Charlie Sdraulig

Tether study

for viola and electronics

2020-21

Commissioned by and dedicated to Phoebe Green, with deepest gratitude for her warmth, skill, and generosity.

This work was supported by Speak Percussion as part of their SD Series 2.0

Overview (for you, not audience members)

This is a study about co-presence and place(ment)—sharing a space, a scene with varied sounds and behaviours, and creating rhythmic connections (momentary tethers) through sensitive interaction. Written during the pandemic, it makes a melancholic attempt to metaphorically bridge and close social distances, evoking a sense of intimacy via ASMR-like extreme amplification, close mics, live processing, and diffusion over headphones.

Mostly, you will blow voicelessly on the strings, gently vibrating them ('Aeolian Viola'). Without amplification, this technique produces extremely soft sounds, likely inaudible to anyone but you. With extreme amplification the soft sounds you conjure from the instrument will occur at a similar perceived level to distant ambient sounds.

> *Compared to a conventional concert recital, instead of playing over, masking, or paying scant attention to ambient sounds and any audience behaviours, you will play with, attend to, make space for, and respond to whomever and whatever is present, live. Relative to a recital model, this could seem like a process of self-abnegation, but that is a disproportionately negative view. In positive terms, this study is about trying to create a degree and quality of co-presence that promotes a bidirectional, nonverbal exchange, emphasizing the performance as a shared experience. To achieve this, you will need to assume the persona of an audience member at times, taking your turn to attend, as well as making in-the-moment decisions about when to take up space, and how.*

As a study, this piece affords the opportunity to practice materials and processes for a projected, larger work called 'Tether'. This study spells out a particular mindset to adopt, as expressed through certain behavioural tendencies (i.e. a baseline performance persona). Then, it describes how to modify the scored events, in response to present sounds and behaviours around (and within) you. Furthermore, it provides the scored events (i.e. a linear sequence of notated sounds to be modified). All elements need to be embodied and memorized to seamlessly work together.

> *My imperfect verbal analogy here is that the largely invariant order of scored events corresponds to situations where we tell a story or make an argument. We often cover the same points or story beats in a relatively consistent order, but we modify how we relay them depending on our audience's reactions or according to contingencies in the moment: slowing down, speeding up, pausing during an interruption, listening to feedback, going into more detail in some areas and not in others, etc.*

You can play this study as a standalone performance in a quiet space with or without an audience member (or two) listening at a distance over headphones. You can also do it alongside another performer playing this, or the percussion study. Regardless, you will need to flexibly respond to whatever and whomever is specifically present for the duration of a given realization.

General performance directions

This study must be performed from memory.

No bow is required. **To produce the pitches** in the score, **you will blow voicelessly on the notated strings, vibrating them** ('Aeolian Viola'). Consequently, some prior training in breath control techniques and practices is highly recommended. When blowing between the bridge and nut, dampen any strings you are not intending to vibrate, if necessary. When blowing between the bridge and tailpiece, never dampen the strings you are not intending to vibrate.

Commas = a voiceless breath in. All pitches between two commas must be executed within a single breath out.

The score is notated at sounding pitch. You will detune string(s) with the fine tuner(s) as you play.

A dedicated sound engineer is required to run the electronics live.

This study may be performed either as a solo, or as a duo with another violist, or as a duo with the percussion study. **Conduct performances from dusk onward** (for both reduced ambient sound as well as ambience purposes).

Please contact me to work together towards a performance (email: c-sdraulig@hotmail.com). Extra samples, recordings, and video examples are available on request.

Tech requirements

Room, furniture, and lighting

- 1 large, quiet, well ventilated room (e.g. a gallery space); faint ambient sounds from outside occasionally audible (e.g. through a slightly ajar window or door); minimize any visual distractions from the performer.
- 3-4 chairs, one for the performer, facing one or two audience members who are seated far away; the final chair is for the sound engineer who should be hidden from view behind any audience members.
- 1 desk for the sound engineer.
- Devise warm, dim, diffuse lighting which evenly highlights the performer, audience members, and sound engineer.

Audio

- 2 side address cardioid large diaphragm condenser microphones (e.g. a pair of AKG C414s, Gefell M930s, etc.) on 1 stereo bar with clips. Place the microphones directly below the instrument, facing up (see photo below).
    - A third, central microphone on its own stand placed between the stereo pair may be necessary for extra reinforcement.
    - Experiment with an AB or ORTF configuration (the third microphone filling out the centre of the stereo field).
- 2 microphone windshields (3 if using an additional central microphone).
- 2 xlr cables (3 if using an additional central microphone).
- 1 microphone stand (2 if using an additional central microphone).
- 1 fan-less tablet/laptop with Max (contact me at the email address above for the patch, which controls the live processing and noise reduction parameters of the iZotope RX Voice De-Noise plugin), 1 USB controller with faders (e.g. KORG nanoKONTROL2), and 1 professional audio interface (with 2-3 microphone inputs, typical gain in dBs = mid to high 40s), all hidden from the audience members view with the engineer.
- 1 power strip with at least 3 outlets and 1 extension cable (or more as necessary).
- 1 pair of closed back headphones for the performer (e.g. Sony MDR-7506).
- 1-2 pairs of open back headphones for the audience members; Koss KSC75 headphones are recommended as a high quality, cheap option.
    - Disposable headphone covers for the above.
- 2-3 3.5mm male to female extension cables for the headphones.

