

preview

webshop.donemus.nl

**Sound Becomes
Visible In The
Form Of Radiance**

for flute, clarinet, violin, cello, piano
and percussion

2010

Ned McGowan

For the **Pittsburgh New Music Ensemble**.

Integral to **Sound Becomes Visible In The Form Of Radiance** is the technique of bowing the piano. First introduced by **Curtis Curtis-Smith** and championed in **Stephen Scott's Bowed Piano Ensemble**, this way of playing opens up a world of uncharacteristic possibilities on the piano. For this piece I have chosen to concentrate on the sustain of long notes and the rich world of possible overtones enabled by this technique.

The music unfolds at a glacial rate, almost in slow motion, where the smallest details become expressive and theater begins to play a strong role. Also, my purpose was to allow time for the sound to enter the listener's being, to slow down our perception where the events can be fully experienced.

Primary inspirations for this piece were the work by the composers **James Teney**, John Cage, George Crumb, **Salvatore Sciarrino** and **Morton Feldman**, the visual artists **Piet Mondrian**, **Mark Rothko** and **Alexander Calder**, and the music tradition from southern **India**.

Duration: c. 28'

Copyright © 2013 by **Stichting Donemus Beheer**

All rights reserved

No part of this publication may be reproduced in any form by any electronic or mechanical means (including photocopying, recording or information storage and retrieval) without permission in writing from the publisher:

Stichting Donemus Beheer, Rijswijk, The Netherlands

www.donemus.nl

Notes:

Timing and note lengths:

At the beginning of each bar is the approximate length of that bar in seconds. Single whole notes are intended to last the entire bar. Whole notes within a phrase with other note lengths are their normal duration. The rhythms within a bar are meant to be general guidelines for relative lengths, not to give strict relationships. The flow of the phrasing should have a feel that is free of pulse and the players can use a slight rubato to bring that out and emphasize certain sonorities or pitch changes.

Section H, however, does have a clear pulse with exact rhythms.

Quarter tones and tuning:

The quarter tones are meant to be exactly 50 cents lower or higher.

♯ quarter tone sharp

♭ quarter tone flat

Percussion:

suspended cymbal

rolled with soft mallets

rolled with brushes

bowed with a bow

maraca

rolled very slowly so that the falling of the beads is audible

paper

very long sheet of paper (for example paper towel roll) for ripping

gran cassa

rolled with soft mallets

head scraped with brushes

small bells

a set of very small bells creating a very high tinkling

thunder sheet

Cello:

The cello glissando in section I ends on a B below the lowest note of the C string. This should be played with scordatura either prepared beforehand or by continuing the glissando down from the lowest C by detuning the string with the peg.

On bowing:

Integral to **Radiance** is the technique of bowing the piano. Bowing is done in most cases with nylon fishing line that is coated in regular string rosin, then threaded between the piano strings. With one end in each hand, the performer draws the line basically perpendicular to the piano strings in a back and forth manner, similar to the way string instruments are bowed.

The lid should be removed to facilitate access to the piano strings. Bowing does not damage the piano in any way. At the most it leaves a bit of rosin on the strings that can be easily removed with a cloth and some rubbing alcohol.

There are four variables that affect the sound:

speed: slow to fast

pressure: light to heavy

location on the string:

front side of piano/ back side

close to the bridge / away from the bridge

on the single wire / on the coil (of the wrapped low strings)

angle to the string: perpendicular or at other angles

The bowing in **Radiance** is continuous and players bow for long stretches at a time. Therefore, it is important to find a comfortable position of the torso and arms while bowing. In general, an upright position with keeping the elbows at one's sides help a lot. Changing the direction of the bow should be done as smoothly as possible, but an audible bow change is often unavoidable, depending upon the register of the string and the parameters. On the low to middle register strings, a slight increase in speed with a slight loosening of the tension of the bow, just before switching direction allows the tone to resolve over the switch.

