Follow Me Around

(until we all fall down)

for Large Ensemble

Sean Peuquet

March, 2010

Follow Me Around (until we all fall down) is a reworking of Douglas Repetto's ideas from his audio sculpture titled *Crash and Bloom* from 2002.* Repetto constructs a network of micro-controllers to form a physical system that aims to model biological populations in terms of their growth and decline (crash and bloom). I simply adapted some of the rules he used to program his micro-controllers in order to write an open form score for a large instrumental ensemble (originally for the University of Florida Wind Ensemble). Of course using humans rather than micro-controllers requires other various constraints since humans fail where computers succeed, and vice versa. Ultimately, Repetto's interest in constructing a physical system to model a biological system sparked my curiosity in what would result musically from using a sociocultural system to model a biological system.

The piece attempts to engage with this notion of musical emergence by constructing a network of formalized interactions among performers in an ensemble. Each performer is assigned a single pitch with which to realize the piece. A performer plays his or her specified pitch according to a set of clearly defined rules that govern musical interactions with other performers.

**see* Repetto, Douglas Irving. "'Crash and Bloom': A Self-Defeating Regenerative System". *Leonardo Music Journal,* 14 (2004): 88-94.

I. Establishing Conditions for Musical Interaction

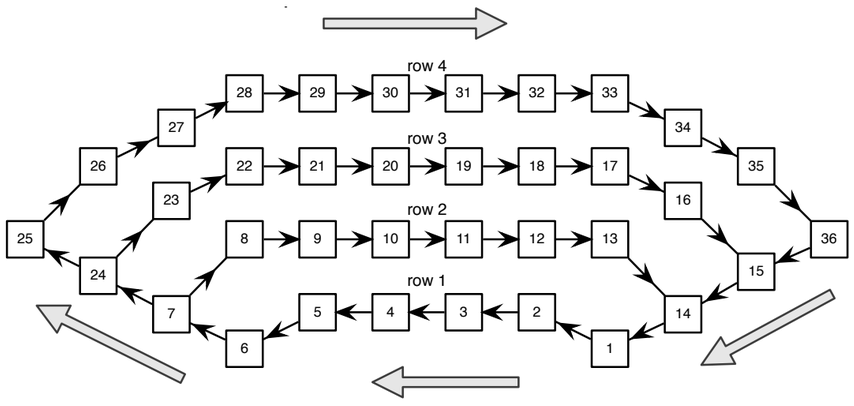
Network of Performers
In order to realize the piece, a network of performers must be constructed across the entire ensemble. The network defines a sequence of interactions and the direction in which musical signals are communicated from one performer to another. Musical signals are of two varieties: a "continue" signal and a "die" signal. The *continue* signal informs the successive performer(s) to play a particular sequence of notes, while the *die* signal informs the successive performer(s) to rest, and wait to play until another *continue* signal is sent. A network of performers can be constructed in various ways, but the piece does require some limitations on the network design. The limitations are as follows:

1. The network must be closed (i.e. loop).

2. The network will be most perspicuous to both the performers and the audience if all signals flow in the same direction. In the figure below, this is represented as clockwise motion.

3. Third, in order to achieve a more complex form, the piece depends upon the network containing multiple loops, each comprised of a different number of performers. The easiest way to realize this network design is to use each arching row to define a loop of *N* number of performers (depicted below). By constructing concentric loops around the performers seated in *row 1*, certain performers will then function as members of multiple loops of different sizes.

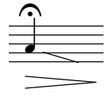
The figure below provides a representation of a potential network signal flow. The numbered boxes represent individual performers. Note that each of the 3 loops contains a different number of performers, and that performers 1-7 and 14 function as members of all 3 loops.



