

# *Smooth Wood, Flash Metal* (2003)

*for flute, Bb clarinet, and computer*

William Kleinsasser

Duration: 15 minutes

Composed for Lisa Cella and E. Michael Richards

NOTE:


*Smooth Wood, Flash Metal*, for flute, clarinet and computer, is in three large sections: an extended flute solo which evolves into a duet with the computer, a duet with flute and clarinet that is augmented by computer transformation, and a clarinet solo which forms its own context through computer transformation of the live performance. The flute solo is based on alternation of continuity and discontinuity. The clarinet solo is based on alternation of spectral focus and diffusion. The duet combines these alternations with its own metaphor of entwining and fusion. The nature of the flute's acoustic character, how it differs from the clarinet, how the two can combine and intersect, and how these differences can be projected and transformed through the computer's particular idiom, are examples of how objects and relationships permeate this music.


The computer music uses processes created within the Max/MSP software environment to present real-time processing of music played by the flute and clarinet during the performance. In this way the computer can be considered analogous to fluid, aware architecture—variably resonating, diffusing, echoing, filtering, and reflecting what the acoustic instruments play. This resonant and responsive role is also expressive of the object/relationship notion at the heart of the piece.


*Smooth Wood, Flash Metal* was composed for flutist Lisa Cella and clarinetist E. Michael Richards both of whom provided a world of friendly advice and inspiring information, especially Michael's extensive catalog of extended techniques for clarinet. The Max/MSP processing, like many Max/MSP patches, owes much to other developers and uses standard-issue Max/MSP objects as well as Timothy Place's tap.shift, Richard Dudas' Newverb~, and fiddle~ by Miller Puckette, Ted Apel and David Zicarelli. The granular synthesis method was developed from the basic granular example offered in the Max/MSP distribution by Les & Zoax, and the spectral filtering is done with an adaptation of the Forbidden Planet patch by Zack Settel, Cort Lippe and Xoaz. The idea for the monotoner process owes to Paul Koonce and his work *Hot House*. Thanks to Erik Oña, Cort Lippe, and Miller Puckette who offered the model for the cross-bar mixing method using menu-driven routing and the matrix~ object that is the basis of the structure of the processor and thanks to Chris Dobrian for the windowed buffer recording methods used in the piece.


William Kleinsasser


# NOTATION SYMBOLS


 All glisses begin immediately and last the entire duration of the initiating note


 Gradual accelerando or ritard independent of overall tempo


 Play beamed grace-note group as fast as possible

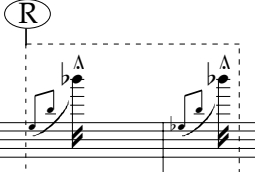
 Indicates a gradual change from one mode of playing to another, eg. sul pont. to sul tasto.

 Use alternate fingerings to produce a timbral trill

 Senza tempo (ad libitum)

 Notated pitch is sustained for the duration of the solid line

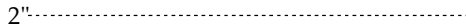
 Computer cues indicate the advancing of the Max/MSP software to each next sequential preset program. In general, the computer records the live performance and applies various cascaded forms of signal processing.


 R-BOX indicates a section to be recorded into an automatically incrementing computer buffer during performance by pressing the "r" key on the computer keyboard to start and end recording


Record Fragment #1

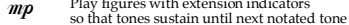
Following a fermata the tempo should return to the last consistent tempo which preceded the fermata unless otherwise indicated

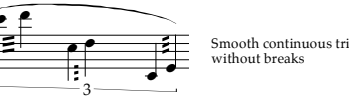
All grace-notes are to be played immediately prior to the beat (or subdivision) of their associated note

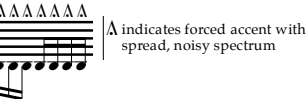
 2"


 *f* Play free measures in approximate time indicated

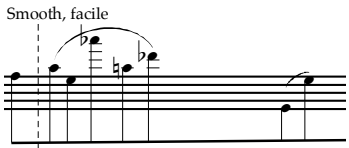
 Free, non-metrical but keeping pace of tempo

