

Hydrogen(2)Oxygen: String Quartet performance notes

Movement I- Hydrogen (GAS):

This movement relies heavily on the use of four tempo curves, which have been rendered as click tracks with built in cues. Each player follows one of these four click tracks (CT) throughout the duration of the piece in the following groupings:

Click Track 1- Cello, Baritone 1, Alto-, Tenor-

Click Track 2 (modulatory¹)- Viola, Baritone 2, Soprano+, Pencon 1

Click Track 3- Violin 2, Baritone 3, Soprano-, Tenor+

Click Track 4- Violin 1, Baritone 4, Alto+, Pencon 3

During rehearsal mark (RM) 1 of the piece, the four CT's are synchronized to a 60 BMP pulse (defined at that point as the 1/8th note). At RM 2, CT's 1 and 2 follow one tempo curve while CT's 3 and 4 follow another. At the start of RM 3, all four CT's are divergent for the remainder of the piece, although they occasionally elide for brief moments. Similarly, from RM 3 onwards, each part is written in quarter notes and each player is to synchronize their playing to exactly follow the pulse of their CT.

Below are some notes about other performance elements of this movement:

Click Tracks- The CT's have several built in cues based on the tone of the click during different events throughout the piece. The click sounds that are used are as follows:

Mid range wood-block: Signifies that the click is steady, not accelerating or decelerating.

Higher pitched wood-block: Signifies that the click is accelerating.

Lower pitched wood-block: Signifies that the click is decelerating.

Bell: Anticipates the end of a section; eight bell tones are given to signify the end of an RM (only four given at the end of RM 1). For the string players, from RM 3 until the end the bell cue always comes either during the last or the penultimate repetition of the RM cell. However, since the bell tolls eight times, the start of the bell (and the end) will not necessarily coincide with the start or end of the cycle that you are playing, since each cycle has a prime number duration.

Ringing Sound: This only occurs in CT 2, and signifies an instant jump from one tempo to another, rather than a gradual mutation.

¹ CT 2 is the only track that has tempo jumps after RM 3, rather than gradual mutations. These occur sometimes in the middle of a pattern.

Bowings- Bowings should be as legato as possible throughout the piece, except during RM 2 in which the beginning of each note should be slightly accented with a faster bow pull (like a martelé, but without the bite and with sul tasto, flautando quality).

The first half of RM 1 should be an exploration of the overtone series of each note; bowing should always be sul pont. but the player can move freely around the bridge to extract different overtones for different extended moments, ad lib. During the second half of RM 1, each player should shift back and forth between sul pont. and sul tasto and, if possible, bow in a circular motion. The arrival of each new note ought to come at the exact time with respect to the CT, but should not be accented, and can in fact occur without a change in bow if convenient. The main idea is that the bowing itself is the focus of the texture, and the change in note adds a new color to a continuous bow tone. This “circular bowing” can continue into RM 2, ad lib, as long as the overall sound quality is of a flautando bowing.

From RM 3 until the end, the player should execute their patterns as legato as possible (perhaps with a détaché, baroque style bowing) and attempt to create an “overtone cloud” between the four players. Each pattern is designed so that the player does not have to move their left hand (if ever this is not possible, please advise me and we can adjust the notes in the pattern to achieve this). Similarly, the quartet is free to decide as to how to color each cell from RM 3 until the end (sul tasto, sul pont., etc...), as long as the net affect is a legato “overtone cloud.”

Pitch Material- This movement uses only open strings and natural harmonics. Regardless of that, the string number and harmonic symbol is given at each instance.

Harmonic Notation- For all natural harmonics ranging from the 7th and higher, the number of the harmonic is written next to the notehead like an accidental (this is instead of using JI accidentals like the Helmholtz-Ellis).

Whole Notes- Throughout the piece, if ever there is only one whole note written in a bar and nothing else, the whole note is given the total duration of the bar (no more, no less) regardless of the meter.

Movement 2- Hydrogen (ICE):

This piece moves between material that is metered with specific BPM rates, and material that is given bracketed durations that are to be approximated by the players. These sections should be coordinated through the Violin 1 and the Alto+ players of the two ensembles, so that the full group stays oriented without eliciting an outside conductor. Therefore, all of the string parts have the Alto+ part written in their parts as a cue staff, and all of the percussion players have the Violin 1 in their parts.

Barlines- There are three different types of barlines used in the piece; normal, dashed, and double. Normal barlines represent conventionally metered material; dashed barlines represent time divisions during material that is not strictly metric (for example, even though RM 3 is in common time, $\frac{1}{4} = 50$, dashed barlines are given so that the players know that their phrases are to be played loosely, whereas RM 7 is to be played in strict time); double barlines represent division between different sections, usually moving from metered to non-metered material.

Markings-

----- : The dashed marking is used to connect figures through the score and parts, and represents a direct continuation between two figures without any breach in time. This is used to compensate for the fact that the spacing in the score or part might otherwise make it seem that the two adjacent figures are separated in time, when they are not.

_____ : The straight line is used both in harmonic *glissandi* and *portamenti*. It is meant as a guide, and the noteheads that connect these lines are not to be accented, but rather represent reference points throughout a figure; in other words, figures containing these lines should always be played with continuous gliding motion and should not linger on any given pitch.

Bowing- The whole piece is to be played *senza vibrato*. Particularly bowing styles are given at the beginning of certain RM's and are to be used throughout that particular RM, except in brief moments when another bowing is written in (for example, *jete* on beat 4 of the first measure of RM 10).

