

afterarise (for soprano saxophone, piano, and amplified resonance)

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A thesis

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Committee:

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Abstract

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Chair of the Supervisory Committee:

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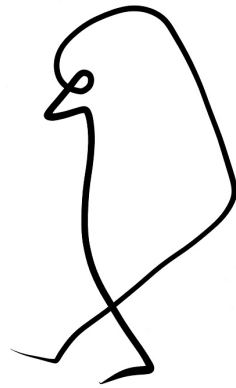
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afterarise (written for saxophonist Antonio Jarvey) explores birdsong as a conduit for sonic and ecological reflection. Fragmented field recordings of blackbirds—with various time-stretching and spectral techniques applied—serve as the work’s primary “source”; not as mimetic material, but as a lens for creative transcription and recomposition, revealing micro-structural layers otherwise imperceptible. Extended moments of stillness situate the sparse musical statements in a shadow of sympathetic resonance, drawing connections to the harmonic world of the Beatles’ “Blackbird” (a favorite song of both myself and the dedicatee). Inspired by Pablo Picasso’s line drawings of birds, *afterarise* ultimately attempts to capture the essence of a natural phenomenon through a multiplicity of perspectives.

afterarise

for soprano saxophone, piano, and amplified resonance

Justin Zeitlinger



I do not know which to prefer,
 The beauty of inflections
 Or the beauty of innuendoes,
 The blackbird whistling
 Or just after.

—Wallace Stevens,
 “Thirteen Ways of Looking at a Blackbird” (1917)

Blackbird singing in the dead of night
 Take these broken wings and learn to fly
 All your life
 You were only waiting for this moment
 to arise.

—John Lennon and Paul McCartney,
 “Blackbird” (1968)

one pause between each crow’s
 reckless shriek Ikkyū Ikkyū Ikkyū
 —Ikkyū (1394–1481)

