

# Supplemental block for musical symbols

Gavin Jared Bala, gavin.jared, gmail.com

Kirk Miller, kirk.miller, gmail.com

2024 March 07

We recently proposed six musical symbols to Unicode, namely the first six listed below. They require a new Unicode block. SAH asked us to estimate the number of characters that might be reasonably proposed, so that they would know approximately how large a block to assign.

The list below is not exhaustive, but is what we could see ourselves proposing. In addition, Lukas Pietsch in his 2001 draft ‘Mensural Notation Symbols in Unicode’ noted three semantically distinct mensural symbols – black *maxima*, *longa* and *brevis* – that also still lack Unicode support. Altogether, this amounts to 63 potential symbols, requiring a full 4 of the 7 unassigned columns in the location suggested by SAH for the new block, between ‘Ancient Greek Musical Notation’ (1D200–1D24F) and ‘Kaktovik Numerals’ (1D2C0–1D2DF).

## Proposed: notes and rests shorter than 128th

U+1D250 MUSICAL SYMBOL COMBINING FLAG-6 [SMuFL U+E24A]

U+1D251 MUSICAL SYMBOL COMBINING FLAG-7 [SMuFL U+E24C]

U+1D252 MUSICAL SYMBOL COMBINING FLAG-8 [SMuFL U+E24E]

U+1D253 MUSICAL SYMBOL TWO HUNDRED FIFTY-SIXTH REST [SMuFL U+E4EB]

U+1D254 MUSICAL SYMBOL FIVE HUNDRED TWELFTH REST [SMuFL U+E4EC]

U+1D255 MUSICAL SYMBOL ONE THOUSAND TWENTY-FOURTH REST [SMuFL U+E4ED]

## Other standard tremoli

Analogous to and extending the range U+1D167–1D16C, for faster repetitions. The last is for the “buzz roll” in percussion.

U+1D256 MUSICAL SYMBOL COMBINING TREMOLO-4 [SMuFL U+E223]

U+1D257 MUSICAL SYMBOL COMBINING TREMOLO-5 [SMuFL U+E224]

U+1D258 MUSICAL SYMBOL FINGERED TREMOLO-4 [SMuFL U+E228]

U+1D259 MUSICAL SYMBOL FINGERED TREMOLO-5 [SMuFL U+E229]

U+1D25A MUSICAL SYMBOL BUZZ ROLL [SMuFL U+E22A]

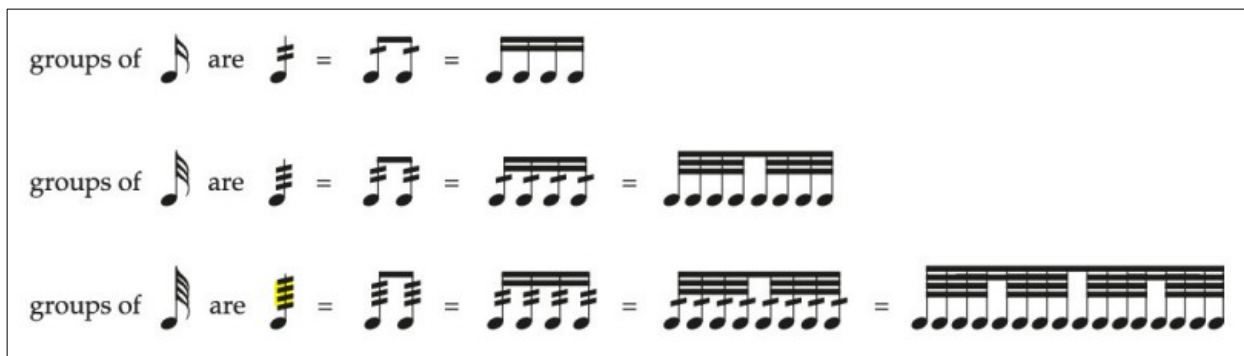


Fig. 1. Gould (2011), p. 219

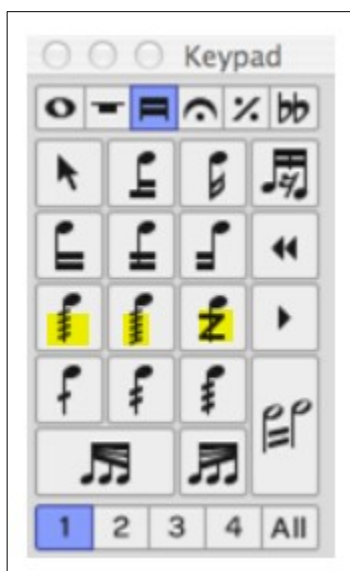


Fig. 2. Sibelius keypad, including four- and five-line tremoli and buzz roll.



Fig. 3. A. Dvořák, Symphony No. 9 (Op. 95) (pub. Breitkopf & Härtel, Wiesbaden, 1990). Four-


slash tremoli (one-note and two-note) near the beginning of the first movement. Note that Dvořák writes “16” to count the number of 64th notes he expected in the tremoli, proving that he wanted a measured tremolo.



**Fig. 4.** F. Schubert, *Wanderer-Fantaisie*, D 760 (Op. 15) (pub. Breitkopf & Härtel, Leipzig, 1888). Five-slash two-note tremolo (unmeasured).