Quartet Coordination- There are several moments in the piece where the four parts of the quartet are meant to be played with an interlocked coordination (for example, the harmonic *glissandi* in RM 1). These movements may be difficult to discern from a reading of the part alone, but should be clearly represented in the score. I advise that the players glance briefly at the score for each of these sections (RM 1, RM 4, RM 11, RM 13, RM 14, RM 19).

RM 13-14- I am repeated here what is written into the score for the sake of redundancy. "This section aims at producing tremolos between the various parts to create an effect reminiscent of the accelerating and decelerating phasing of a wheel strobe². The player should execute an even tremolo that fluctuates from fast to slow on a linear time curve, ranging from roughly 720 BMP at the fastest to 240 BMP at the slowest, becoming *sautillé* bowing at the slowest. Each player should be aware of the accompanying parts, allowing for the various time curves to cross based on the written proportions (7-8-9-10; represented as 14", 16", 18", and 20" in the four parts).

² I am referring here particularly to a strobe tuner; this phenomena can also be witnessed in the rims of tires while riding (on the passenger side) along the highway.

Movement 3- Oxygen (AQUA):

This movement is more straightforward, metrically, than the previous two. However, because of the density of polyrhythms in the various parts, I advise the ensemble play along to a click track at $\frac{1}{4}=120$ (it is OK if the piece is taken a little slower as well), so that the underlying pulse is never obscured by the various parts. The Lightbulb Ensemble has so far learned the piece along to a click track.

The overarching structure of the piece is one full cycle of a 5-7-8-9 polyrhythm (2520 $\frac{1}{16}^{\text{th}}$ notes at $\frac{1}{4}=120$ becomes 5'15" total duration). The first 1' of the piece spotlights the cycle of 7, in which the two baritones fill in all of the $\frac{1}{16}^{\text{th}}$ notes in melodic groupings of seven; minute 2 spotlights the cycle of 5 in the soprano, tenor, and viola parts; minute 3 spotlights the cycle of 9 in the altos and violin 1; minute 4 spotlights the cycle of 8 in the sopranos and altos, while the viola outlines cycles of 5; minute 5 sees all of the cycles filling in all $\frac{1}{16}^{\text{th}}$ notes and swirling around each other; the last 15 seconds give just the long-tone polyrhythms. My image of the piece is of fish on a coral reef; all change direction in a unified manner but not at the same instant, and their movement seems both asymmetric and symmetric, unpredictable but inevitable. Some notes:

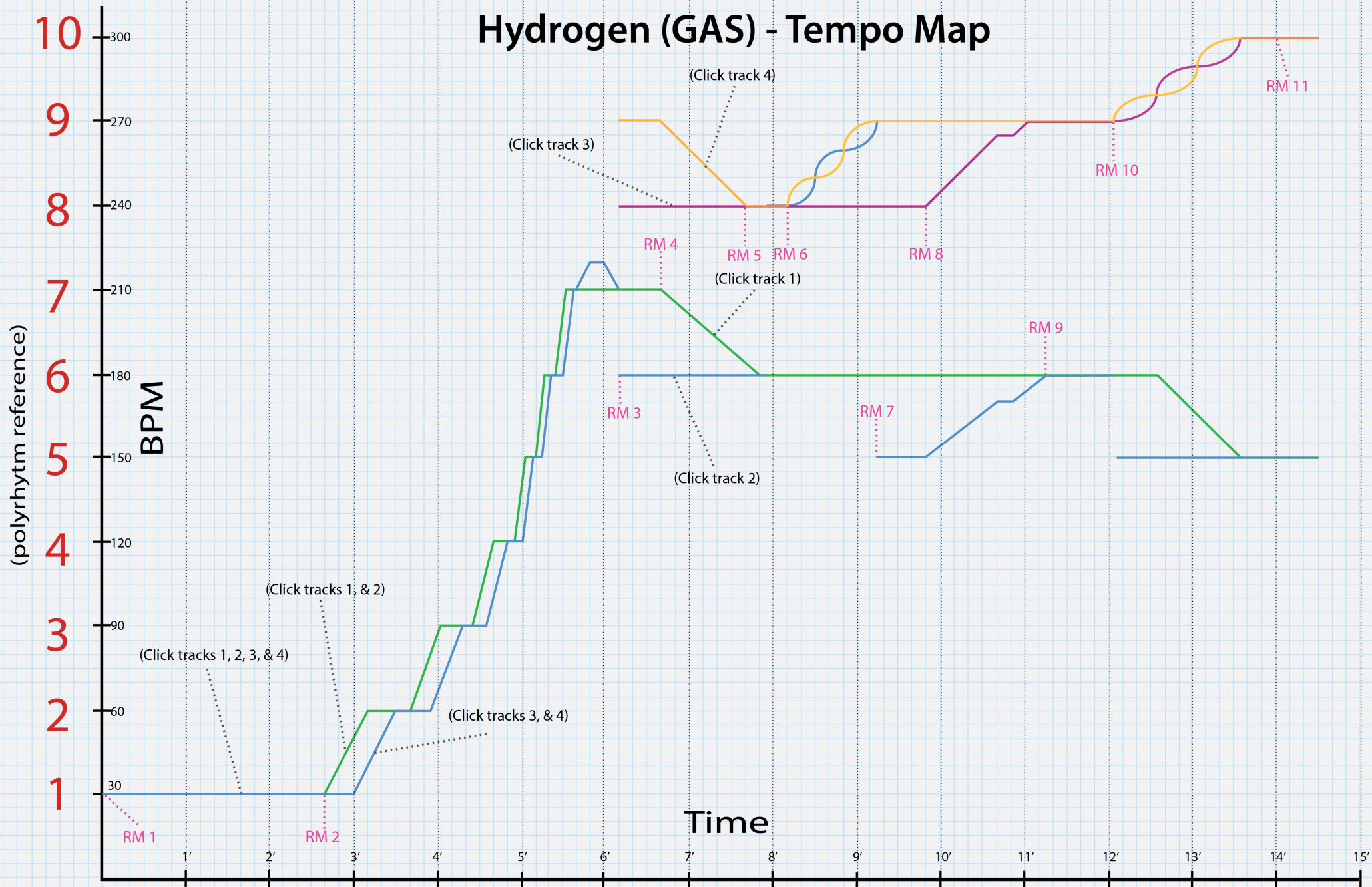
Hairpin Swells- The dynamics throughout the piece should be steady in a global sense, but the foreground texture is designed to fluctuate. Therefore, all of the hairpin *crescendi* and *decrescendi* are meant to be a coming-in-and-out of texture. Therefore, at the lowest point of the hairpin, your part should still always be comfortable audible, and at the highest part of your hairpin, you should be in the foreground of the texture, but still less prominent in volume than whichever part is spotlighted, i.e. filling in all of the $\frac{1}{16}^{\text{th}}$ notes. However, in RM C, the dynamics can be more dramatic rather than textural, and in RM D, since all parts are filling in the $\frac{1}{16}^{\text{th}}$ notes, you can become the most dominant voice at the apex of your hairpin, although the dynamics should be textural again.

