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Merryn McKeough March 27, 2022

Play Meter: Investigating Play as Process in Movement Work

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Abstract

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By Merryn McKeough

Video games provide a platform for everyday performance, allowing players to demonstrate practiced abilities while engaging deeply with a digitally mediated environment. Dance asks viewers and performers alike for similar investment. Inspired by the performative aspects of video games, this project looks at the role of play in dance. I researched video game design theory and applied my research to my dancemaking process, focusing on play as a process-driven experience.

I created a movement work exploring different aspects of play, examining themes of engagement, collaboration, effort, fun, and the value of process over outcome. My research focused on the relationship between the final piece, *Play Meter*, and my choreographic process. This process was rooted in game structures, generating movement through play.

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Finally, my deepest thanks to my cast. To Olivia, for your generosity as a mover. To Genevieve, for your caring approach to movement and people. To Kennedy, for your wit and attention to detail. To Henry, for your investment and for doing it for real. To Madison, for your focused presence and high play meter.

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I. INTRODUCTION

Inspiration

Tom Petty's *Listen to Her Heart* was blasting through the walls of my room for the seventh time in a row. I knew if I walked out of my room, I would see my roommate standing in front of the couch, staring at rapidly scrolling colored icons on the television while fervently strumming a plastic guitar with the passion of a real rock star. She was engaged in her nightly *Guitar Hero* practice, a ritual that included playing the same song over and over until she felt satisfied with her accuracy score.

Guitar Hero highlights the elements of choreography, rehearsal, and performance inherent in many socially-oriented video games. American Studies scholar Kiri Miller describes the *Guitar Hero* play experience as schizophonic performance, separating the physical instrumental gestures from the pre-recorded sound.[1] After players select a song, the screen displays an animated fretboard with streaming columns of colored circles. When a circle reaches the bottom of the fretboard, the player must press the corresponding colored button on a plastic guitar while "strumming" a toggling plastic button. Using colored circles, the game provides choreography for the player, digitally transmitting instructions for physical movements. Advanced players know to respond to choreographic cues beyond the color icons; a vibrating guitar, for example, indicates that they should raise the neck of the guitar to receive bonus points. There is a clear causal relationship between the game's output and the player's physical responses.

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[1] Kiri Miller, "Schizophonic Performance: Guitar Hero, Rock Band, and Virtual Virtuosity," *Journal of the Society for American Music* 3, no. 4 (2009): 395–429. doi:10.1017/S1752196309990666.

These physical responses are rehearsed through repeated play. *Guitar Hero* offers beginner, easy, medium, hard, and expert difficulty levels. At the beginner level, players only strum to the rhythm of the song. Subsequent levels make use of the fretboard, adding up to five buttons combined in increasingly complex rhythms and high speeds. This level system allows players to familiarize themselves with the basic motions of each level before moving to a higher difficulty, gradually enhancing their embodiment of the game's choreography.

Guitar Hero is a social game that is marketed to groups. A 2008 television commercial recreates *Risky Business*'s iconic dance scene, replacing soloist Tom Cruise with four celebrities playing *Guitar Hero* together.[2] *Rock Band*, a competing music video game franchise, partnered with bars to host social "Rock Band Bar Nights."[3] Though *Guitar Hero* is designed to be played with others, the game is generally not competitive. Indeed, if one player plays poorly and is booed off by the digital audience, they may reenter the game if the other players perform well.

Guitar Hero makes use of a parallel play model: people play next to each other but are completely absorbed in their own performances.[4] The social element of *Guitar Hero* comes not from interaction with other active players, but from the relationship between the audience and the guitarists. For example, as the guitarist, my roommate describes a desire to impress people

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[2] "Guitar Hero® World Tour ad featuring Kobe Bryant, Alex Rodriguez, Tony Hawk and Michael Phelps." October 24, 2008, YouTube video, 0:32. https://www.youtube.com/watch?v=30DewN99MIQ

[3] Antony Young, "Guitar Hero vs. Rock Band – Which Media Plan Rocked?" *Ad Age*, January 28, 2010, https://adage.com/article/media/advertising-guitar-hero-5-beatles-rock-band/141792

[4] Kiri Miller, *Playable Bodies: Dance Games and Intimate Media* (New York: Oxford University Press, 2017), 142.

watching her play. As a viewer, she finds impressive performances aspirational and anticipates her next turn to be the guitarist, imagining that she will also deliver such a performance.

Relationships between gameplay viewers, players, and video games themselves were my initial source of inspiration for *Play Meter*. My choreographic process was informed by video game design theory, drawing on principles of play and collaboration to create game structures for movement generation. The final piece reflects this process, as the dancers attempt and abandon tasks, accomplish goals, and interact with one another. Play is valued as a process, the experience of playing more significant than any potential outcomes.

Dance and Play

Play connects dance and video games. In *The Video Game Theory Reader*, media researchers Mark J.P. Wolf and Bernard Perron state that player activity must involve physical action and cannot be limited to mental processes.[5] Physical actions interact in various ways with onscreen content. Actions may influence an avatar, creating a surrogate-character relationship as the player imagines themselves performing the movements of their avatar.[6] The player's presence in the game may also be implied, indicated by events that occur as a result of physical actions. *Guitar Hero* uses implied presence, illuminating and darkening colored icons to reflect physical guitar playing.

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[5] Mark J.P. Wolf and Bernard Perron, "Introduction," In *The Video Game Theory Reader*, ed. Mark J.P. Wolf and Bernard Perron (New York: Routledge, 2003), 1-24.

[6] Mark J.P. Wolf, "Abstraction in the Video Game," In *The Video Game Theory Reader*, ed. Mark J.P. Wolf and Bernard Perron (New York: Routledge, 2003), 47-64.

While playing video games, presence is mediated by technology. Communications theorist Jonathon Steuer describes this as "telepresence," wherein one's perceptual experience is extended beyond the body and into the mediated environment, rather than into the immediate physical environment.[7] Steuer's definition includes spatially or temporally distant real-world environments. An audience viewing a dance work might experience telepresence as they engage with the material. Well-designed video games allow the viewer to feel that the environment is unmediated. Intimate social interactions, especially the experience of working with others in the environment, are key contributors to telepresence.[8] Film and media scholar Alison McMahan uses the term "shocks" to describe game design elements that disrupt telepresence.[9] The sudden experience of running into an invisible barrier at the game environment's end, for example, would emphasize that locations in the game have limitations that reality transcends.

In dance classes, we often refer to improvisation as play. Solo improvisation scores are an opportunity to investigate the body's relationship to itself and to the space, while contact improvisation invites exploration of weight sharing and interpersonal spatial relationships. Within this improvisational context, play involves engaging deeply with a movement activity and experimenting with the body's immediate output. Improvisation does not need to result in a final product but is valuable in the experience itself.

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[7] Jonathon Steuer, "Defining Virtual Reality: Dimensions Determining Telepresence," *Journal of Communication* 42, no. 4 (December 1992): 73-93. https://doi.org/10.1111/j.1460-2466.1992.tb00812.x

[8] Matthew Lombard and Theresa Ditton, "At the Heart of It All: The Concept of Presence," *Journal of Computer-Mediated Communication* 3, no. 2 (September 1997). https://doi.org/10.1111/j.1083-6101.1997.tb00072.x

[9] Alison McMahan, "Immersion, Engagement, and Presence," In *The Video Game Theory Reader*, ed. Mark J.P. Wolf and Bernard Perron (New York: Routledge, 2003), 67-83.

However, play may also be used to generate a product. Simone Forti's movement practice drew on game structures, framing dance as a way to present activities without an underlying symbolic intent.[10] In rehearsal, she devised improvisational games that allowed dancers to play with movement. For example, in one score dancers separately determined a sequence for going over, under, and around other movers, then began moving together in the space.[11] This structure offered the possibility of harmonious movement (i.e., one dancer going under while another went over) and the potential for discord. Though the games had specific rules, the dancers were able to discover unique solutions to issues arising from the limitations of the structures.

Forti also relied on game and task-based structures in her choreographic works. In *Huddle* (1961), dancers form a tight clump, allowing one dancer to disentangle themselves and climb over the top of the group. The group must renegotiate their spatial relationships when the dancer leaves, closing the gap and creating a supportive mass for the climber.[12] The task is inseparable from the dance itself, generating a movement vocabulary and relationships between dancers in real time as they navigate the restriction. Other works overtly reference play: *See-saw* (1960) features two dancers at opposite ends of a wooden plank atop a sawhorse, balancing and destabilizing the seesaw structure as they move.[13]

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[10] Sally Banes, *Terpsichore in Sneakers: Post-Modern Dance*, (Middletown, Connecticut: Wesleyan University Press, 1987), 28.

[11] Sally Banes, *Terpsichore in Sneakers: Post-Modern Dance*, (Middletown, Connecticut: Wesleyan University Press, 1987), 29.

[12] MoMA Learning, "Dance Constructions: Simone Forti," accessed March 21, 2022, https://www.moma.org/learn/moma_learning/simone-forti-dance-constructions-1961/

[13] Sally Banes, *Terpsichore in Sneakers: Post-Modern Dance*, (Middletown, Connecticut: Wesleyan University Press, 1987), 25.

Forti's game structures create dances that allow the performers to experience cultural historian Johan Huizinga's definition of play. Huizinga describes play as a completely absorbing activity that exists outside of everyday life and yields no profit.[14] Psychologist Peter Gray's research expands on this description, identifying five characteristics consistently present in various definitions of play. [15] Play is self-directed, as players chose their activities and rules. There is a greater value in the process of playing than in any potential outcomes, as the experience of play is rewarding in and of itself. Rules establish structures for play but still allow for creativity, and rules may be explicitly socially established or exist only as looser mental concepts. Play includes imagination and a level of removal from the real world. Finally, play requires active engagement. This may create mental tension as players focus on their performance, but if mental tension becomes too distressing it is no longer play.[16] Games have the same characteristics as play but may also include ludus rules, which establish a way to win the play experience.[17]

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[14] Peter Gray, "Definitions of Play," Scholarpedia, April 19, 2013, http://www.scholarpedia.org/article/Definitions_of_Play#:~:text=In%20his%20classic%20book%20Homo,the%20player%20intensely%20and%20utterly

[15] Peter Gray, "Definitions of Play," Scholarpedia, April 19, 2013, http://www.scholarpedia.org/article/Definitions_of_Play#:~:text=In%20his%20classic%20book%20Homo,the%20player%20intensely%20and%20utterly

[16] Peter Gray, "Definitions of Play," Scholarpedia, April 19, 2013, http://www.scholarpedia.org/article/Definitions_of_Play#:~:text=In%20his%20classic%20book%20Homo,the%20player%20intensely%20and%20utterly

[17] Markku Eskelinen and Ragnhild Tronstad, "Video Games and Configurative Performances," In *The Video Game Theory Reader*, ed. Mark J.P. Wolf and Bernard Perron (New York: Routledge, 2003), 195-220.

