This was perhaps because it makes it easier to 'cheat', since you can't very clearly hear the way the different voices move.

A chord of three notes is named after its root, that's to say, the lowest note when the three are arranged in the relationship of 1, 3 and 5: such a chord is called a 'triad':



ex. 3-17: triad chord of C

If the notes are in some other arrangement, change the octaves around until you get them in the order 1, 3 and 5:



ex. 3-18: changing octaves to produce a triad (1, 3, 5)

The principle is the same when you have chords of four notes - you just ignore the note which is doubled:



ex. 3-19: examples of composite chords reduced to triads

The distance between the root and the 3rd is not the same for every chord; it may be greater ('major' in Latin) and consist of four semitones, e.g. c-e, f-a, g-b: or it

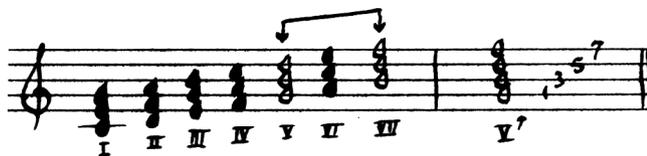
may be lesser (*'minor'* in Latin) and consist of three semitones, e.g. d-f, e-g, a-c. When this way of thinking was relatively new, in the 17th century, chords were referred to in full, e.g. 'A with the greater third', 'd with the lesser third' and so on; but later it became enough to leave out the words which were always the same, and just say 'A-greater' or 'A-major, in the sense of 'G-lesser' or 'G-minor'.

You can work out for each chord whether it is major or minor by counting the number of semitones between the root and 3rd, or you may already know which is which of course: but otherwise it may save you time at first to have a table of those you are most likely to need:

root	c	c#	d	e \flat	e	f	f#	g	a \flat	a	b \flat	b
minor 3rd	e \flat	e	f	g \flat	g	a \flat	a	b \flat	c \flat	c	d \flat	d
major 3rd	e	f	f#	g	g#	a	a#	b	c	c#	d	d#

One convention which is quite useful, though not universally used, is to use capital letters for major chords and small letters for minor chords: thus C = C-major, c = c-minor.

The modern chord system doesn't have a place for the chord built on the seventh note of the scale (chord VII); instead it says that it has the same function as the chord on the fifth note (chord V), with an added seventh note:



ex. 3-20: chords V, VII, and V7

If in your piece you have such chords, where the root is the seventh note of the scale, give them the symbol for the chord on the fifth note instead; this table may help:

in this key	E \flat	B \flat	F	C	G	D	A	E
if you have a chord on this root note (the 7th)	D	A	E	B	F#	C#	G#	D#
call it this	B \flat 7	F7	C7	G7	D7	A7	E7	B7



3.5. Words

If your tune has words, they will normally fit *cantus* and tenor equally well, because of course those two parts have the same rhythm.

The same may also be true for your bass and alto parts: but if you have followed the suggestion of giving the bass, and perhaps the alto, fewer notes, the words may not fit those parts. Then you can

- set fewer words there, trying still to make sensible phrases of course: or
- sing “oo-aa-oo-aa”, “fa-la-la” or “do-be-do-de-do”: or
- use instruments



3.6 and now ...

you should be ready to write simple three- or four-part settings of any tune you fancy.

They can be used with all sorts of combinations of voice and instruments, and with varying numbers, with as many or as few parts, as you need.

But in case you would prefer to see an example in practice first, here follows a step-by-step description of the harmonising of a bit of *Mater Christi*, ex. 4.

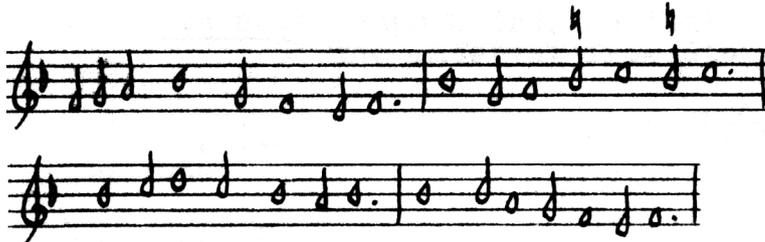


4. An example of what has been said

You might like to refer to the description of the method as you read this section.

4.1 *Cantus* and tenor

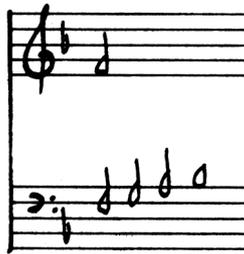
The tune divided into phrases:



ex. 4-1: *Mater Christi* divided into phrases

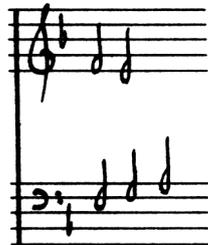
The first phrase should be enough for a demonstration. The tune starts off moving upwards, and has most of its notes above its starting note, so let's try it in the tenor:

and the *cantus* starts an octave above:



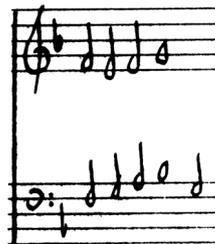
2nd note:

to keep the same note in the *cantus* makes a 7th; one note up makes an 8ve, one down makes a 6th, so we use that:



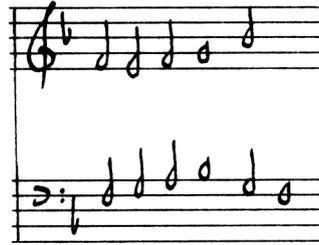
3rd and 4th notes

move by step, so *cantus* moves parallel:



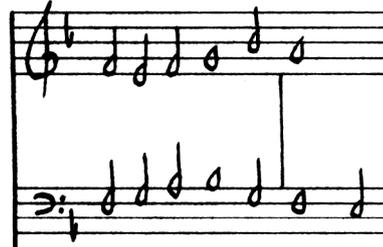
5th note

leaps a 3rd, so that's an opportunity to change the interval from 6th to 10th:



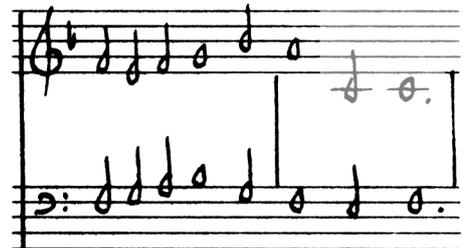
6th note

moves by step, so *cantus* moves parallel:

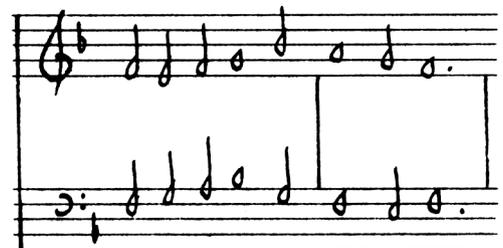


The 7th and 8th notes

are the cadence: the tune is in the tenor, and it does go up: but for the *cantus* to end 6-5 would mean a leap of a 6th:



so the two parts end an octave apart, and the note before is the 10th:



ex. 4-2: *cantus* and tenor to *Mater Christi*

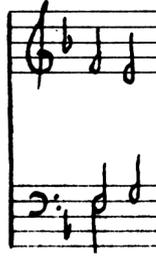
There are no tritone problems

Sing and/or play it

4.2. Bass

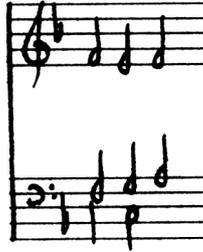
1st note:

cantus-tenor = 8,
bass-tenor = 1



2nd note:

C-T = 6, T-B = 5 (C): tenor-bass was
not a 5th before, so there are no
parallel 5ths: and there are no tritones



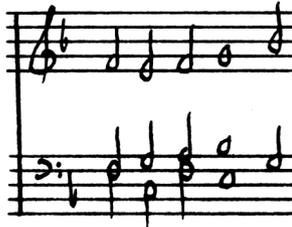
3rd note:

C-T = 6, T-B = 5 (D), but was also
a 5th last time, so that would be
parallel 5ths: instead, consulting
the second chart, since *cantus*-tenor
= 6, we double the upper note: no
tritones:

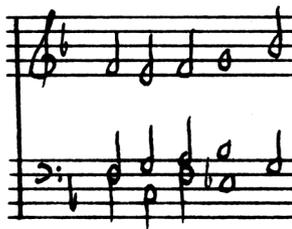


4th note:

C-T = 10, T-B = 5 (E), was not a 5th
before so no parallels:

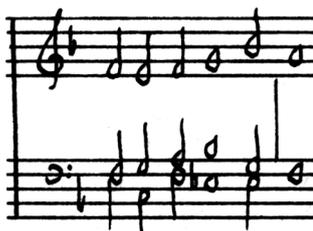


but there is a tritone, E-B \flat ; so we
flatten the E:



5th note:

C-T = 10, T-B = 3 (E): *cantus*-*bassus*
is now a 5th (plus an octave, which
doesn't make any difference in this
context), but was not a 5th before,
so no parallels: but to avoid a tritone
again, the E must stay flat:



6th note:

C-T = 10, T-B = 3 (D), which would make a second 5th with the *cantus*: so, following the second chart, since C-T = 10, we double the lower note: there are now no parallels, no tritones:

7th note:

C-T = 10, T-B = 3 (C): makes a 5th with *cantus*, but was not a 5th before, so no parallels; nor tritones

8th (last) note:

C-T = 8, T-B = 1 or 8: no parallels nor tritones:

ex. 4-3: bass to *Mater Christi*



4.3 Alto

Following the chart - and completing the piece - produces this result:



The image shows two systems of handwritten musical notation for an Alto part. Each system consists of a treble clef staff and a bass clef staff. The first system contains two measures, and the second system contains three measures. The notation includes various note values, rests, and accidentals, with some notes marked with a 'p' for piano.

ex. 4-4: *Mater Christi* complete

- the third note of the alto could be c or d, but d is preferred because it produces movement by step rather than by leap;
- no parallel perfect-consonances arise in the first phrase.
- no parallel tritones arise in the first phrase, except the fourth note, which must be *eb*.



4.4 Chord instruments:

Arranging the chords as triads produces this result:



The image shows a single system of handwritten musical notation for chord instruments. It features a treble clef staff with seven chords indicated by notes. Below the staff, the chord symbols are written as F, c, d, Eb, F, c, F.

ex. 4-5: chords for *Mater Christi*

The first and last have no 3rd of course. A chord instrument could supply the 3rd, or - preferably - play open 5ths: you could notate that with F5, for example.

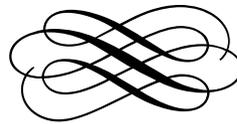


4.5 The same tune in the *cantus*

produces a different result:

The image shows two systems of handwritten musical notation. Each system consists of a treble clef staff and a bass clef staff. The music is written in a style that appears to be a vocal line (cantus) with a simple accompaniment. The notation includes various note values, rests, and bar lines, all rendered in a hand-drawn, sketchy style. The first system has a treble staff with a melodic line and a bass staff with a supporting line. The second system continues the piece with similar notation.

ex. 4-6: *Mater Christi*, tune in *cantus*



Although it dates from the 13th century, this description needs little modification for it to apply to later styles. The most obvious place to use such an extra, ‘passing’, note, is where you have two notes a third apart, so you just fill in the gap.

Compare ex. 4-4 with this:



ex. 5-3: discords by pass, marked * : *Mater Christi*.
Note that the passing note marked † does not produce a dissonance.

Before you write a note in, make sure it doesn't create parallel perfect-consonances that weren't there before:



ex. 5-4: passing-notes creating parallel 5ths between alto and tenor: *Mater Christi*

Binding discords:

“Discords mingled with concordances not onelie are tollerable but make the descant [the second part] more pleasing if they be well taken. Moreouer, there is no comming to a close ... without a discord, and that most commonly a seuenth bound in with a sixth.”