Photo demonstrating microphone placement (Performer: Phoebe Green; Photo by the author)

Organization

The duration of each performance will be variable and may last anywhere between ca. 5-15 minutes. If arranging a performance for an audience, work out a schedule (e.g. 30-minute slots, with breaks in-between to allow for resetting and cleaning, etc.) over a day or multiple days. Offer sign-ups for available slots on a first come first serve basis, or if there are few available slots, ask for expressions of interest beforehand and then conduct a lottery.

Design a quiet waiting area. Have an usher at the door to the room to check whether the performer is ready to receive audience members and ensure external noise levels are low. In addition to providing health and safety information, as well as ensuring compliance, the usher should inform each audient that:

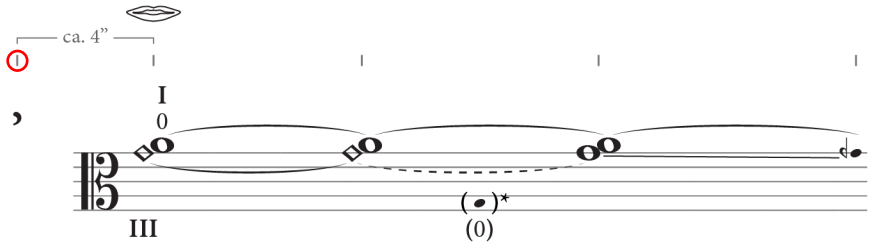
- The performance space is dimly lit. As they enter, they should move slowly to allow time for their eyes to adjust.
- The performance features high levels of amplification, but their hearing is protected at all times via a limiter which prevents sound from exceeding a safe level.
- The performance proper ends once the musician acknowledges you and gestures toward the door.
- They should turn off all mobile devices.

The usher should then slowly lead the audience member to their seat.

Baseline persona

Your baseline persona is an *initial* set of behavioural tendencies to adopt—norms, values, or attributes constituting a base to depart from and return to as the performance unfolds (i.e. your performance mindset, demeanour and attitude). This persona is expressed, guided, and constrained by the score, electronics, and your lung capacity. I suggest practicing the score with the electronics first, without reference to the *Modifiers*, to embody the persona, prioritizing:

- **Quietude**—soft, calm, still, concentrated, deliberate, confident playing.
  - Choreographed, disciplined, economical actions (as opposed to naturalistic, quotidian ones). **Execute the minimum actions necessary to achieve a given sound or gesture.**
- **Slowness**—unhurried, careful movements, **tempo (scored events periods) ≈ 4 seconds**, long breaths out when playing pitches, slow resting heartrate, etc.
  - Each short vertical line (the first one is circled in red below) = an **event**. These correspond to beats or pulses. In the example below, you start at your baseline tempo. Then, notice how the distance between events expands until the final period might be ca. 7 seconds (like a *ritardando*).



  - *N.B. In the score, the **time-space distribution of events is quasi-arbitrary** (it is a speculative example of one of many possibilities); each of your realizations will be necessarily different, contingent upon the rhythms of unfolding events (see **Modifiers**).*
- **Subtlety**—explore tiny nuances, thresholds, micro-variations in loudness, pitch, movements, etc. within this quiet, minimal, slowness.

Fleshing these out further:

- Adopt a relaxed, but upright posture with a warm, positive-neutral facial expression (eyes open).
- Express intimacy, closeness with the instrument and electronics.
- Most of your sounds are activated by your breath, recalling air and wind. With a focused, tight mouth shape, voicelessly blow on strings *sul tasto* just above where your left-hand fingers stop the strings, using the minimum speed and volume of air to vibrate the string. **Ensure the sound of your breath is inaudible to the electronics**, while the resultant pitches predominate. Avoid blowing into the f-holes.
- Despite your best efforts at minimizing your actions, subtle noises will unavoidably accompany these pitches, given the high levels of amplification: creaks of the violin, rubs by your fingers during glissandi, shudders and whistles in breath, incidental tongue clicks, the self-noise of the electronics, etc.

Each line of the score starts with a **pause** and is followed by a **phrase**. The numbered instructions below guide your modifications to the above baseline, in response to present sounds and behaviours.

