

*Fredrik Rasten*

# *Murmurations*

*VI-XII (2021)*

## Thoughts on instrumentation:

All the *Murmurations* are composed as solo performer pieces for a special adapted fretless acoustic guitar with movable bridges, played with three e-bows on one guitar.

I-V is for one guitar plus voice, while VI-XII is for two guitars.

However, the piece can be realized by any instrumentation capable of producing up to six simultaneously sounding sustained pitches in the specified registers (see 'pitch ranges' below).

A somehow timbral similarity between the instruments (or voices) is favoured, but not an absolute requirement.

For instance, a sextet of strings would work well (with the order of voices as in score):

1 - violin / viola

2 - violin / viola

3 - cello

4 - violin / viola

5 - violin / viola

6- cello

Possibly, the piece can also be realized with fewer string instruments by using double stops on violin / viola, (maybe even on cello). For instance - the 1st and 2nd voice or the 4th and 5th voice can probably be combined.

These matters are yet to be researched.

## Notes / Instructions:

Each succeeding part (VII through XII), harmonically starts off where the preceding part ends.

Hence, if more than one part is played, the order should generally be obtained.

However, one can also feel free to combine the parts as wanted.

There are no note values in the score, but for any of the voices, a note or pause lasts until it is succeeded by a new note or pause in the given voice.

Note durations are free / flexible, and the graphic spacing between notes is generally not a guide to the pace of the music, but merely showing the succession of the note or pause entries.

The music should unfold with a focus on stability of tuning, combined with a sense of melodic movement.

Each sonority should last long enough to be tuned and then perceived for a while in their “tuned state”, but without the music ending up being too static - it should have a sense of forward movement. When a sonority is difficult to tune, take your time to adjust. The searching and fine tuning is an intrinsic musical and human part of this music.

When the tuning is stabilized, take some seconds to dwell in the tuned sonority. As a general rule - more time should be spent *in* the intended, tuned sonority than in the searching / tuning process.

When a change occurs within one part, the movement *can generally* be a little bit faster, like a melodic phrase.

The end of a note should primarily be followed by a little pause (a few seconds long) before entering the new note.

However, glissandi between the notes, with or without a little pause between them, is a viable variation.

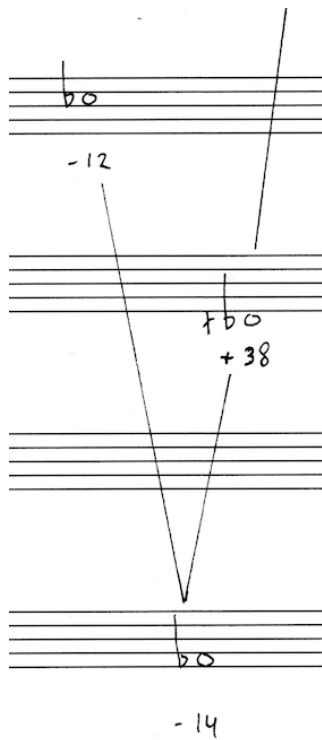
Cent deviations from 12-tone equal temperament are written under each note.

The accidentals belong to the Extended Helmholtz-Ellis JI pitch notation by Marc Sabat and Wolfgang von Schweinitz.

More information about the accidentals: <http://www.marcsabat.com/pdfs/notation.pdf>

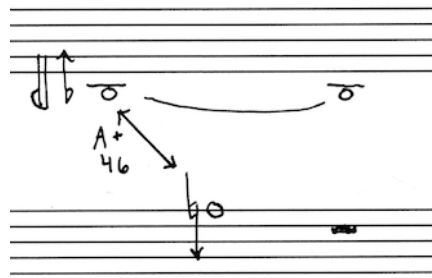
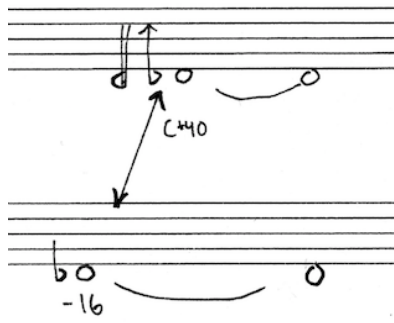
## Symbols and signs:

1 - Connecting lines / arrows show the succession of the notes where the narrowness of the graphical spacing makes it potentially hard to read (note that the graphical narrowness is accidental / random, and hence not a guide to the musical pace, which is free):



2 - Bidirectional arrows between notes signify a *crossfade* between the two notes in question, meaning that *note 1* enters by a fade-in while *note 2* is already sounding - then they sound for a while together before *note 2* fades out as *note 1* keeps sounding. This process is repeated a few (between 3 to 6) times *ad lib.* Legato bows and / or pauses show how the music proceeds after this process, either with one of them or with both notes sounding.





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3 - In Murmurations XI, the 'crossfade' described above occurs not between *two notes*, but between *two groups* consisting of two notes each:

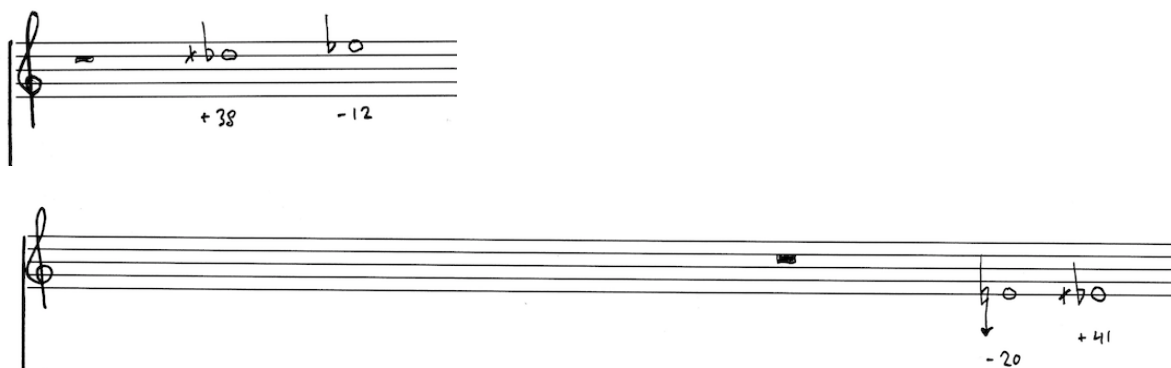
4 - At one occasion in Murmurations X a note occurs in double parentheses. Simply told, this note is optional. Furthermore, it means that the note can *either* occur *ad lib* (until a pause occurs in this voice), but only after a new change / sonority is already stable and in tune, *or* it can be omitted completely.



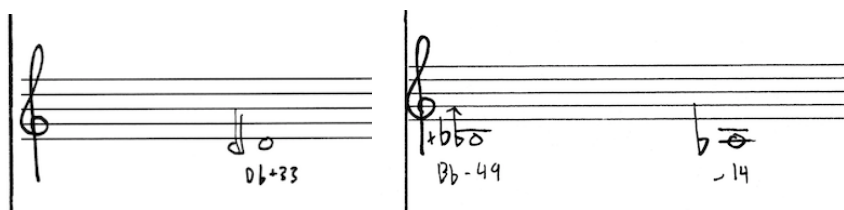
## Pitch ranges

*highest to lowest note in each voice (shown by excerpts from the score)*

1st voice from top:



2nd voice from top:



3rd voice from top:

Handwritten musical notation for the 2nd and 3rd voices from the top. The 2nd voice (top staff) has notes with fret numbers -4, -22, and +43. The 3rd voice (bottom staff) has notes with fret numbers -12, -14, and -25.

4th voice from top:

Handwritten musical notation for the 4th voice from the top, consisting of two staves. The first staff has a note with fret number -8. The second staff has a note with fret number B+29.

5th voice from top:

Handwritten musical notation for the 5th voice from the top, consisting of two staves. The top staff has notes with fret numbers -22, -6, Db+33, -39, -20, -8, and Gb+31. The bottom staff has a note with fret number -4.