(Thomas Morley, *Plaine and Easie Introduction* (1597))

A discord which is “well taken” is one which is treated like this:

- on an up-beat, both parts are consonant
- on the next down-beat, one part moves up or down, by step or by leap, to ‘bind in’ a discord (in modern terms, ‘suspension’);

- on the next up-beat, the other part moves down by step (not up, nor by leap), to make a consonance again (in modern terms, 'resolution').

If you like to be systematic, one way of thinking of it is that

- there are three discords (2nd/9th, 4th and 7th);
 - either part may move first;
 - and the binding part can move either up or down:
- so you could consider (3 x 2 x 2 =) twelve main possibilities - although in practice there are many variations:

The image shows three staves of musical notation, each with four measures. Below each measure are numerical labels representing intervals. The first two staves are in dark grey, and the third is in light grey.

Staff 1 (Dark Grey):

- Measure 1: 5-3
- Measure 2: 5-4-3
- Measure 3: 1-3
- Measure 4: 1-4-3

Staff 2 (Dark Grey):

- Measure 1: 8-6
- Measure 2: 8-7-6
- Measure 3: 6-6
- Measure 4: 6-7-6

Staff 3 (Light Grey):

- Measure 1: 8-10
- Measure 2: 8-9-10
- Measure 3: 10-10
- Measure 4: 10-9-10

Staff 4 (Light Grey):

- Measure 1: 1-5
- Measure 2: 1-4-5
- Measure 3: 5-5
- Measure 4: 5-4-5

Staff 5 (Light Grey):

- Measure 1: 6-8
- Measure 2: 6-7-8
- Measure 3: 8-8
- Measure 4: 8-7-8

Staff 6 (Light Grey):

- Measure 1: 10-8
- Measure 2: 10-9-8
- Measure 3: 8-8
- Measure 4: 8-7-8

ex. 5-5: twelve ways of binding discords, with the consonances from which they are made;

NB: - those which are dark grey need a supporting voice to supply the 3.

- those which are light grey are normally used only in five parts or more, because of awkward doubled notes

The considerations about weak and strong beats apply as much to triple-time as to duple-time; but the binding note may also be used on the second of a group of three beats (a beat which would normally be weak), and that has the effect of changing the accent. In such a case, two bars of quick triple-time are accented as if they were one bar at half-speed ('*hemiolia*', '*hemiolia*' (Gk.) - the ratio of 3:2):

ex. 5-6: binding discords, on a down-beat in a *hemiola* (marked *) and combined with passing notes (marked ‡):
Gaillarde, 'De la guerre', Claude Gervaise, Troisième livre de Dancieries (1556)

Applying these principles to *Mater Christi* produced this result:

ex. 5-7: binding discords and hemiolas: *Mater Christi/DK*

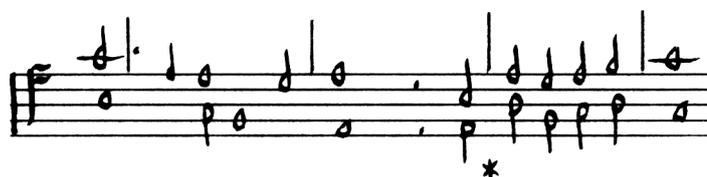


5.2. A closer look at 'rules'

In practice composers did not always feel bound to follow the canons of good taste, and it might be helpful to look at a few examples where they did not:



ex. 5-8: 4ths between *cantus* and *tenor*: Gaillarde: "De la guerre"



ex. 5-9: parallel 5ths: Dijon duo

A musical score for a Gaillarde piece titled "Si ie m'en ...". It consists of four staves, each representing a different voice part: SUPERIUS (top), CONTRATENOR, TENOR, and SECUNDUS TENOR (middle), and BASSVS (bottom). The music features parallel octaves, which are highlighted by an asterisk (*).

ex. 5-10: parallel 8ves: Gaillarde. 'Si ie m'en ...' (Gervaise, *Troisième livre*)

This last example is from a piece in five parts, and it was accepted that when you had more than four parts going on at once it mattered much less about having a fine texture:

"But in many parts necessity enforcing, if anything be committed contrary to rule, it may the more easily be excused, because the multitude of Parts will drown any small inconvenience."

(Thomas Campion, *The Art of Descant* (R/1674))

Concerning the importance to be attached to rules in general, Christopher Simpson added these observations to the same work:

“... 'Tis true, our Author did invent this Rule of the Figures, as the easiest way to lead the young Beginner to this kind of composition... ; but this he did to show the smoothest way, and not to tie his Scholar to keep strictly that way, when a block or stone should happen to lye in it, but that he may in such a case step out of this way for a Note or two, and then return again into it.”

(*ibid.*)

Sometimes composers only avoided these “inconveniences” by inserting a few short notes, or even just a rest:



ex. 5-11: almost parallel 5ths and 8ves:
'Den xxvi. Psalm', Iacobus Clement, *Souterliedekens 1*, 1556



ex. 5-12: almost parallel 5ths and 8ves: BL Add. ms. 31922, of 93v-94 (*basse dance*) (c.1530?)



ex. 5-13: the same: 'Fair Phyllis', John Farmer, *Madrigals à 4* (London, 1599)

In the last case, the problem was perhaps caused by the tenor imitating the *cantus*, a situation where

“for fuge and formality sake, some dispensation may be granted”

(Campion)

or as Morley put it,

“for the point (or fuge) sake thus, or in Canon it were tollerable”

“the point excuseth it”

and even

“the point compelled me to do so”

(Morley)

He did not, however, justify his licence on every occasion:

“I have myself comitted the like fault in my first workes of three parts, (yet if anyone should reason with me) I weare not able to defend it: but (no shame to confess;) my fault came by my negligence. But if I had seene it before it came to the presse, it should not have passed so, for I doe vtterly condemne it as being expresly against the principles of our art: but of this another time at more length.”