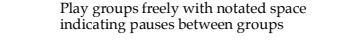
 *mp* Play figures with extension indicators so that tones sustain until next notated tone

 Smooth continuous trill without breaks

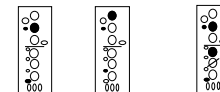
  $\Delta$  indicates forced accent with spread, noisy spectrum

 Trill vigorously between these notes

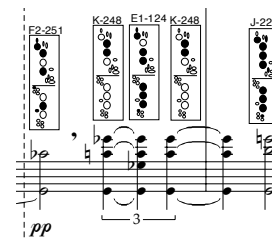
 Smooth, facile

 Play groups freely with notated space indicating pauses between groups

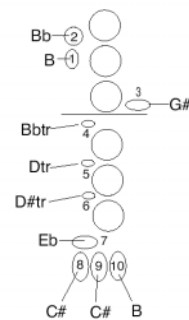
Flute multiphonic fingerings are from John C. Heiss (1966)



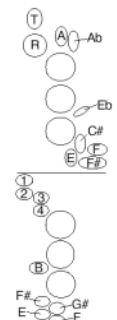
Multiphonics for clarinet are references to E. Michael Richards (2002)

 *pp*

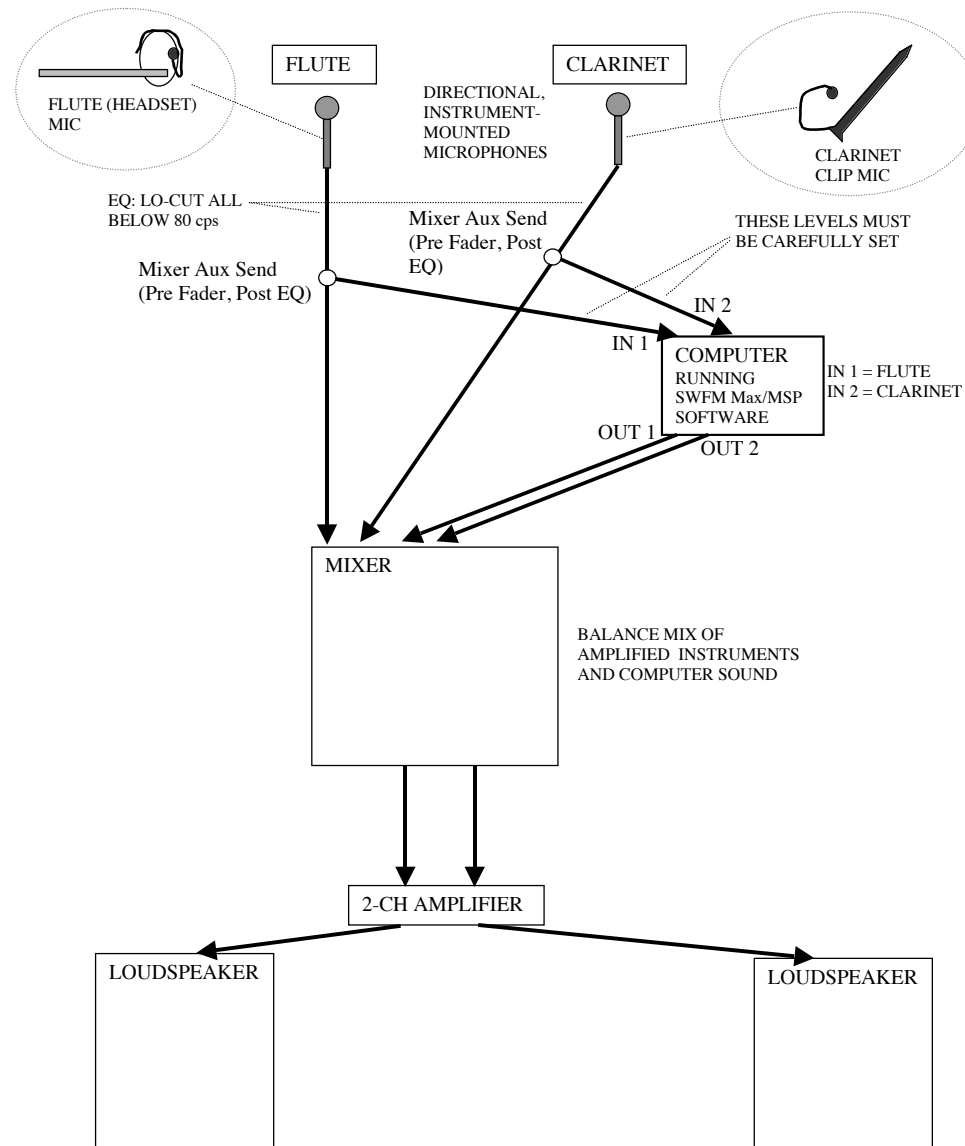
## FLUTE



## Bb CLARINET



SYSTEM CONFIGURATION FOR SMOOTH WOOD, FLASH METAL (2-CH VERSION)



## SCORE IN C

# Smooth Wood, Flash Metal

for flute, Bb clarinet, and computer

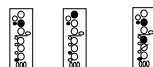
Written for Lisa Cella and E. Michael Richards

William Kleinsasser  
(2003)

## PART I

Play freely with a  
general pace equivalent to  $\bullet = 92$   
All timings are approximate

Multiphonics for flute are from  
John C. Heiss (1966)



0 1" 1" 2" 2" 4"

Flute

*fff*

Accidentals apply to all pitches in a single part regardless of octave and are canceled by the barline

Gracenotes are played as fast as possible and before the notated main note.

$\Delta$  indicates forced accent with spread, noisy spectrum

Bb Clarinet

0

Computer

