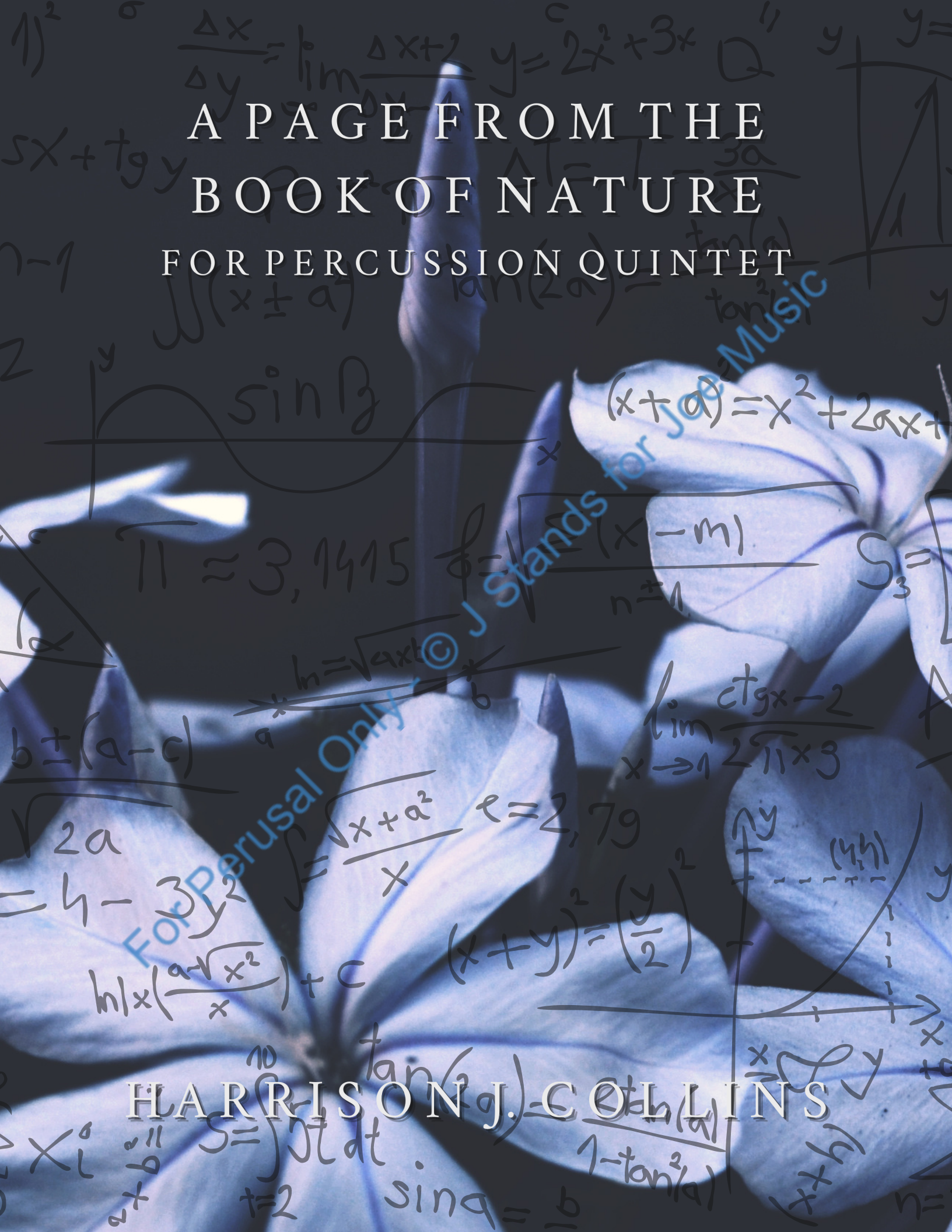
A PAGE FROM THE BOOK OF NATURE

FOR PERCUSSION QUINTET



HARRISON J. COLLINS

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A Page from the Book of Nature

by Harrison J. Collins

Instrumentation

Player 1:
vibraphone (no motor)
impact drum
four toms (shared w/ 2)

Player 2:
five metal pots/pans
four toms (shared w/ 1)
china cymbal

Player 3:
glockenspiel
very large hardcover book

Player 4:
five wooden planks
impact drum (shared w/ 5)
2 congas (shared w/ 5)
2 bongos (shared w/ 5)
suspended cymbal (shared w/ 5)

Player 5:
marimba (5 octave)
impact drum (shared w/ 4)
2 congas (shared w/ 4)
2 bongos (shared w/ 4)
suspended cymbal (shared w/ 4)

Notes

There are two impact drums in the setup: one played by player 1, and one played by players 4 and 5. The two drums should be as equal in pitch/timbre as possible.

The metal pots/pans and the wooden planks should have an articulate, clear sound with minimal sustain.

Player 3 should use the largest, heaviest hardcover book that can be found. It is only used for the final note of the piece, for which it should be lifted up with both hands and slammed shut with great force. The resulting sound should be a loud, dull thwack. It is recommended that the book be prepped by being set open with a relatively even amount of pages on either side - this will make it easier to lift the book quickly and will aid the quality of the sound.

Implement choice is left up to the discretion of the performers. Note that in addition to being rolled, the cymbals are scraped.

Duration: ca. 4:30

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About the Piece

""*The book of nature is written in the language of mathematics.*" - Galileo Galilei

Although Galileo was not referencing a literal book when he said this during his life in the 1500-1600's, this quote can easily be connected to a manuscript written a few hundred years before his time: the *Liber Abaci ("The Book of Calculation")*, written by Italian mathematician Fibonacci. This book's (arguably) most important feature is a description of what has come to be known worldwide as the Fibonacci sequence - a sequence of numbers in which, after beginning with 0 and 1, each successive number is the sum of the previous two: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, etc. Knowledge of this sequence, famously featured in *The Da Vinci Code*, can be found much earlier in the work of several Indian mathematicians including Pingala and Hemachandra (for which reason the sequence is also rightfully known as the Hemachandra sequence). There is a reason that great mathematicians independently came upon this sequence: it appears naturally in the world in numerous ways, including the way in which flowers grow petals and the way that snails' shells spiral outward.

A Page from the Book of Nature is a reflection on this crossroads at which the deep relationship between nature and mathematics can be observed. The work explores this in many ways - rhythms and phrases are derived almost exclusively from Fibonacci numbers (though parts are also based on the first numbers of the Lucas numbers, a similar sequence named after Édouard Lucas, a French mathematician known for his study of the Fibonacci sequence: 2, 1, 3, 4). The seven-pitch-class set used in the work is derived from the Fibonacci number 2,971,215,073, which, when translated to pitches, yields the set C, C♯, D, Eb, F, G, and A. The work also utilizes a driving bassline in the marimba, respectfully borrowed from the song *Lateralus* by rock band *Tool*, which is also based heavily on the Fibonacci sequence.

Stylistically, the work explores several moods inspired by the wide and mercurial range of expression that can be found in the natural world, ranging from quiet serenity to wild intensity. Eventually, the end of the figurative page is reached, and the work ends with the slamming shut of the book.

About the Composer

Harrison J. Collins (b. 1999) began composing at the young age of thirteen. Since then, he has made a name for himself across the United States as a skilled composer. He combines his musical studies in academic settings with years of self-teaching and a strong intuition to write music that challenges and connects to performers and listeners alike.

His works for wind ensemble, orchestra, and chamber ensembles are published by Murphy Music Press, Grand Mesa Music Publishers, C. Alan Publications, and more, and have been performed across the United States and internationally. He is a winner of numerous composition competitions, including the Sinta Quartet Composition Competition, the Dallas Winds Fanfare Competition, the National Young Composers Challenge, the Austin Symphony Orchestra's Texas Young Composers Competition, and multiple Fifteen Minutes of Fame competitions held by Vox Novus - including one in which his work was selected for performance by the acclaimed West Point Band.

Harrison currently studies at Texas Christian University, where he is seeking degrees in music composition and music education.

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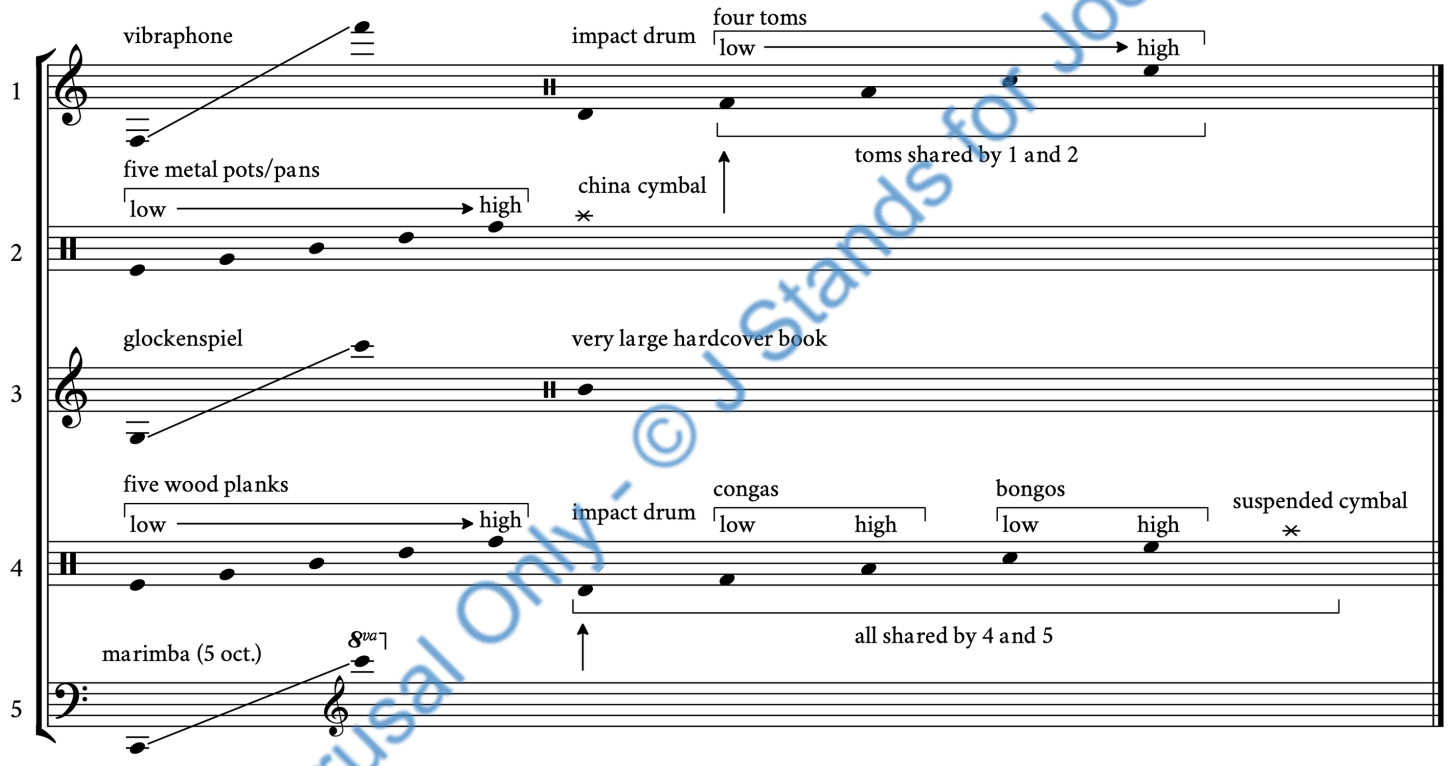
Notation Key



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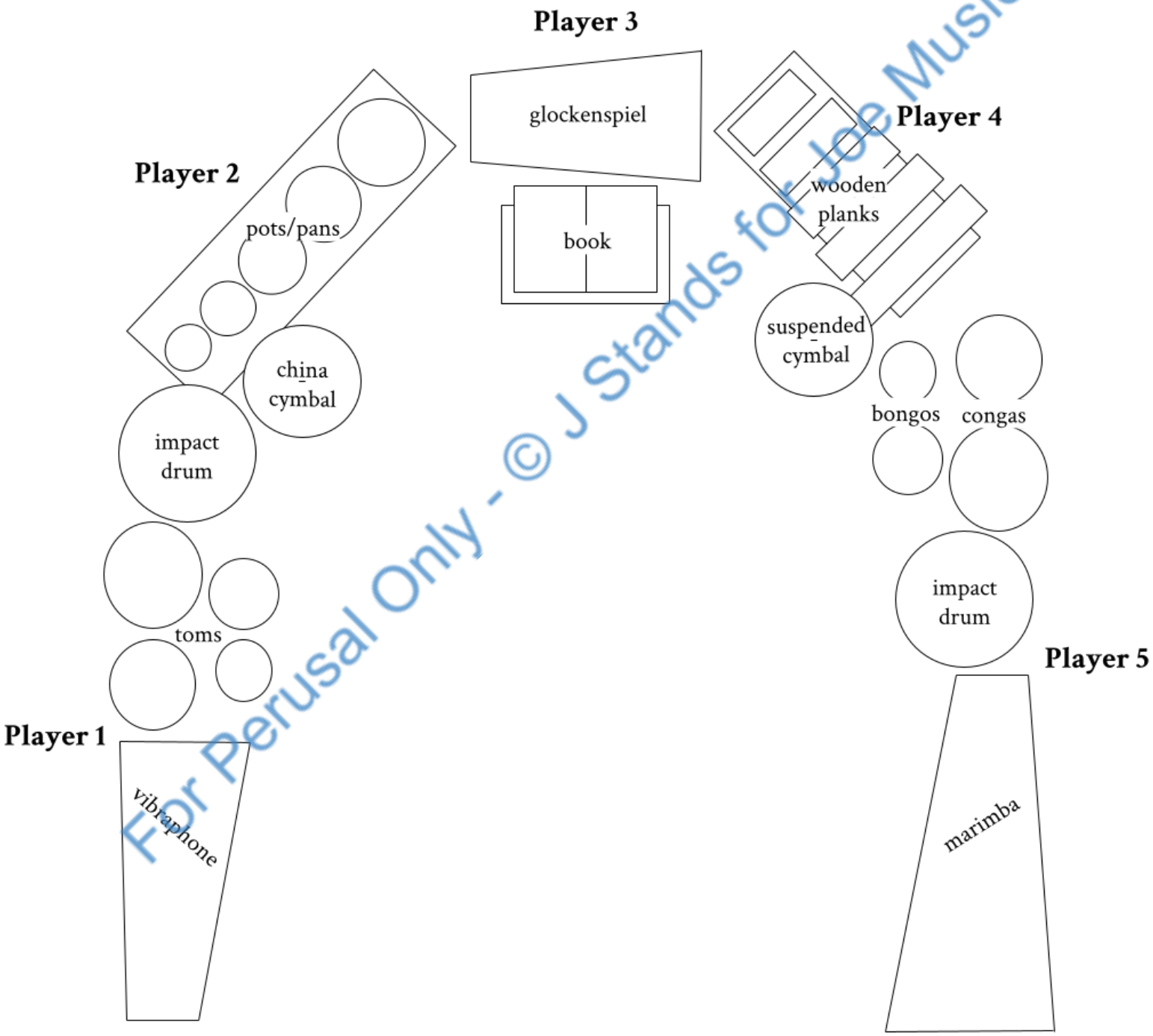
Setup Diagram



