

Charlie Sdraulig

Tether study

for prepared glockenspiel and electronics

2020-21

Dedicated to Leah Scholes, with deepest gratitude for her creativity and skill. Commissioned by Phoebe Green.

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 draw strings messily woven between the instrument's bars, gently resonating them ('Stringed Glockenspiel'). 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 the viola 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.


You will need a glockenspiel mounted in a case with a range of at least G₃ to C₆ (written pitch). No mallets are required. Rather, the glockenspiel must be prepared in advance with various strings woven between the bars (see *Instrument Preparation* below).

During a performance, never touch the instrument directly with your fingers. **To produce the pitches** in the score, **you will use the strings to slowly ‘bow’ back and forth against the edges of the bars—gently drawing, pulling, and dragging** to gently resonating the bars (‘Stringed Glockenspiel’, or ‘Glockenspiel puppetry’). You may also simultaneously allow the strings to drag across various parts of the case. Due to the way the strings are woven and connected, other pitches will resonate, which you did not intend to sound. Intention is the key word here. Intend to execute the notated pitches, but if others also sound, it is ok!

Each line of the score starts with a **pause** and is followed by a **phrase**. As you perform, these are modified in response to present sounds and behaviours, ambient and audience-related (see *Modifiers, summary* and *Modifiers, detail* below). Above each **pause**, a top-down diagram of the glockenspiel indicates which strings you will play in that line.

Always keep your hands in view. During **pauses**, your hands should always hover just above the glockenspiel’s bars and woven strings. During **phrases**:

 = clasp/touch the indicated strings.

 = release the indicated strings.

You may play, touch, and release the strings in many and varied ways (see *Baseline persona, Modifiers, summary* and *Modifiers, detail* below). After completing a phrase, you will tie together the strings you played with cotton thread(s) (unless they have already been connected). A diagram serves as illustration in the score. Use simple knots, and ensure the thread is taut—maintain and retighten any loose knots at the end of phrases, if necessary.

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 the viola study. **Conduct performances from dusk onward** (for both reduced ambient sound and 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.

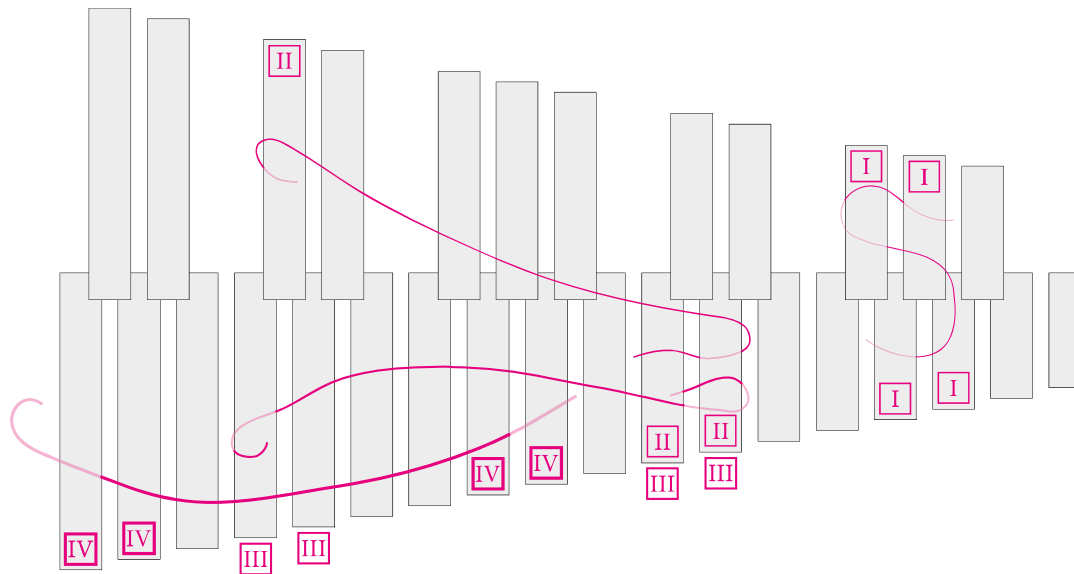
Instrument Preparation

You will need:

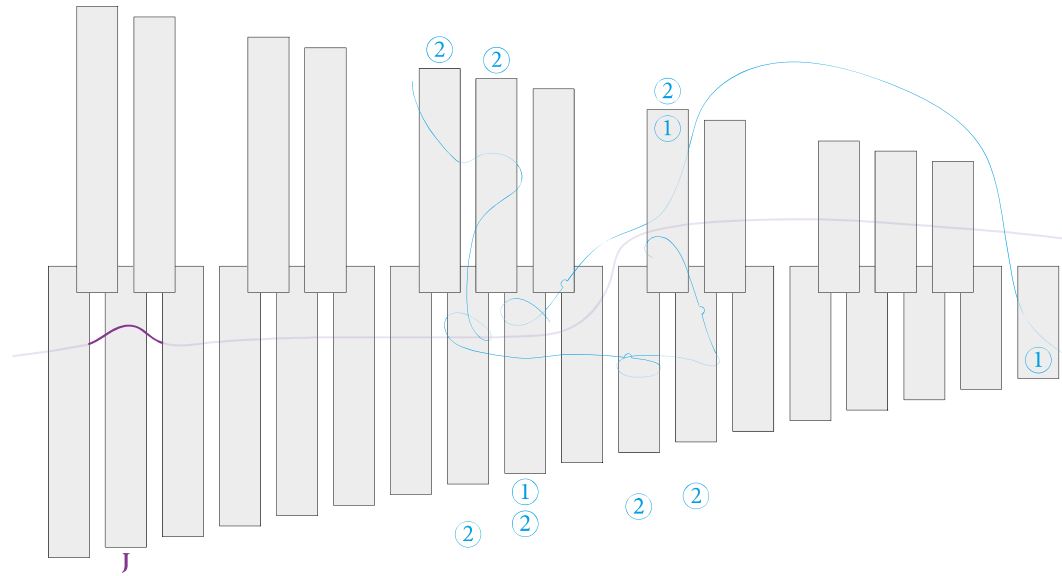
- 4 old, used **violin and/or viola strings** (covering a range of thicknesses, and curled via use)
- 2 lengths of **monofilament line** (extra limp nylon, clear or grey colour)
- 1 length of **jute string** (grey colour)
- 8 lengths of **cotton thread** (grey colour)

The colour coding above is for the purposes of notation only. From an audience's perspective, the actual colour of these strings, lines, and threads—grey, silver, or clear—should ensure it is difficult to see exactly how you are making the sounds. The length of each string will and can vary. It is up to you to decide what works best for your setup and the specific curls in your violin/viola strings. However, the strings should be long enough to make the connections illustrated below. The strings higher in the glockenspiel's range should arch higher above the bars than the strings lower in the range. Consequently, your fingers will be closest to the instrument (i.e. almost touching, or rubbing the string along a bar) when playing lowest in the glockenspiel's range. Please note that the diagrams below and throughout the score are schematic representations—a guide—again, your specific strings will curl differently, and will need to be woven differently!

