Repository of music-notation mistakes

or

Essay on the true art of music engraving

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intended for:

- users of music-typesetting software packages,

- developers of such packages,

- traditional music-engravers,

- sheet-music collectors,

- those keen on problems of *semantics*, *semiology*, *philology* , etc.

NB: These examples are certainly musically worthless: do not read them with your instrument :-)
To limit myself to the essential, and lacking sufficient expertise, I do not deal with any of these neighboring, exciting topics:

- music theory, harmony, composition, etc.
- comparative test of various typesetting packages,
- how to interpret the quoted symbols according to epochs,
- copyright issues,
- percussion notation, and plucked-string instrument tablatures,
- very-early-music notation, and avant-garde music notation.

I apologize to readers of some countries for having adhered to the U.S. terminology

1 General issues
1.1

When simultaneous notes are present on the same staff, two notations are posssible: chord notation, or multiple-voice, a.k.a. *polyphonic* notation.
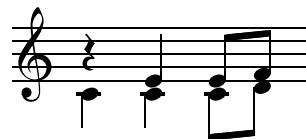
Of course, if parts have distinct rythms, the polyphonic notation is required.

This side: incorrect.   *This side: correct.*

1.2

Do your best to place *page-turns* at places acceptable for the musician, otherwise he will either require a "page-turner", or labor to arrange chunks of photocopies. Since modern musical scores are smaller than before, this demands more efforts from the music engraver.

The actual print size, i.e. omitting margins, of most scores from former epochs, almost matched the usual format of most of modern scores including the margins.

An easy solution consists in using a small engraving size. It is better to use a bigger size, at the price of more effort to manage the spacing rationally. These two excerpts require the same horizontal space, but that on the right is easier to read:

Moreover, you also have to vary the distances between the staves of systems, to avoid wasting some vertical space (see my edition of Dussek's piano Sonata op.35-3).

1.3

Choose horizontal spacings that increase according to note durations, but not proportional to these durations. Personally I am happy with a spacing ratio of $\sqrt{2} \approx 1.414$ to represent a duration-ratio of 2, but this is not an absolute rule, especially if thirty-second or sixty-fourth notes are present, because this would bring them too close to each other. Do not change the spacing of a specific duration within a line without a good reason.

If a system has several staves, the part with the **shortest** durations governs the overall spacing. Lyrics, if any, may demand still wider spacings.

1.4

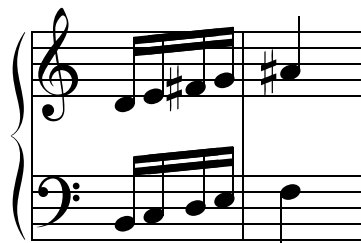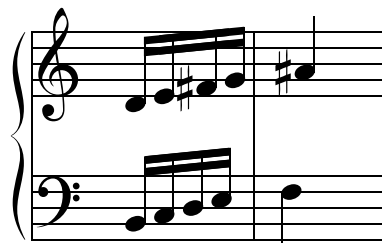Here is a good reason to modify tight note spacing: avoiding clashes:

k

1.5

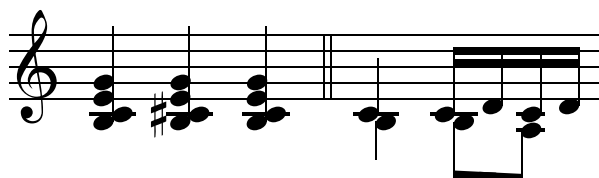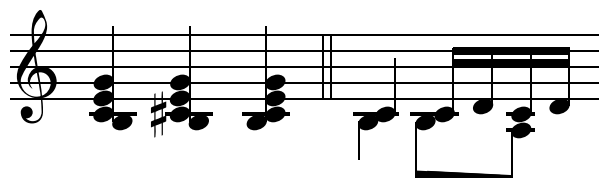If no other simultaneous part prevents it, note stems should also be taken into account for the spacing:

1.6

Never displace the vertical alignment to accommodate accidentals:


1.7

Write an interval of a *second* in a chord with the lower note **left**. On the other hand, in polyphonic writing, it should be put **right**.

