

freeHorn

for the wulf

feb. 6, 2010

for at least 4 computers, any number of sustaining instrument performers

Pick some fundamental, for example, C. Call that frequency 1/1.

Pick some time length for the piece, no less than 10 minutes, no longer than 20.

Computer 1 has the longest duration, the entire time length. It's harmonic progression is:

1/1 5/4 3/2 1/1

Each of the three other computers begins and ends its harmonic progression on some simple prime, related to 1/1, such as 3, 5, 7, 11, 13, 17, or 19. Intervening ratios to that starting "new" fundamental can be anything else. For example, computer 2's harmonic ratios might be:

5/1 5.3/1 7.1/1 5/1

Any number of ratios might be used in this progression, but it starts and ends on the simple prime relationship. Powers of 2 should probably be used in the denominator to keep the overall register simpler, for example, the above should probably be:
become:

5/4 5.3/4 7.1/4 5/4

Each of computers 2-4(5) has a shorter total duration than computer 1. They start at a point in time such that their golden mean division lines up with the golden mean division of computer 1. For example, assuming computer 1 is 10 minutes in duration, and computer 2 is 8 minutes in duration, and calling the golden mean $1/1.61 = .62$, the midpoint of computer 2 is $.62 * 8 = 4.96$ minutes, while the midpoint of computer 1 is 6.2 minutes. Computer 2 should begin $6.2 - 4.96 = 1.24$ minutes after computer 1 begins. In general, the more complex the prime relationships, the shorter the durations should be.

Performers pick one computer part, and play with that in the usual way of playing *freeHorn*: try to match pitches, or not to match pitches; generally (but not always) play long-ish sustained notes; avoid “special” techniques and timbres; and freely deviate from these guidelines for the sake of the performance. Listening to others is important, as is a general blending of the total sound.

Although each player picks one of the computer parts to play with, he may also, freely, but not too often, play with another part before or after his part is sounding.

lp
1/11/10