

Horn in F

TONUS

William Shannon

Introduction

Tonus explores the harmonic interaction between the horn and a drone. The double horn (low F, Bb), by insertion of the valves, may be made to produce twelve separate tube lengths, each of which having its own set of overtones and harmonic "color", in effect twelve different yet subtle instruments. By comparing the harmonic spectrum of the twelve "horns" with that of a constant drone, these subtle differences should become apparent. In addition, by including the 7th and the 11th harmonic of these tube lengths, a valved quarter-tone scale of more than two octaves can be achieved, allowing the region of micro-tones to be explored.

Tonus is divided into three equal length sections, in each of which the horn begins on consonant tube lengths (pitched in unison, 5th, and 4th to the drone), with consonant harmonic spectrum, evolving through the twelve "horns" to the most dissonant tube lengths (clashing harmonic spectrum), and returning to consonant tube lengths by the end of each section.

The score is presented as a basic pitch/time framework which allows the performer freedom of expression in pitch shape and duration, dynamics, and timbral detail.

Performance Instructions

The player must perform on a double (low F, Bb) horn. The following tube lengths and valve combinations are used (T= thumb valve, 23= 2nd and 3rd valves etc.): Bb (2.8m), T0; A, T2; Ab, T1; G, T12; F#, T23; F (3.75m), 0; E, 2; Eb, 1; D, 12; Db, 23; C, 13. B horn (123) is not used. Fingering instructions must be strictly followed.

Those notes indicated by (X) use either the seventh or the eleventh harmonic of the horn whose fingerings are indicated. They sound approximately 1/4 step higher or lower than the pitch indicated. The direction is indicated by a (+) (1/4 tone higher) or a (♭) (1/4 tone lower). White notes (○) are to be pure (beat free) octaves or fifths to the drone.

The work is to be performed with a drone supplied by either a prepared electronic tape or a fixed-pitch instrument supplying the octave:



as a drone

of enough intensity to cause harmonic interaction with the horn. An organ or keyboard synthesizer giving a horn-like timbre would be most suitable.

One-second timing is indicated by short vertical marks on the staff. Each line is of 10 seconds duration. Elapsed time for each reading is indicated at the left side of the staff.

The performer's part is to be read through three times. On the first time through the player reads the top line (stems up), on the second time the player reads all stemmed notes (both upper and lower), and on the third time through the player reads the lower (stems down) line only. All stemmed pitches are of primary importance and must be performed.

Non-stemmed notes are to be included at the player's discretion in all readings, although the second reading is to have the greatest note density. Chosen non-stemmed notes are to maintain an approximate time relationship with their positions as indicated on the staff. Tied notes are to be performed as grace-notes and must not be played independently of its associated stemmed note.

Relative note lengths, articulations, dynamics, and rest points are also at the player's discretion. The performance must, however, project the harmonic interaction between the horn and the drone. The player should experiment with a variety of harmonic timbres with embouchure, hand, and through mutes. Pitch and timing accuracy should be maintained.

It is recommended that all six pages be mounted so that they are visible to the player at all times.

Playing time is 15 minutes.

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12

0.00
5.00
10.00

T12

12

0.10
5.10
10.10

T2

12

0.20
5.20
10.20

T12

T2 T12

0.30
5.30
10.30

T12

2 13 2

T12 T12

0.40
5.40
10.40

13 2 13

Handwritten musical score for guitar, consisting of five staves. The notation includes treble clef, notes, rests, and fret numbers (0, 2, 13). Above the notes are labels: T2, T0, T23, and TONUS. Time signatures 0.50, 5.50, 10.50, 1.00, 6.00, 11.00, 1.10, 6.10, 11.10, 1.20, 6.20, 11.20, 1.30, 6.30, 11.30 are present on the left. The word 'TONUS' is at the bottom left.

Staff 1: Time signatures 0.50, 5.50, 10.50. Notes: 0, 0, 2, 13, 13, 0. Labels: T2 above the 13th fret note.

Staff 2: Time signatures 1.00, 6.00, 11.00. Notes: 0, 13, 0, 2. Labels: T0 below the 0th fret note, T23 below the 13th fret note, T0 below the 0th fret note.

Staff 3: Time signatures 1.10, 6.10, 11.10. Notes: 13, 2, 0. Labels: T0 below the 0th fret note.

Staff 4: Time signatures 1.20, 6.20, 11.20. Notes: 13, 2, 13. Labels: T23 below the 13th fret note, T23 below the 13th fret note.

Staff 5: Time signatures 1.30, 6.30, 11.30. Notes: 13, 13, 13, 13, 13. Labels: T0 below the 0th fret note, T23 below the 13th fret note, T23 below the 13th fret note, T23 below the 13th fret note.

