

Steven Snowden

Shovelhead

*For Bass Clarinet
and Electronics*

Shovelhead

Commissioned by Matthew Miracle

Program Notes:

The Shovelhead is a notoriously cantankerous, but much beloved V-twin motorcycle engine manufactured from 1966 to 1984 by the Harley Davidson Motor Company. The name was derived from the way in which the engine's rocker boxes resemble the inverted heads of coal shovels. Though prone to oil leaks, hard-starting and over heating, this engine defined the unique Harley sound that many love (or hate) today. Thanks to my friend, Amber Alarcón and my Harley, Fricka for providing all of the source material upon which this piece is based.

-Steven Snowden

Technical Requirements:

This piece employs live audio processing techniques via the Max/MSP programming language. The included program files can be executed with Max/MSP Runtime, which can be installed from the included disk or downloaded for free at <http://cycling74.com/downloads/>

Required equipment:

1 microphone

1 mic stand (unless a clip-on instrument mic is used)

1 Mac or PC with Max/MSP Runtime installed

1 digital audio interface with at least 1 mic preamp (either usb or firewire)

1 set of headphones

1 pair of loudspeakers (powerful enough to compete with the live performer at high dynamic levels)

Cables and power supplies to connect and run all of the above items

For technical support, feel free to contact me at stevensnowden@gmail.com

Performance/notation:

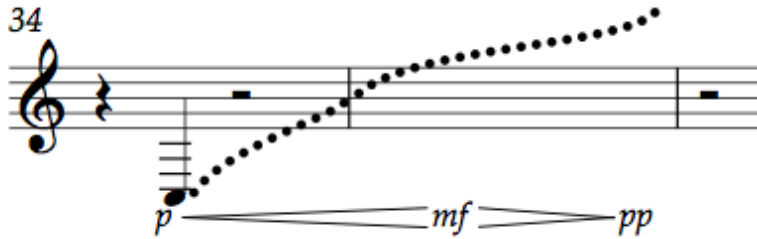
Box notation with X notehead swells –

The image shows a musical staff with a treble clef and a key signature of one flat. The piece begins at measure 19. The first measure contains a sequence of notes (Bb, A, G, F, E, D) enclosed in a rectangular box, with a *pp* dynamic marking below it. This is followed by a thick horizontal line. The next measure features a large, bell-shaped swell over a series of notes, with 'x' noteheads indicating approximate pitches. A *ff* dynamic marking is placed below the peak of the swell. The final measure contains another sequence of notes (Bb, A, G, F, E, D) enclosed in a rectangular box, with a *mp* dynamic marking below it.

The pitches contained within the box are to be rapidly repeated, imitating the sound of an idling Harley. The x note heads indicate approximate pitches and should be played very aggressively. If the *amplitude envelope trigger* unit is set correctly, the peak of each swell will trigger a short clip of a revving Harley.

Low C harmonic gliss –

This effect is achieved by slight pressure to the reed adjusting the shape of the cavity so that partials above fingered fundamental pitch produced, generating an ascending moan/scream. dotted line indicates a contour of movement through the harmonic series, but the player can treat this as loose guideline and can take liberties with the rate of ascent and pitch level.



applying and oral the are
The general

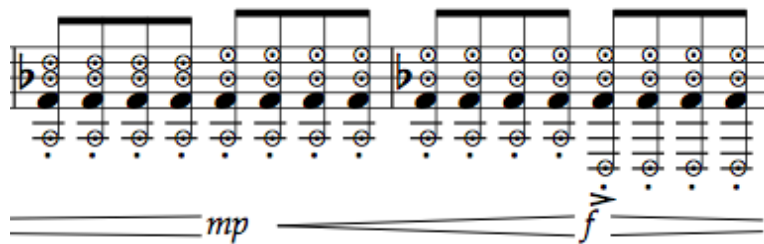
Breath sounds and key clicks –



This effect simply requires the player to breath through their instrument while clattering their keys at a rate roughly corresponding with the spacing of the provided note heads.

Harmonizer –

Normal note heads indicate pitches to be played, while circular empty note heads the pitches that are produced by the harmonizer.



the the indicate

Live Audio Processing:

This piece utilizes a fixed audio track as well as live audio processing. These live processing techniques include:

Reverb – The amount of reverb (wet to dry mix) can be adjusted according to the acoustics of the performance space.

Fixed rate delay lines – Employed from measure 69-178. The volume of each individual delay line can be adjusted.

Variable rate delay lines – Employed from measures 32-67. This type of delay produces a “glitch” sounding effect and is less predictable result than the fixed rate delay. It will also produce some subtle pitch shifting.

Overdrive – Employed in measures 4-9, 179-195 and 211-228. Much like overdrive effects used for electric guitar, this effect distorts the sound of the live bass clarinet in order to make it more gritty and aggressive. The degree of overdrive employed in this piece can be controlled from the patch.

Amplitude Envelope Sample Trigger – Employed from measures 10-27. This unit tracks the performer's incoming amplitude and triggers four different revving Harley samples once he or she exceeds a specified amplitude threshold. The performer can set this threshold level before performance by utilizing the *amplitude threshold tester*. To access this feature, click on the “open amplitude threshold tester” button in the Shovelhead patch.

Real-Time f# Harmonizer – Employed at various points from measures 70-169. This unit receives the player's incoming audio signal, and shifts the pitch of that signal in three additional independent voices according to preprogrammed harmonies.