Modifiers, summary

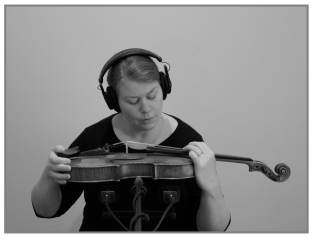
Pauses

1. At the beginning of the line, attend to present sounds and behaviours. Take your time, allow space.
2. Focus on shared rhythms i.e. periodic events that share something in common with your baseline persona (*e.g. breath, wind, air, drooping glissandi, bowed heads, bird calls in a similar register, sustained events of a similar loudness, etc.*).
3. When you are focused and there is space for you to be heard, prepare to play…

Phrases (i.e. commas and pitches)

4A. If the shared rhythms continue as you play, start from your baseline and gradually align with them by the end of the phrase (i.e. gradually synchronize your beats with shared rhythms and reciprocate their character—*varying your vocal behaviour (speed, breathiness, shudders) the distances between your body, instrument, and electronics, etc.*).
4B. If the shared rhythms stop (or have just stopped), suddenly align with your recollection of them, then gradually drift away, returning to your baseline by the end of the phrase.
5. If a disruptive event or change occurs as you play, freeze, and then return to the start of the line you were performing (i.e. a pause, step 1). If not, continue playing to the end of the phrase.
6. Continue to the next line, repeating the above steps. Every few lines, incrementally change your baseline to align with persistent shared rhythms.

All of these modifiers are unpacked in detail after the score*. It is essential reading for a meaningful interpretation of the study.*



ca. 4”

I
0

III

(0)

(lightest possible finger pressure for all harmonics)

** gradually, silently lift and depress your finger to introduce a momentary hint of the open string; small note heads are quasi-grace notes*

(left hand silently drifting a little, down the fingerboard towards the nut)

(repeat this basic pattern of head movements for subsequent pauses and pitches, while varying vocal behaviour, proxemics, timing, etc.; all subsequent photos indicate required additions to this pattern)

I
II
III
IV

(0)

II

(0)

IV

(blow on the indicated open string, between the bridge and tailpiece)

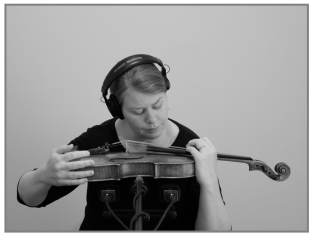
*** a swift, but carefully placed hint of* **II**, *before returning to* **IV**—*perceptually similar to the * technique*

I
II
III
IV

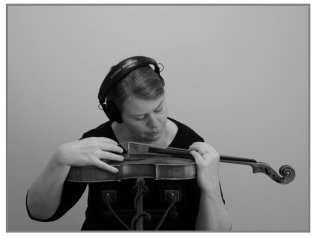
I
0
III

(0)

no longer blow on **III** *&* **IV**, *but scrape/rub along the top of the string with part of your fingernail and part of the flesh of your fingertip*



(as before, but right hand incrementally edging closer to the fine tuner(s), across the body of the instrument)

