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Title

Mise-en-synthesis

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Publication Date

2020

Mise-en-synthesis [2019]

for viola and tenor saxophone

Amin Sharifi [b. 1993]

Performance note:

Rhythm

- The piece is based on the idea of having five tempos at the same time. In this case, the tempos have a strict ratio of 4:5:5.5:6.5:7. There is no meter or sense of pulsation. The rhythm changes between these tempos, and thus the time signature indicates only the sum of durational values within a bar, not the order of those values. Each bar has a fixed duration, but bars and downbeats should not receive any special emphasis. It should be noted, the note's proportions "on paper" are not correct, i.e., an 8th note has the same "on paper" length no matter which tempo line it belongs to, thus it is only in the actualization of the score that the tempos wrap the rhythms. In other words, the 16th note on the second line is a quintuplet 16th if played in tempo 34, and it would be an eleven-tuplet 16th on the third line if played with the first line's tempo of quarter note equals 34. While there may visually seem some alignments, there is no alignment of instruments withing bars. The only time instruments align are the pinked-background bars. But the downbeat of each bar is aligned for both instruments.
- The piece comes with two click tracks, on the first, each attack is given a click and each downbeat is given a chime, and on the second, only downbeats are given for the performance purpose.
- There is no half note duration used in the piece, so rhythms without flags are all quarter notes.
- Slured rhythms are meant to be performed tied. Otherwise should be détaché all the time unless not practically possible (at discretion of the performer). Every single rhythm shows an up/down bow in viola, and tonguing in saxophone.

Graphic notation

- The graphic notation aligns durationally, and proportionally to the rhythm staff. As the rhythm, it receives thus a wrap by the tempos. Keeping with its more intuitive nature, the graphic notation only occasionally aligns with notes on the rhythm staff. In other words, music aligns on each bar line, but not inside the bars, due to the irregular distribution of the tempoes within bars, except for the pinked-background sections.

Alignments:

- The alignment of elements in this piece expands the conventional meanings of notes and symbols in music. The score represents the effort to be made and physical gestures rather than the final sound. For example, in some passages, a musician maybe asked to play scratch noise, harmonic L.H. pressure, and highest L.H. register simultaneously which results in a unique sound event, but might not sound like the conventional scratch noise. Or there are places where L.H. moves to different pitches but there is not enough R.H. moves, and the R.H. events don't cover all from the L.H., therefore we hear the scratching noise of the L.H. on the strings plus some of them aligned to a bowed, pizz. etc. note.
- Note that the score has exaggerated ends, for example, the highest L.H. position is beyond the fingerboard and near the bowing area.
- All elements are written to be played to the extent as possible as performers are able to do, but where there is practical or physical conflict, the priority is with the R.H. in viola and mouth in saxophone.

Musical elements for viola:

- This piece has been written based on the Morphology Theory of Music, where the aim is to decompose all elements and dimensions of music and give them individual indications.
- There are seven main elements throughout the piece and some other elements added or omitted occasionally.
 - 1- Rhythm: Includes five lines, each assigned to a different tempo.
 - 2- Strings: Shows which strings (IHIII-IV) should be played on. Upper line is the first string, and the lowest line is the 4th string. This line's indications are in brown.
 - 3- Horizontal bow position: It has 7 different levels: Behind the bridge, on the bridge, molto sul ponticello, sul pontocello, ordinary, sul tasto, molto sul tasto (on the finger board near the nuts if possible or near the L.H.) This line's indications are in light blue.
 - 4- Bow pressure: Visualizing the pressure of bow, the darker is the more pressed and the more transparent is the lighter R.H. pressure. Bow pressure is shown with B/W gradient.
 - 5- Left hand position: Ranges from the open strings (lowest position) to the near the bowing area (highest, beyond the fingerboard). Wavy green line means a normal vibrato while the solid green line means no vibrato.
 - 6- Left hand pressure: Harmonic, muted (dampened), or normal. Left hand pressure is indicated by lines in dark purple.
 - 7- Tuning pegs should be turnable smoothly during the piece in either directions.

Scordatura

- String I and II should be tuned a quarter tone lower than usual.
- Strings III and IV should be tuned one octave and a quarter tone lower.

Articulation

- Articulations are either indicated or left to the performers to choose. The same is true for the hidden elements (i.e. bow position is not given at some points). Rhythms tied to each other should be played with the same bow and slurred, otherwise should be played détaché or left to the performer to choose, if there are practical conflicts.

