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Poiesis and the performance practice of physically polyphonic notations
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4. Conclusion

4 Conclusion

> Action … is never possible in isolation; to be isolated is to be deprived of the capacity to act. (Arendt 1958, p. 188)

The previous two chapters have focused on two discrete angles of performance practice: chapter 2 featured investigations of case-specific learning strategies based on non-musical theoretical templates, and chapter 3 examined the way that learning filters through the performative body and emerges from a dialogue between conscious (re)action and embodied cognition. As such, they explored two discrete forms of research: the personal practice of learning individual pieces (by way of whatever theoretical grating allows for the most efficacious approach) and the more general knowledge we can explore about how human cognition enfolds itself into its environment and produces (or contributes to the producing) of new behaviors and practices. What unites these two strands is the shared importance of *emergence*. Emergent practices rely on the complex polyphony of agents and environmental stimuli to contribute to the production of behavior; in the case of learning music, it means that the giant mess of variables at play in any moment (performers, instruments, composers, notations, scores, pencils, metronomes, rooms and acoustics, listeners, audiences—all variable and context-dependent, and often if not always wildly dynamic and contingent upon each other) can be viewed altogether as part of a domain that produces a particular piece or performance. The presence of so many variables makes it nearly impossible to approach these issues by isolating discrete factors one by one—even were one to do so, the isolation of one factor out of context changes it irrevocably. Rather, the complex, pluralistic system must be embraced as a polyphonic assemblage and tested in practice, as I have sought to do in the preceding chapters, in a variety of ways. In such practice-based work, concrete judgments and objective conclusions may be impossible (if not moreover, as I have repeatedly argued, also undesirable); nonetheless, by working in this way, the fault lines that underlie the learning process emerge, thus indicating the lines of research that most fruitfully accommodate the unique constraints of learning experimental music notations, while also suggesting response-able practice strategies for performers engaged with the real-life difficulties of these scores. The marriage of individually-tailored analyses (chapter 2) with more general knowledge derived from the last several decades of study in enactive learning and embodied cognition (chapter 3) provides a platform for tackling the entangled polyphony of variables contingent in learning physically polyphonic notations, thereby allowing new learning practices to emerge.

Emergence is intrinsically tied to the other concepts that have undergirded this endeavor: polyphony, precarity, plurality, diffraction, storytelling, and (last but not least) poiesis. The concept of diffraction, as utilized by Haraway and Barad, reminds us that inherent in the entangled polyphonies of these agents are the twin phenomena of amplification and interference (which are intrinsic to the superposition of any diffracted waves or, in this case, agents). Polyphony is a messy business, which is why it is so ripe to be thought through the idea of emergence: no two things placed in polyphony to one another form a purely cumulative sum of their parts, and the result can be either an amplification or an interference of one, the other, both, or something else entirely—an idea encapsulated so beautifully by Cassidy's phrase "polyphonic byproducts."[64] When Tsing proposes polyphony as a useful analogy for the ecosystems she studies, it is no accident that she relies equally on the concepts of precarity and resurgence, referring to the variable and unpredictable interplay of both balance and imbalance. Haraway goes furthest in embracing this messiness by extrapolating polyphony (for her, sympoiesis) to the idea of compost.

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[64] See 2.1 *Haecceitas* and Aaron Cassidy's *Because they mark the zone where the force is in the process of striking (Or, Second Study for Figures at the Base of a Crucifixion).*

My research on physically polyphonic notations has attempted to chart similar courses through the maze of difficulties that face the performer intent on learning these experimental and entirely inconsistent notations. In chapter 2, I proposed a series of theoretical gratings that contributed to the learning process for particular pieces. Rather than proposing that other pieces use these particular models, I hope to have demonstrated a more fundamental framework of intellectual and practice patterns that might allow other models to emerge from similar points of departure. I have returned throughout to the idea of tool-building, and the subchapters of chapter 2 (2.1-3) are intended to provide templates by which new (music learning) tools can be built, rather than old tools repurposed. This idea may seem at first rather vague—after all, it is still just a person sitting in a room with a piece of music and a trombone; how *new* can a new set of music learning tools really be? To that end, chapter 3 attempted to show just how naturally emergent cognitive strategies in localized situations (and constraints) unfold. I have attempted to demonstrate both how a performer can cope with the practical demands of these notations while also questioning the myth of individualism that lies beneath the solipsistic act of practicing an instrument. Filtering this seemingly isolated act through these rich theoretical and practical frameworks, I hope that these investigations of the learning process can provide some proofs-in-practice of the polyphonic, intra-active potential of the theories and methodologies I have introduced. By applying these learning and cognitive strategies that were discovered or developed in non-musical disciplines in the last few decades, I have attempted to demonstrate the high degrees of creativity that can be brought to bear in these learning situations, which in turn enable the creative emergence of new idiomaticisms, instrumentalisms, and musics.

