::: part 6 (B♭ clarinet) :::

Panopticon

for 12 periphonically spatialized clarinets

Louis GOLDFORD (2013)

"Morals reformed - health preserved - industry invigorated - instruction diffused - public burthens lightened - Economy seated, as it were, upon a rock - the gordian knot of the Poor-Laws are not cut, but untied - all by a simple idea in Architecture!"

-Jeremy Bentham, 1780

Panopticon was written for Auer Hall, at Indiana University, resulting from countless recitals I heard in that space, including recitals of electronic music on which my own works for multichannel sound were performed. I began to wonder how simulating the three-dimensional compositional procedures common to electronic music might sound using acoustic instruments instead of loudspeakers.

Scored for twelve clarinets, the positions of the instruments and conductor loosely resemble Bentham's panopticon. Here, the individual clarinetists are analogous to the inmates of a prison, the conductor functioning as the watchman in the tower; keeping a close eye on everybody despite that the inmates will never see their guardian or know exactly when they're being watched. Michel Foucault posits this arrangement as the panoptic society in which we live; the ideal modernization of punishment, prison itself being only one in a large network of sovereign institutions — schools, factories, hospitals — that conditions its citizens, This renders the panoptic society according to its classic "visual surveillance" terms, but an extension of this principle is offered when considering other forms, such as sonic surveillance.

The philosopher/musicologist Peter Szendy explores this possibility in *Sur écoute. Esthétique de l'espionnage* (2007) in which he traces the lineage of auditory surveillance across history, through spy movies. In an acoustic panopticon such as this arrangement of clarinets and conductor, not a single instrumentalist knows where the conductor's ears are focused at any given moment — if they're being "watched" or not. But, "Dissymmetry is always reversible," Szendy warns us. This "panacousticon" offers "infinite points of exteriority," where listeners can tap each other, and where there is no longer a single point of control or authority. Surveillance in the acoustic domain is, therefore, a dangerous game.

The pitch material for *Panopticon* is mostly drawn from the analysis of bass clarinet multiphonics. The opening presents one multiphonic analysis cast as a series of pulses whose polyrhythmic ratios are proportional to its frequency ratios, a technique inspired by the music of Yan Maresz. This texture is interrupted by another multiphonic and ensuing sonorities based on its analysis. These sonorities follow one another throughout the piece as new rhythmic elements are interspersed throughout the texture. Sudden, invasive memories of Iraqi *jurjina* and Bulgarian *kopanitsa* rhythms evoke the clarinet's rich and varied history as integral to these genres.