Bow Pressure:

- Bow pressure ranges from the most pressed scratch tones to the lightest possible bow and is shown by B&W gradients. The opacity and density of the boxes have direct correlation with the bow dynamics. E.g., very transparent white color means very light and soft bow, and the solid black box means the highest pressure causing scratch noise. Accordingly, the Grey color is closer to the normal pressure.
- Note that the bow pressure is directly related to the dynamics. Therefore the correlation of the bowing speed and the pressure is at the performer's discretion. E.g. solid black means very loud scratch noise which may need a faster bow speed.

Symbols:

↓ Crossed note head: pizzicato, always with snap pizz. symbol above. for longer notes: snap pizzicato, and for shorter notes: harsh and snap-like pizzicato

🎻 Play with the wooden part of the bow

🎻 Play with half hair and half wood

🎻 Play with hair



the purple markings (wood, hair, half wood/half hair) stay true until the next marking

⌘ Strike the strings with the wooden part of the bow, only true for the single note below

.... Jete, according to the duration of the note

∞ String Mordent: very fast move of the bow to an adjacent string (quickly touch a string up or down)

+ Left hand pizzicato

♯ for longer notes: snap pizzicato for shorter notes: harsh and snap-like pizzicato. Always with crossed note head

Musical elements for tenor saxophone:

- There are four main elements throughout the piece and some other elements added or omitted occasionally.
 - 1- Rhythm: Includes five lines, each assigned to a different tempo.
 - 2- Mouth and air pressure: colors are explained below. The height shows the amount of air in/exhaled.
 - 3- Fingering.
 - 4- Transposed pitch.

Colors:

- White: Air sound, no pitch, could be soft or loud.
- Grey: Air sound and a little pitch.
- Black: Still very airy but more pitch. Grey and Black are all air sound like white, however a little bit pitch is added.
- Green: Teeth on reed, as high and possible.
- Blue: Sing and play. The singed material is shown on the Transposed Pitch staff.
- Orange: Smack sound, kissing the instrument.
- Yellow: Inhale through the instrument, could be soft or loud. white noise!
- Red: Throat flutter, singing khkhkh....
- Pink background: Rhythmic unison in both parts.

Symbols and abbreviations:

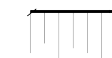
- throat: Throat flutter.
- in.: Inhale
- in [e → u] : Inhale while changing the mouth shape from vowel e to u.
- in [u → e] : Inhale while changing the mouth shape from vowel u to e.
- in. ttt: Inhale while trying to say consonant t continuously.
- flz.: Flutter tongue.
- slap: Slap tongue.
- spit: Very short and quick "t" with more air.
- smack: Noisy kissing/smacking sound (inhale).
- t.r.: Tongue ram.
- Trr flz.: Flutter tongue with a strong initial "T" accent.
- ex: Normal exhale.
- ptk: Air based attacks using saying p, t, or k.
- tk: Air based attacks, double tonguing. Change to "tuku" if the rhythm is longer.
- Air based syllabi:
 - tsk
 - sh
 - s
 - s
 - ks

Voice (for both performers):

Very quick staccato which falls on the following notated rhythm. could sing any vowel.

 Staccato as high and possible.

 Staccato as low as possible (into the instrument).



Random, continuous, and fast fingerings or pitches.



Sing as high as possible (through the instrument).



Sing as low as possible (through the instrument).

Arrows up and down show the immediate raise or fall of the voice.

Multiphonic and microtone fingerings for tenor saxophone:

