An extraordinary achievement... I would pray that it becomes a kind of Holy Writ for notation in this coming century. Certainly nobody could have done it better, and it will be a reference for musicians for decades to come.

Sir Simon Rattle
After more than 20 years in the business Gould has seen (and heard) it all and Behind Bars is an encyclopaedic distillation of practical professional wisdom.

Gramophone Magazine (Arnold Whittall)
Behind Bars

Specialist music editor Elaine Gould provides a comprehensive grounding in notational principles in this seminal reference work, the most thorough guide ever published in this field. An essential resource for composers, editors, music-setters, students and teachers, *Behind Bars* covers everything from basic rules of mainstream practice to complex instrumental and vocal techniques and new technologies.

Supported by 1,500 music examples, this all-encompassing guide encourages new standards of excellence and accuracy. With the rise of computer technology, there is an ever greater need for ready access to principles of best practice in this dynamic field.


If you are a composer or a copyist, you cannot live without this book. If you are a conductor, it is equally enlightening and indispensable.

Artsjournal.com (Norman Lebrecht)

Elaine Gould

Elaine Gould is a leading authority in the field of contemporary music editing. As New Music Editor at Faber Music, she has worked on the complex and varied scores of house composers Thomas Adès, Julian Anderson, George Benjamin, Jonathan Harvey, Oliver Knussen and Colin Matthews amongst others. Composers, conductors and professional musicians depend upon her skill and knowledge to deliver clean scores in high-pressure situations such as international premieres.

A specialist in standard notation and practices, Elaine is highly sought after as an authority and arbiter of best practice. Composers and music-setters all around the world rely on her expertise and guidance in this increasingly complex field.

Elaine is passionate about sharing her knowledge and raising standards of editing and notation through education. She is regularly invited to deliver lectures and composition seminars to university music departments and music colleges. She teaches a notation course at the University of Birmingham as well as a course she co-designed for editors entering the industry run by the UK Music Publishers’ Association.
Clefs to use

Except for percussion, each stave must begin with a clef. Never omit the clef; only in hand-copied theatre and entertainment music has it ever been an accepted convention to use a clef on the first line and no other.

Using alto and tenor clefs

Among common orchestral instruments, only the viola uses the alto clef. The alto clef should be used for alto trombone parts (see Trombone and tuba, p. 262). Bassoon, trombone, cello, and occasionally double bass, use the tenor clef. Some nineteenth-century editions place tenor-voice parts in the tenor rather than the treble clef.

Changing clef

A change of clef placed after the beginning of the system is two-thirds of the size of the clef at the beginning of the stave (see following examples).

For performance material, stay in one clef for as long as is practicable, using up to at least three ledger lines rather than changing clef frequently. This shows the contour of the pitches, which a change of clef would obscure:

\[\begin{array}{c}
\text{but not}\\
\end{array}\]

The practice of retaining the most commonly used clef at the beginning of the stave while inserting a new clef after it is obsolete. This includes the very start of a piece:

\[\text{Viola} \quad \text{and not} \quad \text{etc.} \]

Changing clef

A change of clef placed after the beginning of the system is two-thirds of the size of the clef at the beginning of the stave (see following examples).

For performance material, stay in one clef for as long as is practicable, using up to at least three ledger lines rather than changing clef frequently. This shows the contour of the pitches, which a change of clef would obscure:

\[\begin{array}{c}
\text{but not}\\
\end{array}\]

The practice of retaining the most commonly used clef at the beginning of the stave while inserting a new clef after it is obsolete. This includes the very start of a piece:

\[\text{Viola} \quad \text{and not} \quad \text{etc.} \]

AT THE BEGINNING OF THE SYSTEM

Give warning of the clef change by placing the new clef at the end of the previous system before the barline:

\[\begin{array}{c}
\text{end of} \\
\text{system} \\
\text{beginning of} \\
\text{new system} \\
\end{array}\]

Dividing long notes according to the metre

Simple time

A long duration that starts on the beat may be written as a single note-value:

\[\frac{3}{4} \quad \text{\ and not} \quad \frac{1}{4} \]

When the rhythms are not part of a regular pattern, the long duration may be divided to expose the beats or half-bar, to make the rhythm easier to count and therefore to place. In \(\frac{3}{4}\) it is the third (not the fourth) beat that should be exposed:

\[\frac{3}{4} \quad \text{\ and not} \quad \frac{1}{4} \]

Some composers prefer to divide a long note that is followed by a rest into its separate beats, in order to emphasize that the note should be held for its full value:

\[\frac{3}{4} \quad \text{\ and not} \quad \frac{1}{4} \]

A long duration that starts after the beat is usually divided to show further beats. This helps the placing of the second note:

\[\frac{3}{4} \quad \text{\ and not} \quad \frac{1}{4} \]

Compound time

No note-value should be written across the beat, except combined whole beats:

\[\frac{3}{4} \quad \text{\ and not} \quad \frac{1}{4} \]

\[\frac{3}{4} \quad \text{\ and not} \quad \frac{1}{4} \]

\[\frac{3}{4} \quad \text{\ and not} \quad \frac{1}{4} \]

\[\frac{3}{4} \quad \text{\ and not} \quad \frac{1}{4} \]

\[\frac{3}{4} \quad \text{\ and not} \quad \frac{1}{4} \]
The use of grace notes indicates that the rhythm is the result of the bounced bow. Otherwise short note-values may be accompanied by an ad lib. instruction to suggest the flexible rhythm:

Two-note tremolos

When a tremolo between two notes is played in one bow stroke, place a slur between the two notes. The tremolo will be either between two fingers on one string (‘the finger tremolo’), or between two strings (‘the bow and finger tremolo’):

When tremolo note-values are repeated within one bow stroke, use a single slur. A slur should always indicate the length of the bow stroke (there should not be separate slurs for each two-note tremolo unless each has a separate bow stroke). To use two sets of slurs is confusing, as it is unclear whether a second set functions as bowing or phrasing:

When a two-note tremolo is articulated by separate bow strokes, there is a change of bow and finger, or bow and string, for each note. This technique is much less commonly used than the slurred tremolo, so clarify that bow changes are required:

(See also Two-note tremolos, p. 225.)
Note that marking conductor signals may be sufficient cue without additional pitch or rhythm cues.

**Performer signals**

Place a diagonal line between staves to indicate a signal from one performer to another, or to and from a cue of electronic sounds. It is helpful to attach an arrow to the diagonal line, pointing towards the stave of the performer to be signalled.

Where synchronization points need to be indicated as well, use vertical lines: a vertical line always indicates simultaneous events. Use contrasting designs of vertical and diagonal lines: either have solid lines for signals and dotted lines for synchronization (as below), or vice versa.

Score example 2

![Score example 2](image)

(The cello part is shown opposite.)

**Performer signals in instrumental parts**

It is essential to indicate where one performer is giving a signal to another, as well as to indicate where to follow a signal. Note the following guidelines:

- Where one performer signals another, an arrow points away from this stave.
- Where a performer receives a signal, an arrow points towards this stave.
- Where a player must co-ordinate with a succession of entries, each entry must be written in as a cue.

The following example highlights the comprehensive cueing that may be required to synchronize parts in unmeasured bars of unattended music.

The more cue information provided, the more precise the co-ordination can be.

**Rhythm and pitch cues**

Distinctive rhythmic and pitched materials are the clearest cues. Where rhythms would be the most helpful element, providing pitches may be irrelevant. (To provide an indication of pitch contour, see Options to show approximate pitch, p. 640.) Description is simplified by replacing the five-line stave with one (or more) lines. Different notehead shapes may indicate contrasting textures. The line (or lines) may alternate with a five-line stave, should selected sections be notated more helpfully as pitched material. Pitched cues may be necessary only where the performer has to tune to the electronic part (bar 2, below).

Large dense chords can provide too much information and may be replaced by a single melodic line or even rhythms alone. For example, Harvey’s Bhakti, movement II, deals with such chords in precisely this way (the following bars 1–2 have similar notation).

---

- **How best to present your music to your performers**
- **How to produce professional-level instrumental parts**
- **Addresses the minutiæ of score and ensemble layout complexities**
- **De-mystifies contemporary notation and main-stream avant-garde practices**
- **Explores the impact of free metre, pitch and other parameters and addresses what and how to communicate**

---

**Ground-breaking documentation of notation for electroacoustic sounds produced by new technologies**

**Extensive discussion of scoring and cueing with electronic sounds**

**Detailed 16-page index for quick reference, in addition to content lists preceding each chapter**
PART I: GENERAL CONVENTION
2 Chords, Dotted Notes, Ties
3 Accidentals and Key Signatures: Accidentals – Key Signatures – Key Changes – Microtones
4 Dynamics and Articulation
5 Grace Notes, Arpeggiated Chords, Trills, Glissandos and Vibrato
8 Repeat Signs: Tremolos – Repeat-beat and Repeat-bar Abbreviation – Repeated Sections

PART II: IDIOMATIC NOTATION
9 Woodwind and Brass: General (Articulation, Microtones, Glissandos, Special Techniques, Transposition) – Woodwind (Clefs, Techniques) – Brass (Clefs, Transpositions and Key Signatures, Mutes, Techniques)
11 Keyboard: General (The System and Clefs, Distributing Notes between the Hands, Fingering, Part-writing, Octave Signs, Glissandos, Note Clusters) – Piano Notation (Pedalling, Silently-depressed Keys, Effects Produced inside the Piano, The Prepared Piano) – Organ Notation (System Layout, Manuals, Registration, Pedal Markings, Wedges and Weights)

PART III: LAYOUT AND PRESENTATION
20 Freedom and Choice: Rhythmic Independence and Synchronization (Music without Metre, Independent Parts, Independent Repetition) – Proportional Spacing (Time-Space Notation) – Options to Show Approximate Pitch – Alternatives (Choices)
“Gould’s book shows composers how to ensure that the magical transfer of musical ideas from their imaginations to their scores, from their performers to their audiences, is as seamless as possible. Behind Bars is a practical revelation of the poetics of musical communication.”

The Guardian (Tom Service)

“As a single volume, written by one person, it is a remarkable achievement and should be on the bookshelf of any musician.”

Classical Music Magazine (Jonathan Wikeley)