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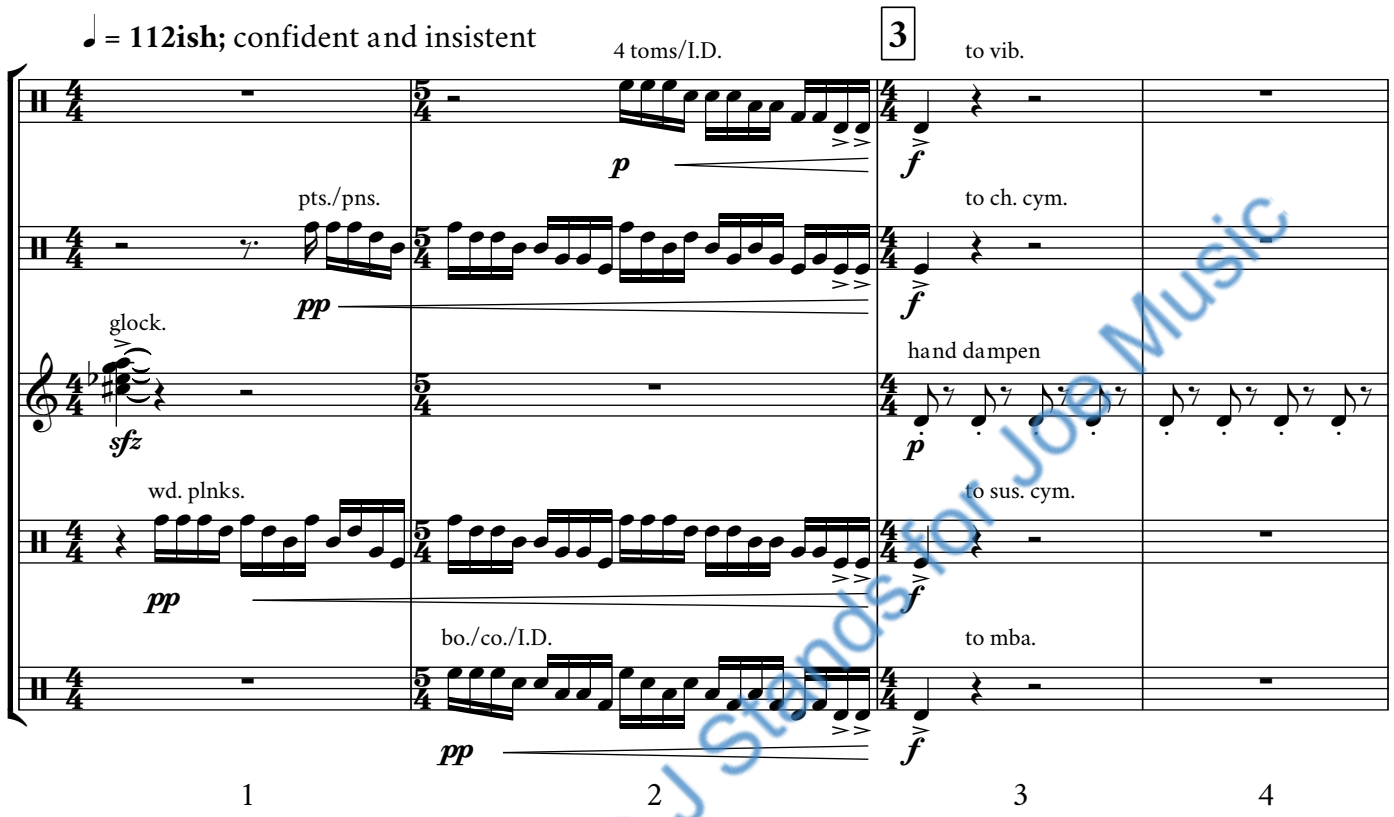
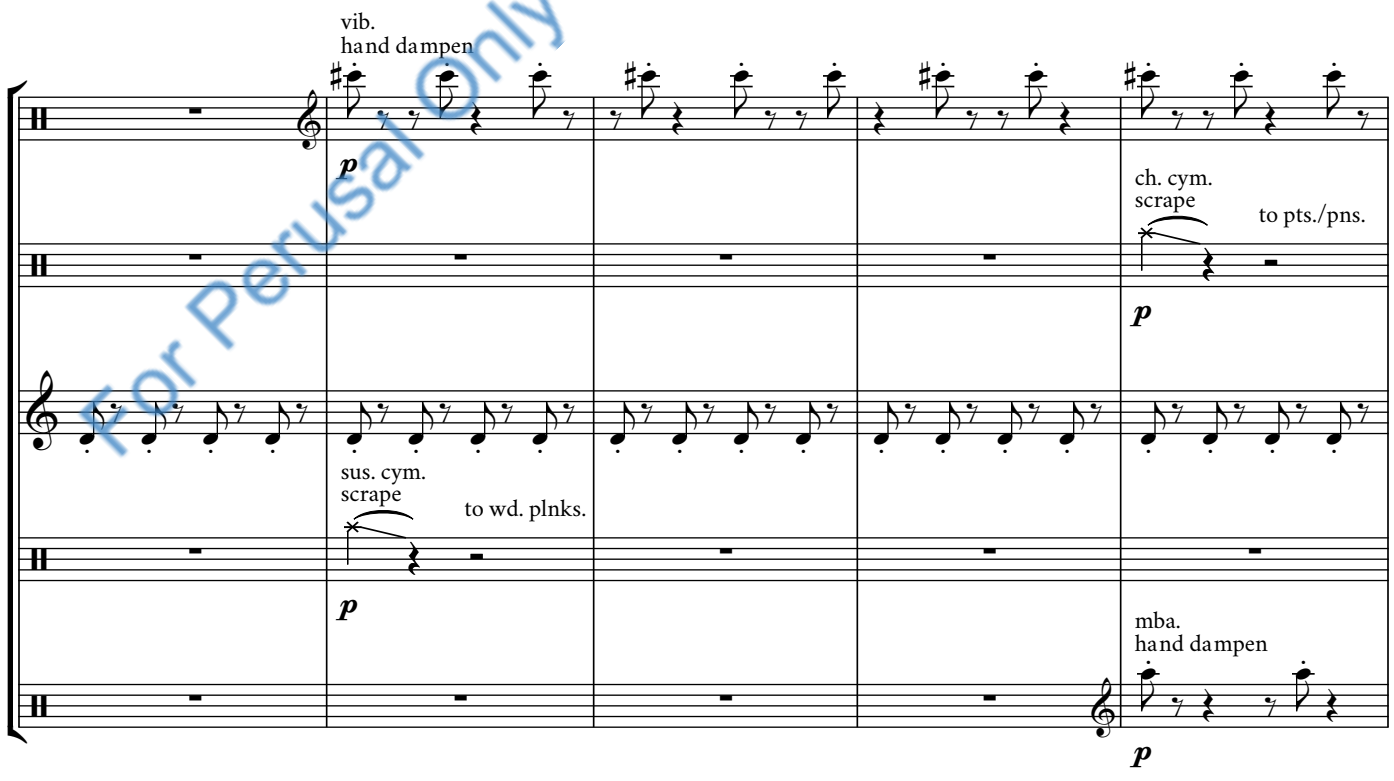
"The book of nature is written in the language of mathematics." - Galileo Galilei

Full Score

A Page from the Book of Nature

Harrison J. Collins





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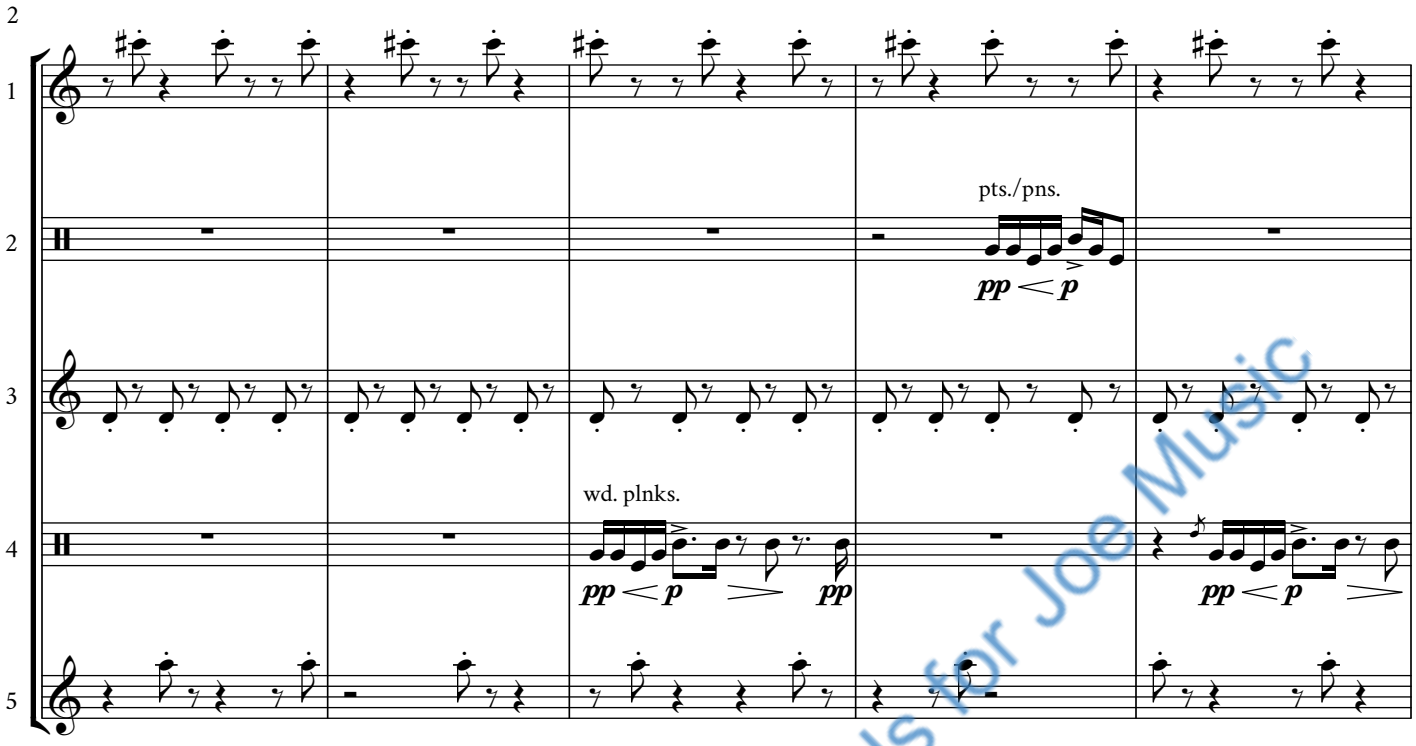

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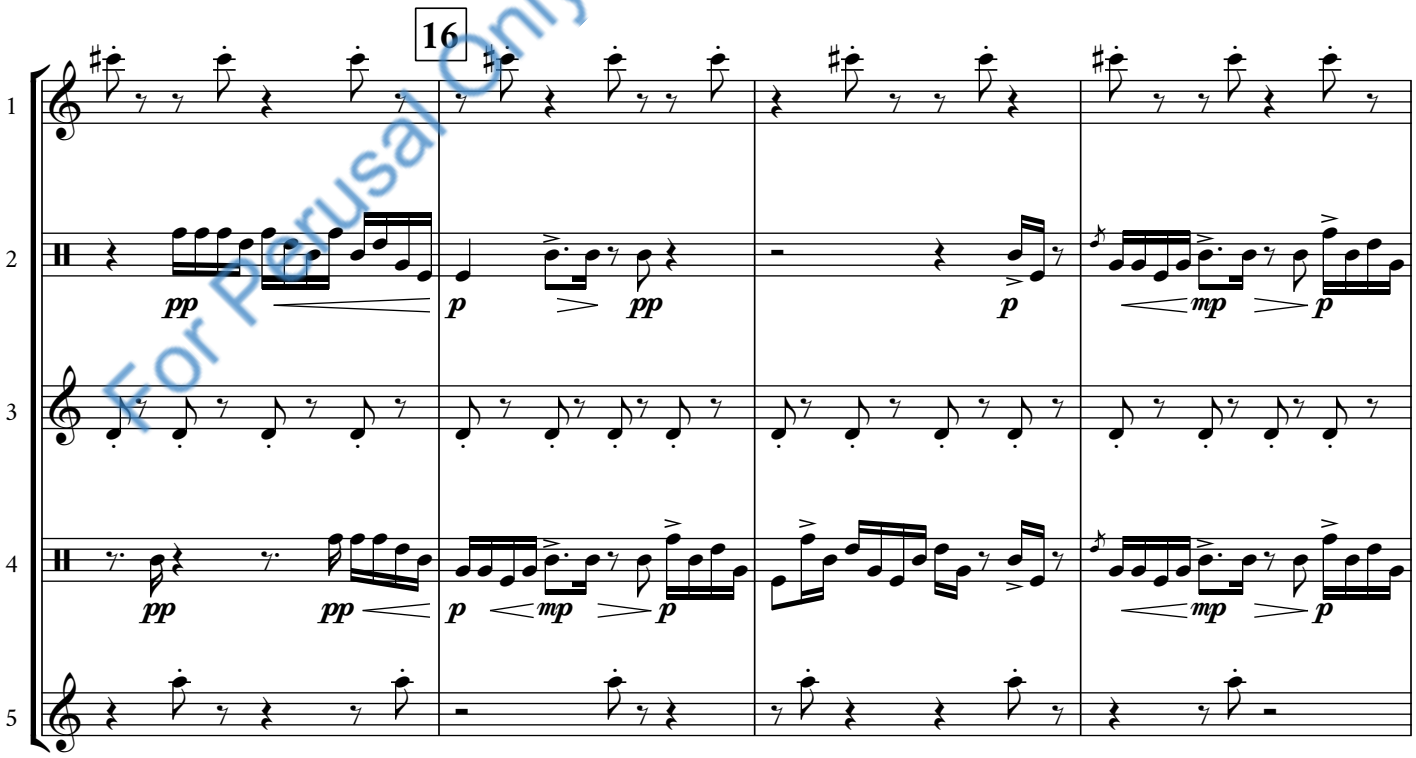

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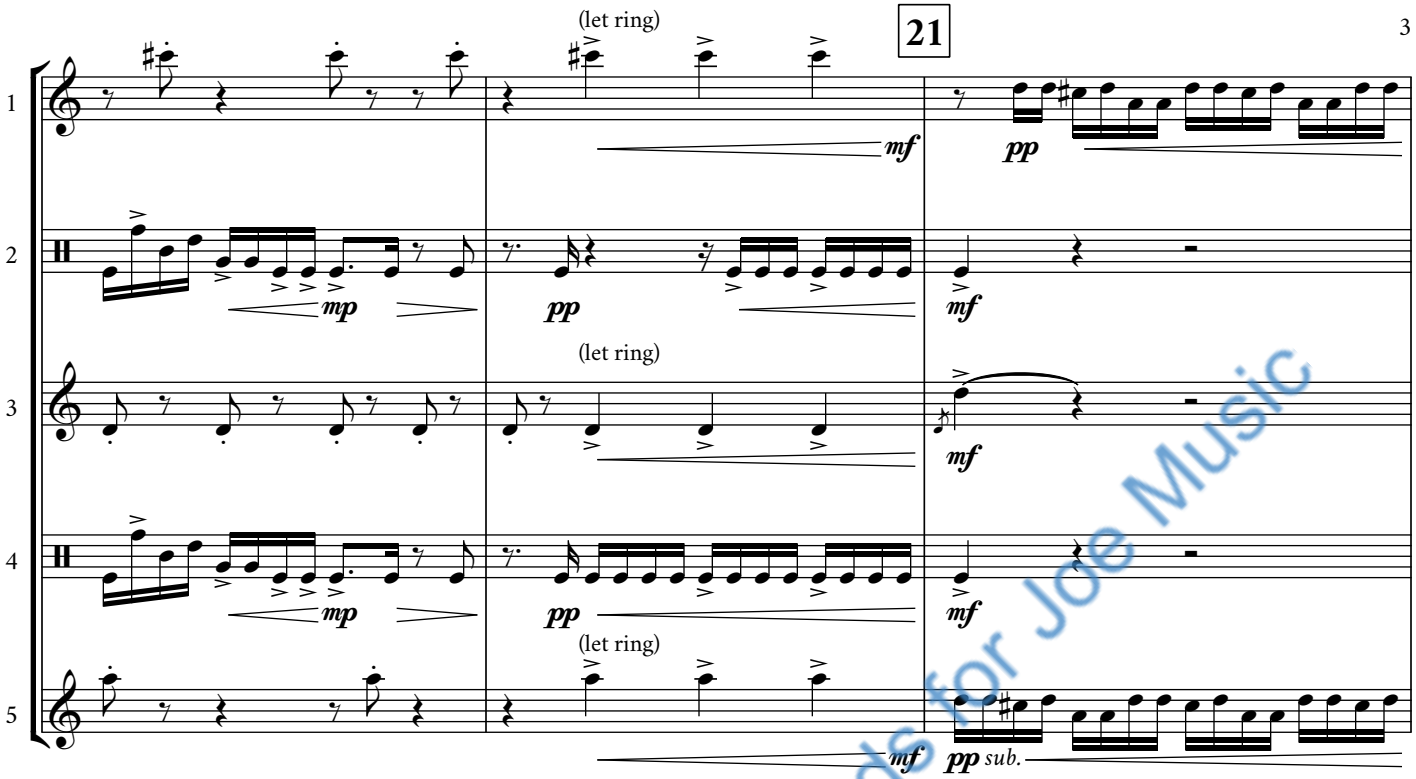