⑭ T/C-4

C Ce CE Ba
<p> PP PP P<f>

⑧① T/B+c3

C D/B
PP mp<ff>

⑧ T/C-5

Ce Ce Da
PP PP mf<f>

⑳ T/8 G#

Ce
PP

⑳⑦ T/B-2

Eb Ce
PP <p>

⑪ T/B-57

Cb Ce Ba Da
PP <p> <f> mp<ff>

⑫ T/BbEb-5

Ba
<mp>

⑰ T/D-4

Ce Ba Da
PP mp<ff> mp<mf>

⑳③ T/D-25+Bb

Cb Ba Da
<mp> <f> mf<ff>

⑳⑥ T/Eb-3

E C D/B
<p> <mp> <ff>

④⑨ T/F#-1+Tf.c#

Da
p<mf>

③ T/Eb+Bb

(8) Ce Ba
PP <ff>

② T/BbEb

(8) Ce D/B
PP mp<ff>

⑥ T/BEb-6

Cb Ce Ba Da
PP PP <f> P<ff>

⑰ T/D-4

Ce Ba Da
PP mp<ff> mp<mf>

	T 123 23	●●●○●●	Good intonation.
	T 123 12F#-	●●●●●○	Good intonation. Slightly sharper than T 123 23.
	123 1-3Eb	●●●●○●	Good intonation.
	123 1-3	●●●●○●	Slightly lower pitch.

	123 ^B -2F#-C	●●●○●○●●	Good intonation.
	123 -2F#-	●●●○●○	Good intonation.
	12 -C	●●○●○○	Poor intonation.

Fingering source:
www.baerenreiter.com
by Marcus Weiss and Giorgio Netti

Mise-en-synthesis

for viola and tenor saxophone

M. Amin Sharifi

5 + 6 + 4 + 3 + 2
16 20 22 26 28
(1:25+1:5+1:1+1:25+1:5)
4 5 5.5 6.5 7

3 + 4 + 5 + 6 + 2
16 20 22 26 28

1 + 2 + 5 + 3 + 4
16 20 22 26 28

2 + 4 + 3 + 5 + 6
16 20 22 26 28

ex. in. [e → u] ptk ex. in. ttt throat tsk flz. as high as poss. 2' silence, dont move! 2 beats in the C/1 spit ex. sh smack Trr flz. sh in. [e → u] flz. in. [u → e] slap ex. 2' silence 2 beats

Tenor Saxophone
Mouth & air pressure
Fingering
Transposed Pitch

Viola
StringS
R.H./bOw Pressure
L.H. position
L.H. pressure

A **6 + 3 + 2 + 1 + 4**
16 20 22 26 28

7 **4 + 1 + 3 + 5 + 6**
16 20 22 26 28

2 + 4 + 1 + 5 + 3
16 20 22 26 28

1 + 2 + 3 + 4 + 5
16 20 22 26 28

ex. spit in. tktk in. ttt throat in. slap Trr flz. ex. in. ttt flz. tsk slap ex. flz. smack tktk sh throat ex. Trr flz. sh random trills

vocal bisbigliando e/a/u/i/o

Tenor Saxophone
Mouth & air pressure
Fingering
Transposed Pitch

Viola
StringS
R.H./bOw Pressure
L.H. position
L.H. pressure

2 + 6 + 3 + 5 + 4
16 20 22 26 28

5 + 4 + 1 + 3 + 6
16 20 22 26 28

1 + 5 + 3 + 4 + 2
16 20 22 26 28

4 + 3 + 6 + 2 + 5
16 20 22 26 28

11

Mouth & air pressure: t.r., in. [u → e], flz., ptk, in. ttt, tsk, sh, tktk, ex., spit, in., throat, spit, in., throat, smack, tktk, throat, in. ttt, spit, ptk, sh, spit, Trr flz.

Fingering: Includes a section labeled "fast random trills" between measures 20 and 22.

StringS: Includes a note "behind the bridge on the bridge" with a diagram of a string.

R.H./bOw pressure, L.H. position, L.H. pressure: Various colored waveforms and lines representing physical performance data.

≡

6 + 1 + 4 + 2 + 3
16 20 22 26 28

1 + 5 + 6 + 3 + 4
16 20 22 26 28

6 + 5 + 3 + 4 + 2
16 20 22 26 28

5 + 4 + 3 + 6 + 1
16 20 22 26 28

15

Mouth & air pressure: t.r., ex., Trr flz., smack, sh, tsk, in. ttt, slap, ex., in. [u → e], throat, sh, ptk, in. ttt, ex., throat, spit, smack, flz., in. [u → e], ex.

Fingering: Includes a section labeled "fast random trills" between measures 20 and 22.

StringS: Includes a note "behind the bridge on the bridge" with a diagram of a string.

R.H./bOw pressure, L.H. position, L.H. pressure: Various colored waveforms and lines representing physical performance data.