Play Meter is informed by my research into game structures, play, and presence. The title is a term I was first introduced to by my *Guitar Hero*-playing roommate. A class assignment asked her to fill in work, love, health, and play "meters" illustrating the degree to which she felt fulfilled in each area. During rehearsal, I adapted the idea of a play meter to ask my cast what level of play they felt in their lives. The question was fairly open-ended, and each dancer described different ways in which they do or do not find, create, and experience play. I also asked them to physically indicate the level of their play meters using their arms. In subsequent rehearsals, dancers referenced their play meters when something we did was fun, even using the arm gesture to demonstrate increasing levels of play.

Frequent mentions of play meters led me to reflect on the idea of using the term for the title of the work. In just two words, the phrase describes play as a measurable quantity; this reflects the ability of video games to provide a platform for play while also assessing the success of the play's output. I made a concrete title decision after learning that "Play Meter" was the name of an early trade journal covering the arcade game industry. The title unites a literal gaming reference, a symbolic understanding of quantifiable play, and my cast's unique experiences with play throughout the rehearsal process.

My movement generation exercises were designed as games, bringing play into the rehearsal process and setting it in the final work. Dancers transition in and out of presence within their material, engaging deeply with movement tasks only to abandon them and move onto something new. Such tasks also offer an opportunity for the audience to feel present in the work, asking viewers what it might feel like to balance bouncy balls along the edge of the stage or to dribble them inches above the ground.

After I became interested in video games, I knew that my rehearsal structure would draw from my research into video game theory and play, relying heavily on rule-defined activities. In addition to exploring dance and play, I aimed to investigate my own process over the course of this project, researching how I approach the creation of a group dance piece. This project explores the relationship between a process rooted in a specific inspiration source (video games) and the resultant choreographic work. I developed three research questions that guided my process:

1. How can principles of video game design inform my dancemaking process?
2. How can play be explored within set choreography?
3. What is the relationship between process and outcome?

Cast

In inviting my cast, I selected dancers with movement styles that are often markedly different from each other. I knew all of the dancers had the technical proficiency, work ethic, and collaborative skills necessary to perform the work, but I was further interested in the way their unique movement styles might interact and shape relationships between them. This dynamic was inspired by the popularity of the digital communication platform Discord in gaming communities. Through Discord, solitary players can communicate with a larger group via written and video chat even as they play on separate consoles.[18] The relationship between individual actions and group activity is explored throughout the work.

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[18] Hauk Nelson, "Esports Explained: Discord," KemperLesnik, May 2020, https://www.kemperlesnik.com/2020/05/news-esports-explained-discord/#:~:text=It's%20been%20likened%20to%20a,%2C%20non%2Dgaming%20related%20projects.

My cast consisted of five dancers (costume colors in parentheses):

1. Olivia Browne (blue)
2. Genevieve Chan (yellow)
3. Kennedy Kerr (orange)
4. Henry Koskoff (red)
5. Madison Lee (green)

II. MOVEMENT GENERATION

I took four primary approaches to creating material for this work, each approach incorporating different aspects of video games. Some exercises were inspired by a general knowledge of video games, investigating how the visual aesthetics familiar to even casual players might translate to movement. Others drew on my research into video game teaching methodologies and play. I discovered that working with highly specific inspiration sources yielded movement that was often very literal, allowing viewers to recognize familiar gestures and images. I also found that the process of translating material between dancers synthesized the unique voices of each mover into a cohesive movement vocabulary.

Video Game Action Words

Parry

Aim

Shoot

Walk

Jump

Dodge

Crouch

Crawl

Activate special ability

Toggle

Snipe

Block

Lay down

Sprint

Roll

My physical investigation of video games began by asking my brother, an avid player of Nintendo's *Super Smash Bros.*, for a list of video game action words. I used his list to generate a phrase inspired by the movement vocabulary of video games, each word represented by a specific movement. Several of the movements are performed and then immediately abandoned for the next word, reflecting the way video game avatars rapidly respond to the disjointed commands of players in fast-paced games like *Super Smash Bros*. In this game, players fight to eject their opponents from raised platforms while avoiding being launched from the arena themselves. As the player quickly combines different buttons and analog switch motions, onscreen avatars switch between movements without transition, abandoning jumps midair to crouch down or standing still only to suddenly attack an opponent. The movement phrase created from this vocabulary emulates this stop-and-go quality.

Some terms from the video game action word list were abstracted. *Sprint*, which denotes a fast run over a short distance, was distilled down to popping quickly up from a prone position

to Chaturanga, then immediately collapsing back into the floor. The movement preserves the speed, urgency, and limited distance of a sprint while removing the familiar form and element of travel. Other words were interpreted more literally. *Snipe*, for example, sees the dancers looking through a scope created by their hands. *Block* consists of a swiping motion with an outstretched palm extended in front of the body, as though the dancers are stopping something flying towards them.

The *block* movement, however, took on a new meaning and tone over the course of the choreographic process. Its sweeping gesture recollects the motion used by *Dance Central* players to interact with the Xbox Kinect interface. In *Playable Bodies*, American Studies scholar Kiri Miller observes that a commercial for the Kinect begins with a shot of a player raising her hand, demonstrating that she is controlling the game system without use of an external device.[19] The advertisement continues with footage of the player entering multiplayer mode, digitally dancing with players from across the world. Swiping a raised hand functions as a symbol of this interplayer connection; though the dancers are geographically distant, their bodies are physically engaging with the game interface in the same way.

Play Meter's *block* gesture became a similar symbol. It is initially introduced by Olivia, who sweeps her hand through the air while Madison's flexed foot follows the same spatial pathway during their first duet. Though they use different parts of the body, this movement is the first moment that they engage in a shared process without looking at each other. All five dancers perform the motion several times throughout the piece, creating a distinct shared movement. It is a grounding movement that reconnects the dancers throughout the work, moving from its

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[19] Kiri Miller, *Playable Bodies: Dance Games and Intimate Media* (New York: Oxford University Press, 2017), 11.

defensive “block” origins to a more reflective tone. The motion is also something that an audience member might easily recognize and recreate, engaging the viewer with the possibility of performing part of the dance themselves. As in the *Dance Central* commercial, performers and viewers alike have the potential to interact and identify with one another by means of a common gesture.

Madison and Olivia perform the gesture during their second duet as well, this time both using their right arms. Part of this duet draws on material from the video game action word list phrase, transforming it into movement that requires interaction between the two dancers. Olivia’s *walk* is halted by Madison’s outstretched arm in her *jump*, causing Olivia to slowly sink to her knees before falling forward beneath the barrier created by Madison. The presence of another dancer performing the material requires the movement to be rerouted.

At the end of the duet, Olivia performs “aim” (a reaching cupped hand) with her right arm and Madison completes “shoot” (a thumbs up in the “aim” location) with her left. Labor is divided between the two dancers as they collaborate on a gesture originally created for one body. Collaboration is a theme of the work, reflecting group play and social elements of gaming. Even in games where players compete against each other, they all contribute to the play experience.

The phrase generated by the video game action word list is the basis of a trio performed by Genevieve, Henry, and Kennedy. Early in the fall semester, I gave them a list of rules for altering the phrase. They were asked to remove movements, repeat movements, elongate or shorten time, travel to a new location, and change a movement to make it more fun for them to perform. The resulting trio is an exploration of people existing in the same space but creating their own experiences in that world. They all perform the phrase with the original sequencing,

facings, and levels. However, timing of the movement is not set; in any given run, movements may align in unison between dancers or exist in completely separate timelines. Randomness is a defining characteristic of video games, as it keeps each playing experience from being exactly the same.[20] While the shared core phrase makes it clear that they are all working through the same material, the dancers are independent of each other in pacing and offer unique approaches to the movement. Their individual generative processes are displayed on stage.

Later in the choreographic process, I made two changes to this trio. First, I asked Genevieve to look at Henry and Kennedy through the telescope-esque tunnel she makes with her hands. Watching the movement efforts of others had become an important element of the piece, and this moment was an opportunity to highlight active viewing. I also wanted to begin to reestablish a connection between the three dancers that extended beyond their shared core movements. Genevieve indicates that she has become aware of the other movers in space by directing her "telescope" at them, making the transition to her connection with Henry after the trio less jarring.

I made the second change after music was added to this section. "BPM 178" by Anna Meredith ends about three-quarters of the way through the trio. I asked that Kennedy wait until the song concluded to fall to the floor, and that the fall happen immediately after the music stopped. Falling results in a loud smacking noise, punctuating the end of the music with an abrupt transition back into a diegetic soundscape. The music is not tied to a clear end of the trio but instead reflects a shift in the relationship between the dancers. Once Kennedy falls to the floor, all three dancers are in variations of the same elongated prone position, marking the first

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[20] Mark J.P. Wolf and Bernard Perron, "Introduction," In *The Video Game Theory Reader*, ed. Mark J.P. Wolf and Bernard Perron (New York: Routledge, 2003), 1-24.

time since the beginning of the trio that they have all been in the same position and orientation. As they lose the connective element of shared music, they gain the connection of a common spatial arrangement.