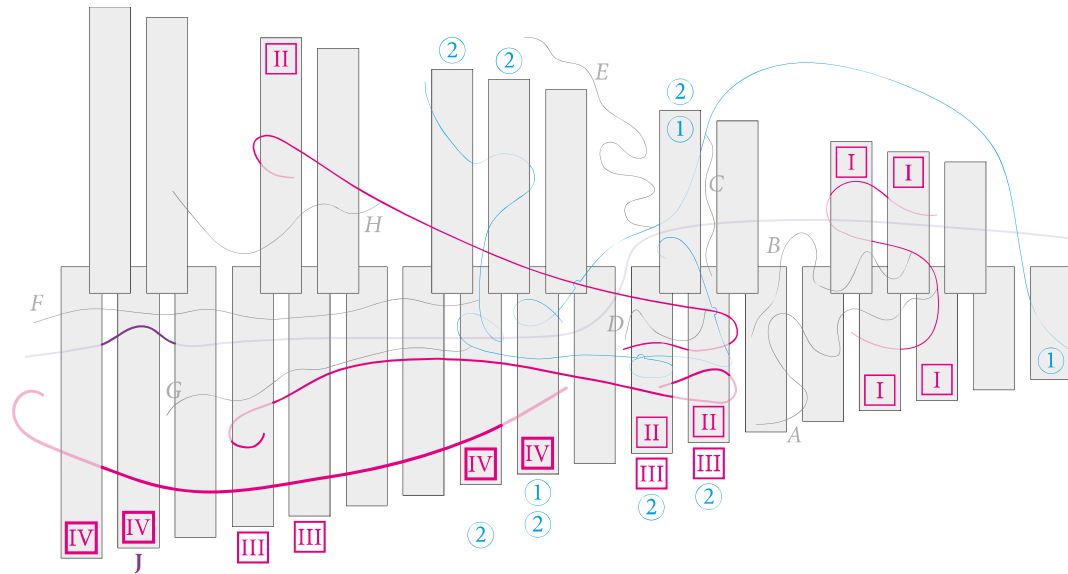
First, weave the **violin and/or viola strings** around the bars. **I** = the thinnest string, **IV** = the thickest string. Curl and weave each string around the bars marked with its roman numeral—**these are the pitches you will play with that string**. The lighter shading indicates a string going underneath a bar.



Second, weave the two lengths of **monofilament line** and the **jute string** as follows:



Finally, tie one end of each cotton thread to the indicated strings—leave the other end unconnected for now, allowing the thread to lie loosely on the instrument, always trailing to the left of the prepared, tied end, from your perspective.



Further Tech requirements

Room, furniture, and lighting

- 1 large, very quiet, well ventilated, dark room (e.g. a gallery space); 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 above the instrument, facing down (see photo below). The vertical distance between the microphones and instrument should be as small as possible, while allowing space for the performer's hands to comfortably move underneath, across the instrument.
 - A third, central microphone on its own stand placed between the stereo pair may also be necessary for extra reinforcement.
 - Experiment with an AB or ORTF configuration (the third microphone filling out the centre of the stereo field).
- 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, typically 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.



Photos demonstrating microphone placement and woven, connected strings.

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 audience member that:

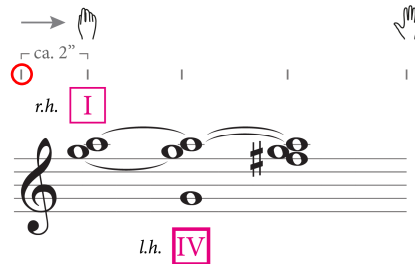
- The performance space is dimly lit. As they enter, they should move slowly to allow time for their eyes to adjust.
- The performance features high levels of amplification, but their hearing is protected at all times via a limiter which prevents sound from exceeding a safe level.
- The performance proper 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 prepared instrument, score, and electronics. I suggest practicing the score with the electronics first, without reference to the *Modifiers*, to embody the persona, prioritizing:

- **Quietude**—soft, calm, still, concentrated, and deliberate playing.
 - Choreographed, disciplined, economical actions (as opposed to naturalistic, quotidian ones): **execute the minimum actions necessary to achieve a given sound or gesture**.
 - Adopt a relaxed, but upright posture with a warm, positive-neutral facial expression; slow regular breathing, slow resting heartrate, etc.
 - Manipulate strings sensitively and delicately while playing/tying them, caressing them as lightly as possible; gently clasp and release the strings at the start and end of phrases.
- **Slowness**—unhurried, careful **tempo (scored events periods) \approx 2 seconds**
 - 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. 4 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 around you (see **Modifiers**).