Gongs- Notes and rests have been highlighted in pink when they intersect with a gong stroke. This is meant to provide "grappling hooks" for reference throughout the piece, which can be quite dense. The gong strokes occur systematically; every instance that three of the four cycles of polyrhythms coincide.

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September, 2015.

Total Duration: ca. 33'

Hydrogen (GAS) - Tempo Map



ii. Hydrogen (ICE)

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ca."20

ca."10

ca."10

ca."10

The score is divided into four measures by vertical dashed lines. The first measure (ca."20) contains the main melodic material for Violin I, Violin II, Viola, and Violoncello. The second measure (ca."10) continues this material with some variations. The third and fourth measures (ca."10) feature vocal instruments (soprano+, soprano-, alto+, alto-, tenor+, tenor-, baritone+, baritone-, bass) and percussion (pencil 1, pencil 2, gong) with sustained notes and dynamic markings.

Violin I: ii. gliss. harm. (ca."20), sim. x7(ca.) (ca."10), ii. gliss. harm. (ca."10), x3(ca.) (ca."10), *) port. (ca."10), sim. (ca."10). Dynamics: mp.

Violin II: iii. gliss. harm. (ca."20), sim. x7(ca.) (ca."10), *) port. (ca."10), sim. (ca."10). Dynamics: mp.

Viola: iii. gliss. harm. (ca."20), sim. x7(ca.) (ca."10), iii. gliss. harm. (ca."10), x5(ca.) (ca."10), *) port. (ca."10), sim. (ca."10). Dynamics: mp.

Violoncello: iv. gliss. harm. (ca."20), sim. x7(ca.) (ca."10), (iv.) *) port. (ca."10), (iv.) (ca."10), sim. (ca."10). Dynamics: mp.

Vocal Instruments: ca."5 (ca."10), p (ca."10), ca."5 (ca."10), p (ca."10), ca."5 (ca."10), p (ca."10), ca."5 (ca."10), p (ca."10), ca."5 (ca."10), p (ca."10).

Percussion: pencil 1, pencil 2, gong.

Annotations:

- Offset the beginnings of each gliss harm. so that the contour of the figures interlock between the four instruments throughout the phrase.
- *) gradually transition from harmonic to stopped finger pressure

2 ca."20

3 $\text{♩} = 50$ ord. punta d'arco

Vln. I con sord. del niente **pp** sul tasto 5 sul tasto 5 sul pont. ord. i.

Vln. II con sord. del niente **pp** ord. punta d'arco iii. 8^{va} ii. i. iii. iv. iii. sempre sul tasto sul tasto sul pont. ord. iv.

Vla. con sord. del niente **pp** ord. punta d'arco 8^{va} i. ii. iii. iv. iii. i. sul tasto sul tasto ii. sempre sul pont. ord. iv.

Vc. con sord. del niente **pp** ord. punta d'arco iii. ii. i. ii. (ii.) i. iii. 8^{va} sul tasto sul tasto sul pont. ord. iv.

sop+ to yarn ca."5 ca."10 ca."5 **ppp** mp p

sop- to yarn ca."5 ca."10 ca."5 **ppp** mp p

alt+ to yarn ca."5 ca."10 ca."5 **ppp** mp p

alt- to yarn ca."5 ca."10 ca."5 **ppp** mp p

ten+ to yarn ca."5 ca."10 ca."5 **ppp** mp p

ten- to yarn ca."5 ca."10 ca."5 **ppp** mp p

brt+ p p

brt- p p

bss p

pnc1 yarn, face ca."4 ca."2 x3(ca.) mp

pnc2 yarn, face ca."7 x3(ca.) mp

gng ca."5 ca."3 x2.5(ca.)