(Morley)



5.3. Imitation and canon

Whole books have been written about these aspect of composing, whole lifetimes have been spent analysing them: and there is scarcely room here to discuss them, except to mention that the basic principles still apply in the same way, it's just that you have to find tunes that will fit with themselves.

Actually it's surprising how many do, once you start looking, and how absorbing a pastime it can be looking for them.

You can also try augmentation and diminution, inversion and retrograde forms - longer and shorter note values, putting the tune upside down and backwards...

Just don't expect everyone to recognise how clever you are when you do it.

It was normal in the Renaissance to start the points (the various entries of the same tune) at perfect intervals from each other.



ex. 5-14: points of imitation in a well-known song (DK)



5.4. Parts of varying difficulty

Easier alto and bass:

We have seen how bass and perhaps alto may have only one or two notes per bar; this will be particularly effective when the *cantus* and tenor are more florid or elaborate.

More difficult alto and bass:

When the *cantus* and tenor are relatively slow-moving, alto and tenor (and any further parts you may add) can be given passing-notes and more intricate rhythms:



The image shows a musical score for four staves. The top staff is labeled '(cantus)' and contains a melodic line with various note values. The second and third staves contain more intricate rhythmic patterns. The bottom staff is labeled '(tenor)' and contains a slower-moving line with some rests.

ex. 5-15: contrasting textures:

'And I war a maydyn', BL Add. ms. 31922. *ff* 106v - 107 (compare ex. 3-13)

Improvising variations

The improvising of variations, divisions, new melodies and so on is an integral part of many musical styles - jazz, of course, but also renaissance, baroque (and later) 'art' music, some folk music, some rock music: and improvising is a natural direction for those who are more advanced in their playing or singing.

Beginners in jazz are catered for by the work of Owen Bryce and others, renaissance musicians have Howard Mayer Brown's *Embellishing sixteenth-century Music* (OUP).

For the baroque and classical eras a facsimile of Quantz' instructions, in English and from about 1790, is available at a very modest price, under the title *Quantz Says* (Liverpool Music Press).

One renaissance example might give a few ideas to start with:



ex. 5-16: 16th C. divisions: Sylvestro di Ganassi. *Fontegara* (1535)

5.5. Music for larger groups

Brass and Military bands

A simple four-part arrangement produced by following the principles discussed here can readily be adapted for band use.

You need to check that ranges of parts suit the various instruments, of course, but you will usually get a good result if you divide the band up into several groups with four parts in each, and allot the complete set of four parts to each group. If one group has only three instruments, of course you leave out the alto; if a group has only two, you leave out alto and bass.

Here is one way of doing it:

cantus	1st trumpet/cornet	1st flute (8ve higher)	1st clarinet
alto	2nd trumpet/ cornet	2nd flute (8ve higher)	2nd clarinet/ alto sax
tenor	tenor/barytone/ euphonium/ trombone	oboe (8ve higher)	3rd clarinet/ tenor sax
bass	tuba/basses	4th clarinet <i>ad lib.</i> (8ve higher)	bass-clarinet/ baritone sax

Then you can alternate the various groups, playing a short piece several times (e.g. tutti, brass, woodwind, tutti), or dividing a longer piece into sections in the same way.

You can also use smaller groups, and change octaves where necessary. e.g.:

cantus	baryton	trombone	trumpet	flute
alto	alto-horn/horn <i>or omit it</i>	trombone <i>or omit it</i>	clarinet	oboe
tenor	tenor-horn	trombone	trombone	clarinet
bass	tuba	trombone/ tuba	tuba	clarinet/bass- clarinet

For a piece needing an “oom-pa” chord accompaniment, you can just put rests on the strong beats in the alto and tenor parts, and give them the 3rd and 5th above the root of each chord:



ex. 5-17: “oom-pa-pa” chords: *South-west Wind* (trad. Shetland waltz; arr. DK)

Orchestra:

- the variations are countless, of course, depending not least on the size of the orchestra, but the principles are much the same, applied separately to each group of instruments:

cantus	1st violin	1st flute, 1st oboe	1st trumpet
alto	2nd violin	2nd flute, 1st clarinet	2nd trumpet 1st horn
tenor	viola	2nd oboe, 2nd clarinet	trombone, 2nd horn
bass	cello, bass	bassoon, 2nd bassoon 8ve <i>lower</i>	trombone tuba



5.6. Introduction and coda

You can mark the last phrase of a piece to be used again, at the beginning as an introduction, and/or at the end as a coda to round the piece off - and perhaps between repetitions of the piece as a ‘between-play’.

That also gives an opportunity for varied instrumentation.

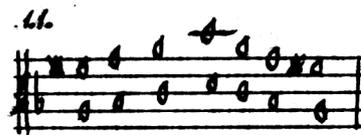


6. Later-renaissance and earlier-baroque harmony

contrapunctus simplex - simple note-against-note style

6.1. Summary - the legacy from the earlier renaissance

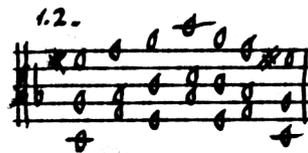
- **à 2: *cantus* and *tenor***
 - mostly 3.s and 6.s
 - 5. and 8. as passing notes between 3. and 6.



- **à 3: *contratenor bassus* takes a new consonant note**

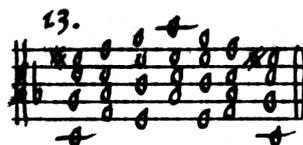
as long as that doesn't create

- 4. above the lowest note
- parallel 5. or 8; or
- tritone or false 5



in which case it must double a note, i.e. take one which the *cantus* or *tenor* already has, although normally in a different octave

- **à 4: *contratenor altus* follows the same principles as the bass.**



ex. 6-1: from Diego Ortiz, *Recercada quarta: [gagliarda, 'La Gamba']*,
but with repeated notes reduced to single notes

Some teachers saw that the basic principles produced consistent relationships between the voices, and showed these in tables, always reckoning the relationships from the tenor: Ornithoparcus 1517, Aaron 1523, Zarlino 1558, Morley 1597

6.2. Re-defining the pattern

Counting from the bass

Later in the 16th century people began to think of the bass as more important than the tenor, at least when reckoning intervals: and during the 17th century people began to express the consistent relationships between the notes as intervals above the bass, instead of counting from the tenor.