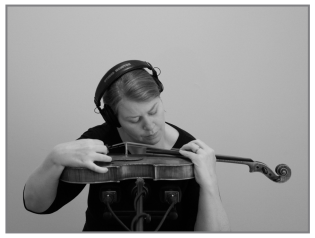


II
0

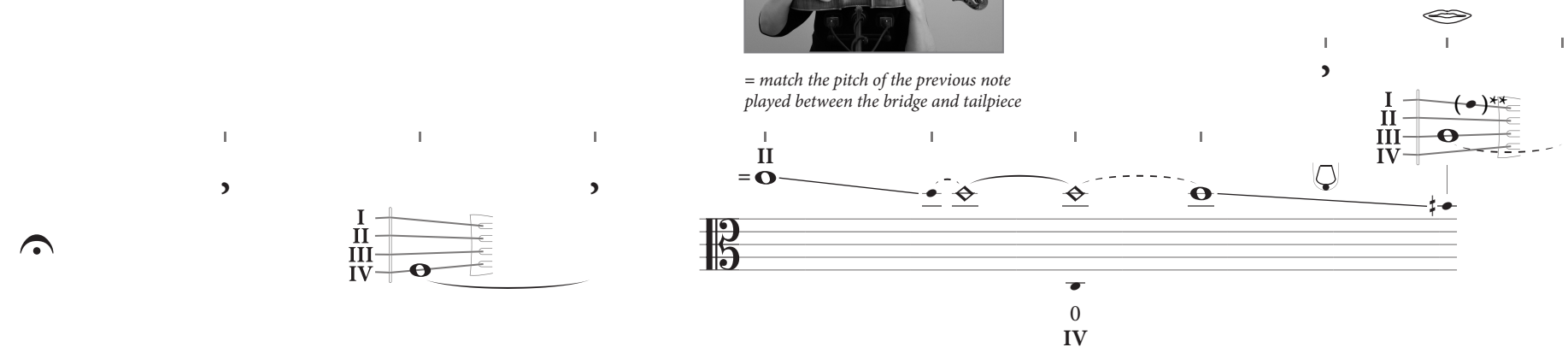
0
IV

0
III

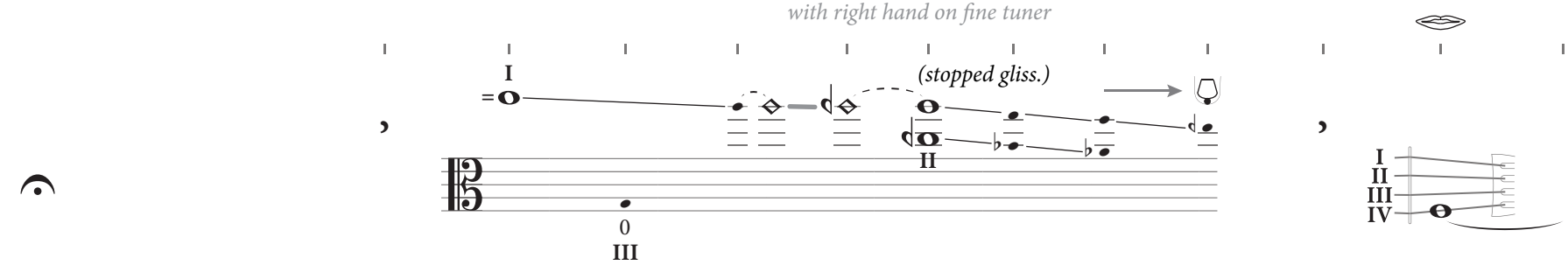
(right hand fingers on the fine tuner(s))

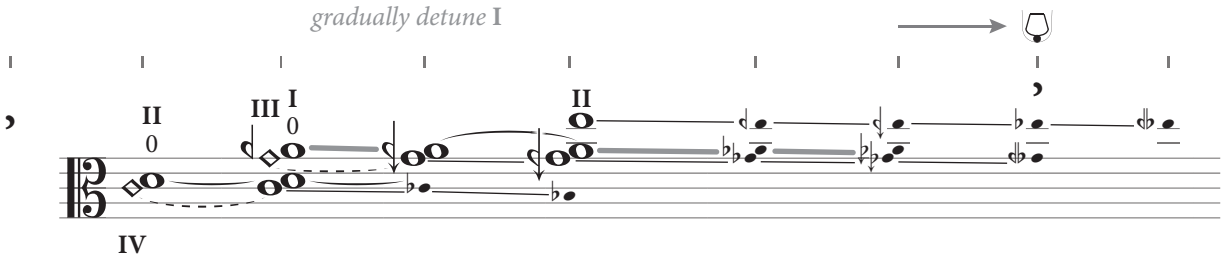


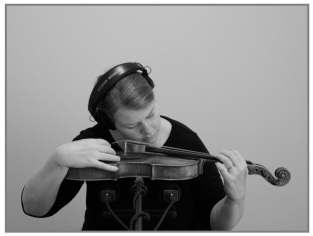
= match the pitch of the previous note played between the bridge and tailpiece



gradually detune **I** *while playing, with right hand on fine tuner*







(left hand silently drifting down the fingerboard to the nut, then **end***.)*

Appendix

Modifiers, detail

There is a lot to take in and explore below. Go slow. This piece is designed as an infinite well of sorts—your engagement with it can steadily grow over time with experience. Every realization will be necessarily different. Likewise, your learning process will be particular to you. Again, my advice is to practice the score first, consistent with the baseline persona. Then gradually introduce these modifiers, focusing on basic timing possibilities with as few sources of shared rhythms as possible. As the speed and confidence of your decision making improves, gradually add character modifications, try out more complex temporal relationships, imaginative associations, and respond to a few shared rhythms simultaneously, etc.

Pauses

- The duration of each **pause** depends on the following three steps:

1. *At the beginning of the line, attend to present sounds and behaviours. Take your time, allow space.*

- Breathe regularly, deeply, calmly, and inaudibly (i.e. your breathing should not be picked up by the electronics) with a relaxed ribcage.
- Consider ambient sounds, audience behaviours, changes in electronic processing, other performers, your own attending body, etc.
- Be aware of how you hold yourself and move as you attend. Increasingly reciprocate any audience behaviours that are compatible with your persona (i.e. over the course of a realization, adjust the character and timing of any movements you make, so they become increasingly similar to compatible audience movements).

2. *Focus on shared rhythms i.e. periodic events that share something in common with your baseline persona.*

