Wolfgang von Schweinitz

Plainsound Duo “My Persia”

for Violin and Double Bass with Quartertone Scordatura

Bitonal Harmonic Counterpoint
in Traditional Persian Modes

op. 66
(2020 / 2024)

PART 1
Prelude and Dastgah-e SHUR
with variations on tunes
from the Radif of Ali-Akbar Shahnazi

PART 2
Dastgah-e CHAHARGAH
with variations on tunes
from the Vocal Radif sung by Mahmoud Karimi

PART 3
Dastgah-e SEGAH

PART 4
Dastgah-e HOMAYUN

PLAINSOUND MUSIC EDITION

composed in the summer months of 2020 and 2024
for Helge Slaatto and Frank Reinecke

A commission
from Berliner Festspiele / Musikfest Berlin
and from musica viva of the Bavarian Radio

Ein Auftragswerk
von Berliner Festspiele / Musikfest Berlin
und der musica viva des Bayerischen Rundfunks

PROGRAM NOTE

Plainsound Duo “My Persia”
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Bitonal Harmonic Counterpoint in Traditional Persian Modes

PART 1: Prelude and Dastgah-e Shur
with variations on tunes from the Radif of Ali-Akbar Shahnazi

PART 2: Dastgah-e Chahargah
with variations on tunes from the Vocal Radif of Mahmoud Karimi

PART 3: Dastgah-e Segah

PART 4: Dastgah-e Homayun

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The idea for “My Persia” was born about ten years ago, when I was finally able to fulfil my dream to attend the CalArts Persian Music Theory class which my esteemed faculty colleagues Houman Pourmehdi and Pirayeh Pourafar were teaching, with all this beloved classical Persian music, while I was usually presenting the music of my favorite great composers of 20th century Western music in the classroom next door. – As a newborn fan of Persian music, and as a composer with a long-standing interest in researching the sound and the performance techniques associated with microtonal just intonation, I was particularly attracted by the melodic power and beauty of the various unfamiliar Persian intervals that are made up of 3, 5, or 7 quartertones and created by the notes which are flattened by a “koron” or quartertone, and I developed the desire to compose a few pieces that are based on the traditional melodic rules and conventions for the various Persian modes or Dastgahs. – This project for the composition of “My Persia” seemed quite challenging and occupied my attention throughout the summer weeks of 2020 and 2024 – with the conceptual question: how to devise an efficacious bitonal harmonic counterpoint that could serve to optimize the harmony between all the pitches that are simultaneously played by the violin and the double bass – under the strict condition that the violin part exclusively employs the Persian scale degrees, while the part of the double bass is entirely made up of the very same melodic modes which the violin is playing, but transposed down by an octave-expanded and quartertone-augmented perfect fourth. – My “European” counterpoint study was inspired and guided by the great and very detailed explanations which Hormoz Farhat has shared in his wonderful book “The Dastgah Concept in Persian Music”.

But the extremely fortunate circumstance that finally triggered the composition was the enthusiastic love for the Persian music that my dear friend, bassist Frank Reinecke had developed while studying the tar and the setar with Majeed Qadianie. I had already collaborated with Frank and his duo partner, violinist Helge Slaatto for many years and composed four large-scale pieces in just intonation for them, and now I was so lucky to have them on board for this big new exploration. – They performed the first version of “My Persia” at the Musikfest Berlin on September 15, 2023, and again on September 24, 2023, at a ‘musica viva’ concert in Munich. This first version consisted of Part 1 with my transcription and contrapuntal arrangement of Ali-Akbar Shahnazi’s performance of Dastgah-e Shur and of Part 2 with my arrangement of the initial Daramad section of Mahmoud Karimi’s vocal rendition of Dastgah-e Chahargah. – At this occasion I realized that my compositions of Part 3 and Part 4 with my own takes on Dastgah-e Segah and Dastgah-e Homayun were simply not good enough for a performance yet. After having completed five other composition projects, I could finally delve into the fascinating world of classical Persian music once again in the summer of 2024, to figure out the necessary embellishments for Part 4 and to come up with an entirely new and certainly more far-reaching version of Part 3 with my own personal interpretation of the traditional Persian cycle of melodies called Dastgah-e Segah.

October 5, 2024

Performance Duration

PART 1
Prelude and Dastgah-e Shur
circa 24 – 27 minutes

PART 2
Prelude and Daramad of Dastgah-e Chahargah
circa 4:40 – 5:30 minutes

PART 3
Dastgah-e Segah
circa 25 minutes

PART 4
Dastgah-e Homayun
circa 5:40 – 6 minutes

All Parts may also be performed on their own or in various combinations.

TUNING INSTRUCTIONS

The strings of the violin are tuned in non-tempered perfect fifths to the tuning pitch A = 440 Hz, and the strings of the double bass are tuned in non-tempered perfect fourths, flattened by an Undecimal Quartertone with the frequency ratio 33/32 (circa 53.3 cents), so that the E string will produce the frequency 40 Hz. The E string may be tuned by ear as an absolute consonance with the frequency ratio 11/1 below the tuning pitch A = 440 Hz or below the violin's A string. The A string may be tuned by ear as a consonance with the frequency ratio 11/2 below the violin's D string, and the D string may be tuned by ear as an 11/4 consonance below the violin's G string. The G string may then be tuned as a perfect fourth above the D string.

ACCIDENTALS

for non-tempered microtonal Just Intonation

Modified Extended Helmholtz-Ellis JI Pitch Notation

♭ 𝄮 ♯	3-limit Pythagorean accidentals: the series of non-tempered fifths / fourths; alteration by an Apotome 2187/2048 (**113.7 cents**)
𝅘𝅥 𝅗𝅥	11-limit accidentals: alteration by an Undecimal Quartertone 33/32 (**53.3 cents**), augmenting the perfect fourth 4/3 to represent 11/8
𝄫 𝄪	13-limit accidentals: alteration by a Tridecimal Third-tone 27/26 (**65.3 cents**), diminishing the Pythagorean Sixth 27/16 to represent 13/8
𝄬 𝄭	13-limit accidentals: alteration by a Tridecimal Schisma 352/351 (**4.9 cents**), diminishing the 32/27 Pythagorean Minor Third to 13/11
𝄎 𝄏	19-limit accidentals: alteration by a 19-limit Schisma 513/512 (**3.4 cents**), augmenting the 32/27 Pythagorean Minor Third to 19/16
~ ~	5-limit accidentals: alteration by a 5-limit Enharmonic Schisma 32805/32768 or by the difference between the Pythagorean Comma and the Syntonic Comma (**1.95 cents**), lowering the pitch by about 2 cents if the tilde is placed below, and raising it if it is placed above the accidental, in order to establish a 5-limit minor third (6/5) or minor sixth (8/5) expanded by an octave or by two octaves.