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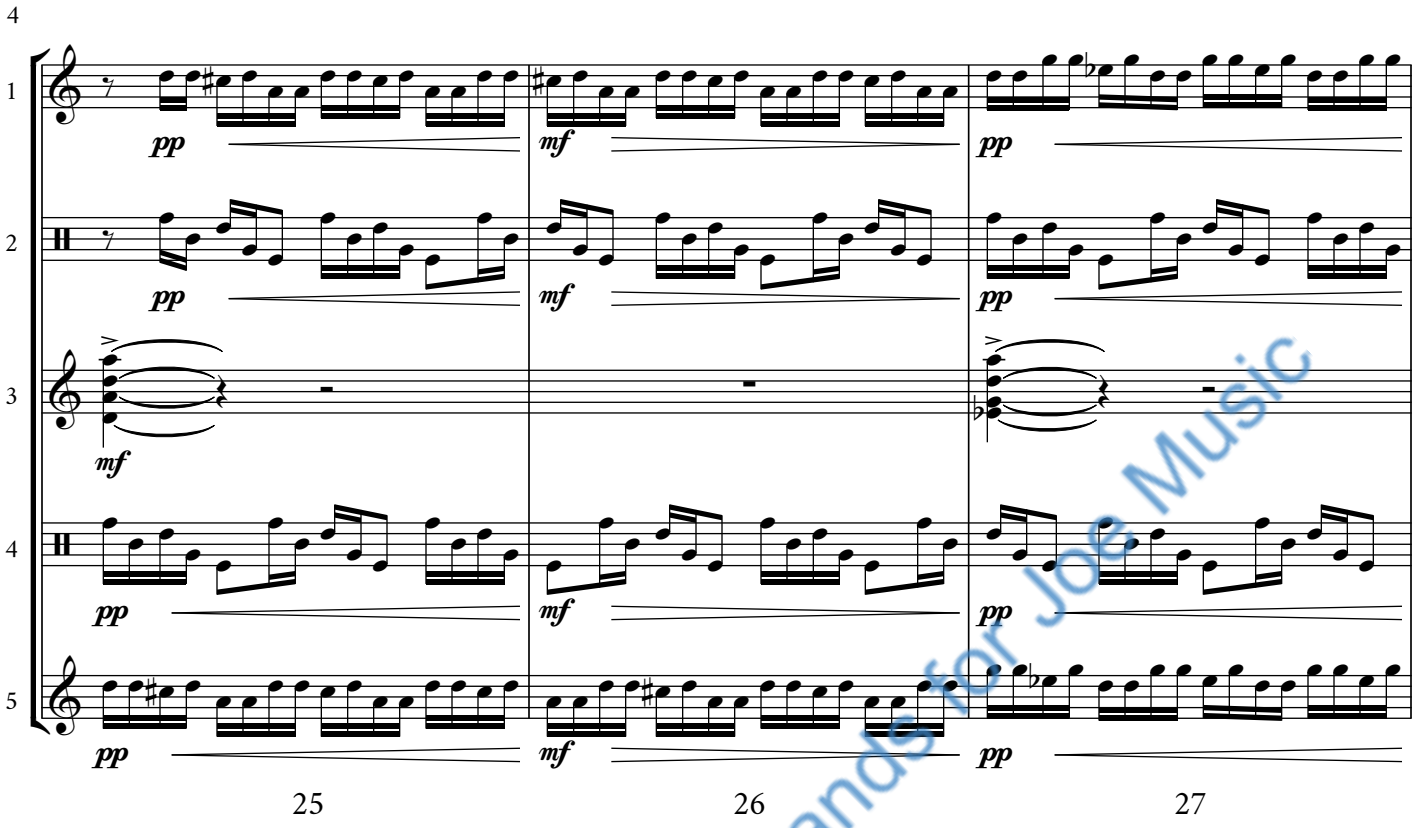

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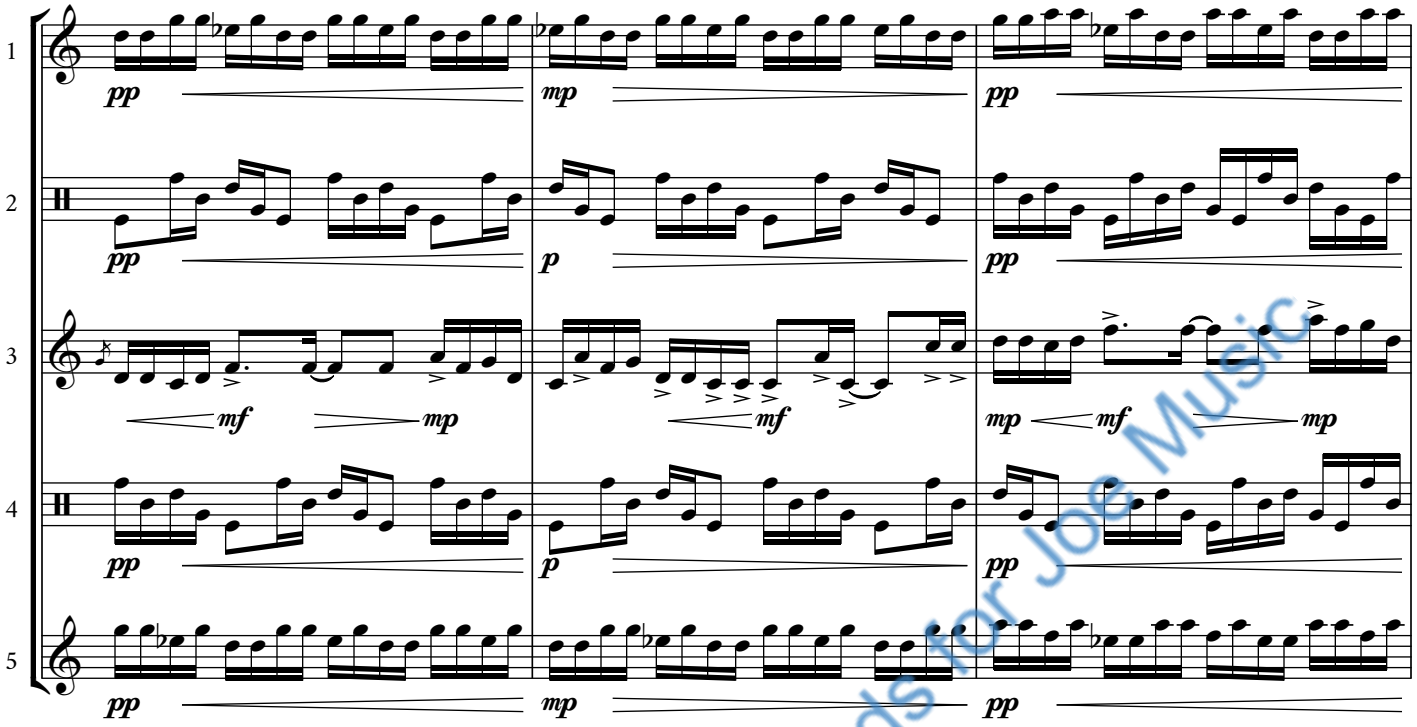

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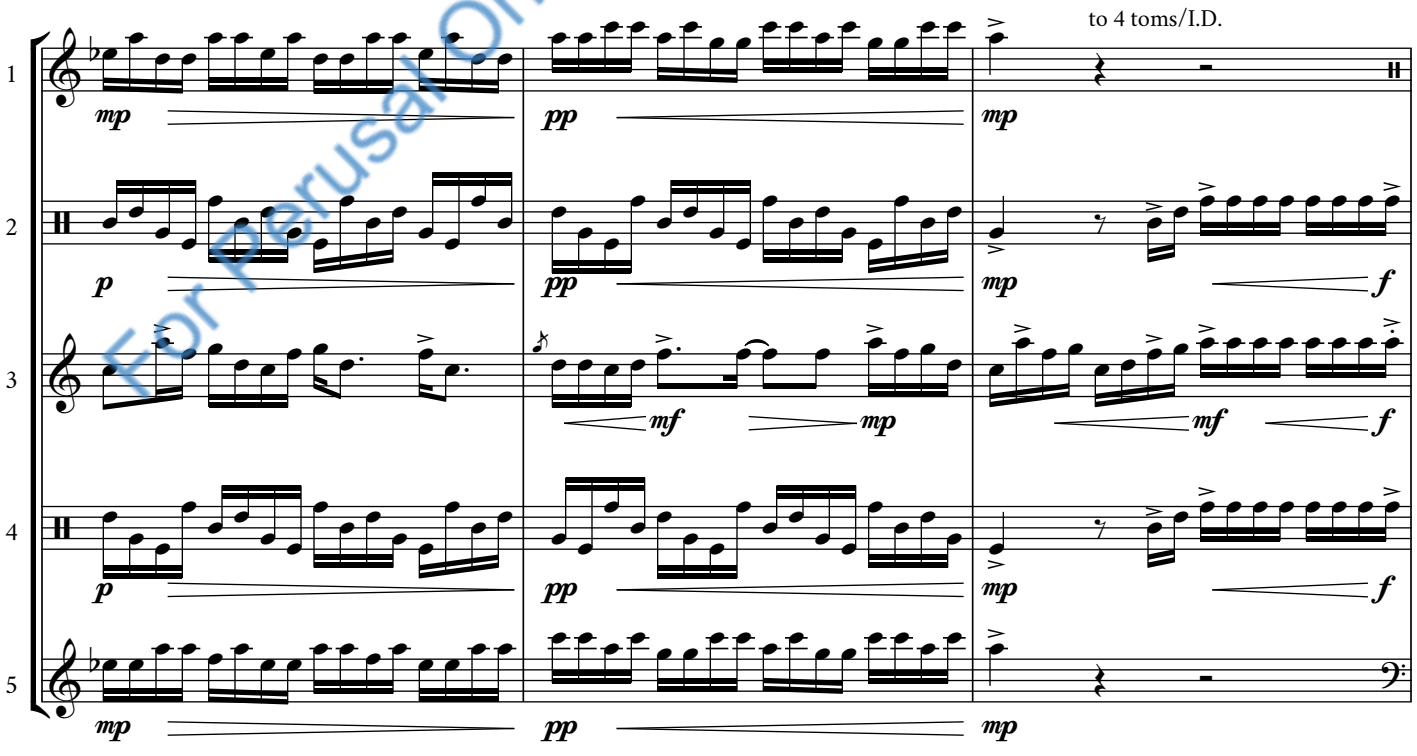