6th voice from top:

Handwritten musical notation on a five-line staff. It starts with a bass clef and a sharp sign. A note with a flat and a downward-pointing arrow is positioned on the second line, with "-22" written below it. Further to the right, two notes with flats are written on the second line, with "-37" and "+43" written below them respectively.

Handwritten musical notation on a five-line staff. It starts with a bass clef and a sharp sign. A note with a flat is positioned on the second line, with "-14" written below it.

# MURMURATIONS VI

FREDRIK RASTEN

Handwritten musical score for the first system. It consists of six staves. The top staff (treble clef) has notes with fret numbers: -4, -8, and -20. The second staff (treble clef) has a note with fret number -6. The third staff (bass clef) has notes with fret numbers -8 and -8. The fourth staff (treble clef) has notes with fret numbers -8 and -8. The fifth staff (treble clef) has a note with fret number -8. The sixth staff (bass clef) has notes with fret numbers -22, -37, and +43. There are also some handwritten annotations like '10 7' and '11 0' with arrows pointing to specific notes.

Handwritten musical score for the second system. It consists of six staves. The top staff (treble clef) has notes with fret numbers: -20 and +41. The second staff (treble clef) is empty. The third staff (bass clef) is empty. The fourth staff (treble clef) is empty. The fifth staff (treble clef) has notes with fret numbers: -22, -6, Db+33, -39, -20, -8, and Gb+31. The sixth staff (bass clef) has a note with fret number 60.

Handwritten musical notation on a system of six staves. The notation includes notes with stems and various numerical annotations:

- Staff 1: Note with stem and arrow pointing down, annotated with  $-20$ .
- Staff 2: Note with stem and arrow pointing down, annotated with  $Db+33$ .
- Staff 3: Note with stem and arrow pointing down, annotated with  $-4$ ,  $-22$ , and  $+43$ .
- Staff 4: Note with stem and arrow pointing down, annotated with  $-8$ .
- Staff 5: Note with stem and arrow pointing down, annotated with  $-6$ .
- Staff 6: Note with stem and arrow pointing down, annotated with  $-22$ .

Handwritten musical notation on a system of six staves. The notation includes notes with stems and various numerical annotations:

- Staff 1: Note with stem and arrow pointing down, annotated with  $-6$ .
- Staff 2: Note with stem and arrow pointing down, annotated with  $Db+33$ .
- Staff 3: Note with stem and arrow pointing down, annotated with  $+43$ .
- Staff 4: Note with stem and arrow pointing down, annotated with  $-8$ .
- Staff 5: Note with stem and arrow pointing down, annotated with  $-8$ .
- Staff 6: Note with stem and arrow pointing down, annotated with  $-8$ .

# MURMURATIONS VII

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JANUARY 27 2021

Handwritten musical score for the first system, consisting of six staves. The notation includes notes, rests, and various fret numbers. The first staff has notes with fret numbers -6 and -8. The second staff has notes with fret numbers Db+33, Db+33, and -6. The third staff has notes with fret numbers xbo, xbo, -22, -4, and -8. The fourth staff has notes with fret numbers -8 and -8. The fifth staff has notes with fret numbers -20 and -4. The sixth staff has a note with fret number -22.

Handwritten musical score for the second system, consisting of six staves. The notation includes notes, rests, and various fret numbers. The first staff has notes with fret numbers -8 and -8. The second staff has notes with fret numbers -6 and -6. The third staff has notes with fret numbers -8 and -8. The fourth staff has notes with fret numbers -6, +6, +11, and 0+44. The fifth staff has notes with fret numbers -10 and -10. The sixth staff has notes with fret numbers -22 and -22.

Handwritten musical notation for the first system, consisting of six staves. The notation includes notes with stems and various numerical annotations such as "D+44", "-23", "Db+33", "+43", "-6", and "-10". There are also some horizontal lines and a double bar line.