Signaling
Performers interact by receiving and sending signals. To receive, a performer listens to the performers(s) in the network from whom he or she is designated to receive signals. The performer then responds to the signal by either playing or not playing his or her instrument. If playing is required, the performer in turn sends a signal to the next performer(s) in the network after playing some specified material. (It isn't important to know who is receiving your signals, thats someone else's job). In the above figure, performer 14 receives signals from two sources (13 and 15), while performer 1 receives signals from only one source (14). As mentioned above, there are two types of signals that may be passed from one performer to another: a *continue* signal and a *die* signal. The *continue* signal communicates to the next performer in the network chain that they should begin playing a specified sequence of notes on the next beat, as indicated by an established tempo of Quarter Note = 90, which is maintained by the conductor. The *die* signal tells the next performer **not** to play, but rather, to rest until the next *continue* signal is given. Rules pertaining to when a *die* signal should be sent instead of a *continue* signal are described on the following page. Signaling is how the piece functions. The form of the piece unfolds as a result of signaling patterns among the performers in the network.

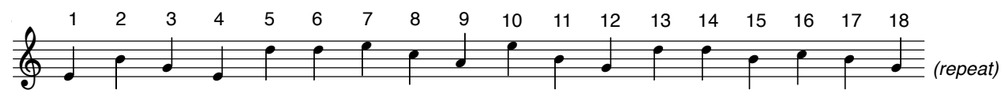
The *continue* signal is signified by a short accented note ended with an upwards glissando, notated as follows:

The *die* signal is signified by a long sustained pitch that ends with a downward glissando, while decreasing in volume, notated as follows:

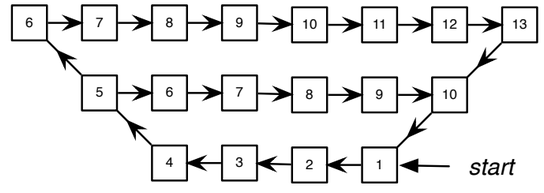


II. Specifications for Pitch and Rhythmic Structures

Pitch
Each performer realizes the piece using a single pitch. Pitch is assigned by mapping the following pitch sequence onto the networked chain of performers according to the sequence in which each performer plays in a given loop. The *Pitch Sequence* (notated at sounding pitch) is:



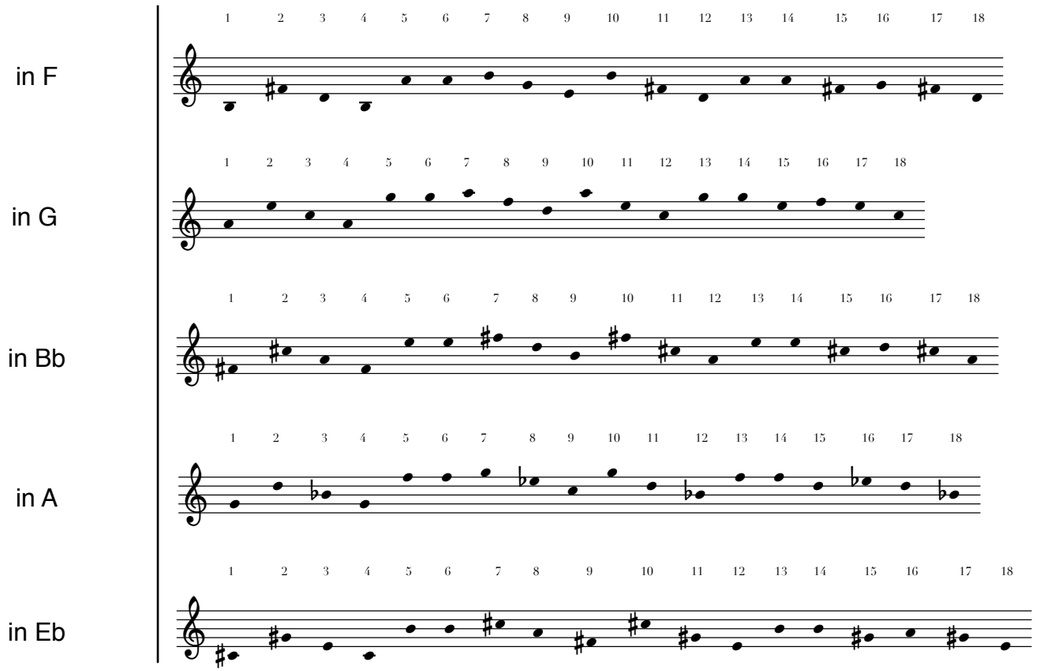
The Pitch Sequence would be mapped as follows for a network where the rows consist of 4, 6, and 8 performers. The number within each box, representing a network node or performer, corresponds with the same numbered pitch from the above Pitch Sequence:



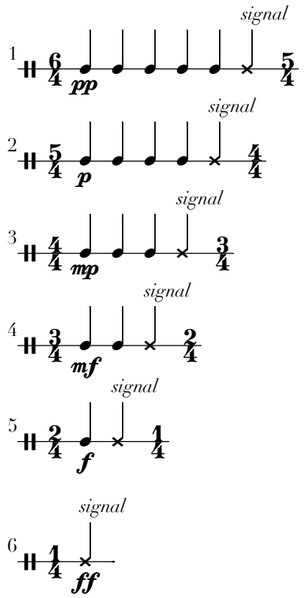
If the number of performers in a given loop exceeds the number of pitches, continue assigning pitches by starting the sequence over. Pitches can be octave transposed to fall within the range of each instrument, with consideration given to maximal registral distribution across the ensemble. (Pitch is actually assigned as pitch class, and then specified as pitch based on the performer's instrument). Therefore, performer 1 (the first performer to play) will always realize the piece using E as the sounding pitch class. The chart to the right provides a list of Pitch Sequence transpositions for transposing instruments (i.e. the Pitch Sequence notated at "written" pitch according to various instrument transpositions).

Instrument Transposition

Pitch Sequence
(notated at "written" pitch)



A Rhythmic Pattern



Rules for Progressing through Patterns

1. The last quarter note in each sequence is a signal, regardless of sequence length.
2. When a *continue* signal is received, begin playing the next sequence on the next beat (as indicated by the conductor).
3. After completing a sequence, wait for a *continue* signal to proceed to the next sequence.
4. If a *die* signal is received, do not play. Rest until a *continue* signal is received.
5. If an additional *continue* signal is received while a sequence is currently being played, send a *die* signal upon completion of the current sequence, otherwise, send a *continue* signal.
6. After sending a *die* signal, immediately perform the following actions in order:
   - 6.1. Rest for 12 beats.
   - 6.2. While resting, ignore all incoming *continue* signals.
   - 6.3. After 12 beats, wait for a new *continue* signal, and then resume by playing the first 6/4 sequence of the **next** rhythmic pattern.

Rhythmic Pattern and Temporal Sequencing
The signals that a performer receives dictate how he or she is to progress through a series of rhythmic *patterns*. The piece defines six ordered *patterns,* each comprised of six rhythmic *sequences*. Within a pattern, the number of quarter note beats decreases by one with each successive sequence. Each performer progresses through the sequences within a given pattern according to a set of signaling rules. These rules are listed at the top of the following column.

To play the piece, a performer progresses through (playing at his or her assigned pitch) the six patterns in order. Within each pattern, a performer moves between successive sequences in order (from top to bottom moving from 6/4 time to 1/4 time). Upon completion of a pattern (after completing the 1/4 sequence), the performer then moves to the first sequence of the next pattern (the sequence in 6/4).

The last quarter note of each sequence contains a signal. This signal instructs the next performer(s) in the network to either *continue* or *die* (rules for "dying" are listed with the signaling rules at the top of the following column). Once a sequence has been completed and a signal sent, the performer waits (rests) until he or she receives another *continue* signal. **Performers only move forward and play the next sequence when he or she receives a *continue* signal.** This is true in every instance except for when a performer receives additional *continue* signals while currently playing a sequence. In this case, they finish playing the current sequence, send a *die* signal, and proceed to ignore all incoming *continue* signals while resting for 12 quarter note beats. A basic rhythmic pattern is represented through notation at the top of the following column, along with the signaling rules governing a performer's progression through the patterns.