The video game action word list was also used for a brief movement generation exercise early in the process with Genevieve, Henry, and Kennedy. I read an abbreviated list of words one at a time, giving the dancers approximately 30 seconds to create a movement representing each word. Initially, I had imagined that their phrases would have a similar vocabulary to my own action word phrase, given the shared source material and specific verbiage. However, I found that their creations reflected their individual experiences with the words, moving outside of the video game context that I had situated my phrase in. Genevieve, for example, imitated her cat for "crouch." As my phrase was inspired by connecting and abruptly moving between seemingly unrelated movements, I was interested in combining their phrases into one trio.

Kennedy says "start," and the three dancers shift immediately into action. A verbal "start" cue was originally a functional decision, as the dancers are not all able to see each other to know when to initiate movement. In video game design, such cues are called connectors, which are elements that help players navigate the virtual reality of a game.[21] "Start" subsequently took on greater significance in the context of the piece, as I will discuss later. The dancers move separately but not independently of one another; as Henry crawls away from the group, Genevieve walks closer to Kennedy, who toggles her lifted foot in time with Genevieve's steps. Henry and Genevieve retrograde their pathways, and Kennedy's foot halts its motion as they arrive at their original positions.

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[21] Alison McMahan, "Immersion, Engagement, and Presence," In *The Video Game Theory Reader*, ed. Mark J.P. Wolf and Bernard Perron (New York: Routledge, 2003), 67-83.

The most overtly video game-inspired moment in this trio occurs near the end. Henry runs out from the diagonal line formation the dancers have maintained. He jumps straight upward, right leg extended slightly behind him and left leg slightly in front. His flexed feet give the impression that he has simply popped up into the air for a moment and is suspended at the top of his jump. After landing, Henry reaches his right arm upward and flexes his wrist. Kennedy runs out from the line and repeats Henry's jump, bumping the top of her head against his palm. She mimics his arm position, and Genevieve jumps up to bump Kennedy's hand. The movement is a literal reference to the *Super Mario Bros.* games, where Mario jumps up to bump a Question Block for coins or various special abilities.

In the context of the piece, this jumping movement is a game for the dancers to play with each other. Henry demonstrates the movement vocabulary, and Kennedy shows the audience how to successfully apply it to a game structure. A viewer then understands that Genevieve will attempt to recreate Kennedy's success and becomes invested in the outcome of Genevieve's jump.

The final use of the action word core phrase was the generation of a gesture phrase. Six gestures represent movements from the action word phrase and its adaptations. One gesture is a two-fingered point, and one gesture borrows the "haha!" movement from the video game dialogue duets (discussed later). The six gestures abstracting the video game word list illustrate the basic tone and vocabulary of the piece. Pointing with two fingers is used throughout the piece to direct movement in other parts of the body. It is included in the gesture phrase to represent the connectors (instructional navigation elements) throughout the work. The dialogue duet gesture abstractly symbolizes the relationships between the dancers as they interact, collaborate, and

play. As a whole, the gesture phrase retains the disjointed, transition-less style of the full body movement vocabulary.

The gesture sequence serves as a short catalog of the potential movement and thematic options available to the dancers, as abstracted symbols in a video game might indicate action possibilities.[22] An audience member would not understand the significance of each gesture, but would likely recognize the phrase itself as significant, as it is repeated four times throughout the piece. When Madison and Olivia perform the gesture phrase twice in their first duet, and when Kennedy does it during her solo, the movements are an interruption to the larger structure of what they are doing. The phrase feels like a task they must complete before returning to their original actions. Its final appearance is near the end of the piece. Madison is frozen with her thumb up, and Kennedy begins the gesture sequence behind her. When Kennedy reaches the thumbs up, Madison joins her in the phrase. Here, the gestures are not an interruption, but the full focus of their efforts. The gesture phrase illustrates the different ways the dancers may engage with the same material.

Video Game Dialogue

I should probably look around here some more.

You there, young traveler…

You have visitors.

Woo!!!

I sense danger.

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[22] Mark J.P. Wolf, "Abstraction in the Video Game," In *The Video Game Theory Reader*, ed. Mark J.P. Wolf and Bernard Perron (New York: Routledge, 2003), 47-64.

Retreat!!!

Stop messing around.

Let's ride!!

Give me a minute.

Haha!

Enemy on the right.

Whoa! It appears you don't have access to that area yet. Come back when you've leveled up.

During our first group rehearsal, the cast and I generated a list of stereotypical video game dialogue phrases. Drawing on massively multiplayer online role-playing games (MMORPGs) like Wizard 101 and Poptropica, we brainstormed phrases that nonplayer characters and other forms of in-game text might include.[23] I chose to do this as a cast activity, rather than pulling actual game dialogue, because I was interested in the decontextualized language that an average non-serious gamer associates with video games. When we first created this list, I was planning to incorporate the spoken text into the final performance. I wanted the audience to understand the dialogue in the context of the dance's action, not as a direct reference to a specific game. Communications scholar Mark J. P. Wolf notes in "Abstraction in the Video Game" that abstraction is a necessary element of games, as it requires the player to imagine or complete game details, further immersing them in the gaming experience.[24] Similarly, I wanted to give viewers the opportunity to create their own interpretation of the dialogue and movement.

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[23] Miroslaw Filiciak, "Hyperidentities," In *The Video Game Theory Reader*, ed. Mark J.P. Wolf and Bernard Perron (New York: Routledge, 2003), 87-101.

[24] Mark J.P. Wolf, "Abstraction in the Video Game," In *The Video Game Theory Reader*, ed. Mark J.P. Wolf and Bernard Perron (New York: Routledge, 2003), 47-64.

To integrate dialogue into movement, I designed a rehearsal activity inspired by my research on games and play. In *The Video Game Theory Reader*, Wolf and Bernard Perron state that rules are a defining element of video games, serving as restrictions that determine the activities of the game.[25] Genevieve and I created a contact-based duet with spoken elements following two limiting rules. The first required that we choose most of our dialogue randomly, pulling slips of paper printed with phrases from a pile. Our second rule was that all dialogue had to have a logical justification; I could only say, "stop messing around" after Genevieve performed a movement that indicated "messing around." As a final structural element, we also selected one phrase that we wanted to incorporate. Johan Huizinga defines play as an activity performed for pleasure, not out of necessity.[26] Allowing ourselves to pick a phrase we were excited to work with was an enjoyable activity that existed outside of the rule structure. After creating the duet, Genevieve told me that coming to these rehearsals was fun and felt like playing, "not even like rehearsing."

Madison and Henry created a duet following the same outline. The text generated a humorous narrative context for their lighthearted and funny movements. However, they performed the duet without the dialogue at the informal showing. While we agreed that it was not as engaging without the text, I decided I did not want them to speak during it because it became too obvious an attempt at humor. I considered incorporating the text in another way, perhaps by having another dancer speak. However, the duet that we worked on during later

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[25] Mark J.P. Wolf and Bernard Perron, "Introduction," In *The Video Game Theory Reader*, ed. Mark J.P. Wolf and Bernard Perron (New York: Routledge, 2003), 1-24.

[26] Peter Gray, "Definitions of Play," Scholarpedia, April 19, 2013, http://www.scholarpedia.org/article/Definitions_of_Play#:~:text=In%20his%20classic%20book%20Homo,the%20player%20intensely%20and%20utterly

rehearsals no longer needed the text to be understood. The playful bickering of the original duet was replaced by the appearance of greater closeness and understanding between Madison and Henry as they support each other's weight or settle into moments of stillness. They seem to be equally invested in Madison's attempts to jump up to Henry's hand; his arm is not taunting her but inviting her to reach her full potential. Even when Henry offers upward resistance to Madison's downward push of his hand, he is creating the counter tension necessary for her to slowly bring their hands to the ground. Rather than creating opposition, the different directions of their physical energy contribute to the collaborative effort of steadily lowering their hands.

The dialogue duets exemplify a core element of the work: taking turns. Dancers switch roles, one dancer performing a section and the other taking on the same movement at another time. Madison and Henry take turns dragging each other. Genevieve and Henry perform an excerpt of their longer duet near the beginning of the piece, with Genevieve dancing Henry's part and vice versa. Given height differences, parts of the weight sharing needed to be renegotiated for the swapped role version. In the original, Genevieve stands with her torso resting against Henry's shoulder as he kneels, dropping her weight onto him while he wobbles with extended arms. To reverse roles, Genevieve stands up completely in order to offer the necessary counterweight against Henry's chest.

Taking turns is both a functional element of video gaming and a defining characteristic of childhood play development. Functionally, a limited number of necessary supplies (like game controllers) restricts the number of active players, requiring everyone interested in playing to take turns. Other games are designed with turn-based strategy (TBS) structures, allowing players

to collectively determine the pacing of the game as they individually complete actions.[27] Understanding how to take turns in order to achieve a common goal is a milestone children reach around five years of age.[28] Though this development is made through mutual play, taking turns has applications to more sophisticated cooperative efforts later in life.

The importance of taking turns is established at the beginning of *Play Meter*, as Henry and Genevieve alternate who places the bouncy balls along the edge of the stage. If the person closest to Kennedy catches two in a row, they hand a ball to the other dancer. Taking turns also offers them a strategic action; if one dancer cannot get the ball to stay in place, they can give it to their partner in hopes that they will be more successful. Later in the work, Genevieve applies strategic turn-taking by tagging Madison out from supporting Olivia's legs. Genevieve takes Madison's place, freeing Madison to begin her duet with Henry.

Just Dance: Learning by Doing

My final movement generation exercise was inspired by Kiri Miller's research on dance video games. In her book *Playable Bodies*, Miller discusses the learning mechanisms video games use to teach players to dance in games like *Just Dance* for the Nintendo Wii and *Dance Central* for the Xbox Kinect. *Just Dance* and *Dance Central* both utilize a learning-by-doing model.[29] Dancers are simultaneously presented with new choreography and expected to perform

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[27] Matt Van Der Westhuizen, "Turn-Based Strategy: Genre Overview," Chaotik, September 4, 2018, https://chaotik.co.za/tbs-genre-overview/

[28] Association for Psychological Science, "Young children learn to take turns for mutual gain," ScienceDaily, June 21, 2016, www.sciencedaily.com/releases/2016/06/160621091048.htm

[29] Kiri Miller, *Playable Bodies: Dance Games and Intimate Media* (New York: Oxford University Press, 2017), 124.

the movements. Choreography is designed to be repetitive, allowing dancers to familiarize themselves with movements and predict what the music indicates might come next over the course of a single play.