B

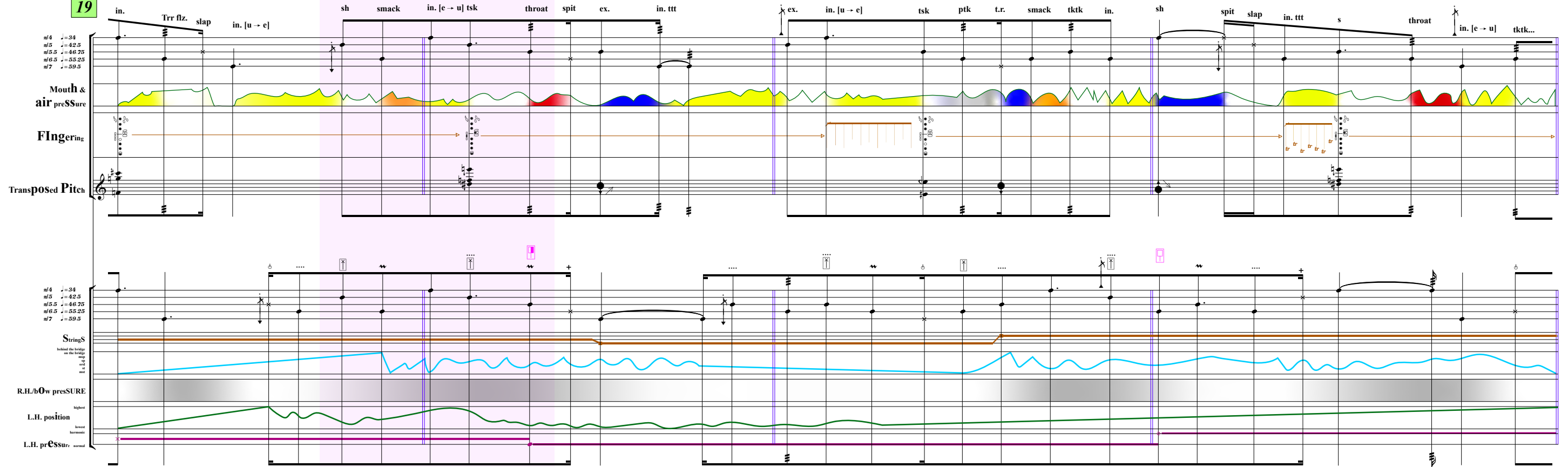
3 + 2 + 1 + 4 + 6
16 20 22 26 28

2 + 3 + 4 + 1 + 5
16 20 22 26 28

3 + 2 + 4 + 6 + 1
16 20 22 26 28

5 + 1 + 3 + 6 + 4
16 20 22 26 28

19



≡

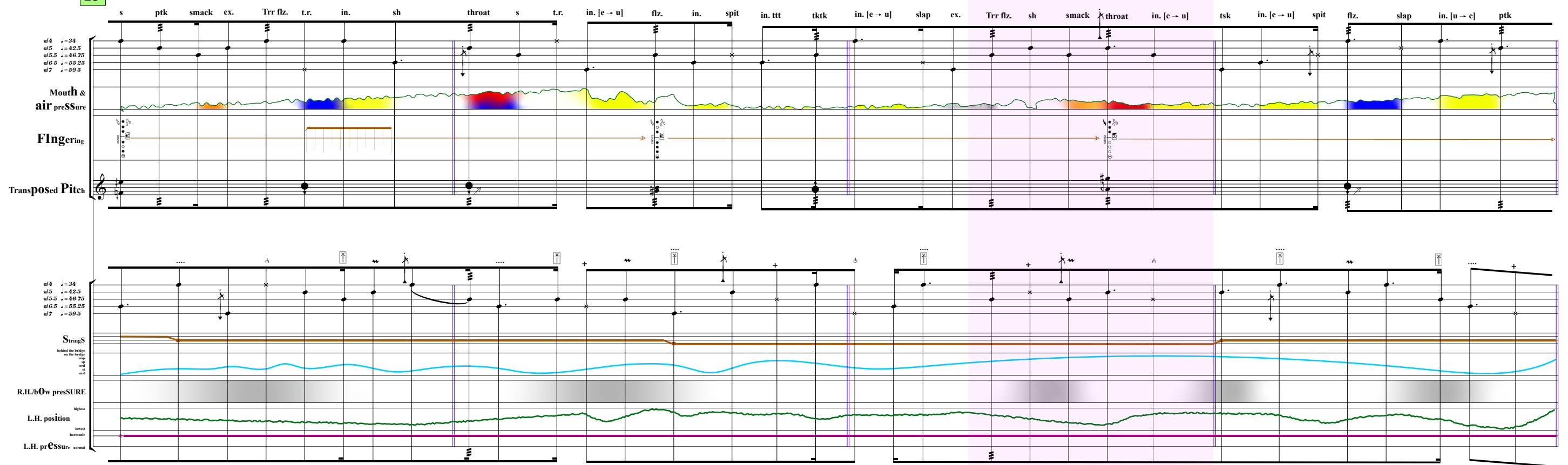
23

6 + 4 + 1 + 3 + 2
16 20 22 26 28

1 + 2 + 6 + 5 + 3
16 20 22 26 28

3 + 5 + 6 + 1 + 2
16 20 22 26 28

6 + 5 + 1 + 3 + 2
16 20 22 26 28



27

2 + 6 + 5 + 1 + 3
16 20 22 26 28

1 + 3 + 4 + 5 + 6
16 20 22 26 28

5 + 1 + 4 + 3 + 2
16 20 22 26 28

6 + 1 + 3 + 5 + 2
16 20 22 26 28

ex. sh slap s Trr flz. spit smack in. [e → u] ex. slap tsk throat in. t.r. in. [u → e] ptk tktk in. ttt smack slap flz. tsk in. [u → e] spit sh Trr flz. in. [e → u] s t.r. spit throat flz. in. [e → u] tktk spit

Mouth & air pressure

Fingering

Transposed Pitch

StringS

R.H./bOw pressure

L.H. position

L.H. pressure

31

6 + 2 + 4 + 1 + 5
16 20 22 26 28

2 + 3 + 6 + 4 + 1
16 20 22 26 28

4 + 2 + 5 + 6 + 1
16 20 22 26 28

1 + 4 + 6 + 3 + 5
16 20 22 26 28

tsk slap flz. ex. tsk tktk s in. [u → e] in. [e → u] sh t.r. throat spit smack tsk ex. ptk t.r. in. ttt spit Trr flz. sh in. flz. slap in. [e → u] smack throat slap in. ttt s sh tktk t.r. spit s smack slap throat spit tsk Trr flz. in. [e → u] ex. flz. flz. flz.

