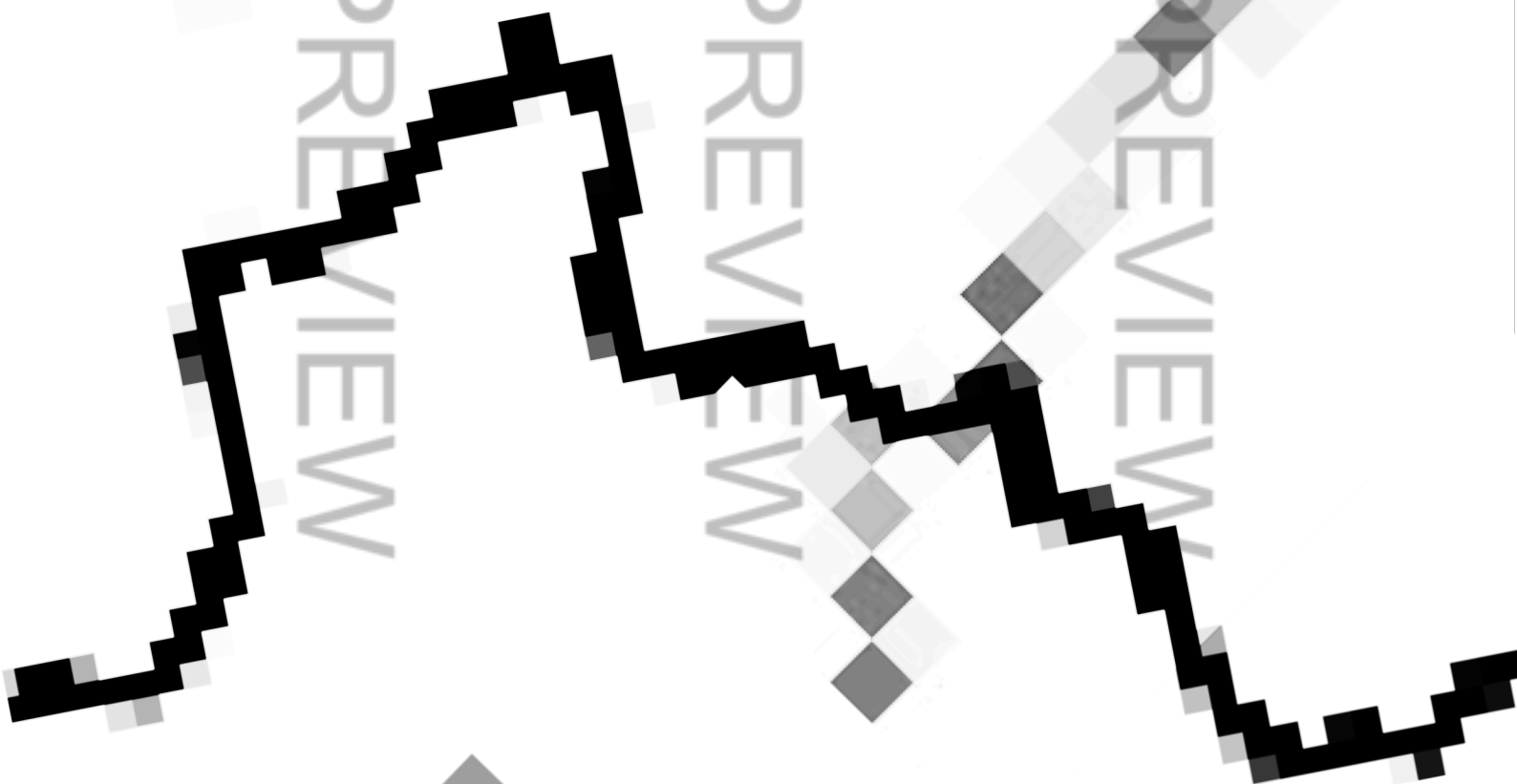


Thomas Metcalf

Pixelating the River

for string quartet

2020



VIEW

PREVIEW

PREVIEW

VIEW

PREVIEW

PREVIEW

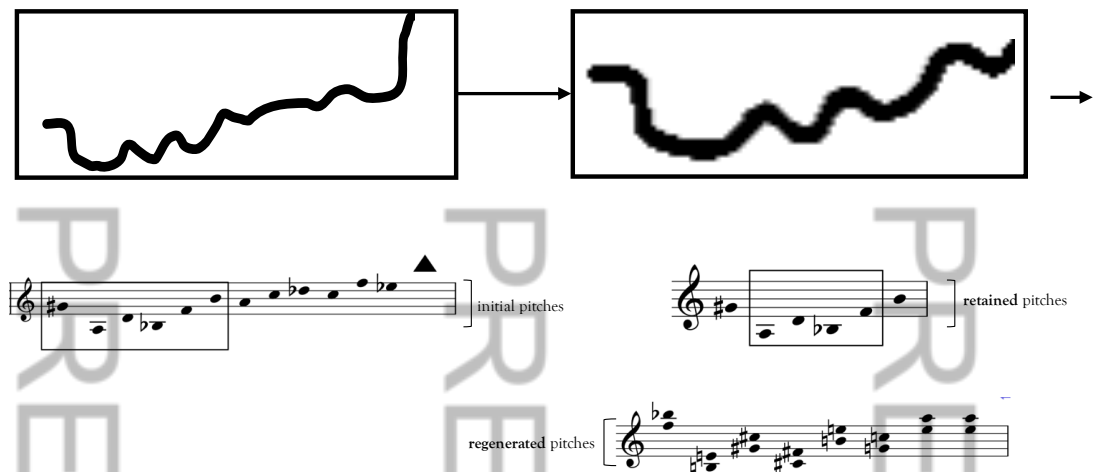
VIEW

PREVIEW

PREVIEW

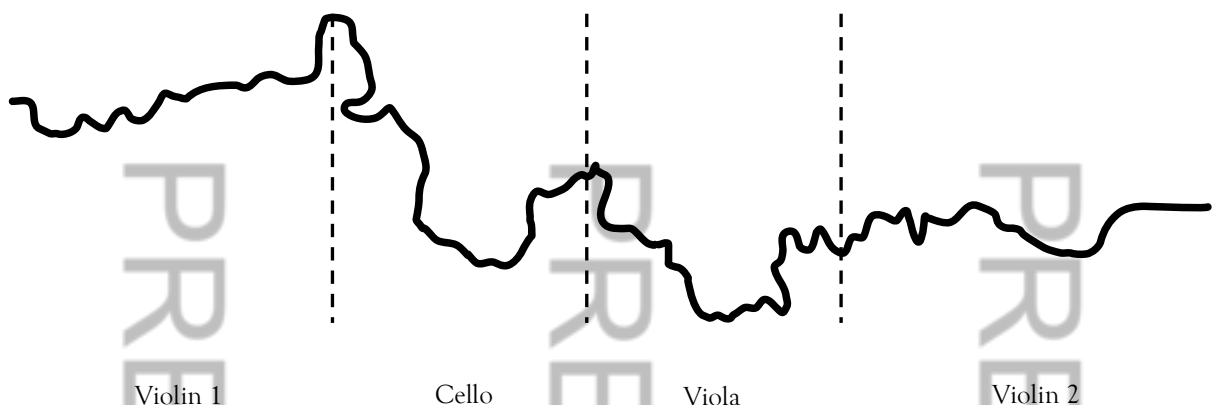
Composer's Note:

This work is a continuation of my research concerning the process of pixelation in music. It explores how graphical inputs can organise pitch using two parameters: **retained** pitches (what remains of set derived from the original image) and **regenerated** pitches (generated using the new image; see below). The piece uses graphical insertions in the score, using portions of the river map to create glissandi, to be freely interpreted by the performer over the allotted time.



The music moves through the river, which is divided into four harmonic sections. Within each quarter, a process of pixelation via magnification occurs, which generates new derivations of the initial tone row. The initial row could be thought of as the 'surface' of the river, with each subsequent magnification going 'deeper', and thus less clear. These harmonic layers often exist simultaneously, and the 'retained' pitches (what is left of the original tone row after magnification) create a tension between these two representations on a local level. This tension can be manifested as a critique of natural and technological processes, forging an eco-critical interpretation of the work.

The process of composition was layered. From June to August, I wrote solo pieces for each of the quartet instruments, entitled *Vignettes of a Pixelated River*, which derive their material from each quarter of the river:



Complexes of material are shared across *Vignettes*, and these are used in the full quartet, informing textures and characterisation of instruments, e.g. the cello may have a more dominant role in 'quarter 2' material.

The quartet is played continuously, with no breaks in the structure. Whilst the graphical insertions act as transitions between different harmonic sections, it should not be thought of as different 'movements'; a river exists and flows in a unidirectional unbroken motion.

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This piece was commissioned for the Kreutzer Quartet, kindly funded by the Humanities Cultural Project Fund at the University of Oxford. The premiere was broadcast by The Oxford research Centre in the Humanities on 21st May 2021, filmed at the Holywell Music Room.