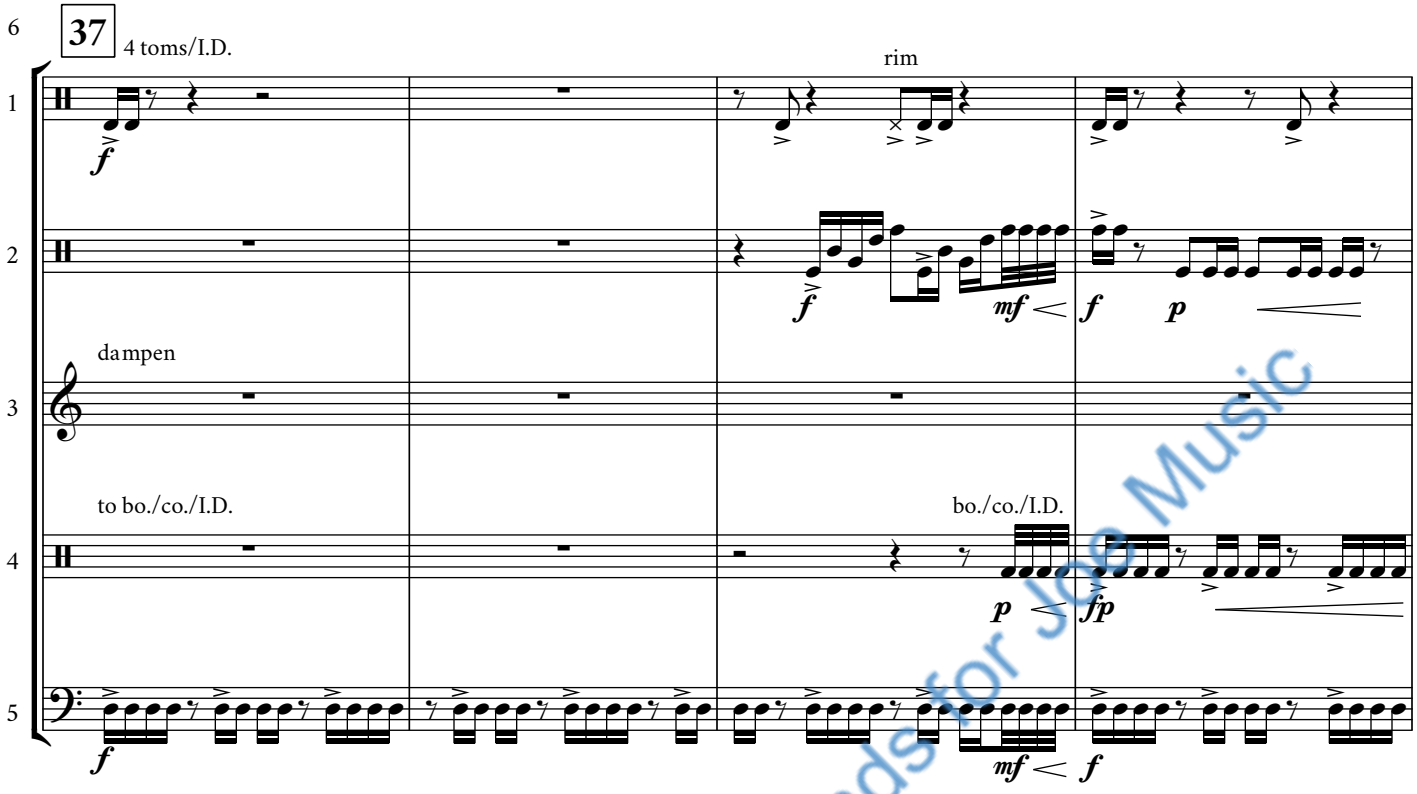

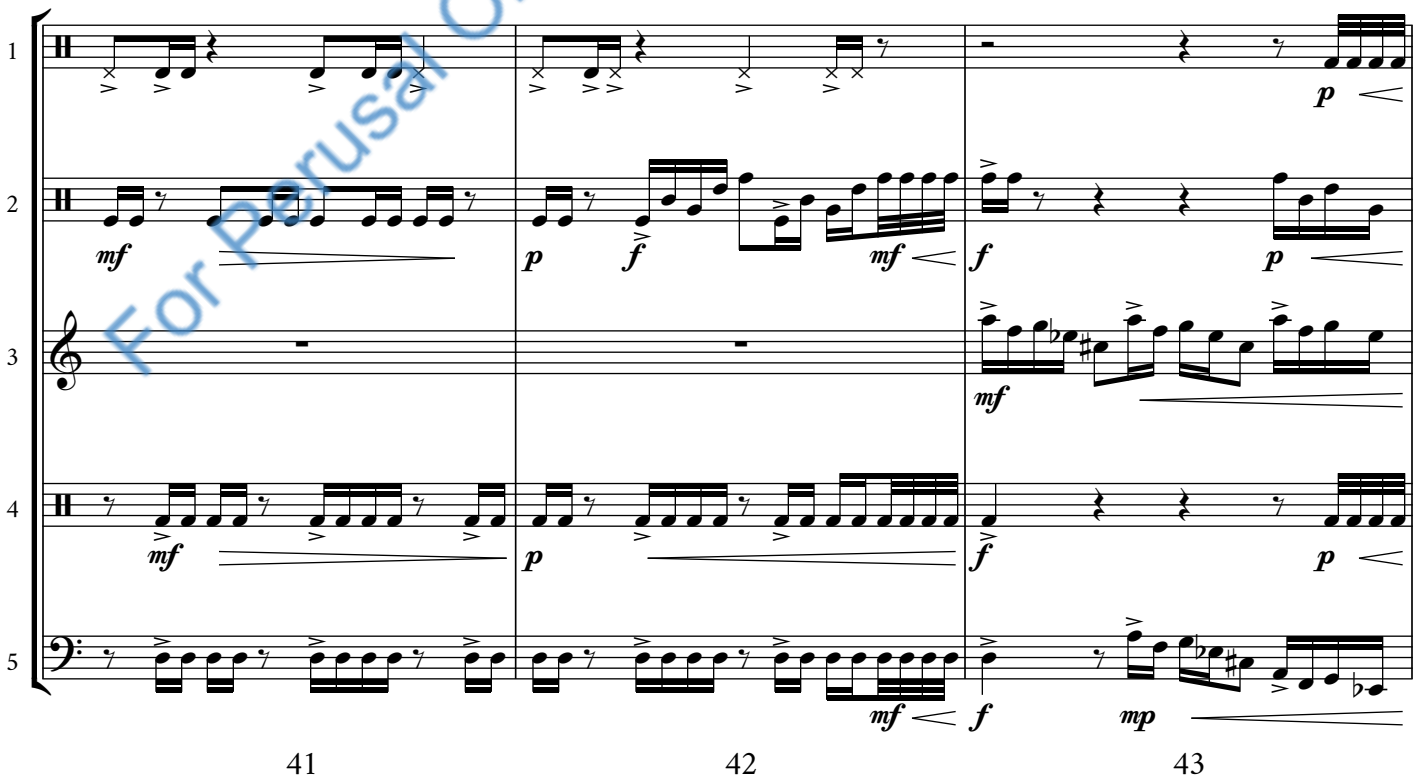

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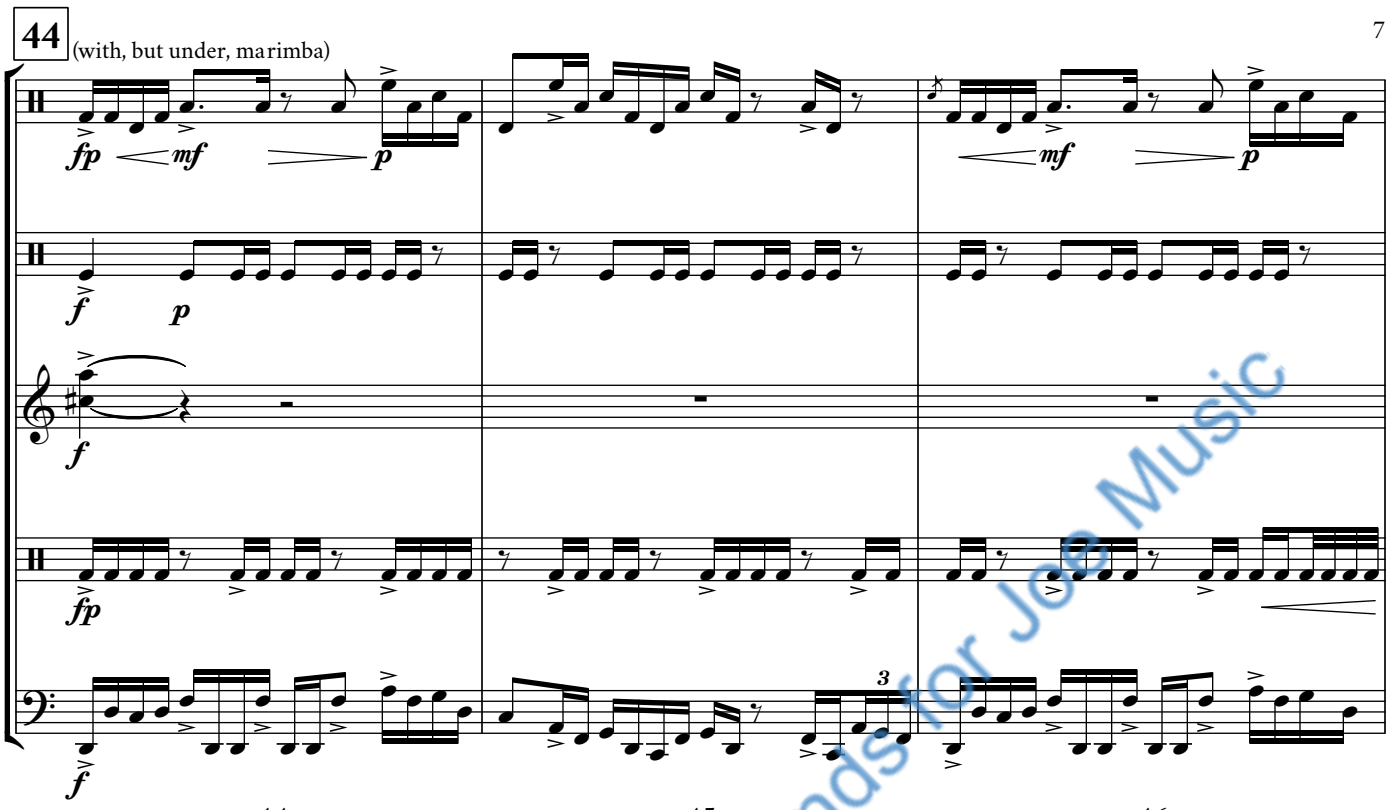

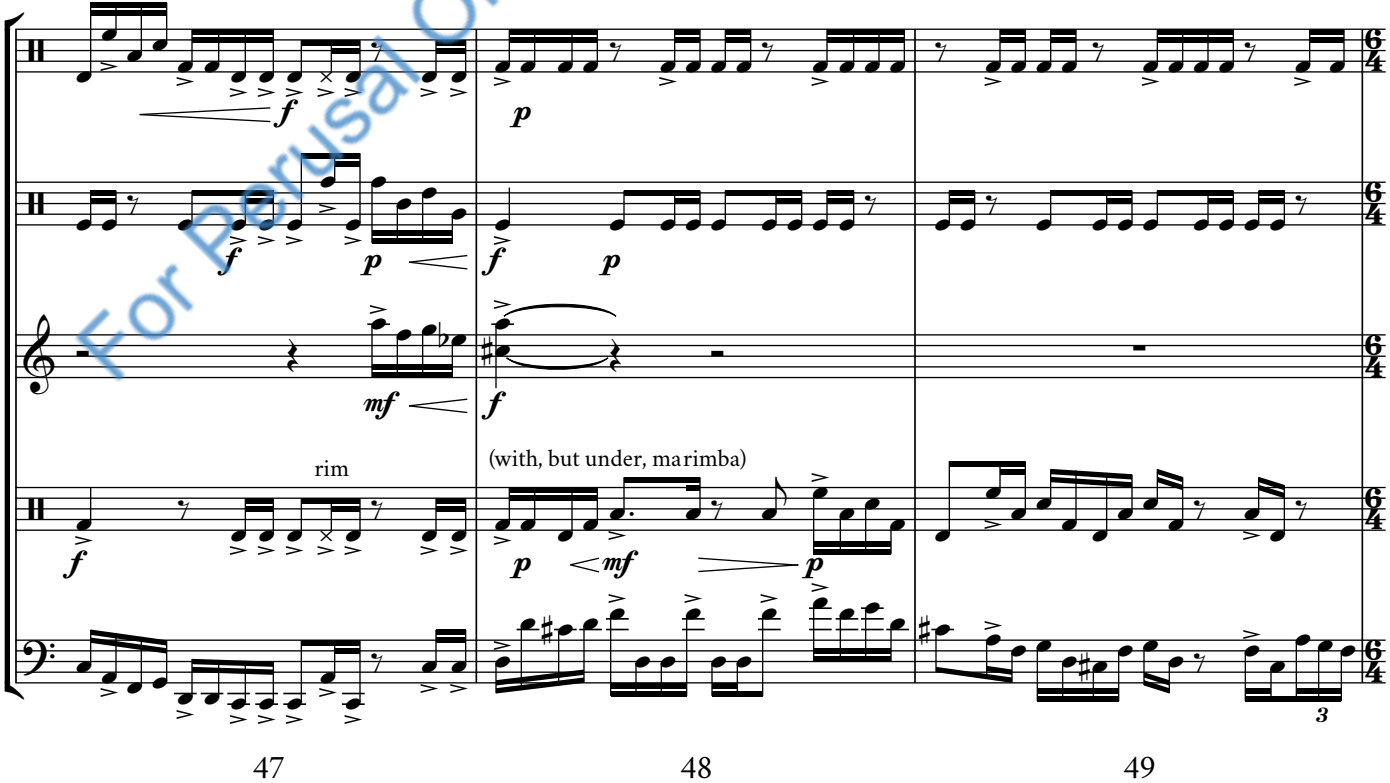

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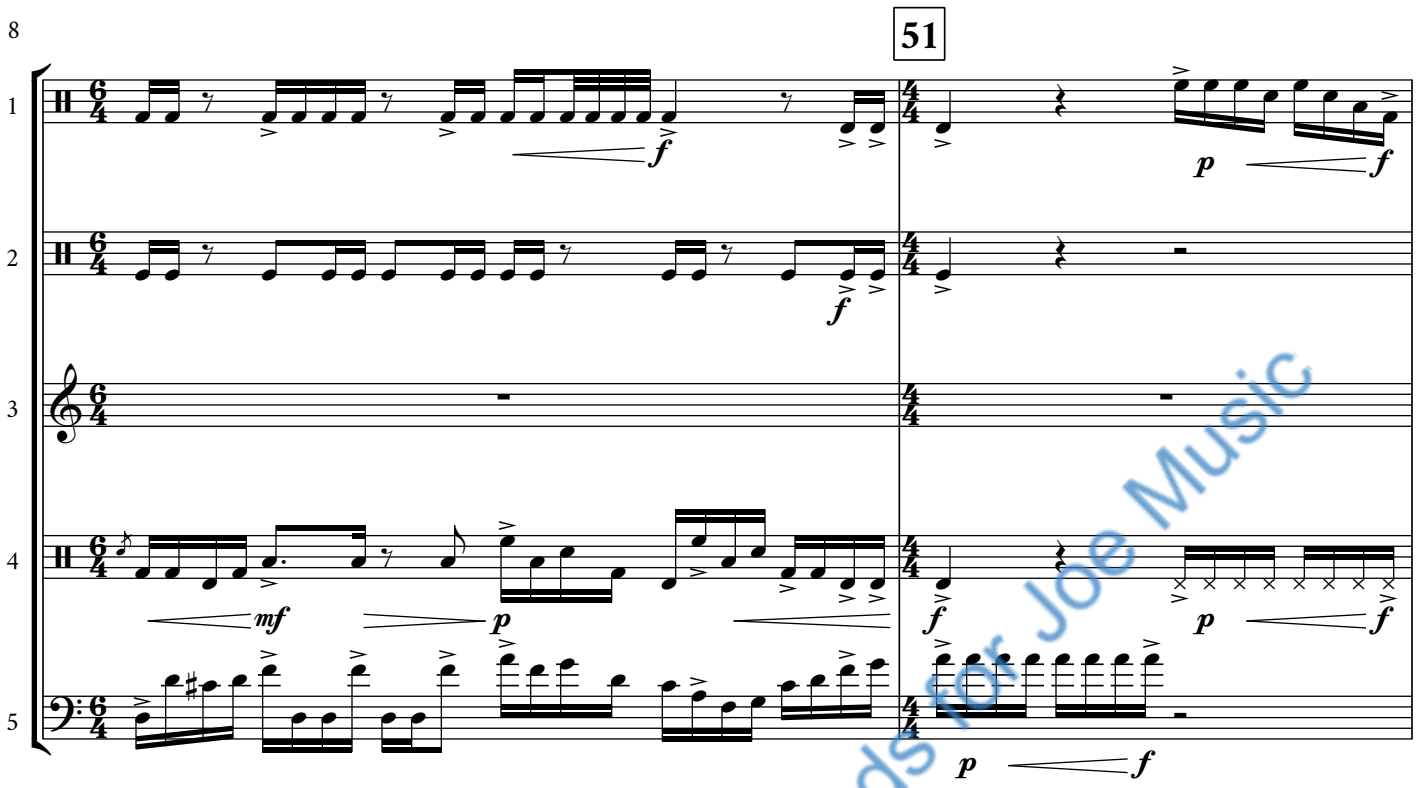

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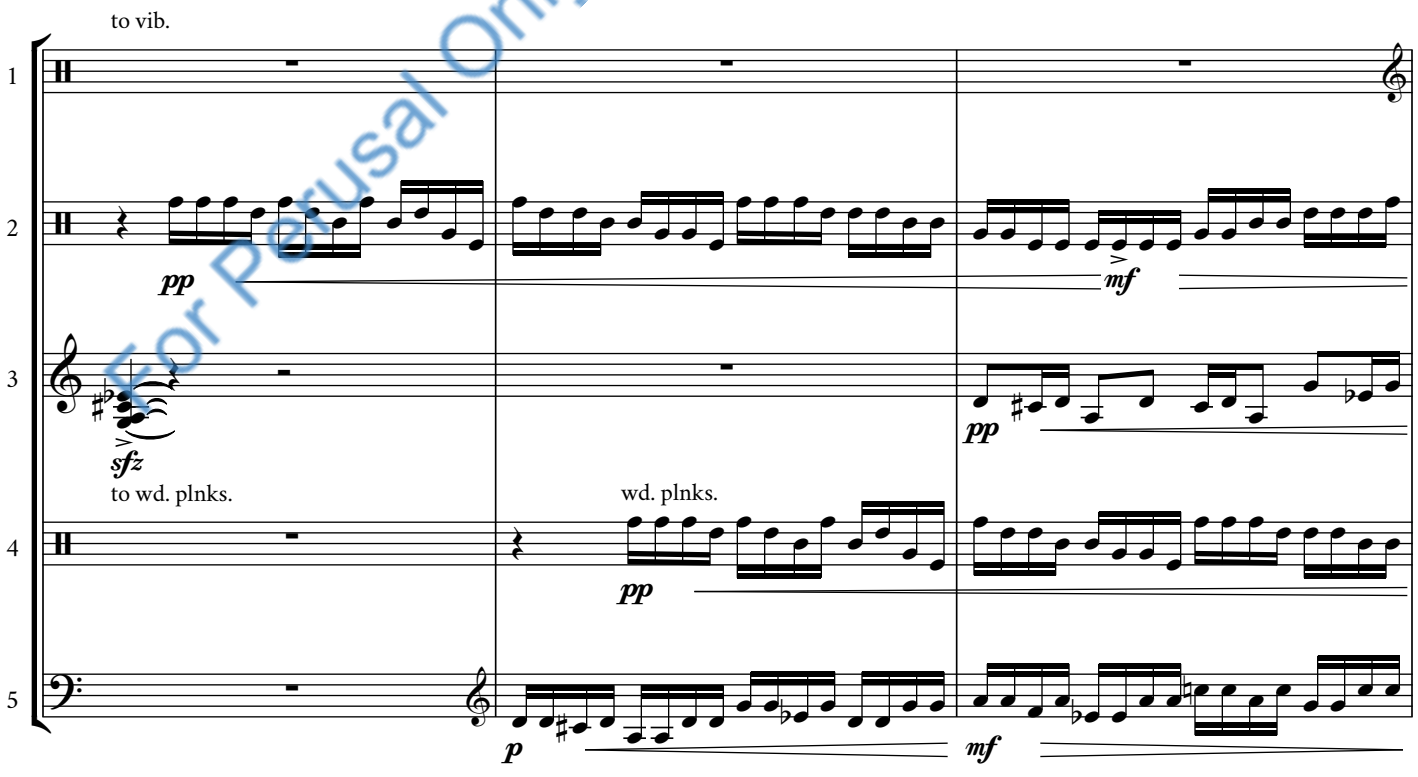