The concept of tool-building derives directly from Hannah Arendt's conception of work in her *Vita Activa*. For Arendt the poietic act is the fundamental expression of work, the tool-building process that enables the other two forms of activity to emerge: labor and action. Action, in this sense, is the existence of the body in plurality. As with the polyphonies within Tsing's ecosystems,[65] Arendt's plurality is defined by the necessary existence of humanity as a plural, as social groups in which political interactions (on some level) emerge as a matter of course. Arendt is adamant about the *sine qua non* nature of man's embedding in this plurality. Even the most isolated man (a philosophical Socrates deep in contemplation, for example) can construct this contemplative isolation only in the context of a human plurality that surrounds him.[66] Although Arendt's work predates the turn towards the posthuman, her plurality still presages the messy, cross-contaminating sympoietic assemblages envisioned by so many of the other writers in these chapters: Haraway, Tsing, Barad, Maturana. Arendt writes that "action and reaction … never move in a closed circle and can never be reliably confined to two partners … the smallest act in the most limited circumstances bears the seed of the same boundlessness, because one deed, and sometimes one word, suffice to change every constellation" (Arendt, 1958, p. 190). Arendt's boundlessness is a precursor to Barad's intra-action, an intimation of the interrelated web of disturbances that Tsing describes, and the fertile ground in which Haraway's material-semantic composting may mature. This is why the idea of plurality as a natural state of sorts, not as a secondary consideration external to the individual's body and consciousness, becomes so profound. For all of the metabolistic productivity of labor and the creative fruit of poietic work, they are all contingent upon the web of perpetual, interwoven relations within the field of action. "Action, moreover, no matter what its specific content, always establishes relationships and therefore has an inherent tendency to force open all limitations and cut across all boundaries" (Arendt, 1958, p. 190).

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65   See 2.0 Preliminaries.
66   This resonates with the Scholastic notion of contingency of Duns Scotus and his contemporaries, for example that non-being as a concept is contingent on some concept of being that is negated. In this sense, the isolation of a Socrates is not only materially supported by his human neighbors (the plurality in which he is physically embedded), but is also conceptually dependent on a state of plurality that is then negated by his isolation.

A poietic methodology is embedded in this plurality. In building tools that enable new practices to emerge, a poietic approach has to assimilate the unique contextual demands of new situations, which is to say, it has to accommodate the vast array of factors that come to bear in each moment of musical material. The complex web of factors that accrue around any musical gesture are problematized by physically polyphonic repertoire, in which familiar comforts (notations and techniques) are elided. It is only in finding ways to successfully stitch these factors together that a methodology for learning can emerge. This means also embracing the messiness of these polyphonies, replete with all of the amplifications and interferences that emerge for the superposition of actions and agencies. "Otherness, it is true, is an important aspect of plurality, the reason why all our definitions are distinctions, why we are unable to say what anything is without distinguishing it from something else" (Arendt, 1958, p. 176). By taking this act of distinction as an initial impulse to work, one can use this confirmation of plurality and otherness to situate new practices responsively to their respective relations. The models for enactive learning, shared performance, and emergent embodied cognition show how this occurs in real life situations. The previous chapters have explored how this poietic tool-building works to contextualize and instantiate response-able performance practices for a repertoire that resists the stagnation of a continuous interpretive strategy. As a learning method, this means embracing the precarity of inter-relatedness that (re)situates each new notation and each new performance, and then using that vulnerability as an invitation to develop emergent, enactive assimilations of each new notation directly into the performer's body. Thus, emergence becomes a platform for new practices: new frameworks for perception, new forms of action, and consequently new patterns of direct perception-action relations.