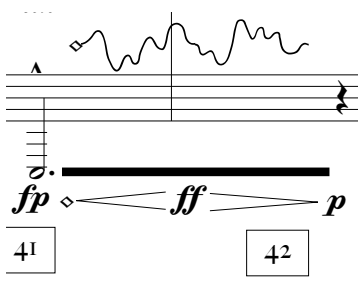
Louis Goldford
October 2013
Bloomington

performance notes

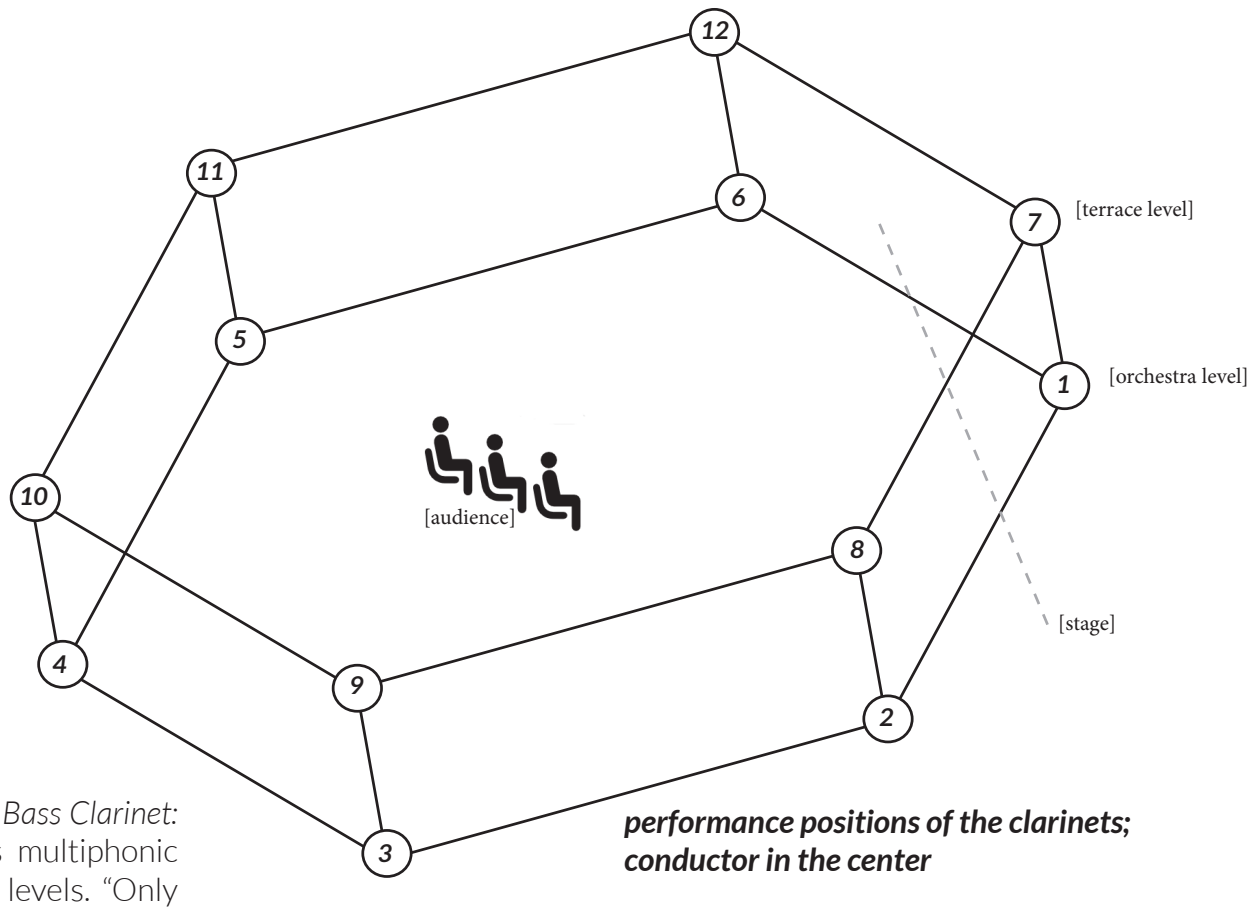
♯ *quartertone sharp*

♭ *quartertone flat*

Bass clarinet multiphonic #96

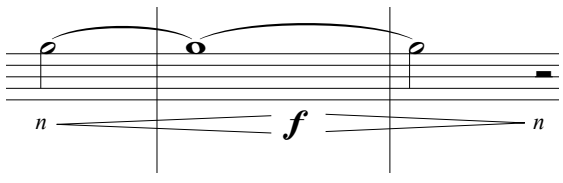


No. 96 from Harry Sparnaay's *The Bass Clarinet: A Personal History* (pg. 154). This multiphonic should be playable at all dynamic levels. "Only embochure. The higher the harmonics, the more the lower jaw should move towards the base of the reed." Best executed as a dynamic fade if possible, otherwise, light rearticulations of the tongue may help gradually move in and out of the mulitiphonic .



performance positions of the clarinets; conductor in the center

A note about dynamic fades

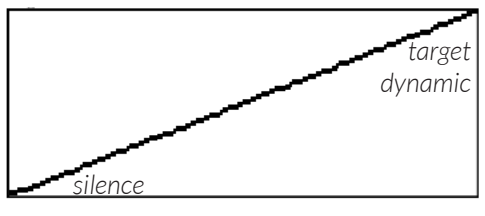


Fades from *niente* (*n*) are meant to imitate *equal-power panning* curves used in multi-channel sound. For this, it is crucial that performers are careful about dynamic levels and about rates of growth and decay in volume; which must must be non-linear.