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System 1: 1.40, 6.40, 11.40. Labels: T23, T0. Fret numbers: 2, 13, 0, 13.

System 2: 1.50, 6.50, 11.50. Labels: T0, T0, T23, T0. Fret numbers: 0, 0, 2, T0.

System 3: 2.00, 7.00, 12.00. Labels: 1, T1, 23, 23, 1. Fret numbers: T23, T1, T1, 23, T0, 23, T0, T1, T1.

System 4: 2.10, 7.10, 12.10. Labels: T0, 23, 1. Fret numbers: T0, T23, 23, T1, 1, T23, T0, T0, 1.

System 5: 2.20, 7.20, 12.20. Labels: T1, 23, T0. Fret numbers: 1, 1, T1, 1, T0, T23, 1, 1.

Handwritten musical notation on five staves, featuring time signatures, notes, rests, and various annotations like T0, T23, T1, and fingerings.

Staff 1: Time signatures 2.30, 7.30, 12.30. Annotations: T0, T23, T23. Fingerings: 23, 23, 1, 1, 23.

Staff 2: Time signatures 2.40, 7.40, 12.40. Annotations: T23, T23. Fingerings: 1, 1, 23, 23, T0.

Staff 3: Time signatures 2.50, 7.50, 12.50. Annotations: T1, T0. Fingerings: 23, 1, 1, 1, 23.

Staff 4: Time signatures 3.00, 8.00, 13.00. Annotations: 2, 0, 2. Fingerings: 1, 0, 13, T0, T23.

Staff 5: Time signatures 3.10, 8.10, 13.10. Annotations: 0, 0. Fingerings: T23.

Handwritten musical notation on six staves, showing time points, notes, and fret numbers. The notation includes treble clefs, notes, and fret numbers (13, 0, 2) written below the staves. Time points are indicated on the left of each staff.

Staff 1: Time points 3.20, 8.20, 13.20. Notes: Treble clef, quarter note G4 (fret 13), quarter note F#4 (fret 13). Labels: T0, T23.

Staff 2: Time points 3.30, 8.30, 13.30. Notes: Treble clef, quarter note G4 (fret 13), quarter note F#4 (fret 13), quarter note G4 (fret 13), quarter note F#4 (fret 13). Labels: T23, T0.

Staff 3: Time points 3.40, 8.40, 13.40. Notes: Treble clef, quarter note G4 (fret 13), quarter note F#4 (fret 13), quarter note G4 (fret 13), quarter note F#4 (fret 13), quarter note G4 (fret 13), quarter note F#4 (fret 13). Labels: T23, T23.

Staff 4: Time points 3.50, 8.50, 13.50. Notes: Treble clef, quarter note G4 (fret 13), quarter note F#4 (fret 13), quarter note G4 (fret 13), quarter note F#4 (fret 13), quarter note G4 (fret 13), quarter note F#4 (fret 13). Labels: T23, T0.

Staff 5: Time points 4.00, 9.00, 14.00. Notes: Treble clef, quarter note G4 (fret 13), quarter note F#4 (fret 13), quarter note G4 (fret 13), quarter note F#4 (fret 13), quarter note G4 (fret 13), quarter note F#4 (fret 13). Labels: T12.

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Musical score for Tonus, measures 4.10 to 4.50. The score is written on five systems of three staves each. The first staff of each system is a treble clef, and the second and third staves are bass clefs. The key signature is one flat (B-flat). The time signature is 4/4. The score includes various musical notations such as notes, rests, and dynamic markings.

Measures 4.10 to 4.14: Treble clef, notes on G4, A4, B4, C5, D5. Bass clef, notes on G3, A3, B3, C4, D4. Dynamic markings: T12, 2, 13, T12.

Measures 4.20 to 4.24: Treble clef, notes on G4, A4, B4, C5, D5. Bass clef, notes on G3, A3, B3, C4, D4. Dynamic markings: 13, 2, T12.

Measures 4.30 to 4.34: Treble clef, notes on G4, A4, B4, C5, D5. Bass clef, notes on G3, A3, B3, C4, D4. Dynamic markings: T2, T12, 12.

Measures 4.40 to 4.44: Treble clef, notes on G4, A4, B4, C5, D5. Bass clef, notes on G3, A3, B3, C4, D4. Dynamic markings: T12, 12.

Measures 4.50 to 4.54: Treble clef, notes on G4, A4, B4, C5, D5. Bass clef, notes on G3, A3, B3, C4, D4. Dynamic markings: T2.

End 15.00