NOTES

TUNING INSTRUCTIONS

The strings of the violin are tuned in non-tempered perfect fifths to the tuning pitch A = 440 Hz, and the strings of the double bass are tuned in non-tempered perfect fourths, flattened by an Undecimal Qaurtertone with the frequency ratio 33/32 (circa 53.3 cents), so that the E string will produce the frequency 40 Hz. The E string may be tuned by ear as an absolute consonance with the frequency ratio 11/1 below the tuning pitch A = 440 Hz or below the violin's A string. The A string may be tuned by ear as a consonance with the frequency ratio 11/2 below the violin's D string, and the D string may be tuned by ear as an 11/4 consonance below the violin's G string. The G string may then be tuned as a perfect fourth above the D string.

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for non-tempered microtonal Just Intonation

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♭ ♮ ♯ *3-limit Pythagorean accidentals: the series of untempered perfect fifths / fourths; alteration by an Apotome 2187/2048 (circa 113.7 cents)*

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↓ ↑ *13-limit accidentals: alteration by a Tridecimal Schisma 352/351 (circa 4.9 cents), diminishing the 32/27 Pythagorean Minor Third to 13/11*

𝄎 𝄏 *19-limit accidentals: alteration by a 19-limit Schisma 513/512 (circa 3.4 cents), augmenting the 32/27 Pythagorean Minor Third to 19/16*

Performance Duration : circa 65 minutes

PART 1 – pages 2 - 15 of score I : circa 24 - 27 minutes

PART 2 – pages 18 - 19 of score I : circa 4:40 - 5:30 minutes

PART 3 – pages 1 - 8 of score II : circa 25 minutes

PART 4 – pages 9 - 11 of score II : circa 5:45 - 6 minutes

The four parts of the piece may also be performed on their own or in various combinations.

The Mode of SHUR

on D♮ & A𝅘𝅥𝅯

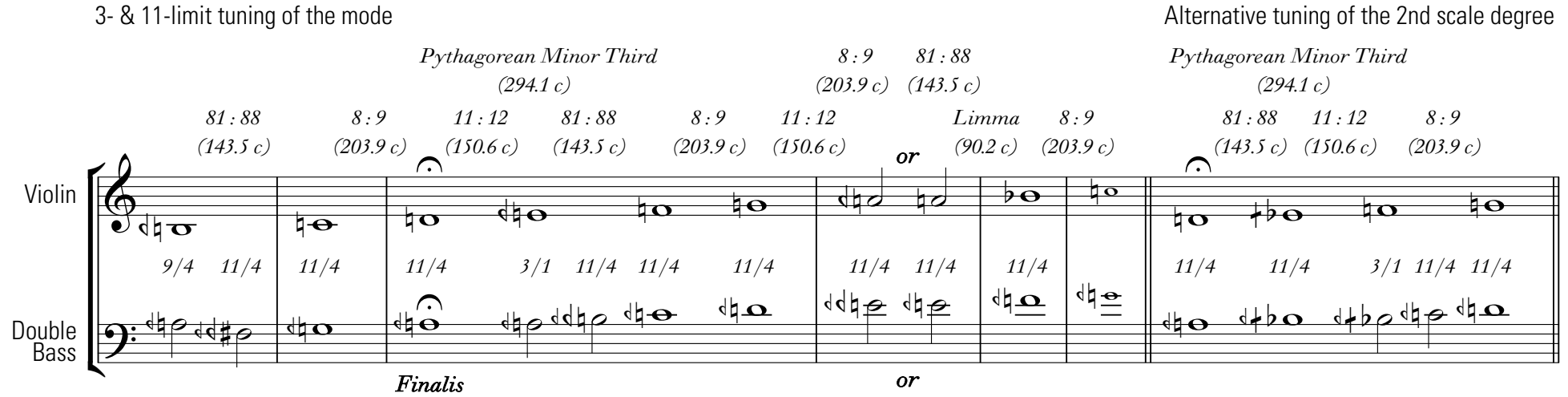
The various tunings of the scale degrees used in PART 1

Part 1 of the piece features the Persian mode Shur, based on the Finalis D in the violin part, and on A lowered by an Undecimal Quartertone 33/32 (ca. 53 cents) in the double bass part. In the mode of Shur, the fifth above the Finalis is "moteqayyer", i.e. it has two alternative tunings and is usually lowered by a quartertone when the melodic line is descending. When the perfect fifth is used, the upper half of the scale sounds like the Western Aeolian mode interpreted in Pythagorean intonation, with Major Whole Tones (8:9, or circa 204 cents) and the Limma or Pythagorean Diatonic Semitone (243:256, or circa 90 cents). The lowered 5th scale degree divides the minor third between the 4th and 6th scale degree nearly in the middle, being tuned a fourth above the 2nd scale degree which is always "koron", i.e. flattened by a quartertone. And the 3rd below the Finalis, which is also "koron" when used in ascending motion, creates yet two other three-quartertone steps.

