

Dave Soldier

String Quartet #2 opus 11

Bambaataa Variations

1. His Legs Wobble
2. X-Linked Planet
3. Nine Hundred Grandmothers
4. Mudhead from Planet XYY
5. Afrika Variations

For prepared quartet

originally for Ken Butler's "T-Square Quartet", 1992

revised for prepared string quartet, 2011

February 2, 2022 version

about 25 minutes

Dave Soldier
davesoldier.com
ds43@columbia.edu

Performance Notes for “Bambaataa Variations”

Background

This piece was in part inspired by music by Afrikaa Bambaataa and the Soul Sonic Force: Bambaataa among other things named his style of music “hip-hop” after Jeef Cowboy from Grandmaster Flash and the Furious Five, in part as it was similar to “bebop”. I have heard DJ and he would incorporate music from all styles. Some of the themes in this quartet are from Kraftwerk that he adapted for his own music, and one is from Muddy Waters.

Members of Bambaataa’s group, the Zulu Nation, attended the premiere of the concerto version for quartet (the PubliQUARTET) and Composer’s Concordance string orchestra (conducted by Thomas Bo), and gave speeches afterwards.

The piece is also inspired by Beethoven’s Opus 74 quartet and has a bit of satire of the concert music of 1992 in New York.

And the piece was originally for a specially made quartet of amplified instruments built by the instrument maker and sculptor Ken Butler. This version was premiered at Merkin Hall in 1992. He called them the “T-Square Quartet”, and they were included built-in sound effects on the body including doorstops and metal bands that could be plucked.

This version for string quartet alone uses the classical instruments but prepared with gizmos to make the sounds that were built into Ken’s instruments. Each gizmo is cheap and found at a drug store, none damage the instruments or strings, and they fit together in a “necessaire” traveling bag.

In the right room, the piece can be played acoustically. BUT you can also play with amplification. When using pick-ups and amplifiers, use of a fuzz box for each instrument is indicated.

Complete list of gizmos required for players:

Bring 4-8 bobby pins and 4-8 paper clips: for all four musicians. I find bobby pins to be faster to place and remove.

1st violin first movement

2nd violin first movement

viola first movement

cello first movement

1 to 4 electric toothbrushes or vibrators:

required for 2nd violin, between the first and second movements

optional for the other three musicians, same spot

1 small hair clip: for 1st violin, second movement

1 metal tablespoon: for 2nd violin, first movement

2 small barber's combs;

2nd violin, first movement

viola, first and second movements

1 soft hairbrush or soft hair curler;

cello, first and second movements

1 guitar pick:

viola, second movement

Extended Techniques

Special techniques without preparation

A “scratch” is performed by moving the bow in the direction of the strings, *i.e.*, up and down the strings rather than perpendicular across. Emulate the sound of a dj scratching a record. You can change the range of the scratch with different pressure or playing on different strings.

A “bow whip” snaps the bow in the air to move the air and make a whipping sound.

“Stop strings” means dampen the strings with the left hand after the note is played to suddenly stop the sound.

Specific instructions for each musician:

All of these sounds are in the recording under the composer’s direction by the PubliQUARTET which can be used as a guide. There are no tricks in the mixing, all sounds were made with normal instruments using these gizmos. In the 4th movement, once the players know the score, they can improvise and somewhat deviate and rephrase in the style.

Violin 1

1st movement: a paper clip or one or two bobby pins are placed around the strings behind the bridge. Pluck them with both index fingers to get a metallic buzz. Set this up before the piece begins.

1st movement: at the very end, if you have one available, use the back of an electric toothbrush (not the bristles) – or a vibrator – and move it up and down the length of the strings. This should produce a sound like a noisy like a police siren.

2nd movement: remove the paper clips / bobby pins and clip the strings with a hair clip just above the bridge to help achieve a metallic pizzicato sound: this pizzicato can use a straight thumb or a guitar pick if helpful. Remove it before the 3rd movement.

Violin 2

1st movement: the second violin doesn’t make any conventional sounds. For most of the movement, it may be easier to hold the instrument on the knees like a viol or Indian or Mideastern violin. Before the piece begins, set up the instrument with two bobby pin or paper clips, one just above and one just below the bridge, holding the strings. When the clips are plucked, they should make a metallic rattling sound like a

gamelan. In *arco* sections of the 1st movement, such as measure 97 and 114, the clips are still there, so produce a rhythmic, aggressive sound on purpose.