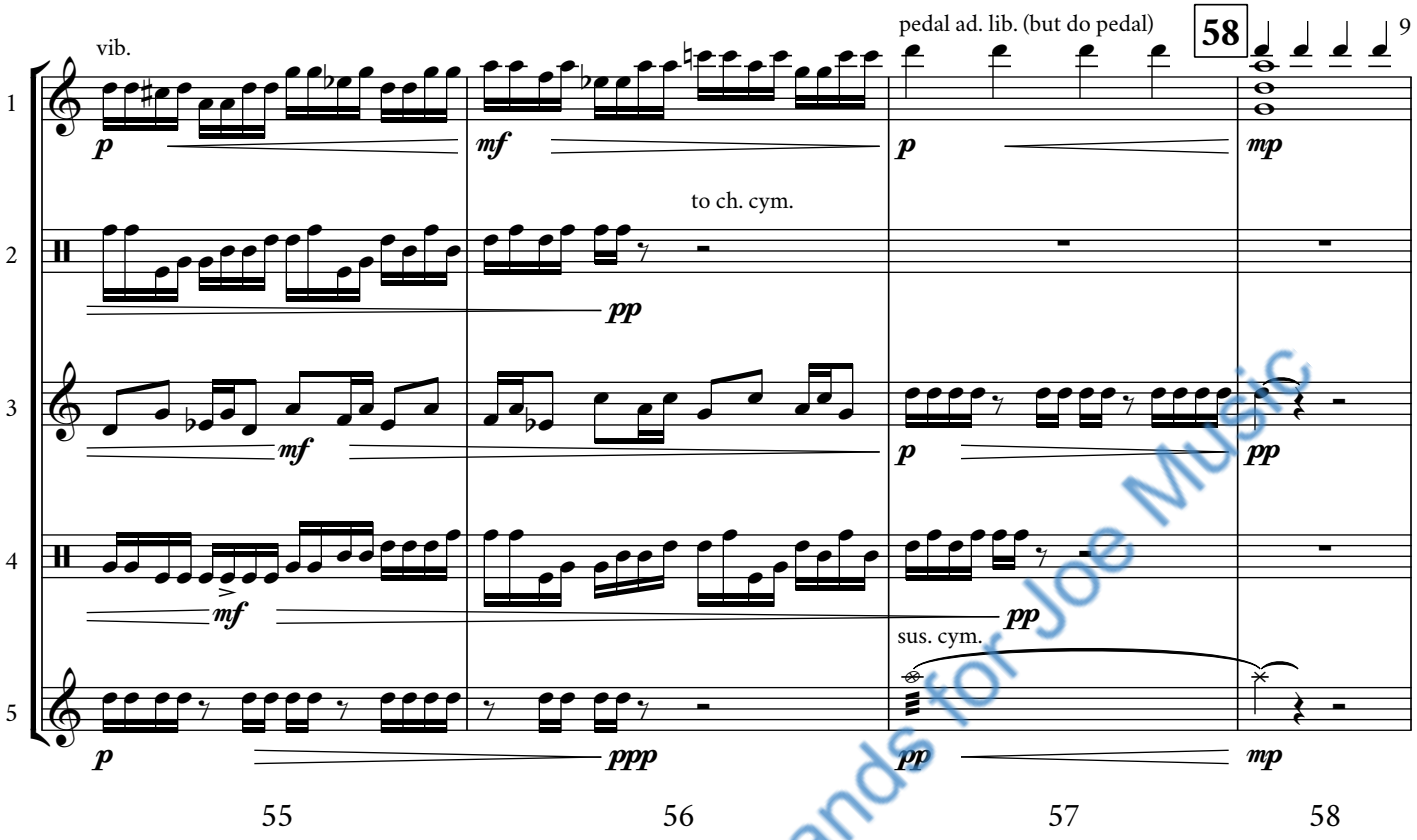

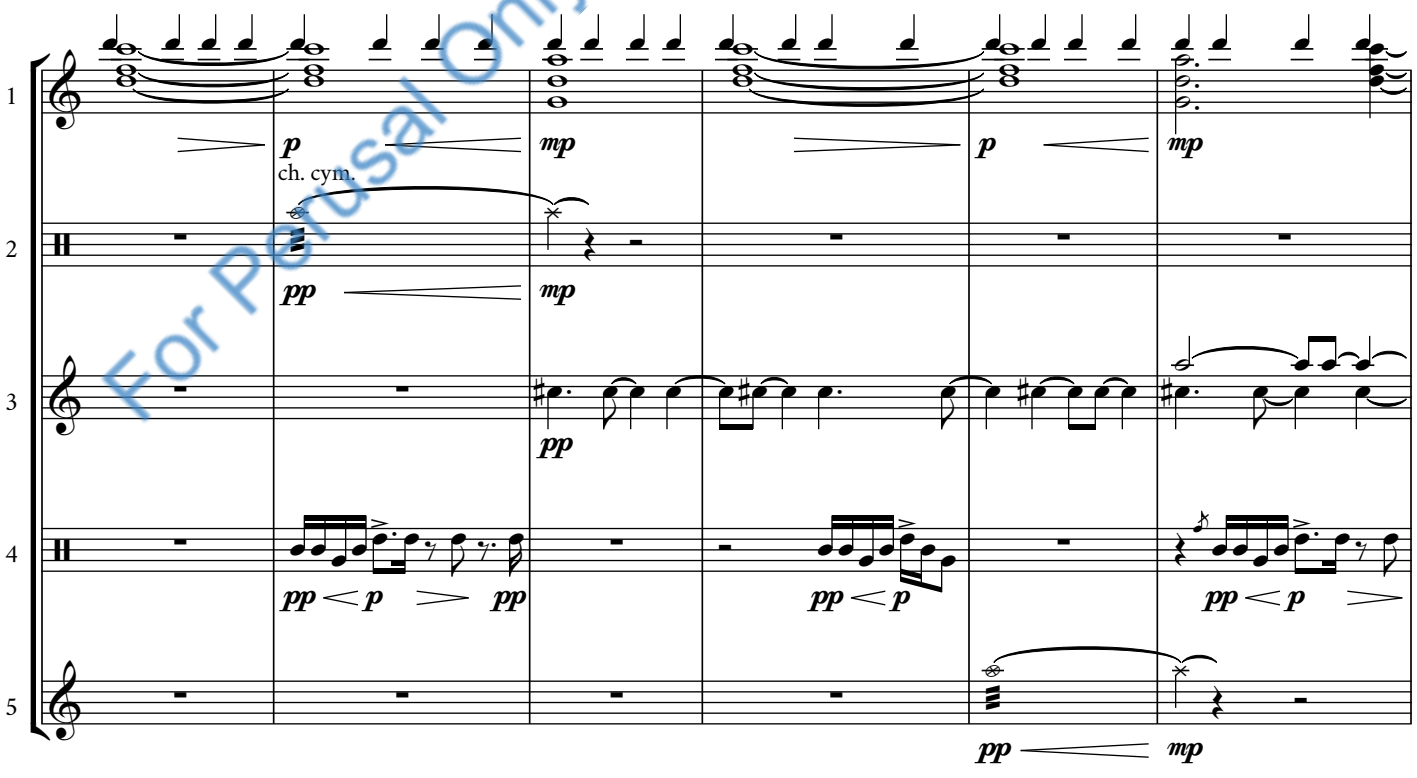

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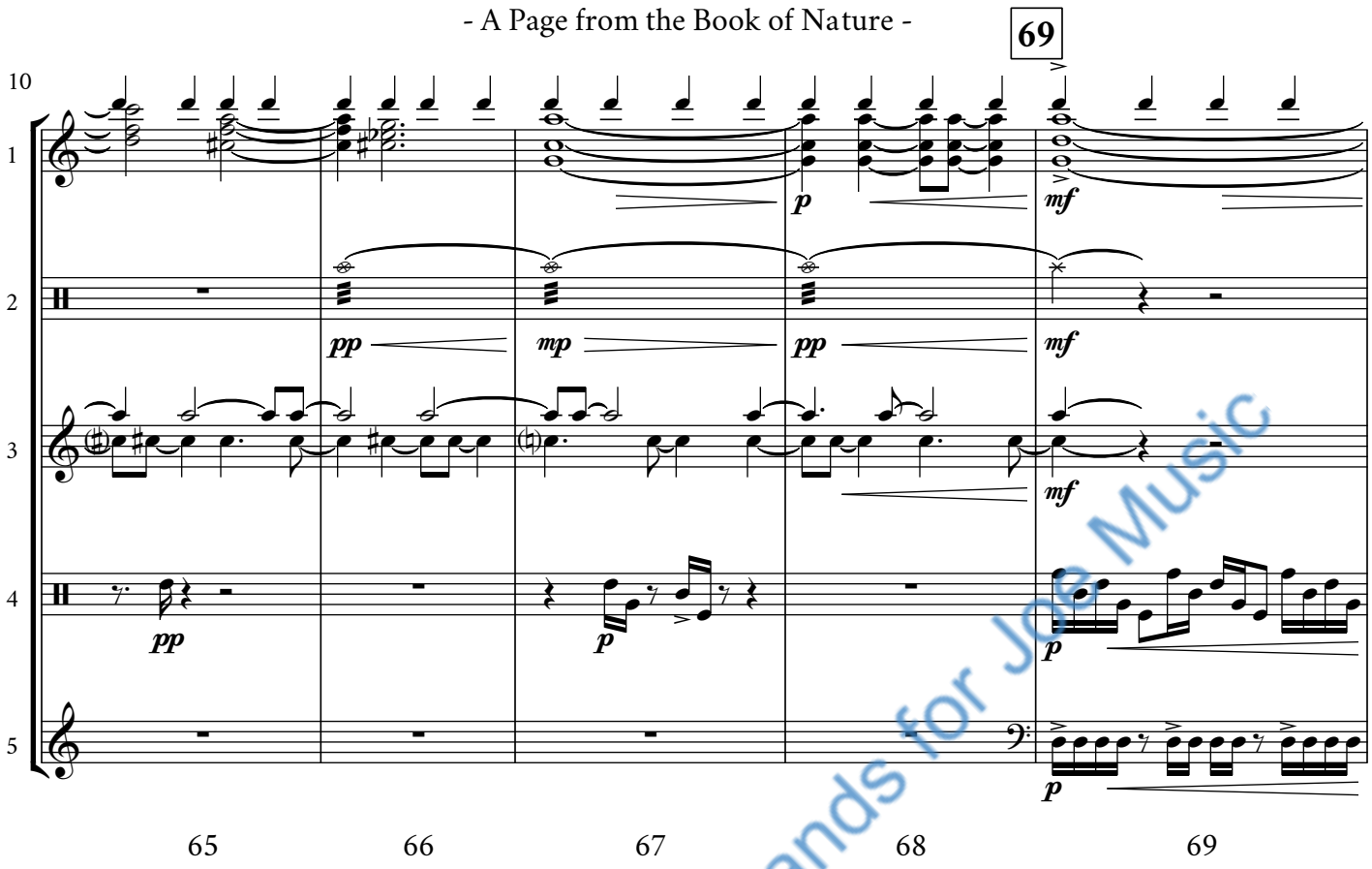

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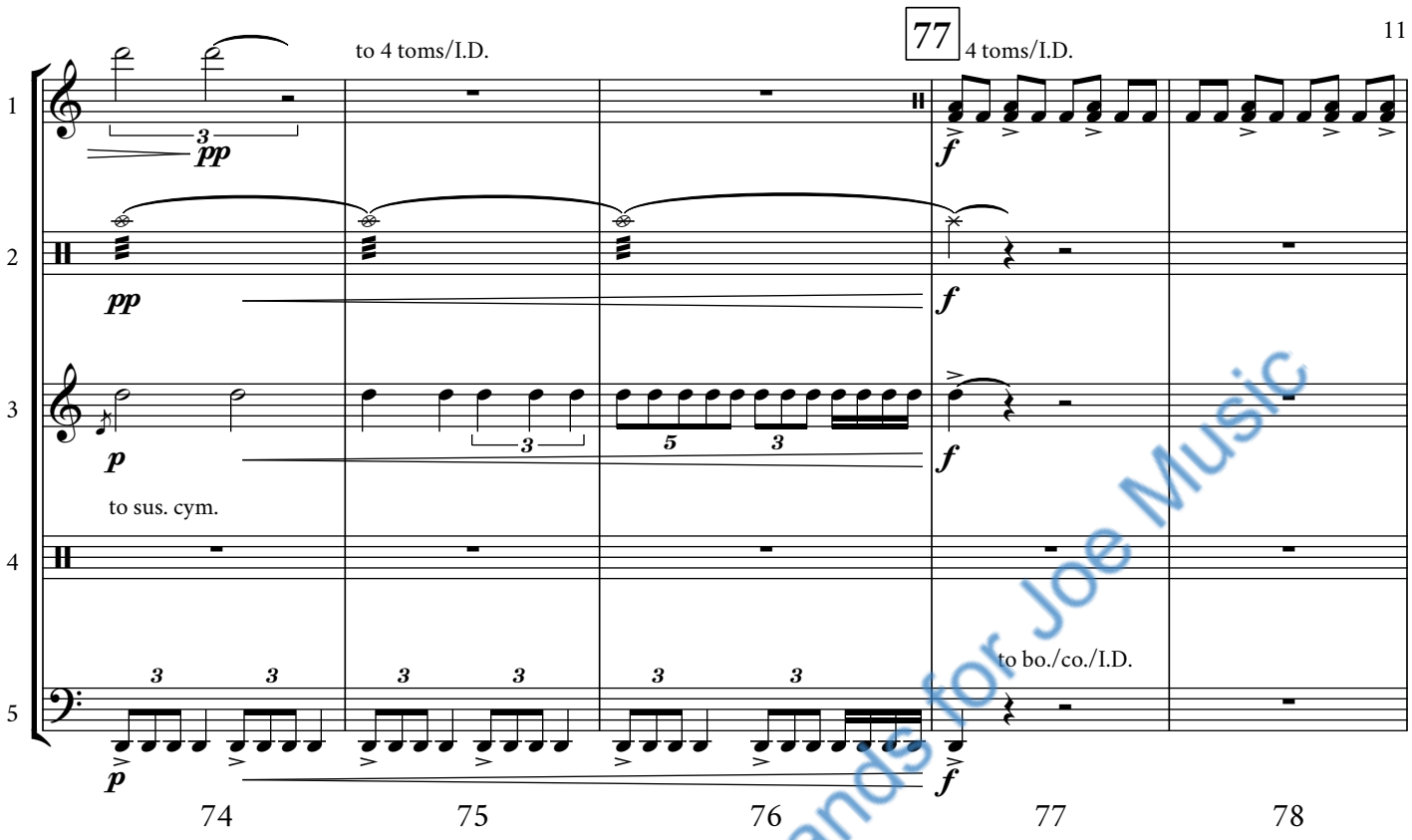

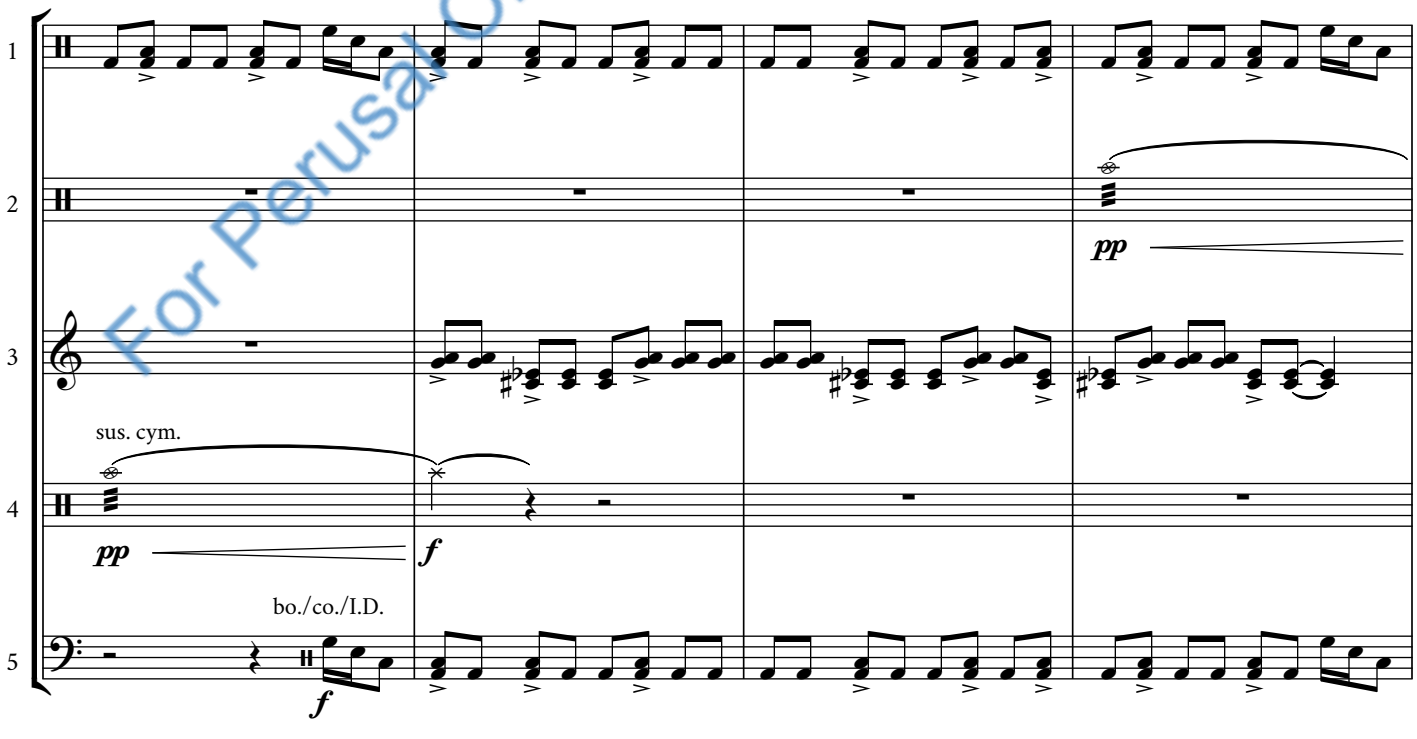

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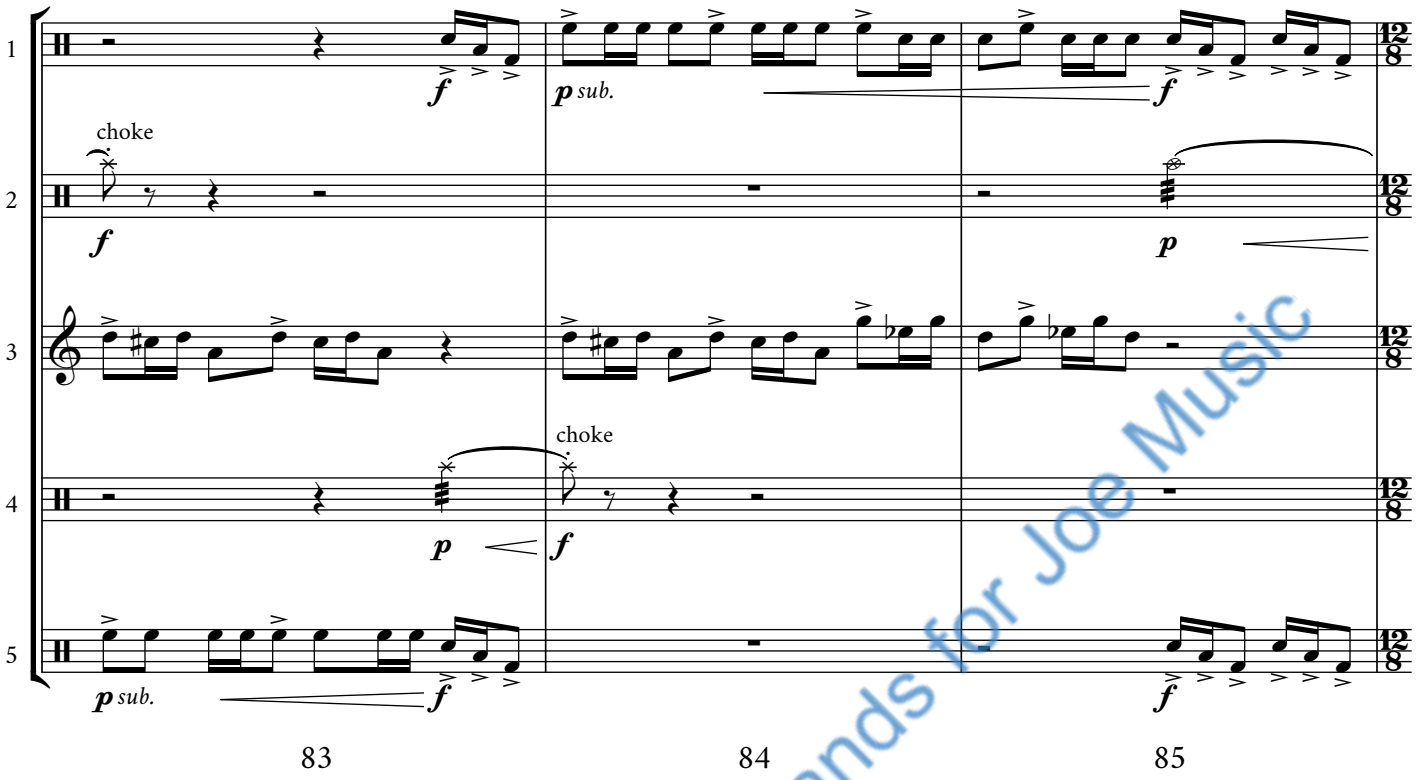