I was interested in applying the learning-by-doing model to teaching choreography. I choreographed a new phrase designed specifically for this exercise. Unlike the more disjointed video game action word phrase, this movement is performed as one endless stream of motion, mimicking the scrolling icons that indicate upcoming dance moves in *Just Dance*. The phrase also includes several turns and movements that reverse direction. This is a deviation from *Just Dance* choreography, which is specifically designed to be front-facing and presentational, making it more easily followable.[30] As my cast consists of experienced dancers, I included turns and directional changes to create an added challenge.

In rehearsal, I told the cast that we would be doing a *Just Dance*-inspired activity. I knew from previous discussions that all were familiar with the video game, and I hoped that explaining my inspiration would make the instructions clearer. I told them I would show short sections of a phrase at normal speed and asked them to do their best to follow along. After showing each section, I would give them two minutes to solidify whatever they remembered into their own phrase. Because I wanted this to be a fun game and not an overwhelming test, I emphasized that I did not expect them to be able to recreate my phrase exactly and gave them permission to make guesses and additions as needed. This deviates from *Just Dance,* which assesses players' accuracy. However, video games offer players the option to make multiple attempts at a task if

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[30] Kiri Miller, *Playable Bodies: Dance Games and Intimate Media* (New York: Oxford University Press, 2017), 141.

they are initially unsuccessful.[31] To generate movement that differed from my own, I only wanted to show the dancers the phrase one time. I was curious to see how the cast would approach learning the movements and how the material was retained and translated by their bodies.

The resulting solos live in the world of the original vocabulary but reflect the unique movement impulses of each dancer. Kennedy, Henry, and Madison's solos are performed in full, and the second half of Olivia's solo is included in her duet with Madison. Henry and Genevieve perform sections of my original phrase during their second duet. As much as the piece is about collaboration, it also notes the importance of individual contributions to a collaborative effort. The material in these solos connects the dancers through shared phrase origins while also highlighting their strengths as individuals.

I asked the cast what it felt like to make a phrase using this method. Everyone described feeling confused and a bit stressed initially. Henry expressed doubting himself at first, but later becoming more comfortable putting his own spin on the material. Olivia said that knowing my movement style, especially on the floor, was sometimes more informative than watching because she could guess the types of movements I might do even if she couldn't remember exactly what I had done. She also said that she found the activity "really fun, but there would have been more actualized joy if my body was more receptive to movement and my mind was more receptive to thinking." Feeling physically and mentally tired going into rehearsal impacted her performance, and she felt it would have been more joyful if she had been moving and thinking at her full capacity.

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[31] Markku Eskelinen and Ragnhild Tronstad, "Video Games and Configurative Performances," In *The Video Game Theory Reader*, ed. Mark J.P. Wolf and Bernard Perron (New York: Routledge, 2003), 195-220.

Kennedy said that she likes to perform things exactly as they are taught to her. Though I had told everyone that they could listen to their own impulses and make their own interpretations of the material, Kennedy said that her usual impulse would be to try to recreate exactly what I had done. However, the speed and length of the sections forced her to abandon accuracy and instead grasp movement ideas and clear moments to incorporate into her own material. Madison described a similar experience, and also stated that she eventually stopped following along with me and just watched me dance to grab ideas.

Certain movements were included in all five solos, exemplifying the memorable moments Kennedy and Madison discussed. These movements link the phrases when they are performed separately. Throughout the piece, we see each dancer perform a jump rope-like arm circle and raise their arms above their heads in parallel lines. Other sections of the solos reflect a more abstract interpretation of my choreographed phrase. Everyone included a section of rapid directional shifts on the floor, each using movement that represented the idea of a fast floor section without actually recreating my floor phrase. The results of the learning-by-doing teaching method are physical representations of different approaches to the same task.

Practice Mode and Minigames

I manipulated and extended the material generated by the video game action word list, dialogue duets, and *Just Dance* activity over the course of several rehearsals. Though I always outlined my rehearsal plans in advance, I built time into my rehearsal structure to allow flexibility in responding to what our movement generation activities offered. This allowed me to shape and alter movement as we created it, yielding unexpected structures and choreographic

decisions. Most notably, this method led me to incorporate some of the spontaneous things the cast did while learning the movement into the final work.

The first spontaneous movement that we set occurred after I asked Olivia to pivot on her knees at ninety-degree angles while doing the gesture sequence. When I filmed her, she got to the pivot section and turned around to shake her head, indicating that she wasn't yet prepared to pivot and gesture simultaneously. The head shake added a level of personhood to the section; the dancer and movement can remove the human person from the piece, but this movement communicates with a physical vernacular that is accessible and understandable to most viewers. Shaking one's head "yes" and "no" became a motif throughout the work. The head shakes are always in response to an imagined "are you ready," which is also verbalized thrice in the work. The text and head motion allude to the multiple beginnings of games, where new rounds or tasks are separated by rest, preparation, and a final acknowledgement that all players are ready to begin.

Other set movements arose from our playful rehearsal environment and dynamic as a group. When I was working with the dancers in duets, they would often end up in a static position while I thought through their material. These moments of pause facilitated what we referred to as "minigames" as the dancers played with ways to manipulate the shape. In the work, minigames are brief interactions between dancers with a rule governing the interaction. The rules are paidia rules, meaning they restrict the play but do not indicate a winner or loser.[32] Minigames include Henry and Genevieve's foot tapping and Henry and Kennedy's weight sharing thumb tower.

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[32] Graham H. Jensen, "Making Sense of Play in Video Games: Ludus, Paidia, and Possibility Spaces," *Eludamos. Journal for Computer Game Culture* 7, no. 1 (2013): 69-80.

As a subcategory of minigames, the dancers also complete physical tasks. In physical tasks, a dancer must navigate a restriction on their body's movement in order to achieve a goal. Most significant is Olivia's attempt to push her foot through the space between her arm and opposite leg as she sits in a Pilates teaser. She sets up the shape, firmly holding her right foot with both hands as her other leg bends and lifts slightly off the floor. Her left foot begins inching up her opposite leg before suddenly jutting forward, attempting to move through the open shape. As Olivia repeatedly tries and fails to wiggle her leg through, her entire body is visibly engaged in the effort. This moment asks the audience to meet her level of engagement with the task, either by investing in its completion or by imagining what their own attempt might look and feel like.

III. DANCE PRODUCTION

The non-movement elements of this work provided additional opportunities to highlight elements of play. Costumes identified the dancers as individuals while also uniting them within the same world. Bouncy balls provided a concrete task, allowing the dancers to establish and deviate from a rule-structured activity, take turns, collaborate, and invest deeply in a process. The text offered the dancers new ways of interacting with each other and with the audience, adding a more explicitly descriptive layer to movement.

Costumes

In addition to sparking my initial interest in video games, *Guitar Hero* solidified my desire to have a cast of five dancers: one dancer for each of the five colored buttons on the *Guitar Hero* guitar. I knew early on that I wanted each dancer to wear a monochromatic outfit in

one of the button colors (green, red, yellow, blue, and orange). When I watch a dance piece, I am always curious to know the dancers' names, and I feel more personally invested in the dance when I can identify individual performers. With the goal of facilitating such investment from the viewers of my work, I choose to costume each dancer in a distinctly colored outfit and list the colors next to their names in the program. Identifying colors also allude to the use of color as a distinguisher in early video games; *Adventure*, for example, uses color to differentiate identical characters with different abilities.[33] Additionally, I wanted the audience to view the dancers as individuals existing within the same shared structure. To reflect this, the costumes are comprised of the same clothing items (loose scrub pants, a long sleeve t-shirt, and a short sleeve t-shirt) in their various identifying colors.

We discussed costume colors as a cast in early February. I allowed the dancers to decide on costume colors amongst themselves; as the different colors are meant to reinforce their roles as individuals, I felt that they each should choose which colors they most identified with. The activity of selecting costume colors was also inspired by player-character relations, the freedom to customize one's avatar an opportunity to shape a new version of the self.[34]

Bouncy Balls

The dance begins with Henry and Genevieve taking turns carefully placing bouncy balls across the edge of the stage. The balls roll out from offstage, and the dancers must navigate the

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[33] Warren Robinett, "Forward," In *The Video Game Theory Reader*, ed. Mark J.P. Wolf and Bernard Perron (New York: Routledge, 2003), vii-xix.

[34] Miroslaw Filiciak, "Hyperidentities," In *The Video Game Theory Reader*, ed. Mark J.P. Wolf and Bernard Perron (New York: Routledge, 2003), 87-101.

balls' unexpected paths in order to catch them and create the line. This process takes eight minutes, structurally repetitive but continuously offering new possibilities. Dancers and viewers alike discover the risk of a rolling ball disturbing the line, the increased difficulty when the ball must make it to the opposite side of the stage, and the possibility of a stray ball infiltrating the audience. Such randomness is a defining characteristic of video game design that prevents each round from being exactly the same, allowing players to continue to engage.[35] Drawing on the same principle of randomness, the unpredictability of the balls ensures that no roll is the same. This opening sequence asks for patience and engagement from viewers; the more they invest in the process, the more they will find within it.

The bouncy balls also conclude the work. Madison jumps across the front of the stage, slamming her feet into the ground and sending the balls rolling into the space. After the dancers watch the balls settle, Kennedy stands up and approaches the ball nearest to her. She begins to dribble it inches above the floor with a precise, practiced motion. Henry attempts to emulate her but finds her method too difficult; he begins bouncing the ball at a higher height, moving his hand more frantically as the ball escapes him. He abandons this task and returns to watching Kennedy.