1st movement: “back of spoon” refers to using the curved back of a tablespoon in the right hand and sliding over mostly G & D strings over the neck. The low notes are short slides, the high notes are stronger and glissando upward in pitch: they should sound a bit like a tuned electronic drum

1st movement: use a small barber’s comb as a bow: hold it at a steep angle so that the bristles move easily across the string near the bridge, which sounds like a saw.

1st movement: At the very end, use the back of an electric toothbrush – or a vibrator – and move it up and down the strings like the spoon before. This should produce a sound like a noisy police siren. The other three players can join if they have these in a 30 second improvisation.

5th movement: there is a point to reinsert the paper clip at measure 492: if this is too short, there can be a pause before the 5th movement, although best to go straight into it without pause.

Viola

1st movement: a paper clip or one or two bobby pins are placed around the strings behind the bridge. Pluck them with both index fingers to get a metallic buzz. Set this up before the piece begins.

1st and 2nd movements: use a small barber’s comb as a bow: hold it at a steep angle so that the bristles move easily across the string near the bridge, which sounds like a saw.

1st movement: at the very end, if you have one available, use the back of an electric toothbrush – or a vibrator – and move it up and down the length of the strings. This should produce a sound like a noisy police siren.

2nd movement: uses a guitar pick, use it over the neck to get a plucky sound.

Cello

1st movement: a paper clip or one or two bobby pins are placed around the strings behind the bridge. Pluck them with both index fingers to get a metallic buzz. Set this up before the piece begins.

1st and 2nd movements: use a small soft barber’s comb as a bow: hold it at a steep angle so that the bristles move easily across the string near the bridge, which sounds like a saw.

1st and 2nd movements: use a soft hairbrush or hair curler to bow strings.

1st movement: at the very end, if you have one available, use the back of an electric toothbrush – or a vibrator – and move it up and down the length of the strings. This should produce a sound like a noisy police siren.

5th movement: indicates foot tapping.

If the instruments are amplified, use fuzz boxes for distortion where indicated.

String Quartet #2: Bambatta Variations

for prepared string quartet

Dave Soldier
1992 / 2011

1. His Legs Wobble

stop strings

Musical score for the first movement, section 1. His Legs Wobble. The score includes parts for Violin I, Violin II, Viola, and Cello. The key signature is A major (two sharps). The tempo is indicated as =110. The score starts with a dynamic of ***ff***. The instruction "slide back of metal spoon over strings: upper notes are upward scoops" is given for the upper notes of the violins. The violins play eighth-note patterns with grace marks. The viola and cello provide harmonic support with sustained notes and eighth-note patterns. The dynamics change between ***ff***, ***f***, and ***p***.

Continuation of the musical score for section 1. His Legs Wobble. The score continues with parts for Vln. I, Vln. II, Vla., and Vc. The key signature remains A major. The violins play eighth-note patterns with grace marks. The viola and cello provide harmonic support with sustained notes and eighth-note patterns. The dynamics change between ***p*** and ***ff***.

Final continuation of the musical score for section 1. His Legs Wobble. The score continues with parts for Vln. I, Vln. II, Vla., and Vc. The key signature remains A major. The violins play eighth-note patterns with grace marks. The viola and cello provide harmonic support with sustained notes and eighth-note patterns. The dynamics change between ***p*** and ***ff***.

Bambatta Variations

Vln. I II

"we like to rock & rock & par-ty"

Vln. II II

bobby pins

Vla. II

Vc. II pizz.

bobby pins

Vln. I 15

Vln. II 15

Vla. 15 bobby pins

Vc. 15

Vln. I 19

Vln. II 19

Vla. 19

Vc. 19

bobby pins

comb

bobby pins

comb

arco

ff

23

Vln. I

f

comb with violin 1 and then viola chords

23

Vln. II

23

Vla.

23

Vc.

25

Vln. I

25

Vln. II

25

Vla.

25

Vc.

28

Vln. I

28

Vln. II

28

Vla.

28

Vc.

f

Bambatta Variations

31

Vln. I

Vln. II

Vla.

Vc.

32

34

Vln. I

Vln. II back of spoon

Vla.

Vc. arco *mf*

35

36

Vln. I

Vln. II

Vla.

Vc.

37

38

Vln. I

Vln. II

Vla.

Vc.

41

Vln. I

Vln. II

Vla.

Vc.

44

Vln. I

Vln. II

Vla.

Vc.

bobby pins

44

44

6

scratch like a DJ (move bow sideways)
vary the range and pitches

Bambatta Variations

48

Vln. I

"Looking for the perfect beat"

48

Vln. II

48

Vla.

scratch like a DJ (move bow sideways)
vary the range and pitches

48

Vc.

"Looking for the perfect beat"

52

Vln. I

52

Vln. II

stop strings

52

Vla.