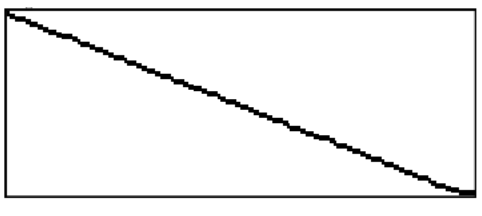
In the example above, the target dynamic is *forte*, but often the target dynamic is much softer: *piano* or *pianissimo*. Therefore, more degredations of loudness between *niente* and *pianissimo* must be available to the performer, and must be spaced carefully across the hairpin crescendos & decrescendo indiciations.

To create realistic panning, these fades (from silence to a target dynamic and vise versa) must be non-linear, as described below:

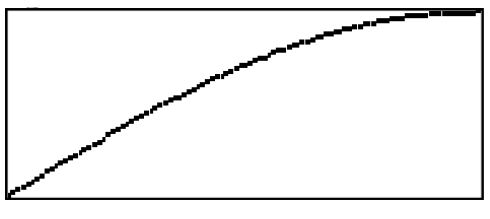
crescendo stage

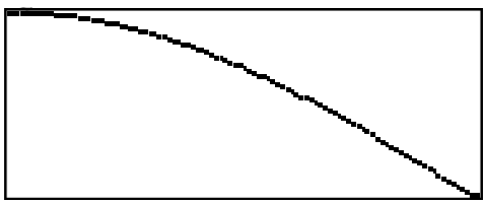


decrescendo stage



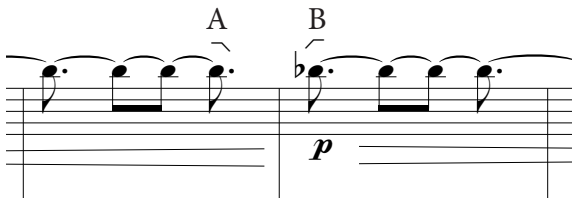
Our normal attempt to make fades linear.





Fades should be executed closer to this rate of growth & decay, with reasonable accuracy but NOT by a laborous attempt to approximate sin & cosine curves.

These curves mimic our normal perception of loudness and are more closely tied with how we may actually execute hairpins. Therefore, performers are asked to be somewhat sensitive to these rates of crescendo but not overly concerned with them. More important is to resist the attempt to linearize the crescendos as in the upper-most pair of swells.



Articulations without the tongue:

A.) imperceptible release;
B.) imperceptible attack.

For the opening section, mm. 1 - 41, rehearsal materials are avaiable from the composer (ljgoldford@gmail.com). These include click-track MIDI mockups to aid in practicing the irregular polyrhythmic subdivisions in each part. It is strongly advised that perfomers work with these materials prior to ensemble practice.

DURATION: ca. 6'30"