No computer processing until Measure 15

1 2 3 4 5

4" 6" 6" 10"

Fl.

*f* *ff* *f* *p* *f* *p* *mp* *f* *ff*

Clar.

Comp.

6 7 8 9

6"-----

4"-----

Fl. *mp* *ff* *mf* *ff* *fff*

Clar.

Comp.

10

11

10"-----

6"-----

Fl. *p* *f* *ff* *mp* *ff*

Clar.

Comp.

12

13

14

16" 6"

Fl. *ff* *mp* *ff* *ff* breath pulse: *fp* *mp* *f*

Clar.

1 2

Comp. Computer cues indicate the advancing of the Max/MSP software to each next sequential preset program. In general, the computer records the live performance and applies various cascaded forms of signal processing.

2" 3" 5" 3"

15 16 17

Fl. *ff* *ff* *f* *ff* *mp* *ff*

Clar.

3 4 5

Comp.

18 19 20 21

4" 3"

*Fl.* *fff* *pp* *ff* Urgent, quick, passionate  
♩ = 104 - 126

At this tempo, grace-notes are extremely fast.  
Play as many as possible.

6 7

*Comp.*

22 23 24

*Fl.* *ff*

*Clar.*

*Comp.*

25 26



Do not slow or lose energy! .....

Fl.

Clar.

Comp.

8

27

28

Fl.

Clar.

Comp.

29

30

31

Maintain energy 42" Through measure 55 -----

*mp*

Fl.

Clar.

Comp.

32

33

34

Fl.

Clar.

Comp.

*ff*

*mf*

*f*

*p*

breath pulse:

*mf*

*f*

trill

Trill vigorously between these notes

trill

9

10

35

36

37

38

39

Fl. *mp* *f* *ff* *f* *ff*

Clar.

Comp.

11 12 13

40

41

42

43

Fl. 10 9 *f* *ff*

Clar.

Comp.

14 15

44

45

46

Fl. *fff* *p* *ff* *f* *fff* *mf*

Clar.

Comp.

16 17

Fl. *f* *ff* *mp* *fff*

Clar.

Comp.

18

47 48 49 50 51 52

Fl. *10* *p* *Slowly* *harmonics* *trill* *trill* *ppp* **1**  
**4**

Clar.