52

Vc.

bobby pins

any pitch, make patterns

56

Vln. I

bobby pins

56

Vln. II

mp

Vla.

56

Vc.

60

Vln. I

Vln. II

Vla.

Vc.

63

Vln. I

Vln. II

Vla.

Vc.

pizz.
hairbrush or soft curler
ff

66

Vln. I

Vln. II

Vla.

Vc.

pp ff ff
pp ff pp < ff

Bambatta Variations

70

Vln. I

Vln. II

Vla.

Vc.

73

Vln. I

Vln. II

Vla.

Vc.

77

Vln. I

Vln. II

Vla.

Vc.

This musical score page contains three systems of music for string quartet. The instruments are Violin I (top), Violin II, Cello (Vla.), and Double Bass (Vc.). The key signature is A major (two sharps). Measure 70 starts with Violin I playing eighth-note pairs. Measures 71-72 show Violin II and Cello playing eighth-note patterns. Measure 73 begins with a dynamic section: Violin I at *p*, Violin II at *p*, Cello at *pp*, and Double Bass at *ff*. Measures 74-75 continue with eighth-note patterns. Measure 76 starts with Violin I at *p*, Violin II at *p*, Cello at *pp*, and Double Bass at *ff*. Measures 77-78 show eighth-note patterns. Measure 79 begins with Violin I at *p*, Violin II at *p*, Cello at *pp*, and Double Bass at *ff*.

81

Vln. I

Vln. II

Vla.

Vc.

84

Vln. I

Vln. II

Vla.

Vc.

bobby pins

87

Vln. I

Vln. II

Vla.

Vc.

ff

arco

mf

Vln. I

Vln. II

Vla.

Vc.

Vln. I

Vln. II

Vla.

Vc.

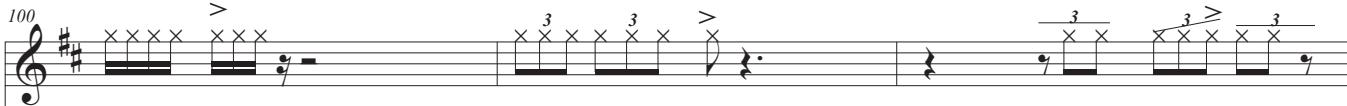
Vln. I

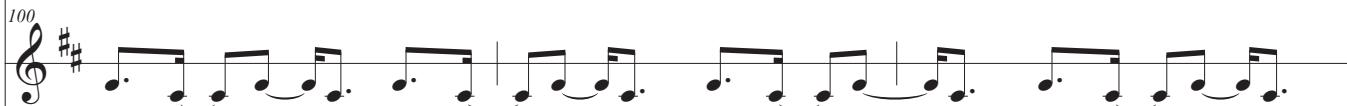
Vln. II

Vla.

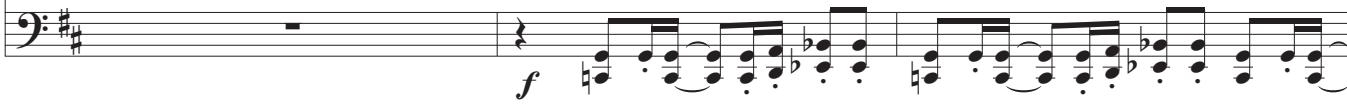
Vc.