**Buzz rolls**

Buzz rolls, or “closed” rolls, are used in many situations, and are the predominant roll of orchestral music. This type of roll produces a sustained buzzing sound, with the strokes of the sticks so close (or closed) together that, when executed well, disguises when one hand is taking over for another. Buzz rolls are often time played on a context-based assumption (like orchestral snare drumming), though there is a way of making it more clear: the “z” stem.



The “z” stem

This notation is reserved for buzz rolls, alleviating any question of what style should be used. While mostly reserved for instruments such as snare drums and toms, it can be employed elsewhere. Which leads me to...

**Fig. 5.** Adam Holmes, “Notating rolls”. <https://adamholmesmusic.com/blog-notating-rolls/>

## Triple flat

U+1D25B MUSICAL SYMBOL TRIPLE FLAT [SMuFL U+E266]

Analogous to the double flat. (There is also a triple sharp, but it can simply be encoded as a sharp and double-sharp side by side, i.e.  $\sharp\sharp$ .) The constituent flats may or may not be connected, either physically or by a bar, just like for the double flat.

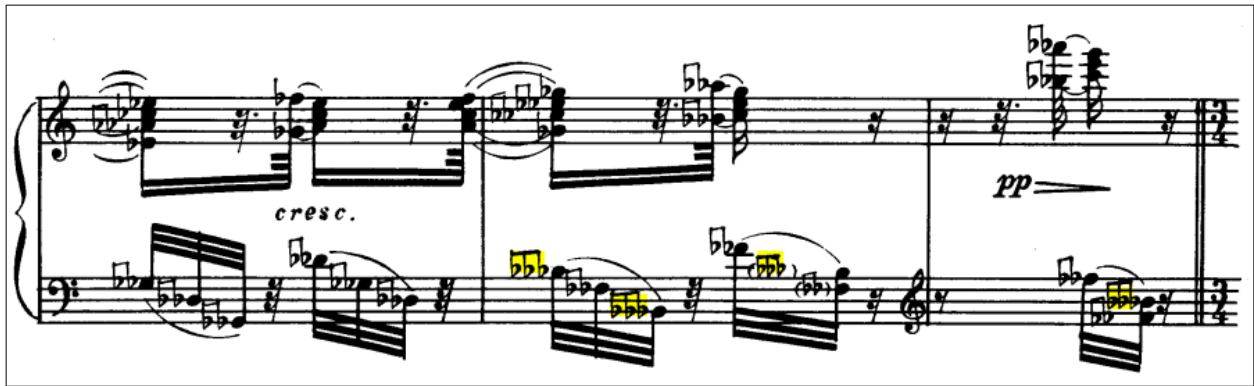


Fig. 6. N. Roslavets, Piano Sonata No. 1 (ed. E. Babasyan, pub. Muzyka, Moscow, 1990).

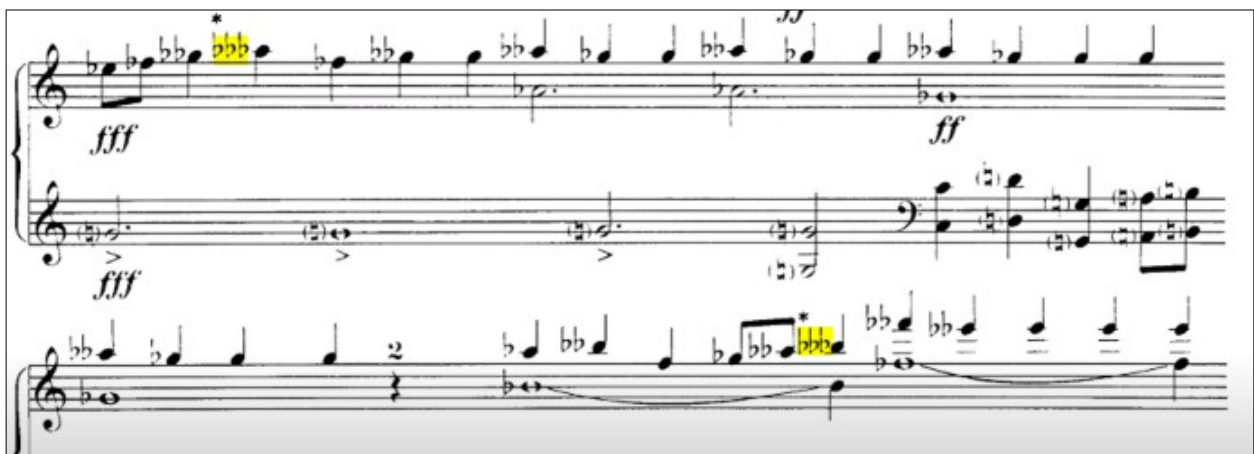


Fig. 7. G. Ustvolskaya, Piano Sonata No. 3

	Just m3	6 just m3s	Just P5	12TET	19TET	34TET	53TET	72TET
Ratio	6 : 5	$(6 : 5)^6$	3 : 2	$2^{7/12} / 2^{6/12}$	$2^{11/19}$	$2^{20/34}$	$2^{31/53}$	$2^{42/72}$
Letter name	E $\flat$	A $\flat\flat\flat$	G	G / A $\flat\flat$	G / A $\flat\flat$			
Cents	315.64	693.84	701.96	700 / 600	694.74	705.88	701.89	700

The interval was named by Shohé Tanaka after the Greek for "closure",<sup>[2]</sup> who noted that it was tempered out to a unison by 53 equal temperament.<sup>[3]</sup> It is also tempered out in 19, 34, and 72 equal temperament.