Comp. **19** **20**

53

54

55

Fl. **1** **4** *p* *ff* *dim.* *Slowing* *rall.* *60* *46* **6**  
**4**

Clar.

Comp. **56** **57** **58** **59**

Fl.  $\frac{6}{4}$  *Faster* = 92 *rall.* harmonics  $\frac{4}{4}$  = 46  $\frac{2}{4}$   $\frac{4}{4}$  *In tempo* = 92

*sfz p* *ff* *pp*

Clar. *Freely* *Gently joining* *p* 7 *pp* 7 *ppp*

Comp. 21 22 23

# PART II

Fl. *non vibr.* *fff*  $\frac{3}{4}$  *norm.* *p* *ff* *mp* 6 *ff* *f* *ff* *pp*

Clar. *ppp*

Comp. 24

60 61 62 63 64 65 66 67 68

Fl.  $\frac{4}{4}$   $\frac{3}{4}$   $\frac{7}{8}$   $\frac{4}{4}$   $\frac{5}{4}$   $\frac{15}{4}$

Clar. Free, non-metrical but keeping with flute

Comp.

69 70 71 72 73

Fl.  $\frac{15}{4}$   $\frac{2}{2}$   $\frac{1}{2}$

Clar.

Comp.

25 74 75 76 77

16"

0 Urgent, quick, passionate

Fl. *ff* *ff* *p* *ff*

Clar. *ff* *ff* *p* *ff*

Comp.

26

Remain quietly smooth

78 79

4/4 Free, non-metrical but keeping pace of tempo

Fl. *mp* *mf*

Clar. *mf*

Comp.

80 81 82



Fl.

Clar.

Comp.

In tempo

*f*

*ff*

*pp*

27

Fl.

Clar.

Multiphonics for clarinet are references to E. Michael Richards (2002)

*pp*

*ff*

*p*

*pp*

*ff*

*p*

*ff*

28

87

88

89

90

91

92

Fl.

Clar.

*p* *ff* *p* *f* *ff* *f*

A4-455 F2-252 E1-243 D7-259 D7-284 K-247

7 3

Fl.

Clar.

trill

93 94 95

*ff* *mf* *ff* *p* *pp* *norm.* *ppp*

A4-455 C-20 D7-284 K2-379 P2-347 T1-348

5/4 4/4  $\text{♩} = 46$  *norm.*

29 30

*p* *pp* *p* *pp* *ppp*

7 7

96 97 98 99 100 101 102

Urgent, quick, passionate

3" Smooth, facile

4"

Fl. *ff*

Clar. *ff* Sharp, edgy

31

103 104

3" 4 Maintain energy

4 ♩ = 92

Fl. *f*

Clar. *ff*

Resuming forward motion

*mp* L-276

Hold back multiphonic and smoothly open it to full richness

32

105 106 107

Fl. **6/4** Free, non-metrical but keeping with clarinet **5/4** **4/4**

Clar *p* *ff* *p* *ff* *p* *ff*

33

108 109 110 111

O1-408 L-278 O1-411 Z-458 F-50 D2-401 D4-424 D9-396 K2-379 X-385

Fl. **3/4** **7/4** **0** 3"

Clar *mf* *p* *ff* *pp* *ff* *ff*

34

112 113 114 115

3" 3" 4/4

Fl.

Clar.

116 117 4/4 2/2 1/2 4/4

Fl.

Clar.

Fast trill between selection from these multiphonics: N-274 N-279 N-306 N-319

O2-317

Very slight, quiet internal tremolo within this multiphonic

ff mf f mp f mp f f ff

35

118 119 120 121 122

Fl.  $\frac{4}{4}$

Clar.  $\frac{4}{4}$

Break slurs if needed to articulate clearly

*ff* *mp* *ff*

36

123 124 125 126 127

$\frac{3}{4}$   $\frac{3}{8}$   $\frac{2}{4}$   $\frac{4}{4}$

Fl.  $\frac{4}{4}$   $\text{♩} = 60$

Clar.  $\frac{4}{4}$

*p* *ff* *p* *pp*

5 7 3

F1-162 B1-78

Slowly

0 4"

Multiphonic trill emphasizing sounding D and E with fingerings selected from the list below. Maintain continuity throughout.