- These ‘semibreves’ indicate pitches you should *intend* or *aspire* to play and sustain for a whole period—your baseline is slowly ‘bowing’ back and forth (in any direction(s)) with the string against the edges of the bars—however, given the tenuous qualities of the setup, or due to the ridges of certain larger strings, the resulting sounds will be intermittent at times.
 - Each event is typically marked by a pitch change, but signpost these onsets further by aligning visual changes in ‘bow’ direction, as well as with audible, weak accents or stresses.
- **Subtlety**—explore tiny nuances, thresholds, micro-variations in loudness, movements, timbre, etc. within this quiet, minimal, slowness.
 - N.B. Despite your best efforts at minimizing your actions, subtle unintended noises will unavoidably accompany these pitches, given the high levels of amplification and messy interconnection of strings.

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

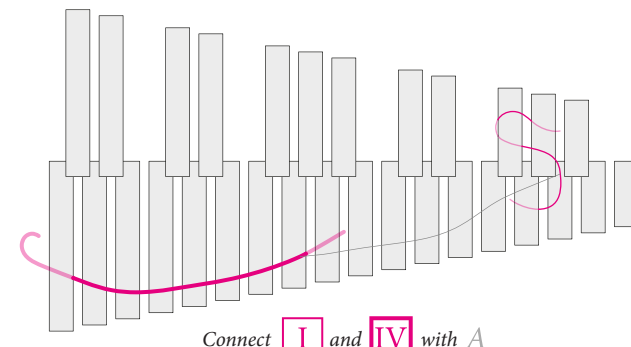
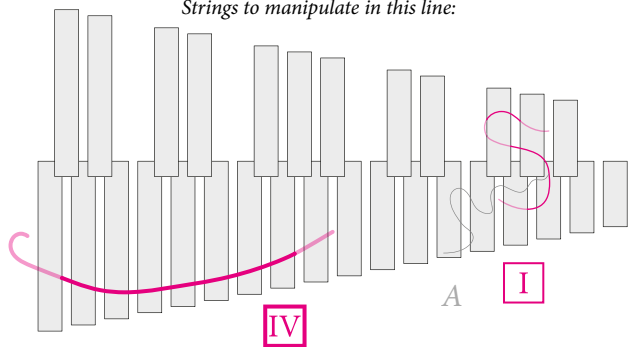
1. At the beginning of the line, attend to present sounds and behaviours. Take your time, allow space.
2. Focus on shared rhythms i.e. periodic events that share something in common with your baseline persona (*e.g. wind chimes, ringing, tinkling glass, water, scratches, rustling leaves, audience hand gestures, dragging or shifting feet, shuddered breath, flickering bird calls in a similar register, wavering but 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 ‘bowing’ speed; points of string contact with the bar(s); points of string contact with different parts of the case; alternative methods of resonating the bars (e.g. tapping them with the end of a string rather than bowing, during a short period); release method, from hastily dropping to gently letting strings go; other strings dragging and displacing the part of the jute string running underneath the bars; hand gestures, position, and tension; the number of fingers you use; postural and feet movements, 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 line.
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.

Strings to manipulate in this line:




Connect **I** and **IV** with A

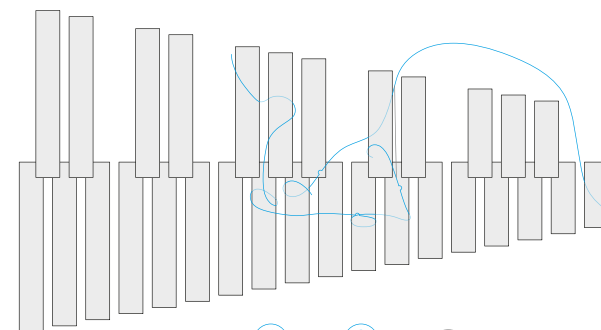
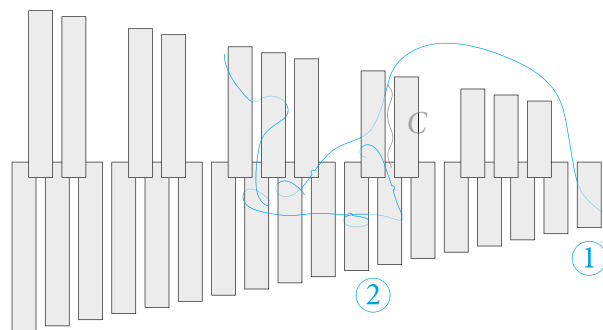
→  