Fig. 8. Wikipedia, <https://en.wikipedia.org/wiki/Kleisma>

## Turkish and Arabic accidentals

Following are the distinct symbols in SMuFL encoding.

U+1D25C MUSICAL SYMBOL FLAT WITH DOUBLE STROKE [SMuFL U+E440]

= büyük mücenneb flat

U+1D25D MUSICAL SYMBOL FLAT WITH STROKE [SMuFL U+E442 and U+ED33]

= bakiye flat

= Arabic quarter-tone flat

U+1D25E MUSICAL SYMBOL HALF SHARP WITH STROKE [SMuFL U+E446]

= küçük mücenneb sharp

U+1D25F MUSICAL SYMBOL SHARP WITH STROKE [SMuFL U+E447]

= büyük mücenneb sharp

U+1D260 MUSICAL SYMBOL ARABIC THREE QUARTER TONES FLAT [SMuFL U+ED31]

= Arabic three-quarter-tone flat


Tone Name	Commas above middle C	Cents above middle C	Arel-Ezgi-Uzdilek  notation of 53-TET Tone	Nearest Equiv 12-TET Tone
TÎZ ÇÂRGÂH	106	2400	C6	C6
Tîz Dik Bûselik	105	2377	C <sub>6</sub>	C6
TÎZ BÛSELİK	102	2309	B5	B5
Tîz Segâh	101	2287	A <sub>#</sub> 5 / B <sub>6</sub> 5	B5
Dik Sünbüle	98	2219	A <sub>#</sub> 5 / B <sub>#</sub> 5	A#5 / Bb5
Sünbüle	97	2196	A#5 / Bb5	A#5 / Bb5
MUHAYYER	93	2106	A5	A5
Dik Şehnâz	92	2083	G <sub>#</sub> 5 / A <sub>6</sub> 5	A5
Şehnâz	89	2015	G <sub>#</sub> 5 / A <sub>#</sub> 5	G#5 / Ab5
Nim Şehnâz	88	1992	G#5 / Ab5	G#5 / Ab5
GERDÂNIYE	84	1902	G5	G5
Dik Mâhûr	83	1879	F <sub>#</sub> 5 / G <sub>6</sub> 5	G5
Mâhûr	80	1811	F <sub>#</sub> 5 / G <sub>#</sub> 5	F#5 / Gb5
Eviç	79	1789	F#5 / Gb5	F#5 / Gb5
Dik Acem	76	1721	F <sub>#</sub> 5 / G <sub>#</sub> 5	F5
ACEM	75	1698	F5	F5
HÜSEYNÎ	71	1608	E5	E5

Fig. 9. Wikipedia, [https://en.wikipedia.org/wiki/Turkish\\_makam](https://en.wikipedia.org/wiki/Turkish_makam). Part of a table of tones used in Turkish music.

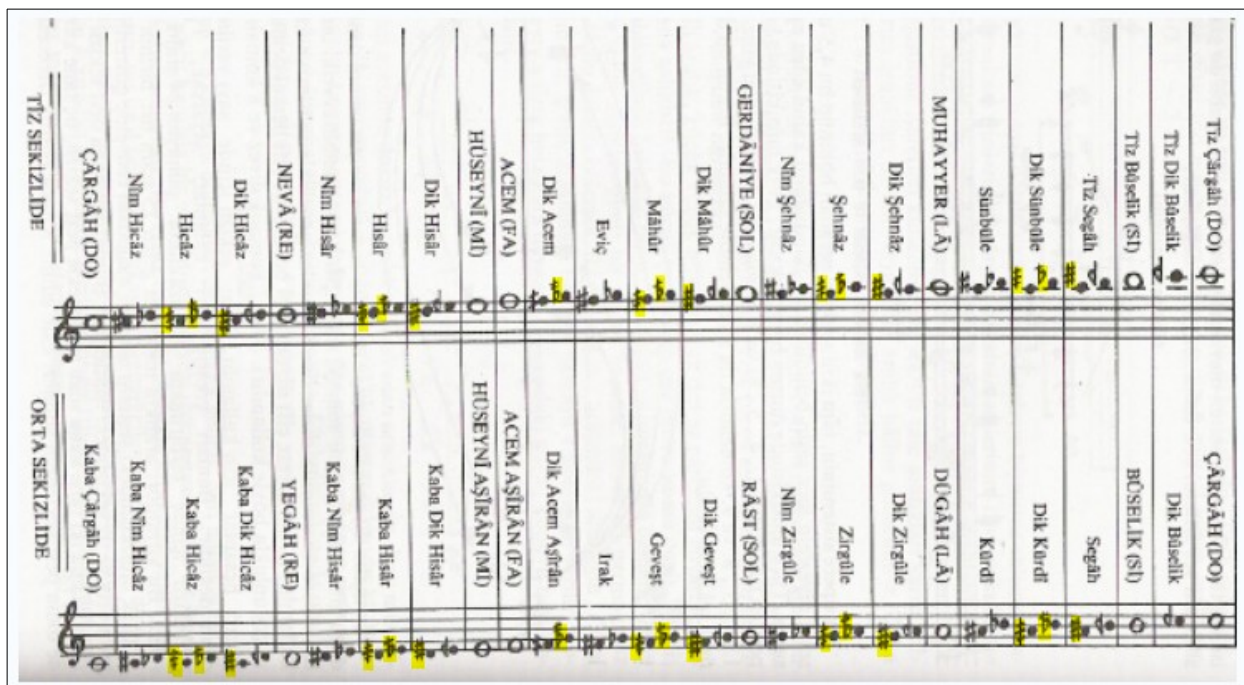


Fig. 10. From İsmail Hakkı Özkan, *Türk Mûsikîsi Nazariyatı ve Usûlleri* (2000). Reproduced on Wikipedia at [https://en.wikipedia.org/wiki/Turkish\\_makam](https://en.wikipedia.org/wiki/Turkish_makam).