- (Quasi-)periodic events may share a common **acoustic, behavioural, spatial, medial, semantic, affective**, etc. **feature**, or some **combination** of them. Your perception of these **shared rhythms** will shape the character and timing of your **phrases** (i.e. commas and pitches). Not all periodic events will share obvious common features, but do take time to consider imaginative associations first, before deciding to avoid or ignore them.
- Examples of **shared rhythms** include, but are not limited to:
    - *The undulating sound of wind passing through trees nearby, respiratory cycles (evidenced by the rising and falling of shoulders, expansion and contraction of upper body silhouettes, as well as the rhythmical warping of clothes; audible sighs, coughs, clearing throat, swallowing saliva), the Doppler effect glissandi of passing vehicles, head and eye movements (tilting, nodding, shaking, blinking, glancing), repeating bird calls in similar frequency bands to your pitches, more activity on one side of the stereo field at a particular distance, postural shifts (shuffling, leaning, swaying, rocking, slumping, tensing), quiet sounds, hand gestures and tension (clasping, grasping, rubbing, holding, caressing, scratching, tapping), etc.*
        - Some shared rhythms will persist, others will be brief episodes. Most shared rhythms will be quasi-periodic i.e. do not expect them to occur in a strict, fixed pattern (i.e. stable tempo)—quasi-random variation in physiological rhythms, let alone meteorological phenomena (!), etc. is the norm. However, there are limits on how flexible your persona can be, the extent of the connections you can make, and how much you can modify your scored events without self-sabotaging. Some connections may be destructive to your persona and best avoided. Ultimately, your decisions about shared rhythms and all the interactions

that follow from them will be highly subjective and personal. Perceiving shared rhythms will always be an intuitive estimate and creative abstraction. You do not need to be highly accurate when mapping these rhythms onto your realizations of scored events (phrases, commas and pitches, etc.), just faithful enough for another person to potentially grasp the link you are trying to construct. There are no definitely right or wrong responses here, as long as build connections in good faith, with generosity and respect. Try your best, commit to interpretations and courses of action. Do not dwell too much on potentially dubious past decisions—learn and adapt.

    - As far as possible, avoid pre-emptively privileging certain types of sources over others e.g. do not prioritize human behaviours over ambient sounds before attending, or vice versa, etc. Take your time, and **allow periodicity, commonality, salience, and persistence to guide your focus**.
- At first, start simple, focus on a single, salient source of shared rhythms. However, as your realization progresses and you familiarize yourself with persistent shared rhythms, incrementally widen your focus to multiple simultaneous rhythms, or aggregates of them. Your overall aim is to increasingly attune with present sounds and behaviours over time. For example:
    - Build, step-by-step, a sense of how simultaneous shared rhythms relate to one another (e.g. an audience member blinks once for every two breaths, and shifts posture every eight breaths or so—these postural shifts occur at roughly the same time as a repeating bird call, etc.)
    - You may follow the aggregate density of shared activity (e.g. every 5-10 seconds more activity occurs to the centre-left of the stereo field).
- If you perceive no shared rhythms, even after attending for some time, focus on your own heartbeat as a last resort.

3. *When you are focused and there is space for you to be heard, prepare to play…*

- The phrase 'space for you to be heard' should be understood in many ways. At the most basic level, it could be about waiting for an unexpectedly dense sequence of sonic and behavioural activity to subside, ensuring your contributions are not completely masked. Or, at a higher level, it might be about understanding when another person is ready to listen to you. Or, giving up space for an ambient sound, allowing it to continue uninterrupted, waiting for the right moment to accompany it. Or, etc.
    - In exceptional circumstances, if there is *consistently* no longer space for you to be heard, abandon the performance. (Only take this course of action if despite your best, good faith efforts to perform in a quiet, well-prepared space, unfolding events make continuing untenable.)

Phrases (i.e. commas and pitches)

- All scored events *between two given pauses* constitutes a **phrase**—each phrase often comprises multiple commas and pitches.
- **Commas**: voicelessly breathe in, preparing to execute…
- **Pitches**: blow voicelessly on the notated strings, vibrating them ('Aeolian Viola'). If necessary, dampen any strings you are not intending to vibrate.
    - All pitches between two commas must be executed within a single breath out.
    - A very focused, fast, but near silent air stream
- The score fixes aspects of breathing, pitches, large-scale gestures, as well as the overall order of events. However, the **character** (i.e. how you modify your performance relative to your baseline) and **timing** of *all* these events (including **commas**) are left open for you to decide *in response* to **shared rhythms**, given the constraints of your **lung capacity** and **persona**.
    - *N.B. The time-space distribution of events on the page is quasi-**arbitrary** (it is a speculative realization of these all these instructions for illustrative purposes); each of your realizations **will be necessarily different**, contingent upon unfolding events. (This approach is in opposition to a standardized, equal distribution of scored events, which would fail to imply any dynamic flexibility at all).*
- By the end of each **phrase**, achieve one of the following:

***4A.** If the shared rhythms continue as you play, start from your baseline and gradually align with them (i.e. gradually synchronize with shared rhythms and reciprocate their character).*

***4B.** If the shared rhythms stop (or have just stopped), suddenly align with your recollection of them, then gradually drift away, returning to your baseline.*