ca. 2nd



r.h. **I**




l.h. **IV**



Connect **1** and **2** with C

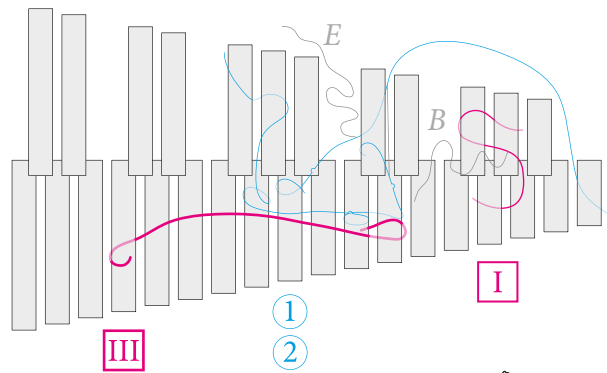
→  

r.h. **1**



l.h. **2**





→

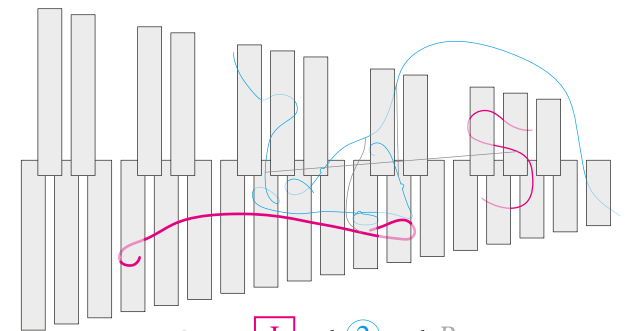
r.h. **I**

l.h. **2**

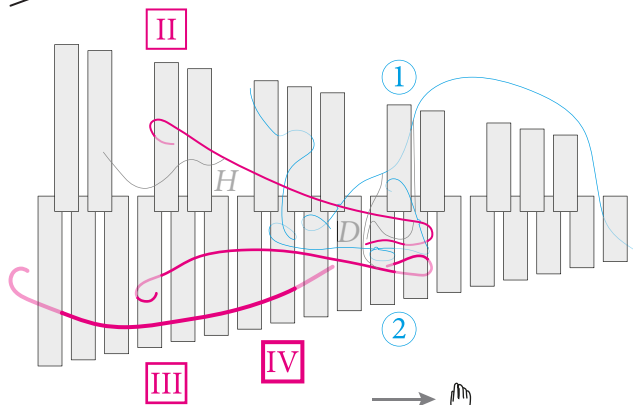
→

r.h. **1** + **2**

l.h. **III**



Connect **I** and **2** with B
then **1** and **III** with E



→

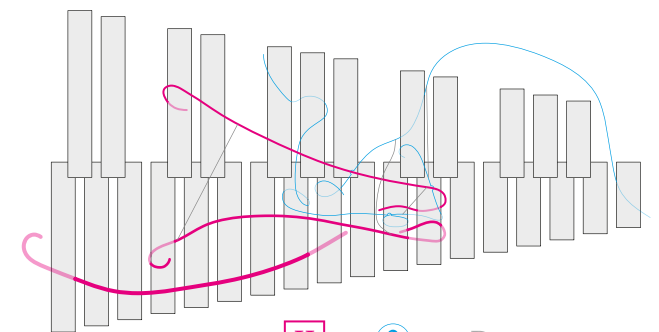
r.h. **2** + **III** + **II** + **1** - **III** - **II** r.h. **IV**

