

Andrew Mark Sauerwein

# Sakharoviana

for  
Violin, Piano, and Percussion

Commissioned by Scott Eddlemon  
In honor of the life and legacy of Andrei Sakharov  
2012

### *About the Music:*

*Sakharoviana* is a reflection on the life and legacy of Soviet physicist and human-rights advocate Andrei Sakharov. The topic was chosen by percussionist Scott Eddlemon, who commissioned the work for performance on the Oak Ridge Symphony Orchestra's Isotone Concert Series (winter 2013).

Though he is noted for his work on developing the hydrogen bomb for the Soviet Union, Sakharov is also remembered for his persistent support of human rights in the face of Soviet persecution and exile. He has been admired for his wisdom, which involved “not just thinking but acting, not just intellect but character.” Such character included unusual integrity, passion, humility in the search for truth, a marked lack of hatred and bitterness, perseverance in his commitments, listening to others without imposing his own views, joy in close relationships, warm hospitality, and enduring hopefulness even amidst dire circumstances. It seems likely that his mother, Eskaterina, an Orthodox believer, had a profound formative influence on her young son’s character, even though he left the church at the age of 13 to follow his father’s example of humanism and atheism.

Sakharov pursued the development of the hydrogen bomb with good intentions, convinced that doing so would preserve the balance of power between the Soviet Union and the United States and thus promote peace. Over time, he began to see a stark difference between the Soviet constitution and the “unwritten ideological rules” imposed by the communist ruling elite (which undoubtedly offended his sense of integrity). He became involved in using his status and influence to promote human rights within the Soviet Union, and was known for compassionately helping anyone who came to him. The Soviet state could not openly condemn him, because of his position and status in the scientific world, but it did subject him to covert persecution and even a period of internal exile. Nevertheless, he continued to further the cause of peace, arguing that “the division of mankind threatens its destruction”. When the dangers of nuclear testing became evident, Sakharov advocated the partial test ban, which was enacted in 1963—incidentally, the year of his mother’s death. Sakharov died peacefully in 1989, suffering a heart attack while resting before the delivery of a speech.

*Sakharoviana* is cast in five movements, each exploring a dimension of the physicist’s story. The first, *Eskaterina*, is a meditation on the source of his character, evoked by reference to a Lutheran chorale known in American hymnals as, “If Thou but Suffer

God to Guide Thee.” This tune figures in the balance of the work in various guises. The second movement, *Balance of Power*, is a bald evocation of the race to develop the hydrogen bomb, casting opposing figures in an active dialogue marked by mounting anxiety and bewildering detonations. *Tokamak* follows with a different kind of balance. Its name comes from the geometry of a fusion reactor Sakharov helped design. The musical texture emulates the reactor’s doughnut-shaped electromagnetic field with particles spiraling within it, striving to maintain the precarious balance of containing a restless fusion reaction. The fourth movement takes its title from a phrase Sakharov used repeatedly: “The truth is never simple”. The rhythmic framework incorporates an approximation of  $\pi$ , the ratio of a circle’s circumference to its diameter—a simple geometric relationship whose numerical value is beyond rational account. The last movement revisits and transforms the meditation of the opening, musically pondering God’s gracious gifts of good character to the world.

—Andrew Mark Sauerwein  
October 2012

## I. Eskaterina

## Sakharoviana

Andrew Mark Sauerwein

Firmly, Lovingly ( $\text{♩} = 52$ )

Violin

Piano

(hold down)

Tibetan Singing Bowl (B $\flat$ )

p

Vibraphone

Snare Drum

Vln.

Pno.

with ethereal menace

T.S.B.

pp

l.v.

Vln.

Pno.

Vib.

pp

p

mp

Vln. 15  
 Pno.  
 Vib.

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

Vln. 19  
 Pno.  
 Vib.

*dim.*      *p*  
*mp*      *p*      *ppp*  
*mp*      *p*

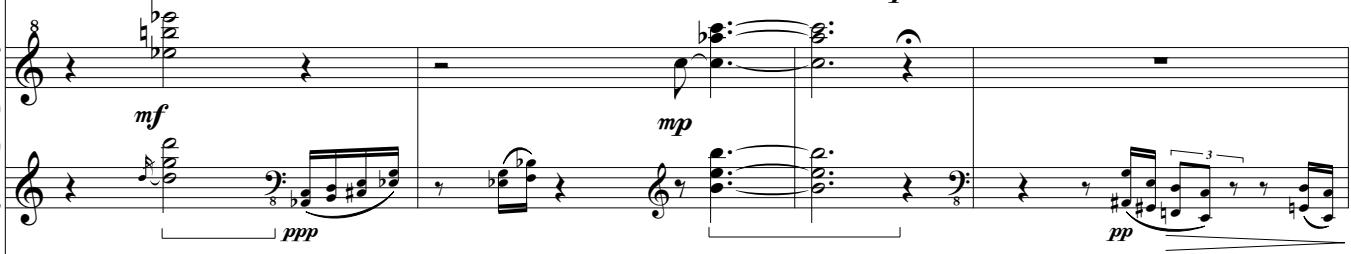
Vln. 23  
 Pno.  
 T.S.B.  
 Vib.

