Music Gesture and the Correspondence of Lines
Collaborative Video Mediation and Methodology

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Music Gesture can be thought of as being made up of dynamic, multisensorial lines. From this, the author draws from Ingold's "correspondence of lines" as a conception of music and a transformative compositional process, informing gestural line expressions and the development of notation systems for the body. The author outlines the technology he has developed for two compositions, involving a video scoring methodology and software that enables interactive video gestural sampling in a collaborative art music context. The author also engages with Ingold's concept of the "mesh," as lines that overflow, and imagines how the mesh could be perceived through sensory modalities. This discourse of lines is contextualized through examples of absurdist instrumental pieces and corporeally based music.

THE DYNAMIC "LIFE OF LINES"

In this article I present two of my musical works, Copy-make [1] and Mapping Australia [2], and examine their relationship to line-making as discussed in the anthropology of Tim Ingold [3–5] and in the contemporary dance methodologies of William Forsythe [6,7]. Music gesture can also be thought of as dynamic, multisensorial lines (what Ingold refers to as a "life of lines"). I focus on Ingold's concept of the "correspondence of lines" as a transformative music-gestural process. Gesture is seen here as a form of line-making, of bodies moving through space. Ingold's correspondence is the relation between these lines, involving active participation in simultaneously making and growing them. In my works I explore this correspondence as a way of thinking about gesture in music. I use correspondence in an ongoing inquiry carried out through collaborative relationships and between the following: the body and the music instrument; a sounding musical gesture and the nonsounding; and visual-aural and haptic-gestural relations that are part of the scoring and rehearsal process. The documentation of movement and its correspondence renders my scores somewhat like somatic maps. I use the term "line-mapping" to explain this process of discovering, transcribing, notating and transforming gestural pathways.

CROSS-MODALITY IN A MUSIC PROCESS

As a method of scoring for the body, I developed an installation, Copy-make, that focuses on the physicality of sound and proposes new methodologies of working relationships between composers and performers in an open, visually centered approach.

A camera and a microphone are positioned facing a glass window surface. Performers are invited to make movements and sounds on the glass using either a musical instrument or a sounding object, or by tapping and rubbing on the glass itself. The recording devices capture short looping videos that are projected onto a screen to the left. The performer uses these videos as a score to inform their gestural actions. The emphasis is on the line-semantics generated by the performer's movements that are placed within a multigestural matrix (the nine-square image seen in Fig. 1). This allows the performer to see and interpret their lines and then remake, reiterate or retrace these actions within the given frame (outlined here using the box on the right in Fig. 2). The performer is instructed to make corresponding gestures by superimposing complementary (or contrary) lines.

In this work, gesture is conveyed through a cross-modal medium, where the body is used to transmit musical instruction. The duration, shape, rotation, posture, location and speed are all used to inform gestural choices. Sound is partly indeterminate but does have equal weight in the composers' and performers' decisions.

When I use the term cross-modal, I am referring to the sensory modalities: the aural, the visual, the motor, the tactile and the imagination, and how these physical or perceived processes can correspond within the work. In Listening, Jean-Luc Nancy states: "Nothing is said of the sonorous that must not also be true for the other registers" [8]. Copy-make then offers a platform for this dialogue between the senses and demonstrates that our sensory registers have an immense...
It challenges musicians to think through a kinesthetic-based methodology of composition within a collaborative environment. I also reference Gritten, King and Welch, who suggest “that musical gestures are cross-modal and that gestures include non-sounding physical movements as well as those that produce sound” [9].

The installation becomes a performance, with audiences watching as the performer constructs the work. The performer is not simply imitating the videos but goes through a rigorous process of transforming them, internalizing them and superimposing complementary lines of movement. The work offers a playground or sketching process for generating ideas. It allows the performer to build an archive of music gestures and then make choices to correspond with it: moving under their line, over it, with it, or against it, smoothly or dynamically in a wavy motion. Copy-make can be adapted and customized in myriad ways, depending on the instrument(s) being used and the composers’/performers’ relationships and how they envision the work.

This work brings to the foreground the cross-modality of music and the framing and mapping of the delicate nuances of touch. Think of musicians’ hands on their instruments or even how sound vibrations touch cochlear hair cells before becoming signals in the brain. In this work, the body transmits the score. The work aims for an inversion of eye-ear relations, making visible the invisible world of music. The use of videos also makes visible an unfolding sonic-gestural process. What is seen, heard and interacted with in the score are processes including but not limited to recursion, inversion, rotation, closing, expanding, roughening, smoothing, demarcations, punctuations, dynamic changes, velocities and durations (Fig. 3).