l.h. **III** r.h. + **II** l.h. - **III**

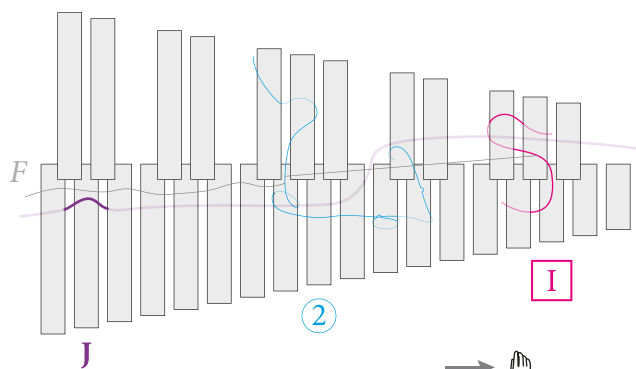
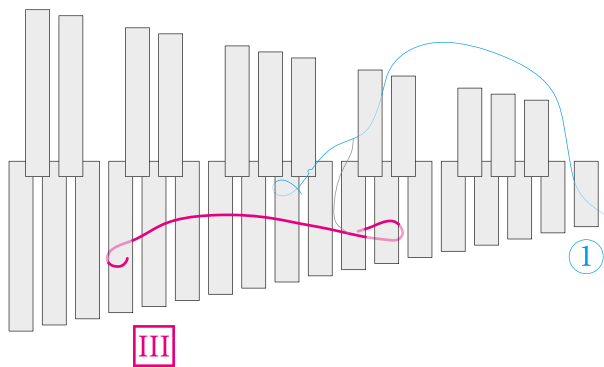
→

→

→



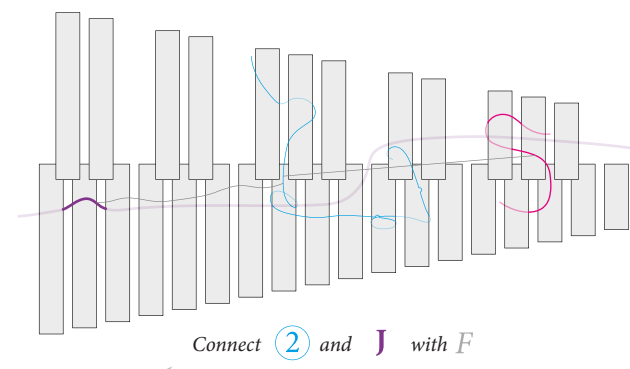
Connect **II** and **2** with D
then **II** and **III** with H



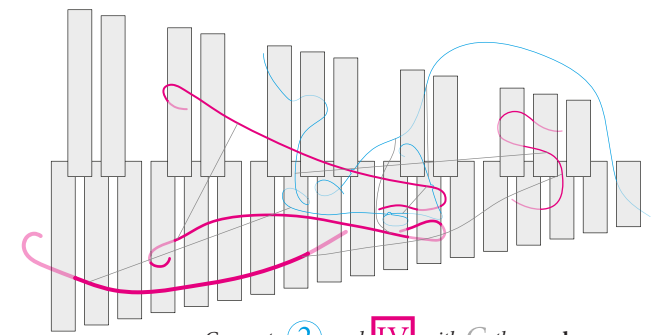
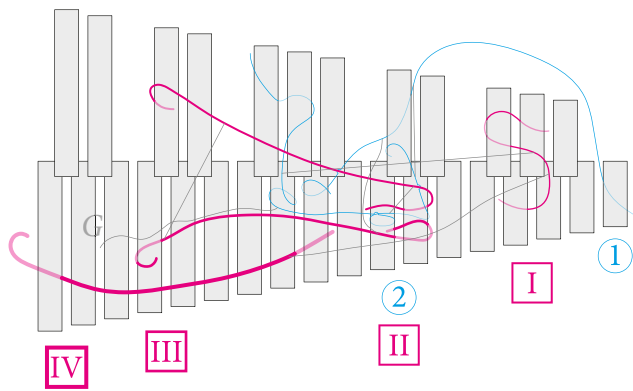
Musical notation for the right and left hands. The right hand (r.h.) has a circled '2' at the start, a circled '1' in the middle, and a circled '2' at the end. The left hand (l.h.) has a purple 'J' at the start, a circled '2' in the middle, and a purple 'J' at the end. A purple 'F' is above the first note of the right hand. Hand icons and arrows indicate fingerings.