Duration: c. 28'

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The river - I remember this like a picture - the river was the upper twist
of a written question mark.
I know now it takes many many years to write a river, a twist of water
asking a question.

- Carl Sandburg, *River Moons*, 1920

Dedicated to Kenneth Hesketh

Pixelating the River

Thomas Metcalf (b. 1996)

Misterioso ♩ = 52

Violin I
Violin II
Viola
Violoncello

air noise; flautando III
air noise; flautando I

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

Measures 1-5 of the score. Violin I and II have long notes with dynamic markings *mp*, *ppp*, *p*, *pp*, and *mp*. Viola and Violoncello play a rhythmic pattern with dynamics *mp* and *mf*. There are performance instructions for 'air noise; flautando' for the strings.

Measures 6-10 of the score. Violin I and II have long notes with dynamics *mf*, *fff*, *mp*, *mf*, *mp*, *mf*, *mp*, and *f*. Viola and Violoncello have long notes with dynamics *fff* and *pp*. There are performance instructions for 'air noise; flautando' for the strings.

Measures 11-15 of the score. Violin I and II have long notes with dynamics *mp*, *mp*, *pp* sempre, and *pp* sempre. Viola and Violoncello have long notes with dynamics *f*, *mp*, *f*, *mp*, *f*, and *pp* sempre. There are performance instructions for 'air noise; flautando' for the strings.

* highest possible pitch beyond the fingerboard (indeterminate)

32

5 6 3 6 7

agitato *ff fp* *pp* echo

mp agitato *f* *fp* *pp* echo

f cantabile *ppp*

f *fp* *pp* echo *ppp*

38

poco s.p. 5 5 5 ord. pizz. *f*

p semplice *mp* *ppp* arco ord.

poco s.p. 5 5 5 ord. pizz. *f*

p semplice *mp* *ppp* *mf*

mf

D L'istesso tempo; giusto (♩ = 104)

43

arco ord. *p* scorrevole *ff* furioso

p scorrevole *ff* furioso

ff furioso *ff* furioso

46

Musical score for measures 46-47. The system consists of four staves. The top two staves are treble clefs, and the bottom two are bass clefs. The time signature is 3/4. The music features complex rhythmic patterns with many sixteenth notes. Dynamics include *fp* (fortissimo piano) and *ff* (fortissimo). There are also accents and slurs throughout the passage.

48

Musical score for measures 48-50. The system consists of four staves. The top two staves are treble clefs, and the bottom two are bass clefs. The time signature is 3/4. The music continues with complex rhythmic patterns. Dynamics include *f* (forte), *ff* (fortissimo), and *fp* (fortissimo piano). There are also accents, slurs, and a *pizz.* (pizzicato) marking in the third staff.

51

Musical score for measures 51-56. The system consists of four staves. The top two staves are treble clefs, and the bottom two are bass clefs. The time signature is 3/4. The music features complex rhythmic patterns. Dynamics include *f* (forte), *p* (piano), *mp* (mezzo-piano), and *ff* (fortissimo). There are also accents, slurs, and various performance markings: *arco*, *scorevole*, *pizz.*, *sul pont.*, and *ord.* (ordine). A fermata is present over a note in the top staff at measure 55. A sixteenth-note figure is marked with a '6' and *mp* at the end of the system.

54

gliss. gliss. gliss. gliss.

p *f*

IV

mp *p* *f* *ppp*

mp *ff* *fp* *mf* *ppp*

ord.

6 3 sul pont. 5 ord. 3

p *f* *fp* *mf*

58

non vib. gliss. o.p. unstable tone

ppp

I gliss.

non vib. *p* *p* *mp:pp* *mp:pp* *mp*

II gliss.

non vib. *p* *mp:pp* *mp*

IV gliss.

III pizz. *p* *mp*

arco *mp*

c. 45"

64

vib. ord
→ bow pressure ord.
all lines are interpreted as glissandi, as if flowing through the river; change bow ad lib.
solo

ff molto espress. e drammatico
colla parte

colla parte

colla parte

colla parte

p

F Tempo giusto ♩ = 52

65 arco non vib.

non vib. hollow

ppp hollow

ppp hollow

ppp hollow

mf

ppp < f

f

fp

mp.p

ppp < f

fp

mp.p

ppp < f

fp

mp.p

molto vib.

ff wailing

fp

mf

73 vib. ord.

pp

p lamentoso

mf.p

mf

p

pp

ppp

mp

mp.p < mp

mf.p

mp.p

(stretch)

pp

ppp

mp

mp.p < mp

mf.p

mp.p

non vib.

gliss.