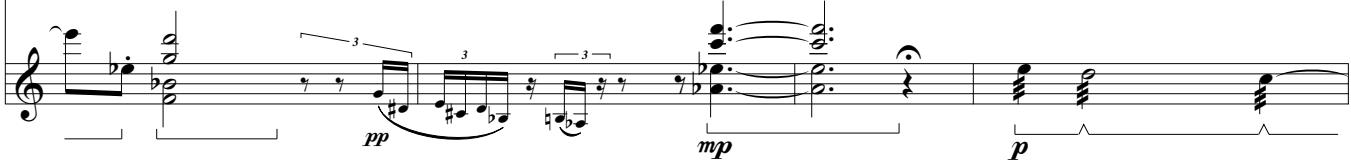
*ppp*      *p*      *mf*  
*p*      *mf*  
*mf*  
*ppp*      *mp*      *mf*

This musical score page contains three staves of music for string instruments and piano. Measure 15 starts with a dynamic of >*pp* for the violin (Vln.), followed by *mp*. The piano (Pno.) has a dynamic of *p* with a bracket under the notes. The vibraphone (Vib.) has dynamics of *ppp* and *pp*, with a performance instruction "ethereally" and a 3rd ending bracket. Measure 19 starts with a dynamic of *dim.* for the violin, followed by *p*. The piano has a dynamic of *mp* with a bracket under the notes. The vibraphone has dynamics of *mp* and *p*. Measure 23 starts with a dynamic of *ppp* for the violin, followed by *p* and *mf*. The piano has a dynamic of *p* with a bracket under the notes. The vibraphone has dynamics of *mf* and *ppp*. The tuba (T.S.B.) has a dynamic of *mf*. The vibraphone also has dynamics of *ppp* and *mp* with a 3rd ending bracket, followed by *mf*.

27

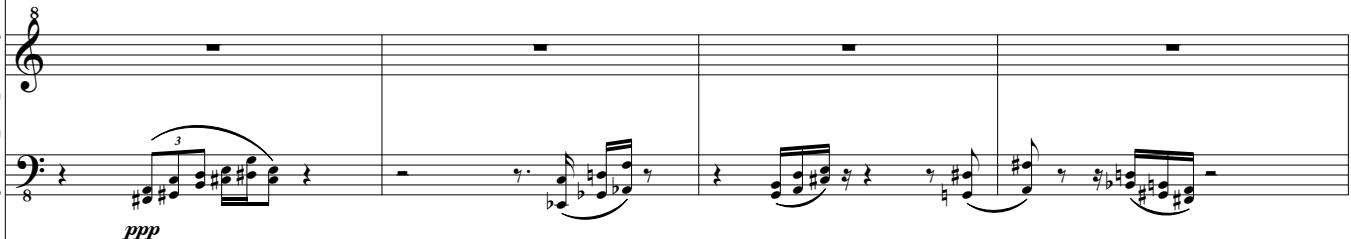
Vln. 

Pno. 

Vib. 

31

Vln. 

Pno. 

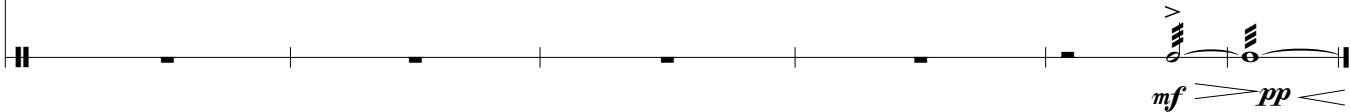
Vib. 

35

rit. a tempo

Vln. 

Pno. 

S.Dr. 

Attacca

## II. Balance of Power

**Intensely ( $\text{♩}=108$ )**

Violin:  $\text{♩} = 54$

Piano:  $\text{♩} = 54$

Vibraphone:  $\text{♩} = 54$

Roto Toms:  $\text{♩} = 54$

Snare Drum:  $\text{♩} = 54$

Susp. Cymbal:  $\text{♩} = 54$

Floor Toms (3):  $\text{♩} = 54$

Bass Drum:  $\text{♩} = 54$

**7**

Vln.:  $\text{♩} = 108$

Pno.:  $\text{♩} = 108$

S.Dr.:  $\text{♩} = 108$

**13**

Pno.:  $\text{♩} = 108$

R. Tm.:  $\text{♩} = 108$

18

Vln.      Pno.      R. Tm.

23

Vln.      Pno.      R. Tm.

28

Vln.      Pno.      R. Tm.

33

Vln. *mp*

Pno. *mf*

R. Tm.

S.Dr.

Cym.  
Toms  
B. D.

38

Vln. *ff* *pp* *p* *poco* *ppp* *poco* *pp* *mp*

Pno. *mp* *f* *ppp* *poco* *pp* *mp*

S.Dr.

Cym.  
Toms  
B. D. *f* *pp* *<>* *poco* *mp* *>p*

43

Vln.      -      -      *mp*      *mf*      *p*

Pno.      *sim.*

R. Tm.      *p*      *mp*      *sim.*

S. Dr.      *pp*

48

Vln.      <*mp*      <*mf*      >

Pno.      >

R. Tm.      <*3*

53

Vln.      *mp*      *pp*      <*mp*      *cresc.* -

Pno.      <*3*

R. Tm.      <*3*

Musical score for orchestra and piano, page 57. The score includes parts for Violin (Vln.), Piano (Pno.), Right Timpani (R. Tm.), and Cymbals/Toms/Bass Drum (Cym. Toms B. D.). The piano part features a treble clef with a sharp sign, while the bass part uses a bass clef. The right timpani part includes a dynamic marking of  $f$ . The piano part has measure numbers 3 and 4 above certain notes. The right timpani part has measure numbers 3 and 4 above certain notes. The cymbals/toms/bass drum part has measure numbers 3 and 4 above certain notes.

Musical score for orchestra and piano, page 15, measures 65-66. The score includes parts for Violin (Vln.), Piano (Pno.), Bassoon (R. Tm.), Snare Drum (S. Dr.), and Cymbals/Toms/Bass Drum (Cym. Toms B. D.). The piano part features a dynamic crescendo from *mf* to *p*. The bassoon part includes slurs and grace notes. The snare drum and cymbals/toms/bass drum parts provide rhythmic support.