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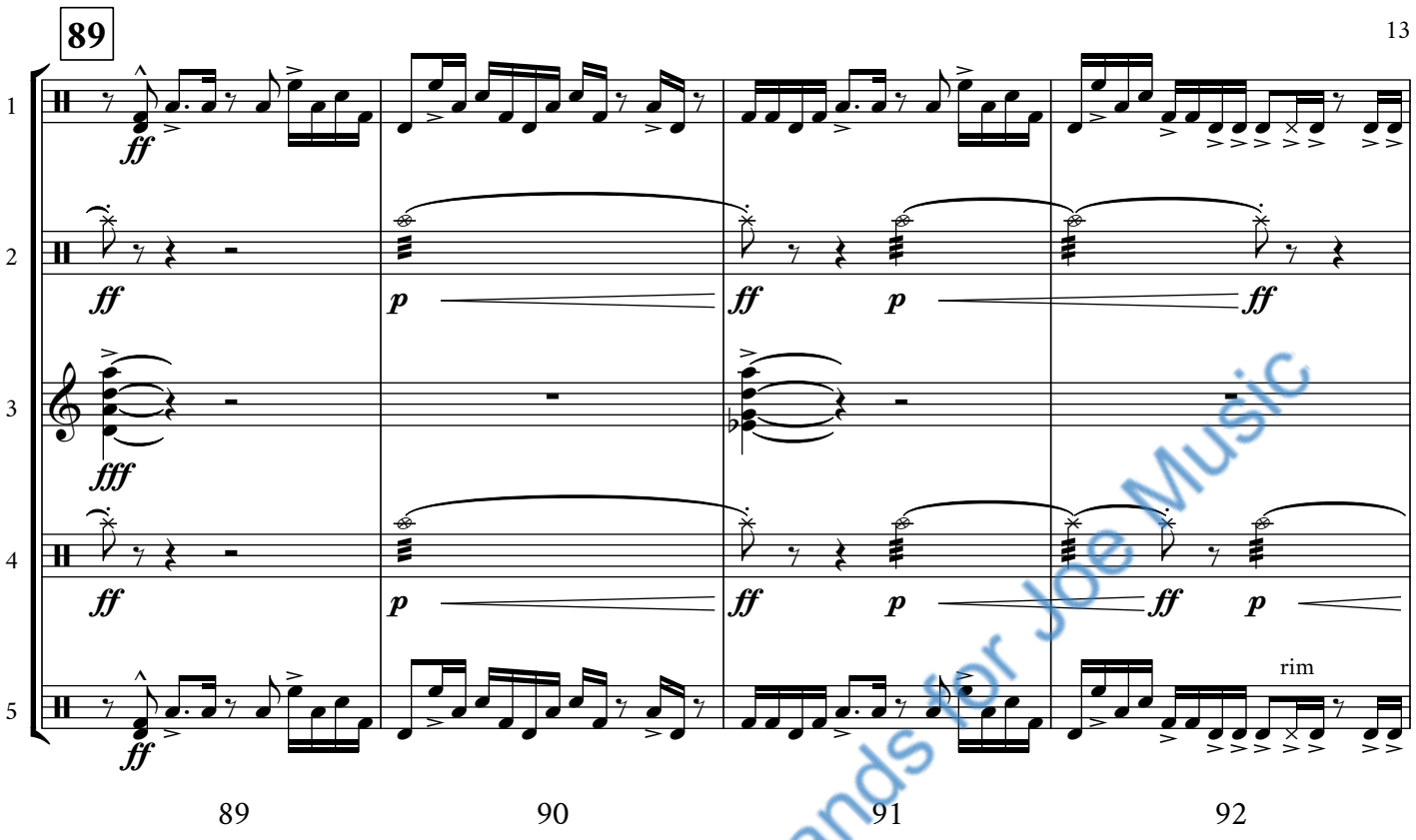

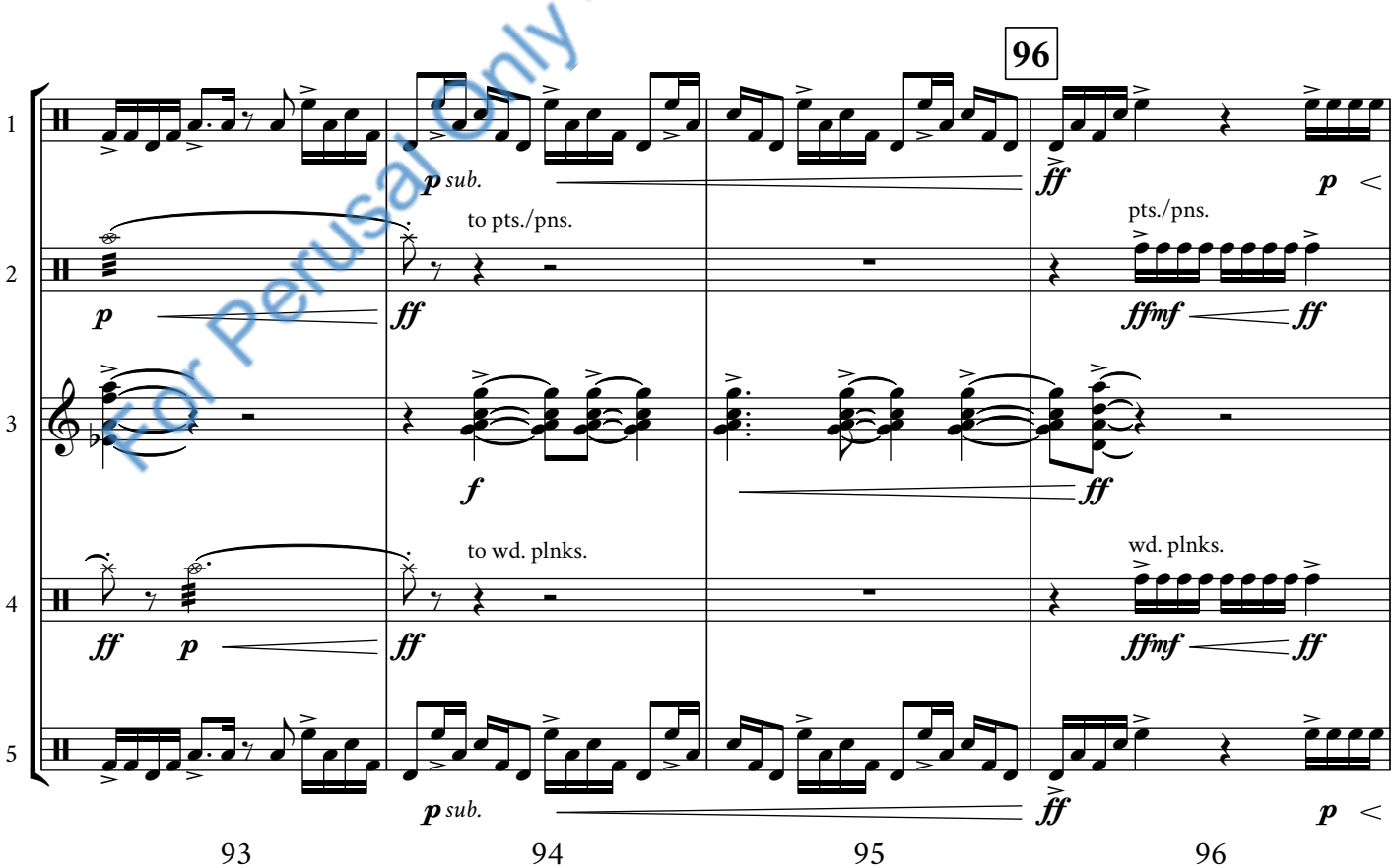

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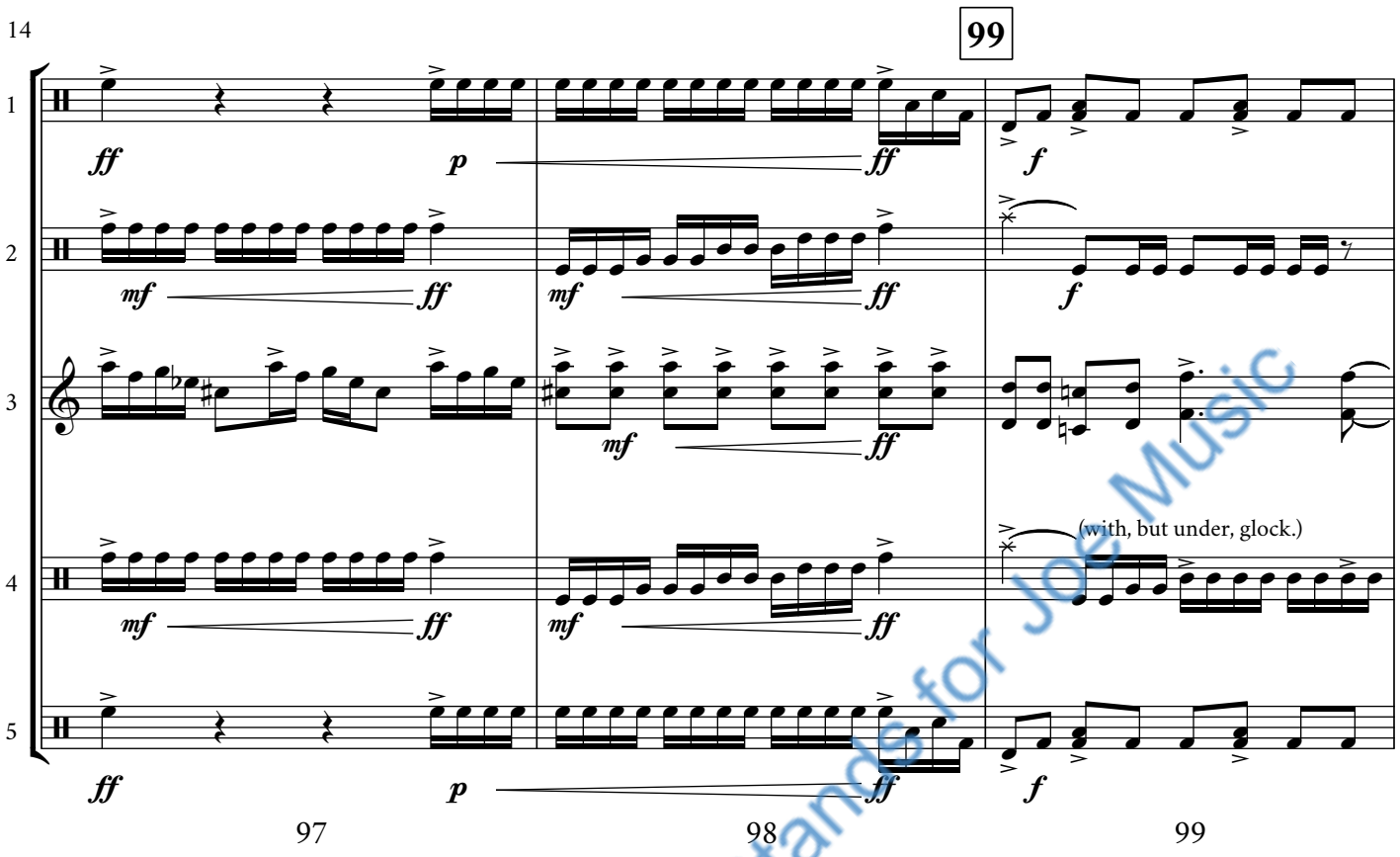

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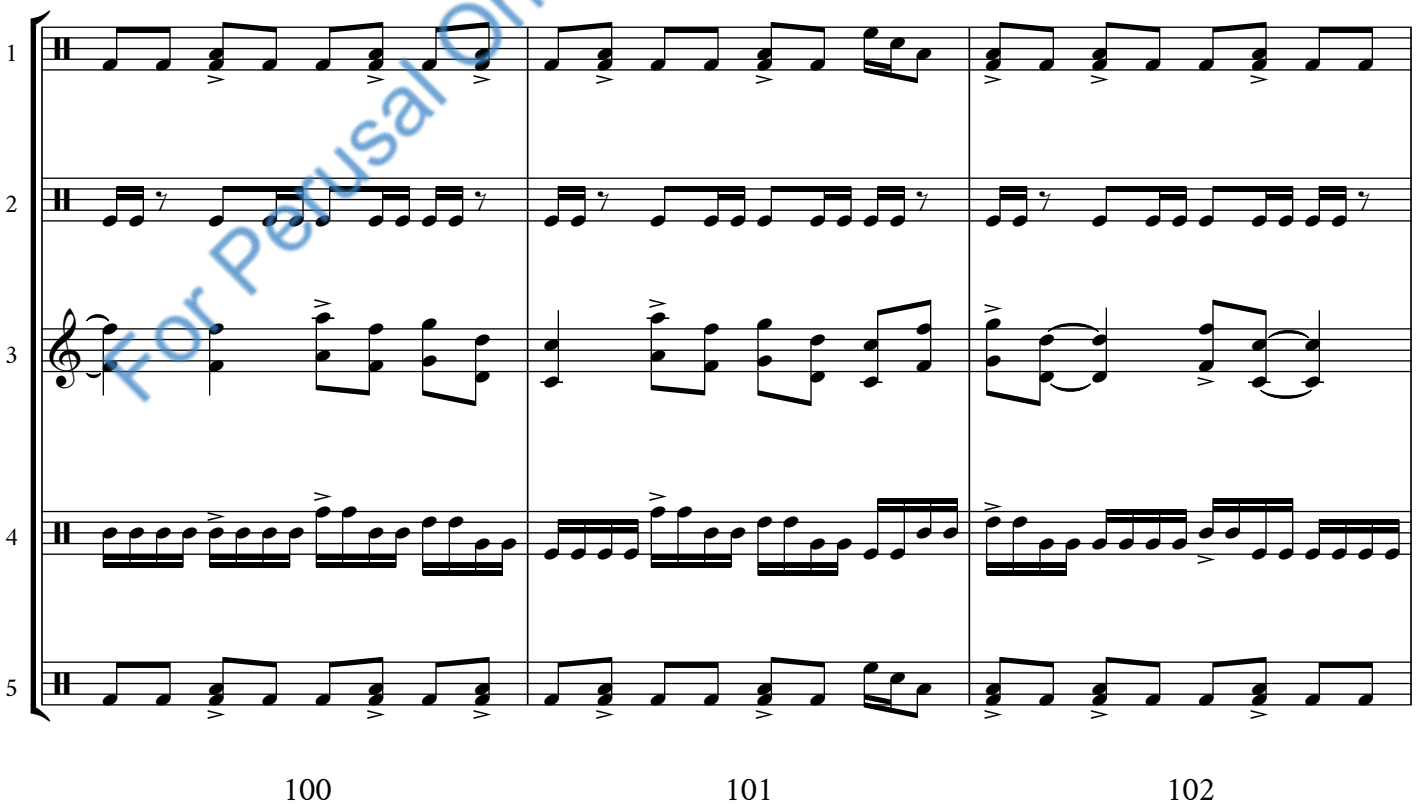