performance notes

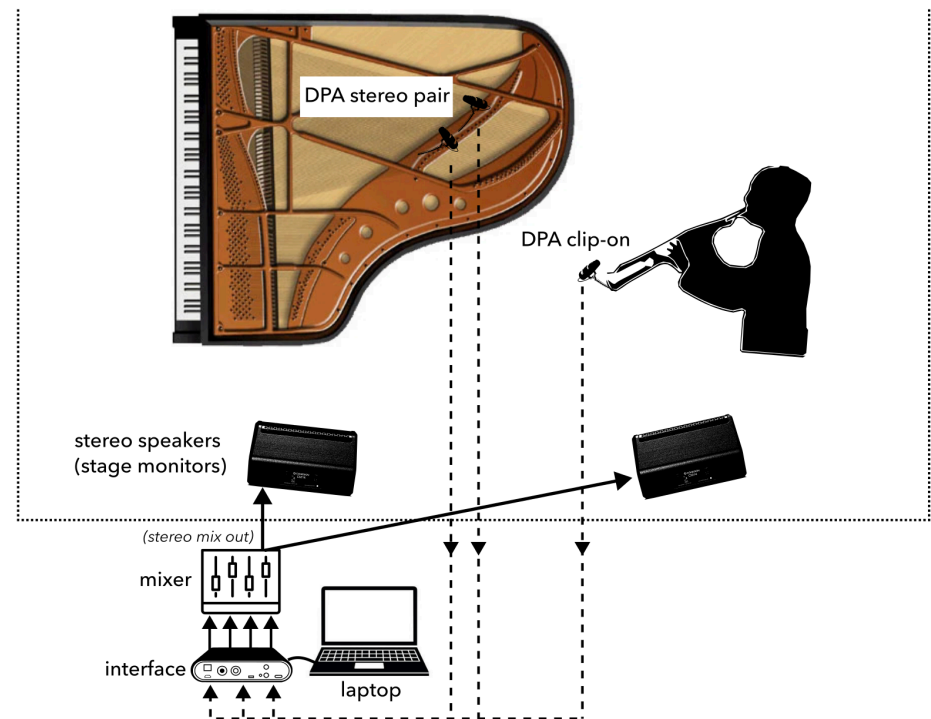
technical requirements

- three DPA 4099 clip-on microphones (or similar): one attached to saxophone bell, plus stereo pair for close-miking the piano strings. (*A more typical miking of the piano—e.g. pair of large-diaphragm condensers—is possible, but impractical due to saxophonist’s position facing the piano. See stage setup.*)
- two speakers; stage monitors (wedges) recommended. *This allows the subtle effect of the amplified sound to remain localized to the stage, both concealing its origin and allowing the performers to have a realtime sense of their balance.*
- audio interface (at least three XLR inputs and four outputs)
- mixer (at least four inputs; stereo out)
- laptop running Max 9 with HISSTools Impulse Response Toolbox (HIRT) package downloaded
 - *afterarise.maxpat* Max patch with folder of corresponding convolution kernel .wav files. Download it here: https://drive.google.com/drive/folders/1e0GqzBMEUUxOS5HtCqQaBwLUDZw_mU9n?usp=sharing
- A separate person must man the electronics from the audience, triggering the convolution kernels and adjusting balance/gain as indicated in the score. ***Be very careful when riding faders to avoid feedback. Always err on the side of too soft.*** The resonance should be subtle, never artificial.
- all necessary cables (XLR, 1/4” TRS, any adapters as needed, etc.)

*Piano depicted without lid for demonstration purposes.
 Try experimenting with different mic placements inside
 the piano—which register(s) of piano, how far apart, etc.*

stage setup

The piano lid is to be opened at maximum setting (remove also the music rack from the piano.) The saxophonist faces directly opposite the piano (perpendicular to audience), pointing towards the negative space created by the curve of the high strings. Aside from the ending, there is no need to stand right next to, or point the bell directly inside of, the piano—the sympathetic resonance is “faked” by the Max patch and need not occur audibly with acoustic instruments alone. That said, take careful consideration of positioning: the pianist and saxophonist should appear organically intertwined, as if two facets of a single organism. For this reason, it is optimal for saxophonist to play from memory.



instrument preparations/modifications/tools:

saxophone:

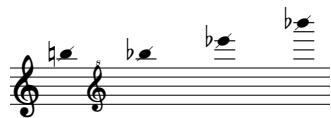
- brass mouthpiece (only for the final *alla tromba* section), e.g. French horn. It doesn't need to be fancy, it just has to fit properly. You can try another type of mouthpiece or fabricate one yourself out of plastic tubing, wood, etc.—or even try playing without! (*The purpose of the mouthpiece is to a.) create a blatty, guttural sound quality and b.) lengthen the saxophone tube so the fingerings correspond to expected pitches.*)

piano:

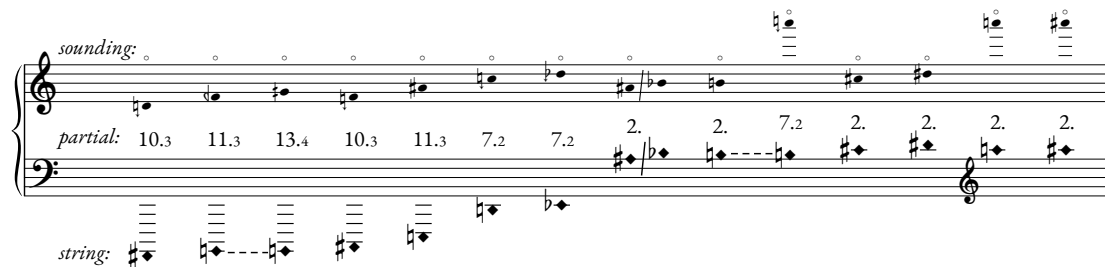
NOTE: The piano should be amplified to the point that its resonance/interior sound-world forms an equal counterpart to *ordinario* notes played on keys. This will depend on the particular piano used and how much resonance it produces. For balance purposes, the pianist should aim to play more softly on the keys than usual—unless otherwise marked, dynamics are *sounding* dynamics (see **notation**). Thus it is imperative to do all pedal changes/page turns, etc. as quietly as possible unless otherwise marked. In addition, the person manning the electronics may add a small amount of compression to enhance this effect.

preparations:

- Prepare the following strings with small pieces of metal (e.g. screw, nail, washer, tweezers). Exact positioning on the strings is left up to the performer, though it should create a resonant, gong-/bell-like timbre:



- In addition, it is recommended to mark the following harmonic nodes on the strings with chalk/knots of string/etc. for easy access: (see **notation**)



For safety, dampers must be up when inserting objects into the strings.

objects:

- thin metal bar/plate, ~10–12 mm. wide. (e.g. corner brace or mending plate)
- two superball mallets, both with large or extra-large heads

Depending on how well you can get them to speak, you may consider making your own with fiberglass sticks and rubber bouncy balls. You may also experiment with cutting the heads in half. See more here: <https://www.youtube.com/watch?v=lTzxBtkcYVs>

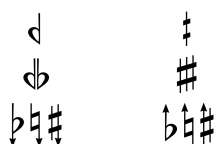



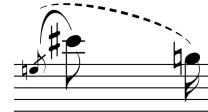
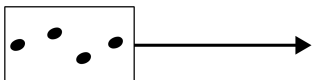

notation:

meter:

In unmetred passages, beams indicate how long a note/chord is to be sustained. (For the piano, this indicates how long to depress the keys; notes that ring over with pedal are simply written as standard noteheads without stems). Notes beamed together are sustained with no break from one to the next.










Additionally, unmetred passages include a description of the degree of general coordination between staves, varying from “precise” to “free.” (This even includes coordination between the piano’s two hands.) Performers may depart from the visual alignment of events in the passage (a non-metrical *rubato*) depending on the degree of freedom marked. Occasionally, specific coordination of individual events in an unmetred context are marked with dashed lines or cross-staff slurs.

other general notations:

| | |
|---|---|
|  | 1/4 flat, 1/4 sharp 3/4 flat, 3/4 sharp 1/8 tone lowered, 1/8 tone raised |
|  | sudden, exponential cresc./dim. |
|  | pause (short – medium – long; usually accompanied by time designation in seconds.) Players should be as still as possible during fermatas. |
|  | melody; <i>in rilievo</i> |
|  | dashed slurs indicate phrasing |
|  | repeat figure in box for length of arrow |
|  | dynamic of effort (not sounding level) |

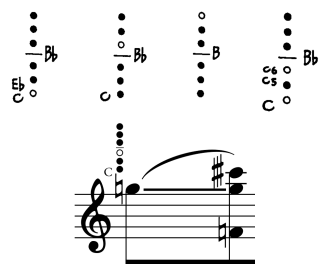
All notations not mentioned here are indicated locally in score.

saxophone:

| | |
|---|--|
|  | an indeterminately very high pitch (used for teeth-on-reed) |
|  | slap tongue |
|  | percussively fingered note without blowing (key click) |
|  | note played with a degree of air sound: 0% pitch / 100% air; 25% pitch / 75% air; 50% pitch / 50% air; 75% pitch / 25% air (<i>transitions between them marked with arrow</i>) |
|  | harmonics (or if impractical, a pure, harmonic-like tone) |
|  | timbre trill |
|  | a written-out timbral alteration (standard/alternate fingering) |
|  | “trill” with the C5 key (à la Sciarrino), resulting not in a trill between two notes but a perforated, hovering sound. A different “non-trilling (trill) key” may be substituted as desired. |
|  | free scoops and falls (used in <i>alla tromba</i> section); messy, imprecise |

[1 1 1 1 1] tonguing on given phoneme

saxophone, cont.



All multiphonic fingerings are taken from Marcus Weiss and Giorgio Netti's *The Techniques of Saxophone Playing (Die Spieltechnik des Saxophons)*. They are accompanied by a "W" (Weiss) number and use the corresponding fingering format. *Any multiphonic fingering which does not suit the performer or their instrument may be freely substituted for another of like timbre/frequency content.*

isolate specific partial within multiphonic

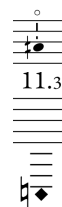
piano:



Noteheads without stems/beams indicate the approximate onsets of notes where sustain pedal is depressed. Sometimes they may be used in conjunction with metered rhythms, allowing for a degree of temporal/coordinative flexibility even within a metered passage (see notation-meter for more information about coordination).