YOU GUESSED IT!
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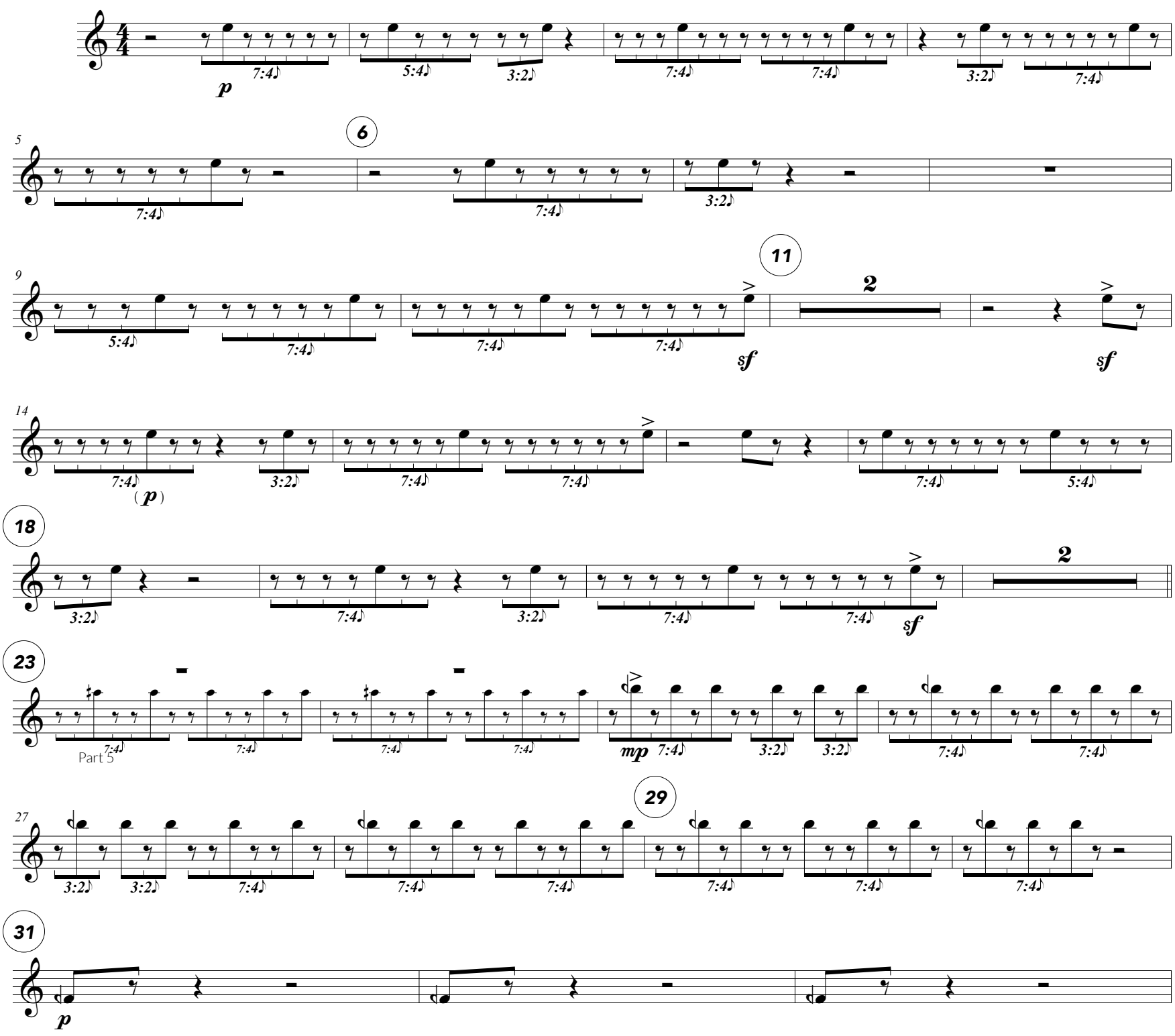
Panopticon

*for 12 periphonically spatialized clarinets**

Louis GOLDFORD (2013)

Mechanical, clock-like pulses; all notes equally staccato [♩ = 96**]



*See the performance setup diagram in the score preface for information on how each part is to be spaced.

**Although the basic pulse has been given as a quarter note, performers are encouraged to feel the music in a subdivided cut time, rather than 4/4. This will aid in executing the complex tuplets across the half note.