IV

vib. ord.

p

pp ethereal

ppp

6 < mfp < mp < mf > p sinister < mf

79

pp

sul pont.

ord.

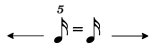
pp

mp

pp

pp

pp



82 **G**

p *mfp* *mp dolce* *p*

p *mfp* *mp dolce* *p*

arco

mf *misremembered* *p* *f* *pesante*

mp *semplice* *mfp*

Flowing, steady (♩ = 65)

85

mp *pp*

mp *mf* *pp*

mp dolce *pizz.* *mf* *mp* *pp* *mp*

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

90 **H**

p *più cantabile* *mp* *ppp* *mf* *pp*

f *mp* *mf* *p* *pizz.*

p *pp* *f*

mf *pp* *mf* *pp* *mp*

127 **K**

Violin I: *p*, *mp*, *p*, *mp*, *p*, *mp*

Violin II: *p*, *mp*, *p*, *mf*, *p*

Cello/Double Bass: *p*, *mp*, *mf*, *p*

Bass: *p*, *mp*, *p*, *mf* semplice

Performance instructions: arco sul pont., pizz.

131

Violin I: *p*, *fp*, *f*, *p*

Violin II: *mf*, *p*, *mf*, *fp*, *fp*

Cello/Double Bass: *mf*, *p*, *fp*, *fp*

Bass: *p*, *f*, *p*, *fp*, *fp*

Performance instructions: arco ord., sul pont., ord.

135 **L**

Violin I: *mp*, *mf*, *mp*, *mp*, *mf*, *mp*

Violin II: *mp*, *mf*, *mp*, *mp*, *mf*, *mp*

Cello/Double Bass: *mp*, *mp*, *mf*, *mp*, *mp*, *mf*, *mp*

Bass: *mp*, *mp*, *mf*, *mp*, *mp*, *mf*, *mp*

Instruction: *f* molto cantabile, overbearing

137

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

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

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

ff *fp* *fp* *fp* *ff* *mp* *poco* *poco* *poco*

c. 45"

140

ppp sempre

ppp sempre

ppp sempre

ff sub., unstable *p* sub. *f* *p* *ff* sub. *pp*

all lines are freely interpreted as glissandi, as if flowing through the river; change bow ad lib.

lat a comfortable speed; repeat pitches in any order

M

141 Uneasy ♩ = 78

141 Uneasy ♩ = 78

ppp arco 5 p ppp

mp sfz 5 ppp

pizz. mp

non vib. I p 3 p 3

sul pont. 7

ppp

145

ord. p ppp

p 5 ppp

ppp

p 6 ppp

ppp

pizz. 3 3 3

arco ppp

mp pp mf mp ppp

151

gliss. (tr.) mf > p

comodo 3 3

mp mf p mf p

pizz. mp mf p

arco vib. ord. grandioso f

173

Soa-
 7
 mp:pp
 ppp
 3 mp:pp
 ppp
 arco
 gliss.
 gliss.
 gliss.
 5 ff poss.
 ppp sempre
 arco
 gliss.
 gliss.
 gliss.
 gliss.
 gliss.
 f mp ff ppp sempre

P Longing (l'istesso tempo ♩ = 39)

178 non vib.

pp lingering
 p soulful, wandering
 mp:p
 mf
 gliss.
 gliss.
 gliss.
 gliss.
 p
 ppp

185

pp
 pp
 non vib.
 ppp
 pp
 p soulful, wandering
 mf
 mp
 mf
 pp < f
 arco
 pp
 pp
 vib. ord.
 mf

193

Q

Violin I: *gliss.*, *mp* < *mf* < *ppp*, *pp* lingering

Violin II: *gliss.*, *gliss.*, *gliss.*, *mp* < *mf* < *ppp*, *mp* confused

Viola: *pizz.*, *arco*, *gliss.*, *gliss.*, *gliss.*, *mf*, *ppp*, *vib. ord.*, *mp* confused < *mf*

Cello/Double Bass: *pp*, *pp*, *gliss.*, *gliss.*, *mf*, *ppp* lingering, *pp*, *non vib.*

201

Violin I: *mf*, *pp*

Violin II: *mf*, *pp*

Viola: *mp*, *p*, *mf*, *mp*

Cello/Double Bass: *mf*, *pp*, *sluggish*, *f*, *mp*

207

pizz.
molto vib.

mp

arco
molto vib. poss.

pp shrill

molto vib. poss.

pp shrill

IV

gliss.

ppp

p

ppp weak

ord.
molto vib. poss.