التي بعثها وفي داخل المازور «البد» فقط .

العلامة	اسمها	تأثيرها
b	كار بيمول	تستعمل لخفض الصوت ربع درجة
b	ببمول	= نصف درجة
bb	ببمول ونصف	= ثلاثة ارباع الدرجة
bb	دبل بيمول	= درجة كاملة
#	كار ديز	لرفع الصوت ربع درجة
#	ديز	= نصف درجة
#	ديز ونصف	= ثلاثة ارباع الدرجة
x	دبل ديز	= درجة كاملة
q	البيكار	= لاعادة الصوت الى حالته الطبيعية

Fig. 11. العباس. نظريات الموسيقى العربية Ḥabīb Dhāhir Ḥabīb Zāhir, et ظاهر حبيب ظاهر Nadhariyyāt al-Mūsīqā al-‘Arabiyya. Vol. Theorie Musique Arabe. (Baghdad – Irak) – بغداد - وزارة الثقافة والإعلام، دائرة الفنون الموسيقية، معهد الدراسات النغمية العراقية (Wizārat a-th-Thaqāfa)

wa-l I'lām, Dā'irat al-Funūn al-Mūsīqiyya, Ma'had a-d-Dirāsāt a-n-Naghmiyya al-‘Irāqiyy), 1986, p. 19. A table of accidentals. The author uses a rotated graphic variant for the half-sharp. Provided online by Karim Ratib, [github.com/infojunkie/music-l10n/blob/master/images/accidentals.jpg](https://github.com/infojunkie/music-l10n/blob/master/images/accidentals.jpg).

**علامات التحويل في الموسيقى العربية :**

علامات الرفع			علامات الإلغاء			علامات الخفض		
شكل العلامة	اسمها	وظيفتها	شكل العلامة	اسمها	وظيفتها	شكل العلامة	اسمها	وظيفتها
♯	نصف نيز	ترفع النغمة ربع درجة	♮	بيكار أو لتأويل	تغى أي علامة تحويل	♭	نصف بيمول	تخفض النغمة ربع درجة
♯	نيز	ترفع النغمة نصف درجة	♮	بيكار أو لتأويل	وتلتالي يمكن لها أن تخفض أي درجة أو ترفعها	♭	بيمول	تخفض النغمة نصف درجة
♯	نيز ونصف	ترفع النغمة ثلاثة أرباع درجة				♭	بيمول ونصف	تخفض النغمة ثلاث أرباع درجة
♯	نيز كامل	ترفع النغمة درجة كاملة				♭	بيمول كامل	تخفض النغمة درجة كاملة

نلاحظ من الجدول السابق أن الموسيقى العربية تحظى بعلامات تحويل لرفع وخفض النغمة ربع درجة وكذلك لرفع وخفض النغمة ثلاث أرباع درجة وذلك لتضفي عليها الطابع الشرقي .

**Fig. 12.** ‘Abd al-Samī‘ Hashād, Medhat - مقام Maqām - مدحت عبد السمیع حشاد - Dar Merit, Cairo, Egypt - دار ميريت (n.d.) A table of accidentals. Provided online by Karim Ratib, [https://github.com/infojunkie/music-l10n/blob/master/images/merit\\_accidentals.jpg](https://github.com/infojunkie/music-l10n/blob/master/images/merit_accidentals.jpg).

## Wyschnegradsky twelfth-tone accidentals

Invented by microtonal pioneer Ivan Wyschnegradsky (1893–1979) for 72 equal temperament (twelfth-tones). The quarter-tone sharp symbols overlap with the Stein-Zimmermann accidentals, which have already been accepted for encoding. The flats past a semitone are best treated as atomic characters, analogous to the double flat. We follow Wyschnegradsky’s order.

U+1D261 MUSICAL SYMBOL WYSCHNEGRADSKY TWELFTH TONE SHARP [SMuFL U+E420]

U+1D262 MUSICAL SYMBOL WYSCHNEGRADSKY SIXTH TONE SHARP [SMuFL U+E421]

U+1D263 MUSICAL SYMBOL WYSCHNEGRADSKY THIRD TONE SHARP [SMuFL U+E423]

U+1D264 MUSICAL SYMBOL WYSCHNEGRADSKY FIVE TWELFTH TONE SHARP [SMuFL  
U+E424]

U+1D265 MUSICAL SYMBOL WYSCHNEGRADSKY SEVEN TWELFTH TONE SHARP [SMuFL  
U+E426]

U+1D266 MUSICAL SYMBOL WYSCHNEGRADSKY TWO THIRD TONE SHARP [SMuFL U+E427]