Musical score for orchestra and piano, page 10, measures 69-70. The score includes parts for Violin (Vln.), Piano (Pno.), Snare Drum (S.Dr.), and Cymbals/Toms (Cym. Toms). The key signature changes from one sharp to two sharps. Measure 69 starts with a forte dynamic (ff) for the piano, followed by a dynamic marking of *forlornly*. The violin has a melodic line with grace notes and slurs. The piano part features eighth-note chords and sixteenth-note patterns. Measure 70 begins with a piano dynamic of *f*, followed by *mp* and *pp*. The piano continues with sixteenth-note patterns. The snare drum and cymbals/toms provide rhythmic support. The score concludes with a dynamic of *pp*.

74

Vln.

Pno.

R. Tm.

Cym.  
Toms  
B. D.

78

Vln.

Pno.

R. Tm.

Cym.  
Toms  
B. D.

82

Vln.

Pno.

R. Tm.

Cym.  
Toms  
B. D.

86

Vln.

Pno.

R. Tm.

S. Dr.

Cym.  
Toms  
B. D.

Vln. 90 
  
 Pno. 
  
 R. Tm. 
  
 S.Dr. 
  
 Cym. Toms B. D.

Vln. 93 
  
 Pno. 
  
 Cym. Toms B. D.

**Vln.** ♩=♩ (♩=108)  
**97** with anxious vigor  
*f*       $\swarrow \searrow$  ***ff***      ***mp***      ***p***       $\swarrow \searrow$

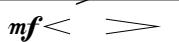
**Pno.** { ***mf*** (as before) ***mp*** ***mf***

**S.Dr.** ***mf***  $\swarrow \searrow$  ***p***  $\swarrow \searrow$  ***f*** ***mp***  $\swarrow \searrow$  ***mf***

**Cym.  
Toms  
B. D.**  $\swarrow \searrow$

Musical score for orchestra and piano, page 101. The score includes parts for Violin (Vln.), Piano (Pno.), Right Timpani (R. Tm.), Snare Drum (S.Dr.), and Cymbals/Toms/Bass Drum (Cym. Toms B. D.). The piano part features a dynamic marking *mf*. The right timpani part has a dynamic marking *as before*.

105

Vln.  *mf* 

Pno.

R. Tm.

Cym.  
Toms  
B. D.

109

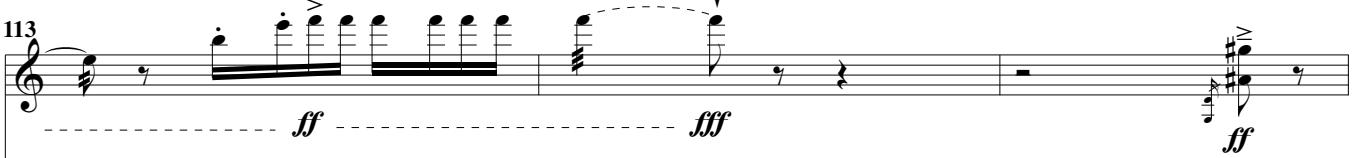
Vln.  *mf* *cresc.* 

Pno.

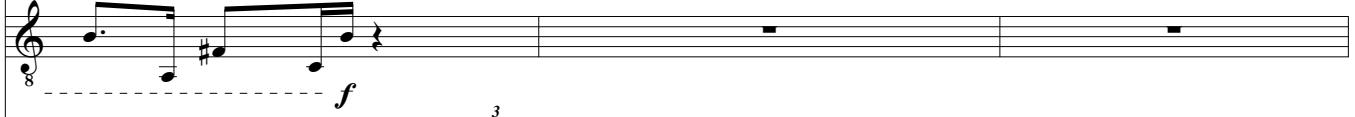
R. Tm.

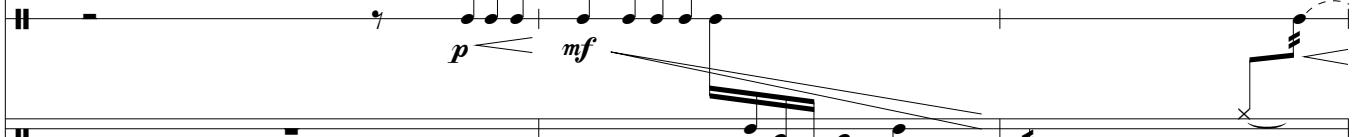
Cym.  
Toms  
B. D.

113

Vln. 

Pno. 

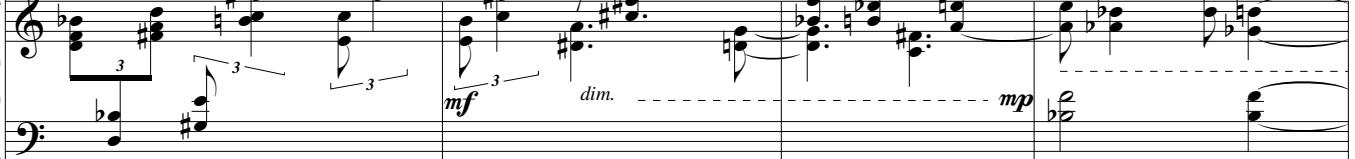
R. Tm. 

S.Dr. 

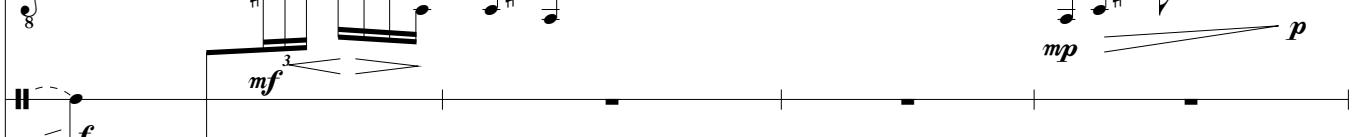
Cym. Toms B. D. 