100

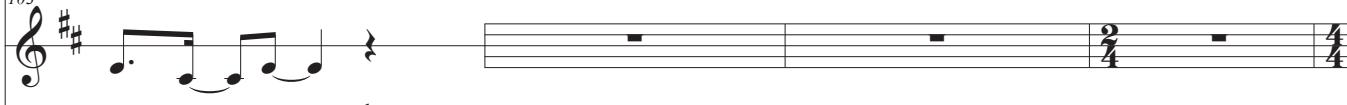
Vln. I > 

Vln. II 

Vla. 100 

Vc. 100 bounce con legno & a little hair 

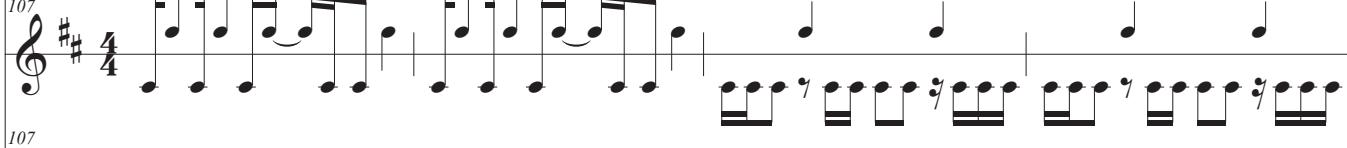
Vln. I 103 

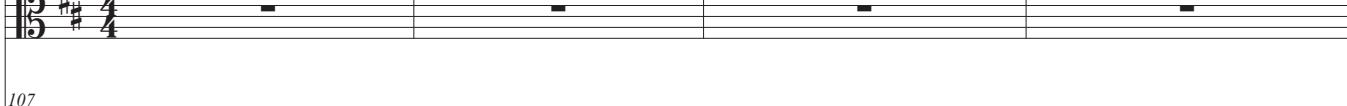
Vln. II 103 

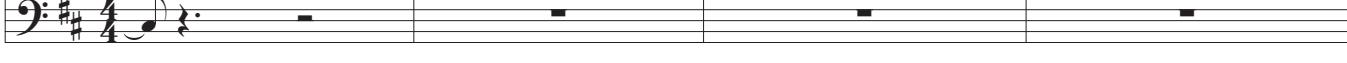
Vla. 103 ord. 

Vc. 103 ord. 

Vln. I 107 

Vln. II 107 back of spoon 

Vla. 107 

Vc. 107 

Vln. I III bobby pins
fuzz box
mp

Vln. II III with clip still on (whiney)
arco
mf
III comb

Vla.

Vc. III bobby pins
fuzz box
mp

Vln. I 115

Vln. II 115

Vla. 115 comb

Vc. 115

Vln. I 118

Vln. II 118

Vla. 118

Vc. 118

Bambatta Variations

13

122

Vln. I

Vln. II

dolce

bobby pins

Vla.

comb

bobby pins

Vc.

122

Vln. I

Vln. II

fuzz off

3

Vla.

comb

Vc.

fuzz off

130

Vln. I

Vln. II

staccato until end

Vc.

bobby pins

133

Vln. I

Vln. II back of spoon

133

Vla.

133

Vc.

135

Vln. I

135

Vln. II

135

Vla.

135

Vc.

137

Vln. I

staccato until end

ff

137

Vln. II

137

Vla.

137

Vc.

Vln. I 139

Vln. II 139

Vla. 139

Vc. 139

Vln. I 142 *8va*

Vln. II 142

Vla. 142

Vc. 142 arco *f*

Vln. I 145

Vln. II 145

Vla. 145

Vc. 145

148

Vln. I

Vln. II

Vla.

Vc.

151 arco

Vln. I

Vln. II

Vla.

Vc.

// bobby pins
fuzz box
mf

bobby pins
mf
bobby pins
mf

ff

>

mp

pp

155

Vln. I

Vln. II

Vla.

Vc.

use back of electric toothbrush
to make siren, 30 sec

use back of electric toothbrush
to make siren, 30 sec

remove paper clips

use back of electric toothbrush
to make siren, 30 sec

use back of electric toothbrush
to make siren, 30 sec

fuzz off

remove paper clips

use back of electric toothbrush
to make siren, 30 sec

pp

fuzz off

2. X-Linked Planet

A

Vln. I

Vln. II

Vla.

Vc.

pizz. hair clip mute, near the bridge: metallic sound
can use guitar pick or fingers /thumb

mf

158

B

Vln. I

Vln. II

Vla.

Vc.

pizz. use guitar pick, near top of string
mf

162

C

Vln. I

Vln. II

Vla.

Vc.

comb

166 arco
mp

166

Bambatta Variations

173

Vln. I

Vln. II

173 guitar pick

Vla.

173 hair brush

Vc.

thud on hair clip

178

Vln. I

Vln. II

178

Vla.

178

Vc.

182

Vln. I

Vln. II

182 comb

Vla.

182 arco

Vc.

thud on hair clip

189

Vln. I

Vln. II

189

Vla.

189

Vc.

194

Vln. I

Vln. II

194

Vla.

194

Vc.

201

Vln. I

Vln. II

201

Vla.

201

Vc.

Bambatta Variations

thud on hair clip

207

Vln. I

Vln. II

Vla.

Vc.

207

Vln. I

pizz.

Vln. II

mf

Vla.

mf

hair brush

Vc.

f

214

Vln. I

214

Vln. II

214

Vla.

214

Vc.

Musical score for Bambatta Variations, page 21, measures 217-221.

The score consists of four staves:

- Vln. I:** Treble clef, 6/4 time, key signature of one sharp. Playing eighth-note patterns.
- Vln. II:** Treble clef, 6/4 time, key signature of one flat. Playing eighth-note chords.
- Vla.:** Bass clef, 6/4 time, key signature of one flat. Playing eighth-note patterns.
- Vc.:** Bass clef, 6/4 time, key signature of one flat. Playing sustained notes.