I omit cases of voice crossing. Do not be perturbed by an accidental associated with the upper note. Do not perturb notes aside this second.
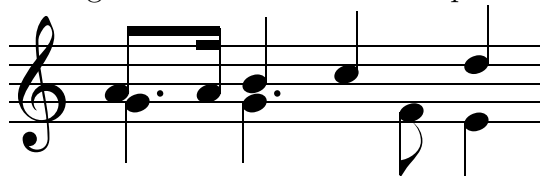
1.8

In polyphonic writing, notes should be shifted just enough to distinguish them, anyway less than the spacing for a second:
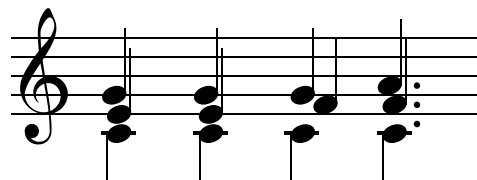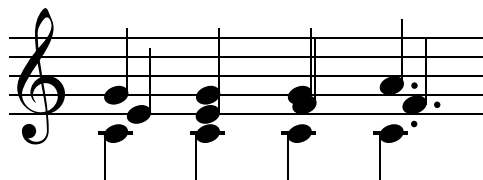
Note the case of dotted notes: the augmentation dots must be aligned vertically.

1.9

Sometimes augmentations dots must be placed so as to avoid any ambiguity:

1.10

In a two-part polyphonic notation, upper-part note stems should be upwards, even if the other part has a rest:

(same for the lower part.)

1.11

Some linkings of notes or rests may be correct according to music theory, but impede sight reading:

In other words, rests should not act as syncopated notes. In a ternary beat, separate a rest that affects the second and third time values. Beams do not demand so much care.

Some will argue that in early music, flag/beam notation expresses some degree of articulation. But the rule above almost always coincides with some *reasonable* articulation.

2   Beaming
2.1

Beams should have an appropriate slope. In the past, one would avoid too weak a slope, because the printing ink would maliciously attempt to fill the tiny angle between these beams and the staff lines. For a scale or an arpeggio, this slope cannot be steeper than that formed by the notes, nor horizontal. A compromise must be found. Here is an example, with its solution, by two distinguished publishers:

Peters end 19thC.   Henle end 20thC.   recommended

If you want to imitate some French publishers :

2.2

Beam placement should be adapted to the context. This placement varies depending on whether this group of notes is isolated or in a series:

2.3

Avoid Z-like beams, as found in former editions:

2.4

Beams should never cross ledger lines:

2.5

Do not affect beam placement to place rests at their usual height. Rather move the rests:
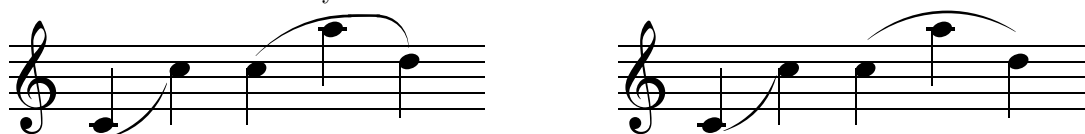

3   Ties and slurs
3.1

When **slurred** notes are intended, the slur takes off and lands above or below the **centers** of note heads. But for **tied** notes, the same sign takes off and lands vertically aligned with the boundary of the note head, and not higher than this head. One breaks from the first rule to avoid colliding the note stems.

Note that the tie becomes "quieter".