Shovelhead

Bass Clarinet in B \flat

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Aggressive ♩ = 120

overdrive on

3

ff

6

3 3

mp *f* *fff*

gliss.

9

overdrive off

Amplitude trigger unit on

rapidly repeat pitches

pp

12

ff *pp*

15

pp *ff* *pp*

19

pp *ff* *mp*

22

ppp

Bass Clarinet in B \flat

24

pp *fff* *ffff* *gliss.* screaming and ugly

Suddenly mysterious Variable rate delay

29 Amplitude trigger unit off lines fade in

2 *low C gliss effect

pp *fp* *mp* *fp* *f*

34

p *mf* *pp* multiphonic *mf* *pp*

40 *ff* breath

ff (sempre) key clicks *ppp*

41 *ppp*

(*ff*) *ppp*

46 **2**

f *ppp* *mp* *ppp* *f*

52

p *mf* *mp* *ppp* *pp*

57

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

61

mp *p* *mp* *pp*

65

p *mf* *mf*

Delay lines switch to fixed rates

Harmonizer on

70 Tranquil, but with anticipation

ppp *p*

73

ppp *ppp*

78

mp

81

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

86

mf *ppp*

Bass Clarinet in B \flat

91

Musical notation for measures 91-94. The staff shows a continuous eighth-note pattern in the right hand and a corresponding eighth-note pattern in the left hand. Dynamics are indicated as *ppp* at the start, *mp* in the middle, and *f* at the end.

95

Musical notation for measures 95-102. Measures 95-100 feature eighth-note patterns. Measure 101 contains a whole rest with a '4' above it. Measures 102-104 feature triplet eighth-note patterns. Dynamics are *ppp* throughout.

103

Musical notation for measures 103-107. Measures 103-106 feature triplet eighth-note patterns. Measure 107 features a trill marked with a 'b' and a 'tr' symbol. Dynamics are *mp* and *ppp*.

108

Musical notation for measures 108-110. Measures 108-110 feature triplet eighth-note patterns. A box labeled '110' is present. Dynamics are *f* and *pp*. The instruction 'Harmonizer off' is written above the staff.

111

Musical notation for measures 111-113. Measures 111-113 feature eighth-note patterns. Dynamics are *mf* and *ppp*. The instruction 'Harmonizer on' is written above the staff.

114

Musical notation for measures 114-117. Measures 114-117 feature eighth-note patterns. Dynamics are *mp* and *ppp*. The instruction 'Harmonizer off' is written above the staff.

118

Musical notation for measures 118-121. Measures 118-121 feature eighth-note patterns. Dynamics are *mp* and *f*.

Bass Clarinet in B \flat

123 *Harmonizer on*

ppp mp ppp

Harmonizer off

128

mp f pp

132

mf ppp mp ff p ff p

136

mf ff p f pp

140

mf fp mf p mf ff

144 *Harmonizer on*

mf p mf

Harmonizer on

149 *With growing suspense*

mf p mf

Bass Clarinet in B \flat

154

160

167

172

179 *overdrive on*
Aggressive, sassy

182

184

Bass Clarinet in B \flat

187

Musical staff for measures 187-189. The staff contains a treble clef, a key signature of one flat (B \flat), and a 7/8 time signature. The music features a series of eighth notes with slurs and accents, and a final measure with a whole note rest.

190

Musical staff for measures 190-191. The staff contains a treble clef, a key signature of one flat (B \flat), and a 7/8 time signature. The music features a series of eighth notes with slurs and accents, and a final measure with a whole note rest.

192

Musical staff for measures 192-194. The staff contains a treble clef, a key signature of one flat (B \flat), and a 7/8 time signature. The music features a series of eighth notes with slurs and accents, and a final measure with a whole note rest.

195 With funky anticipation
overdrive off

Musical staff for measures 195-197. The staff contains a treble clef, a key signature of one flat (B \flat), and a 7/8 time signature. The music features a series of eighth notes with slurs and accents, and a final measure with a whole note rest.

201

Musical staff for measures 201-204. The staff contains a treble clef, a key signature of one flat (B \flat), and a 7/8 time signature. The music features a series of eighth notes with slurs and accents, and a final measure with a whole note rest.

205

Musical staff for measures 205-208. The staff contains a treble clef, a key signature of one flat (B \flat), and a 7/8 time signature. The music features a series of eighth notes with slurs and accents, and a final measure with a whole note rest.

208

Musical notation for measures 208-210. The key signature has two sharps (F# and C#). The time signature changes from 4/4 to 6/4 at measure 210. The notation includes various articulations such as accents and slurs.

Gritty, with an improvisatory feel

211

overdrive on

Musical notation for measures 211-214. The key signature has one flat (B \flat). The time signature is 4/4. The notation includes accents, slurs, and a dynamic marking of *ff* at the beginning.

215

Musical notation for measures 215-217. The notation features triplets and slurs.

218

Musical notation for measures 218-221. The notation includes slurs and accents.

222

Musical notation for measures 222-224. The notation includes triplets and a dynamic marking of *ff* at the end.

225

Musical notation for measures 225-228. The notation includes triplets and a dynamic marking of *f*. A crescendo hairpin leads to a *ffff* dynamic marking with the instruction "{whew, I got all nervous doin' that}" written below.