Measure 217 ends with a fermata over the Vln. I and Vln. II staves. Measure 218 begins with a dynamic instruction "fuzz off". Measure 219 starts with a dynamic instruction "remove hair clip". Measure 220 continues the "fuzz off" dynamic.

32. Nine hundred grandmothers

Bambatta Variations

220 

224 

226 

Bambatta Variations

23

228 *arco*

Vln. I

Vln. II

Vla.

Vc.

228

Vln. I

Vln. II

Vla.

Vc.

230

Vln. I

Vln. II

Vla.

Vc.

232

Vln. I

Vln. II

Vla.

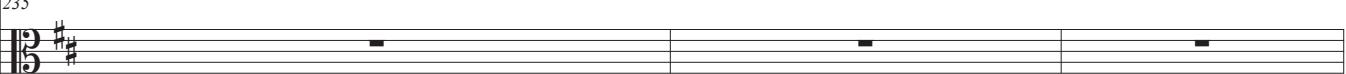
Vc.

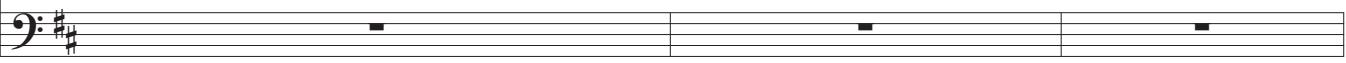
Bambatta Variations

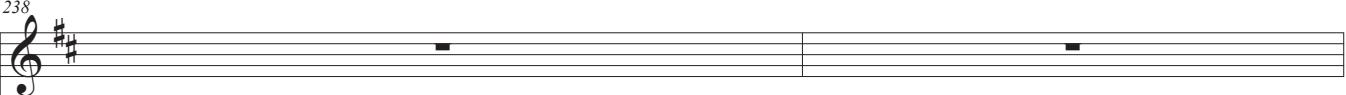
very wide vibrato

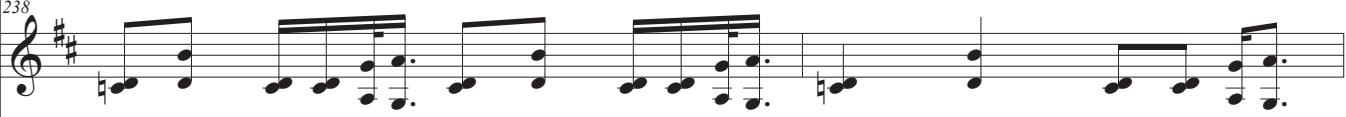
235 Vln. I 

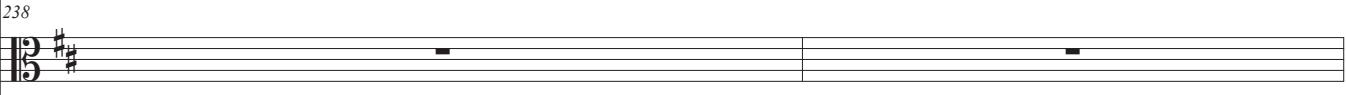
235 Vln. II 

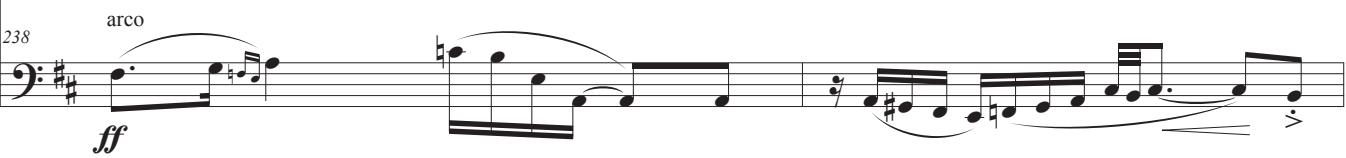
235 Vla. 

235 Vc. 

238 Vln. I 

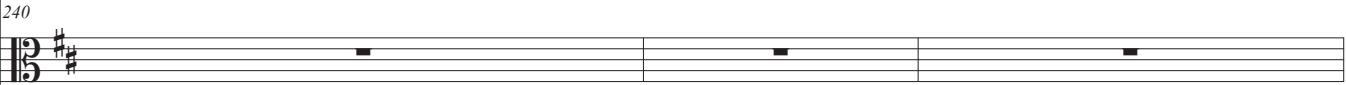
238 Vln. II 

238 Vla. 

238 Vc. 

240 Vln. I 

240 Vln. II 

240 Vla. 

240 Vc. 

243

Vln. I

243

Vln. II

bow air whips

243

Vla.