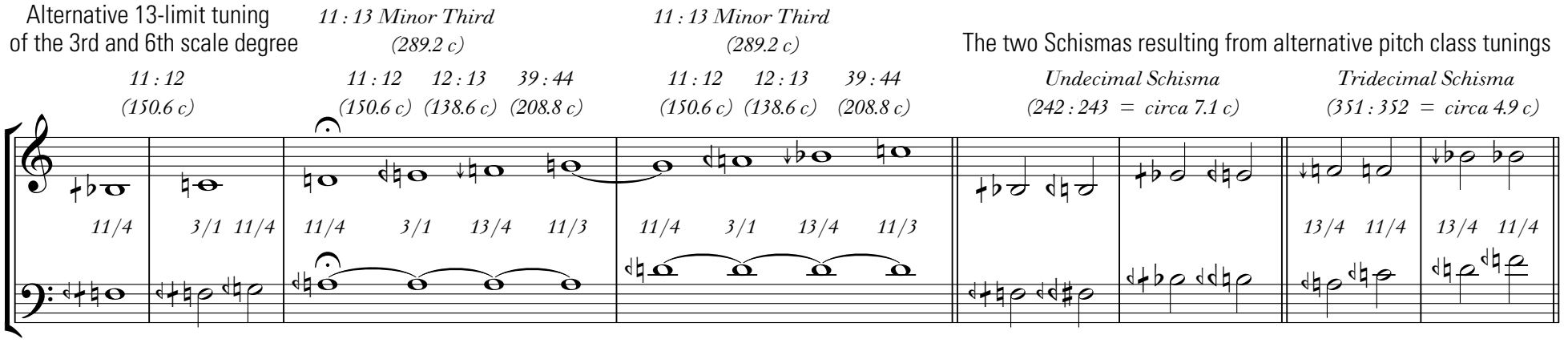
The harmonic counterpoint of this two-part composition is conceived in such a way that nearly all occurring dyads may be precisely tuned by ear, either as 3-limit, 11-limit, or 13-limit consonances. The Pythagorean Minor Third (27:32) is divided into two three-quartertone steps of slightly different size (11:12 & 81:88, which is about 7 cents smaller), and whenever the Minor Third is tuned according to the frequency ratio 11:13 (which is ca. 5 cents smaller than 27:32) in order to employ the expressive 13-limit dyads, the yet somewhat smaller three-quartertone step 12:13 is established. This minute 5-cents pitch inflection ("Tridecimal Schisma") is notated with a little arrow in front of the Pythagorean accidental; the arrow indicates that the note should be tuned as a 13-limit consonance and that a previous or following whole-tone step must be circa 5 cents larger than the regular Major Whole Tone 8:9. - The frequently occurring "Undecimal Schisma" is certainly more noticeable, and it can be dealt with by remembering that the quartertone-raised flats are about 7 cents lower than the quartertone-flattened naturals, and by simply trying to optimize the consonance of the dyad. (A few occasional 19-limit consonances (e.g. in m. 99) are smuggled in by sub-semitones alien to the mode of Shur.)

3- & 11-limit tuning of the mode

Alternative tuning of the 2nd scale degree



Alternative 13-limit tuning of the 3rd and 6th scale degree



The two Schismas resulting from alternative pitch class tunings

Plainsound Duo "My Persia"

for Violin and Double Bass with Quartertone Scordatura

3-, 11-, 13- & 19-limit Harmonic Counterpoint
in various traditional Persian Modes

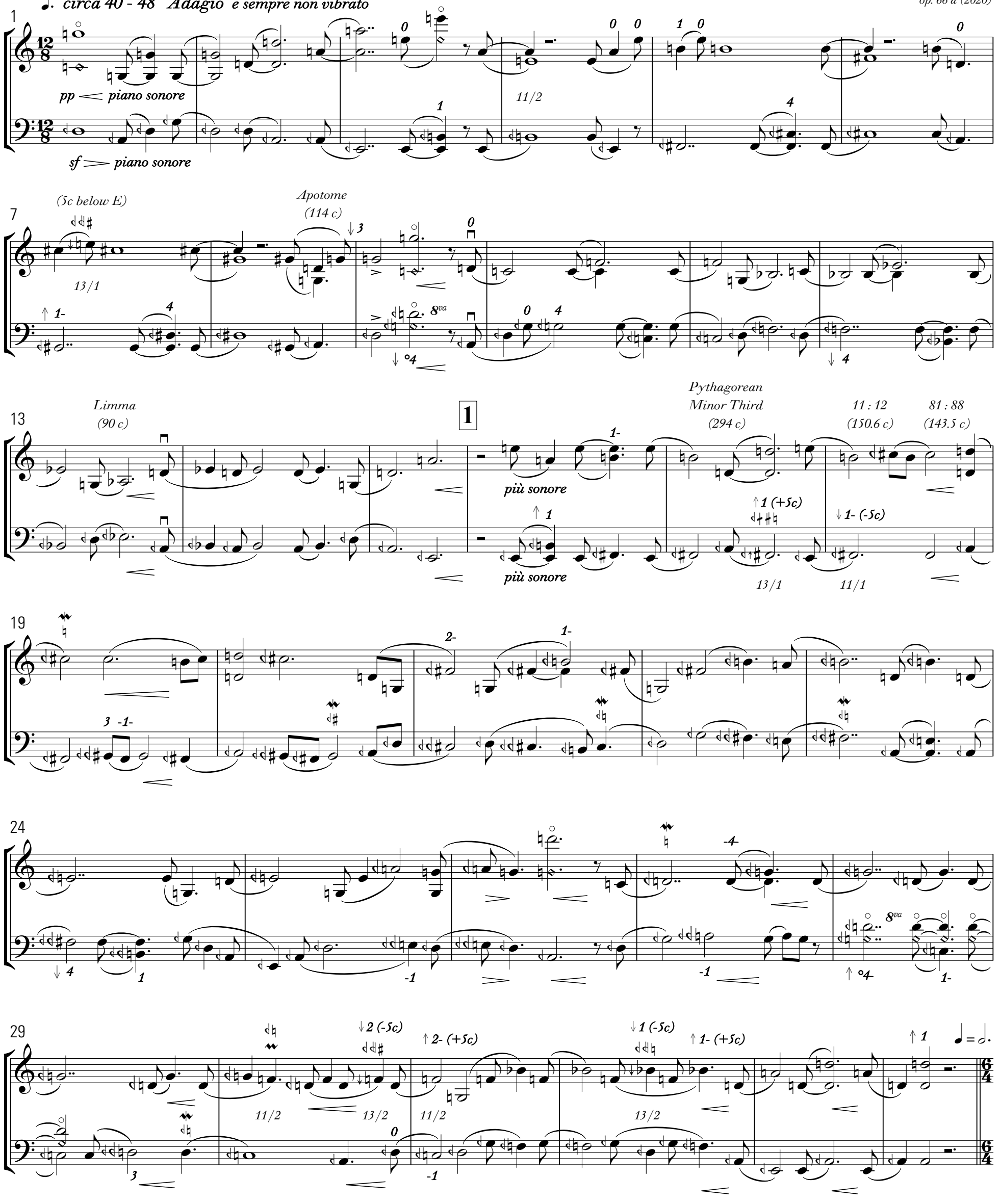
for Helge Slaatto and Frank Reinecke

PART 1

PRELUDE and Dastgah-e SHUR
with Variations on Tunes from the Radif of Ali-Akbar Shahnazi

PRELUDE : Pitch Repertoire

Wolfgang von Schweinitz
op. 66 a (2020)