Handwritten musical notation for the second system, consisting of six staves. The notation includes notes with stems and numerical annotations such as "-8", "-6", "-8", "Db+33", "-23", "D+44", "+11", "Db+33", "A+46", and "-4". There are also some horizontal lines and a double bar line.

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[ THE REPEATED SECTION IS PLAYED  
2-4 TIMES IN TOTAL ]

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MURMURATIONS VIII

FREDRIK RASTEN

Handwritten musical score for the first system, consisting of six staves. The notation includes notes with stems and various numerical annotations:

- Staff 1: Treble clef, notes with stems and annotations -8 and -7.
- Staff 2: Treble clef, notes with stems and annotations -6 and -10.
- Staff 3: Bass clef, notes with stems and annotations -8 and -12.
- Staff 4: Treble clef, notes with stems and annotations Db+33, -23, and -12.
- Staff 5: Treble clef, note with stem and annotation -4.
- Staff 6: Bass clef, note with stem.

Handwritten musical score for the second system, consisting of six staves. The notation includes notes with stems and various numerical annotations:

- Staff 1: Treble clef, notes with stems and annotations -7 and -7.
- Staff 2: Treble clef, empty staff.
- Staff 3: Bass clef, notes with stems and annotations -23 and -23.
- Staff 4: Treble clef, notes with stems and annotations -12 and -23.
- Staff 5: Treble clef, empty staff.
- Staff 6: Bass clef, notes with stems and annotations -22, +40, and +40.

Handwritten musical notation on a grand staff. The notation includes notes with stems and flags, and numerical annotations below the notes. The notes are as follows:

- Staff 1 (top): A single note with a stem and flag, annotated with  $-25$ .
- Staff 2: Empty.
- Staff 3: A note with a stem and flag annotated with  $-12$ , followed by a note with a stem and flag annotated with  $-14$ , and a note with a stem and flag annotated with  $-25$ .
- Staff 4: A note with a stem and flag annotated with  $-43$ , followed by a note with a stem and flag annotated with  $B+24$ .
- Staff 5: A note with a stem and flag annotated with  $-12$ .
- Staff 6 (bottom): A note with a stem and flag annotated with  $-25$ , followed by a note with a stem and flag annotated with  $-8$ , then a note with a stem and flag annotated with  $-6$ , and finally a note with a stem and flag annotated with  $-10$ .

Handwritten musical notation on a grand staff. The notation includes notes with stems and flags, numerical annotations, and connecting lines. The notes are as follows:

- Staff 1 (top): A note with a stem and flag annotated with  $-14$ , followed by a note with a stem and flag annotated with  $-27$ , then a note with a stem and flag annotated with  $-43$ , a note with a stem and flag annotated with  $+38$ , a note with a stem and flag annotated with  $-43$ , and a note with a stem and flag annotated with  $+38$ .
- Staff 2: Empty.
- Staff 3: A note with a stem and flag annotated with  $-12$ .
- Staff 4: A note with a stem and flag annotated with  $B+24$ , followed by a note with a stem and flag annotated with  $-27$ .
- Staff 5: A note with a stem and flag annotated with  $+38$ , followed by a note with a stem and flag annotated with  $+38$ , a note with a stem and flag annotated with  $-27$ , and a note with a stem and flag annotated with  $-27$ .
- Staff 6 (bottom): A note with a stem and flag annotated with  $-14$ .

Connecting lines are drawn between the notes in Staff 1 and Staff 3, forming a zig-zag pattern.

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JANUARY 28 2021

# MURMURATIONS IX

FREDRIK RASTEN  
JANUARY 30 2021

Handwritten musical notation for the first system, consisting of six staves. The notation includes various notes with accidentals and numerical values:

- Staff 1: Treble clef. Notes:  $x\flat$  (value +38),  $\flat$  (value -12),  $x\flat$  (value +38),  $\flat$  (value -10).
- Staff 2: Treble clef. Note:  $\flat$  (value -10).
- Staff 3: Bass clef. Note:  $\flat$  (value -12).
- Staff 4: Treble clef. Notes:  $\flat$  (value -27),  $\flat$  (value -43),  $x\flat$  (value +38),  $\flat$  (value -12),  $\flat$  (value E+27),  $\flat$  (value -27).
- Staff 5: Treble clef. Note:  $\flat$  (value -12).
- Staff 6: Bass clef. Notes:  $\flat$  (value -14),  $\flat$  (value -14).