If we do this with ex. 1.2., we get -

3	8	3	8	3	8	3
5	3	5	3	5	3	5

- i.e., there is always a 3., and in addition, alternately 5. and 8. above the bass.

The 5. is there when the bass was able to have a new note, the 8. is there when the bass had to double an existing note.

The bass is part of the pattern

People noticed as well that the way the bass moves was a part of this consistent pattern: it's a bit wordy to describe, but once you know what you're looking at, it's completely intuitive:

	when <i>cantus</i> and tenor go up	when <i>cantus</i> and tenor go down
and the bass goes from a 'new' note to doubling a note	the bass goes up 4., with (3-8) (5-3) above it	the bass goes up 2., with (3-8) (5-3) above it
and the bass goes from doubling a note to taking a 'new' note	the bass goes down 2., with (8-3) (3-5) above it	the bass goes down 4., with (8-3) (3-5) above it

How the bass moves

If you look at it with the bass as the starting point, the same pattern can be expressed like this:

when the bass goes from taking a new note to doubling <i>cantus</i> or tenor	the bass goes up	<i>cantus</i> goes 8-3 tenor goes 3-5
when the bass goes from doubling <i>cantus</i> or tenor to taking a new note	the bass goes down	<i>cantus</i> goes 3-8 tenor goes 5-3

The alto's pattern is just as consistent:

if the bass is doubling <i>cantus</i> or tenor	no-one has the 5. above the bass	so the alto takes that
when the bass has a new note, i.e. all three voices have different notes	then there is no new note for the alto to take,	instead it takes 8. above the bass

So you get this as the overall pattern for the three voices above the bass:

when the bass moves up:		
the voice which had the 3. above the first bass note takes the 8. next	the voice which had the 5. above the first bass note takes the 3. next	the voice which had the 8. above the first bass note takes the 5. next
when the bass moves down:		
the voice which had 3. above the first bass note takes the 5.next	the voice which had 5. above the first bass note takes the 8. next	the voice which had 8. above the first bass note takes the 3. next

We can see that another part of this pattern is that now all the upper parts can have all the intervals above the bass - 3., 5., 8.

In the renaissance system, *cantus* and tenor could have 3., 5. or 8.: but *altus* did not have 3, only 5. or 8.

In its turn, this means that this way of counting in four parts from the bass produces settings which will be incomplete if performed with fewer than four parts - unlike pieces you produce with the renaissance approach to the same process, in its simplest form.

6.3. Using a table

The idea

Thomas Campion (1567-1620) got the idea of expressing the numbers in this way:

8	3	5
3	5	8

and of saying that

when the bass goes up you read upwards in the table:		
the part which had 3. above the first bass note has 8. above the second bass note;	the part which had the 5. above the first bass note has the 3. above the second bass note;	the part which had the 8. above the first bass note has the 5. above the second bass note.
when the bass goes down, you read downwards in the table:		
the part which had 8. above the first bass note has 3. above the second bass note;	the part which had the 3. above the first bass note has the 5. above the second bass note;	the part which had the 5. above the first bass note has the 8. above the second bass note.

If the bass moves a 5. or more, you count the movement as if it had gone to the nearest variant of the note it goes to: i.e. going up 5. is reckoned as going down 4; going up 6. is reckoned as going down 3., and so on.

In practice

We have seen that the bass was the result of the other parts in the earlier Renaissance: but that the relationship between them was rather consistent; and therefore, even if this new way seems upside down, one can understand that the same result was obtained when people later began to think of it as if the other parts were the result of the bass.

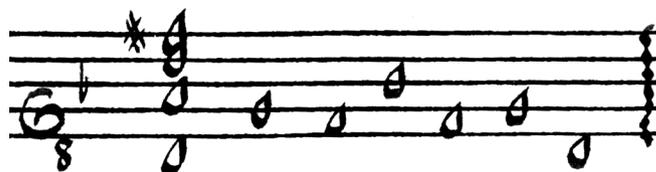
Campion went so far as to say that

“the Bass contains in it the Ayr, expressing how any man at first sight may view in it all the other Parts in their original essence”

(p.3)

If this seems a little extreme, we can perhaps understand better how he comes to that point of view if we re-compose the *gagliarda* ‘*La Gamba*’, using the bass, and Campion’s table:

3 → 8
8 → 5
5 → 3



ex. 6-2: elements from Diego Ortiz, as
ex. 6-1

For me personally it makes more sense to express Campion’s table as a circle rather than a square, and to read round clockwise and anti-clockwise rather than up and down



ex. 6-3: Campion’s table expressed as a circle
(DK)

“... at first sight”? Yes, indeed, once you’ve got the hang of the system, you can improvise the different voices as well as you can write them, and more quickly of course ... There’s more on this in chapter 7.

6.4 The system used in a 'real' piece of music

ex. 6-4: *basso* from Luzzasco Luzzaschi, *O primavera* (1601)

You could complete the piece yourself, from *Campion's table*.

If you then compare your result with the original, on the next page, we can say that

- **first phrase:** works exactly according to the table
- **second phrase:** the tenor part has been moved up into the cantus, the cantus and altus have been moved down to altus and tenor
- **from then on** there is a rather freer interchange between the parts - you can look yourself to see how - and a few extra ornamental notes
- **at the bass's f#** something special happens: for one thing the 5. above the bass isn't a proper 5., but a 'false' or diminished 5. (f# - c): and so the 6. is preferred instead; for another thing, it was not normal to double a sharp bass note.

The reason is that

"diesis sequentem notulam ascedens requirat"

(Michael Praetorius, *Syntagma Musicum*, 1619)

- 'a sharp note needs to go up to the next note':

if you double a sharp note, both parts need to go up and you end up with parallel 8ve's.