As Kennedy continues to successfully dribble, Henry asks, "are you ready?" Kennedy completes her dribble before nodding her head, marking the only time "are you ready?" and the nodding response are temporally linked. "BPM 100" begins to play, the stage is washed in a rich blue light, and Kennedy reprises her solo as the other dancers begin to collect the balls in a frenzy. They create a condensed line of balls across the middle of the stage. Once everyone has

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[35] Mark J.P. Wolf and Bernard Perron, "Introduction," In *The Video Game Theory Reader*, ed. Mark J.P. Wolf and Bernard Perron (New York: Routledge, 2003), 1-24.

completed their section of the line, each dancer rapidly rolls their balls out towards Kennedy. Kennedy grabs the first ball to reach her and bounces it high into the air. After finishing rolling out their section, each dancer joins Kennedy in running through the space to gather balls and bounce them. "BPM 100" concludes, and the dancers settle into stillness to the sounds of the remaining bouncing balls. Kennedy says, "start" and the lights bump out, ending the piece.

My decision to include balls was a nod to their rich history of inclusion in games. Coin operated arcade games like pinball rely on the physics of a rolling, bouncing, and falling ball. Atari's 1972 commercial success *Pong* reimagined table tennis in two dimensions, allowing players to bounce a ball off a joystick-controlled platform.[36] The bouncy balls in *Play Meter* offer the dancers similar challenges and opportunities for fun as they line them up, dribble them, and bounce them into the air.

Text

Start.

Are you ready?

Do you want to try again?

Perfect.

Are you ready?

I put the kids in a semi empty room remove breakables, close doors n toss balls in sometimes they wear bike helmets n glasses if theyre tiny balls then they run and catch them like crazy and get out all their energy!!!!!!!!

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[36] Warren Robinett, "Forward," In *The Video Game Theory Reader*, ed. Mark J.P. Wolf and Bernard Perron (New York: Routledge, 2003), vii-xix.

They say its the best time ever!!! Then we set a timer and see who can collect the most balls then they collect away for a small bag of cookies or a quarter still works for me! They prefer shiny coins still over paper money!

Sometimes you can put them inside a giant inflatable out back and the kids love that too!!!

Are you ready?

Start.

"Start" is the first word spoken in *Player Meter*. Initially included as a functional cue for the trio, "start" took on a larger meaning when the trio was positioned in the context of the full piece. The trio and the first "start" are situated one-third of the way into the work. Rather than designating a true beginning, "start" indicates that something new is happening within an existing process. In video games, players may select "start" text even as they are already engaging with the game. "Start" simply acknowledges that they want to engage with a certain experience within the game. *Play Meter* also ends with Kennedy saying "start," situating the dance itself within a larger process that is still ongoing: the audience starts to applaud, the dancers start to bow, everyone starts to leave.

The dialogue in Genevieve and Henry's duet was inspired by Kiri Miller's discussion of dance video game feedback mechanisms. Miller observes that players often express frustration over the suspicion that the feedback tells them little about their performance.[37] She also describes a character in *Dance Central* that offers supportive words when you rehearse new movements, even telling you that "this game is lying" when you score poorly.[38] While some people

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[37] Kiri Miller, *Playable Bodies: Dance Games and Intimate Media* (New York: Oxford University Press, 2017), 49.

[38] Kiri Miller, *Playable Bodies: Dance Games and Intimate Media* (New York: Oxford University Press, 2017), 49.

appreciated the encouragement, others felt confused, as they knew the feedback from the character was not reflective of their performance. Early iterations of this section involved significantly more speaking, Genevieve directing feedback towards Henry that was completely unrelated to his actual performance. This version successfully created a humorous emotional distance between the dancers that reflected a video game's feedback, but it lacked continuity with the familiarity they demonstrate throughout the rest of the piece. The feedback text was shortened to "are you ready?," "do you want to try again?," and "perfect." It narrates the dancers' experience as Henry wobbles on relevé, performs my original *Just Dance* phrase material, and finally completes his own version of *Just Dance*, which Genevieve deems "perfect." Henry then asks Genevieve if she is ready, checking in with the same consideration that she previously offered him.

Kennedy's monologue is pulled from an Amazon review of bouncy balls. The writer is earnest and unreserved in their endorsement of the balls, describing the various ways to play with them with compelling imagery and clear enthusiasm. While the review itself focuses on how the balls are fun for children, it is apparent that the review writer also enjoys the fun that the balls provide. It illustrates that investment in the activities of others can foster a personal emotional experience. Kennedy's delivery of the monologue is stripped of the writer's zealous punctuation, employing a matter-of-fact tone that gives the text a narrational edge. The original punctuation was translated into movement, becoming a series of jumps and collapses that Kennedy performs while speaking. I chose this approach to better incorporate the monologue into the piece; the narrational style suggests that Kennedy is describing something that has just happened on stage. I also felt that the content of the text risked being overshadowed by an impassioned delivery. Capturing the vivid descriptions of play was more important to me than the emotional elements.

Music

Initially, I planned to use one piece of music for each dancer, establishing a character-theme music relationship. I pulled six songs from Anna Meredith's *Bumps Per Minute* and allowed each dancer to choose their own song, which they performed their *Just Dance* material to. The synths and repetitive rhythms of the songs reference 8-bit accompaniment to early video games.[39] Ultimately, the character theme music idea was abandoned in favor of a less literal music-dancer relationship. Kennedy is the only dancer who performs her full solo to her original song choice ("BPM 100" by Anna Meredith), which begins after she nods at the middle and end of the work. Olivia's song ("BPM 178" by Anna Meredith) plays during her duet with Madison and initiates her entrance to the stage. "BPM 100" and "BPM 178" have fast, driving beats, reflecting the dancers' strong, direct movements in group sections that occur during the second halves of both songs.

Kiri Miller's discussion of music in dance video games inspired my decision to use "BPM 100" twice. Miller states that music in dance video games becomes part of a multisensory experience.[40] Through repeated exposure, players begin to associate songs with the game

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[39] Nikita Braguinski, "The Resolution of Sound: Understanding Retro Game Audio Beyond the '8-bit' Horizon," Necsus, July 31, 2018, https://necsus-ejms.org/the-resolution-of-sound-understanding-retro-game-audio-beyond-the-8-bit-horizon/

[40] Kiri Miller, *Playable Bodies: Dance Games and Intimate Media* (New York: Oxford University Press, 2017), 7.

choreography. Kennedy performs the same solo material to “BPM 100” both times, demonstrating the connection between her choreography and that piece of music. Her second performance occurs while the other dancers collect bouncy balls and create a line across the center of the stage. Repeating the same movement and music during this avoids overwhelming the audience while still adding texture to the scrambling collecting of the other dancers.

Madison’s *Bumps Per Minute* song was replaced with a gradually accelerating bouncing noise (“Ceremonial” by Gilligan Moss), tension building as she stares into the audience and throws herself across the floor. The song’s acceleration builds a feeling of suspense even as Madison sustains movements, prompting the audience to anticipate her next energetic burst of motion. This music begins the moment Kennedy turns to exit after her second bouncy ball monologue, as though the balls she has just described are bouncing over the speakers.

Lighting

The piece is lit primarily in warm neutrals. Bright, clean lighting illuminates the dancers and ensures that movement details are not lost to shadows. At the beginning of the piece, a thin rectangular spotlight illuminates the edge of the stage, directing the audience’s attention to the space where Henry and Genevieve will line up the bouncy balls. Madison’s solo features green overhead lighting upstage, as though her green costume is illuminating the space. The ending of the piece is lit with a deep blue, making the bouncy balls appear fluorescent as the dancers bounce them into the air. The blue color deviates from the relatively neutral palette of the rest of the piece, giving the ending an otherworldly quality.

IV. CONCLUSION

Audience Feedback

I collected audience feedback via an online survey and in-person conversations with concert viewers. In conversation, multiple people described feeling moved by the relationship between Henry and Genevieve during the opening ball placement. One viewer stated that it seemed like they had known each other for their entire lives, noting their ability to sense who was going to catch the ball and the seamlessness with which they took turns. Another spoke about Genevieve's line delivery during her duet with Henry. The viewer said that Genevieve did not seem at all judgmental, but instead was demonstrating her care towards Henry by offering him the opportunity to try again.

Everyone I spoke with discussed the ending of the work. Many people said they had forgotten about the balls and were excited to see what would happen when they were reilluminated. Madison's jumps surprised viewers. One person said that they expected her to kick or push the balls but had never considered the possibility of disturbing the balls without touching them. Viewers described the final bouncing as unexpected, cathartic, joyful, surreal, fun, and chaotic. Sitting in the audience, I could hear audible exclamations and laughter during this section. I also saw people reach up to catch balls that bounced into the audience; after the show, several people excitedly showed me the balls they had collected.

One viewer told me that the long beginning sequence made them feel impatient, but the payoff of the ending made the duration worthwhile. Another viewer immediately disagreed with this statement, saying that they were surprised by how completely invested they had been in the repetition of the opening task. I felt that the work successfully fostered the sense of presence and engagement I sought to create.

What moments stood out to you in the work? What did you find memorable?

Every survey response to this question referenced the bouncy balls, either citing investment in the beginning or fascination with the end. Two people compared rolling the balls at Kennedy from the second line to *Hungry Hungry Hippos.* The cast and I did play human-sized *Hungry Hungry Hippos* during early rehearsal experiments with the balls, although the final section was most explicitly inspired by Atari's *Pong*. Four responses also mentioned Henry and Genevieve's relationship, listing their foot game and "caring partnership" as memorable.

What meaning, themes, or intentions did you find in the work?

Responses to this question largely reflected my own understanding of the work, referencing games, tension, cooperative play, rules, and achieving a desired outcome through repetition. Three responses alluded to childhood, noting the colorful costumes and associations between youth and play. Kennedy's spoken reference to "the kids" likely contributed to this. While examining play through a childhood lens was not a focus of my research, it is interesting to see how viewers interpret the work according to their own preexisting understandings of play. I regularly find play in my adult life through board games, interactions with friends, and dance. Survey responses comparing play in the piece to childhood illustrate that others may not extend their understanding of play to adulthood.

Dancer Feedback

In discussion with my cast, I asked them to reflect on the process and offered three guiding questions.

1. What did you value in this process? What was interesting, memorable, informative, or enjoyable?
2. What would you change about this process?

3. What was the experience of performing this piece like? How did having an audience, costumes, and lighting impact your experience?