**THE MESH IN MUSIC, ANIMALS AND TRAVELING**

The “mesh” is a concept that has influenced my creative practice. Think of our daily habitual movements. Imagine if every part of the body left behind a trail of its movement, for example from the fingertips, the elbow, the shoulder etc.—what might that look like? Every moment would be a dense tangle of lines in a continuous linear composition. For me, the mesh is the density of correspondence such that individual lines become indistinguishable from one another. This can create a sense of “overflow,” where the mesh overwhelms the senses of the perceiver, creating a sensory blur. Timothy Morton considers the mesh as decentralized, as having indefinable edges and interconnectedness [10]. I realize this in my music through using nonhierarchical structures and through the decentralized treatment of an instrument, such as by considering the full body of
a piano rather than a localized area of the instrument (Fig. 4). This image of the mesh, as a multitude of interrelated lines, is manifested in my work as a web of performed musical actions that attempts to engulf the audience’s perceptive abilities.

Ingold uses the word “trace” to describe the paths of movements made by humans and nonhumans. He shows how the meshwork is evident in human traveling, such as in our walking trails. Think of ancient travelers, the First Nations people in the continent now known as Australia, their walking routes, and the way they pass on knowledge through stories and song as described in Bruce Chatwin’s book *The Songlines* [11]. Trails made by nonhuman animals can also have an intricate winding course of movement. Ingold uses the example of the interwoven lines of a slug’s slime trail. He describes the trail as containing loops, crossings, interlaces, intricacies, twists, turns or curves, or as if someone has scribbled on pavement [12]. I ask the performers I work with to navigate this labyrinth as they interpret real-time videos. They must work within a restricted perception of time, weaving and evolving paths of action in short durational units. The video samples repeat on loop, so they can be rehearsed as an embodied flow of interpretive instructions.

Meshworks are lines of entanglement, movement and growth—or temporal “lines of becoming,” to use a Deleuzian phrase [13]. The musicians’ bodily movements are influenced by the kinesthetic lines in the video scores, resulting in a dense entanglement. My use of mapping is not the same as directly tracing an existing set of lines; rather the lines emerge spontaneously. The aim is setting up the situation and conditions that allow the mesh to come into being.

But how is the mesh perceived? I can only speculate, and the mesh would surely need to be considered differently for each of the sensory registers. Perhaps a mesh of listening is related to the “overflow” and would consist not in isolating sounds and determining their identity or characteristics, but in letting go of understanding, as if one were listening for the first time.

**ARCHIVAL FOOTAGE AS A MUSIC SCORE**

*Mapping Australia* is an experimental multimedia piece for piano, electronics, video score, live camera, and video. Archival footage of Australia’s cartography practices of the 1960s are transformed into a video score. The performer engages with the video by tracing the movements of the people depicted, turning these movements into musical gestures on the piano. The footage documents the prospective sale of Australian land to foreign mining interests. Land—and who it belongs to—remains a contentious sociopolitical issue in Australia today between traditional Indigenous owners of the land and the government.

In this work, the interior of a piano is “mapped” by the performer using a variety of percussion mallets; the piano is segregated into “zones.” The work explores the piano as geographic territory and criticizes the *terra nullius* idea in Australian history (from Latin, “land belonging to no one,” used to justify British occupation).

The sounds and performative gestures made by the performer have a strong association to the footage. A man’s pencil moving around on a map becomes the performer’s movement with a wooden mallet on the strings. The crumbling bark on a tree as it falls (after being bulldozed) is converted into the crunching sounds of bamboo. And a pick hitting hard rock in search of minerals turns into synchronized rubber mallet strikes on the stress bars (Fig. 5).

Some of the archival footage shows a large printing machine continuously (and monotonously) printing maps of Australia. This was chosen to further highlight the film’s por-
trayal of a corporate view that sees land as a product, with a false proprietorial, colonial mindset.

The score indicates choreographic instructions to the musician, but I also made choices based on a desired sonic arrangement—for instance, choosing the tools the performer uses, such as a rubber mallet, a shredded bamboo whisk, a wooden mallet, a fan's blade hitting the strings and paper that rattles on the low resonating strings. I then assigned the tools to locations inside the piano, and the performer follows the movements in the video that are within the confines of the zones on the piano.

Through the connotations of the video footage, mapping of the piano is conceptually mediated into an analogy of mapping a landscape. The project offers a reflection on a performative relationship between the reductive abstraction of geographical map-making and the lived experience of being and inhabiting the world, defined as gestural traces. The use of documentary footage as a musical score allows for metameaning to be attached to the actions performed. I wanted to directly incorporate physical gestures in the process for score making, in order to allow for a transmission of conceptual and kinesthetic knowledge mediated through video.

My video scoring approach is a way to open up the sensory world of the performer. This is something a performer is capable of doing without a video to some degree, but the video adds another dimension. It sets up a particular sociopolitical context for the sonic material to occupy. The performer views the video and their subsequent personal response to it can influence the articulation of their musical gesture. This can resonate through to the senses as haptic pressures and gestural expressions, and through to the performers’ response to the work—their seriousness, playfulness or sensitivity.

