

Refraction

for

Clarinet, Violin and Piano

by

Keith A. Hamel

*Commissioned by Ensemble Intercontemporain as part of the
1991 Scotia Festival of Music*

*Premiered on May 22, 1991 at Salle Claude Champagne, Montreal
by members of the Ensemble Intercontemporain*

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Duration: 10'
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Performance Notes

General:



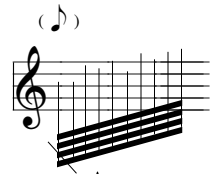
as fast as possible



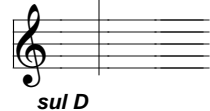
unmeasured, but played at approximately the speed indicated.



repeat pattern continuously



move fingers rapidly (in random order) and gradually move up the string

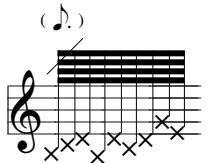


as high as possible on the specified string

Clarinet:

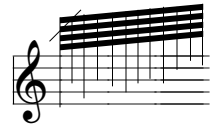


always denotes flutter-tongue



audible key clicks and breathy notes; some pitch, but mostly air

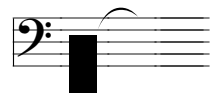
Piano:



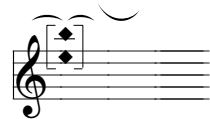
play random notes as quickly as possible (in the approximate register indicated)



chromatic cluster

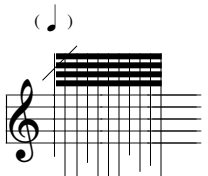


hit piano strings with the palm of the hand and let the strings resonate



itches sustained by sostenuto pedal

Violin:



move fingers rapidly (in random order) on specified string

sul G

Additional piano pedalings may be desirable. All notated pedal indications should be taken to be advisory in nature.

♩ = 60

Clarinet

Violin

Piano

pp *p* *ppp* *ppp* *mp*

con sord. *pp* *pppp* *ppp* *p* *ppp* *p* *pp*

ppp *pp* *ff* *p* *f* *mf*

ff *ff*

flutter *3* *poco* *gliss*

p *3*



5

Clarinet

Violin

Piano

pp *p* *mp* *pp* *p* *pp* *p* *ppp* *p*

sul pont *ord.* *ppp* *pp* *ppp* *ppp* *p* *ppp* *p* *mp* *p*

pp *pp* *pp* *mp*

mp *p* *pp* *mp*

flutter *poco* *poco*

III *IV* *3* *5*

*Bb Clarinet is written at sounding pitch.

9

Musical score for measures 9-11. The score is written for voice and piano. The vocal line (top two staves) begins with a *poco* marking and dynamic markings of *ppp*, *p*, *ppp*, *mp*, *mf*, *fp*, and *fp*. The piano accompaniment (bottom staff) includes the instruction *senza sord.* and dynamic markings of *mp*, *p*, *mp*, *mf*, *fp*, and *fp*. The piano part features complex textures with sixths and triplets.



12

Musical score for measures 12-15. The score is written for voice and piano. The vocal line (top two staves) has dynamic markings of *fp*, *fp*, *fp*, *fp*, and *ffp*. The piano accompaniment (bottom staff) includes dynamic markings of *ff*, *pp*, *p*, *f*, and *ffp*. The piano part features complex textures with sixths and triplets.

18

8va... loco

as fast as possible

gradually vary loudness p - f

20

8va... loco

22

tr

ffmp *f* *ffmp* *ff* *ffmf*

6

f *f* *ff* *f* *ff*

8va..... loco

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

3 3

ff *ff*

8

loco

mf cresc. poco a poco...