As a group, the cast described feeling well-prepared to perform and very proud of the work. Henry stated that he appreciated consistency throughout the rehearsal process, enjoying the way we developed and deepened the same material instead of trying things on and immediately casting them away. He found it fun to see how things fit together later in the process and felt like he had a strong sense of purpose in performing the choreography. Kennedy observed that generating a movement vocabulary early in the process made her more comfortable manipulating it later. Henry and Kennedy both noted that they do things that they do not usually do (Henry flips on the floor and Kennedy speaks), but they felt confident performing because they had time to engage with the material and make it their own. As Kennedy stated, you have to know the rules in order to break them.

Olivia discussed the value of going to the American College Dance Association (ACDA) conference as a cast. The dancers developed a pre-show ritual of playing a game together before performing, which built group rapport. She also found it valuable to perform a version of the dance without the bouncy balls at ACDA, observing that it ensured the cast did not rely on the balls to define their understanding of the piece. However, she also stated that in the full work she saw the balls as a sixth dancer, not an extraneous prop. Henry added that the balls changed the way the cast thought during the performance, as they were conscious of the possibility of a ball rolling out during the dance. This did not happen during the two performances, although we had rules defining when dancers could safely retrieve stray balls and return them to the line. The balls had an active role during the piece even as they stayed stationary for most of it.

Madison and Genevieve reflected on the value of having a week of intensive-style rehearsals. After we lost three weeks of rehearsals to online classes, I decided to schedule the make-up rehearsals on back-to-back days during our first week returning in-person. My goal was to immerse everyone deeply in the material. Madison and Genevieve's feedback reflected this goal. They found that having multiple days in a row together ensured that they did not have to worry about remembering the material and could really stay within the world of the piece. Henry appreciated the opportunity to bond with other cast members during the intensive. He said that setting up the balls with Genevieve felt like a teamwork exercise. Getting to know each other over the course of the rehearsal process contributed to their relationship dynamic and invited empathy from the audience.

Responses to the question about changing the process primarily addressed logistics. Olivia expressed that she wished we had not lost the three in-person weeks at the beginning of the semester. She said that she would have liked to see what we would have made with more time, although she found the intensive "fun and fruitful." Henry stated that he did not realize how Genevieve performed her arm wobble motion until seeing the final concert video. He would have liked to be able to imagine her performing it during their duet. I did consistently update a folder of rehearsal videos throughout the process, as I think it is important for the dancers to see how their movement relates to the other movers in space. However, I changed the dynamics of Genevieve's wobble movement during tech week, so we did not have rehearsal footage of it.

In discussing the experience of performing the work for an audience, the dancers described reconciling the fun they had while dancing with the more focused, unemotional facial expression I asked them to display. Genevieve said that she only actively smiled in the wings, but even when not smiling on stage felt as though she could radiate her joy through her eyes.

Henry enjoyed employing a serious expression, saying he felt as though he was subverting audience expectations by doing something potentially silly without an accompanying silly facial expression. Kennedy said she felt very serious during the ball rolling, and Henry echoed that he felt so engrossed in the task that it seemed as though it only took two minutes.

As the ball setup is different every time, this section of the dance was most impacted by the presence of an audience. During the second performance, a ball rolled out into the audience and under their feet. This had never happened in rehearsal, as we never had a full first row of people. Henry initially stood up to retrieve the ball before making an on-the-spot decision to abandon it, realizing it would be overly complicated to look for it in the audience. He did note that viewers tried to locate the ball when it rolled under their feet, involving them in the process and demonstrating their desire to help with the task.

The audiences were markedly different each night. During the first performance, viewers laughed throughout the show. The second audience was more subdued, reacting audibly only to the ending. Though she could not see or hear them, Kennedy described feeling connected to the audience during her speaking sections. Silence meant that the audience was being intentionally quiet as they engaged with her speech; Kennedy felt very heard, saying that this dynamic charged the space with energy. Though the laughing audience offered more immediate positive feedback, none of the dancers expressed concern about the second audience's silence. I observed that it never felt like a joke was falling flat because there were no jokes choreographed into the piece. Potentially funny moments were incidental to the movement and were performed with the same investment level as the rest of the work. The dancers felt as though the audience was investing in their performance with them.

Process and Outcome

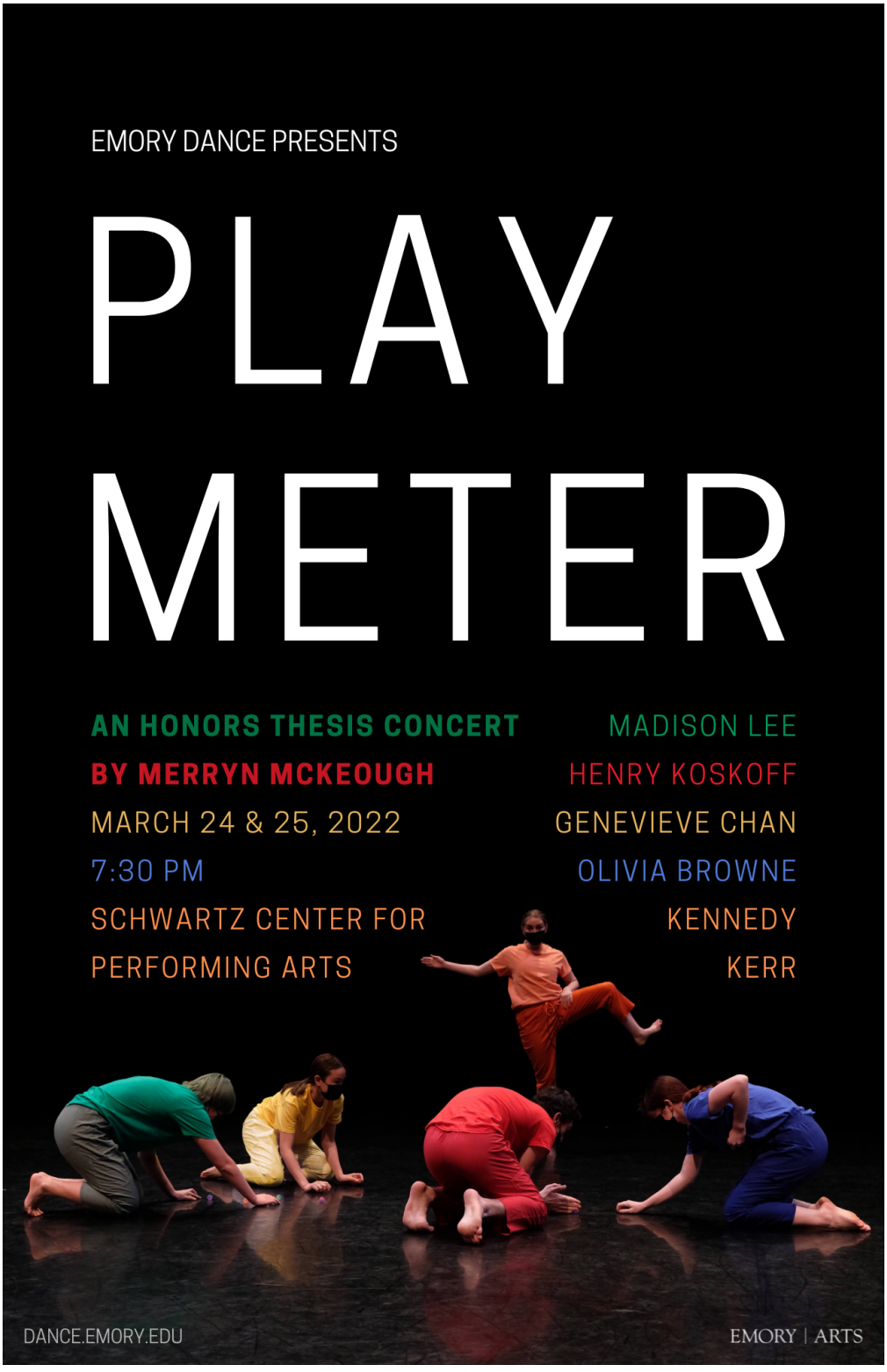
When I watch *Play Meter*, I am watching the entirety of its creation process play out on stage. I recall the rules of the games we used to generate movement, the translation of duet material between bodies, the evolution of the meaning of the gestures, and the spontaneous moments from rehearsal that were set in the piece. The final product captures both the outcome of a very specific process and elements of the process itself. As most viewers are unaware of the details of the choreographic process, they are unknowingly observing the process while valuing it as the outcome.

The final iteration of the dance is different than I expected it to be. Moments that were funny in earlier versions have taken on a more tender tone, reflecting a sense of connectedness between the dancers as they perform. There is sometimes a sense that the dancers have to work through the material and are relying on the collaborative energy of the others to help them complete movement tasks. I still find moments in the work funny, but the fun has become part of deeper relationships between the dancers.

Throughout the process, I was confronted with decisions about what to include and how to structure the material. The choice to pare down the funny elements required me to search beyond fun and humor for meaning in the work. Ultimately, I find that *Play Meter* investigates a more nuanced understanding of play, acknowledging the fun while also exploring the relationships between players, the potential effort involved, and play as a process-centered experience.