Apart from that, one can say that the reason for putting a sharp in front of a note is to emphasise it: a sharpened note is already very strong, and two are far too much.



ex. 6-5: four voices from Luzzasco Luzzaschi, *O primavera* (1601)

6.5. Varying the system

You can also use the table the other way round: read downwards when the bass goes up - or anti-clockwise if you're using my version with the circle - and vice versa.

When you've got the hang of that, you can combine the two possibilities. freely - which is what people mostly did in practice.

What is essential for the thing to work is that for any one pair of notes, you read the same way in the table for all voices.

6.6. Varying the music

The process of getting from *contrapunctus simplex* (note-against-note) to *contrapunctus floridus* ('real' music) is discussed on paper in the author's compendium *De variatione musicæ*, and on the www at

www.NewRenaissance.ibs.ee/musica_pedagogica_practica

6.7. Literature for 17th C. harmony

Thomas Campion, 'The Art of Descant', in John Playford, *An Introduction to the Skill of Musick*, London 7/1674 (R/1966).

7. From composing to improvising

The idea

As with all harmony systems, this way of thinking of the notes is just as useful in playing as in writing.

There is a quantity of written music for an Elizabethan form of music-making known today as 'broken consort' - flute, violin and bass viol playing a simple three-part setting of a well-known tune, cittern and pandora strum a simple chordal accompaniment, while a solo lute playing virtuoso variations above the whole. But it is clear that was improvised more often than it was written down, and the art of playing basso continuo really is neither a mystery nor a book with seven seals, but was always just the improvised form of the same harmony as people wrote down.



So how do we improvise renaissance harmony?

Here we can turn to many different authors and teachers:

- **Adrian Cocllico** and **Thomas Morley** teach us how a choirboy learned to improvise a new part above a plain melody, or even below it;
- **Agostino Agazzari** gives a crystal-clear description of the different functions of instruments when they improvise together
- **Diego Ortiz** has detailed models, and examples of the kind of parts which were improvised to a four-part song;
- and **Christopher Simpson** is remarkable for his complete, practical and elegant notes on how to organise an improvisation session so that the differing skills of each player come to their full expression.

To these we can add the vast body of help about the way these general skills can be specifically adapted to keyboard instruments, and to lutes and guitars.



We can start with the simplest principle, which was used from early renaissance times, that when your bass moves by step, you play or sing 10ths above it, parallel all the way...

We can add just one more principle to it, Daniel Speer's wonderfully practical rule-off-thumb, that

'you add everywhere a 3rd note above the bass, and alternately a 5th and an 8ve'

i.e.:

5	8	5	8	5
3	3	3	3	3

or

8	5	8	5	5
3	3	3	3	3

Anyone who doubts that the basics of the art of improvising above a *basso continuo* can be reduced to such a simple principle, need only check how it works with our microcosmic example from *La Gamba* earlier.



Of course 3-5-8 isn't the whole story: sometimes a 6th will be needed, normally as a replacement for the 5th when that note would have been dissonant (e.g. a sharp B in the bass will be dissonant with the 5th above, an F); a 4th may be used, especially when closing a phrase, as a temporary replacement for the 3rd; and in the same way a 7th in place of a 6th.

But these two will see the embryo harmonist through a good proportion of simpler 17th C. repertoire, and form a sound basis on which to build further.

This is the beginning, and I hope it will help you get started on an exciting journey; of course, there are very many further subtleties ...



www.NewRenaissance.ibs.ee/improvising

8, Pieces to perform

8.1. Allocating parts

Use as many or as few parts as you need

i.e. you can perform a four-part piece with two or three voices/instruments if you want, and allocate them in the order they were composed: viz:-

- *cantus* and tenor
- then *contratenor bassus*
- then *contratenor altus*
- then *quintus, sextus* etc.

If there aren't enough parts for everyone, start allocating a second person to each, again in the same order, if possible making complete four-part groups according to timbre.

Or better still, compose a new part. When I was teaching in rural Norway, I never knew who was coming from one week to the next, and I used to write out the parts as they unpacked their instruments ...

It was quite normal to mix voices and instruments in earlier times:

"The Voice, thus fitted with Dittie (either in Parts, or single) is delightful of it self: but Instruments added make the Musicke more acceptable."

(Charles Butler, *The Principles of Music*, London, 1636)

In a smaller group - playing at home, for instance - it helps to make the texture clear if you allocate parts in this order:

- 1 - voices
- 2 - sustaining instruments
 - 2.1 - reeds and brass
 - 2.2 - bowed strings
 - 2.3 - flutes, recorders
- 3 - non-sustaining instruments, plucked and hit:
 - = lute, guitar, harp, dulcimer, plucked bass etc.

e.g.

	16th. C		modern			
1 - cantus	voice	violin	trumpet	voice	flute	
2 - tenor	voice	viol	clarinet	trombone	organ	viola
3 - bass	viol	harp	bassoon	cello	pizz. bass	
4 - alto	recorder	lute	flute	flute	guitar	guitar

When using recorders, you will notice that many parts can be played on more



than one size: e.g. a range of C-d' suits both soprano and alto; but while the soprano would be using the weaker, lower part of its range, the alto would be using the stronger upper part (or the middle part of a more modern instrument). So the lower instrument will usually be preferable, and in many pieces ATTB will give a fuller, more secure sound than SATB: even ATBB may be better, if you have two basses.

Similarly, with voices the *cantus* is often more appropriate for a male alto than a female soprano in earlier music; for higher parts a boy was normally used, in England anyway: but in the Italian courts ladies sang the upper parts at times, and at least one professional female singer is on record (the wife of the *frottola* composer Tromboncino at the d'Este court, if I remember rightly).