24

tr

ff *f* *ff* *f* *ffmp* *mf*

3 3 3

f *ff* *f* *ff* *f* *ff* *mp* *f*

tr

ff *mf* *f* *ff* *mf* *fff* *fff*

8b..... loco

26

ffpp *mfpp* *mfpp* *mfpp* *mfpp* *mfpp* *mfpp* *mp* *mfpp* *fp* *pp*

ffpp *mfpp* *mfpp* *mfpp* *mfpp* *mfpp* *mfpp* *fp* *pp*

p *p* *f* *legato* *pp*

f

Sostenuto

29

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

mp *pp* *mf* *p* *pp* *p* *poco* *poco* *poco*

mf *mp* *f* *mf*

sempre p *f* *mf*

(Sost.) *mf* *Senza ped.*

32

Musical score for measures 32-34. The score is written for a single melodic line and a piano accompaniment. The melodic line starts with a triplet of eighth notes, followed by a half note, and then a triplet of eighth notes. Dynamics include *mf*, *p*, and *f*. The piano accompaniment features sixteenth-note patterns with dynamics *mp*, *f*, and *ff*. Performance markings include *poco*, *Pizz.*, and *arco*. Measure numbers 32, 33, and 34 are indicated at the beginning of their respective staves.

35

Musical score for measures 35-37. The score is written for a single melodic line and a piano accompaniment. The melodic line features a series of eighth notes with a *flutter* marking. Dynamics include *p*, *f*, *ffp*, and *mf*. The piano accompaniment features sixteenth-note patterns with dynamics *mp*, *f*, and *ff*. Performance markings include *Arco* and *p*. Measure numbers 35, 36, and 37 are indicated at the beginning of their respective staves.

38

mp \triangleleft pp \triangleleft f \triangleleft p \triangleleft mp \triangleleft p \triangleleft fmp \triangleleft ff

p \triangleleft pp \triangleleft f \triangleleft p \triangleleft mp \triangleleft p \triangleleft fmp \triangleleft ff \triangleleft fff

f ff



41

$\text{♩} = 48$

fff \triangleleft pp \triangleleft mp \triangleleft pp \triangleleft pp \triangleleft mp \triangleleft f \triangleleft ffp \triangleleft mp \triangleleft p

legato

sub. p poco a poco cresc. ... mf p

$\text{♩} = 48$

ffff

U.C. _____

46

flutter

mf p p mf mfp f ffp mfp mf p

mp p

p ff p p

U.C. U.C.



49

mfp mfp p mp f ff ffp ff ffp

mp f ffp mfp mp ff mp

mp ff mp ffp

U.C. U.C.

10 ♩ = 60

52

flutter
 tremolo
 poco a poco sul pont
 sul pont
 poco a poco ord. . . .

mfpp *mfpp* *ffp* *mp* *pp p*

ffp *ffp* *ffp* *mp* *p* *pp p*

♩ = 60

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

U.C.



56

♩ = 72

f ffp *p* *ffmp* *mf* *ffp* *fff*

ord.
ffp *ffp* *p* *ffmp* *mf* *ffp* *fff*

♩ = 72

p *mf* *ff* *f*

mf *f*

(U.C.)
 Senza ped.

59


Musical score for measures 59-60. The score is written for two treble clefs and a grand staff (treble and bass clefs).
- The first treble staff contains a melodic line with dynamics *p*, *mf*, and *ffp*. The final note is marked with a 'flutter' instruction.
- The second treble staff contains a melodic line with triplets and dynamics *p*, *mf*, and *ffp*.
- The grand staff contains a piano accompaniment with dynamics *mf*, *f*, and *ff*. The bass line features a rhythmic pattern of eighth notes.

61

Musical score for measures 61-64. The score is written for two treble clefs and a grand staff (treble and bass clefs).
- The first treble staff contains a melodic line with dynamics *ff*.
- The second treble staff contains a melodic line with dynamics *ff*.
- The grand staff contains a piano accompaniment with dynamics *ff*. The bass line features a rhythmic pattern of eighth notes.

63

♩ = 60

( approx) slightly uneven trill speed

fff ppp mf pp flutter tr

fff ppp mp p mp

fff

fff

66

mp p mf p pp ppp p pp pp

pp mp pp mf p mf p mp pp mp p

fff

fff

ppp

mp

loco

(rit.)