- The above statements will guide your decisions about *how* and *when* you will be co-present with **shared rhythms**. Remember that these (quasi-)periodic events may share a common acoustic, behavioural, spatial, medial, semantic, affective, etc. feature, or some combination of them. Your aim is to **communicate the connections you perceive**, to try to make them apparent to anyone else attending, even if they are apprehended subconsciously, as allusions, or just as general sense of mutually acknowledged co-presence. The text below unpacks various possible connections in detail.
    - Although category-like divisions are given below to facilitate learning alignment strategies, these decisions are of course not separable from one another in practice—they must be seamlessly and dynamically integrated. Spend time formulating your approach during pauses, later adapting it as events unfold.
    - When practicing, I suggest concentrating on exploring basic timing possibilities first. As the speed and confidence of your decision making improves, gradually add character modifications, and try out more complex temporal relationships.
- ***Timing** possibilities:*
    - **If shared rhythms continue** as you play, starting from your baseline, ***gradually* synchronize** the periods of scored events (period = interval between the short vertical lines) with the periods of salient shared rhythms, in a phase-locked, simple integer ratio relationship (e.g. 1:1, or 1:2, 1:4, etc. if the shared rhythms are especially fast; or 2:1, 4:1, etc. if the shared rhythms are especially slow)

        - In other words, what matters is gradually achieving a relatively consistent, simple temporal relationship (= entrainment, with *rubato*-like flexibility), which is compatible with your persona and lung capacity. To give this relationship a chance of being perceived by another person, commit to a given ratio within a phrase (pauses are your opportunities to reset, and reconsider shared rhythms and ratios). If shared rhythms change as the performance unfolds, your relationship to those shared rhythms should likewise change. Given these constraints, **the particular ratios you aim for are *your* creative choices to make, *in the moment***.
    - There are two possible phase-locked states: **synchrony** or **anti-synchrony**.
        - Synchrony refers to synchronization where focal points occur at the same time (e.g. the onsets and offsets of scored events and an audience member's breaths occur at the same time; but remember this relation can be any simple integer ratio, not just 1:1). *Choose this option to emphasize unity, blending.*

        - Anti-synchrony refers to synchronization where focal points occur at complementary moments (e.g. the onsets and offsets of your events occur half-way through each audience member's breaths; in other words, if one breath = one period, the difference of phase here = one half period, which = anti-phase). *Choose this option to emphasize cooperation while maintaining some independence* (e.g. if there is a danger of your actions masking or being masked by shared rhythms).

    - **If shared rhythms stop**, ***suddenly* synchronize** the periods of scored events with the periods of salient shared rhythms, as you recall them, in a phase-locked, simple integer ratio relationship, ***then gradually* alter** the periods of scored events (i.e. lengthening or shortening, depending upon the ratio relationship you decided beforehand), drifting out of alignment, returning to your baseline.
        - Synchrony:

        - Anti-synchrony:

- ***Character** possibilities:*
    - **Reciprocating** the different *degrees* and *qualities of presence* you perceive in shared rhythms means modifying *how* you perform scored events relative to your baseline—adapting or adding similar, like-for-like sounds and behaviours to construct connections (without mimicking, parodying, or ridiculing). From your baseline persona, there are many inter-correlated, local details available to you to modify:

- **Vocal behaviour**:
    - Speed and volume of air (e.g. contributes to reciprocating loudness, dynamics);
    - Shudders (especially after extremely long exhales)
    - Subtle hints of voiceless vowels, approximants, and fricatives (varying mouth shapes, tongue position, breathiness e.g. to reciprocate timbre—a sigh, respiratory system, body presence, imitating wind, noises of various frequency bands and contours, etc.)
    - Tongue clicks, bilabial stops, and saliva sounds (lightly touching your palate with different parts of your tongue e.g. to reciprocate discrete, short sounds—creaks, taps, knocks, etc.)—mostly at the beginnings and ends of breaths; etc.
        - Also, consider **occasional facial and gaze behaviour**: your expressions and the emotions they convey; gaze direction, frequency and duration (e.g. reciprocating audience glances, eye contact, sustained looks, averting gaze, etc.); eyebrow and eyelid movement (e.g. reciprocating blinking frequency, eyes closed, etc.)
- **Proxemics** (i.e. distance between your body, instrument, and electronics):
    - Your air stream's angle, area of contact, and distance travelled to the instrument (head tilts, blowing closer to your left hand fingers or closer to the bridge, part of your air stream entering an f-hole, blowing at the maximum distance where you can still vibrate the strings through to almost kissing them, etc. e.g. contributes to reciprocating loudness—including chord voicing—timbre, and intimacy);
    - The distance between the instrument and electronics (x-y-z movement of various size and weight, swaying, leaning, rocking, upright to slumped postural shifts, adjusting balance, trunk orientation between facing the microphones directly to turned away, tensing shoulders, embracing the instrument especially after altering the fine tuners, etc. e.g. contributes to reciprocating perceived distance, loudness, and placement in the stereo field—responding to soft activity, far away, to the left, and/or audience postural shifts that vary interpersonal distance, and/or electronic processing, and/or intimacy, confiding, meditation, comforting, grief, etc.)
        - Also, consider **occasional kinesics** (limb movements): hand tension, pressure, contracting and expanding motions (span, width), varying height, and points of contact (e.g. reciprocating aspects of clasping, grasping, rubbing, curling, holding, caressing, spot touch, etc.—especially with your right hand on the body of the instrument); your left hand hovering just above strings in between phrases (either still, or slowly moving in a descending 'air' glissandi, which extends the preceding sounding one); stopping (scraping) the strings with your left hand fingernails (and perhaps part of your fingerpads) in addition to using your fingerpads as normal, (e.g. reciprocating timbre, creaks, scratches, rubs); feet movements and shuffles (e.g. reciprocating crossed ankles, balance shifts, etc.)