E. Michael Richards multiphonic fingerings with common sounding G4 (varied tuning)  
A2 | T1 | T2 | J2 | K2 | D7 | H1 | E | C3 | P2 | O | Q1

37

128 129 130 131 132 133

PART III

Fl. *Gently withdraw*

Clar. *pp*

[ 42" Through measure 148 ]-----

• = 92

Sudden shift of energy

Play 137-149 with uneven durations and aggressive articulation

38

39

134 135 136 137 138 139 140

Do not slow or lose energy!

Clar

141 142 143

40

Clar

144 145 146

41

*ff*

Clar

147 148 149 150

42 43

4"

26" Through measure 162 -----  
Use alternate fingerings that give timbral variety to reiterate pitches.  
Spectrally diffuse fingerings (multiphonics) can be included.

*ff*



Clar

N-292

O-332

C-32

Hold back multiphonic and smoothly open it to full richness

Loud multiphonic trill with at least two components chosen from the fingering options below

Strong, energized timbral trill with at least three alt. fingerings

ff

A2 | T1 | T2 | J2 | K2 | D7 |  
H1 | E | C3 | P2 | O | Q1

151

152

153

154

44

Assertive accented multiphonics chosen from the selection in m. 153

H-96

Smooth transition from multiphonic

mp

f

ff

10

10

45

J-222

Hold back multiphonic and smoothly open it to full richness

Smooth transition from multiphonic

Multiphonic trill emphasizing sounding D and E with fingerings selected from the list below

E. Michael Richards multiphonic fingerings:  
D | F | J | O2 | L2 | K2 | H | J2 | I | C | E

f

ff

ff

26" Through measure 174

155

156

157

158

159

160

161

162

163

164

46

Clar

*mf* *ff* *ff* *mp* *ff*

165 166 167 168

47 48

Clar

*fff* *ff*

169 170 171 172 173 174

49 50

Clar

3" 4" 2"

Hold back multiphonic and smoothly open it to full richness

• = 92

5 6

mp p

175 176 177 178

51

L-276 O1-408 L-276 O1-411 F-50 Z-458

Alternate fingering microtonal inflections

Clar

2" 5" 4" 4"

*ff* *p* *ff* *mf* *f* *p* *ff* *pp*

Grand, smooth, strong transitioning multiphonics

D2-401 D4-424 D9-396 K2-379 X-385

Clar

3" 5" 5"

*ff* *ff* *ff*

Fast trill between selection from these multiphonics: N-274 N-279 N-306 N-319

Fast trill between selection from these multiphonics: C3-337 C3-342 C3-356 C3-361

52

Clarinet part, measures 187-191. The staff shows a melodic line with dynamic markings *p*, *p*, *mp*, and *pp*. Above the staff, fingerings are indicated for measures 187, 190, and 191. Measure 187 has a 5" fingering (O2-317). Measures 188-190 have a 10" fingering with a tempo marking of *rall.* and a metronome marking of 92. Measure 191 has a 6" fingering with three specific fingerings: D7-258, D8-289, and H1-257. A triplet of eighth notes is marked with a 3. The bottom of the page shows measure numbers 187, 188, 189, 190, and 191 in boxes.

Clarinet part, measures 192-194. The staff shows a melodic line with dynamic markings *pp* and *p*. Above the staff, a 6" fingering is indicated for measure 192 with the instruction "Gradually slowing, releasing tension to end". Measure 194 has a 4" fingering (F1-162). The bottom of the page shows measure numbers 192, 193, and 194 in boxes.

Clar

4" *pp*

2" timbral trill without intensity *ppp*

2" *pp*

1" B1-103 B1-105

3" F1-162 *p*

53

195 196 197 198 199 200

8" Absolutely static timbral trill *ppp*

10" Absolutely static multiphonic trill *pp*

5" Barely audible

54 55 Computer silent by last three notes of clarinet

201 202 203 204