243

Vc.

$\overbrace{\hspace{1cm}}^3 \overbrace{\hspace{1cm}}^3 \overbrace{\hspace{1cm}}^3$

246

Vln. I

246

Vln. II

arco

246

Vla.

$\overbrace{\hspace{1cm}}^3$

ff

246

Vc.

248

Vln. I

248

Vln. II

p

248

Vla.

$\overbrace{\hspace{1cm}}^3$

248

Vc.

$\overbrace{\hspace{1cm}}^3$

p

Vln. I

Vln. II

Vla.

Vc.

Vln. I

Vln. II

Vla.

Vc.

Vln. I

Vln. II

Vla.

Vc.

Musical score for Bambatta Variations, page 27, measures 257-260. The score consists of four staves: Vln. I, Vln. II, Vla., and Vc. The key signature is A major (three sharps). The time signature changes to 8/8 at the end of measure 257 and remains there through measure 260. Measure 257 starts with a sixteenth-note pattern in Vln. I, followed by eighth-note pairs in Vln. II, sixteenth-note pairs in Vla., and eighth-note pairs in Vc. Measures 258 and 259 show continuous sixteenth-note patterns in all four voices. Measure 260 begins with a sixteenth-note pattern in Vln. I, followed by eighth-note pairs in Vln. II, sixteenth-note pairs in Vla., and eighth-note pairs in Vc. The dynamic ff is indicated above the measures. The score ends with a double bar line and repeat dots.

4. Mudhead from Planet XYY

pizz. slide left fingers between notes where possible

261 Vln. I

261 Vln. II

261 Vla.

261 Vc.

265 Vln. I

265 Vln. II

265 Vla.

265 Vc.

268 Vln. I

268 Vln. II

268 Vla.

268 Vc.

slide left fingers between notes where possible
pizz.

270

Vln. I

270 pizz.
p

Vln. II

270

Vla.

270

Vc.

273

Vln. I

273

Vln. II

273

Vla.

273

Vc.

277

Vln. I

no sliding
p

slide left fingers between notes where possible
mf

Vln. II

277

Vla.

277

Vc.

Bambatta Variations

slide left fingers between notes where possible

281

Vln. I

281

Vln. II

281

Vla.

281

Vc.

284

Vln. I

284

Vln. II

284

Vla.

284

Vc.

287

Vln. I

287

Vln. II

287

Vla.

287

Vc.

290

Vln. I

Vln. II

no sliding

Vla.

Vc.

290

290

Vln. I

293

Vln. II

Vla.

293

Vc.

293

Vln. I

296

Vln. II

Vla.

296

Vc.

296

slide left fingers between notes where possible

p

mp

mf

mf

p

f

p

mf

f

p

f

Bambatta Variations

299

Vln. I

Vln. II

Vla.

Vc.

301

Vln. I

Vln. II

Vla.

Vc.

attacca

305

Vln. I

Vln. II

Vla.

Vc.

5. Afrika Variations

307 arco $\text{♩} = 80$

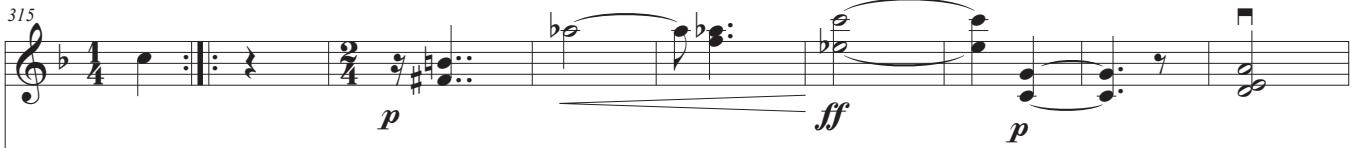
Vln. I 

Vln. II arco

Vla. arco

Vc. arco

315 p ff p

Vln. I 

Vln. II p ff $p f$ $p f$

Vla. ff $p \ll f$ $p \ll f$

Vc. p ff p

324 f mf ff p

Vln. I 

Vln. II mp mf ff p

Vla. mp mf ff p

Vc. mf mf ff f

Bambatta Variations

Vln. I

332 

Vln. II

332 

Vla.

332 

Vc.