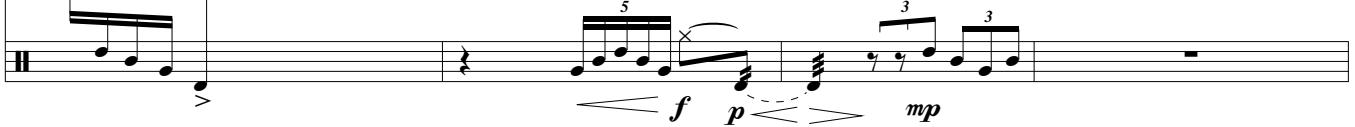
116

Vln. 

Pno. 

R. Tm. 

S.Dr. 

Cym. Toms B. D. 

120

$\text{♩} = \text{♪}$  ( $\text{♩} = 54$ )

Vln.  $p$

Pno.  $p$

Vib.

Cym.  
Toms  
B. D.

$ppp$   $8^{\text{vb}}$   $(\text{hold down})$

$pp$   $\ll mp$

124

Vln.  $pp$

Pno.  $pp$   $8^{\text{vb}}$   $al niente$

Vib.

### III. Tokamak

**Precisely, Intensely ( $\text{♩} = 72$ )**

Violin

Piano  
Susp. Cymbal  
Crotale (D)

Susp. Cymbal

Crotale (D)

Wood Block

Vibraphone

Vln.

Pno.

Vib.

5

*pp*

*cresc.*

(no pedal) *pp*

*p*

8

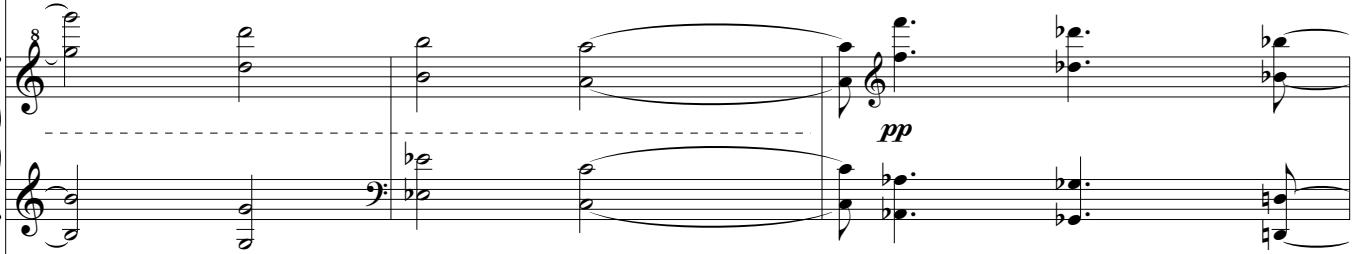
Vln. 

Pno. 

Vib. 

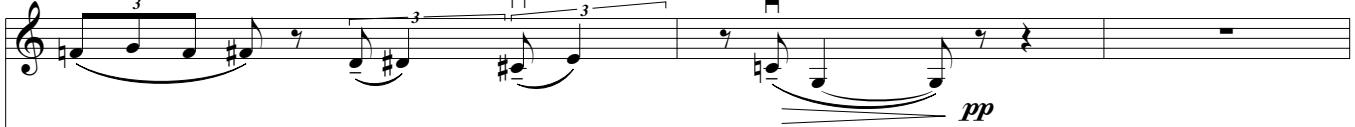
11

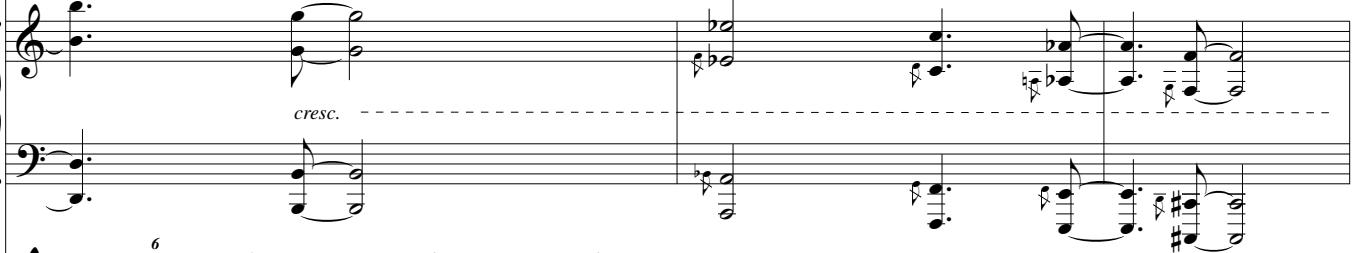
Vln. 

Pno. 

Vib. 