*) tremolo as fast as possible, use different stickings between the two players

*) roll on the face of the gong, not on the boss

ca. "10

Vln. I: *ca. "10*, *gliss. harm.*, *sim.*, *x5(ca.)*, $\text{♩} = 70$, *mp*, *p*, *ca. "5*, *senza sord.*, $\text{♩} = 50$, *pp*, *sul tasto punta d'arco*, *p*, *mp*, *mf*

Vln. II: *ca. "10*, *gliss. harm.*, *sim.*, *x3(ca.)*, *mp*, *p*, *ca. "5*, *senza sord.*, *pp*, *sul tasto punta d'arco*, *p*, *mp*, *mf*

Vla.: *ca. "10*, *gliss. harm.*, *sim.*, *x2.5(ca.)*, *mp*, *p*, *ca. "5*, *senza sord.*, *pp*, *sul tasto punta d'arco*, *p*, *mp*, *mf*

Vc.: *ca. "10*, *gliss. harm.*, *sim.*, *x2(ca.)*, *mp*, *p*, *ca. "5*, *senza sord.*, *pp*, *sul tasto punta d'arco*, *p*, *mp*, *mf*

Box: Offset the beginnings of each gliss harm. so that the contour of the figures interlock between the four instruments throughout the phrase.

sop+: *to wood*, *p*, *pp*, *ppp*

sop-: *to wood*, *p*, *pp*, *ppp*

alt+: *to wood*, *p*, *pp*, *ppp*, *to wood*, *p*

alt-: *to wood*, *p*, *pp*, *ppp*, *to wood*, *p*

ten+: *to wood*, *p*, *pp*, *ppp*, *to wood*, *p*

ten-: *to wood*, *p*, *pp*, *ppp*, *to wood*, *p*

brt+: *p*, *pp*

brt-: *p*, *pp*

bss: *p*, *pp*

pnc1: *ca. "5*, *to rubber*, *rubber, face*, *to yarn*, *mp*

pnc2: *ca. "5*, *to rubber*, *rubber, face*, *to yarn*, *mp*

gng: *ca. "5*, *mp*

ca. "10

7

$\text{♩} = 50$

as legato as possible, seamless

4

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1

pnc2

gng

p

as legato as possible, seamless

p

as legato as possible, seamless

p

as legato as possible, seamless

p

as legato as possible, seamless

p

ca. "2

ca. "4

ca. "4

p

ppp

p

ca. "2

ca. "4

ca. "4

p

ppp

p

ca. "2

ca. "4

ca. "4

p

ppp

p

ca. "2

ca. "4

ca. "4

p

ppp

p

ca. "2

ca. "4

ca. "4

p

ppp

p

mp

iii.

iv. (iii.)

ii.

iii. (ii.)

I.v.

I.v.

I.v.

I.v.

I.v.

I.v.

yarn, face

yarn, face

mp

mp

8 *ricochet* *)

9 *Quasi Kebyar* *martele* $\text{♩} = 60$

*) continue upward port. into harmonic finger pressure while bow ricochets

Vln. I *ricochet* *)

Vln. II *ricochet* *)

Vla. *ricochet* *)

Vcl. *ricochet* *)

sop+ *p*

sop- *p*

alt+ *p*

alt- *p*

ten+ *p*

ten- *p*

brt+ *mp* "5" "5" *p*

brt- *mp* "5" "5" *p*

bss *mp* "5" "5" *p*

panc1 coins! *mp* "5" "5" *p* (yam, face)

panc2 *mp* "5" "5" *p* (yam, face)

gng *mp* "5" "5" *p*

6
Vln. I
Vln. II
Vla.
Vc.
sop+
sop-
alt+
alt-
ten+
ten-
brt+
brt-
bss
pnc1
pnc2
gng

jete 3
pp
pp
pp
pp
pp
pp
pp
pp
pp
pp
pp
pp
pp
pp
pp

ca. "10

ca. "10

12 ♩=50

Vln. I
 ord. ii.
 ca. "11 ca. "6 ca. "3 ca. "2
mf *spp* *mf* *mp*
 ricochet, col legno x3 (ca.)
 sul pont. (ii.) punta d'arco

Vln. II
 ord. iii.
 ca. "11 ca. "6 ca. "3 ca. "2
mf *spp* *mf*
 ricochet, col legno x5 (ca.)
 sul pont. (iii.) punta d'arco

Vla.
 ord. iii.
 ca. "11 ca. "6 ca. "3 ca. "5 ca. "5
mf *spp* *mf*
 sul pont. (iii.) punta d'arco
 del nient *pp* *mp*

Vc.
 ord. iv.
 ca. "11 ca. "6 ca. "3 ca. "5 ca. "5
mf *spp* *mf*
 sul pont. (iii.) punta d'arco
 del nient *pp* *mp*

sop+
 to yarn ca. "5 ca. "5
pp *p* *mp* *mf*

sop-
 to yarn ca. "5 ca. "5
pp *p* *mp* *mf*

alt+
 to yarn ca. "5 ca. "5
pp *p* *mp* *mf*

alt-
 to yarn ca. "5 ca. "5
pp *p* *mp* *mf*

ten+
 to yarn ca. "5 ca. "5
pp *p* *mp* *mf*

ten-
 to yarn ca. "5 ca. "5
pp *p* *mp* *mf*

brt+
p *mp* ca. "5 ca. "5

brt-
p *mp* ca. "5 ca. "5

bs

pnc1

pnc2

gn

*) interlock attacks between violins to achieve continuous ricochet; left hand harmonic finger pressure.

*) gradually switch to harmonic finger pressure to achieve gliss harm.

13

8
Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1

pnc2

gng

*) This section, continued on the next page, aims at producing phasing tremolos between the various parts, to create an effect reminiscent of a strobe accelerating and decelerating. The player should execute an even tremolo that fluctuates from fast to slow on a linear time curve, ranging from roughly 720 bpm at the fastest to 240 bpm at the slowest, becoming sautille at the slowest. Each player should be aware of the accompanying parts, allowing for the various time curves to cross based on the written proportions (7-8-9-10).

i.
ii.
iii.

ii.
iii.
iv. *)

mp

mp

(repeat rhythm and duration, changing notes in the following sequence)x7 → ii. [2nd rep.] iii. [3rd rep.] iv. [4th rep.] ii. [5th rep.] i. [6th rep.] i. [7th rep.]