332 

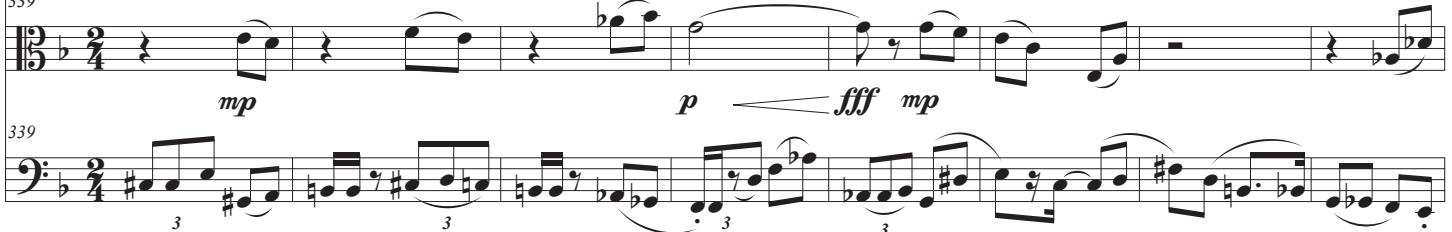
Vln. I

339 

Vln. II

339 

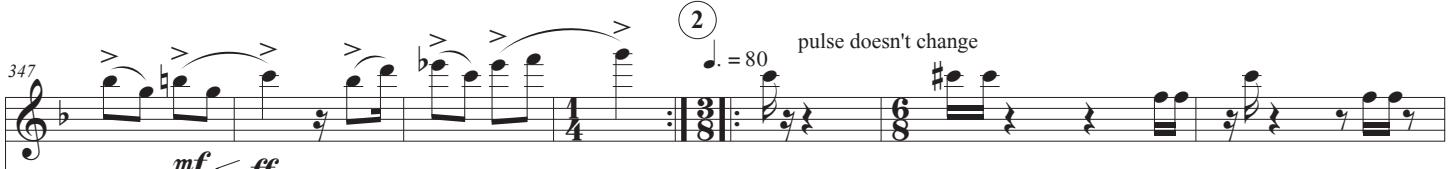
Vla.

339 

Vc.

339 

Vln. I

347 

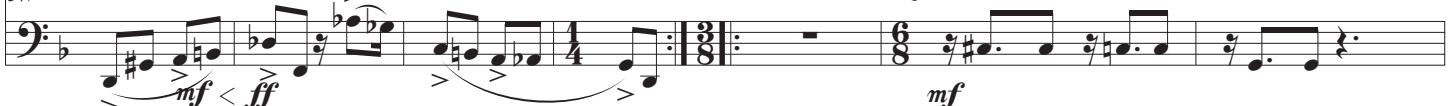
Vln. II

347 

Vla.

347 

Vc.

347 

Vln. I

354

Vln. II

354

Vla.

354

Vc.

354

Vln. I

358

spooky flautando

Vln. II

358

spooky flautando

Vla.

358

mp

Vc.

358

brush thumb pizz. ***mf***

Vln. I

364

Vln. II

364

Vla.

364

Vc.

364

Bambatta Variations

(3)

 $\text{d} = 80$ with tip, some wood, percussive

Vln. I 371 

Vln. II 371 with tip, some wood, percussive

Vla. 371 with tip, some wood, percussive

Vc. 371 arco with tip, some wood, percussive

Vln. I 377 

Vln. II 377 2nd time quieter (p) sfz mf

Vla. 377 

Vc. 377 

Vln. I 383 2nd time quiet (p) mf 

Vln. II 383 

Vla. 383 2nd time quiet (p) mf 

Vc. 383 mf 2nd time quiet (p) 

388

Vln. I

Vln. II

Vla.

Vc.

388 "ping" on bow tip

388

Vln. I

Vln. II

Vla.

Vc.

394 (4) $\text{♩} = 75$ a little slower muted sound

"ping" on bow tip muted sound

394 pp muted sound

394 p muted sound

394 pp p muted sound

Vln. I

Vln. II

Vla.

Vc.

404 ord. mp pp

404 ord. 9 5 pp

404 ord. mp pp

404 ord. mp pp

Bambatta Variations

(5)

411

Vln. I

Vln. II

Vla.

Vc.

411

fff p fp f

411

fff p fp

411

fff p fp f

411

fff p fp f

419

Vln. I

Vln. II

Vla.

Vc.

419

f

419

mp f

419

mp f

419

mp f

424

Vln. I

Vln. II

Vla.

Vc.

424

mf

424

mf

424

fp mf

424

fp mf

Bambatta Variations

39

Vln. I

433 dolce

Vln. II

433 mp dolce

Vla.

433 mp dolce

Vc.

433 mp

Vln. I

441 f

Vln. II

441 f

Vla.

441 f

Vc.

441 f

Vln. I

446 sfz mf f

Vln. II

446 sfz mf f

Vla.