pp shrill

← $\overset{5}{\curvearrowright}$ = $\overset{5}{\curvearrowleft}$ →

226

S colla parte

colla parte

ad lib.

colla parte

pp *ff* *pp* *ff* *pp* *fff* *pp* *ff*

232

sul pont.
vib. ord.

arco

ord.

p *f* *fp* *f* *fp* *mf* *f* *ff*

f *ff*

fp *mf* *ff*

237

ricochet

fff tutta forza

ricochet

fff tutta forza

ricochet

fff tutta forza

fff tutta forza

[♩. = 130]

254

non vib.
mp:pp

257

mp > ppp mp > mf
mp > ppp mp > mf
mf p
pizz. p sempre

c. 45"

260

* colla parte arco
pppp
* colla parte arco
pppp
* colla parte arco
pppp
pizz.
ff sub.
pizz.
ff sub.
pizz.
ff sub.

all lines are freely interpreted as glissandi; as if flowing through the river (change bow ad lib.).

fast as possible; ungrouped/unaccented

U

Languorous, dreamy ♩ = c. 49

261

arco
c.l.t.

arco
col legno tratto

ppp

gliss.

p:ppp

ppp

gliss.

p:ppp

c.l.t.

gliss.

p:ppp

gliss.

p:ppp

arco
c.l.t.

gliss.

ppp

gliss.

p:ppp

271

V

non vib.
ord.

p:ppp

gliss.

p floating

non vib.
ord.

p floating

non vib.
ord.

p floating

non vib.
ord.

p floating

mp

non vib.
ord.

p floating

mp

ppp

p floating

mp

280

IV

mp espress.

mf

mp

p

mp espress.

mf

p

288

W

mp poco agitato e espress.

294

X

303

311 colla parte

c. 45"

all lines are freely interpreted as glissandi; as if flowing through the river (change bow ad lib.).

II \rightarrow molto sul pont. \rightarrow molto sul tasto \rightarrow

mpmp semplice, eerie

colla parte

colla parte

312 **Y** Relentless (♩ = 98)

fff incessant, molto meccanico

ord.

8va-1 (loco)

fff incessant, molto meccanico

ord.

8va-1 (loco)

fff incessant, molto meccanico

ord.

fff incessant, molto meccanico

320

fff incessant, molto meccanico

ord.

8va-1 (loco)

fff incessant, molto meccanico

ord.

8va-1 (loco)

fff incessant, molto meccanico

ord.

8va-1 (loco)

fff incessant, molto meccanico

328

8va--1 (loco)

Z

fp *fff*

8va--1 (loco)

fp *fff*

fp *fff*

fp *fff*

335

8va--1 (loco)

(loco)

340

rit. a tempo

345

p *(p) unstable* *fp* *fff* *fp* *fff* *fp*

ff unstable *fp* *fff* *fp*

unstable *fp* *fff*

unstable *fp*

351

fff *fp* *f* *fp* *fff* *fp* *fff* *fp* *fff*

fff *fp* *fff* *fp* *fff* *fp* *fff*

fp *fff* *fp* *fff* *fp*

fff *fp* *fff* *fp* *fff* *fp*

357

fp *fff* *fp* *fff* *fp* *fff* *fp* *fff*

fp *fff* *fp* *fff* *fp*

fff *fp* *fff* *fp* *f*

fff *fp* *fff* *fp* *fff*

362

BB

non vib.

[2+2+3]

p *pp*

sul pont.

p *mf*

sul pont.

p *mf*

non vib.

fp *pp*

366

[3+2]

mp:pp *mf:pp* *mp:pp*

mf *p* *mf* *pp*

non vib.

non vib.

pp

mp:pp *mf:pp* *mp:pp*

Liberamente, disintegrating (l'istesso tempo)

CC

370

sul pont.
vib. ord.

6

pp blurred

[sul pont.]
vib. ord.

13

pp blurred

[sul pont.]
vib. ord.

pp blurred

sul pont.
vib. ord.

7

pp blurred

ord. 6

ppp

ord. 6

ppp blurred

ord.

ppp

ord.

ppp

III

o.p.

f

fff

I

o.p.

f

fff

II

o.p.

f

fff

IV

o.p.

f

fff

374

pp 6

mf 6

pp 6

pp 6

pp 13

mf 13

pp 13

pp 13

pp 13

pp 13

pp 7

mf 7

pp 7

pp 7

pp 7

378

DD

mp *pp fff* *pp* *pp* *fff* *pp* *pp*

6 13 13 7

381

p dim. *ppp* *mf* *ppp* *ppp* *ppp* *ppp*

3 13 13 13 13 7

pizz. IV l.v.