(mp) ca."14

(repeat rhythm and duration, changing notes in the following sequence)x6 → iii. [2nd rep.] iv. [3rd rep.] ii. [4th rep.] i. [5th rep.] i. [6th rep.]

(mp) ca."16

(repeat rhythm and duration, changing notes in the following sequence)x5, 1/2 → iii. [2nd rep.] iv. [3rd rep.] ii. [4th rep.] i. [5th rep.] ii. [6th rep., 1/2]

ca."18

(repeat rhythm and duration, changing notes in the following sequence)x5 → iii. [2nd rep.] ii. [3rd rep.] i. [4th rep.] i. [5th rep.]

ca."20

♩ = 50 Quasi Kebyar

ca."60 *pp* ca."20

ca."60 *pp* ca."20

ca."60 *pp* ca."20

ca."60 *pp* ca."20

ca."60 *pp* ca."20

ca."60 *pp* ca."20

ca."60 *pp* ca."20

ca."60 *pp* ca."20

ca."60 *pp* ca."20

ca."70 (yarn, face) 7" x2(ca.)

ca."70 (yarn, face) 8" x3(ca.)

ca."70 10"

15 ca."10 con sord. 16 $\text{♩} = 50$ as legato as possible, seamless

Vln. I con sord. *p* as legato as possible, seamless

Vln. II con sord. *p* as legato as possible, seamless

Vla. con sord. *p* as legato as possible, seamless

Vc. con sord. *p* as legato as possible, seamless

sop+ *p* ca."5 ca."5

sop- *p* ca."5 ca."5

alt+ *p* ca."5 ca."5

alt- *p* ca."5 ca."5

ten+ *p* ca."5 ca."5

ten- *p* ca."5 ca."5

brt+ *p* ca."5 ca."5

brt- *p* ca."5 ca."5

bss *p* ca."5 ca."5

pnc1 fast, soft tremolo *p* 3" x3(ca.) to wood

pnc2 fast, soft tremolo *p* 4" x2.5(ca.) to wood

gng fast, soft tremolo *p* 5" x2(ca.)

This musical score page, numbered 17, contains 15 staves for various instruments and vocal parts. The staves are labeled on the left as Vln. I, Vln. II, Vla., Vc., sop+, sop-, alt+, alt-, ten+, ten-, brt+, brt-, bss, pnc1, pnc2, and gng. The score is divided into four measures. The first measure (measures 17-18) features a dynamic marking of *p* (piano) for the brass and woodwind parts. The second measure (measures 19-20) features a dynamic marking of *mf* (mezzo-forte) for the strings and vocal parts. The third measure (measures 21-22) features a dynamic marking of *mp* (mezzo-piano) for the strings and vocal parts. The fourth measure (measures 23-24) features a dynamic marking of *mp* for the strings and vocal parts. The score includes various musical notations such as notes, rests, slurs, and dynamic markings. The woodwind parts (brt+, brt-, bss) feature complex rhythmic patterns with slurs and accents. The string parts (Vln. I, Vln. II, Vla., Vc.) feature long, sustained notes with slurs. The vocal parts (sop+, sop-, alt+, alt-, ten+, ten-) feature sustained notes with slurs. The percussion parts (pnc1, pnc2, gng) are mostly silent, with some notes in the gong part.

Quasi Kebyar

12 Vln. I *p* *martele* *spiccato* *3* *pp* *spiccato* *3*

Vln. II *p* *martele* *spiccato* *3* *pp* *spiccato* *3*

Vla. *p* *martele* *spiccato* *3* *pp* *spiccato* *3*

Vc. *p* *martele* *spiccato* *3* *pp* *spiccato* *3*

sop+ *p* *3* *pp* *3*

sop *p* *3* *pp* *3*

alt+ *p* *3* *pp* *3*

alt *p* *3* *pp* *3*

ten+ *p* *3* *pp* *3*

ten *p* *3* *pp* *3*

brt+ *p* *3* *pp* *3*

brt *p* *3* *pp* *3*

bss *p* *3* *pp* *3*

pncl *wood, boss* *p* *3* *pp* *3*

pncl *wood, boss* *p* *3* *pp* *3* *open face*

gng *mp*

ca. "10

♩=50

ca. "10

19

20

13

Vln. I: senza sord. ii. ord. gliss. harm. mf, sim. x3(ca.)
 Vln. II: senza sord. iii. ord. gliss. harm. mf, sim. x3(ca.)
 Vla.: senza sord. iii. ord. gliss. harm. mf, sim. x3(ca.)
 Vc.: senza sord. iv. ord. gliss. harm. mf, sim. x3(ca.)
 sop+: to yarn
 sop-: to yarn
 alt+: Quasi Kebyar mp
 alt-: Quasi Kebyar mp
 ten+: Quasi Kebyar mp
 ten-: Quasi Kebyar mp
 brt+: Quasi Kebyar mp
 brt-: Quasi Kebyar mp
 bss: Quasi Kebyar mp
 pnc1: (wood, boss) Quasi Kebyar mp
 pnc2: (wood, boss) Quasi Kebyar mp
 gng: Quasi Kebyar mp

Offsets the beginnings of each gliss harm. so that the contour of the figures interlock between the four instruments throughout the phrase.