446 sfz mf f

Vc.

446 sfz mf f

Bambatta Variations

Vln. I

Vln. II

Vla.

Vc.

Vln. I

Vln. II

Vla.

Vc.

Vln. I

Vln. II

Vla.

Vc.

453

453

453

453

459

459

459

459

468

468

468

468

theme

fp

mf

p

fp

f

f

f

Vln. I

476

476 >

476

476

482 insert bobby pins on strings behind bridge

482

482 fuzz

482 fuzz

487

487

487 > ff

487

Bambatta Variations

503

Vln. I

503

Vln. II

503

Vla.

503

Vc.

506

Vln. I

arco

sffz

506

Vln. II

ff

sffz

506

Vla.

sffz

506

Vc.

sffz

509

Vln. I

sffz

sffz

509

Vln. II

sffz

sffz

509

Vla.

sffz

sffz

509

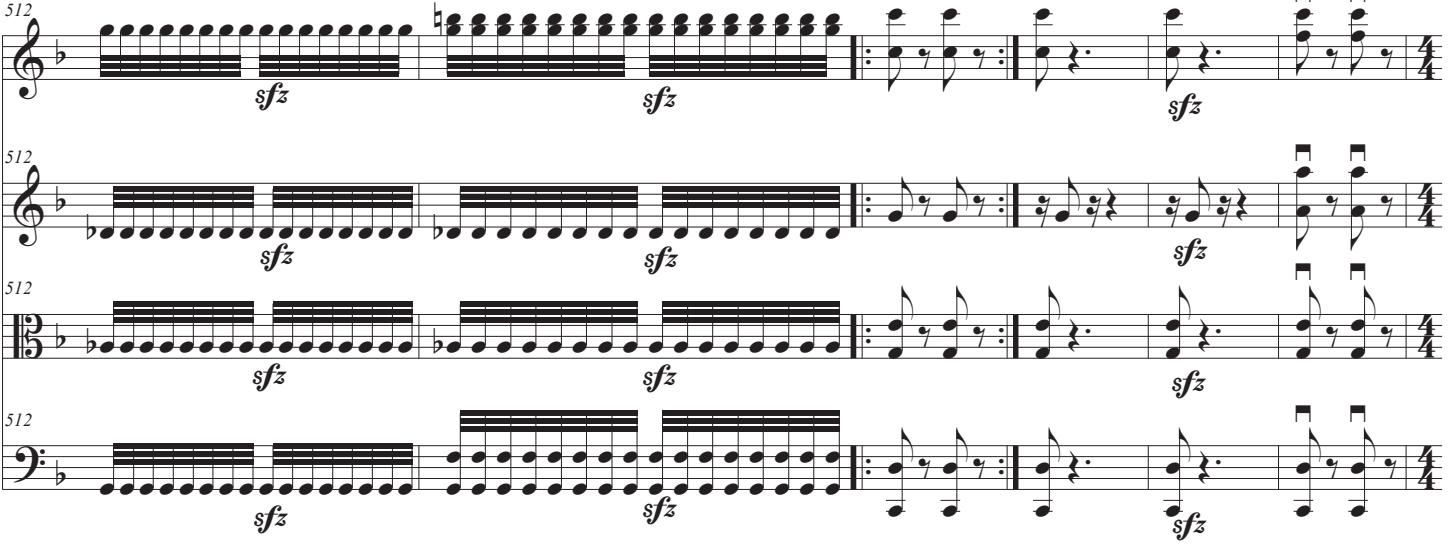
Vc.

sffz

sffz

Bambatta Variations

play 7 times

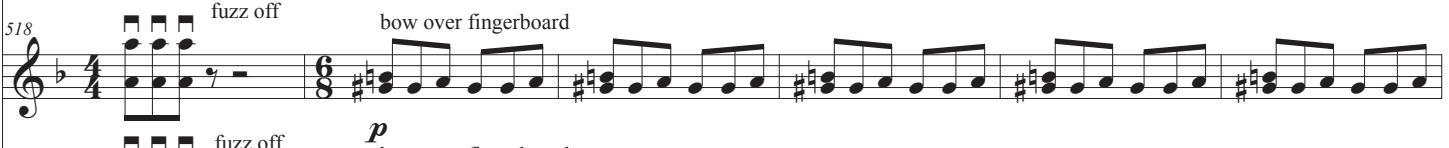
512 Vln. I 

Vln. II 

Vla. 

Vc. 

518 Vln. I 

Vln. II 

Vla. 

Vc. 

524 Vln. I 

Vln. II 

Vla. 

Vc. 