Mouth & air pressure

Transposed Pitch

StringS

R.H./bOw pressure

L.H. position

L.H. pressure

35

4 + 5 + 6 + 3 + 1
16 20 22 26 28

3 + 5 + 4 + 2 + 6
16 20 22 26 28

2 + 5 + 4 + 3 + 6
16 20 22 26 28

1 + 5 + 2 + 3 + 4
16 20 22 26 28

ex. throat in. t.r. ex. tsk ex. ptk. teeth on reed as high as poss. t k t k t k smack flz. sh t k t teeth on reed as high as poss. sh tsk slap in. s smack flz.

Mouth & air pressure

Fingering

Transposed Pitch

R.H./bOw pressure

L.H. position

L.H. position

L.H. pressure

39

4 + 2 + 6 + 5 + 1
16 20 22 26 28

5 + 3 + 1 + 4 + 6
16 20 22 26 28

D 6 + 4 + 2 + 5 + 3
16 20 22 26 28

slap tongue w/ random pitch p t k slap spit sh tsk ex. throat in. t.r. s in. [e - u]

Mouth & air pressure

Fingering

Transposed Pitch

R.H./bOw pressure

L.H. position

L.H. pressure

42

$1 + 6 + 5 + 4 + 2$
16 20 22 26 28

$1 + 3 + 6 + 2 + 5$
16 20 22 26 28

$6 + 5 + 4 + 3 + 1$
16 20 22 26 28

slap t k t in. ttt throat t l.r. ex. tktk in. Trr flz. tsk sh t k in. [e -> u] ts ks ts spit smack ptk slap throat t.r. smack tsk Trr flz. t ex. s spit sh t.r. in. [u -> e] in.