*) gradually change from harmonic to regular stopped finger pressure

14
Vln. I *f*

Vln. II *f*

Vla. *f*

Vc. *f* ord.

sop+ *f*

sop- *f*

alt+ *f* to yarn

alt- *f* to yarn

ten+ *f* to yarn

ten- *f* to yarn

brt+ *f*

brt- *f*

bss *f*

pnc1 *f* to rubber

pnc2 *f* to yarn

gng *f*

*) harmonic finger pressure

Vln. I *mp*
 Vln. II *mp*
 Vla. *mp* sul pont. martele
 Vc. *mp* sul pont. martele
 sop+ *p*
 sop *p*
 alt+ *p*
 alt *p*
 ten+ *p*
 ten *p*
 brt+ *p*
 brt *p*
 bss *p*
 pnc1 *mp* rubber, face
 pnc2 *mp* yam, face
 gng

This page of a musical score contains measures 16 through 24. The instruments listed on the left are Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), Soprano (sop+), Soprano (sop-), Alto (alt+), Alto (alt-), Tenor (ten+), Tenor (ten-), Bratze (brt+), Bratze (brt-), Bassoon (bss), Piccolo 1 (pnc1), Piccolo 2 (pnc2), and Gong (gng). The score features a variety of musical notations including slurs, accents, and dynamic markings such as *mf*, *mp*, *p*, and *mf*. Performance instructions like *legato* and *ord. punta d'arco* are present for the string parts. Fingerings and breathings are indicated with numbers and symbols. The woodwind parts (brt, bss, pnc) include *rit* markings and a *to yarn* instruction for the first piccolo. The Gong part has a *mf* marking. The page is divided into measures by vertical dashed lines.

Vln. I *p* *mf* *mp*
 Vln. II *p* *mf* *mp*
 Vla. *p* *mf* *mp*
 Vc. *p* *mf* *mp*
 sop+ *p* *mf* *mp*
 sop- *p* *mf* *mp*
 alt+ *p* *mf* *mp*
 alt- *p* *mf* *mp*
 ten+ *to wood* *mp* *l.v.*
 ten- *to wood* *mp* *l.v.*
 brt+ *mp*
 brt- *mp*
 bss *mp*
 pnc1 *yarn, face* *mp* *to rubber*
 pnc2 *yarn, face* *mp* *to rubber*
 gng *mp*

The score is written for a full orchestra. The string section (Vln. I, Vln. II, Vla., Vc., sop+, sop-, alt+, alt-) plays a melodic line with dynamics ranging from *p* to *mp*. The woodwinds (ten+, ten-, brt+, brt-, bss) provide harmonic support with *mp* dynamics. The percussion (pnc1, pnc2, gng) includes wood blocks and a gong, with specific instructions like "yarn, face" and "to rubber". The page number 25 is in the top left, and 17 is in the top right.

p

sul pont.
martele

p

sul pont.
martele

p

sul pont.
martele

p

p

p

p

p

p

p

p

p

p

p

p

p

p

p

p

p

rubber, face

p

rubber, face

p

(sul pont.)

(sul pont.)

(sul pont.)

(sul pont.)

(sul pont.)

(sul pont.)

(sul pont.)

(sul pont.)

(sul pont.)

(sul pont.)

(sul pont.)

(sul pont.)

(sul pont.)

(sul pont.)

(sul pont.)

(sul pont.)

18
Vln. I
Vln. II
Vla.
Vc.
sop+
sop-
alt+
alt-
ten+
ten-
brt+
brt-
bss
pnc1
pnc2
gng

ca."5 ca."5 ca."5 ca."5 ca."5

28

ord.

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1

pnc2

gng

iii

iii

iii

iii

(iii)

attacca

to yarn

yarn, face

p

p

p

iii. Oxygen [AQUA]

Brian Baumbusch

♩=120

as legato as possible

Violin I *mp*
as legato as possible

Violin II *mp*
as legato as possible

Viola *mp*
as legato as possible

Violoncello *mp*
as legato as possible

soprano+ *p*

soprano- *p*

alto+ *p*

alto- *p*

tenor+ *mp*

tenor- *mp*

baritone+ *mf*

baritone- *mf*

bass *mp*

pencon 1 *p*
Trompong, Unmuted open-face strokes until mm. 91

pencon 2 *p*
Muted strokes on LBE Pencon

gong

2

(8)

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bsb

pnc1

pnc2

gng

13 *swr*

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1

pnc2

gn9

f

pizz.

3

4 19

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1

pnc2

gng

Sra

25 (8)-----1

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1

pnc2

gng

5

A

6
Vln. I

31

8va

detache lance

Vln. II

detache, legato

mf

Vla.
arco detache, legato

f

Vc.

detache lance

sop+

mf

sop-

mf

alt+

alt-

ten+

mf

ten-

mf

brt+

brt-

bss

pnc1

pnc2

gng

37 8va 7

The image shows a page of a musical score, likely for a symphony or opera. The score is written for a full orchestra and a vocal ensemble. The instruments and voices are listed on the left side of the page: Vln. I, Vln. II, Vla., Vc., sop+, sop-, alt+, alt-, ten+, ten-, brt+, brt-, bss, pnc1, pnc2, and gng. The music is written in 4/4 time. The score includes various musical notations such as notes, rests, and dynamic markings. A '8va' marking is present above the Violin I staff, and a '7' is at the end of the page. The score is divided into measures by vertical bar lines.

8 43

Vln. I
Vln. II
Vla.
Vc.
sop+
sop-
alt+
alt-
ten+
ten-
brt+
brt-
bss
pnc1
pnc2
gng

This musical score page contains measures 43 through 46. The orchestration includes Violins I and II, Viola, Violoncello, Soprano and Alto voices (both plus and minus), Tenors (both plus and minus), Brass (Trumpets, Trombones, Basses), Percussion (Percussion 1 and 2), and Gong. The score is written in a standard musical notation with various clefs and time signatures. A pink vertical bar is present in measure 44, and a pink triangle is in measure 45. The page number '8' is in the top left, and the measure number '43' is at the top of the first staff.

