CREATIO EX TYPUS

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A Thesis
Submitted to the Graduate College of Bowling Green State University in partial fulfillment of the requirements for the degree of

MASTER OF MUSIC

August 2008

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ABSTRACT

Marilyn Shrude, Advisor

In partial fulfillment of the Master of Music degree in Composition, I composed a piece for ensemble with open instrumentation entitled CREATIO EX TYPUS. The Latin title means Creation from symbol and reveals the technique used for generating the sonic structures.

The work is fifteen minutes in duration and consists of five movements. Each movement explores a different group of abstract gestures that result in complex sonic structures by means of a combination of symbols. The symbols used are: empty space, cone, dot, line and curve. These symbols are based on five prototypes of particle tendencies from which two are states of existence and three are motion tendencies: Genesis (cone ▲); Cessation (cone △); Static (dot •); Kinetic (line—); Interaction (curve ▼).

Genesis / Cessation. According to quantum physics, at subatomic levels every particle has the tendency to continuously pop in and out of existence. The existence or nonexistence status of a particle is represented musically as sound and silence (perceived sound vs. pause) and as variation in sound intensity (dynamic contour).

Static / Kinetic / Interaction. Since every particle has its own energy, the motion tendencies of this energy are translated into musical gestures as short sounds (pizzicato or staccatissimo, alone or in cluster), longer sounds (alone or in cluster) and a glissandos (alone or in cluster, with variable speed). The musical material is based on these gestures and is notated using a combination of regular music notation and the above-mentioned symbols. The composition is based on spawning these gestures in different patterns and
observing their evolution that, of course, while designed and engineered at the beginning, should take its own, natural course in the end.

Research in quantum physics suggests that there is no such thing as solid matter, but one-dimensional objects in a vibrating state of existence (Superstring Theory). Two observations are the basis for my compositional approach:

(1) At the core of every aggregate, no matter how simple or complex, are the same fundamental elements, suggesting that it is not the resultant aggregate that is essential but the initial elements upon which it is built. As a result, since the sound is the most intimate element of the structure, I did not specify a fixed instrumentation, opening up the piece to any combination of instruments (open, spontaneous sound creation).

(2) Another observation is that creation seems to be transcendent at different levels. The vibration seems to be the basis of every particle that combines and recombines in more and more complex structures. Eventually it becomes everything, including living beings and the apparently solid matter which we shape into instruments; ultimately, they reproduce sounds we are meant to be able to perceive. In a certain way the creation, which in this idiom is the ultimate sound, reflects back into itself from the most complex to the simplest states of being.
DEDICATION

This thesis is dedicated to the dearest memory of my mother Silvia and my father Ioan who gave everything they ever had, so I could pursue my dream. I would also like to extend this dedication to all the oppressed people of the world, who, just like my parents, may never have the chance to pursue a college degree.
ACKNOWLEDGEMENTS

There are many people who had a great impact on my decision and drive to pursue this degree. First and foremost, I want to thank Dr. Marilyn Shrude for her exceptional performance as a teacher and mentor. I am forever indebted to her for all the extra miles she went to make sure that I received the best education possible and that I always strived to reach my highest potential.

I also want to thank Dr. Mikel Kuehn for his wise advice and assistance, both as my teacher and as a committee member for this thesis.

Furthermore, I would like to thank my beloved teacher Remus Georgescu, a never-ending source of inspiration, who kindled in me the love for contemporary music.
CREATIO EX TYPUS – performance notes

Instrumentation

The choice of wind, string, harp and keyboard instruments is open. Any combination of instruments is acceptable given that each instrument is assigned a part with respect to its particular range and clef. For example, if Instrument V is assigned to a contrabass, it must have 5 strings or an extension in order to play pitches down to low C. The octave transposition is acceptable only in the lowest instrument (V).

The choice of percussion instruments is also open. Any combination of pitched and/or non-pitched instruments is acceptable given that pitched parts are performed on pitched instruments with respect to their particular range. The choice of mallets is at the percussionist’s discretion as long as issues of balance and articulation are addressed.

<table>
<thead>
<tr>
<th>Instrumentation</th>
<th>Range</th>
<th>Register</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrument I</td>
<td></td>
<td>High (C4-C6)</td>
</tr>
<tr>
<td>Instrument II</td>
<td></td>
<td>Mid-high (B3-B5)</td>
</tr>
<tr>
<td>Instrument III</td>
<td></td>
<td>Mid (F3-Ab5)</td>
</tr>
<tr>
<td>Instrument IV</td>
<td></td>
<td>Mid-low (G#3-G#4)</td>
</tr>
</tbody>
</table>
Instrument V  

At its minimum the work can be a quintet; however, it is possible to expand it to a large orchestra. The conductor has the liberty to assign specific parts to different groups of instruments. For example, Movement I could be percussion only; the second movement might be a combination of winds and strings; more challenging melodic and rhythmic sections might be assigned accordingly.