3.2

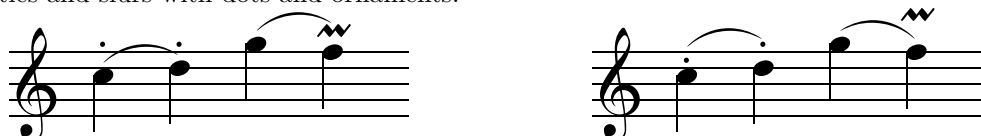Meanwhile avoid "acrobatics" to strictly abide these rules:

3.3

During some epochs a single tie was supposed to refer to **all** notes of a particular chord. Particular cases have become so frequent, that it is better to note all ties explicitly.

3.4

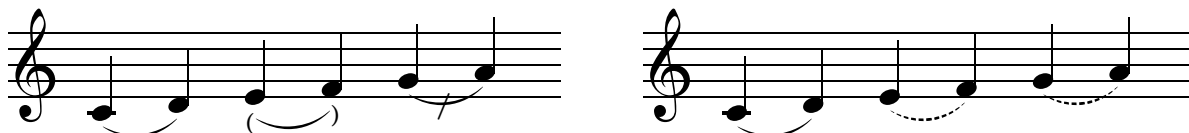Associations of ties and slurs with dots and ornaments:

3.5

Associations of ties and slurs:

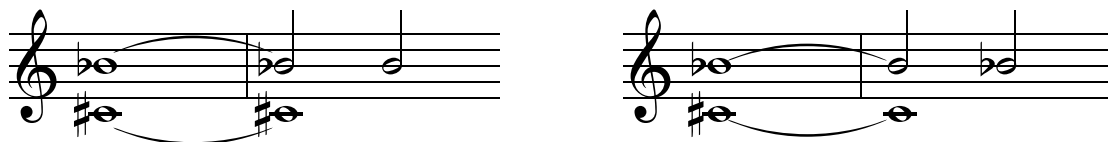Bowed-instruments players will find this obvious.

3.6

The dotted slur is the best way to emphasize an *editorial slur*:

4 Accidentals

4.1

When a note with an accidental expands over several measure, do not repeat the accidental on the next measures, except if there is a line-break or a page-break:

4.2

When an accidental affects *small notes*, and is desired to also affect subsequent notes, it must be repeated.

4.3

When a note with a single sharp comes after the same note with a double sharp, you no longer put a natural sign before the single sharp, unless you want to mimic 19th engraving style. Same for flats:

4.4

In polyphonic writing, accidentals of either part are not supposed to affect other parts. If such accidentals are to affect other parts, they should be written explicitly:

Remember, around 1600 a Fugue for organ or harpsichord would have been written on **four** staves. Then accidentals where not dependent between staves.

4.5

In the old days, an accidental would also affect corresponding notes at other octaves:

Nowadays, such accidentals should be explicitly written:

Note that some software packages, able to convert between a MIDI file and a score, have kept this former convention. Then a MIDI file may contradict its source score for some accidentals.
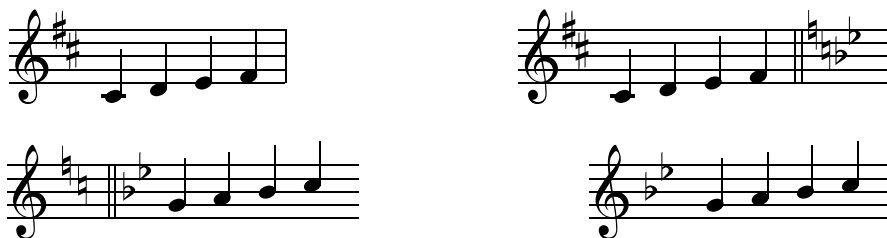
4.6

When changing the key signature to decrease the number of accidentals, the natural signs should be written **before** the remaining accidentals:

4.7

When such a change comes at a line- or page break, it must be shown **before** this break:

4.8

When there is a need to shift some accidentals to avoid collisions, the upper is left at its normal position, and the lower is shifted to the left, either in chord- or in polyphonic-writing:

4.9

Accidentals other than well defined ones, get classified in three sets:

- editorial accidentals (e),
- cautionary accidentals (y),
- "courtesy" accidentals (c).