Mouth & air pressure

Fingering

Transposed Pitch

R.H./bOw pressure

L.H. position

L.H. pressure

behind the bridge

45

$3 + 5 + 2 + 1 + 6$
16 20 22 26 28

$5 + 2 + 4 + 3 + 1$
16 20 22 26 28

$2 + 1 + 6 + 4 + 5$
16 20 22 26 28

t k in. ttt t k smack ex. slap tsk in. ts ks ts Trr flz. t k t k t k ks

Mouth & air pressure

Fingering

Transposed Pitch

R.H./bOw pressure

L.H. position

L.H. pressure

behind the bridge

E

48 $\frac{4}{16} + \frac{6}{20} + \frac{2}{22} + \frac{5}{26} + \frac{3}{28}$ $\frac{2}{16} + \frac{1}{20} + \frac{3}{22} + \frac{5}{26} + \frac{4}{28}$ $\frac{4}{16} + \frac{2}{20} + \frac{3}{22} + \frac{1}{26} + \frac{6}{28}$

ts spit throat smack in. [e → u] flz. in. [u → e] ks in. s t.r. t k t k (tk)

Mouth & air pressure

Fingering

Transposed Pitch

R.H./bOw pressure

L.H. position

L.H. pressure



51 $\frac{2}{16} + \frac{5}{20} + \frac{1}{22} + \frac{6}{26} + \frac{3}{28}$ $\frac{6}{16} + \frac{2}{20} + \frac{1}{22} + \frac{3}{26} + \frac{5}{28}$ $\frac{1}{16} + \frac{2}{20} + \frac{6}{22} + \frac{3}{26} + \frac{5}{28}$

(tk)

Mouth & air pressure

Fingering

Transposed Pitch

R.H./bOw pressure

L.H. position

L.H. pressure

F

54

3 + 1 + 6 + 2 + 5
16 20 22 26 28

4 + 6 + 1 + 5 + 3
16 20 22 26 28

1 + 4 + 3 + 5 + 6
16 20 22 26 28

(tk)----- in. ttt----- tk----- in. ttt----- tk----- in. ttt----- tk----- in. ttt----- tk-----

Mouth & air pressure

Fingering

Transposed Pitch

R.H./bOw pressure

L.H. position

L.H. pressure

//

57

6 + 3 + 5 + 2 + 1
16 20 22 26 28

6 + 5 + 2 + 4 + 1
16 20 22 26 28

3 + 6 + 4 + 2 + 1
16 20 22 26 28

ts ks ts slap smack ks throat tk----- in. ttt----- smack sh s sh t.r. spit----- tk----- in. ttt----- smack t.r. spit spit in. ttt----- tk-----

Mouth & air pressure

Fingering

Transposed Pitch

R.H./bOw pressure

L.H. position

L.H. pressure

60 $\frac{2+1+4+5+6}{16+20+22+26+28}$ $\frac{5+1+6+4+3}{16+20+22+26+28}$ $\frac{5+3+4+2+6}{16+20+22+26+28}$

ts tsh ts tsh ts tsh ts tsh ts tsh throat throat ts tsh ts tsh ts throat ts tsh ts tsh ts throat ts tsh ts tsh ts tsh ts tsh

Mouth & air pressure

Transposed Pitch

R.H./bOw pressure

L.H. position

L.H. pressure

≡

G

63 $\frac{6+3+1+2+4}{16+20+22+26+28}$ $\frac{3+4+6+1+2}{16+20+22+26+28}$ $\frac{3+1+5+2+6}{16+20+22+26+28}$ $\frac{4+3+5+1+6}{16+20+22+26+28}$

subtone (airy)

Mouth & air pressure

Transposed Pitch

R.H./bOw pressure

L.H. position

tuning pegs III & IV

M3 down P4 down m3 down down to very loose string III M3 down P4 down P4 down down to very loose string IV

H

67

1 + 6 + 5 + 2 + 4
teeth on reed
as high as poss.

2 + 1 + 5 + 6 + 4

3 + 2 + 6 + 4 + 1

3 + 6 + 5 + 1 + 2

The score consists of five staves. The top staff is labeled 'Mouth & air pressure' and features a green shaded area. Below it is 'Transposed Pitch' with a treble clef. The third staff is 'R.H./bOw pressure' with a blue shaded area. The fourth staff is 'L.H. position' with a bass clef and includes the instruction 'only I & II'. The bottom staff is 'L.H. pressure' with a purple shaded area. Fingerings are indicated by numbers 1-5 above notes. Articulation marks include slurs and accents. Vertical purple lines separate the four rhythmic patterns.

Amin Sharifi
July 2019, Warsaw