III. Performance Considerations

To Begin
Performer 1 (as defined through network construction and pitch class assignment) is cued by the conductor to begin realizing the first rhythmic sequence (in 6/4) at the assigned sounding pitch class of E. This introduces a *continue* signal into the system. At any point in the piece, at the conductor's will, an additional *continue* signal can be introduced into the system. This is potentially useful as a means of improvising form or as a response to a premature eradication of all *continue* signals.

To End
In certain cases, all signals will disappear and the piece will finish. Otherwise, performers should play until they complete the six ordered patterns, and then stop (and as a result, stop sending additional signals).

Instrumentation
The piece can be performed by any relatively large ensemble comprised of at least 18 members. Pitched instruments are required though in order to accurately reflect the specified pitch sequence. Alternative or non-traditional tunings can be explored as well. A conductor will most likely be required, merely as a means of demarcating time, and potentially, to direct the introduction of new signals into the system.

Tempo
The indicated tempo marking for the piece is Quarter Note = 90. This can be treated as rather flexible. This tempo marking is meant to serve merely as a lower limit, i.e. feel free to push the tempo depending on ensemble size, desired performance time, and playing ability.

Dynamics
Dynamics are not relative to individual instruments, but rather, relative across the ensemble (i.e. dynamic compression).

Follow Me Around (until we all fall down)
March 2010 / rev. May 2010

Sean Peuquet

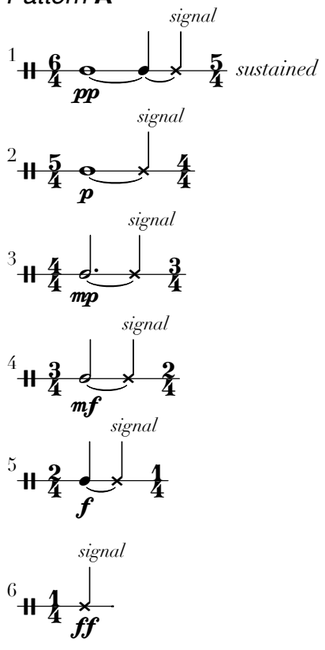
♩ = 90 *(at least)*

The *continue* signal: 

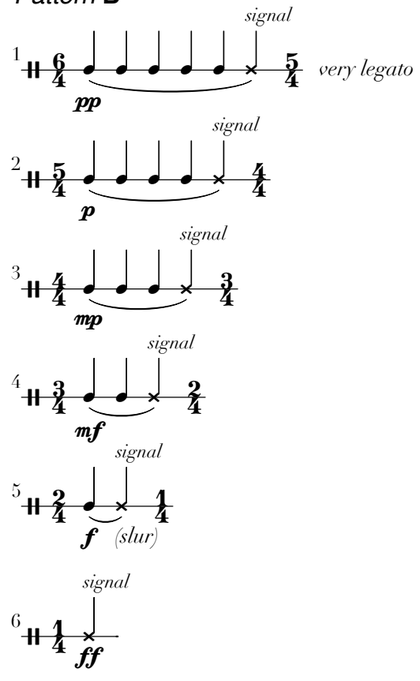
The *die* signal: 