Put an editorial accidental when you think the source is wrong. Note it with a small-size accidental above or below the note. If this note is within a chord, place it left of the note.

Thorough bass also uses such small accidentals above notes. But the misunderstanding is unlikely most of the time.

Put a cautionary accidental when music-theory rules demand its effect, but you fear the musician misses it, e.g. at the end of a "crowded" measure. It must be parenthesized.

A courtesy accidental is a theoretically redundant accidental, which confirms the cancelling effect of a barline on previous accidentals. The usage is to write it normally.
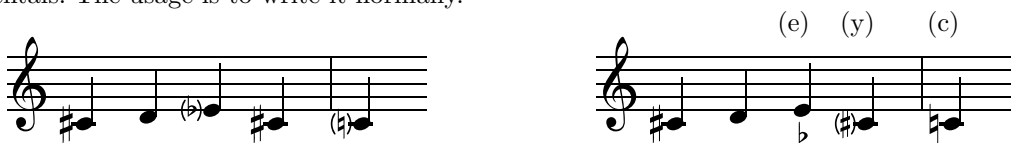
It is better to notate **all** accidentals in some modern, complex works.

4.10

In ancient times some copists thought that when the first note of a measure is the same as that, with an accidental, of the previous measure, the accidental was implicit:
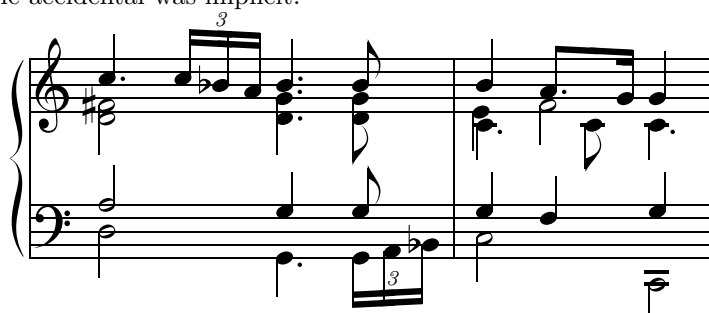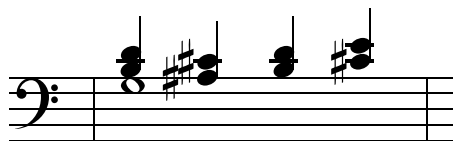

The correction is then obvious, and does not require an editorial accidental:


(a fortiori a cautionary accidental. Your musicologist's abilities are recognized at this stage!)

4.11

Some accidentals in ancient editions may seem redundant according to our modern rules, like the C sharp at the end of this bar:

Therefore the following theory must be banned: *if this accidental is present in my source, there must be a good reason for this, but a wrong accidental has been written here. Indeed, if the composer had wanted a C-sharp at the end of this bar, he wouldn't have written any sign there. So let me correct this mistake!*
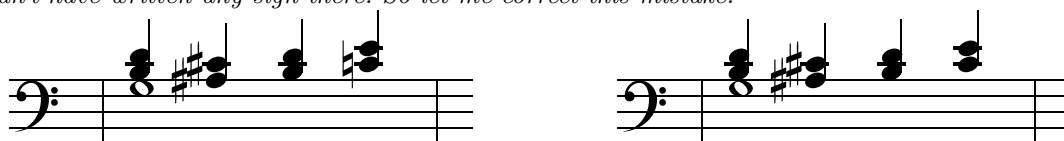
If these thirds of fourth-notes had been written as polyphonic notes, the explanation would be obvious. I could also quote similar misunderstandings about accidentals an octave away, as seen before.

5 Measure numbers
5.1

Initial rests, common to all parts, are never notated, especially if there is a repeat from the first note:

5.2

The number of the very first measure of a piece is never written. If this measure is an upbeat, this number is **zero**.

