Num'ber Mu'zik

This piece is composed for two pianoforti and is entitled "Num'ber Mu'zik" (spelt phonetically) due to its numerical pre-composition. The intervallic structure provides the focal point in this work, with pitch intervals (ip) being used in the analysis and pre-composition technique. "Num'ber Mu'zik" uses 3 as a main number (and appears as the first interval), and the form is divided into three sections. This number is used because it is the closest integer to pi (approximately 3.14, which is an important mathematical number) and because 3 is a spiritual/religious number (relating to the trinity). The nomenclature of pitch intervals (that is ip) can also be related to pi through retrograde.

Intervals are not used in this piece unless they are connected to previous intervals, or if they have been produced through this process of inter-relation. No intervals may be newly introduced to the system without first connecting to pre-existing material.

It was determined that the sections, A, B and C, should be approximately 1.76 minutes, 2.6 minutes and 3.56 minutes in duration respectively. To do this the composer arbitrarily decided that the entire piece would be eight minutes in duration, and that each section would be longer than the one preceding it, incrementing by a constant value.

Eight divided by 0.3 gives 26.67, effectively breaking the eight minutes into 26.67 parts, each part being three tenths of a minute (0.3 minutes) in duration. If each section were to be equal in length, logically they would consist of 8.89 parts each (26.67 divided by 3 sections equals 8.89). As previously mentioned, each section is to increment by a constant number, preferably 3; therefore, if 3 is subtracted from the 8.89 parts in the first section

and transferred (added) them to the 8.89 parts in the third section, the following is obtained:

Section A: 5.89 parts (8.89 minus 3),

Section B: 8.89, and

Section C: 11.89 (8.89 plus 3).

Each section is increasing by the constant 3. So now these pieces simply need to be modified into lengths of time to obtain the required duration of each section:

Section A: 5.89 parts multiplied by 0.3 (the duration of a single part) gives 1.767 minutes,

Section B: 8.89 parts multiplied by 0.3 gives 2.67 minutes, and

Section C: 11.89 parts multiplied by 0.3 gives 3.567 minutes.

The composer then decided that each section should be contrasting, and that section A would be fast, smooth (i.e. not many, if any, dotted rhythms) and have a predominantly consonant sound. It may be comparable to music by J.S Bach and that of the Baroque period (with trills beginning on the note above). Pianoforte 2 will be undertaking an accompanimental role while pianoforte 1 takes that of the primary melody/ interest.

The time signature was chosen with reference to the primary number (3) and the speed was set at crotchet equals 81 due to the prevalent factorial relationship. Before composition began the exact rhythms for both instruments were planned, so only pitch material was required. The composer found this a different yet satisfying way of composition, compared to the usual technique of beginning with pitch material and adding the rhythm afterwards.

As noted above, the first interval is ip3. In order to determine the first pitch to use, it was concluded that since 12 (the number of pitches in the chromatic series) divided by 3 (the 'chosen' number) gives 4, then the initial note should be the fourth in the chromatic series. The question then arises, what and where is the beginning of the series? For the purposes of this piece the composer chose A as the first in the chromatic scale. The fourth in the series, therefore, and the initial pitch in the composition, is C.

It was then established that section A would be predominantly made up of ip 2, 10, 3, 9 and 4 and 8, since these are aurally 'consonant' in quality. The dynamics are gradual for this section, while section B is constituted of terraced dynamics.

Section B is chordal and uses dotted rhythms. It is also slower than the preceding section. It has a pre-set order for the intervals, obtained through the use of three intervals: 1, 6 and 11, due to their more 'dissonant' sound, in contrast to section A. With the pitch relatively pre-determined, rhythms were composed intuitively, according to what the intervals and situation suggested.

As the piece was composed, the composer tried to imagine what the written music sounded like, according to the intervals and sonorities created. After playing what was written she was amazed to hear something quite different. It is important to have some grasp of what is being written, in reference to sound, but the greater this skill, the closer the end result will be to what the composer wishes. In other words, continuation of practice on this skill will develop an accurate aural sense of the sounds as composition occurs, and prevent false expectations. The composer found it difficult to compose for two pianoforti, due to the limited timbral and overwhelming chordal possibilities. The

work's instrumentation reflects these elements, combined with a need to develop a sound pianoforte compositional skill through praxis.

Section C used more traditional chordal structure and was in the key of C major. It was based on two 16 bar themes, which were slightly developed before being played simultaneously in a short contrapuntal portion. In order for the two themes to be consonant with each they contained the same pre-determined chordal structure and set rhythms.

This final section where the piece disregards the previous formulae and moves into tonality was rejected. The composition therefore ends at the conclusion of the second section (section B). Although this does not agree with the initial times and numbers planned, the outcome of the piece does not depend upon keeping original ideas at the expense of the entity that it is.