White diamond noteheads are used exclusively to indicate silently depressed keys (sometimes on a dedicated third staff). These are usually held with the middle pedal (*Mped*), the releasing of which is specifically marked.



Harmonics: black diamond notehead(s) indicate the fundamental string(s) (keys to be pressed), while the accompanying number indicates the harmonic node to be lightly fingered. Sounding notes are indicated in the staff above as small noteheads with harmonic circle. The smaller second number after the dot represents the node number of the particular harmonic (e.g. 3rd node of the 11th harmonic). As there is only one node at the octave harmonic, partial 2 is simply indicated as "2." *For more info on notation, see pianoharmonics.com.*



prepared note; a complex timbre that will not sound "at pitch" (no further action required)









approximate sounding pitches resulting from the sliding of the thin metal bar on the string (shown here in conjunction with striking a key). Two "slide-pitches" will sound together, traveling in opposite directions. An up (∨) or down (∟) marking indicates the direction to slide: away from or towards the performer, respectively. (*demonstration: <https://www.youtube.com/watch?v=Y1rThwqu10o>. Note that this video shows metal bar slide only, without striking key.*)







stopped (muted) note; non-resonating

piano, cont.

Some noteheads are only used in the final section of the piece, mostly with an unpitched percussion clef (**||** or **□**).

-  percussive knock with superb ball mallet; details indicated in score.
(While the stress bar may be struck *forte*, the soundboard must be struck softly to avoid damage.)
-  scratch with fingernails on the higher strings of the lowest chamber
-  pluck strings (pizz.) with fingers
-  approximate pitch range to strike with superb ball inside the piano strings
-  friction-drag (/rebound) superb ball mallet in lowest chamber of strings
-  slap higher strings of lowest chamber with palm (“dead stroke slap”)

afterarise calls for a grand piano with all three pedals. Pedaling is marked as follows:

-  **Sped.** sustain pedal (rightmost pedal)
 - Mped.** sostenuto pedal (**M**iddle pedal)
 - 1cPed.** una corda pedal (leftmost pedal)
 -  release the pedal (as silently as possible!)
 -  release the pedal forcefully/audibly
 -  let resonance fade completely before releasing/changing the pedal
- Release of pedal during a rest is determined by a time designation in seconds (a portion of total rest length).*

All extended techniques on piano should be possible while remaining seated from beginning to page 6, at which point the pianist should stand.

Max/amplification:

Cues to be triggered are marked with noteheads, with corresponding cue numbers in boxes (● for a cue that triggers a convolution kernel, ✖ for a cue that turns off convolution.) The riding of the faders (sax wet, sax dry, piano amp) is marked with lines and text directions. See the Max patch for further information.

appendix:

piano, page 2


Below are some examples of how the piano’s improvised ornamentation on page 2 might sound. (**Do not** limit yourself to the written score alone; ornamentation should remain narrowly focused and tasteful.)

left hand, fragment 1




Musical notation for the left hand, fragment 1. It shows a treble clef with a series of notes and rests. The dynamics range from *mp* to *pppp*. There are some ornaments and a slur over the notes.

right hand, fragment 2



Musical notation for the right hand, fragment 2. It shows a treble clef with a series of notes and rests. The dynamics range from *p* to *ppp*. There is a triplet of notes and a slur over the notes.

right hand, fragment 3



Musical notation for the right hand, fragment 3. It shows a treble clef with a series of notes and rests. The dynamics range from *pp* to *p*. There is a quintuplet of notes and a slur over the notes.

for Antonio Jarvey, with gratitude

afterarise

for soprano saxophone, piano, and amplified resonance

Justin Zeitlinger (2024)

Sop.
Sax.

Freely interpolate between the materials in each column: collage-like, focused, vestigial.

As you interpolate, constantly modify subtle details. The four variants in each column show some possibilities.

Do not shift the pitches more than a half step or so for a given idea.

Feel free to fragment the materials into shorter chunks, but ensure that each module retains its identity; do not combine materials from different columns directly. Fragmenting may occur anywhere in a module, so long as it occurs contiguously.