- ***Combining*** *these possibilities:*
    - As mentioned above, you should start simple at first; focus on synchronizing with a single, salient source of shared rhythms; map continuous or discrete changes in character on to each scored event. For example:
        - *You perceive the wind rising and falling every 10-15 seconds or so. You synchronize the periods of your scored events to a 2:1 relation (your period ≈ 6 seconds). With each scored event you gradually increase the breathiness of your air stream by introducing a voiceless vowel, which is audible through the electronics and reciprocates the noise of the wind passing through nearby trees. Simultaneously, you may gradually introduce subtle undulations in loudness, where peaks correspond with the onset of each period, etc.*
            - A similar approach could work with aggregated shared rhythms, where you work out the periods of peak rhythmic density, synchronize in some relation with them, and reciprocate one or a few characteristic attributes (e.g. rocking forward and back to reciprocate the perceived distance of the activity from the electronics, and/or swaying left and right to reciprocate the perceived placement in the stereo field).

- With experience, as your realization progresses, you may synchronize with multiple simultaneous shared rhythms. After building a sense of how these shared rhythms relate to one another during a pause, prioritize one of them to align with the periods of scored events. Then, intuitively realize other shared rhythms as multiples or subdivisions of periods, mapped to various changes in character. For example:
    - *You see the rise and fall of an audience member's shoulders as they breathe, estimating their breaths in and out are around 2 seconds long each. They shift their posture every six or so breaths (ca. 12-15 seconds), tilting their head and moving their feet slightly—the wind seems to rise and fall at roughly the same rate, but is rarely exactly aligned. You synchronize the periods of your scored events to a 1:3 relation with the audience member's respiratory cycles (your period ≈ 6 seconds). You gradually mark every two of your periods with reciprocal head tilts and feet movements. At a similar rate, you may introduce subtle undulations in loudness and breathiness corresponding to the wind, allowing peaks to fall somewhere in between period onsets.*
        - In these sorts of cases, gradual transformations or transitions can be achieved by adding or subtracting these relationships step-by-step, as the primary shared rhythm periods phase in or out of alignment. Alternatively, character changes could move in and out of some coherent simple integer ratio relationship, for example: chaotically leading and/or lagging the periods of the primary shared rhythm before achieving a stable temporal relationship.

5. *If a disruptive event or change occurs as you play, freeze, and then return to the start of the line you were performing (i.e. a pause, step 1). If not, continue playing to the end of the phrase.*

- A freeze and reset is a chance to settle and regain focus, if a particularly novel, striking, or sudden event occurs part-way through a phrase. It may also be a chance to withdraw, if a sequence of sounds and behaviours occurs that actively attempts to interrupt, undermine or sabotage your performance/persona (a.k.a. giving the silent treatment).

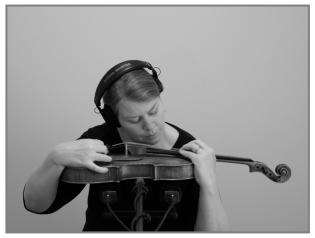
6. *Continue to the next line, repeating the above steps. Every few lines, incrementally change your baseline to align with persistent shared rhythms.*

- Think of incremental change in your baseline persona as **akin to step 4A, but operating on the timescale of a whole realization**—incrementally alter the length of your respiratory cycles, the loudness of the sounds you produce, the speed and character of your movements, etc. to gradually align (synchronize and reciprocate) with shared rhythms that persistent through the performance (e.g. aligning the lengths of your respiratory cycles with audience members', your loudness following the undulation of general background ambient sound levels, your postural shifts involving more naturalistic, less economical movements over time, etc.).
    - By the last scored phrase, your baseline rhythms and character should be fairly closely aligned with any persistent, ongoing shared rhythms so that following either option in Step 4 will not entail much change within the phrase.
- When you reach the end of the final line, relax naturalistically to end the performance. If audience members are present, make eye contact and gesture to them, indicating they may leave.