48

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1

pnc2

gng

8va

1

Detailed description: This is a page of a musical score, measures 48 through 51. The score is arranged in a standard orchestral layout with 15 staves. The top two staves are for Violin I and Violin II. The Violin I part features a melodic line with a '8va' (octave up) marking and a first ending bracket. The Violin II part plays a rhythmic accompaniment of sixteenth notes. The Viola part also has a rhythmic accompaniment. The Violoncello part has a melodic line with some rests. The vocal ensemble consists of Soprano+, Soprano-, Alto+, Alto-, Tenor+, and Tenor- parts, with the Soprano and Tenor parts having melodic lines and the Alto parts providing harmonic support. The Brass section includes Trumpets+, Trumpets-, Trombones, and Snare Drum. The Percussion section includes Percussion 1, Percussion 2, and Gong. The score is in a key with one sharp (F#) and a 4/4 time signature. The music is in a classical style, likely from a 19th-century symphony.

10 53

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1

pnc2

gng

8-me

59

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1

pnc2

gng

grace

B detache, legato

mf

p

12 65

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1

pnc2

gng

f flautando, accent each note

mp flautando, accent each note

mp flautando, accent each note

mf

mf

71

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1

pnc2

gng

4:3

Detailed description: This is a page of a musical score, measures 71 through 75. The score is arranged in a grand staff format with multiple staves. The instruments and voices are listed on the left: Vln. I, Vln. II, Vla., Vc., sop+, sop-, alt+, alt-, ten+, ten-, brt+, brt-, bss, pnc1, pnc2, and gng. The Vln. I part features a complex melodic line with many sixteenth and thirty-second notes. The Vln. II and Vla. parts have more sustained, flowing lines. The Vc. part provides a steady bass line. The vocal parts (sop+, sop-, alt+, alt-, ten+, ten-, brt+, brt-) consist of rhythmic patterns and chords. The brass parts (pnc1, pnc2, gng) are mostly rests or simple rhythmic figures. The score is written in a key with one flat and a 4/4 time signature. A rehearsal mark '4:3' is present at the end of the page.

14 77

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1

pnc2

gng

83

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1

pnc2

gng

15

16 89 **C** *legato, lyrical, but no vib.*

Vln. I *sul pont., martele (pronounced but gentle)*

Vln. II *mf sul pont., sautille*

Vla. *f sul pont., martele (pronounced but gentle)*

Vc. *mf*

sop+ *p*

sop- *p*

alt+ *p*

alt- *p*

ten+ *p*

ten- *p*

brt+ *p*

brt- *p*

bss *p*

pnc1 *mp Trompong, muted strokes*

pnc2 *mp Trompong, open/closed*

gng

94 17

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1

pnc2

gng

Detailed description: This is a page of a musical score, measures 94 to 117. The score is arranged in a system with 15 staves. The instruments and voices are: Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), Soprano (sop+), Soprano (sop-), Alto (alt+), Alto (alt-), Tenor (ten+), Tenor (ten-), Brass (brt+ and brt-), Bass (bss), Percussion 1 (pnc1), Percussion 2 (pnc2), and Gong (gng). The score is in 3/4 time and features a variety of musical textures, including melodic lines, rhythmic patterns, and harmonic support. The page number '94' is at the top left and '17' is at the top right. There are several pink annotations on the score, including a vertical line in the first measure of Vln. II, a vertical line in the first measure of Vc., a vertical line in the first measure of sop+, a vertical line in the first measure of alt+, a vertical line in the first measure of ten+, a vertical line in the first measure of brt+, a vertical line in the first measure of brt-, a vertical line in the first measure of bss, and a vertical line in the first measure of pnc1. There are also several pink annotations in the second measure of Vln. II, Vc., sop+, alt+, ten+, brt+, brt-, bss, and pnc1. There are also several pink annotations in the third measure of Vln. II, Vc., sop+, alt+, ten+, brt+, brt-, bss, and pnc1. There are also several pink annotations in the fourth measure of Vln. II, Vc., sop+, alt+, ten+, brt+, brt-, bss, and pnc1.

18 98

sp

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1

pnc2

gng

Vln. I
 Vln. II
 Vla.
 Vc.
 sop+
 sop-
 alt+
 alt-
 ten+
 ten-
 brt+
 brt-
 bss
 pnc1
 pnc2
 gng

This page of a musical score contains measures 102 through 105. The instrumentation includes Violin I and II, Viola, Violoncello, Soprano+, Soprano-, Alto+, Alto-, Tenor+, Tenor-, Brass (Trumpets, Trombones, Basses), Percussion 1 and 2, and Gong. The score features various musical notations such as slurs, accents, and dynamic markings like *sp* (sforzando) and *p* (piano). The vocal parts (sop+, sop-, alt+, alt-, ten+, ten-) show rhythmic patterns with slurs. The brass parts (brt+, brt-, bss) feature block chords and rhythmic patterns. The percussion parts (pnc1, pnc2) have complex rhythmic patterns, while the Gong (gng) part is silent.