35 𝅗𝅥. *circa 60 - 72 Allegro energico*

piano marcato *sf* *piano marcato*

40

sonore *sonore* *11 : 9 (347 c)* *più sonore* *più sonore* *↓3 (-7c)*

45

ancora più sonore *ancora più sonore* *12 : 13 (139 c)* *13 : 11 (289 c)* *9/2* *13/2* *↓3 (-7c)*

50 *↑3 (+5c)* *↑4*

55 *11 : 9* *22 : 27* *↓2 (-7c)* *↑2 (+7c)* *poco forte* *poco forte* *↓3 (-7c)* *↑3 (+7c)*

59 *più forte* *più forte*

64 **2** *↓3 (-5c)* *↑3 (+5c)* *piano* *piano* *cresc.* *cresc.* *9/2* *0 (l.v.)* *0 (l.v.)* *9/2* *9/2* *forte* *forte*

71 *piano* *piano* *(short tremolo)* *(-60c)* *2*

78 *poco forte* *poco forte* *44/9* *piano* *piano* *9/2* *↑3 (+60c)* *297/64* *espr.* *espr.*

86 *più forte* *più forte* *molto forte* *molto forte* *(+7c)*

ca. 4' 15" - 5' 15"

94 *circa 90 - 108 Presto con fuoco (ma non troppo forte)*

39 : 44
(209 c)

99

19/3

104

3

109

114

119

4

9/1 19/2

19 : 18
(94 c)

124

129

5

Limma

134

140

145

150

marcato

marcato

155

6

160

II

165

7

più forte

170

più forte

più forte

175

8

II

180

più forte

185

T

T

190

cresc.

cresc.

marcato

marcato

ca. 2' - 2' 30"

196 *circa 60 - 72* *Liberamente* *con tempo rubato ad libitum (sempre colla parte)*

IV *piano* *piano* 3 1 3 0 1

199 0 1 1 *cresc.* *cresc.* 3 0 1 0 *l.v.* *marcato* *marcato* 3 1 *l.v.*

202 V T *pp* *cresc.* T *pp* *cresc.* *sf* *sf*

9 Daramad No. 2

piano *piano* 3 1 4

206 2 0

209 **10** III 0 *cresc.* *cresc.* 0 1-

212 *marcato* *marcato*

215 *sf* *sf*

$\blacksquare = \blacksquare$ **11** Naghme

piano *sonore*

219 *sonore* *piano*

223 *piano* *sonore*

228 **12** *sonore*

234

239

cresc.

cresc.

marcato

marcato

244

sf

sf

Kereshmeh **13** *tempo giusto*

piano

sonore

T

250

T

255

T

260

14 *liberamente*

II

piano

pp

266

26 : 27 (65 c)

4 1

270

275

cresc.

cresc.

Gushe-ye Tork

sf

espr.

sf

280

marc.

marc.

ca. 2' 30" - 3'

287 *circa 80 - 96 Allegro assai*

piano *forte*

293

piano *forte*

298

302

15

306

piano

piano

313

16 Forud *con tempo rubato ad libitum*

forte *mp*

forte *piano*

319

Hasin ("sad")

325

cresc.

331

Forud **17**

forte

forte

336

gliss. *gliss.*

sf

sf

343

𝅗𝅥. *circa 80 - 96 tempo giusto*

sf *piano* *sonore*

sf *piano* *sonore*

349

355

361

𝅗𝅥. = 𝅗𝅥 *con tempo rubato ad lib.*

366

18

Avaz ("singing")

piano

371

cresc.

cresc.

376

19

forte

forte

𝅗𝅥 = 𝅗𝅥. Kereshmeh *tempo giusto*

sf *piano* *sonore*

sf *piano* *sonore*

382

388

diminuendo

diminuendo

ca. 2' 15" - 2' 45"

394 *circa 60 - 72 Liberamente con tempo rubato ad libitum*

piano

piano

398 Forud

403 Hashtari

20

408

413 Forud

cresc.

cresc.

gliss.

gliss.

418 *tempo giusto*

21 = Ozzal

sf *marc.*

sf *marc.*

423

429

più f

più f

435 **22** *circa 60 - 72 giusto*

ancora più forte

ancora più forte

440

445

23

450

455

24

460

465

25

470

475

Forud

481

ca. 2' 40" - 3' 15"

487 *circa 60 - 72 con tempo rubato ad libitum* Shahnaz

forte

forte

490

poco al pont. **T** *(short tremolo)* **T** *ord.*

poco al pont. **T** **T** *ord.*

496 **26** Kereshme *tempo giusto*

quasi piano

poco forte

501

506 **27** *con tempo rubato ad libitum*

509

513 **28** Kereshme Razavi *tempo giusto*

quasi piano

poco forte

518

523 **29** *circa 90 - 108 con tempo rubato ad lib.*

527

molto sonore

molto sonore

531 ♩. = ♩.

30 Qarache

sf *p espr.* *con molto portamento*

sf *piano flautando*

536

541

546 **31**

sf *sonore*

sf

552

26 : 27
(65 c)

557 ♩ = ♩ **32** Chaharmezrab ♩ *circa 90 - 108 tempo giusto*

forte

forte

562

567 ♩ = ♩ *con tempo rubato e ritenuto ad lib.*

sf

sf

ca. 3' 15" - 4'

Gereyli

572 *circa 60 - 72 tempo giusto, leggiero*

più vicino al pont.

pianissimo

più vicino al pont.

pianissimo

578

584 **33**

589

594 **34**

599

604 **35**

609

614

ritenuto

620 *a tempo*

36

625

630 *ancora più vicino al pont.*

ancora più vicino al pont.

638

645

650

654

659 Forud to Shur

665 *ritenuto*

ca. 3' 20" - 4'

Plainsound Duo "My Persia"

PART 2

TUNING INSTRUCTIONS

The strings of the violin are tuned in non-tempered perfect fifths to the tuning pitch A = 440 Hz, and the strings of the double bass are tuned in non-tempered perfect fourths, flattened by an Undecimal Qaurtertone with the frequency ratio 33/32 (circa 53.3 cents), so that the E string will produce the frequency 40 Hz. The E string may be tuned by ear as an absolute consonance with the frequency ratio 11/1 below the tuning pitch A = 440 Hz or below the violin's A string. The A string may be tuned by ear as a consonance with the frequency ratio 11/2 below the violin's D string, and the D string may be tuned by ear as an 11/4 consonance below the violin's G string. The G string may then be tuned as a perfect fourth above the D string.