(no connection)

Musical notation for the right and left hands. The right hand (r.h.) has a circled '1' above the first note. The left hand (l.h.) has a pink box labeled 'III' below the first note. Hand icons and arrows indicate fingerings.



Connect ② and J with F



Connect ② and IV with G then end.

→ (hand icon)

r.h. ① II + I - ① - III I only
 ② III

l.h. II + IV - II - III

No l.h. (play lower pitches with A and F)

→ (hand icon)

r.h. I

l.h. IV ②

Use cotton threads ad lib.
to play dense clusters

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:
 - *Tinkling wind chimes, bells ringing, dripping water, rustling leaves, hand gestures and tension (clasping, grasping, rubbing, holding, caressing, scratching, tapping), 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; shuddered breaths, audible sighs, coughs, clearing throat, swallowing saliva), head and eye movements (tilting, nodding, shaking, blinking, glancing), flickering bird calls in similar frequency bands to your pitches, more activity on one side of the stereo field at a particular distance, feet movement (dragging, shuffling or shifting feet), quiet sounds, 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's feet shuffle once for every two of their hand movements, and shifts posture every eight hand movements or so—these postural shifts occur at roughly the same time as a leaves rustle with the undulating wind, 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 sometimes includes multiple instances of clapping and releasing the strings.
- The score fixes 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 are left open for you to decide *in response* to **shared rhythms**, given the constraints of your **prepared instrument** 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**.

- Alternative methods of resonating the bars (e.g. reciprocating a sound with a quick onset and rapid decay by tapping the bars with the end of a string rather than bowing, during a short period)
 - Release method, from hastily dropping to gently letting strings go (e.g. the former reciprocating a complex, quick rattling event)
 - Strings dragging and displacing one another (e.g. reciprocating rustling sounds by allowing a violin string to move part of the jute string running underneath the bars, etc.).
 - Hand gestures, width (contracting and expanding motions), tension, height and position relative to the instrument and electronics; the number of fingers you use; (e.g. reciprocating aspects of clasping, grasping, rubbing, curling, holding, caressing, spot touch, etc.);
- **Kinesics** (limb movements) beyond hands and fingers:
 - Postural shifts (e.g. reciprocating open, closed, upright, slumped, hunched positions; tensing shoulders, swaying, leaning, rocking; adjusting balance, orientation relative to the instrument and other people); feet movements and shuffles (e.g. reciprocating crossed ankles, balance shifts, etc.);
 - Also, consider **occasional vocal, facial, and gaze behaviour**: respiratory cycles (e.g. reciprocating regular or irregular breathing, shudders, sighs), 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.)
- **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 leaves rustling every 10-15 seconds or so. You synchronize the periods of your scored events to a 2:1 relation (your period \approx 6 seconds). With each scored event you gradually increase the noisiness of your playing by dragging ends of strings against the bottom of the case, which audibly reciprocates the rustling sound. 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. slowing down and speeding up your ‘bowing’ to reciprocate the perceived loudness of the activity through the electronics, and/or allowing strings on only the left side of the instrument to touch the case, reciprocating the position of a noisy sound source to your left 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 audience members change the position of their hands on their laps every ca. 8-10 seconds. They shift their posture, tilting their head and moving their feet slightly, every two or three hand movements (ca. 15-25 seconds)—outside, leaves rustle at roughly the same rate, but these events are rarely exactly aligned. You synchronize the periods of your scored events to a 1:2 relation with the audience member’s hand movements (your period \approx 4 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 noisiness corresponding to the rustling leaves, 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 line.

- 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 speed and character of your ‘bowing’ and hand gestures, the loudness of the sounds you produce, etc. to gradually align (synchronize and reciprocate) with shared rhythms that persistent through the performance (e.g. aligning the hand movements with audience members’, your loudness following the undulation of general background ambient sound levels, your movements becoming more naturalistic and less economical 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.