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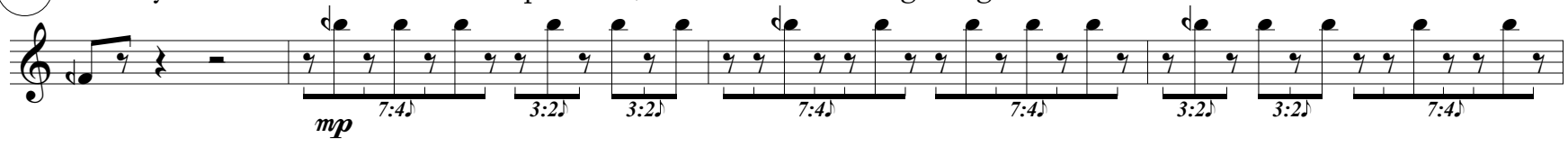
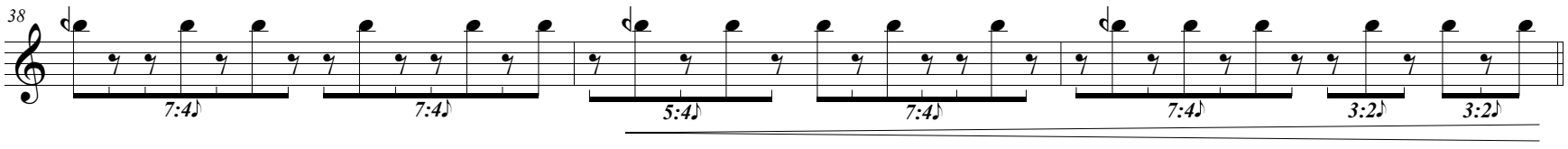
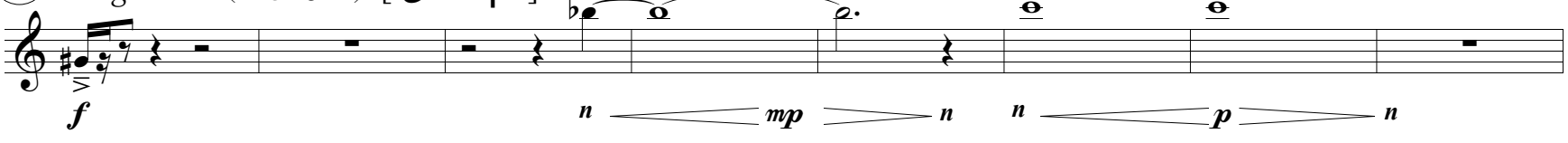
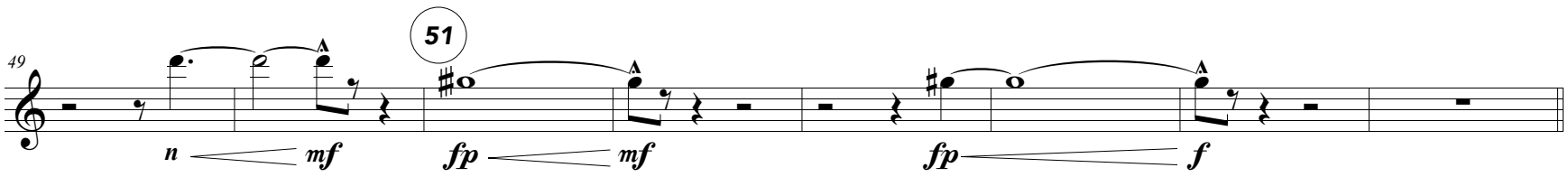
34 Steadily towards full note values & presence, as if the sound was getting closer...





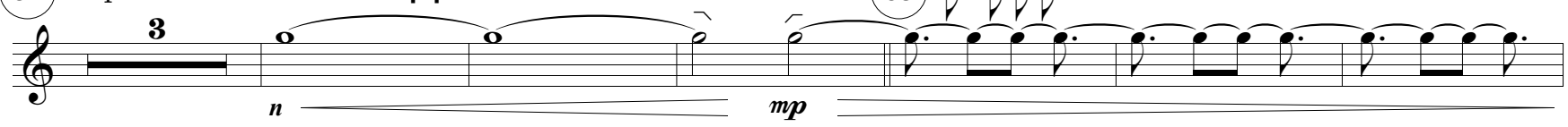
41 Long waves (← 𝅗𝅥 = ♩ →) [♩ = 48]