For **Radiance** there is a distinction made between bowing the fundamental pitch of the string (normal) and it's overtones (harmonics). The fundamental is simply a drone with slight harmonics in the sound. When harmonics is specified the intention is a slow oscillation between various overtones without their fundamental (as much as possible). While it is almost impossible to predict the exact overtone, it is very possible to produce overtones in general. Specific combinations of the parameters can emphasize either the fundamental or overtones. For example:

fundamental

slower speed

greater pressure

away from the bridge

overtones

faster speed

less pressure (lighter stroke)

close to bridge

To oscillate between various overtones, vary the combinations of speed, pressure, location and angle. Often they take some time to start ringing and sometimes one overtone is particularly dominating. By gradually changing one or more parameters, eventually other overtones will burgeon. Additionally, changing the angle of the bow to the piano string can help produce different harmonics.

Creating the bows:

The bows consist of multiple strands of fishing line, tied at the ends through rubber key covers. Two different thicknesses of fishing line are used - 0.5 mm and 0.3 mm - and the bows should be between 32 to 36 inches in length. Each bow should have 5 strands of line and care should be taken to make sure the lines are all equal length so that they are all equally taught when bowing.

When threading the bows between the strings, either a small pocket comb or a partially opened up paper clip can help grab the lines to pull them up.

When bows are not being used in the piece, they should be stored in a way that does not obstruct the normal playing of the piano, either on the keys or the strings.

The following piano strings should be threaded with bows before the performance.

The image shows a musical score for piano with two staves, treble and bass clef. Above the staves, two horizontal lines indicate bowing instructions. The first line, labeled '0.5 mm thickness', spans from the first measure to the second measure. The second line, labeled '0.3 mm thickness', spans from the third measure to the sixth measure. The score contains several notes with stems pointing downwards, indicating a descending melodic line. A large 'preview' watermark is overlaid on the score.

webshop.donemus.nl

B

The musical score consists of five staves: Violoncello (Vc.), Percussion (Perc.), Piano (Pno.), Clarinet (Cl.), and Violin (Vln.).

- Vc. Staff:** Features a melodic line with slurs and fingerings (6, 10, 8, 8, 10, 6, 20, 8, 8, 8, 6). It starts with a *mp* dynamic. A *maraca* effect is indicated at the end of the section.
- Perc. Staff:** Shows a *slowly rotated* maraca effect, starting at measure 20 with a *ppp* dynamic, noted as *(but amplified)*.
- Pno. Staff:** Contains a long horizontal line with a circled 'C' at the beginning, indicating a sustained pedal point.
- Cl. Staff:** Features a melodic line with slurs and fingerings (10, 8, 10, 8, 8, 8, 6, 10, 8, 6, 8, 6, 4, 4, 6). It starts with a *mp* dynamic.
- Vln. Staff:** Features a melodic line with slurs and fingerings (10, 8, 10, 8, 8, 8, 6). It starts with a *mp* dynamic and includes a *walk to piano* instruction.
- Perc. Staff (Lower):** Shows a *slowly rotated* maraca effect, starting at measure 10 with a *ppp* dynamic.
- Pno. Staff (Lower):** Contains a long horizontal line with a circled 'C' at the beginning, indicating a sustained pedal point.

Large watermark text: **preview** and **webshop.donemus.nl**

C

Fl. *piano bowed*

Vln. *mp*

Vc. *mp* 30 8 6 6 6 4 4

Perc. *normal (on keyboard)*

Pno. *mp*

36 *mp*

This system shows measures 30 to 36. The Flute part is marked *piano bowed*. The Violin part is marked *mp*. The Viola part has a melodic line with fingerings 30, 8, 6, 6, 6, 4, 4. The Percussion part is marked *normal (on keyboard)*. The Piano part is marked *mp*. Measure 36 features a melodic line in the Flute part marked *mp*.

preview

webshop.donemus.nl

Fl. 4 19 *mp*

Cl. 30 *mp* 4 19 *mp*

Vln.

Vc. 20 *mp*

Perc. 10 *paper* *very slow rip* *mp* *paper* *very slow rip* *mp*

Pno. 8 *mf* *mp*

This system shows measures 10-20 and 19-19. The Flute part has a melodic line in measure 19 marked *mp*. The Clarinet part has a melodic line in measure 30 marked *mp*. The Violin part is marked *mp*. The Viola part has a melodic line in measure 20 marked *mp*. The Percussion part has two sections marked *paper* and *very slow rip*, with dynamics *mp*. The Piano part has a melodic line in measure 8 marked *mf* and *mp*.