U+1D267 MUSICAL SYMBOL WYSCHNEGRADSKY FIVE SIXTH TONE SHARP [SMuFL U+E429]

U+1D268 MUSICAL SYMBOL WYSCHNEGRADSKY ELEVEN TWELFTH TONE SHARP [SMuFL  
U+E42A]

U+1D269 MUSICAL SYMBOL WYSCHNEGRADSKY TWELFTH TONE FLAT [SMuFL U+E42B]

U+1D26A MUSICAL SYMBOL WYSCHNEGRADSKY SIXTH TONE FLAT [SMuFL U+E42C]

U+1D26B MUSICAL SYMBOL WYSCHNEGRADSKY QUARTER TONE FLAT [SMuFL U+E42D]

U+1D26C MUSICAL SYMBOL WYSCHNEGRADSKY THIRD TONE FLAT [SMuFL U+E42E]

U+1D26D MUSICAL SYMBOL WYSCHNEGRADSKY FIVE TWELFTH TONE FLAT [SMuFL U+E42F]

U+1D26E MUSICAL SYMBOL WYSCHNEGRADSKY SEVEN TWELFTH TONE FLAT [SMuFL  
U+E431]

U+1D26F MUSICAL SYMBOL WYSCHNEGRADSKY TWO THIRD TONE FLAT [SMuFL U+E432]

U+1D270 MUSICAL SYMBOL WYSCHNEGRADSKY THREE QUARTER TONE FLAT [SMuFL  
U+E433]























U+1D271 MUSICAL SYMBOL WYSCHNEGRADSKY FIVE SIXTH TONE FLAT [SMuFL U+E434]

U+1D272 MUSICAL SYMBOL WYSCHNEGRADSKY ELEVEN TWELFTH TONE FLAT [SMuFL  
U+E435]



*Notation conventionnelle*

Je propose pour la notation des  $1/12^e$  de ton, les signes d'altération suivants :

Ascendants	Descendants
	
	
	
	
	
	
	
	
	
	
	

Ivan Wyschnegradsky's Symbols for 72-tone Equal Temperament

Fig. 13. Wyschnegradsky's proposal. <https://sagittal.org/gift/Episode1.htm>

72edo

The image displays a musical score for 72edo, consisting of 11 staves of music. The notation includes various accidentals, such as double sharps and double flats, which are characteristic of Wyschnegradsky's microtonal notation. The score is organized into measures, with some measures containing multiple notes and accidentals. The notation is presented in a standard staff format with a treble clef and a key signature of one sharp (F#).

3

4

6

8

9

11

Fig. 14. Illustrative use of Wyschnegradsky accidentals. [https://www.reddit.com/r/microtonal/comments/ylozf5/have\\_you\\_ever\\_seen\\_this\\_notation\\_used\\_in\\_72tet/](https://www.reddit.com/r/microtonal/comments/ylozf5/have_you_ever_seen_this_notation_used_in_72tet/)

## Hába quarter-tone accidentals

Used by another microtonal pioneer, Alois Hába (1893–1973), in his treatise *Neue Harmonielehre*, and included in SMuFL. Hába also proposed twelfth-tone accidentals, but these conflict with Arabic accidentals and Wyschnegradsky's accidentals, and have not come into general use. We quote the 1980 translation of Suzette Mary Battan ([urresearch.rochester.edu/institutionalPublicationPublicView.action?institutionalItemId=2625&versionNumber=1](http://urresearch.rochester.edu/institutionalPublicationPublicView.action?institutionalItemId=2625&versionNumber=1)).

U+1D273 MUSICAL SYMBOL HABA QUARTER TONE SHARP [SMuFL U+EE64]

U+1D274 MUSICAL SYMBOL HABA ALTERNATE QUARTER TONE SHARP [SMuFL U+EE65]

U+1D275 MUSICAL SYMBOL HABA THREE QUARTER TONE SHARP [SMuFL U+EE66]

U+1D276 MUSICAL SYMBOL HABA QUARTER TONE FLAT [SMuFL U+EE67]

U+1D277 MUSICAL SYMBOL HABA ALTERNATE QUARTER TONE FLAT [SMuFL U+EE68]

U+1D278 MUSICAL SYMBOL HABA THREE QUARTER TONE FLAT [SMuFL U+EE69]

Ex. 3. Descending scale.

Sharpening by a quarter tone is notated with ♭ or ♮, sharpening by a 3/4 tone with ♯, flattening a quarter tone with ♮ or ♯, and flattening by a 3/4 tone with ♭. The regular signs, ♮, ♭, ♭♭, ♯, and ✕ are used in the traditional way.

The quarter-tone scale can also be notated with the help of only two of the new signs (♭ and ♮):

Fig. 15. Hába, *Neue Harmonielehre* (trans. Battan), p. 204.

For reference, we reproduce Habá's twelfth-tone accidentals below.