The articulations and required techniques are meant to be generic, so each instrument can use a variation specific to itself. For example, a request for a *slap* can be performed as a finger slap, palm slap, tongue slap, slap on finger board, or bell, etc. The importance is given to the technique itself as a means to generate a certain timbral effect. In the same manner, a request for *mute* implies a change of timbre and can be accomplished with any type of mute.

**Movements**

Movement 1: Punctum (Dot)

This section is comprised of sonic structures built on short gestures such as slap, pizzicato, col legno, bow bounce, and key clicks. There are no defined pitches, the only distinction being the different registers specific to instrument sizes.

Movement 2: Funis (Line)

This section is comprised of sonic structures built on linear gestures such as air only, arco, col legno and other techniques that produce long notes. In this section, all
instruments are assigned a pitch which is played throughout the entire movement. The assigned pitches are in score order: C B F E C# [01256]. They are presented in concert pitch and all instruments, including those with native transposition, must play the required pitch.

Movement 3: Sinus (Curve)

This section is comprised of sonic structures built on curved graphical figures represented in music by gestures such as glissando, portamento, slide, glide, half-valve. The different types of gestures are conveyed by symbols placed above the notes that they affect. The graphical representation of each symbol suggests the contour of the musical gesture.

Movement 4: Summa (Sum)

This section is a sum and a further expansion of the rhythmic, harmonic, symbolic and pitch content architecture presented up to this point. It is based on the rhythmic patterns from the first section, the pitch content of the second, and the symbols from the third. The pitch collection [01256] is presented in 5 different transpositions as to gradually introduce the elements of a 12-tone series. The series is the end result of the melodic expansion.

Movement 5: Creatio Ex Typus (Creation from symbols)

Movement 5 is the inevitable outcome of the first four movements. The idea of gradually bringing something into existence comes full circle by allowing it to fully
expand and disintegrate and then to find its fruition in an all-symbols-based movement, purely graphic in nature, demanding the highest interpretative ability of the performers. While the first movement explores rhythmic patterns, the second adds the main pitch collection and the third symbols. The fourth movement combines rhythm, pitch and symbols and further develops the already-learned language in a purely abstract manner.

The diagram can be navigated in any creative way, as long as it is followed with accuracy. For example, there could be instruments or groups of instruments that play only the dots while other instruments play the straight or curved lines. It should be performed no more than two times. The first time, it may be viewed at an angle; the second time, all performers must position the diagram as it is printed. The performers can cue each other or be cued by a conductor. The movement should be no longer than 4 minutes to comply with the intended architecture. Aside from the overall time constraint, the sequence of events is open to interpretation.

**Notation**

- Ascending glissando
- Descending glissando
- Two-way (ascending/descending) glissando
- Two-way (descending/ascending) glissando
- Series of ascending of glissandos
- Heavy glissando following the contour
Start on given pitch and gradually get faster using larger glissandi

Start and return to given pitch

Slower glissando centered on given pitch

Glissando following rhythmic profile

Sharp, percussive sonority; e.g., pizzicato (strings) or slap tongue (winds)

Forceful, abrasive sonority; e.g., powerful scratch at the bridge (strings) or growl (winds)

Vocal sounds; unintelligible mumbling

Foot stomp

Cluster of random pitches; interpretation is at performer’s discretion

Play ordinario

Short fermata

Long fermata

Noise only (air, brushes, bowed instrument body)

Boxed notes; repeat ad libitum

Gradually faster; repeat ad libitum

Gradually slower; repeat ad libitum.
CREATIO EX TYPUS

1. Punctum

Furioso $j = 110$

No definite pitch throughout the movement

\[ \begin{array}{cccccc}
1 & 2 & 3 & 4 & 5 & 6 \\
\hline
p & f & f & f & f & f \\
fp & p & p & p & p & p \\
fp & fp & fp & fp & fp & fp \\
f & f & f & f & f & f \\
f & f & f & f & f & f \\
f & f & f & f & f & f \\
\end{array} \]
19

mp

25

mp

22

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2. Funis

\( \text{Concert pitch, ord.} \)

\( \text{sfz} \)

\( \text{mf} \)

\( \text{fp} \)

\( \text{mp} \)

\( \text{sfz} \)

\( \text{fp} \)

\( \text{mf} \)

\( \text{fp} \)

\( \text{mf} \)

\( \text{sfz} \)

\( \text{fp} \)

\( \text{mf} \)

\( \text{fp} \)
3. Sinus
4. Summa
Play the 5 measures two times - the first time in random order and the second time in chronological order.
5. Creatio Ex Typus

4 minutes