1/2 (rit.)

Sost.

69

1/2 *rit.*

(Sost.)



71

1/2 *rit.*

(*rit.*)

(Sost.)

73

flutter

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

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

ff *p* *mp* *p* *p* *mp* *fff* *p*

mf *p* *mp* *p*

ff *fff*

(Sost.)

75

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

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

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

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

(Sost.)

77

Violin I: *mf*, *mp*, *f*, *p*, *f*, *mp*

Violin II: *mp*, *f*, *ff*, *pppp*

Violin III: *mf*, *f*, *ff*

Cello/Double Bass: *ff*, *fff* *lv*

Annotations: *tr*, *gliss*, *hit piano strings with palm of hand*

Tempo: $\text{♩} = 48$

Rehearsal Mark: (Sost.)

79

Violin I: *ff*, *pp*, niente, *pp*, *mp*, *ppp*, *mfpp*

Violin II: *ppp*, *mp*, *pp*, *mp*, *ppp*, *mf*, *pp*

Cello/Double Bass: *ppp*

Annotations: *gliss*, *flutter*, *tr*

Tempo: $\text{♩} = 48$

Rehearsal Mark: (Sost.)

84

mp > *pp* < *mp* > *pp* > *pp* < *mf* > *p* > *pp* > *f*

gliss *bend* *gliss*

p *sf p*

mostly air (*mp*) with some pitch (*pp*) and audible key clicks

gliss *II* *gliss*

mf > *pp* > *mp* > *pp* > *ppp*

mf < *f*

/ Senza ped.



89

p *sf* *p* *ffp* > *mp* > *pp* *p* *p* *sf*

gliss *3* *3*

col legno battuto *sul G* *mf*

mf < *f*

15

92

(♩) *1/2 col legno* (♩) (♩)
mf *fff* *pp*
as high as possible (sul G) *gliss*
 15 *fff* *loco*
 15 *fff* *sfz*
Ed.



94

(♩) (♩) (♩)
sf p *ffp* *mf p* *ff*
1/2 col legno *sul D* *mf* *ff*
pp *f* *fff* *loco*
 15 *fff*
 15 *fff*
Ed.

97

more air than pitch in low notes

flutter

12

12

12

sf p

sf p

() (sul A) () (sul E)

as high as possible (sul E)

change to all hair ...

fff

fff

15

loco

loco

fff

(ord.)



99

12

12

6

flutter

sf p

sf p

ffp

mf

pp

ord. (non col legno)

mf

p

ff

ffp

ff

ffp

loco

loco

ff

8

101

Musical score for measures 101-102. The score is in 2/4 time. The upper staff (treble clef) contains a melodic line with dynamics *p*, *ffp*, *mf*, *p*, *ffp*, *mf*, *p*, *p*. It includes a 12-measure triplet, a 6-measure triplet, and a 3-measure triplet. The lower staff (bass clef) contains a rhythmic accompaniment with dynamics *ff*, *ffp*, *ff*, *ffp*, *ff*. A grand staff (treble and bass clefs) is shown below, with dynamics *ff* and *ff*. A *rec.* (ritardando) marking is present at the end of the system.



103

Musical score for measures 103-104. The score is in 2/4 time. The tempo is marked $\text{♩} = 68$. The upper staff (treble clef) contains a melodic line with dynamics *ffp*, *fff*, *mf*, *pp*, *p*. It includes a 3-measure triplet and a 7-measure triplet. The lower staff (bass clef) contains a rhythmic accompaniment with dynamics *ffp*, *ff*, *mp*, *ff*, *ffp*, *ff*, *ffp*. It includes a 3-measure triplet and a 3-measure triplet. A grand staff (treble and bass clefs) is shown below, with dynamics *fff*, *fff*, *ppp*, *pp*, *ppp*, *pp*. The instruction "gradually vary dynamic level ppp - mp" is written twice. A *rec.* (ritardando) marking is present at the end of the system.