This methodology relies on redefining entities not by their individual qualities but rather by the way in which their intra-action across time and space reveals them as continually-emerging relationalities. This reorientation towards dynamism embedded within plurality—rather than towards isolated singularities and denotators of content—means that the tool-making creativity of work is always placed within the fluid web of action. Arendt calls this the "in-between:"

> Action and speech … retain their agent-revealing capacity even if their content is exclusively 'objective,' concerned with the matters of the world of things in which men move, which physically lies between them and out of which arise their specific, objective worldly interests. These interests constitute, in the word's most literal significance, something which *inter-est*, which lies between people and therefore can relate and bind them together. Most action and speech is concerned with this in-between. (Arendt, 1958, p. 182)

It is perhaps for this reason that the concept of stories becomes so important. Arendt deliberately identifies story-telling as the aspect of action (that is, man's action in the pluralism of society) that emerges from the more isolated tool-building poiesis of work. Story-telling becomes the fundamental expression of both social myth-making and political imagination, beyond its role as an essential form of communication and expression in the most isolated and mundane circumstances. This is part of why it is such a fertile term for describing methodologies. Stories are necessarily emergent, unfolding in time, dependent upon ideas that weave and unravel directionally. Stories take time; punchlines, morals, and denouements are dependent upon contextual cues that accrue incrementally over the course of a story, and they lose their valence outside of that context. For practice-based research, which embraces contextually-dependent exploration of isolated knowledge production, stories are a productive and efficient framework for understanding how these practices emerge. In the case of physical polyphony, story-telling also helps to show how these learning practices emerge from the practice room and enter the world. After all, that is what fascinated Arendt so much: not only how these tools are produced, but how they are then *used* within the plurality of social relations, which is to say, not only how the story is conceived, but also how it is subsequently *told*.

Thus far, I have focused on solo pieces for trombone. Given my own limitations as a trombonist, these pieces have allowed the most efficient laboratory for exploring the concepts I have introduced. However, as this study comes to a close, I propose that these ideas for learning music can live beyond the confines of purely physically polyphonic notations, and to that end I present a few final musical examples to help demonstrate how these concepts can radiate outwards into other repertoires. Physical polyphony, itself, is undergoing some similar transformation. Following the (extremely relative) burgeoning of interest in this type of notation in the early 21st century, the possibilities that physical polyphony enables have also contaminated other notations and aesthetics. If the solo pieces that I have examined have focused on the interstices between composer and notation and performer and listener, I hope to now look briefly at how these interstices stretch out also in chamber music (with the introduction of extra performers) and into other notations. As the previous chapters were purposefully circumscribed so as to isolate physical polyphony as a notational strategy, these final examples all look at composers who have been influenced by physical polyphony (or have written directly physically polyphonic works), but who have since drifted into more contaminated notations, wherein the strategies of physical polyphony perforate other notational means—variably, inconsistently, and with radically different effects. These final examples aim to sketch a few initial steps by which the strategies explored in these pages for learning a circumscribed genre of solo music can also extrapolate outwards to other notations and to larger ensemble situations. In the spirit of story-telling and emergent worlding, this dissertation has relied on the idea that demonstration supersedes discussion, as in the dictum that showing is better than telling. In that same spirit, I rely once more on a few examples from the polyphonic wilderness to demonstrate the potential that physically polyphonic notations and emergent learning strategies hold for other musics. These three pieces of chamber music by Chikako Morishita, Timothy McCormack, and Michael Baldwin each bear some kernel of physical polyphony but simultaneously, and critically, diverge therefrom. In these scores, physical polyphony serves as an impulse to embodied bewilderment, a tactile curiosity contaminating other notations and physical vocabularies even as it submerges itself in them.

Chikako Morishita has developed a rather idiosyncratic method of writing physically polyphonic passages: she notates multiple simultaneous lines of music for a single performer, the simultaneous performance of which are very literally impossible.[67] Morishita writes strands of traditionally-notated material that are then layered and superposed upon each other as though they were simply sound waves to be diffracted through one another. She leaves these passages with instructions both elegantly concise and cryptic: the "score includes multiple layered phrases: in absolutely no case [should] the performer ignore the presence of materials on the page even if it is not literally playable" (Morishita, 2013, p. ii).