Handwritten musical notation for the second system, consisting of six staves. The notation includes various notes with accidentals and numerical values:

- Staff 1: Treble clef. Notes:  $x\flat$  (value +40),  $\flat$  (value -41),  $\flat$  (value +4),  $x\flat$  (value -14),  $\flat$  (value -45),  $\flat$  (value -7),  $\flat$  (value -8).
- Staff 2: Treble clef. (Empty)
- Staff 3: Bass clef. (Empty)
- Staff 4: Treble clef. Notes:  $\flat$  (value -43),  $x\flat$  (value +38).
- Staff 5: Treble clef. (Empty)
- Staff 6: Bass clef. (Empty)

Handwritten musical notation on a grand staff (treble and bass clefs). The notation includes notes with stems and numerical annotations below them:

- Staff 1 (Treble): Notes with stems. Annotations: -8, -45, -25.
- Staff 2 (Treble): Empty.
- Staff 3 (Bass): Empty.
- Staff 4 (Treble): Notes with stems. Annotations: +38, -8, -8, E+27.
- Staff 5 (Treble): Empty.
- Staff 6 (Bass): Notes with stems. Annotations: -14.

Handwritten musical notation on a grand staff (treble and bass clefs). The notation includes notes with stems and numerical annotations, with lines connecting notes across staves:

- Staff 1 (Treble): Notes with stems. Annotations: -14, -8.
- Staff 2 (Treble): Notes with stems. Annotations: -10.
- Staff 3 (Bass): Notes with stems. Annotations: -12.
- Staff 4 (Treble): Notes with stems. Annotations: -12.
- Staff 5 (Treble): Notes with stems. Annotations: -12, -43.
- Staff 6 (Bass): Empty.

Connecting lines: A line connects the -12 note in Staff 3 to the -14 note in Staff 1. Another line connects the -12 note in Staff 4 to the -14 note in Staff 1. A third line connects the -12 note in Staff 4 to the -8 note in Staff 1. A fourth line connects the -43 note in Staff 5 to the -8 note in Staff 1.

Handwritten musical notation for the first system, consisting of six staves. The notation includes notes with accidentals and fret numbers:

- Staff 1: Notes with fret numbers -8, +5, +4.
- Staff 2: Notes with fret numbers -10, +10, 8b-49.
- Staff 3: A circled note with fret number -12.
- Staff 4: Notes with fret numbers E+/-0, F+5.
- Staff 5: A note with fret number C+40.
- Staff 6: A note with fret number -14.

Handwritten musical notation for the second system, consisting of six staves. The notation includes notes with accidentals and fret numbers:

- Staff 1: Empty.
- Staff 2: Empty.
- Staff 3: A note with fret number -12.
- Staff 4: Notes with fret numbers E+/-0, -12, D-31, C+40, D-31, -12.
- Staff 5: A note with fret number B+2.
- Staff 6: A note with fret number -14.

Handwritten musical notation for a guitar piece, consisting of six staves. The notation includes various chords and fret numbers:

- Staff 1: Treble clef, notes with fret numbers +4 and -14.
- Staff 2: Treble clef, notes with fret numbers Bb-49 and Bb-49.
- Staff 3: Bass clef, notes with fret numbers E+/-0 and -12.
- Staff 4: Treble clef, notes with fret numbers E+/-0, E+/-D, and -12.
- Staff 5: Treble clef, empty.
- Staff 6: Bass clef, empty.

Handwritten musical notation for a guitar piece, consisting of six staves. The notation includes various chords and fret numbers:

- Staff 1: Treble clef, notes with fret numbers Bb-49 and Bb-49.
- Staff 2: Treble clef, notes with fret numbers B+2, B-47, and -10.
- Staff 3: Bass clef, notes with fret numbers B+2, B-47, and -10.
- Staff 4: Treble clef, notes with fret numbers B+2, B-47, and -10.
- Staff 5: Treble clef, empty.
- Staff 6: Bass clef, empty.