The work could be seen as an act of critical cartography, rejecting notions that mapping is an objective and neutral reflection of the environment. It also illuminates the power dynamics behind the film’s production, in support of decolonial perspectives. In the case of Mapping Australia, I also interrogate the mapping of performance and the impossibility of trying to capture all of its meaning and affects, or even trying to quantify human frames and temporal movements. Here, the emphasis is on the perpetually emergent present tense of the word mapping, which implies something ongoing, becoming and in a state of transformation.

Figure 4 shows an aerial depiction of the zones of the piano—the spatial dimension the performer works in. Zones are demarcation lines used in maps. They have the potential to segregate and divide and can denote sociospatial power. The performer imagines the video is stretched to fit the zones on the piano. The diagram in Fig. 4 is given to the performer, and a sequence of zones are specified in the video score. It is also a method by which to decentralize the activity around the piano.

Architect Stephen Turk describes the relationship between furniture and the performer in Synchronous Objects [14], a work by choreographer William Forsythe. It offers a visual representation of dancers and the complexity of their lines of movement, along with coordinated lines of actions.
made between performers. The performers must negotiate between a grid-like layout of tables [15]. Similarly, in Mapping Australia, the piano’s surfaces, frames, tuning pegs and stress bars can be thought of as furniture for the performer to navigate and correspond with.

Another of Forsythe’s works, Improvisation Technologies [16], is a series of videos that construct imagined lines in space, on the body and between points, such as between elbow and hip. Movement is made in relation to the line through processes of rotating, sliding, collapsing, folding, moving over, under, back or on top of a line. In my piece, the unstable movement of the performer is matched with the instability of the furniture. As the performer moves a wooden mallet over the grid of strings, the line of movement meets resistance. The player then has to decide how to incorporate that into their execution. The difficulty and guesswork needed to position the line onto the piano results in new variations of lines. As the performer attempts to replicate a line in the video, the wooden mallet may get stuck between the strings and temporarily go off course, and the performer can decide how to guide the mallet from there. The correspondence of lines here is the negotiation with the architecture of the instrument.

Figure 6 shows the meshwork of ongoing movement in Mapping Australia, its sounding and nonsounding movements, its curves and contours and no fixed points.

INSTRUMENTAL THEATER AND VIDEO IN MUSIC AND DANCE PRACTICES

The discussion of the visual and choreographic perspectives in my music can be contextualized through absurdist instrumental pieces such as those by Mauricio Kagel. Kagel produced a video score out of his film Ludwig van (1970), which consists of staged footage inside Beethoven’s music studio, and the performers play musical fragments in the sequence of their appearance on screen. Some score fragments are missing clefs, key signatures and tempo, with different degrees of clarity from the camera’s lens, and some fragments are upside down [17]. The piece functions differently from the video score in Mapping Australia, concerning more the transference of a line of movement on screen to a location on the piano’s surface. However, both pieces include similar ideas of flipping, inverting and stretching musical fragments through visual representation.

Jennifer Walshe’s work dirty white fields (2002) uses video, images and text as a compositional process. Walshe provides audio and video clips and poetic descriptions of sounds to establish an idiom of what an imagined scene looks like, feels like, sounds like, smells like, etc. The performer then uses this to make specific technical instrumental choices [18]. Similarly, Copy-make sets up a specific multisensory context for the performer to mediate their performance.

with aforementioned ideas of traveling and walking. Steen-Andersen runs through the performance space, through backrooms, staircases and toilets, hitting lines of objects in succession, turning the building into his instrument. The line here is a large-scale linear trail of movement and sound that decentralizes the performance space.

A video score was used as part of the process of Forsythe’s work *Alien:ation* (1992) involving scenes taken from the film *Aliens*. Velocities, orientations and directions of the actors in the film are used as directions for movement by the performers—similar to *Mapping Australia*. Images are also broken down into words and letters, where each letter has its own semantic meaning (for example, a cat in the video would represent the movements associated with the letters C, A and T) [20].

Such works invite performers and audiences to open up their senses and engage the body. They are novel methodologies where video media is codified and actualized by a performer, a process that is sometimes hidden from the audience. It encourages those involved to look, to listen and to enter a state of reflection and kinesthetic empathy, all of which become methods for influencing the outcome of a performance.

**CONCLUSION**

Line-gestures, line-mapping and mesh-making are central to my creative inquiry. My intention with *Copy-make* and *Mapping Australia* is to use video to frame physical gesture as a compositional tool. These works offer video as a process for making music, where performers participate in a correspondence with the video and gestures of their own making. These works present ways of visualizing, listening to and coming into contact with the mesh. They facilitate processes that allow a reflective iteration of the lines we make and the methodologies by which we correspond.

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**References and Notes**

14. Forsythe [6].
16. Forsythe [7].

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