106

f *mp* *ff* *f* *ff*

ffp *ff* *ffp* *ff* *ffmp* *ff* *mf*

107



109

mf *ff* *mp* *mf* *f* *mf* *ff* *mf* *ff* *fff*

ff *ff* *mf* *ff* *mp* *ff* *f* *fff*

mp poco a poco cresc... *f molto cresc...* *ffff*

mp poco a poco cresc... *f molto cresc...* *ffff*

110

♩ = 92

111

pp p >pp mp >pp mp

gliss

3 fff mp pppp

molto legato

p

♩ = 92

lv

lv

ppp

poco cresc...



117

>pp mp >pp mp >pp mp >pp mp >pp mf >pp mf >p mf >p mf

poco a poco cresc. ...

mf

pp p mp

mp mf

122

Musical score for measures 122-125. The score consists of three staves: a single treble clef staff at the top, a single treble clef staff in the middle, and a grand staff (treble and bass clefs) at the bottom. The key signature has one sharp (F#) and the time signature is 2/4. Measure 122 starts with a dynamic of *p mf*. The first staff has a melodic line with slurs and accents. The second staff has a similar melodic line. The grand staff has a piano accompaniment with chords and moving lines. Dynamics include *p*, *mf*, *f*, and *p*. A trill is marked in measure 125. The section ends with the instruction *Senza ped.*



126

Musical score for measures 126-130. The score consists of three staves: a single treble clef staff at the top, a single treble clef staff in the middle, and a grand staff (treble and bass clefs) at the bottom. The key signature has one sharp (F#) and the time signature is 2/4. Measure 126 starts with a dynamic of *f*. The first staff has a melodic line with slurs and accents. The second staff has a similar melodic line. The grand staff has a piano accompaniment with chords and moving lines. Dynamics include *f*, *p*, *ff*, *p*, *ff*, and *fff*. A trill is marked in measure 126. The section ends with the instruction *subito mp* and a change in time signature to 9/8.

130

fp fp fp fp fp fp < f p <

fp fp fp fp fp fp < f

mf f

mf f

134

f p < f ff mf ff mf ff mp < ff ff mp <

p < f ff mf ff mf ff mp < ff ff mp <

f

f

And. / And. / And. / And.

148

Musical score for measures 148-151. The score is written for a piano with three staves: Treble, Middle, and Bass. Measure 148 starts with a treble clef and a key signature of one flat. The first staff has dynamics *mf* and *ffmp*. The second staff has dynamics *ffmp*. The third staff has dynamics *f* and *ff*. The piece concludes with a double bar line and repeat signs.

152

Musical score for measures 152-155. The score is written for a piano with three staves: Treble, Middle, and Bass. Measure 152 starts with a treble clef and a key signature of one flat. The first staff has dynamics *ffp*, *ffp*, *fp*, and *fp*. The second staff has dynamics *ffp*, *ffp*, *fp*, and *fp*. The third staff has dynamics *fff*, *fff*, and *fff*. The piece concludes with a double bar line and repeat signs.

(Ped.)

Sost.

(Ped.)

156

fp mfp mfpp

<fp <fp <mfp <mfp <mfpp

p pp

pp 3

(rit.)
(sost.)



161

mfpp ppp mfp mp pp ppp pp

flutter 3 poco

mp>pp mfp mp>ppp

p ppp

ppp

ppp

(rit.)
(sost.)

167

ppp pp < p > ppp < p > ppp mp > ppp

p > ppp p > ppp < mp > ppp < mp > ppp

poco a poco sul pont ...

pp

pp

(sost.)



173

flutter flutter

ppp mp

sul pont (at the tip) poco a poco ord ...

ppp mp

ppp

ppp

(sost.)

ord.

pp

pp

(*ord.*) _____ /
(*sost.*) _____ /