You may repeat modules back-to-back (or better, play a module and then its variant).

Allow ample space: pause between each statement for 0.5" - 5" (mostly short pauses, but consistently vary pause lengths).

| | 2.5" - 5" | 3" - 4.5" | 1.5" - 3" | 1" - 3" |
|---|-------------------------------------|--|--|--|
| teeth on reed flz. <i>pppp</i> <i>dolciss. possibile</i> | | <i>pp</i> dull, whimpering; quasi subtone flz. | "slap-on" (like hammer-on; slap tongue + percussively fingered note) <i>mp</i> <i>p</i> | trem: C4 - C4 - C2 <i>pp</i> <i>p</i> *poco smorzato |
| <i>pppp</i> | <i>pp</i> <> | slap tongue <i>mp</i> <i>p</i> | trem: C4 - C4 - C2 play: sing: <i>p</i> <i>mp</i> | |
| <i>pppp</i> | timb. <i>pp</i> trm flz. | slap percussive fingering (mouth on, don't blow) <i>mp</i> <i>f</i> <i>mp</i> | tr C5 key: <i>p</i> quivering | |
| <i>pppp</i> | timb. <i>pp</i> trm trm trm flz. | slap tongue <i>mp</i> <i>p</i> | tr C5 key: <i>p</i> quivering | |

8" - 12"

Piano
(silently depressed)

Max/Amp.

cue 1

2

(n)

pppp

S. resume improvising as before, but now prepend material from these additional two columns directly to the initial modules (*no pause* when prepending). All initial instructions apply equally to the prepend-modules.

Note that you need not prepend every time—vary how often these appear. Importantly, listen to the piano to decide what and when to play/how often.

| | | | |
|--|-----------|-------------------|---|
| | 2.5" - 7" | ✕! 0.5" - 1.5" ✕! | |
| | | | improvisation on modules sim. → 12" - 16" |
| | | | |
| | | | |
| | | | |

P. Play the fragments in order, but with improvised timing and coordination between hands. Sparse: leave plenty of space for rests, *do not* play continuously. Listen carefully to the saxophone to inform your decisions. (The visual spacing on the page is constrained for practical purposes and should not be replicated.)

6" - 8" $\bullet = 66; \text{rhapsodic, rubato}$

8+" $\bullet = 54; \text{sim.}$

Additionally, improvise some bird ornamentation: grace notes, repeated notes, parallel harmonies, isolated notes sustained with the fingers—but make sure to keep the characters of the two hands distinct (left lower/slower; right faster/higher). Written-out examples of possible modifications are provided in the performance notes.

M. *MPed.* *to blur notes together ad. lib.—always release while not playing* (*)

[3] [4]

(pppp) ppp

8-10"

W94 W7 W135 (isolate partial)

coordination: precise

2-3" (come un eco)

$\text{♩} = 66$

S. *pp* *mf* *mp*

P. melody, in rilievo: *mf* *mp* *p*

10.3 11.3 13.4

Mped. *ppp*

5 6

(poco fader cresc. on wet sax only: keep resonance sustained at constant low level into start of next phrase)

8"

(3.5")

leggiero, brillante

4-5"

flz.

pp non-dim. dark

coordination: slightly imprecise

$\text{♩} = 52$

timb. *tr* timb. *tr*

S. *pp*

P. *mf+*

18"

6-7"

M. (no conv. kernel, swell piano amp. only:)

7 8

ppp

leggiero, brillante

pp

5

3 3

IcPed. } MPed. }

Ped.

coordination: less precise

$\text{♩} = 46$

S. *p* *pp* *flz.* W24 W22

P. *p* *ppp* (notebeads) *mp+* (triplet) 16"

M. 1cPed. MPed. Ped. 9 (ppp) 10 (13") MPed. Ped. 11"

coordination: free

W66 C5 key *tr* *sim.* *p* languid *mp* measured, not too fast; blend with piano *p* *pp*

mp *pp* bazy *mp* *p* 7.2 7.2

+ (E stopped) 2. 2.