†	Sharping by a twelfth tone
††	Sharping by a sixth tone (two twelfth tones)
†††	Sharping by a quarter tone (three twelfth tones)
††††	Sharping by a third tone (four twelfth tones)
≠	Sharping by a 5/12 tone
#	Sharping by a half tone
-	Sharping by a 7/12 tone
≠#	Sharping by a 2/3 tone
≠	Sharping by a 3/4 tone
≠#	Sharping by a 5/6 tone
≠≠#	Sharping by a 11/12 tone
b	Flatting by a twelfth tone
b	Flatting by a sixth tone
b	Flatting by a quarter tone
b	Flatting by a third tone
b	Flatting by a 5/12 tone
b	Flatting by a half tone

Fig. 16. Ibid, p. 285

## Curlew and alternately shaped fermatas

U+1D279 MUSICAL SYMBOL CURLEW [SMuFL U+E4D6]

U+1D27A MUSICAL SYMBOL TRIANGULAR FERMATA [SMuFL U+E4C4]

U+1D27B MUSICAL SYMBOL SQUARE FERMATA [SMuFL U+E4C6]

The “curlew” symbol was invented by Benjamin Britten (1913–1976) for conductorless pieces: it indicates that an instrumentalist must wait until the other performers have reached the following barline (or other meeting point).

Triangular and square fermatas have been used as variations of the normal fermata. Usually the triangular fermata is shorter than a normal round one, and the square one longer.

Although separate up- and down-facing versions of the normal fermata are already encoded, they are the same symbol (like the marcato), and hence we do not propose these variations for the triangular and square fermatas.

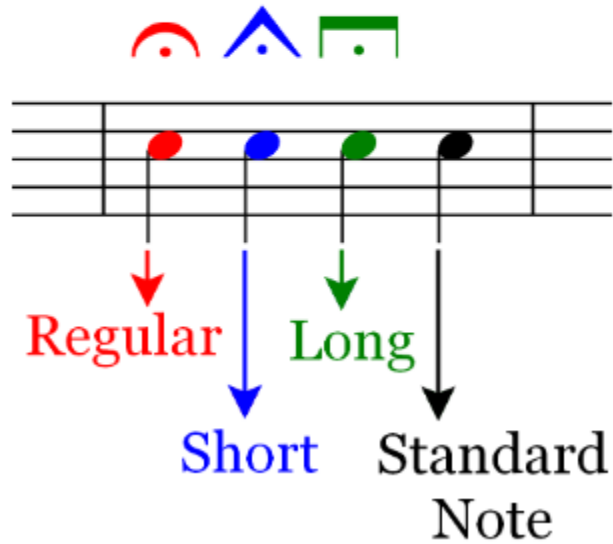
The image displays a page of musical notation for Benjamin Britten's String Quartet No. 3, starting at measure 42. It consists of four staves. The first staff features a complex rhythmic pattern with triplets and a fermata. The second, third, and fourth staves contain rests, each marked with a 'dim.' (diminuendo) instruction. A double bar line is present between the first and second measures. The second measure contains more complex notation, including triplets, dynamics of 'p' (piano) and 'pp' (pianissimo), and several yellow-highlighted fermatas. A red watermark 'Perusal Site' is visible across the score.

**Fig. 17.** B. Britten, String Quartet No. 3. Faber Music, London (2006). Perusal copy viewed online at [www.fabermusic.com/music/string-quartet-no-3-1139/score](http://www.fabermusic.com/music/string-quartet-no-3-1139/score). The curlew sign over some rests.

### The Fermata – Symbols

There are three symbols to demonstrate and discuss in this article. The chart below shows all three with a brief explanation followed by presentations for each in more detail.

## The Fermata



**Fig. 18.** Explanation of the different types of fermata at <http://donrathjr.com/fermata-music-theory/>

## Harp pedal buzz

Extended techniques for harp.

U+1D27C MUSICAL SYMBOL PEDAL BUZZ

U+1D27D MUSICAL SYMBOL ONE STRING PEDAL BUZZ

## Pedal buzz

To produce the pedal buzz, or clash (if very loud), the pedal is held half-way between two notches when the string is plucked. Notate both pedal settings between which the pedals fall, and place the symbol  $\$$  between the settings. The symbol  $\$$  may be used when a single string is plucked:






Clarify the symbol with a verbal explanation at its first appearance. (Salzedo calls this technique 'metallic sounds'.)

Fig. 19. Gould, p. 368

## Baroque ornaments from French *clavecinistes*

A full treatment of the symbols used for Baroque ornamentation is beyond the scope of this document: see Frederick Neumann's *Ornamentation in Baroque and Post-Baroque Music*, Princeton University Press, 1978 for such a discussion. We propose three symbols used by the well-known French Baroque composers François Couperin (1668–1733) and Jean-Philippe Rameau (1683–1764) in their keyboard works, as they are faithfully reproduced in editions printed when ornamentation had been more standardised. The glyph forms are reproduced from the 1888 Augener edition of Couperin's *Pièces de clavecin*, edited by Brahms and Chrysander.

-  U+1D27E MUSICAL SYMBOL PINCE [SMuFL U+E588]
-  U+1D27F MUSICAL SYMBOL TREMBLEMENT [SMuFL U+E589]
-  U+1D280 MUSICAL SYMBOL SUSPENSION

# Explication des Agrémens, et des Signes.

The figure displays five musical examples illustrating various ornaments and signs. Each example is presented on a two-staff system (treble and bass clefs).