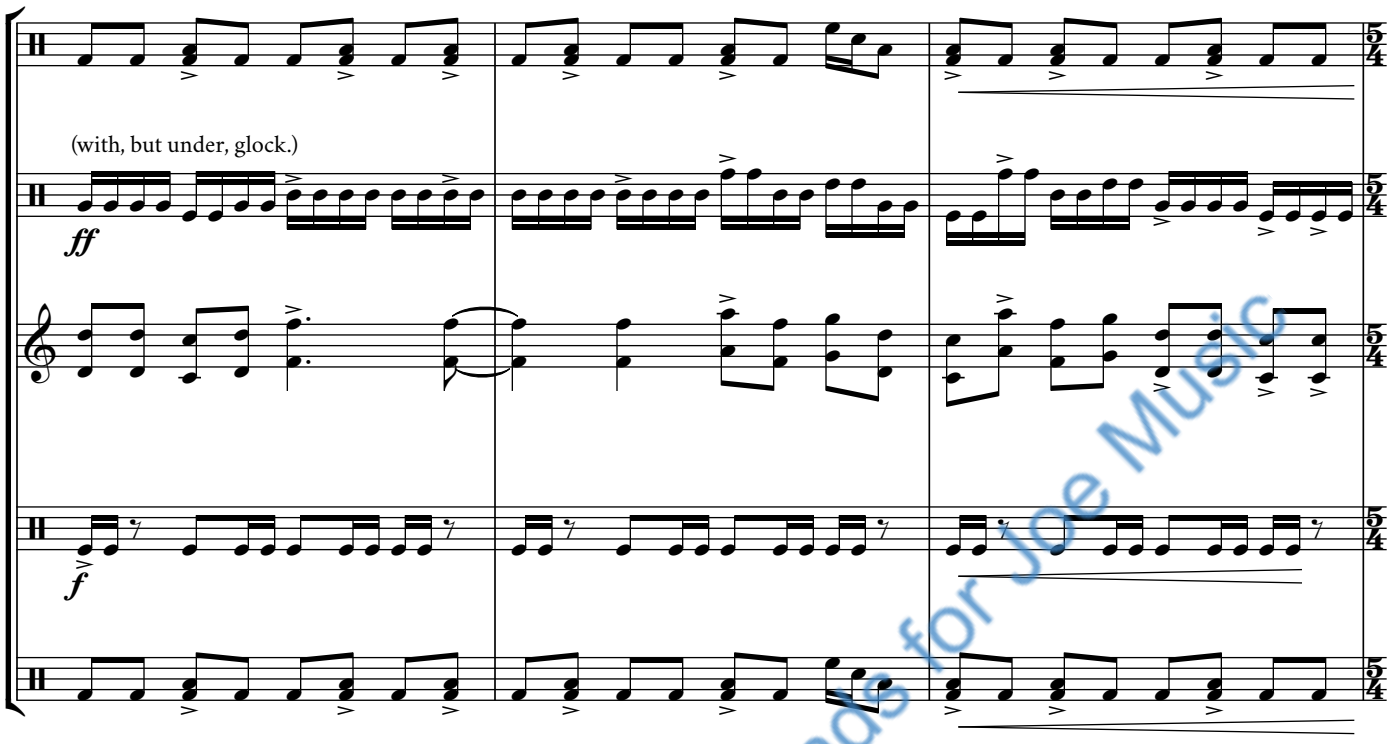

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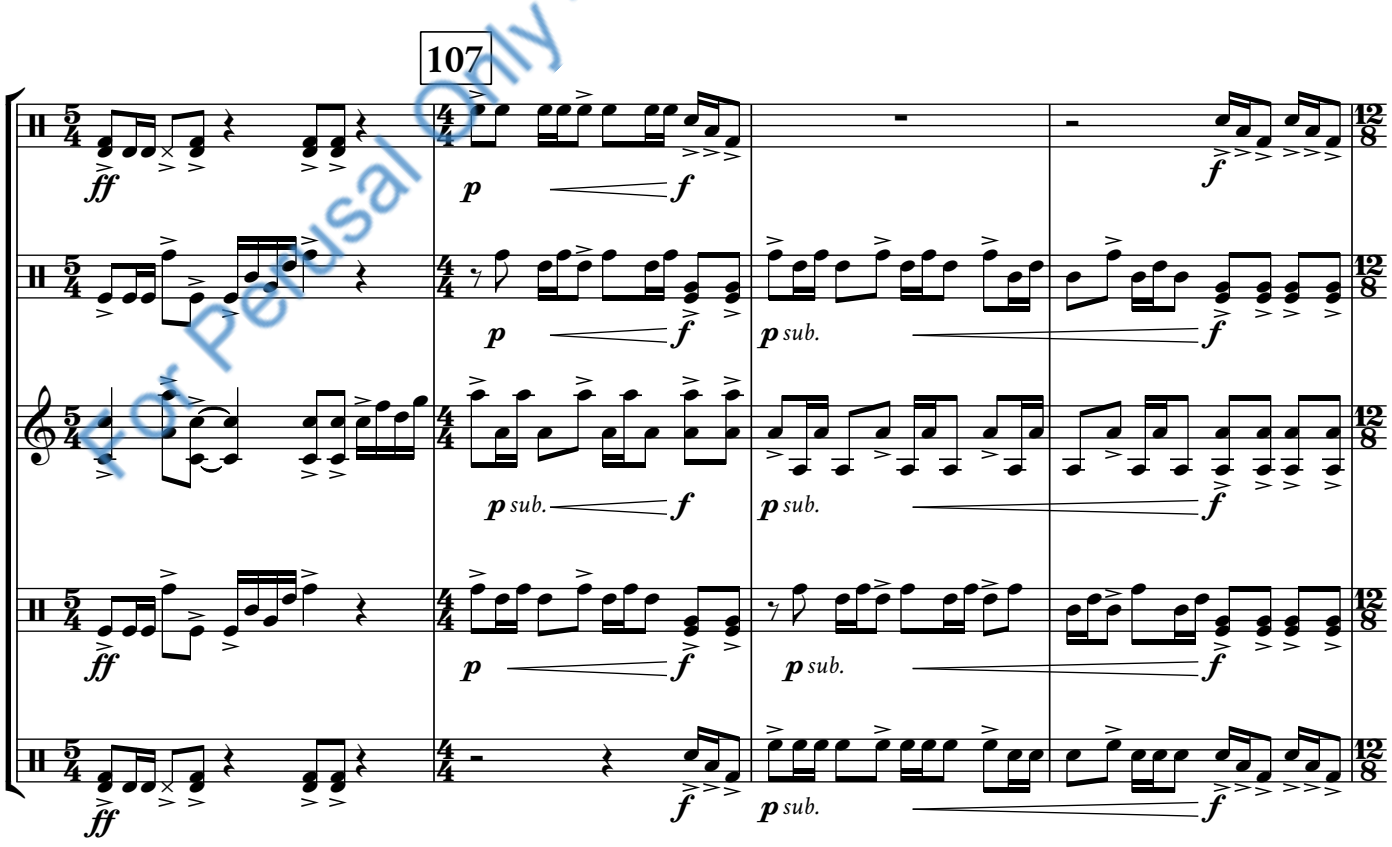

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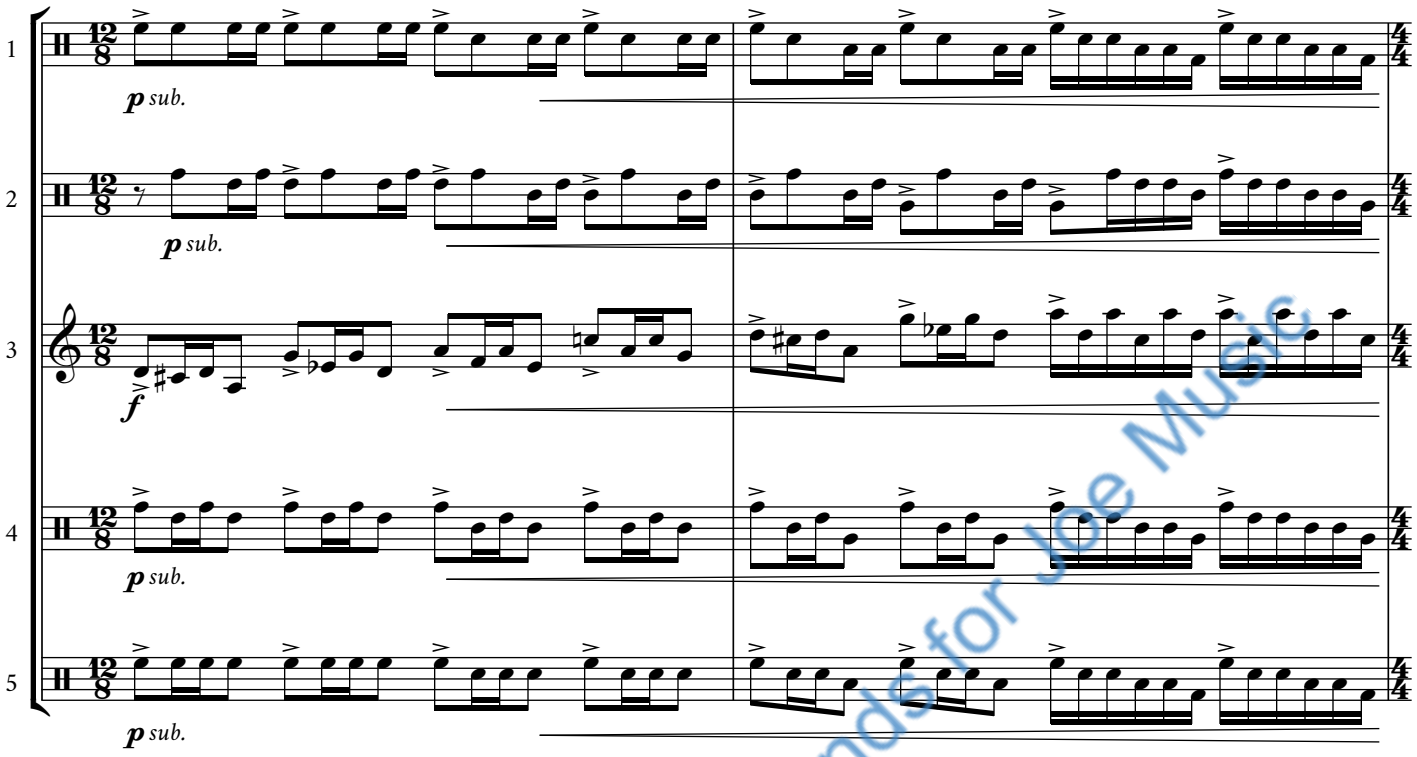

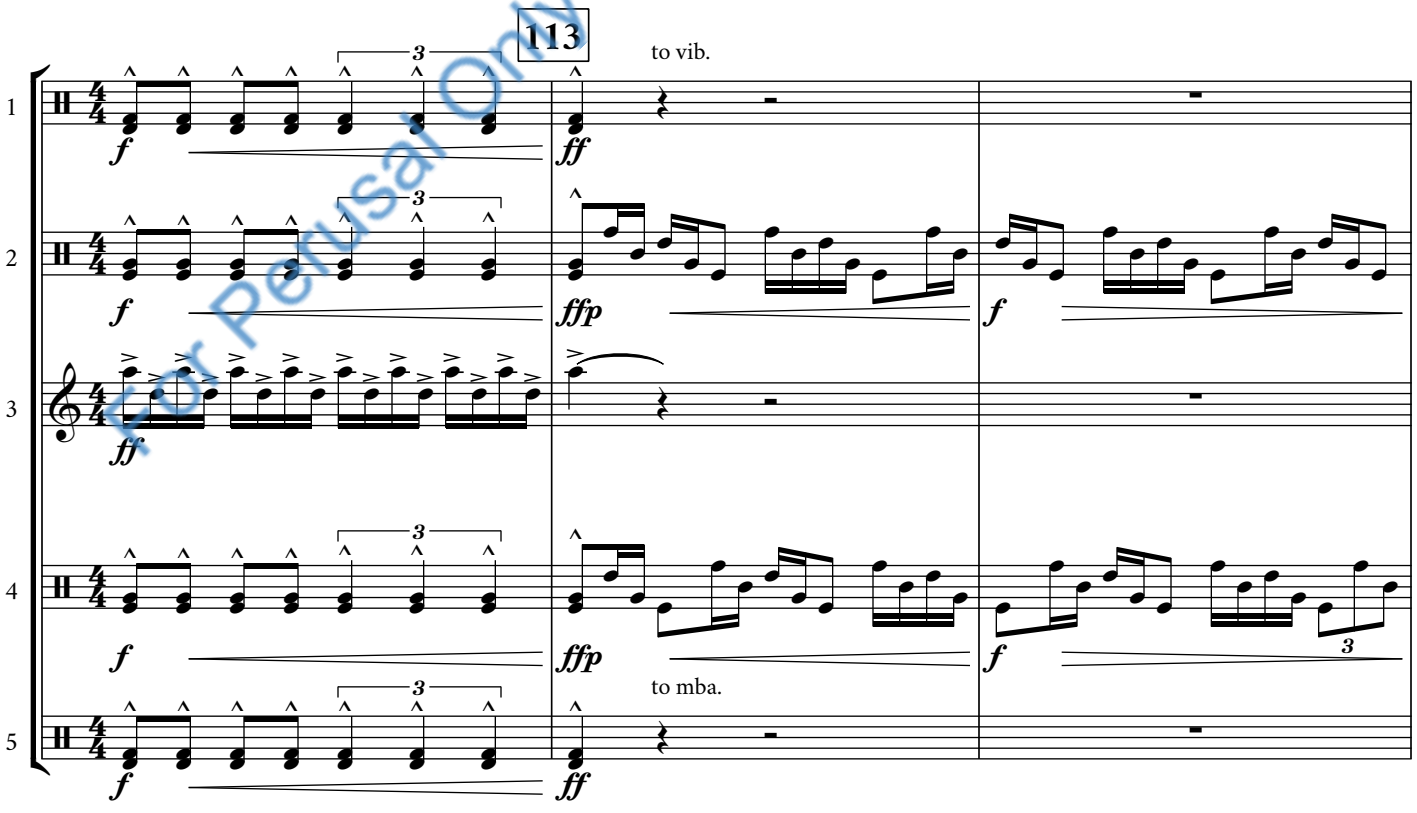

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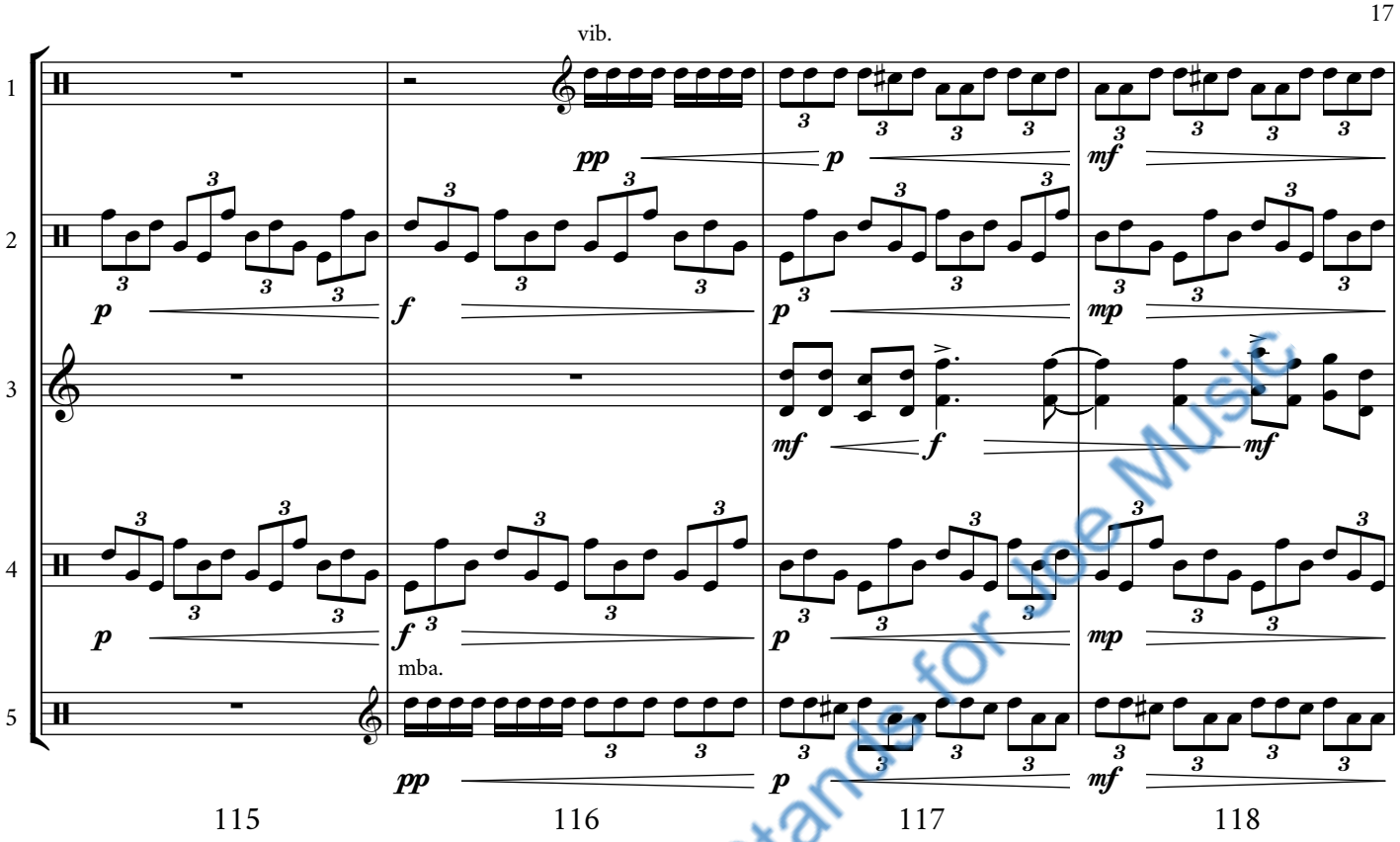