20 106

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1

pnc2

gng

106

f

f

111 21

The musical score is arranged in a standard orchestral layout. The top staves are for the string section: Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), and Violoncello (Vc.). Below these are the vocal parts: Soprano (sop+), Soprano (sop-), Alto (alt+), and Alto (alt-). The lower section includes Tenor (ten+), Tenor (ten-), Trombone I (brt+), Trombone II (brt-), Bassoon (bss), Percussion 1 (pnc1), Percussion 2 (pnc2), and Gong (gng). The score spans measures 111 to 121. Measure 111 is marked with a first ending bracket. Measure 121 is marked with a second ending bracket. The dynamic marking *sp* (sforzando) is present in measures 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, and 121. There are several pink annotations: a bracket under the first ending in measure 111, a bracket under the second ending in measure 121, and various pink arrows and dots pointing to specific notes in the string and vocal parts across the measures.

22 115

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1

pnc2

gng

sp

sf

D

120

detache, legato

detache, legato

detache, legato

sautille, driving
mf

23

24 124

Vln. I
Vln. II
Vla.
Vc.
sop+
sop-
alt+
alt-
ten+
ten-
brt+
brt-
bss
pnc1
pnc2
gng

This musical score page contains measures 124 through 127. It features a full orchestral and vocal ensemble. The orchestral parts include Violins I and II, Viola, Violoncello, Flutes (Soprano+, Soprano-, Alto+, Alto-), Tenors (Tenor+, Tenor-), Trumpets (Trumpet+, Trumpet-), Trombones (Bass), Percussion 1 and 2, and Gong. The vocal parts include Soprano+, Soprano-, Alto+, Alto-, Tenor+, and Tenor-. The score is written in a key signature of two flats and a 4/4 time signature. Measure 124 begins with a tempo marking of 124. The music is characterized by rhythmic patterns and melodic lines across all parts, with some parts featuring accents and dynamic markings. The vocal parts have lyrics written below the notes. The score concludes with a double bar line at the end of measure 127.

128 25

Vln. I
Vln. II
Vla.
Vc.
sop+
sop-
alt+
alt-
ten+
ten-
brt+
brt-
bss
pnc1
pnc2
gng

This musical score page contains 18 staves. The top four staves are for the string section: Violin I, Violin II, Viola, and Violoncello. The next six staves are for the vocal ensemble, including Soprano+, Soprano-, Alto+, Alto-, Tenor+, and Tenor-. The following four staves are for the woodwinds: Flute+, Flute-, Bassoon, and Piccolo 1. The last two staves are for Percussion 2 and Gong. The score is divided into four measures, with measure numbers 128 and 25 indicated at the top left and top right respectively. The key signature has one flat, and the time signature is 4/4. The notation includes various rhythmic values, accidentals, and dynamic markings.

26 132

Vln. I
Vln. II
Vla.
Vc.
sop+
sop-
alt+
alt-
ten+
ten-
brt+
brt-
bss
pnc1
pnc2
gng

This musical score page contains measures 132 through 135. It features a full orchestral arrangement with the following parts: Violin I and II, Viola, Violoncello, Soprano (plus and minus), Alto (plus and minus), Tenor (plus and minus), Brass (Trumpets plus and minus, Trombones), Bassoon, Percussion 1 and 2, and Gong. The score is written in a key signature of two flats and a common time signature. The vocal parts include lyrics such as 'I will be with you', 'I will be with you', 'I will be with you', and 'I will be with you'. The instrumental parts include various rhythmic patterns, including eighth and sixteenth notes, and rests.

136

27

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1

pnc2

gng

Lyrics:
sop+ : ...
sop- : ...
alt+ : ...
alt- : ...
ten+ : ...
ten- : ...
brt+ : ...
brt- : ...
bss : ...
pnc1 : ...
pnc2 : ...
gng : ...

28 140

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1

pnc2

gng

Detailed description: This is a page of a musical score, measures 140 through 143. The score is arranged in a standard orchestral layout. At the top left, the measure number '28' and the rehearsal mark '140' are present. The instruments listed on the left are: Violin I, Violin II, Viola, Violoncello, Soprano (Soprano+ and Soprano-), Alto (Alto+ and Alto-), Tenor (Tenor+ and Tenor-), Trumpet (Trumpet+ and Trumpet-), Bassoon, Percussion 1, Percussion 2, and Gong. The Violin I and II parts feature complex rhythmic patterns with many sixteenth and thirty-second notes. The Viola part has a steady eighth-note accompaniment. The Violoncello part has a more melodic line with some rests. The vocal parts (Soprano, Alto, Tenor, Bass) have lyrics written below the notes. The Brass parts (Trumpet and Trombone) have melodic lines with some rests. The Bassoon part has a simple rhythmic pattern. The Percussion parts (Percussion 1 and 2) have complex rhythmic patterns. The Gong part is mostly silent with some rests.

144 29

Vln. I
Vln. II
Vla.
Vc.
sop+
sop-
alt+
alt-
ten+
ten-
brt+
brt-
bss
pnc1
pnc2
gng

This musical score page contains measures 144 through 147. The instrumentation includes Violin I and II, Viola, Violoncello, Soprano+, Soprano-, Alto+, Alto-, Tenor+, Tenor-, Brass+, Brass-, Bass, Percussion 1, Percussion 2, and Gong. The score is written in a key signature of one flat (B-flat) and a common time signature (C). The vocal parts (sop+, sop-, alt+, alt-, ten+, ten-) feature lyrics in a non-Latin script, likely Cyrillic. The instrumental parts include complex rhythmic patterns, such as sixteenth-note runs in the strings and woodwinds, and a sparse bass line. The page number '144' is located at the top left, and the rehearsal mark '29' is at the top right.

30 148

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1

pnc2

gng

E

sul pont., detache

p

152

31

8va

Vln. I

Vln. II

Vla.

Vc.

sop+

sop-

alt+

alt-

ten+

ten-

brt+

brt-

bss

pnc1
p

pnc2
p

gng