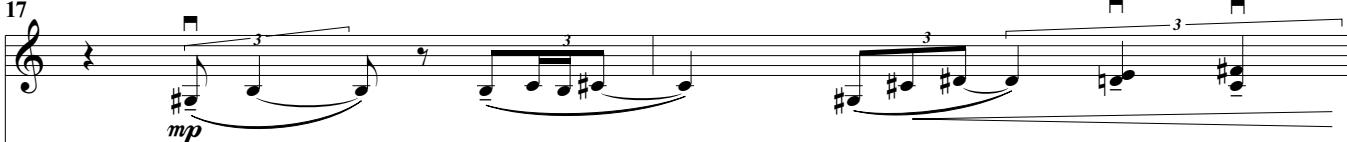
14

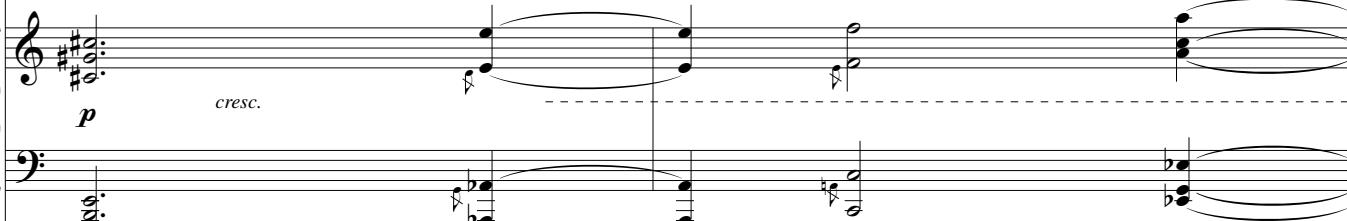
Vln. 

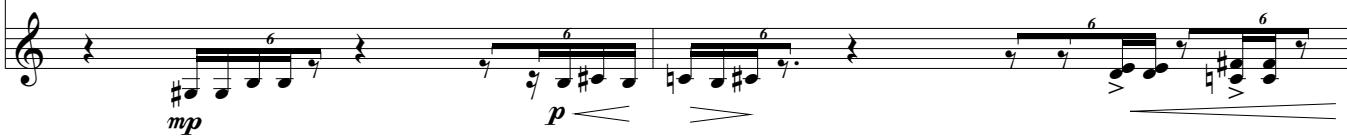
Pno. 

Vib. 

17

Vln. 

Pno. 

Vib. 

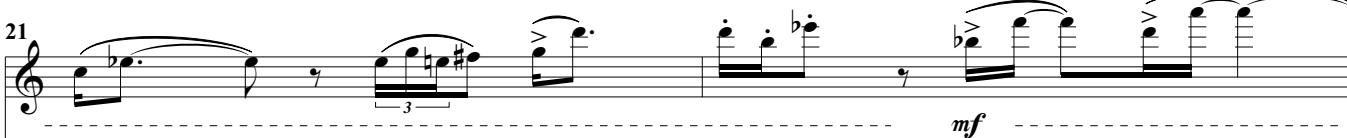
19

Vln. 

Pno. 

Vib. 

21

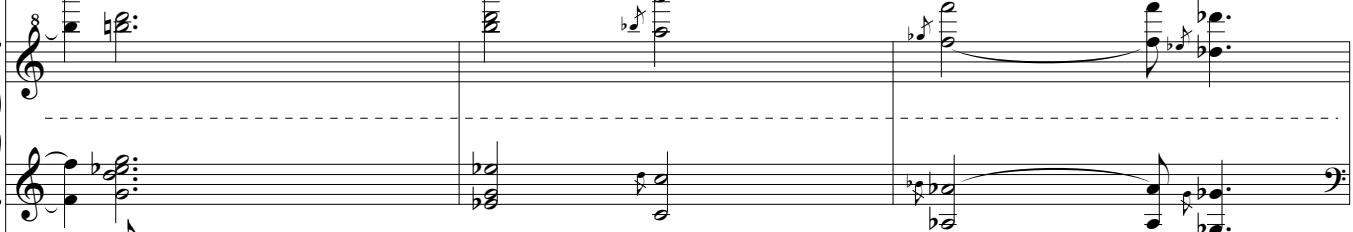
Vln. 

Pno. 

Vib. 

23

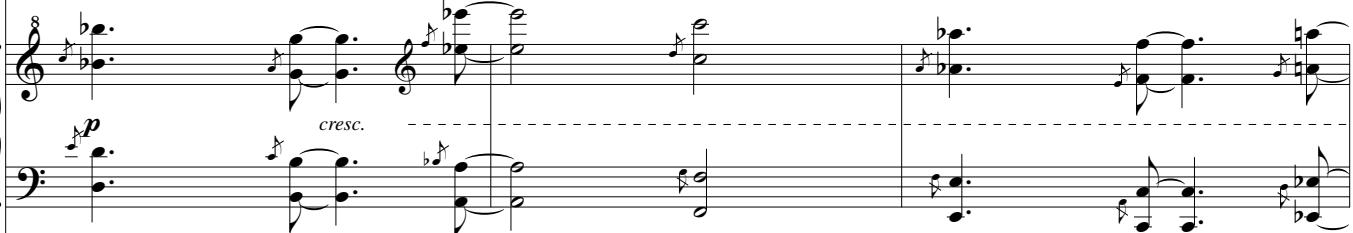
Vln. 

Pno. 

Vib. 

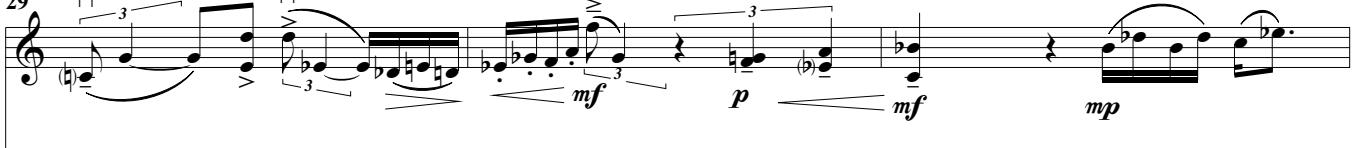
26

Vln. 