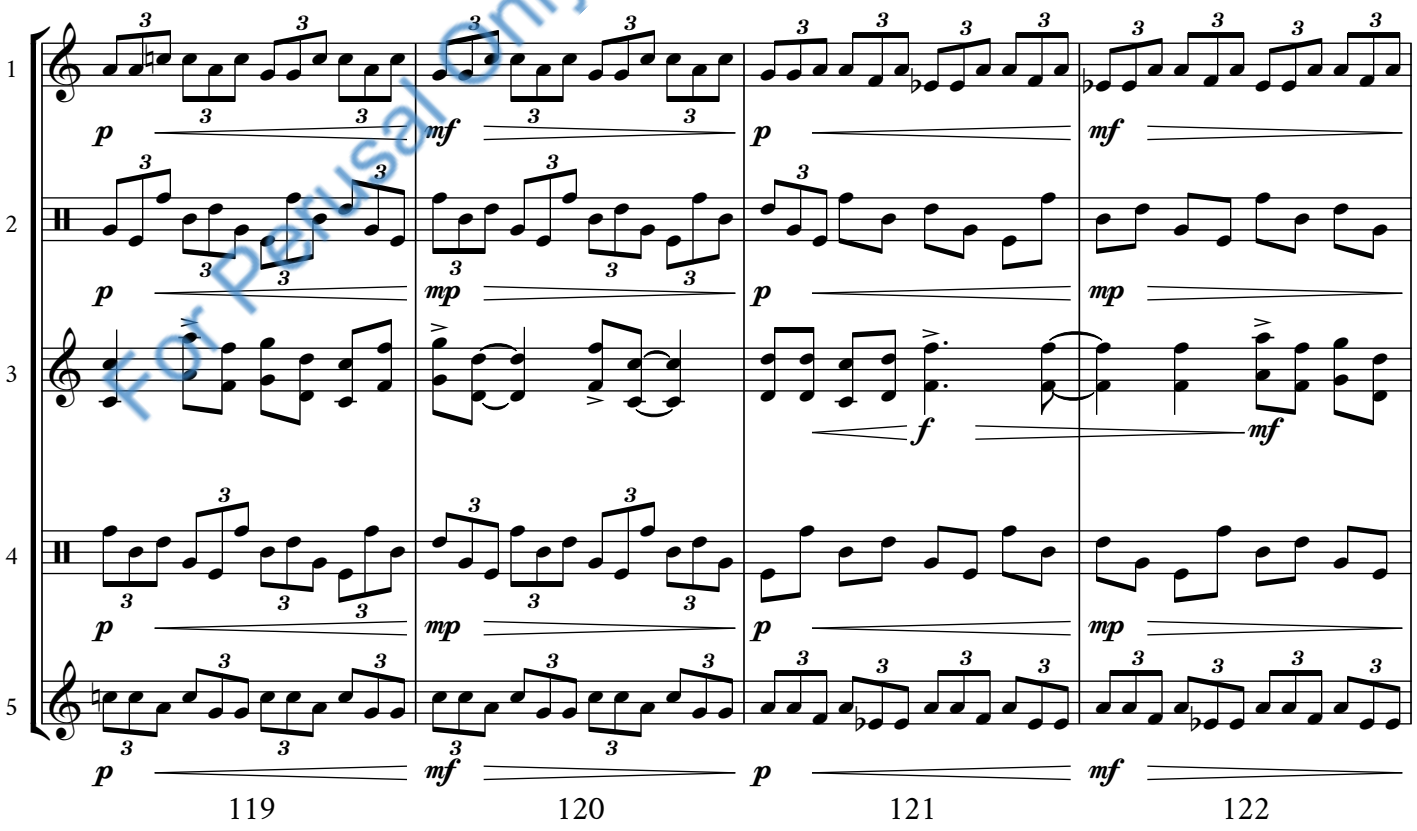

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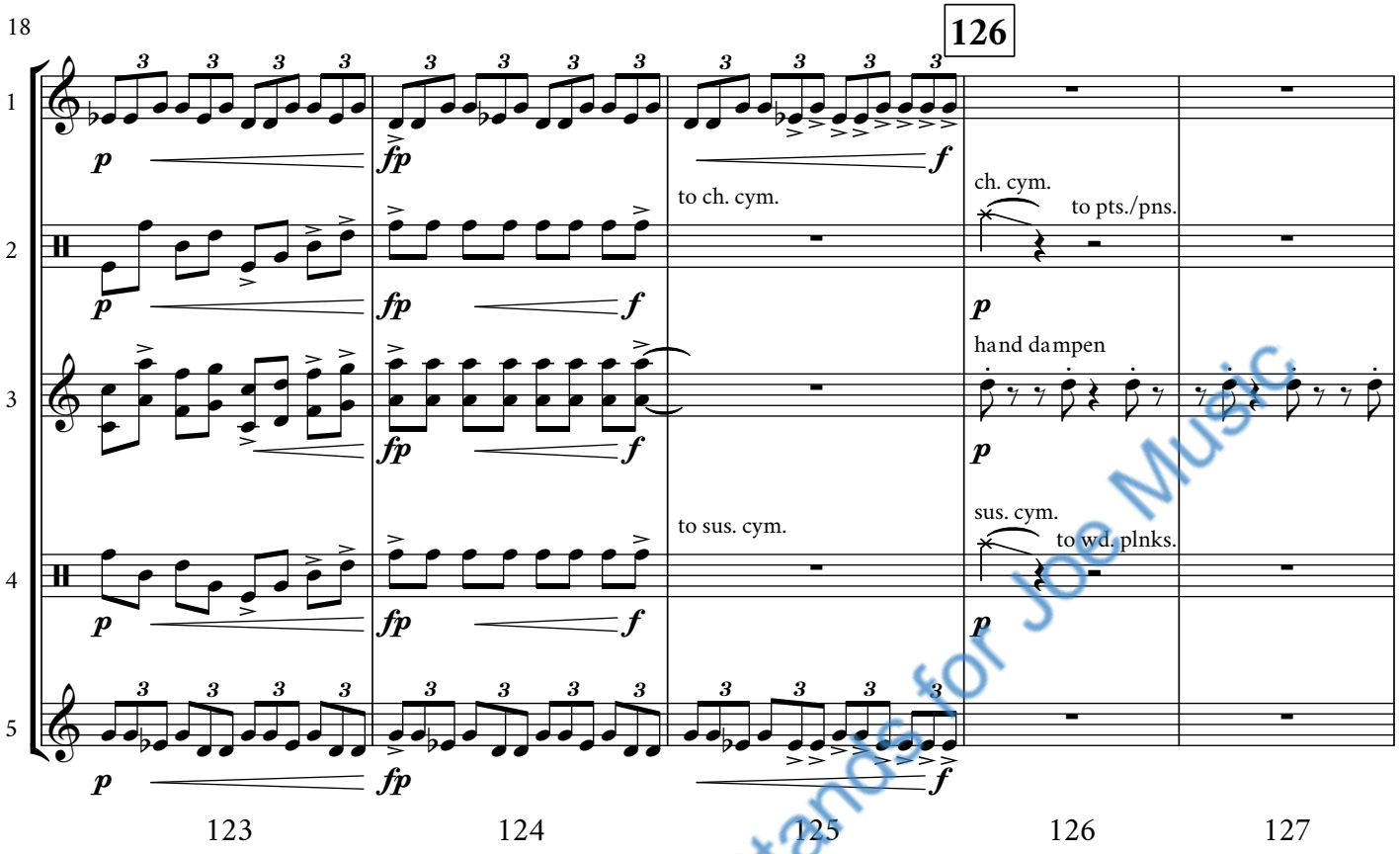

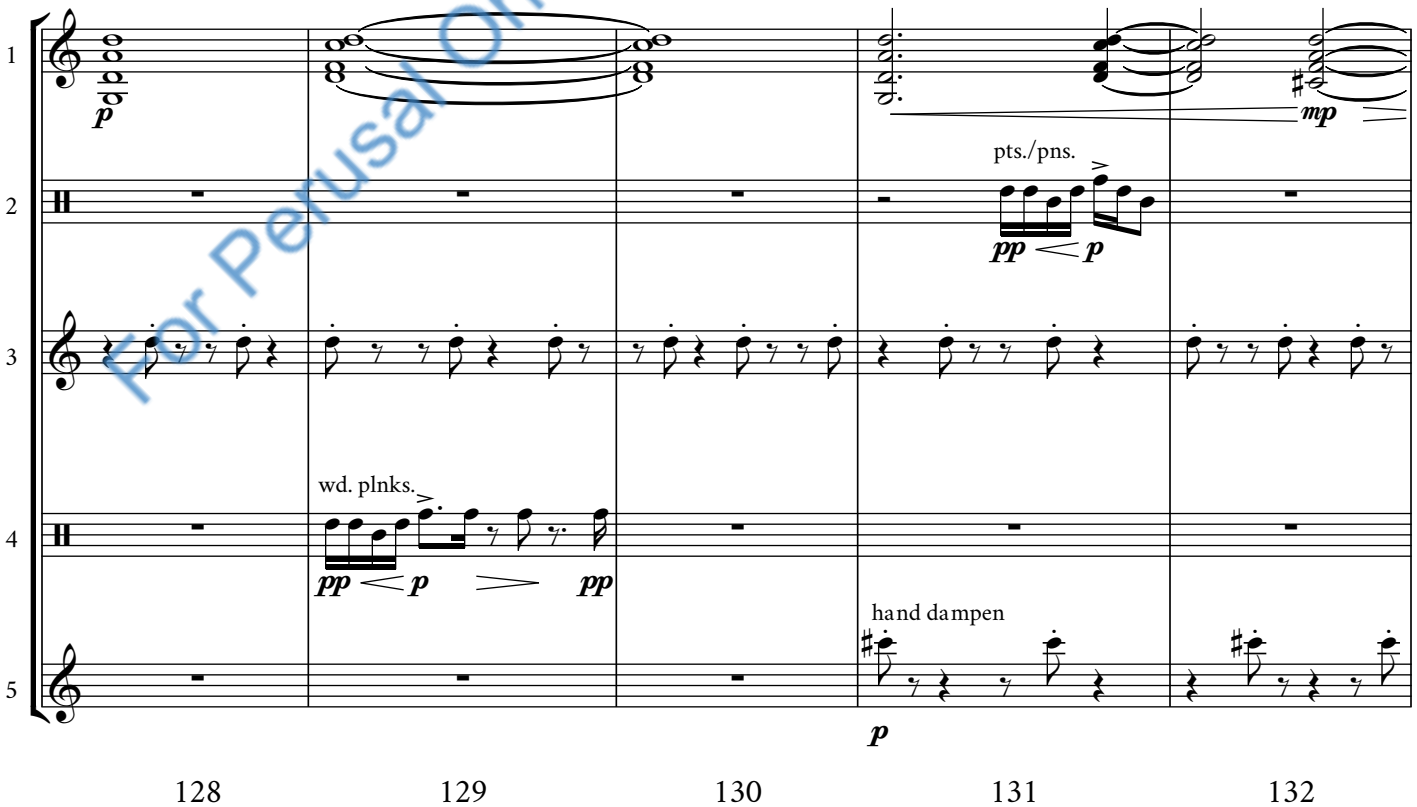

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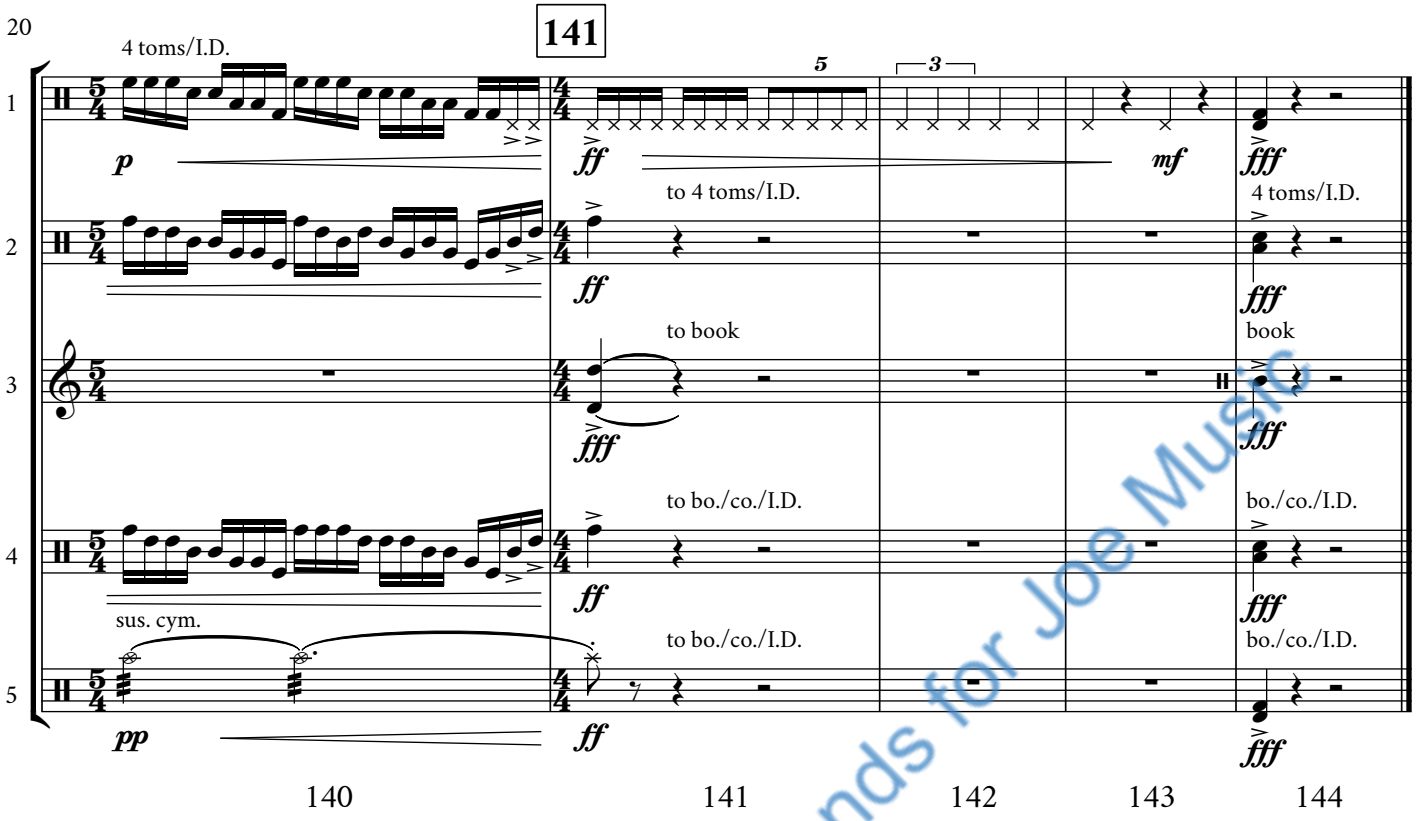

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