(10) [ THE REPEATED SECTION IS PLAYED 4-8 TIMES IN TOTAL. THE ENDING CAN BE AT ANY POINT WITHIN THE LAST REP. ]

# MURMURATIONS X

FREDRIK RASTEN

FEBRUARY 5 2021

[ALL SECTIONS ARE PLAYED 2-4 TIMES]

Handwritten musical score for the first system, consisting of six staves. The notation includes various chords and fret numbers:

- Staff 1: Treble clef, key signature of one flat. Chords:  $b_0$  (-14),  $b_0$  (+4),  $b_0$  (-45).
- Staff 2: Treble clef, key signature of one flat. Chords:  $\uparrow b_0$  ( $Bb-49$ ),  $\uparrow b_0$  ( $Bb-49$ ),  $\uparrow b_0$  ( $Bb-49$ ),  $\uparrow b_0$  ( $Bb-49$ ).
- Staff 3: Bass clef, key signature of one flat. Chord:  $b_0$  (-12).
- Staff 4: Treble clef, key signature of one flat. Chord:  $b_0$  (-12).
- Staff 5: Treble clef, key signature of one flat. Chords:  $\uparrow b_0$  ( $B+2$ ),  $\uparrow b_0$  ( $B-47$ ),  $\uparrow b_0$  (-10),  $\uparrow b_0$  (-10).
- Staff 6: Bass clef, key signature of one flat. Chord:  $b_0$  (-14).

Handwritten musical score for the second system, consisting of six staves. The notation includes various chords and fret numbers:

- Staff 1: Treble clef, key signature of one flat. Chords:  $b_0$ ,  $b_0$  (-10).
- Staff 2: Treble clef, key signature of one flat. Chords:  $\uparrow b_0$  ( $Bb-49$ ),  $\uparrow b_0$  ( $Bb-49$ ).
- Staff 3: Bass clef, key signature of one flat. Chord:  $b_0$ .
- Staff 4: Treble clef, key signature of one flat. Chords:  $\uparrow b_0$  ( $D-31$ ),  $\uparrow b_0$  ( $C+40$ ),  $\uparrow b_0$  ( $C+40$ ),  $\uparrow b_0$  ( $C+40$ ).
- Staff 5: Treble clef, key signature of one flat. Chord:  $\uparrow b_0$  (-27).
- Staff 6: Bass clef, key signature of one flat. Chord:  $b_0$ .

Handwritten musical score for the first system, consisting of six staves. The notation includes various notes, accidentals, and fret numbers. A double bar line is present in the middle of the system.

- Staff 1: Treble clef, notes  $b_0$  and  $(b_0)$ , fret number -14.
- Staff 2: Treble clef, notes  $(b_0)$  and  $(b_0)$ .
- Staff 3: Bass clef, notes  $(b_0)$  and  $(b_0)$ .
- Staff 4: Treble clef, notes  $(b_0)$  and  $b_0$ , fret numbers C+40 and -12.
- Staff 5: Treble clef, notes  $b_0$  and  $b_0$ , fret numbers -27 and +21.
- Staff 6: Bass clef, notes  $(b_0)$  and  $(b_0)$ .

Handwritten musical score for the second system, consisting of six staves. The notation includes various notes, accidentals, and fret numbers. A double bar line is present in the middle of the system.

- Staff 1: Treble clef, notes  $b_0$  and  $b_0$ , fret number Bb-49.
- Staff 2: Treble clef, notes  $b_0$  and  $b_0$ , fret number Bb-49.
- Staff 3: Bass clef, notes  $b_0$  and  $b_0$ , fret number -12.
- Staff 4: Treble clef, notes  $b_0$  and  $b_0$ , fret number C+40.
- Staff 5: Treble clef, notes  $b_0$  and  $b_0$ , fret numbers +21 and -27.
- Staff 6: Bass clef, notes  $b_0$  and  $b_0$ , fret numbers +17 and -14.