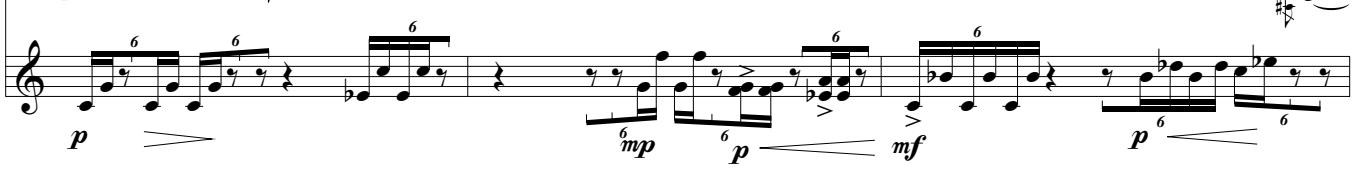
Pno. 

Vib. 

29

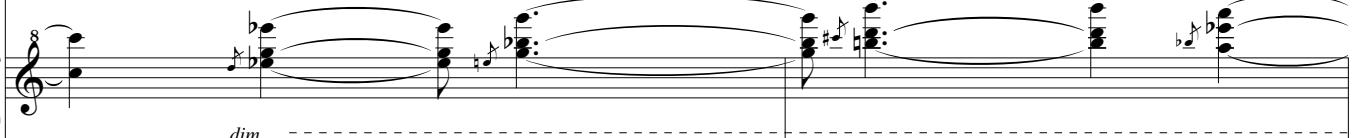
Vln. 

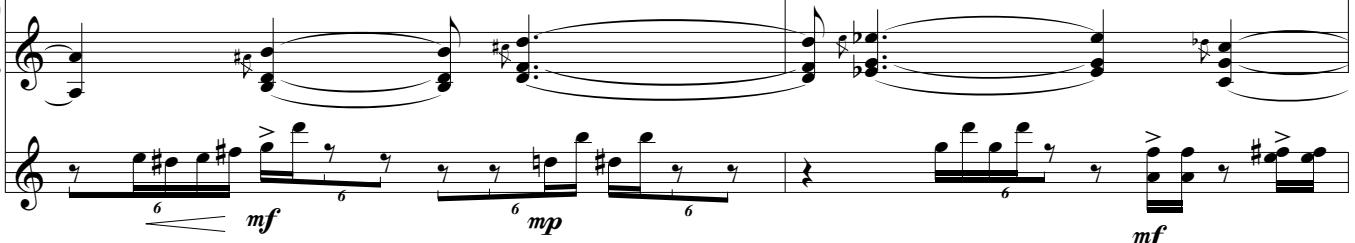
Pno. 

Vib. 

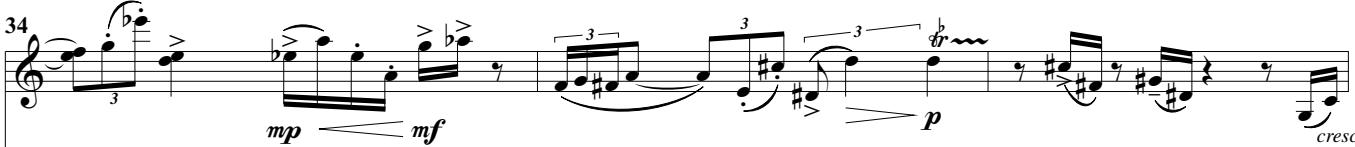
32

Vln. 

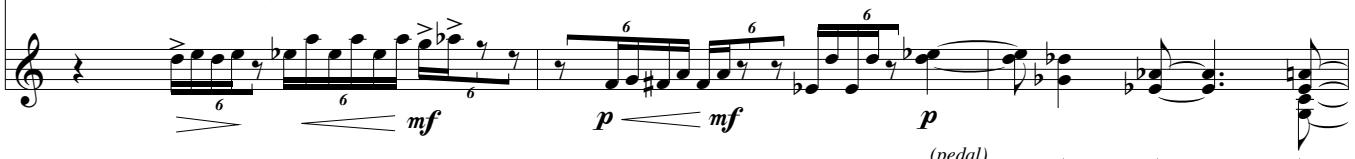
Pno. 

Vib. 

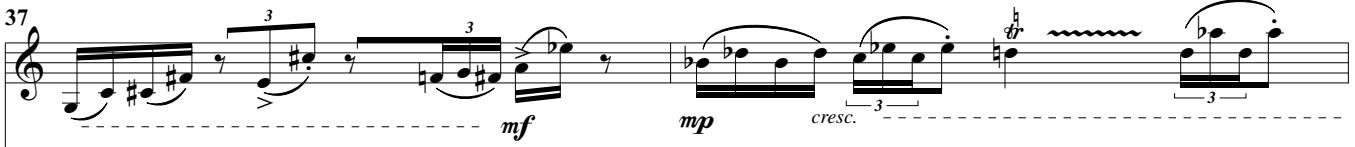
34

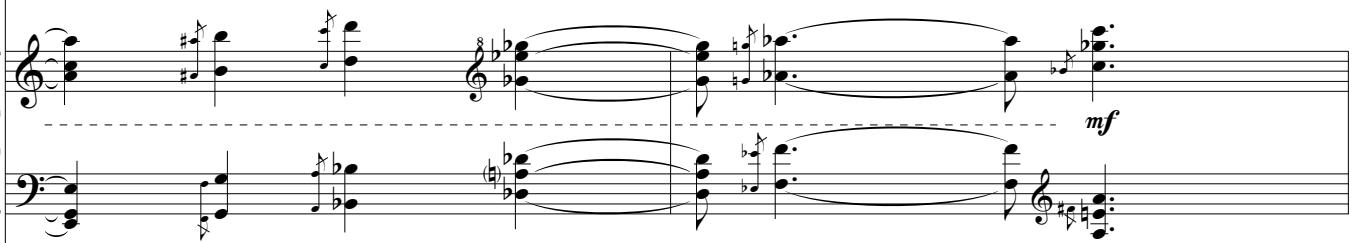
Vln. 

Pno. 