This notational strategy problematizes quite a few aspects of performance practice, and presents a brazen challenge to traditional classical conceptions of textual fidelity. In *One Arm 5*,[68] for instance,

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67   Whether these passages are truly physical polyphony, and not merely polyphony for one voice, is up for debate. Personally, I argue that they are. The performer may attempt to hocket back and forth between voices, perhaps even delaying or anticipating the proper temporal placement of gestures to aid in playing as many notes as possible, and in so doing may be quite successful in rendering polyphonic lines as a monophonic gesture. Nonetheless, it remains necessary to develop types of mental and physical gymnastics in order to maintain awareness of the multiple strands of material and to maneuver the various physical components of the body in a way to facilitate the rapid or instantaneous alternation from voice to voice. It is rather the bodily preparations, poised always for multiple actions and directions of motion at once, that come to embody physical polyphony in these passages, for it is these bizarre contortions of potentiality that are in fact demanded by the notation, rather than just the intellectually distinct strands of polyphonic material. This form of single-instrument polyphony is quite similar to some of the notations that Wieland Hoban resorts to in *Zerscherbter Wahn* (2002) (cf. 1.3 Physically Polyphonic Notations).

68   *One Arm 5* grew out of Morishita's *One Arm 1* for trombone and cello (as did *One Arms 2, 3,* and *4*). Although *One Arm 1* is the original material, I work here with *One Arm 5*, as that was my personal introduction to the cycle and the one I have performed.

for e-guitar and trombone, both performers execute such braided single-instrument-polyphonic passages throughout the first half of the piece (Song 1). These polyphonic passages are interpolated by moments when the two performers abruptly cease performing, look up to the audience, and voice excerpts of a text in unison. This alternation provides quite a chamber music challenge: performers alternate between the feelings of running frantically in opposite directions of a room while juggling multiple balls falling every which way, to that of suddenly stopping and sharing a single body to perform a slow, ritualistic gesture. This alternation alone is enough to give a performer interpretive whiplash, but the additional challenges of the polyphonic strands within each voice add even further complications to otherwise normal considerations of coordination.
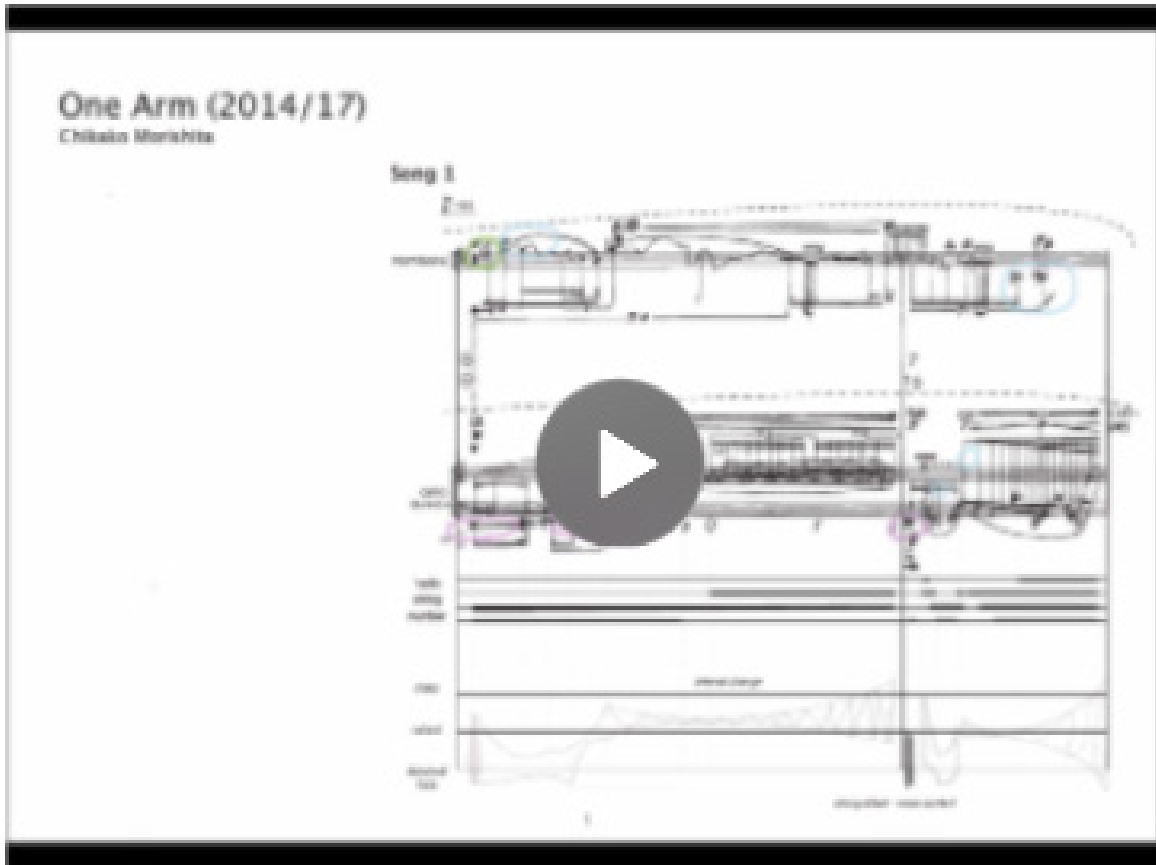
Chikako Morishita: *One Arm 5* (2014/2017/2018) (color-coded markings in original); with Coleman Goepfert, e-guitar