ACCIDENTALS

for non-tempered microtonal Just Intonation

Modified Extended Helmholtz-Ellis JI Pitch Notation

♭ ♮ ♯ — *3-limit Pythagorean accidentals: the series of untempered perfect fifths / fourths; alteration by an Apotome 2187/2048 (circa 113.7 cents)*

𝅘𝅥♭ 𝅘𝅥♯ — *11-limit accidentals: alteration by an Undecimal Quartertone 33/32 (circa 53.3 cents), augmenting the perfect fourth 4/3 to represent 11/8*

↓ ↑ — *13-limit accidentals: alteration by a Tridecimal Schisma 352/351 (circa 4.9 cents), diminishing the 32/27 Pythagorean Minor Third to 13/11*

𝆏 𝆐 — *19-limit accidentals: alteration by a 19-limit Schisma 513/512 (circa 3.4 cents), augmenting the 32/27 Pythagorean Minor Third to 19/16*

~ ~ — *5-limit accidentals: alteration by a 5-limit Schisma 32805/32768 or the difference between the Pythagorean Comma and the Syntonic Comma (circa 1.95 cents), lowering the pitch by about 2 cents if the tilde is placed below the accidental - and raising it if placed above the accidental, in order to establish a 5-limit minor third (6/5) or minor sixth (8/5) expanded by an octave or by two octaves*

Performance Duration

of PART 2 : circa 4' 40" - 5' 30"

Part 2 may also be performed on its own.

The Scale of CHAHARGAH

on C♮ & G𝅘𝅥♭

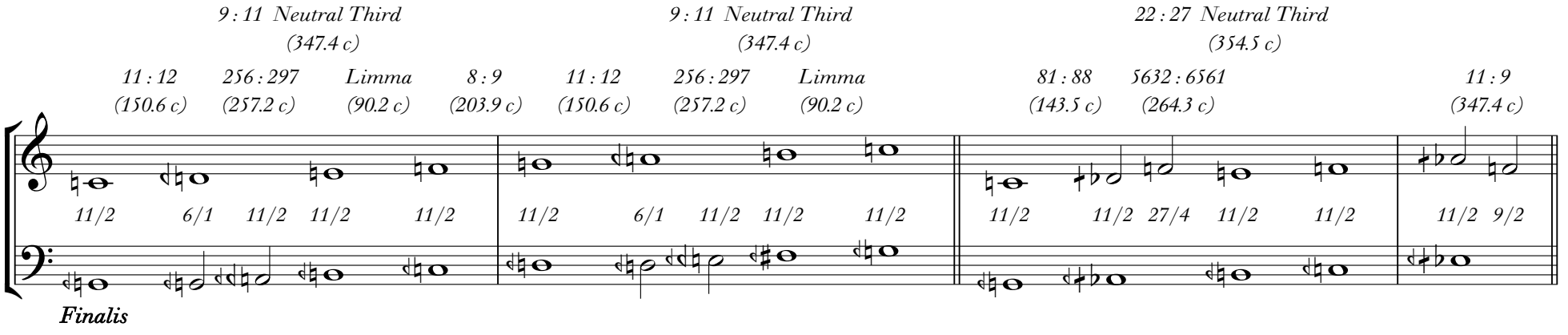
The various tunings of the scale degrees used in PART 2

Part 2 features the Persian mode of Chahargah, based on the Finalis C in the violin part, and on G lowered by an Undecimal Quartertone 33/32 (circa 53 cents) in the double bass part. Chahargah has two tetrachords of identical structure above and below the Finalis. Both the 2nd and the 6th scale degree are "koron", i. e. flattened by a quartertone, creating a three-quartertone step between the two lowest notes of the tetrachords. And the 3rd scale degree is tuned as a Pythagorean Diatonic Semitone or Limma (243:256, or circa 90 cents) below the 4th scale degree and therefore a Ditone or Pythagorean Major Third (81:64) above the Finalis, and similarly the 7th scale degree is tuned a Limma below the octave of the finalis. So the mode features a five-quartertone step in the middle of each tetrachord.

The harmonic counterpoint of this two-part composition is conceived in such a way that nearly all occurring dyads may be precisely tuned by ear either as 3-limit, 5-limit, 11-limit, or 13-limit consonances. While the outer notes of the tetrachord which are tuned in perfect fourths and fifths have a fixed pitch, the pitches of the inner notes of the tetrachords are flexible within a minute pitch range of just a few cents. They may be adjusted by ear, by optimizing their consonance within the harmonic context as indicated in the score, either by a 5-limit Schisma (circa 2 cents), a 19-limit Schisma (circa 3.4 cents), a 13-limit Schisma (circa 5 cents), by an Undecimal 11-limit Schisma 243/242 which is the pitch difference between a quarter-flat natural and a quarter-sharp flat note (circa 7 cents), or by the difference between the 11-limit Schisma and the 5-limit Schisma (circa 5 cents). - All these subtle pitch inflections will of course also modify the sizes of the melodic steps.

Basic 3- & 11-limit tuning of the mode

Alternative 11-limit tuning of the 2nd & 6th scale degree

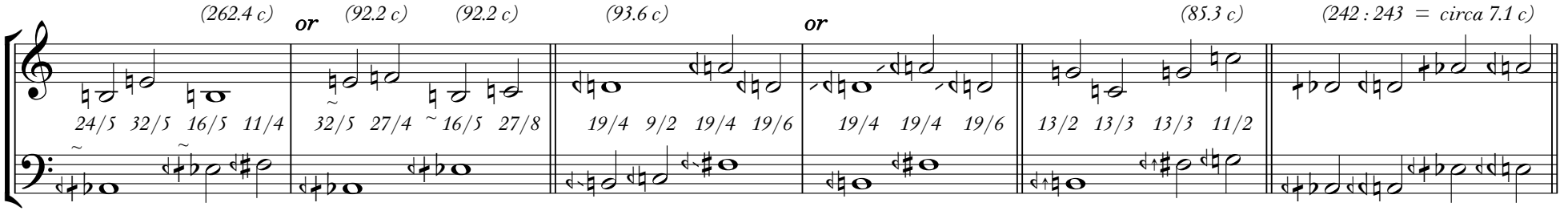


5-limit pitch adjustments

19-limit pitch adjustments

13-limit pitch adjustments

11-limit Schisma



PART 2

PRELUDE and Daramad of Dastgah-e CHAHARGAH
with Variations on Tunes from the Vocal Radif sung by Mahmoud Karimi

PRELUDE : Pitch Repertoire

Wolfgang von Schweinitz
op. 66 b (2020)

circa 48 - 56 ***Adagio*** *e sempre non vibrato*

sonore

sonore

11/2

11/2

8va

6

piano

9/2

19/8

19/4

11/3

gliss.