Vib. 

37

Vln. 

Pno. 

Vib. 

39 Vln. 
  
 Pno. 
  
 Vib.

42 Vln. 
  
 Pno. 
  
 Vib.

45 Vln. 
  
 Pno. 
  
 Vib.

47

Vln. Pno. Vib.

*ff*

*(no dim.)*

*mp f*

*(hold pedal down)*

50

Vln. Pno. Vib.

*mf cresc.* *ff* *f dim.* *mf*

*subito mf cresc.*

*mp mf*

53

Vln. Pno. Vib.

*mp* *cresc.* *mf*

*f dim.*

*mp* *mf*

Vln. 56

Pno. *cresc.*

Vib. 6

Vln. 59

Pno. *dim.* - *mp*

Vib. 6

Vln. 62

Pno. *cresc.* -

Vib. 6

Vln. *f* *mp* *f* *mp* < 3 > *f* 3 > *mp*

Pno. { *mf* *dim.*

Vib. *mp* *f* *p* *mf* *p* *p*

Vln. 3 *p* 3 < 3 >

Pno. { *mp* *cresc.* -

Vib. 6 *mp* < 6 > *p*

Vln. > 3 > *mf* > 3 > *f* > *mp* > > *cresc.* -

Pno. { *mf* *dim.* -

Vib. < > *mp* < > *mf* < > *p* < > *mp* < >

74

Vln.

Pno.

Vib.

*ff*

*mf*

*f*

*mp*

76

Vln.

Pno.

Vib.

*dim.*

*mp*

*p*

*p*

*p*

*mp*

79

Vln.

Pno.

Vib.

*mf*

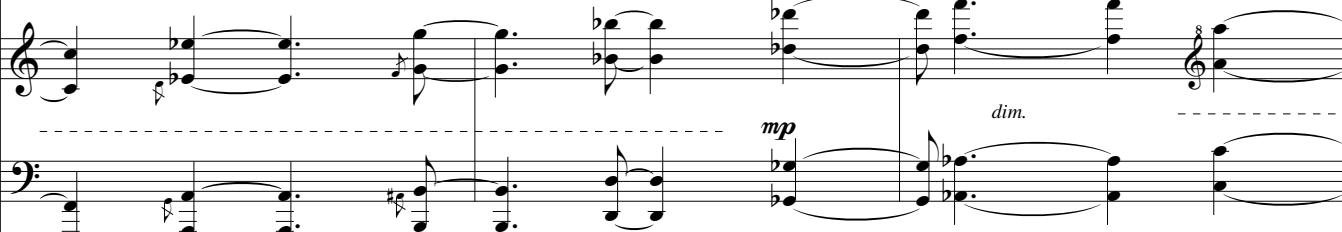
*p*

*cresc.*

*p*

82

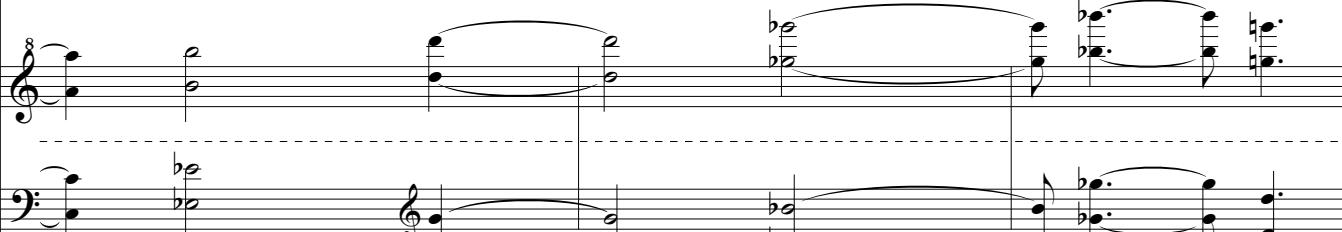
Vln. 

Pno. 

Vib. 

85

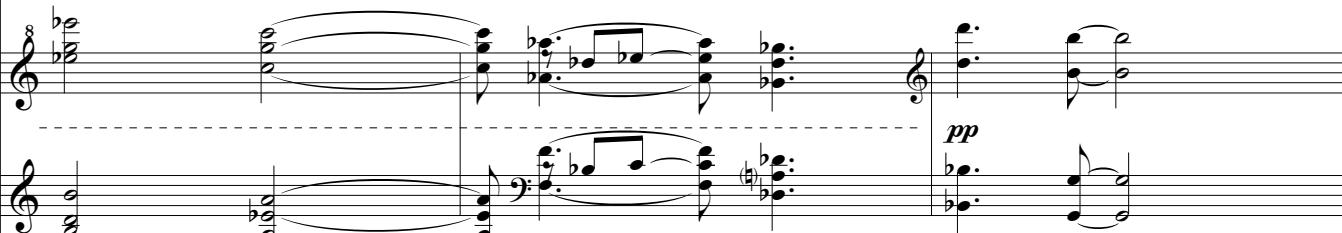
Vln. 

Pno. 

Vib. 

88

Vln. 

Pno. 

Vib. 