- Pincé simple.**: A single note on the treble staff is marked with a 'Signe' (a small 'v' with a horizontal line) and a 'Pincé simple' sign. The bass staff shows a sequence of notes with a slur and the word 'Effet.' below it.
- Pincé double.**: Two notes on the treble staff are marked with a 'Signe' and a 'Pincé double' sign. The bass staff shows a sequence of notes with a slur and the word 'Effet.' below it.
- Tremblement lié sans être appuyé.**: A sequence of notes on the treble staff is marked with a 'Tremblement lié sans être appuyé' sign. The bass staff shows a sequence of notes with a slur and the word 'Effet.' below it.
- Tremblement détaché.**: A sequence of notes on the treble staff is marked with a 'Tremblement détaché' sign. The bass staff shows a sequence of notes with a slur and the word 'Effet.' below it.
- Accent.**: A single note on the treble staff is marked with an accent sign (a small 'v' with a horizontal line) and the word 'Accent.' below it.

Fig. 20. Augener ed. (1888) of Couperin's *Pièces de clavecin* (ed. Brahms and Chrysander), pp. xiv-xv.

The figure shows a musical score for the piece "Les Soupirs" by Rameau. The title "Les Soupirs" is centered at the top. The score is in 2/2 time and features a treble and bass staff. The word "Tendrement" is written above the first few notes. A yellow highlight is placed over a note in the treble staff, and another yellow highlight is placed over a note in the bass staff.

Fig. 21. Suspension in Rameau, *Les Soupirs*. (Bärenreiter, ed. Erwin Jacobi, 1959).



## Additional figured bass digits

These were excluded from our previous proposal ([L2/23-277](#)) because they are not needed in modern scores. However, they are used in historical sources, as well as in modern treatises discussing historical practice.

The hooked slash in some of the flattening figures is simply a graphical variation of the flat sign that was used by some 18th-century publishers, e.g. Estienne Roger of Amsterdam. F. T. Arnold illustrates figures with flats passing through them, and mentions that naturals were used in the same way (p. 885), though he does not illustrate the equivalent figures with naturals. Sharps were not used in this way, as a stroke was substituted.