V. APPENDICES

Appendix A: Promotional Materials




EMORY DANCE PRESENTS
PLAY
METER
HONORS THESIS CONCERT
BY MERRYN MCKEOUGH
MARCH 24 & 25, 2022
7:30 PM
SCHWARTZ CENTER FOR
PERFORMING ARTS
MADISON LEE
HENRY KOSKOFF
GENEVIEVE CHAN
OLIVIA BROWNE
KENNEDY
KERR
EMORY | ARTS


EMORY DANCE PRESENTS | CHOREOGRAPHED BY MERRYN MCKEOUGH
PLAY METER
MADISON LEE HENRY KOSKOFF GENEVIEVE CHAN OLIVIA BROWNE KENNEDY KERR
EMORY | ARTS


PLAYMETER
EMORY DANCE PRESENTS
AN HONORS THESIS CONCERT
CHOREOGRAPHED BY
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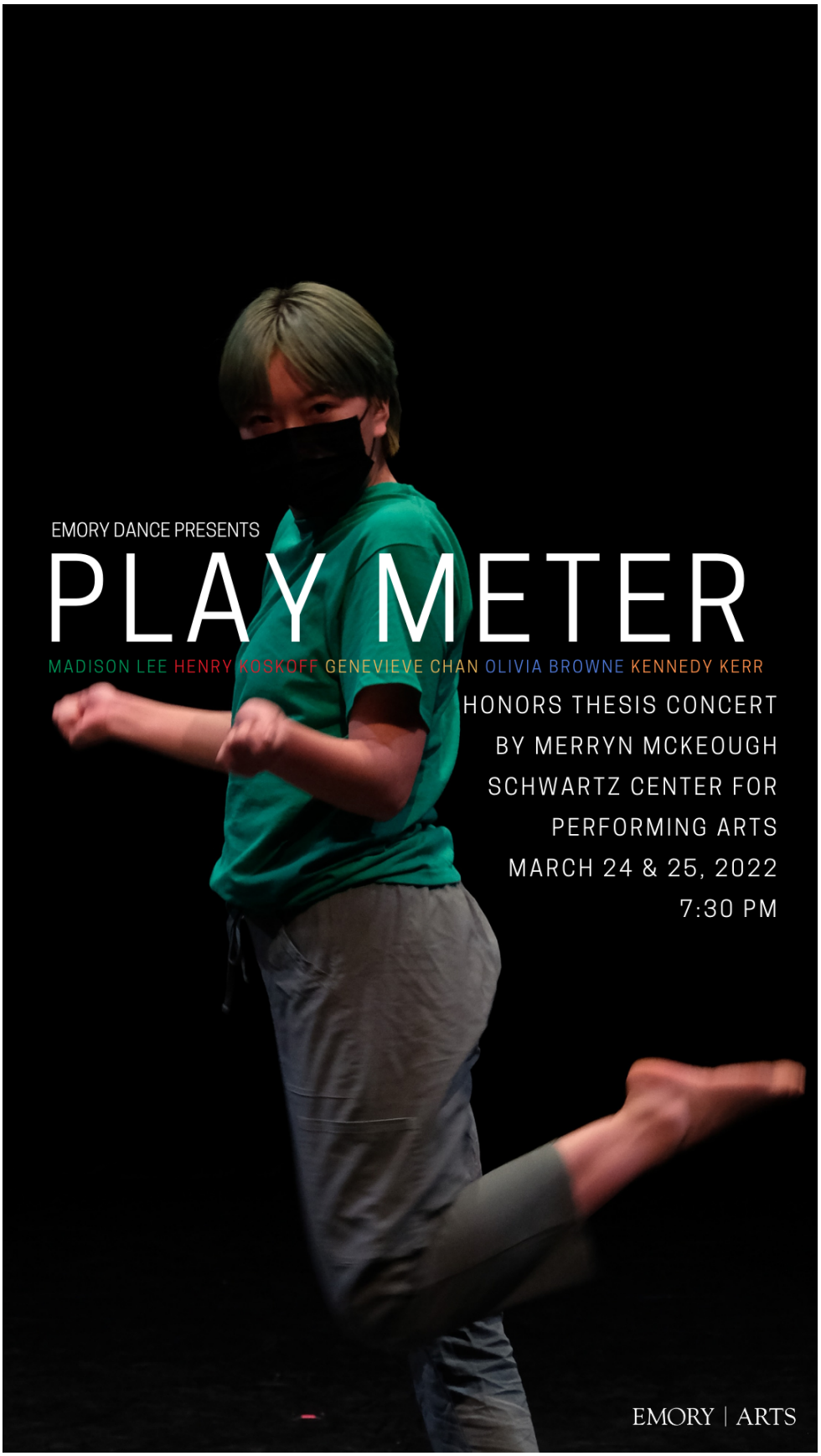
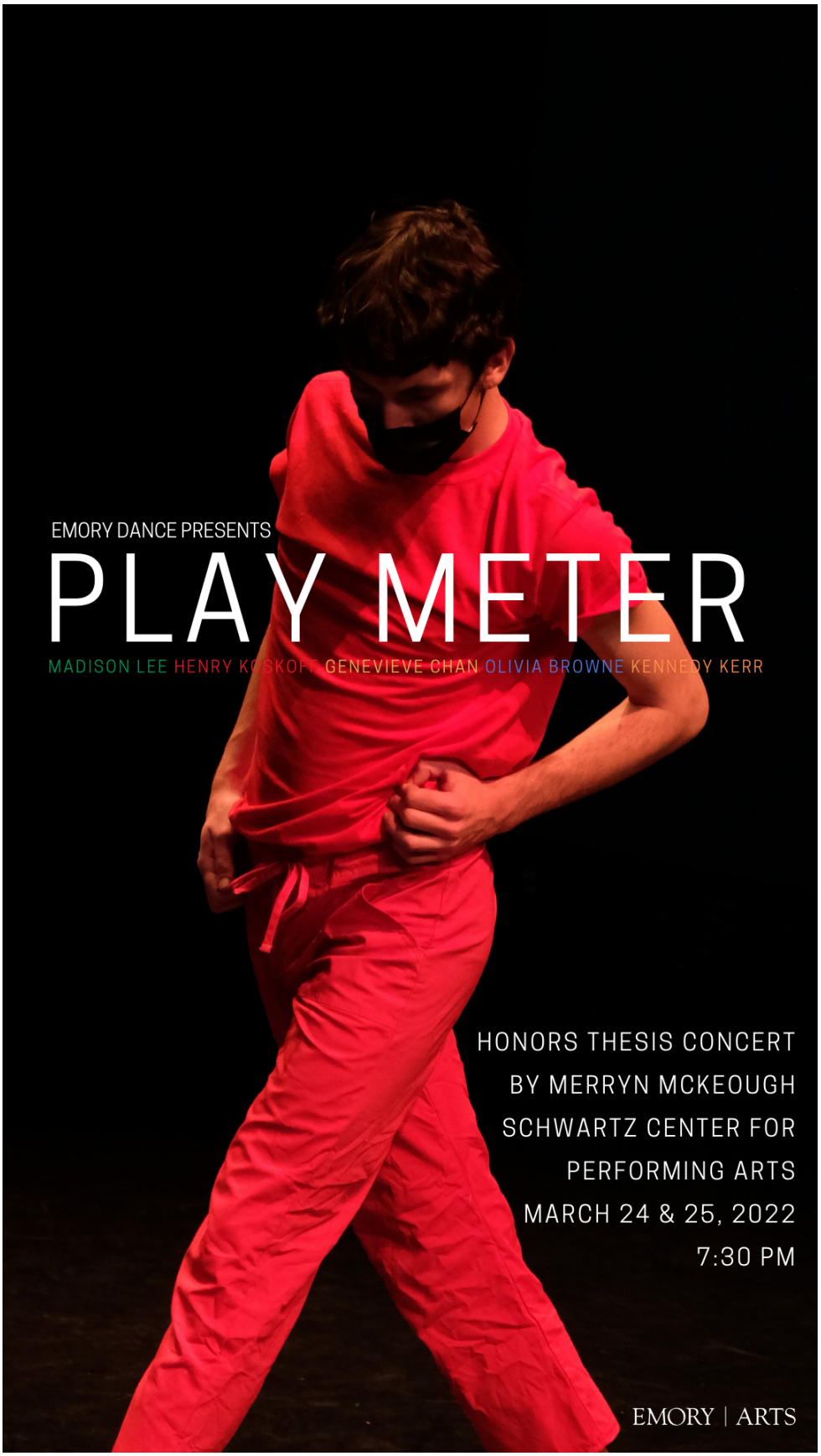
SCHWARTZ CENTER FOR
PERFORMING ARTS
MARCH 24 & 25, 2022
7:30 PM
EMORY | ARTS


EMORY DANCE PRESENTS
PLAY METER
MADISON LEE HENRY KOSKOFF GENEVIEVE CHAN OLIVIA BROWNE KENNEDY KERR
HONORS THESIS CONCERT
BY MERRYN MCKEOUGH
SCHWARTZ CENTER FOR
PERFORMING ARTS
MARCH 24 & 25, 2022
7:30 PM
EMORY | ARTS