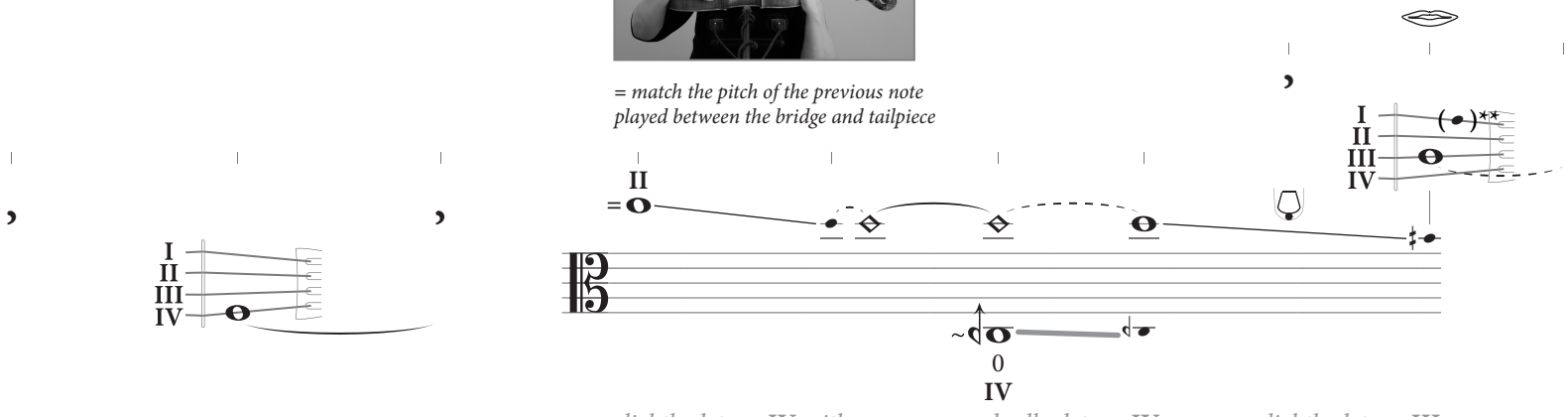
Alternate version

of pages 3 and 4 for instrument with four fine tuners

(right hand fingers on the fine tuners)



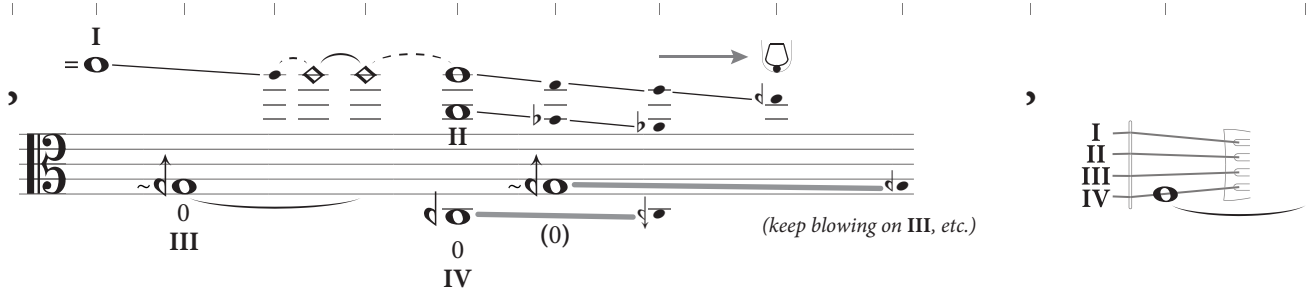
= match the pitch of the previous note played between the bridge and tailpiece



slightly detune **IV** *with right hand on fine tuners, before blowing on it*

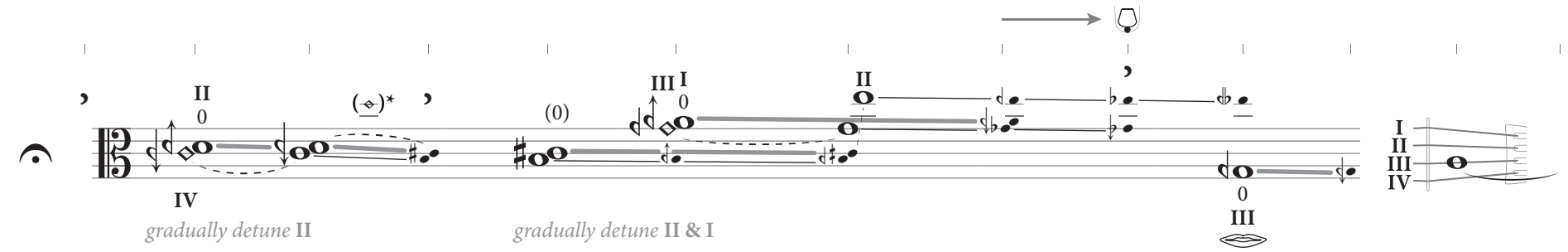
gradually detune **IV,** *while playing*

slightly detune **III**



gradually detune **IV** *&* **III**

slightly detune **II**

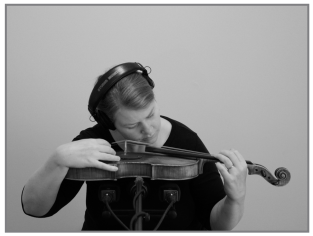


gradually detune **II**

gradually detune **II & I**

gradually detune **III** *until the end of this line*

(*continue blowing on* **III** *as you smoothly change head position, briefly blowing on the bridge during this transition*)



(left hand silently drifting down the fingerboard to the nut, then **end***.)*