U+1D281 MUSICAL SYMBOL DIGIT ONE WITH SLASH

U+1D282 MUSICAL SYMBOL DIGIT THREE WITH SLASH

U+1D283 MUSICAL SYMBOL DIGIT EIGHT WITH SLASH

U+1D284 MUSICAL SYMBOL DIGIT TWO WITH FLAT

U+1D285 MUSICAL SYMBOL DIGIT FOUR WITH FLAT

U+1D286 MUSICAL SYMBOL DIGIT FIVE WITH FLAT

U+1D287 MUSICAL SYMBOL DIGIT SIX WITH FLAT

U+1D288 MUSICAL SYMBOL DIGIT SEVEN WITH FLAT

U+1D289 MUSICAL SYMBOL DIGIT NINE WITH FLAT

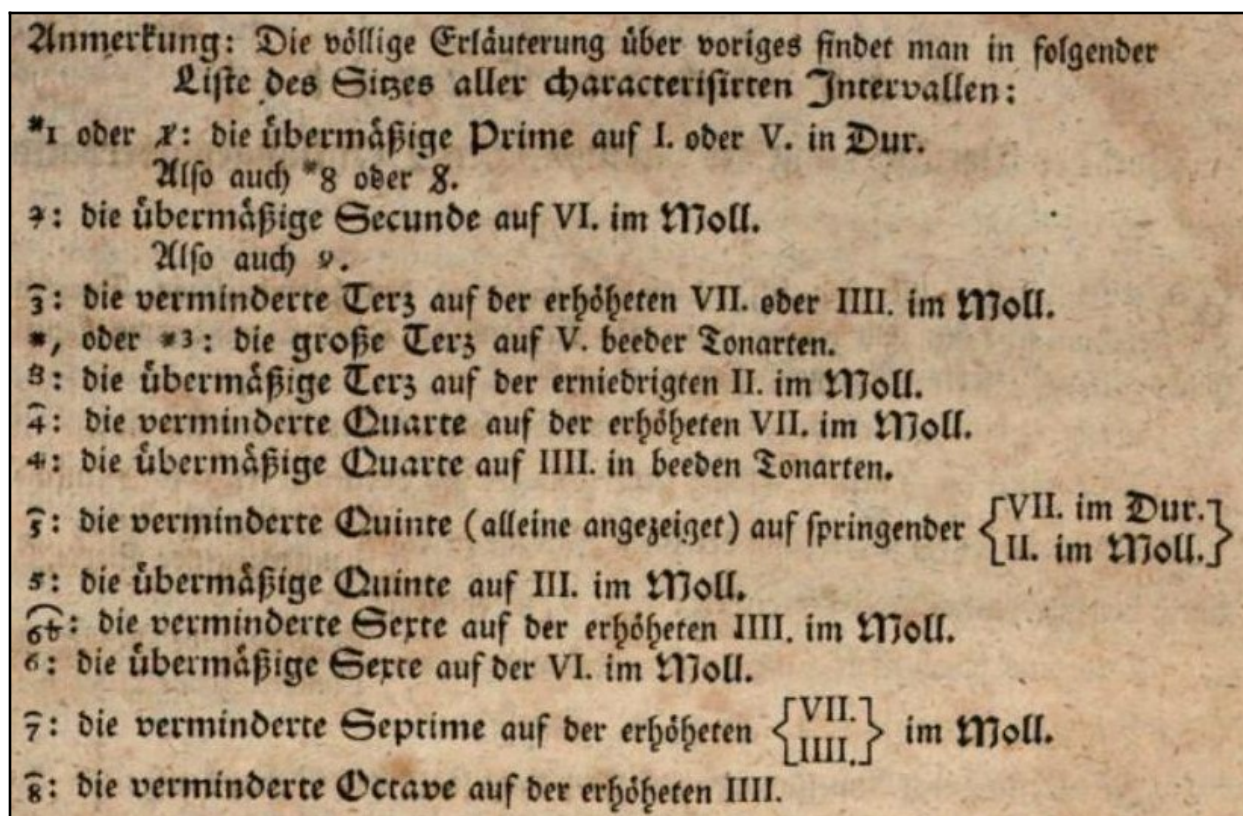


Fig. 22. Johannes Schröter, *Deutliche Anweisung zum General-Bass* (1772). J. H. Gross, Halberstadt, p. 37. 1-slash, 3-slash, and 8-slash all occur.

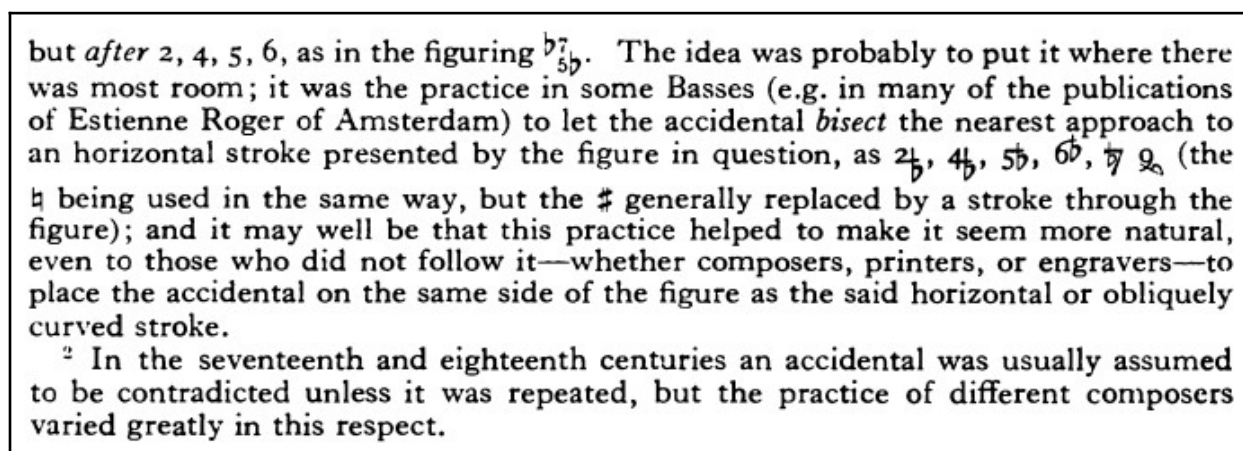


Fig. 23. F. T. Arnold (1965), *The Art of Accompaniment from a Thorough-Bass as Practiced in the XVIIth & XVIIIth Centuries*. Dover Publications, New York, p. 886.

## System dividers

System dividers separate different systems that appear on the same page. It guides the eye in large orchestral scores, where empty staves are hidden to save space when an instrument is not playing.

The width of the divider is variable, but such detail should be handled with markup.



U+1D28A MUSICAL SYMBOL SYSTEM DIVIDER [SMuFL U+E007]

The image displays a page of a musical score for F. J. Haydn's *Die Schöpfung* (The Creation). The score is divided into three systems by yellow system dividers. The first system shows a piano introduction with a *pp* dynamic and a Clarinet (Clar.) part. The second system includes Violin (Viol.), Viola (Vcello), and Bass (Basso) parts. The Bass part features a recitative (Recit.) with the lyrics "Im An-fange schuf Gott Him-mel und Er-de;". The third system shows Clarinet (Clar.) and Violin (Viol.) parts. The system dividers are highlighted in yellow.

Fig. 24. F. J. Haydn, *Die Schöpfung* (The Creation). Edition Peters, Leipzig (ca. 1910s).

## Heavy double barline

Normally, the thin double barline (U+1D101) is used for section breaks, and the final barline (U+1D102) for the end of a piece. But in some works by Charles-Valentin Alkan (1813–1888), different levels of section breaks are intended, and in that case the thin double barline and final barline have been used for lesser and greater section breaks respectively. The end of the piece is then demarcated by a heavy double barline.

U+1D28B MUSICAL SYMBOL HEAVY DOUBLE BARLINE [SMuFL U+E035]

The image displays three systems of musical notation for a piano piece. Each system consists of a grand staff with a treble and bass clef. The first system includes the instruction *p, e sostenuto.* The second system includes *poco cresc:*, *p*, and *ten:*. The third system includes *Dim:*, *ten:*, *Ped.*, *M.S:*, *S:*, *Smorz.*, and *fff*. The piece concludes with a heavy double barline. The number 15171.R. is printed at the bottom center of the score.

Fig. 25. C. V. Alkan, *Le festin d'Ésope* (Op. 39 No. 12). Richault, Paris (1857). The work is a theme with 25 variations, with thin double barlines used for section breaks within variations, and final barlines used between variations. The piece thus ends with a heavy double barline.

## References

Elaine Gould (2011) *Behind Bars: The Definitive Guide to Musical Notation*. Faber Music, London