As noted before, this type of notation resonates very strongly with the concepts of superposition and diffraction that emerged in Karen Barad's agential realism.[69] In fact, it would appear to explore two extremes of intra-action in chamber music. Because performing these strands of single-voice polyphony tends to play weird games with temporal and rhythmic expectations, performers must learn to reach out their antennae to each other in various ways (less contingent on strict awareness of vertical score expectations), building patterns of awareness that allow for the fact that the set of potential gestures is greater than the set of actuated gestures. Building a cohesive chamber music relationship within the confines of a score where any single gesture may or may not be voiced alone or swallowed up by another requests of the performers a particular type of intra-activity, in which they have to maintain multiple simultaneous strands of non-verbal communication so that the realization or omission of any expected musical gesture is quickly enfolded into another, allowing for a seamless trajectory of duo playing even as the individual voices may vary (perhaps even vary wildly) from iteration to iteration.

All of that then alternates suddenly with moments when the performers have to quickly jump

69   See 2.2 Agential Realism and Michael Baldwin's *Erasure*

out of the gymnastic, juggling mindset, and seamlessly enter a theatrical moment, wherein they superpose themselves on one another, reciting the unison text. Unison recitation is problematic enough, but its juxtaposition with the other forms of polyphony that Morishita uses force performers to simultaneously inhabit multiple versions of themselves as well as each other, initiating an unavoidable intra-active potential that then reaches out tendrils in the direction of composers, performers, spaces, and beyond. In Morishita's music, intra-action becomes the means by which these seemingly insolubly distinct musical materials can succumb to and ignite a Baradian "congealing of agency" (Barad, 2007, p. 184). Her use of superposition encourages a thickness of texture, an increasing viscosity of voices melding into one another as clear divisible lines are slowly kneaded into a single body. These mutual amplifications, interferences, and distortions encourage the viscerality with which such entanglements—in the words of Barad—"come to matter" (Barad, 2003, p. 824).

Timothy McCormack's recent chamber music embodies an altogether different sort of congealing of agency. With notations strongly reminiscent of *HEAVY MATTER*,[70] *KILN I* (2014/17) shows how these physically polyphonic notations can branch out from one performer's body into another's. As examined in *HEAVY MATTER*, McCormack's more recent notations have eschewed traditional rhythmic notations for less representational, more embodied temporal organization. As the music scales upwards from solo to ensemble, McCormack maintains this commitment to emergent, embodied temporal organization. By indicating moments where one voice triggers or intersects with another voice, McCormack successfully coordinates divergent strands of musical material within an immanent rhythmic framework. It is, in fact, very possible for the separate strata of the voices to shift in relation to one another while still maintaining a rigorous rhythmic trajectory through these points of contact.
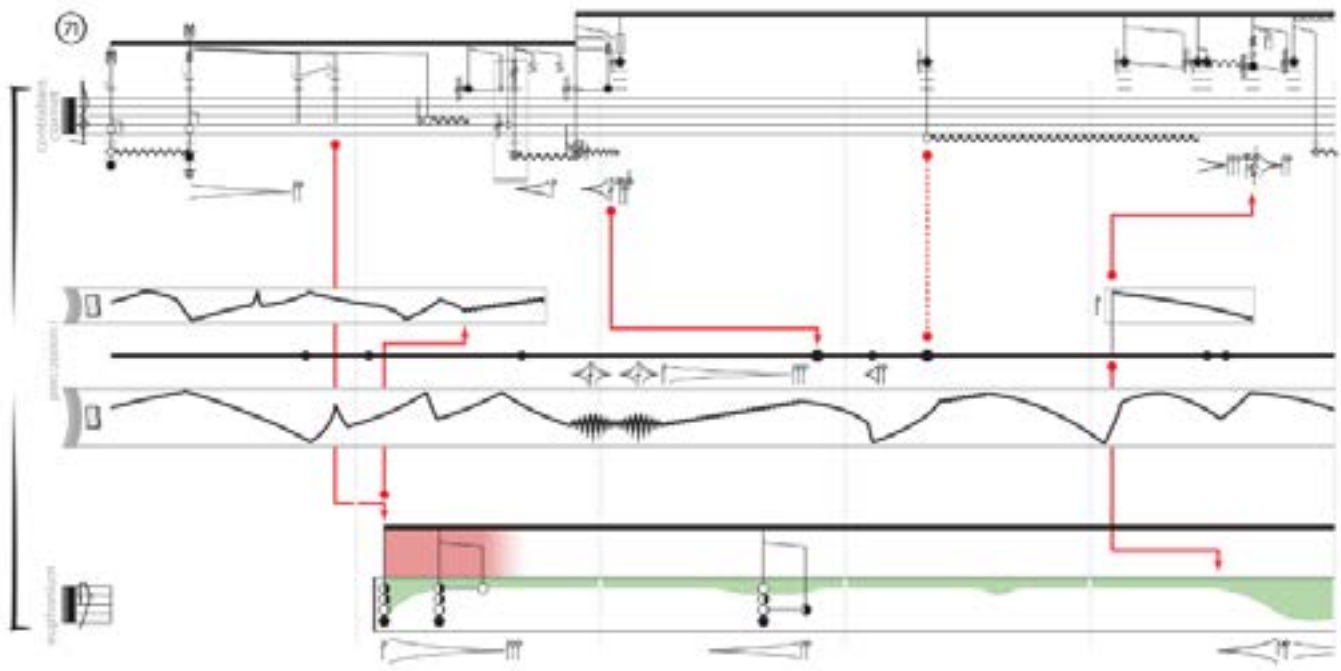
Timothy McCormack: *KILN I* (2014/17), m. 71 (color-coded markings in original)