27

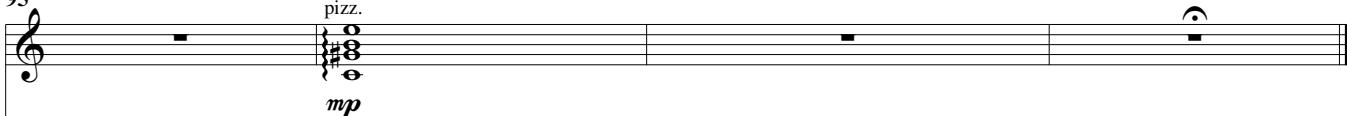
91

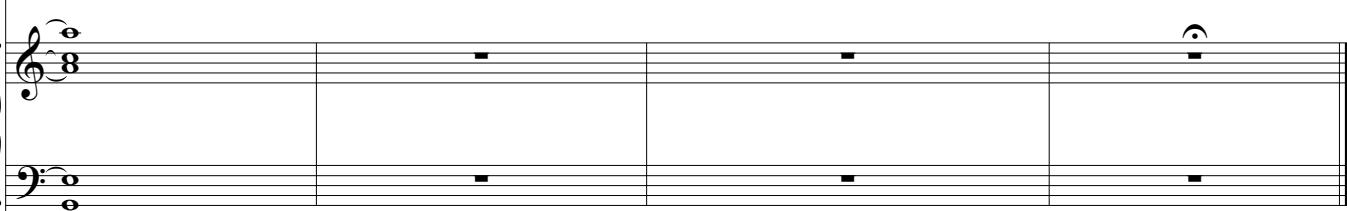
Vln. 

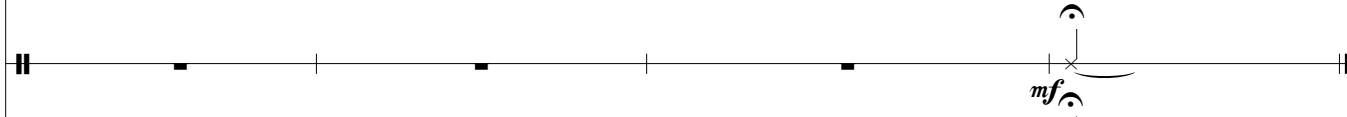
Pno. 

Vib. 

95

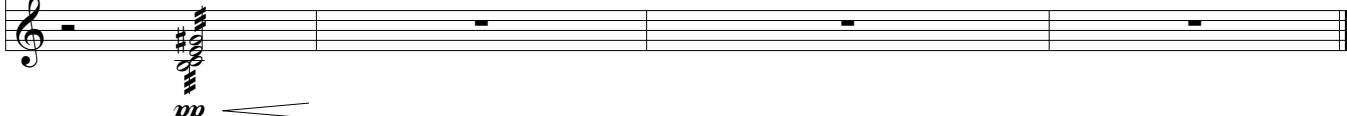
Vln. 

Pno. 

Cym. 

Crt. 

W. Bl. 

Vib. 

#### IV. "The truth is never simple" ( $\pi$ )

**Thoughtfully** ( $\text{♩} = 52$ )

Violin

Piano

Glockenspiel

Vibraphone

Roto Toms

Vln.

Pno.

Glk.

Vib.

12

Vln.

Pno.

Glk.

Vib.

(ped.)

18

Vln.

Pno.

Glk.

Vib.

15<sup>ma</sup>

sempre

(hold down)

24

Vln. *cresc.*

Pno.

Glk. *pp*

Vib. *p* *3*

Measure 24: Vln. eighth-note patterns with slurs. Pno. sustained notes with grace notes. Glk. eighth-note patterns. Vib. eighth-note patterns.

Measure 25: Vln. eighth-note patterns with slurs. Pno. sustained notes with grace notes. Glk. eighth-note patterns. Vib. eighth-note patterns.

Measure 26: Vln. eighth-note patterns with slurs. Pno. sustained notes with grace notes. Glk. eighth-note patterns. Vib. eighth-note patterns.

Measure 27: Vln. eighth-note patterns with slurs. Pno. sustained notes with grace notes. Glk. eighth-note patterns. Vib. eighth-note patterns.

Measure 28: Vln. eighth-note patterns with slurs. Pno. sustained notes with grace notes. Glk. eighth-note patterns. Vib. eighth-note patterns.

29

Vln. *mp* *sforzando* *mf* *3*

Pno. *pp* *mp* *cresc.*

Glk.

Vib. *mp* *3* *(hold down)*

Measure 29: Vln. eighth-note patterns with slurs. Pno. sustained notes with grace notes. Glk. eighth-note patterns. Vib. eighth-note patterns.

Measure 30: Vln. eighth-note patterns with slurs. Pno. sustained notes with grace notes. Glk. eighth-note patterns. Vib. eighth-note patterns.

Measure 31: Vln. eighth-note patterns with slurs. Pno. sustained notes with grace notes. Glk. eighth-note patterns. Vib. eighth-note patterns.

Measure 32: Vln. eighth-note patterns with slurs. Pno. sustained notes with grace notes. Glk. eighth-note patterns. Vib. eighth-note patterns.

35

Vln. Pno. Glk. Vib.

Glk. Vib.

41

Vln. Pno. Glk. Vib.

R. Tm.

Glk. Vib. R. Tm.

*dim. poco a poco*

46

Vln. R. Tm.

*ppp*

## V. Common Grace (in Memoriam Eskaterina)

**Calmly, Wistfully ( $\text{♩} = 56$ )**

**Violin**

**Piano**

**Tibetan Singing Bowl (B $\flat$ )**

**Glockenspiel**

**Vibraphone**

**Vln.**

**Pno.**

**Vib.**

**Vln.**

**Pno.**

**Vib.**

(w/ ped.)

6

11

cresc.

cresc.

cresc.

33

Vln. 15  
  
 Pno.  
 Vib.  
  
 Vln. 19  
  
 Pno.  
 Vib.  
  
 Vln. 23  
  
 Pno.  
 Vib.

28

Vln. Pno. Glk.

*pp*

*pp*

33

*Slowly*

Vln. Pno. Glk.

*mp*

*pp*

39

*with atmospheric sorrow*

(hold to silence)

Vln. Pno. T.S.B. Vib.

*p*

*p*

*p*

*pp*

*p*

*pp*