# MURMURATIONS XI

FREDRIK RASTEN  
FEBRUARY 2021

Handwritten musical score for the first system of 'Murmurations XI'. The score consists of five staves. The top staff is in treble clef with a key signature of one flat (Bb) and a time signature of common time (C). It contains a whole note chord labeled '-14' and another whole note chord labeled 'A+25'. The second staff is in treble clef and contains two whole note chords, both labeled '+bb o Bb-49'. The third staff is in bass clef and contains a whole note chord labeled '-12'. The fourth staff is in treble clef and contains a whole note chord labeled 'C+40' with an upward-pointing arrow. The fifth staff is in bass clef and contains a whole note chord labeled '-14' and another whole note chord labeled '-16'. There are various musical notations including stems, beams, and accidentals throughout the system.

Handwritten musical score for the second system of 'Murmurations XI'. The score consists of five staves. The top staff is in treble clef with a key signature of one flat (Bb) and a time signature of common time (C). It contains two whole note chords, both labeled 'A +25'. The second staff is in treble clef and contains two whole note chords, both labeled '+bb o Bb-49'. The third staff is in bass clef and contains a whole note chord labeled '-12'. The fourth staff is in treble clef and contains two whole note chords, both labeled 'C+40' with upward-pointing arrows. The fifth staff is in bass clef and contains two whole note chords, both labeled '-16'. There are various musical notations including stems, beams, and accidentals throughout the system.

# MURMURATIONS XII

FREDRIK RASTEN  
FEBRUARY 6 87 2021

A+25      A+25      B-47      A+25      -14

+bb0      b0  
Bb-49      -14

-12

C+40

b0  
-16

b0      b0      b0  
-14      -16      -14

b0      b0      b0      b0  
C+40      -27      -27      -27

(b0)      b0      b0      b0  
-16      B+2      B-47

Handwritten musical score for the first system, consisting of five staves. The notation includes notes, accidentals, and numerical annotations:

- Staff 1 (Treble clef):** Notes with accidentals  $\flat$  and  $\circ$ . Annotations:  $6b+36$  and  $-25$ .
- Staff 2 (Treble clef):** Note with accidental  $\flat$ . Annotation:  $-10$ .
- Staff 3 (Bass clef):** Empty staff.
- Staff 4 (Treble clef):** Notes with accidentals  $\flat$  and  $\circ$ . Annotations:  $A+25$  and  $-14$ .
- Staff 5 (Bass clef):** Notes with accidentals  $\flat$  and  $\circ$ . Annotations:  $A+25$  and  $-10$ .
- Staff 6 (Bass clef):** Notes with accidentals  $\flat$  and  $\circ$ . Annotations:  $-16$ ,  $-14$ ,  $-10$ , and  $-12$ .

Arrows indicate intervals: a large upward arrow from the bottom staff to the second staff, and a downward arrow from the second staff to the fourth staff. A vertical downward arrow on the right side of the fourth staff is annotated with  $-23$ .

Handwritten musical score for the second system, consisting of five staves. The notation includes notes, accidentals, and numerical annotations:

- Staff 1 (Treble clef):** Note with accidental  $\circ$ . Annotation:  $-8$ .
- Staff 2 (Treble clef):** Note with accidental  $\circ$ . Annotation:  $-6$ .
- Staff 3 (Bass clef):** Note with accidental  $\circ$ . Annotation:  $-8$ .
- Staff 4 (Treble clef):** Notes with accidentals  $\flat$  and  $\circ$ . Annotations:  $-24$ ,  $-39$ ,  $-20$ , and  $-8$ .
- Staff 5 (Bass clef):** Notes with accidentals  $\flat$  and  $\circ$ . Annotations:  $-8$  and  $-22$ .

A large downward arrow connects the first staff to the fifth staff. A vertical downward arrow on the right side of the fourth staff is annotated with  $-20$ . A vertical downward arrow on the right side of the fifth staff is annotated with  $-4$ .