Pitch: _____

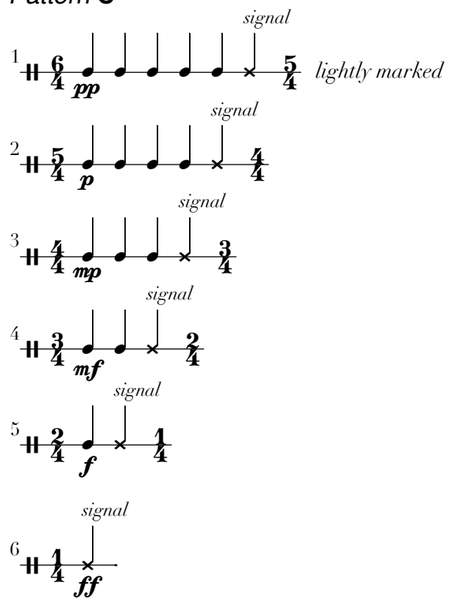
Pattern **A**



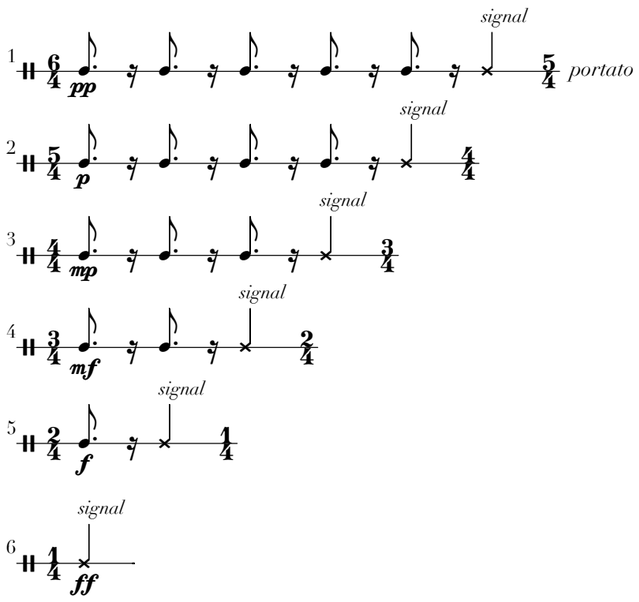
Pattern **B**



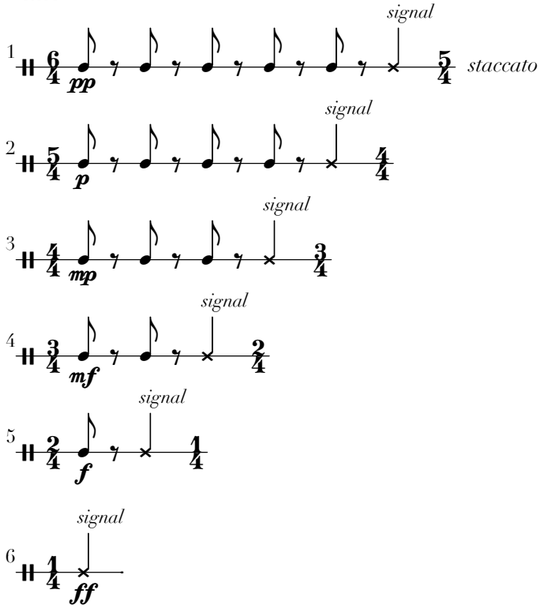
Pattern **C**



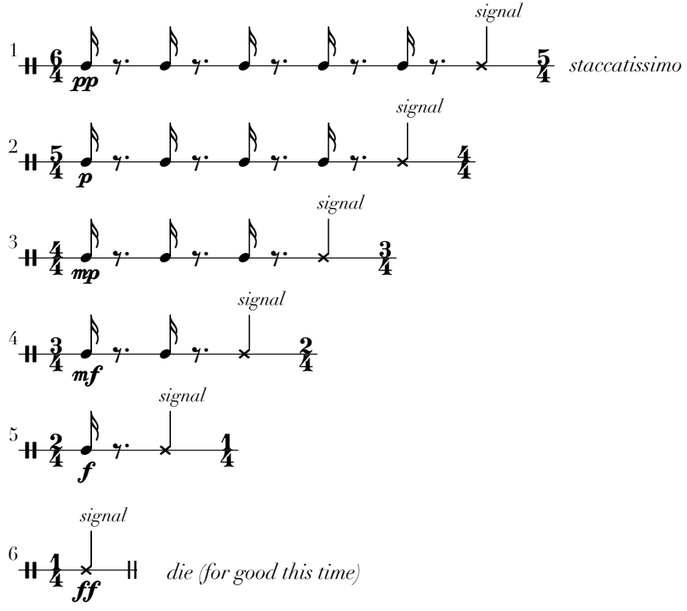
Pattern **D**



Pattern **E**



Pattern **F**



At each line break, rest and wait for a ***continue*** signal before proceeding to the next sequence