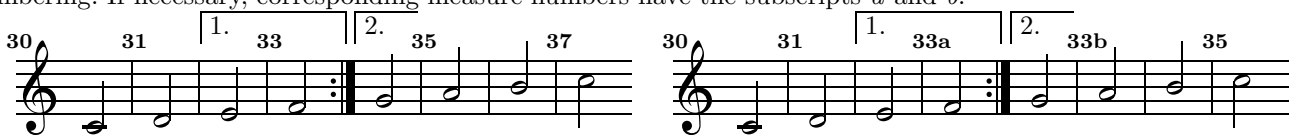Measure numbers at system left-tops are enough in practice.

5.3

If there is a double bar within a measure it does not act on measure numbering.

5.4

When *first ending-second ending* measures are present, measure numbers of only the *first ending* measure act on the numbering. If necessary, corresponding measure numbers have the subscripts *a* and *b*.

Indeed many fast movements have repeats bars amid a measure (like the Allegretto of the *Moonloght sonata*). This repeat could as well had been noted under the *first ending-second ending* form for this measure. Hence both notations must yield the same measure numbering.

6 Miscellaneous
6.1

No barline should be written at the beginning of an instrument part involving a single staff, unlike a conductor score.

6.2

In ancient times, some staccato notes had a small wedge instead of the modern dot. If **both** symbols show up in a piece, they also represent two degrees of staccato. This notation must then be faithfully reproduced. On the other hand, if only wedges exist, they must be replaced with dots.:

6.3

Such signs are always located above the note heads, rather than above the note stems, even if polyphony requires a stem-side location:
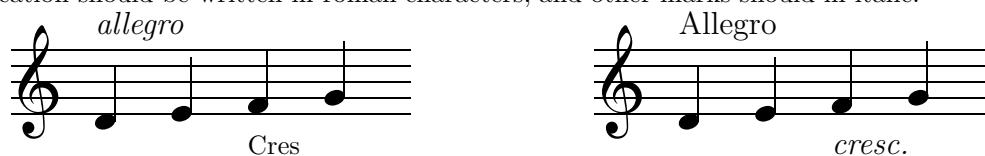

6.4

Appoggiature, or *small notes*, are written **after** the bar, regardless of their rythmic interpretation:

6.5

The tempo indication should be written in roman characters, and other marks should in italic:

Also note the capitalization, and the abbreviation dot.

6.6

In the old days one would write **loco** (from Latin *at the place*) to emphasize the end of an octave sign ($8^{-\,-\,-\,-\,-}$). Now such signs have become common, and this **loco** is well redundant.

7 Some moral advice if you make engrave a score

7.1

If you elect to using a specific notation practice, keep up with it along the entire piece, instead of toggling between two practices according to your whim, even if we have seen that this first practice is questionable.

7.2

Pitch errors of a third are much more frequent than those of a second, for obvious visual-perception reasons. Be tolerant with the authors of your source.

7.3

What to do when you think you've done with your edition? Of course, you rush to your instrument, and you play the piece with this edition.

But since you are familiar with the piece, you will very likely miss quite a few misprints, overwhelmed by your enthusiasm. Quit your instrument, put your edition and its source on a desk, and take a pencil. Compare measures one at a time, and if there are multiple staves, one staff at a time. End up with the miscellaneous signs (tempo, interpretation, piano pedalling, etc.) common to these several staves.

But this is not enough yet. Indeed a good musician like you has the ability to correct some misprints (like accidentals) when playing, without noticing. The previous test will not detect such misprints, because they are the same in both versions.

If your typesetting software is able to convert your piece into MIDI format, the obtained file will be helpful. Otherwise you will have to submit your edition to a musician less experienced than you, who would not yet be prone to such automatic corrections.

7.4

Remember: Noting music correctly is as difficult as playing an instrument correctly.