coordination: very precise

$\text{♩} = 92$

S. W44 W45 W44 W23 W44 W45 W46 W45 W15 *mf* mechanical *p* (sub.) *mf* (sim.) *mp* 5 *mf* *pp*

P. *mf* 3 3 *p* (sub.) *mf* (sim.) *mp* 3 3 *mf* *pp* *mf+* (sub.) 14"

M. (lift Ped. gradually) (MPed.) (11") (Ped.) (4") (5") 11 poch. Ped. 12 (4.5") (5") (4.5") MPed... (*) (sax resonance only) (mp) (pppp)

~25"

voice: **pppp** possible. For low voices: use falsetto, or see "Ossia."
Do not aim for balance with the played notes—the voice should appear like a distant shadow.

coordination: free

S. *ppp* *pp* *ppp* *pp* *ppp* *pp* *ppp*

otherworldly; like a sine tone
circular breathe, or quickly sneak breaths as necessary

P. *"p"* 2. 2. *strike key: "mp"* *7.2 2.* *"mf" (as before)*

M. (MPed.) *(pppp)*

slide thin metal bar on string
approx. sounding pitches:

harmonic (norm.)

metal bar:



~20"

S. *pp* *ppp* *voice: > n* *non-dim.* *f*

P. *pppp* possible (err towards notes not speaking)
sparse, intermittent, irregular arpeggiation on given notes: short gestures with ample space

Ossia: if saxophonist does not sing, pianist should additionally slide metal bar somewhere in indicated pitch range inside the strings. (You may add this regardless.)

M. *(non-Ped.)*

place down silently, then *pppp* possible (err towards string not speaking)

(MPed.) *(Ped.)*

Freeze. Once resonance has (mostly) faded, insert brass mouthpiece, then move directly to the piano and point saxophone bell inside strings.

25"

(long swell up/down for both piano/sax)

coordination: ♩ = 40-44
 mostly precise steady, ritualistic

with brass mouthpiece / "alla tromba"
blatty, guttural, with frequent scoops and falls;
exact intonation and rhythm less important than
the dynamism of the gesture

S.

P.

M.

14 (no kernel, but use healthy **f** amplification)

angle the foot to cover both middle pedal/ sustain pedal as needed

knock on soundboard (wood left of lowest strings) with fist

knock soundboard with superball mallet al fine

Friction-drag superball mallet over lowest chamber of the strings. Pitch height is relative. The drag speed should be moderately slow, with a bit of "grit" (rebounding) ad lib.

scratch with fingernails on higher bass strings

strike approximate string(s) with superball mallet*

at each knock: release sustain pedal slightly to partially clear sound, then redepress ~1/2 Ped. (not fully depressed)

~1/2 Ped. sim.

S.

P.

M.

(sing + play)

mf (melody)

mf

f

mf+

mp

pizz.

p

*ensure that the struck strings have at least a short moment to ring out before being dragged over.
 Moments where two mallet gestures would fall on the same hand simultaneously should be reassigned to the other hand/mallet..

S. *mf* + 5 *pppp* echo

P. *mp* *f* *mp* *p* *pp* *mp*

fgnl. slap with palm fgnl. (1-2" ad lib.)

key (stopped) pizz. +

mf *mf*

Red. (full release) *Red.*



S. (tonguing: 1 1 1 1 sim.) *mf* C5 key *tr* (sing:) *f* *mf*

P. *mf* *f* *f* *mf* *p*

mallet *dramatic* fgnl. mallet

pizz.

(*Red.* as before)

slow, irregular multiphonic trill

W52

W53

Sounding: *p*

effort: "*mf*"

mf *p sim.*

mf *p*

fgnl. mallet

mp *f* *mp* *f* *f* *mf* *mp*

mallet

pizz:

3 3

keys₃

pizz. (quasi Bartok pizz.)

ff possibile

ff

(full release)

3-6"



S.

pp

languid; blend saxophone entrance to come out of the resonance of the piano

5 5

P.

pizz.

mp non-dim!

pizz this dyad: start periodic, then get out of sync

30"

M.

(*ppp*)

(*ppp*)

(*ppp*)

15

(4")