青

Blue

For processed recording or solo instrument with playback or ensemble

By Benjamin Alan Kubaczek Composed in Graz, 2021



 $^{\circ}$ = add random overtones or multiphonics

The phrase is played in six voices by a soloist or six players (or six groups of players) on any chosen instrument (or instruments).

The starting note is given through the playback speed/rate. There are six rates: 0.3, 0.6, 0.9, 1, 1.2 and 1.5.

Each voice must be transposed and adjusted in tempo, except the voice at the rate of 1.

Processed recording:

Create a recording of given phrase.

Adjust the playback speed 5 times into given rates and combine them with the original into an output.

Rates 1.2 and 1.5 should furthermore be processed with a modulation of the playback speed in short bursts of back and forth, yet should allow enough of the phrase to come through and be heard. The result should sound like "scratching".

For the form, follow the instructions below under "Form/Arrangement".

Solo instrument with playback:

Create recordings of all given voices, except the one at the rate of 1. That one is played by the soloist.

For rates 1.2 and 1.5, follow the instructions below under "Ensemble".

For the form, follow the instructions below under "Form/Arrangement".

Ensemble:

The bpm is only to be used as a suggestion; each voice should individually find an approximation of the bpm based on the given rate, varying slightly throughout the phrase.

All players are asked to play quietly, but are allowed to add dynamics here and there to emphasize their individual voice.

If more than one instrument plays a single voice, all players of that voice must adjust their dynamics together.

Rates 1.2 and 1.5 are to be played with erratic and changing accents and/or tremolo,
but should still stick to the given dynamics of the phrase.

The tempo of rate 1.2 should be played at 2/3rds of the resulting bpm, rate 1.5 at 1/3rd of the resulting bpm (see table below).

All instruments should slightly vary in tuning by max \pm 10 cents, or the given phrase is to be played with slight adjustments of pitch by max \pm 10 cents.

For the form, follow the instructions below under "Form/Arrangement".

Starting notes and bpm suggestions:

Rate:		bpm (in half notes):		Starting note:			Resulting chord:
0.3	=	24 bpm	=	D	=	1 7	= 1, 3, 5, 6
0.6	=	48 bpm	=	d	=	1 (8)	
0.9	=	72 bpm	=	a	=	5	
1	=	80 bpm	=	h	=	6	(D6)
1.2	=	96 bpm (2/3 = ~ 57 bpm)	=	d¹	=	1 (16)	(50)
1.5	=	120 bpm (1/3 = 36 bpm)	=	#f 1	=	3	

If the recording is done at $80\ \text{bpm}$, then the playback speed of rate $0.3\ \text{should}$ be $24\ \text{bpm}$.

(Rate $0.3 = 80^*3/10 \text{ bpm} = 24 \text{ bpm}$)

Form / Arrangement:

The piece starts with rate 0.3.

The instrumentalist(s) decide(s) on an order and offset for the entering voices.

The piece ends when all voices have exited, one after another in a free order, with the voice playing rate 0.3 exiting last.

Example:					
Offset:	Rate:				
Begin with:	0.3 start				
wait 12"	0.6 start				
wait 2"	0.9 start				
wait 2"	1 start				
wait 10"	1.2 start				
wait 6"	1.5 start				
_					
wait 240"	0.6 stop				
wait 10"	0.9 stop				
wait 15"	1.2 stop				
wait 8"	1,5 stop				
wait 10"	1 stop				
End with:	0.3 stop				

Example code for Supercollider:

```
~blue = Buffer.read(s, /*Insert recording here*/ );
           1.do {
                                     (
                                                 x = {
                                                               var sig = PlayBuf.ar(1, ~blue, 0.3, loop: 1)! 2;
                                                              Free Verb. ar (sig,\, 0.5,\, 5,\, 1)\; !2\; ;
                                                 }.play
                                     );
                                                 u = {
                                                              var sig = PlayBuf.ar(1, ~blue, 0.3, loop: 1)! 2;
                                                              FreeVerb.ar(sig, 0.5, 5, 1) !2;
                                                 }.play
                                     );
                                     12.wait;
                                     (
                                                 y = {
                                                              var sig = PlayBuf.ar(1, ~blue, 0.6, loop: 1)! 2;
                                                              FreeVerb.ar(sig, 0.5, 1, 1, 1.0) !2;
                                                 }.play
                                     );
                                     2.wait;
                                     (
                                                 z = {
                                                              var sig = PlayBuf.ar(1, ~blue, 0.9, loop: 1)! 2;
                                                              FreeVerb.ar(sig, 0.5, 1, 1, 1.0) !2;
                                                 }.play
                                     2.wait;
                                     (
                                                              var sig = PlayBuf.ar(1, ~blue, 1, loop: 1) ! 2;
                                                              FreeVerb.ar(sig, 0.4, 1, 1, 1.0) !2;
                                                 }.play
                                     );
                                     10.wait;
                                     (
                                                 r = {
                                                              var sig = PlayBuf.ar(1, ~blue,
                                                                           rate: 1.2 * LFPulse.ar(LFDNoise1.ar(1).exprange(0.1, 50)).range(-0.01, 1).lag,
                                                                           startPos: 0.12 * BufFrames.kr(~violin),
                                                                           loop: 1);
                                                              FreeVerb.ar(sig, 0.5, 0.7, 0.5, 5.0) !2;
                                                 }.play
                                     6.wait;
                                                              var sig = PlayBuf.ar(1, ~blue,
                                                                           rate: 1.5 * LFPulse.ar(LFDNoise1.ar(5).exprange(0.1, 50)).range(-0.06, 1).lag,
                                                                           startPos: rrand(0.1,0.8), // * BufFrames.kr(~violin),
                                                                           loop: 1);
                                                              FreeVerb.ar(sig, 0.5, 0.9, 1, 1.0) !2;
                                                 }.play
                                     240.wait;
                                     x.release(10);
                                     4.wait:
                                     y.release(10);
                                     5.wait;
                                     t.release (10);
                                     6.wait;
                                     r.release(10);
                                     7.wait;
                                     w.release(10);
                                     8.wait;
                                     q.release(10);
                                     10.wait;
                                     z.release(8);
                                     10.wait;
                                     u.release(10);
    }
```