8va

8va

piano

11

11/2

8va

gliss.

8va

24/5

Dastgah-e CHAHARGAH on C♮ & G𝅝 - Daramad

17 *circa 48 - 56* ***con tempo rubato ad libitum***

Notes with small noteheads may be played noticeably softer than the surrounding normal notes.

pp

gliss.

gliss.

19/4

pianissimo

espr.

21

24

27 **1**

27/4

13/2

22/3

30 **2**

9/2

sonore

27/8

12/5

pianissimo

34

27/8

11/4 16/5 19/8

37

16/5 11/3 11/3 19/6

12/5 13/6 9/4 19/6

gliss.

41 **3**

sempre sul **IV** port.

pianissimo sonore sonore pianissimo

45

48 **4**

pp

sonore

51

III II

54 **5**

sonore

19/4

27/4 32/5 9/2

pianissimo

58

port.

13/3 22/3 19/3

piano sonore

61 **6**

port.

9/1 11/1

63

port. espr. espr.

ca. 4' 40" - 5' 30"

Wolfgang von Schweinitz

Plainsound Duo “My Persia”

for Violin and Double Bass with Quartertone Scordatura

Bitonal Harmonic Counterpoint
in Traditional Persian Modes

PART 3
Dastgah-e SEGAH

PART 4
Dastgah-e HOMAYUN

op. 66 c & d
(2020 / 2024)

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composed in the summer months of 2020 and 2024
for Helge Slaatto and Frank Reinecke

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Ein Auftragswerk
von Berliner Festspiele / Musikfest Berlin
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Performance Duration

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Prelude and Dastgah-e Shur
circa 24 – 27 minutes

PART 2
Prelude and Daramad of Dastgah-e Chahargah
circa 4:40 - 5:30 minutes

PART 3
Dastgah-e Segah
circa 25 minutes

PART 4
Dastgah-e Homayun
circa 5:40 – 6 minutes

All Parts may also be performed on their own or in various combinations.

TUNING INSTRUCTIONS

The strings of the violin are tuned in non-tempered perfect fifths to the tuning pitch A = 440 Hz, and the strings of the double bass are tuned in non-tempered perfect fourths, flattened by an Undecimal Quartertone with the frequency ratio 33/32 (circa 53.3 cents), so that the E string will produce the frequency 40 Hz. The E string may be tuned by ear as an absolute consonance with the frequency ratio 11/1 below the tuning pitch A = 440 Hz or below the violin's A string. The A string may be tuned by ear as a consonance with the frequency ratio 11/2 below the violin's D string, and the D string may be tuned by ear as an 11/4 consonance below the violin's G string. The G string may then be tuned as a perfect fourth above the D string.

ACCIDENTALS

for non-tempered microtonal Just Intonation

Modified Extended Helmholtz-Ellis JI Pitch Notation

♭ 𝄮 ♯	3-limit Pythagorean accidentals: the series of non-tempered fifths / fourths; alteration by an Apotome 2187/2048 (**113.7 cents**)
𝅘𝅥 𝅗𝅥	11-limit accidentals: alteration by an Undecimal Quartertone 33/32 (**53.3 cents**), augmenting the perfect fourth 4/3 to represent 11/8
𝄬 𝄰	13-limit accidentals: alteration by a Tridecimal Third-tone 27/26 (**65.3 cents**), diminishing the Pythagorean Sixth 27/16 to represent 13/8
𝄳 𝄲	13-limit accidentals: alteration by a Tridecimal Schisma 352/351 (**4.9 cents**), diminishing the 32/27 Pythagorean Minor Third to 13/11
𝄎 𝄏	19-limit accidentals: alteration by a 19-limit Schisma 513/512 (**3.4 cents**), augmenting the 32/27 Pythagorean Minor Third to 19/16
~ ~	5-limit accidentals: alteration by a 5-limit Enharmonic Schisma 32805/32768 or by the difference between the Pythagorean Comma and the Syntonic Comma (**1.95 cents**), lowering the pitch by about 2 cents if the tilde is placed below, and raising it if it is placed above the accidental, in order to establish a 5-limit minor third (6/5) or minor sixth (8/5) expanded by an octave or by two octaves.

PART 3
The Persian Mode of SEGAH
on E𝄳 & B𝄳𝄳

The various tunings of the scale degrees used in PART 3

PART 3 features the Persian mode of Segah, based on the Finalis E koron in the violin part, i.e. on E lowered by an Undecimal Quartertone 33/32 (circa 53 cents), and on B lowered by two Undecimal Quartertones in the double bass part. – The pitches used in the scale of Segah are the same as those of Shur (please see preface of PART 1). The two tetrachords below and above the Finalis E koron are each made up of two three-quartertone steps and a whole tone in the middle. The Dastgah-e Segah includes the Gushes Zabol and Muye which gradually raise the tessitura, using the same pitches as the Daramad of Segah, as well as the Gushe Hesar, which essentially transposes the scale of Segah into the upper fifth, and the Gushes Mokhalef and Maqlub, which bring in the only semitone step (between D and E-flat), and thus another tetrachord (the minor tetrachord above their Finalis C). So Maqlub sounds rather like the old version of Esfahan.

The harmonic counterpoint of this two-part composition is conceived in such a way that nearly all occurring dyads may be precisely tuned by ear, either as 3-limit, 11-limit, or 13-limit consonances. – The Pythagorean Minor Third (27:32) is divided into two three-quartertone steps of slightly different sizes (11:12 or 150.6 cents and 81:88 or 143.5 cents, which is about 7 cents smaller), and whenever the Minor Third is tuned according the frequency ratio 11:13 (which is circa 5 cents smaller than 27:32) in order to employ the expressive 13-limit dyads, the yet somewhat smaller three-quartertone step 12:13 (138.6 cents) is established. This minute 5-cents pitch inflection ("Tridecimal Schisma") is notated with a little arrow in front of the Pythagorean accidental; the arrow indicates that the note should be tuned as a 13-limit consonance and that the previous or following whole-tone step must be circa 5 cents larger than the regular major whole tone 8:9.