McCormack's system of embedded cues, wherein the consequential rhythms of one player cascade into the activities of another, are distinctly different than the separate but equal strands of polyphony that characterize much Western music. McCormack's pieces encourage the collision and confluence of

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70   See 3.4 On Non-representational Notation.

musicians as they amplify, resist, and resonate alongside one another. These cascading impulses that jump from performer to performer like electrical energy reveal a polyphony that emerges from the embodied implications of McCormack's solo, physically polyphonic notations and extrapolates this commitment to interstitial superposition to the level of multiple performers.

This imagination of polyphony as a form of energy sharing and transfer expands on the aspects of shared performance examined in subchapters 3.1 and 3.2. Here, though, the shared performance follows the trajectories of musical material from the composer through the notation to the performer, but also from performer to performer in real-time. It is a cognitive act in which the trio of performers must learn to brace themselves within and between each other, building the embodied cognitive strategies by which to cooperate in expressing the music that emerges from the interstices between them.

By embodying these larger-order cognitive acts, the performers in a piece like *KILN I* also reveal how a conception of haecceitas can scale upwards from a single performer's intra-body awareness to a multi-performer conglomerate.[71] Multiple strands of material not only abut each other, but initiate literal transfers of energy from strata to strata, a fairly literal manifestation of the type of rhizomatic strata-jumping that Deleuze and Guattari extrapolate from their own conception of haecceitas. McCormack's ensemble writing finds new ways for musical notations to ignite these processes of shared performance and, ultimately, identity, by building polyphonies that cascade from voice to voice and necessitate the intra-active embodiment of multiple strata of musical material along with all of the spaces and intersections in between them.

As a final foray into physically polyphonic chamber music, I come to the only piece in this study without a trombone. Michael Baldwin's *a kind of nostalgia* is a type of solo guitar piece for two performers. At the time of this piece's writing, Baldwin had an established personal practice writing physically polyphonic notations,[72] but *a kind of nostalgia* turns his previous explorations of physicality entirely on their head. The piece embarks from a fairly simple conceptual framework. Two guitarists sit facing each other, one holding the guitar in normal position, the other in an exact mirror position (an inversion of normal guitar posture, with the left hand on the body and the right on the fretboard). The first performer then plays a simple, standard piece from the classical repertoire. Any piece will do; in the example here, one hears a famous pearl from Francisco Tarrega. At the beginning of the piece, the second performer merely imitates the motions of the first, moving their hands silently into mirrored placements on the fretboard and body. However, as the piece progresses, the second performer begins to layer other motions on top of this mirror-activity. Even as the second performer follows the musical trajectories of the first, particularly the trajectory of the hand on the fretboard, they also begin to move their hands slightly: the hand on the body shifts sometimes towards the bridge, sometimes away; the hand on the fretboard migrates upwards, away from the strings, or downwards, more forcefully into the strings. The first performer then mirrors these actions, even as they continue to perform the classical piece. In mirroring the second performers' actions, the first performer subjects the classical piece to a series of unpredictable transformations, with articulations and pressures shifting and sometimes disappearing entirely. Simultaneously, the position of the second performer's upper body begins to dictate tempo fluctuations. Even as the first performer continues to provide an embodied score for the second, who continues to mirror aspects of the traditional classical performance, the second performer also becomes an embodied score for the first, providing the notation for a series of transformations to the basic musical material in real-time.