“Good Voices alone, sounding only the Notes, are sufficient, by their Melody and Harmony, to delight the ear: but being furnished with some laudable Dittie, they become yet more excellent... “Concerning the Singers, their first care should be to sit with a decent erect posture of the Bodie, without all ridiculous and uncomely gesticulations, of Head, or Hands, or any other Part: then ((that the Dittie (which is half the grace of the Song) may be known and understood)) to sing as plainly as they would speak: pronouncing every Syllable and letter (specially the Vouels) distinctly and treatably. And in their great variety of Tones, to keep still and equal Sound: (except in a Point) that one voice drown not an other.”

(Charles Butler)

Of course, if you have a piece suited for ATTB recorders, it will also work on SopraninoSSA, sounding an octave higher; and if you have enough players you can have both at once, doubling every part at the octave.

Then you could alternate the high and the low groups and the tutti ensemble in various ways, e.g., play a section three times - high, low and both: or have *tutti* on the second time of each section, and have the high and low groups on alternate sections for the first time:

A1 - high	A2 - tutti
B1 - low	B2 - tutti

(etc.).

They certainly did this kind of thing in the Renaissance when they had enough people.

In a larger group - e.g. as was assembled for more important occasions, state ceremonies, royal wedding etc. - it was normal to double a complete set of voices (one on each part) with a complete set of instruments, or even two sets:

“The several kinds of Instruments are commonly used severally by themselves: as a Set of Viols, a Set of Waits, or the like: but sometime, upon special occasion, many of both Sorts are most sweetly joined in Consort.”

(Butler again)

They could then take a reprise each, followed by a tutti - again each section would then be played more than twice.

Sometimes, at least, it was agreed beforehand who was to make divisions in the various sections, to avoid too much muddle at once: on the other hand, the fact that some authors recommended it means that they must have been used to hearing a certain amount of muddle ...

The acoustics of recorders are complex, but scientists - and many musicians - consider that they sound an octave higher than written; this is especially noticeable when they are played with other instruments.

So in a mixed group, a bass will often sound better than an alto, and a tenor better than a soprano - unless you deliberately want the tenor, for instance, to sound an octave higher. That is also a possibility worth trying now and then - it was normal in English village-church bands up till the mid-19th century, incidentally; you may hear the occasional parallel 5ths, which were 4ths before the tenor went above the *cantus*, but they won't ruin the piece for everybody ...

A bass recorder really doesn't work as a bass to other instruments than recorders.

If you are using recorders, and for the moment haven't a bass, a clarinet can be a good practical substitute in the mean time, played rather quietly, clearly and a little staccato.

Try to avoid writing out transposed parts, but get your clarinettist used to reading by interval instead - if it goes up two notes, take two fingers off - clarinettists who can't transpose are rather less useful than those who can...



8.2. Rehearsing

It makes sense to rehearse the parts in the order they were composed, too.

Get everyone singing and/or playing the tune first, so they know what the piece is about, and the same with the second part, tenor or *cantus*.

Then put the two together before adding the bass next, and alto last, if you're using them.

Some pieces are also rather effective if you perform them like that, building up the texture with each time you repeat the piece



The renaissance view of early

A: Fundamentals:

“The Romantic esthetic is to early music as an oil painting is to a drawing”

(Morgan Niklasson)

B: The three stages of composing

(“com-posing” = ‘putting together’ parts: no scores or bar-lines!)

1. *Contrapunctus simplex*, simple note-against-note

1.1 mediaeval: 5., 8. (consonant); 3. passing (dissonant, very sharp!)

1.2 renaissance: avoiding //5 means that

- the bass jumps

- four parts are needed for the full harmony of three different notes

1.3 baroque:

- à 3 - 3., and alternately 5. and 8.

- à 4 - 3., 5., 8. above every bass note, alternately

1.4 - common for renaissance and baroque:

- 4. (dissonant) stands in the place of 3., and gives way to it: upper note moves

- 2. (dissonant) stands in the place of 3., and gives way to it: lower note moves

- 9. (dissonant) stands in the place of 8., and gives way to it

- 7. (dissonant) stands in the place of 6., and gives way to it

- 6. (consonant, but can lean/push downwards in the same way as 4-3 and almost seem dissonant) simply stands in the place of 5., specially when the 5. is *non harmonica*, i.e. the ‘false’ 5. you get when the bass is sharpened

2. *Contrapunctus floridus*, ‘flowering counterpoint’, with ornamental notes

2.1 - vary the rhythms

2.2 - neighbouring notes

2.3 - passing notes

2.4 - jump between parts = use other consonances

3. *Musica poëtica*, after 1550, ‘the text is the mistress of the harmony’, ‘the text is the soul of the piece’, ‘the harmony is the mirror of the text’: following the principles and practice of rhetoric (before 1550 the purpose of music = to show the musician’s art)

- what was expressed:

- *Affekt*/passion: happiness, sadness, laughing, sighing, crying out

music: summary at a glance

- direction/place: up = heaven, down = earth, hell, mountain, valley
- time and number: quick, slow, three in one, 40 years = 40 parts
- concrete objects: black, war, echo, cat, cockerell
- the means that were used:
 - in general: phrase-length, cadences, pauses (= breathing), *fuga* (= conversation)
 - more specifically = *hypotyposis* (Gk., 'painting' in words), Eng. 'humouring the words', 'ditying': expressed by surprise use of unusual melodic leap, length of note, short rests, sharpened and flattened notes, dissonance

C. Application to performance

1. *Contrapunctus simplex*

- play from parts rather than score
- choose parts, and instrument them, according to their function
- no emphasis following bar-lines, since there were no bar-lines
- the notes stand apart like the pillars of a temple, though from a distance they may seem like a wall

2. *Contrapunctus floridus*

- improvise ornaments
- identify the functions of the notes, phrase passing-notes more softly than harmony notes ('turu', keyboard fingering 3232)
- improvise extra parts above a bass: fundamenta: in large group = organ, hapsichord; in small group = lute, harp: play a steady basic harmony of all parts
ornamenta: violin, spinet, viol, flute; large group = lute, harp: play just one part with a great variety of decoration and ornament; but not all at once like twittering sparrows

3. *Musica poëtica*

- rhetorical speech is the model for singing; rhetorical singing is the model for playing: the mark of a good player is that his listeners understand what he's saying
- identify rhetorical effects in the written notes (= everything that's outside the normal practice), and interpret them as an actor: ten times larger on stage so that they may seem life-size when they reach the auditor
- when there is no text, you emphasise, phrase, breathe - all according the conventions that arise from using text
- sharpened and flattened notes are emphasized with extra harshness and softness
- extra quiet just before a surprise

Historical Summary

of how music was composed, 900-1750

~ Background Notes

~ Music was composed in separate parts, not chords. Rameau's theory of chords, for example, was first published in 1722, and was not generally accepted, even by theory teachers, until the 19th century. Beginners composed the parts one after the other, but with a little practice you can think in several parts at once ~ it's actually easier than riding a bicycle! Until the 17th century it wasn't even normal to compose in score, but directly in the separate parts; and Renaissance organists could play directly from separate parts too.