The frequently occurring "Undecimal Schisma" (e.g. between a quarter-sharp E-flat and a quarter-flat E) is certainly more noticeable, and it can be dealt with by remembering that the flat notes raised by a quartertone are about 7 cents lower than the naturals lowered by a quartertone, and by simply trying to optimize the consonance of the dyad. – In the Gushe Zang-e Shotor (measures 33 – 57) the Undecimal Schisma and the Tridecimal Schisma are occasionally both employed within the same melodic phrase, producing three different enharmonic inflections within the range of 12 cents for the pitch class F in the violin part (e.g. in measures 34-35). – Please see the note examples with the various scales on the following pages!

PART 4
The Persian Mode of HOMAYUN
on G𝄮 & D𝄳

The various tunings of the scale degrees used in PART 4

PART 4 features the Persian mode of Homayun, based on Finalis G in the violin part, and on D lowered by an Undecimal Quartertone 33/32 (circa 53 cents) in the double bass part. – Homayun contains several different tetrachords. – The tetrachord G-C above the Finalis G, which is related to the mode of Chahargah, is made up of a three-quartertone step (usually 11:12 or 150.6 cents, and sometimes 81:88 or 145.5 cents), a five-quartertone step (usually 256:297 or 257.2 cents, and sometimes an Undecimal Schisma or 7.1 cents larger), and the narrow classical Pythagorean semitone or Limma (90.2 cents), which may occasionally be augmented by a 5-limit Enharmonic Schisma (1.95 cents) when the violin's note B is tuned as a 5-limit minor sixth (expanded by 2 or 3 octaves) above an E-flat in the double bass. – The Pythagorean upper tetrachord C-F, which is related to the mode of Esfahan, is made up of two major whole tone steps (8:9 or 203.9 cents) and a Pythagorean semitone between D and E-flat in the middle; this Limma may occasionally be diminished by a 13-limit Schisma 352/351 (4.9 cents) to tune the E-flat as a 13-limit consonance above G-quarter-flat. – The low tetrachord between E-koron (third scale degree below the Finalis G) and A-koron (second scale degree above the Finalis G), with which the Daramad begins, is related to the mode of Segah; it is made up of a three-quartertone step (usually 81:88), a major whole tone step 8:9, and another three-quartertone step (usually 11:12). – The lowest tetrachord D-G, which is related to the mode of Shur, is made up of two consecutive three-quartertone steps (usually 11:12 and 81:88, but sometimes 81:88 and 11:12) and a major whole tone step 8:9. This tetrachord appears in the Gushe Bakhtiyari, which reestablishes the Finalis G near the end of the cycle.

The Gushe-ye Chahargah (with Finalis G) and the two Gushes Nafir and Mansuri, which are introducing a new Finalis a perfect fourth higher on C, are based on the scale of Chahargah, while the two Gushes Zabol and Bayat-e Ajam (both with Finalis E-koron) are based on the scale of Segah. – The final Gushe Moalef features a remarkable modification of the original scale of Homayun, in that the third scale degree above the reinstated Finalis G is "moteqayyer" and may be lowered by a whole tone (employing A instead of B), thus creating an exceptional melodic quartertone step between the second scale degree (A-koron) and the third scale degree (A).

In addition to the alternative 11-limit and 13-limit tunings (see previous page), there are some occasional minute pitch adjustments employing the 19-limit Schisma 513/512 (3.4 cents) for 19-limit minor thirds and the Enharmonic Schisma (1.95 cents) for some octave-expanded 5-limit minor sixths.

The Mode of SEGAH on E𝅝♭ and B𝅝♭♭

3-limit and 11-limit tuning of the mode of Segah

Violin

Contrabass

Alternative 13-limit tunings

Alternative 3-limit and 11-limit tuning of the mode of Segah

The mode of Hesar

The mode of Mokhalef & Maghlub

Alternative 3-limit and 13-limit tunings

Alternative 3-limit, 11-limit, and 13-limit tunings

The Mode of HOMAYUN on G♮ and D𝅝

The mode of Daramad, Chakavak, Gushe-ye Bidad, Shushtari & Bakhtiyari

The mode of Gushe-ye Chahargah

The mode of Nafir

or

or

The mode of Zabol & Bayat-e Ajam

22 : 27
(354.5 c)

The mode of Mansuri

The mode of Moalef

32 : 33
(53.3 c)

or

or

Examples of alternative 11-limit, 13-limit, 19-limit, and 5-limit tunings

PROGRAM NOTE

Plainsound Duo “My Persia”
for Violin and Double Bass with Quartertone Scordatura

Bitonal Harmonic Counterpoint in Traditional Persian Modes

PART 1: Prelude and Dastgah-e Shur
with variations on tunes from the Radif of Ali-Akbar Shahnazi

PART 2: Dastgah-e Chahargah
with variations on tunes from the Vocal Radif of Mahmoud Karimi

PART 3: Dastgah-e Segah

PART 4: Dastgah-e Homayun

op. 66
(2020 / 2024)

commission from Berliner Festspiele / Musikfest Berlin
and musica viva / Bavarian Radio

The idea for “My Persia” was born about ten years ago, when I was finally able to fulfil my dream to attend the CalArts Persian Music Theory class which my esteemed faculty colleagues Houman Pourmehdi and Pirayeh Pourafar were teaching, with all this beloved classical Persian music, while I was usually presenting the music of my favorite great composers of 20th century Western music in the classroom next door. – As a newborn fan of Persian music, and as a composer with a long-standing interest in researching the sound and the performance techniques associated with microtonal just intonation, I was particularly attracted by the melodic power and beauty of the various unfamiliar Persian intervals that are made up of 3, 5, or 7 quartertones and created by the notes which are flattened by a “koron” or quartertone, and I developed the desire to compose a few pieces that are based on the traditional melodic rules and conventions for the various Persian modes or Dastgahs. – This project for the composition of “My Persia” seemed quite challenging and occupied my attention throughout the summer weeks of 2020 and 2024 – with the conceptual question: how to devise an efficacious bitonal harmonic counterpoint that could serve to optimize the harmony between all the pitches that are simultaneously played by the violin and the double bass – under the strict condition that the violin part exclusively employs the Persian scale degrees, while the part of the double bass is entirely made up of the very same melodic modes which the violin is playing, but transposed down by an octave-expanded and quartertone-augmented perfect fourth. – My “European” counterpoint study was inspired and guided by the great and very detailed explanations which Hormoz Farhat has shared in his wonderful book “The Dastgah Concept in Persian Music”.