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71   See 2.1 *Haecceitas* and Aaron Cassidy's *Because they mark the zone where the force is in the process of striking (Or, Second Study for Figures at the Base of a Crucifixion).*
72   See 2.2 Agential Realism and Michael Baldwin's *Erasure.*
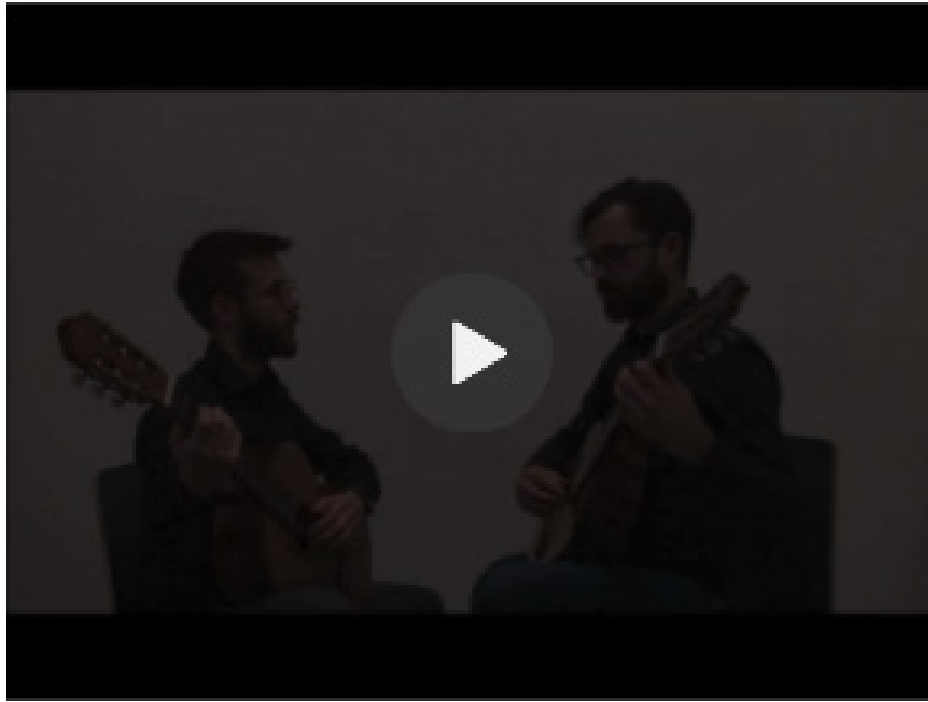
Michael Baldwin: *a kind of nostalgia* (2014); with Coleman Goepfert, guitar

In this conceptual piece, the musical material is over time superseded by the performers' embodiment of physically polyphonic notational material for each other. In the end, the traditional material is indeed swallowed entirely, as the second performer's final notating gestures literally extinguish the base material. In some ways, this seems to be a natural limit to which physical polyphony must at some point tend: the almost inevitable extreme of the performer's body as notation, physical polyphony embodied in its most literal way, radically emerging from the page and inhabiting the body. For me, as a trombonist who has engaged over many years with a variety of physically polyphonic scores, there was a compelling catharsis when I first performed *a kind of nostalgia* (as the second performer). Abdicating entirely my practice as a trombonist, I was thrust instead into a role personifying embodied notation, breaking a bizarre fourth wall in this intra-active web of cross-spatial, cross-temporal agencies that have occupied so much of this study's considerations.