~ In the most basic form of composite music (i.e. parts set together), each part has its own character: tenor and cantus are melodic (= stepwise), the bass must leap to avoid parallel 5ths ("5s") and the alto is largely monotonous, just filling in the missing notes:

But once the beginner has grasped the basics, he can swap that each can have a bit of melodic interest, and sim- turns at supporting the others, as in any well-organised

community: e.g.

~ It is not possible to have more than three different notes sounding in consonance: if there are any more parts, they must double the notes of another. To have a full harmony of all three notes you need only three parts, if you accept parallel fifths: but if you want to avoid these, as people did after about 1400 ("too much perfection cloy the ear"), then the third part has to double one of the others sometimes - not out - so to get all three notes you need four parts: That's why four-part harmony has become the basis of western harmony-teaching and thinking, from 1400 till now.

~ An styles can just as well be improvised as written down. Part of the training of a choirboy was to sing improvised harmony, both plain and ornamented; and continuo-playing is the same thing, only playing several parts at once.

~ The difference between the practice in one era and the next usually depends on altering no more than one aspect at a time: that is enough to produce a whole new sound, recognisable even with modern ears. In the following chart you can see what was new in each era by following the thick lines.



If you can ride a bicycle, try playing first two, then three, then four parts at once...

A Historical Summary ~

Approx. dates	Period or style - and one key figure	How the sound was made fuller	which intervals were used		How dissonance was used		Nature ~ the first and second parts
			~ on the main beats	~ consecutively	~ on main beats	~ elsewhere passing notes, 'neighbour notes' etc.	
900 - 1100	earlier Middle Ages ~ Guido	one melody was sung starting on different notes at the same time	perfect consonances - 1, 4, 5, 8	any	-	-	melodic (= stepwise)
1100 - 1300	later Middle Ages ~ Perotin	Different melodies in the different parts	imperfect consonances ~ 3, 6		freely "make sure your third part is not dissonant with both the other two"	moderately	called 'tenor' & 'motetus'
1300 - 1400	Ars Nova ~ Landini						
1400 - 1500	earlier Renaissance ~ Dunstable			avoid "5, 8"	systematically (prepared, resolved) ~ 'binding notes', suspensions (to create tension and make the following consonance sweeter)		called 'tenor' & 'discantus'
1450 - 1550	middle Renaissance ~ Josquin						
1550 - 1750	Style antico (high Renaissance, Baroque) ~ Palestrina						
1600 - 1680	Style moderno (early Baroque) ~ Monteverdi				in Italian style - unsystematic, to express fierce emotions		canto can be given awkward and dissonant leaps to express fierce emotions
1680 - 1750	high Baroque ~ Bach					excessively ('baroquely') (passage-work, figurations)	

how music was composed, 900-1750

of ~ the third part	A fourth part?	Degree of consistency	Which part the intervals are reckoned from [i.e. that which a beginner composes first, or is given to compose upon]	Imitation ~ 'Fuga'	Role of a text	
					~ in sung music	~ in played music
melodic (=stepwise) [called 'triplum' = "third"]	unusual ~ not needed, since you have three different notes with three parts	little ~ lots of variation within the basic principles	melody [called 'vox principals'] [called 'tenor']	all parts begin together	of first importance	instruments not mentioned in polyphonic music ~ organ on the second part? 'vox organalis'
avoiding '5' means it has to jump around, above and below the tenor - often unsingable ('contratenor')			the tenor, even when the melody is now sometimes in the top part	'Fuga' normal in more serious styles	little more than a vehicle for the composer to show his art - often the words don't fit the contratenor at all - lots of repeated phrases and bits of phrases, words split by rests, different parts singing different words at the same time, especially in fuga (imitative movements)	~ organ on the tenor? (very long tenor notes)
is kept below the tenor to get it more singable: leaps of 4th and 5th are necessary to avoid '5'	becomes necessary to give three different notes, since, to avoid '5', the bass must often double cantus or tenor	as soon as one part is fixed, so are the others: beginners can compose and improvise using a table or by a simple rule. The craft of learning these consistent patterns is apprentices' work, adding a bass and inner parts: the art of the master comes in varying the basic patterns.	['tenor and cantus move by step: so to avoid '5', the bass must leap'] the bass ['write your bass with leaps, so the upper parts can move by step']		close relation between syllable and note (length, height etc), melismas thoughtfully placed (on long vowels, on suitable vowels, in suitable places), some word-painting, 'harmony the mistress of the words' ['Musica reservata' 'Missa Papa Marcelli']	'a good player can make his listeners understand the words'
					'the words the mistress of the harmony': lots of new ways of expressing emotion	separate parts for instruments in sung music and sonatas: bigger leaps and faster ornaments, but otherwise just the same rhetorical practice as the sung music: 'the instrument speaks with an understandable diction'. One phrase of text = one phrase of music; it ends with a full cadence, then a new one starts, often in a different mood. Music without words followed the same practice. Later composers made phrases longer and longer by using the melodic ideas more often, and by about 1680 each phrase had become a whole movement, each with its own mood.
					stereotypes, familiar clichés and symbols rather than direct expression of emotion	

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