But the extremely fortunate circumstance that finally triggered the composition was the enthusiastic love for the Persian music that my dear friend, bassist Frank Reinecke had developed while studying the tar and the setar with Majeed Qadianie. I had already collaborated with Frank and his duo partner, violinist Helge Slaatto for many years and composed four large-scale pieces in just intonation for them, and now I was so lucky to have them on board for this big new exploration. – They performed the first version of “My Persia” at the Musikfest Berlin on September 15, 2023, and again on September 24, 2023, at a ‘musica viva’ concert in Munich. This first version consisted of Part 1 with my transcription and contrapuntal arrangement of Ali-Akbar Shahnazi’s performance of Dastgah-e Shur and of Part 2 with my arrangement of the initial Daramad section of Mahmoud Karimi’s vocal rendition of Dastgah-e Chahargah. – At this occasion I realized that my compositions of Part 3 and Part 4 with my own takes on Dastgah-e Segah and Dastgah-e Homayun were simply not good enough for a performance yet. After having completed five other composition projects, I could finally delve into the fascinating world of classical Persian music once again in the summer of 2024, to figure out the necessary embellishments for Part 4 and to come up with an entirely new and certainly more far-reaching version of Part 3 with my own personal interpretation of the traditional Persian cycle of melodies called Dastgah-e Segah.

October 5, 2024

Plainsound Duo "My Persia" – Part 3 : Dastgah-e Segah

Wolfgang von Schweinitz
op. 66c (2020 / 2024)
with a nod to Mohammad Reza Lotfi

♩ = 72 sempre non vibrato

Pishdaramad

Violin

Contrabass

5

9

13

17

♩ = 76 Daramad

21

portamento

25

29

33 ♩ = 80 Zang-e Shotor

Pythagorean F + 7 c

4↓ (-12 c)

4↑ (+5 c)

pp p pp p mp mp

36

3↑ (+7 c)

mf mf

39

3↓

f f

4↑ (+5 c)

mf mf

42

mp mp p p

45

Pythagorean B-flat + 7 c

f f ff ff

(II)

48

4↓ (-12 c)

f f

4↑ (+5 c)

mf mf

51

mp mp p p

54

rit..... a tempo rit.. a tempo

pp pp p pp pp

Gushe-ye Zabol

♩ = 84

58

61

64

67

70

♩ = 88 Gushe-ye Muye

74

77

80

83

mf 3 3 8va new position mp 2/1 3 3 p 3 pp I 8va mf mp p pp

86

2/1 2/1 3 Node º13 between º8 & º5 8va 8va 8va 13/4 3 p 3/1 11/4 11/4 3 (+12 c) mp 8va new pos. p

89

2/1 3/1 3 mf 8va 8va mf 11/4 new pos. f 2/1 3 mf 8va 8va new pos. mf f

92

rit. a tempo 2/1 3 2/1 2/1 2/1 new pos. III mp mp 11/4 III new pos. II 11/4 13/4 p pp

96

♩ = 92 Hesar ... vicino al pont. pp ff 3 11/4 f ... vicino al pont. pp ff

99

3 mf 3 mp p pp 8va Nodes º3 & º9 mf mp p pp

103

ord. mp mf 3 3 3 f espressivo 3 3 3 ord. mp mf f

106

f 3 3 3 p pp Node º11 between º3 & º8 IV º8 (III) 3 (-31 c) f > p pp

110

Nodes ⁰3 & ⁰9

114

118

3/1

27/8

↓ (-7 c)

122

Nodes ⁰3 & ⁰9

126

= 96

Mokhalef

3↓ (-7 c)

3/1

↓ (-7 c)

129

27/8

3/1

27/8

132

espressivo

13/4

135

allarg.

= 92

27/4

poco allarg.

3↑ (+7 c)

Node ⁰11 between ⁰8 & ⁰3

139 ♩ = 92 Maqlub

pp 8va Node º11 between º8 & º3 p mp Node º13 between º5 & º8 mf

143

sf p pp mf f mf

146 (-7c)

9/2 f mf pp p mp

149

p pp 3/1 p mp leave 1st finger on the string 9/1 mf f

152 poco allarg.

mf mp p pp 8va

156 ♩ = 88 Gushe-ye Muye

pp 8va p 2/1

159

2/1 p mp 8va

162

2/1 2/1 mp mf f 8va mf

165

2/1

new position

168

2/1 2/1

Node °13

8va between °8 & °5

13/4

3/1 11/4

11/4

new pos.

171

2/1 3/1

11/4

new pos.

2/1

new pos.

174

rit. a tempo

2/1 2/1 2/1

new pos.

11/4 13/4

178

♩ = 84 Forud

(+5 c) (-5 c) (+5 c)

181

poco allarg.

♩ = 80 Postlude

(-7 c) (+7 c)

... vicino al pont.

ord.

184

4↓ (-12 c) 4↑ (+5 c)

187

poco allarg. ♩ = 76

190 portamento

194 poco allarg.

198 ♩ = 72

202

206

210

214

218 rit. a tempo

ca. 25'

Plainsound Duo "My Persia" – Part 4 : Dastgah-e Homayun

Wolfgang von Schweinitz
op. 66 d (2020 / 2024)

1 ♩ = 72 sempre non vibrato — Daramad

Violin

Contrabass

II º6 - º12 (al pont.)

Gushe-ye Chahahargah

10
33 **4** ♩ = 80 Movalian

f *ff* *f* *mf*

37 **5**

mp *p* *pp* *p* espr. *mp* *mf*

41

f *mf* *mp* *p* *f*

45 **6** ♩ = 84 Chakavak

p *pp* *p* *pp*

48 **7** Gushe-ye Bidad

mp *mf* *f* *p* *pp* *p*

52

mp *mf*

Forud

56

f *mf* *p* *f* *ff*

60 **8** ♩ = 88 Nafir

pp *p* *mp*

64

poco allarg. . . . .

mf *f* *mf* *p* *pp*

69 **9** a tempo ♩ = 88 Zabol & Bayat-e Ajam

73 **10** ♩ = 92

77 Forud

81 **11** Shushtari

85

89 **12** ♩ = 96 Mansuri

93 **13** Bakhtiyari

97 poco allarg. …… a tempo

101 **14** Moalef

105 Forud ♩ = 92 ♩ = 88 ♩ = 84 ♩ = 80 ♩ = 76 ♩ = 72

ca. 5' 40"