In many ways, this is fitting. The stories that inhabit the interstitial intra-actions that have occupied this study do always continue, and it is perhaps inevitable that physically polyphonic notations migrate at some point off of the page, for both the composer and the performer, and hopefully also the listener. As a compositional tool, physically polyphonic notations emerged relatively recently and have, since then, offered a variety of unique tools to composers and performers seeking to reimagine their relationship to notations and instruments. *a kind of nostalgia*, *KILN I*, and *One Arm 5* are only signposts vaguely indicating the various ways in which these notations have now begun to merge more and more with other compositional forms, from traditional notation to conceptual performance art. As a performer, my experience in overtaking the role of notation itself in *a kind of nostalgia* helped to reinforce my understanding of poietic methodologies as a means to continually recontextualize newly situated embodied practices.

The situatedness and continual re-situatedness of knowledge also emerges as one of Arendt's primary conclusions in her long elucidation of the *Vita Activa*. In examining the ways in which labor, work, and action coexisted and co-evolved over the last few centuries of modern history, she charts the ways in which humankind's frame of reference for itself has continually changed, and moreover drifted further and further externally to first humankind and later even the planet and the solar

system. She calls this the Archimedean point, after that famous early step towards external, scientific self-referentiality. Archimedes was one of the first to posit a frame of reference for the earth external to it, but the course of Western science has seen that point of reference drift ever further away into the solar system and the universe, both spatially but also temporally. Arendt sees this same migrating distance of referentiality at play in the entire Western intellectual project:

> It rather signifies that we have moved the Archimedean point one step farther away from the earth to a point in the universe where neither earth nor sun are centers of a universal system … the general relativism that results automatically from the shift from a heliocentric to a centerless world view [is] conceptualized in Einstein's theory of relativity with its denial that 'at a definite present instant all matter is simultaneously real' and the concomitant, implied denial that Being which appears in time and space possesses an absolute reality. (Arendt, 1958, p. 263)

One only wishes that Arendt had survived to see the celebrations of relativity in Haraway and Barad! Arendt's diagnosis of the "implied denial of Being" augurs the posthuman composting and polyphonic ecosystems of Haraway and Tsing, as well as the intra-active entanglement of Barad. Arendt embraces the skepticism of this worldview, and makes it a cornerstone of how humans interact with each other and their environment, part of the storytelling methodology that emerges from her poiesis. In a stark assessment of this pattern in its most germinal forms, she proposes a reformulation of the Cartesian anxiety: "The famous *cogito ergo sum* ('I think, hence I am') did not spring for Descartes from any self-certainty of thought as such—in which case, indeed, thought would have acquired a new dignity and significance for man—but was a mere generalization of a *dubito ergo sum*" (Arendt, 1958, p. 279).[73]

This doubt encapsulates the commitment to situated and emergent knowledge that enables a poietic practice. In the traditional sense of Cartesian anxiety, perhaps this doubt served as a source of trepidation, but certainly for Arendt and the others cited here, it is a far more hopeful doubt. It is a doubt that liberates one from the shackles of traditionalism and encourages the thoughtful pursuit of new frames of reference, response-able to new situations as they arise. It is a doubt that recognizes precarity and disturbance as opportunities to foster new ecosystems of knowledge, practice, stories, and lives. In music, it is the doubt that liberates each new notation to be an opportunity to resituate knowledge, to welcome new agents into a shared performance. As performers, we can enable these (re)situated practices by developing tools for learning and practice that emerge processually, which is to say, poietically. Each new piece, each new notation, each new performer and each new performance are equally calls to doubt, as also calls to resituate and to act.

For me, that has meant finding new theoretical frameworks to liberate the creative potential of learning, so that new notations can emerge as healthy expressions of the contexts in which they are germinated, rather than as repurposed adaptations of old techniques and practices. I have sought to demonstrate a response-able approach to learning notations, framed as a poietic tool-building geared towards new instrumental idiomaticisms. These learning tools mine the polyphonic entanglements of performer, notation, and composer to build practices that can continually (re)emerge, sustainably over time. The pursuit of poiesis, for me, entails embracing a layer of doubt that underlies all pre-supposed learning and performing practices, thus liberating the situated potential of performers and notations to collaboratively foster unique, emergent practices.

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73   Interestingly, this *dubito ergo sum* is perhaps the only instance in the entire book in which Arendt deliberately does not translate from the Latin; whether this is a quirk of its proximity to the translation offered previously in the same sentence or some more deliberate attempt to introduce an element of dubiousness to proceedings, I will for now leave the phrase as she does, emergent from the discussion but unmoored from explicit explication.