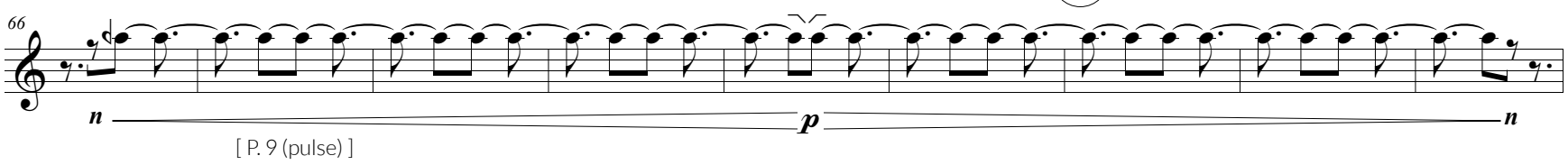
57 Triple (3x) Time [♩ = 144]

63 Jurjina (← ♪ = ♪ →) [♩ = 144]

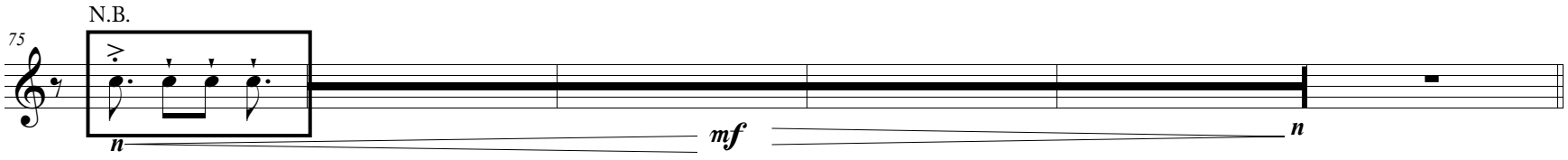


[P. 11 (pulse)]

72

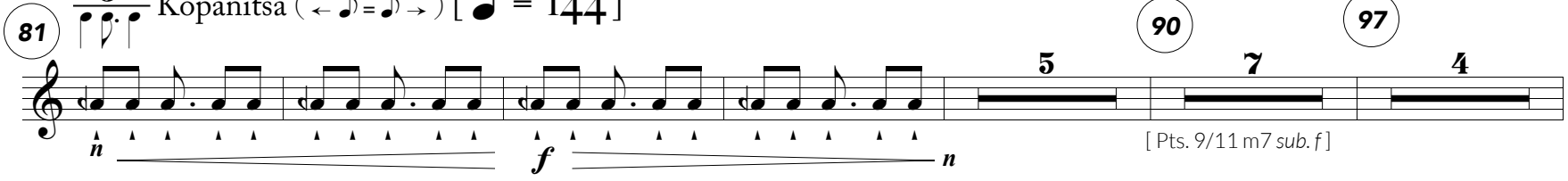


[P. 9 (pulse)]



81 3 Kopanitsa (← ♪ = ♪ →) [♩ = 144]

90 **97**



[Pts. 9/11 m7 *sub. f*]

N.B. Parts 1, 2, 4, 6, 9 & 11 need not worry about starting this phrases precisely on such a fast entrance that deviates from the normal Jurinja beat division; a slight phase difference between these parts will reinforce the artificial reverberation effect already at work in these canonic entrances.

101

105

ff sub.

mf sub.

106

2

113

118

111

2

ff sub.

mf sub.

ff sub.

127

119

mf sub.

mp

p

[P. 11 (run)]

134

128

4

[P. 9 (run)]

p

[Pts. 2/3 (fade)]

n *mp* *n*

138

142

3

p

n *mp* *n*

[Pts. 1/3/7/9 (run) *ff*]

154

147

4

mf

[Pts. 8/10/12 (fade)]

n *mp* *ff*

[Basses (run) *mf*]

mp

160

157

n

Part 1

mp *n*

167

170

164

3

3

Part 1

mp *n*

173 175 179 182 186 190 195 201 202 206 212 213 217 222 227 228 232 236 237

Part 8

[P. 3 (copy)]

[Pts. 7/11 (fade)]

[P. 2/3 (copy)]