EMORY DANCE PRESENTS
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EMORY DANCE PRESENTS AN HONORS THESIS CONCERT
CHOREOGRAPHED BY MERRYN MCKEOUGH
PLAY METER
MADISON LEE HENRY KOSKOFF GENEVIEVE CHAN OLIVIA BROWNE KENNEDY KERR
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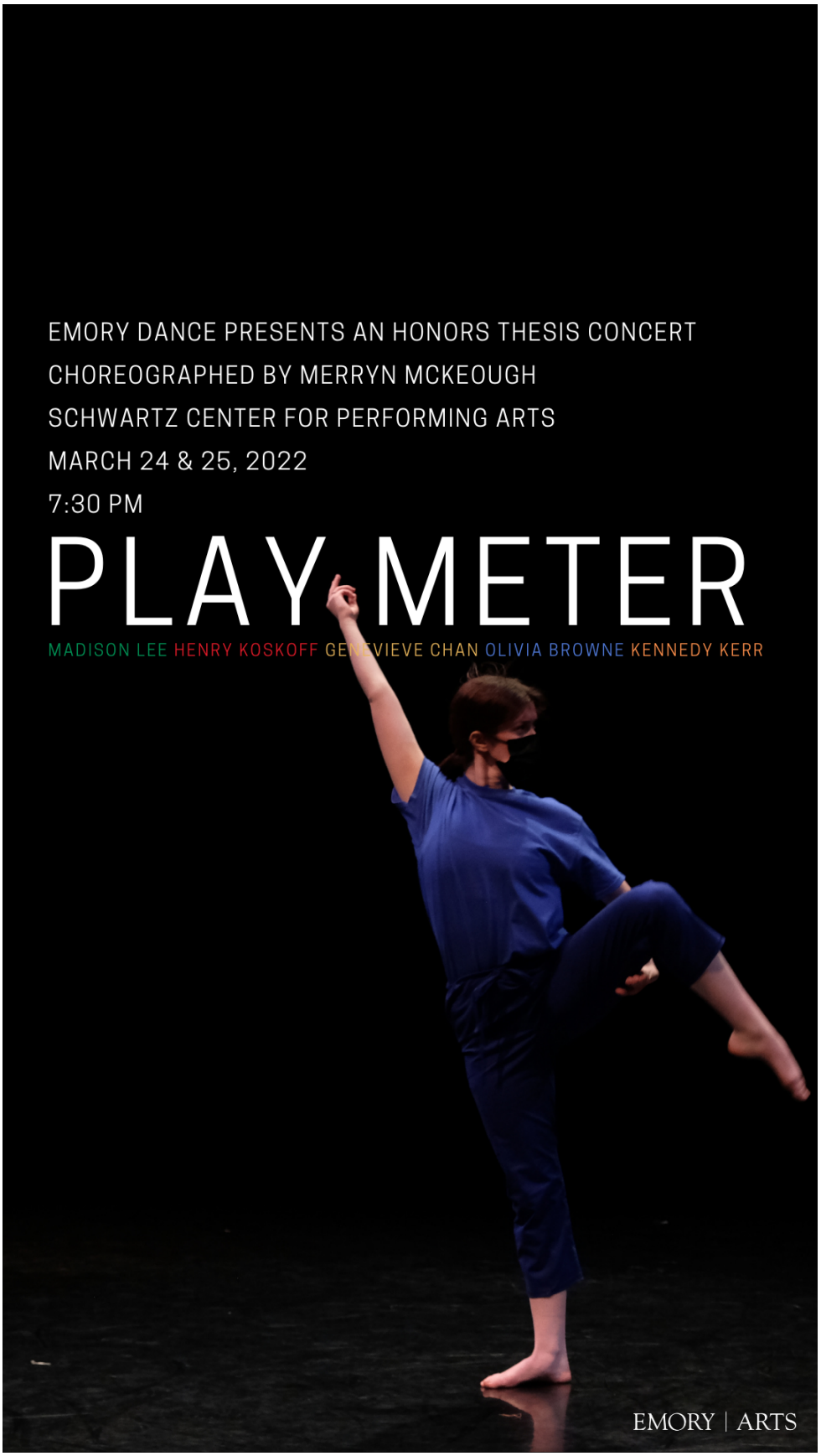
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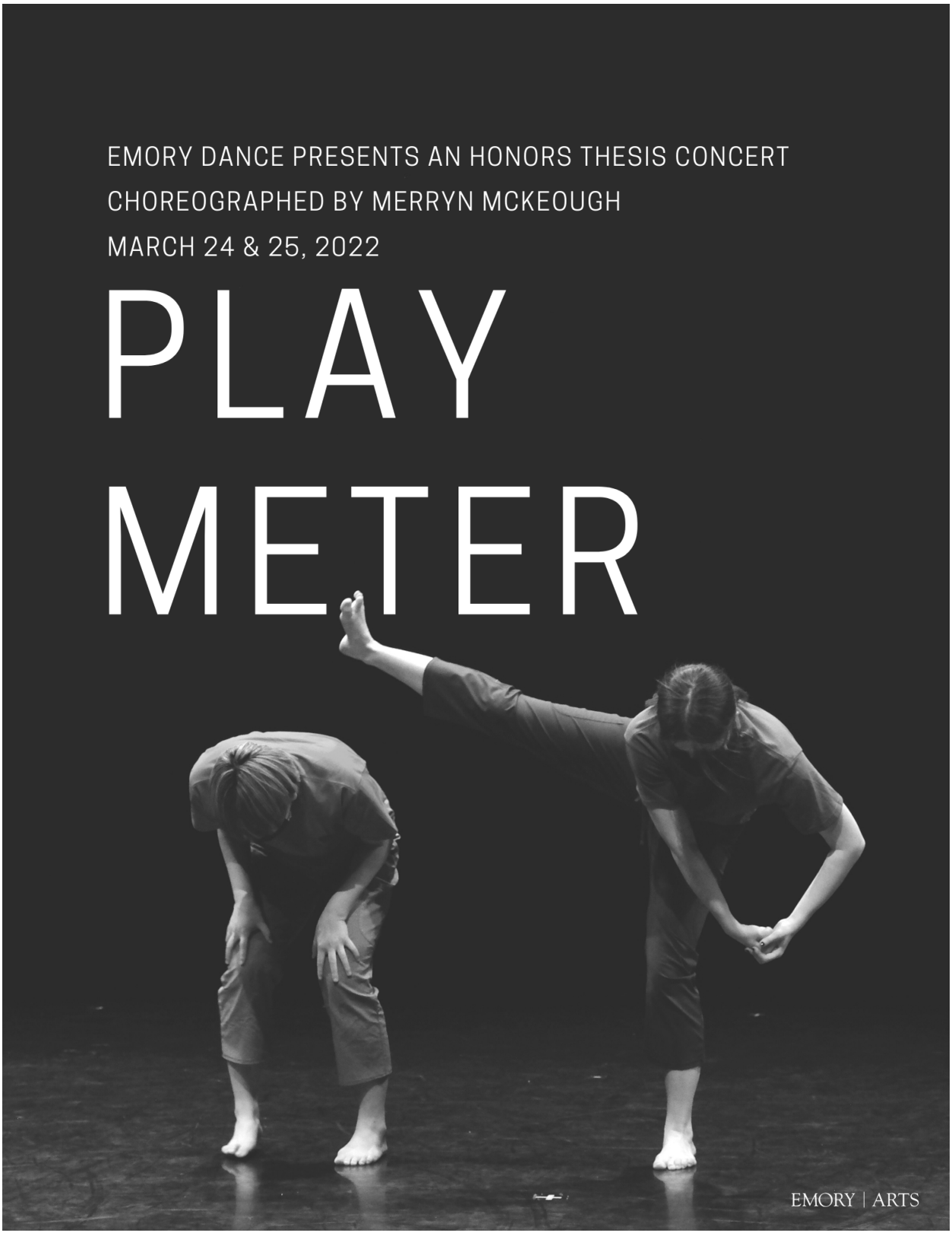
EMORY | ARTS

Appendix B: Concert Program



CAST

OLIVIA BROWNE - BLUE

GENEVIEVE CHAN - YELLOW

KENNEDY KERR - ORANGE

HENRY KOSKOFF - RED

MADISON LEE - GREEN

MUSIC

BPM 100 - ANNA MEREDITH

CEREMONIAL - GILLIGAN MOSS

BPM 178 - ANNA MEREDITH

PRODUCTION

CYNDI CHURCH - COSTUMES

THALES LATHROP - STAGE MANAGER

JAIME MANCUSO - LIGHTBOARD OPERATOR

BEN RAWSON - LIGHTING DESIGN

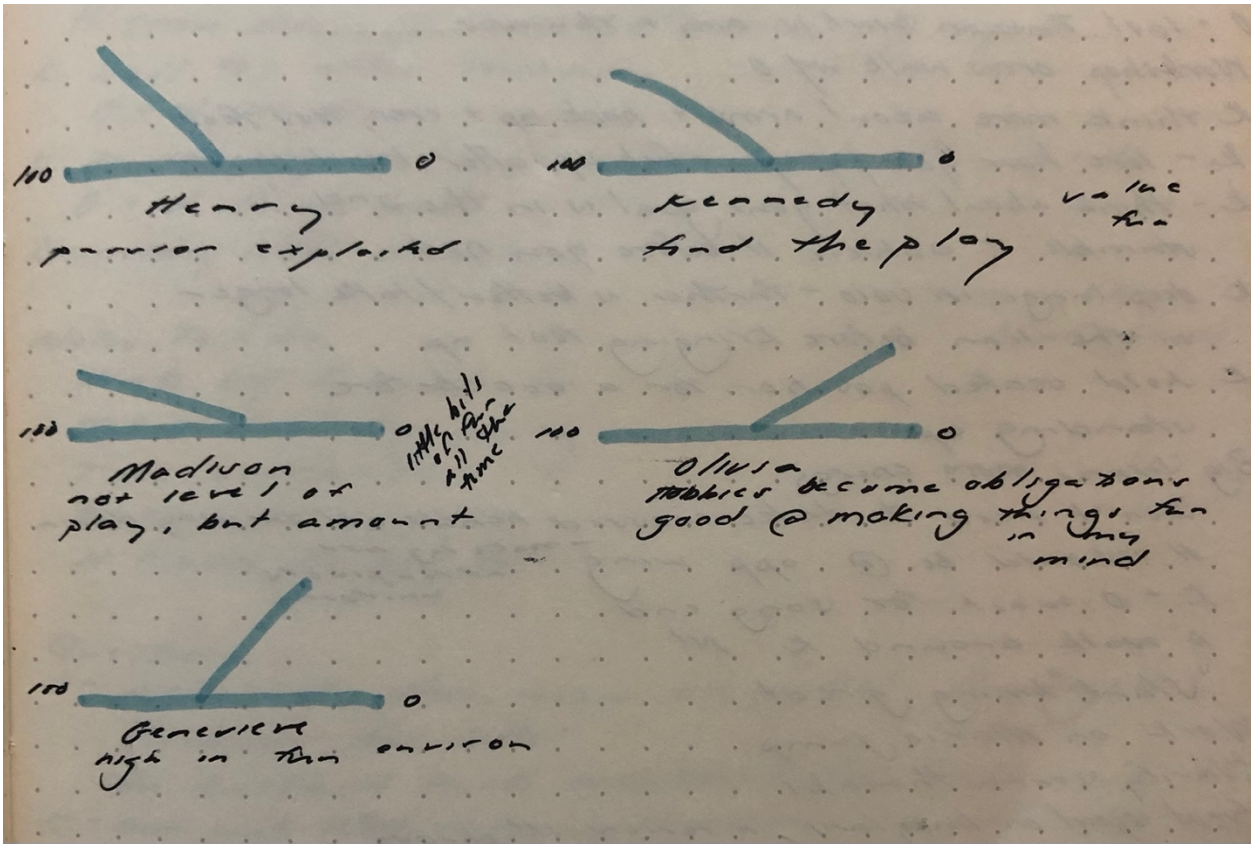
KENDALL SIMPSON - MUSIC EDITING

SCOTT WHEET - STAGEHAND

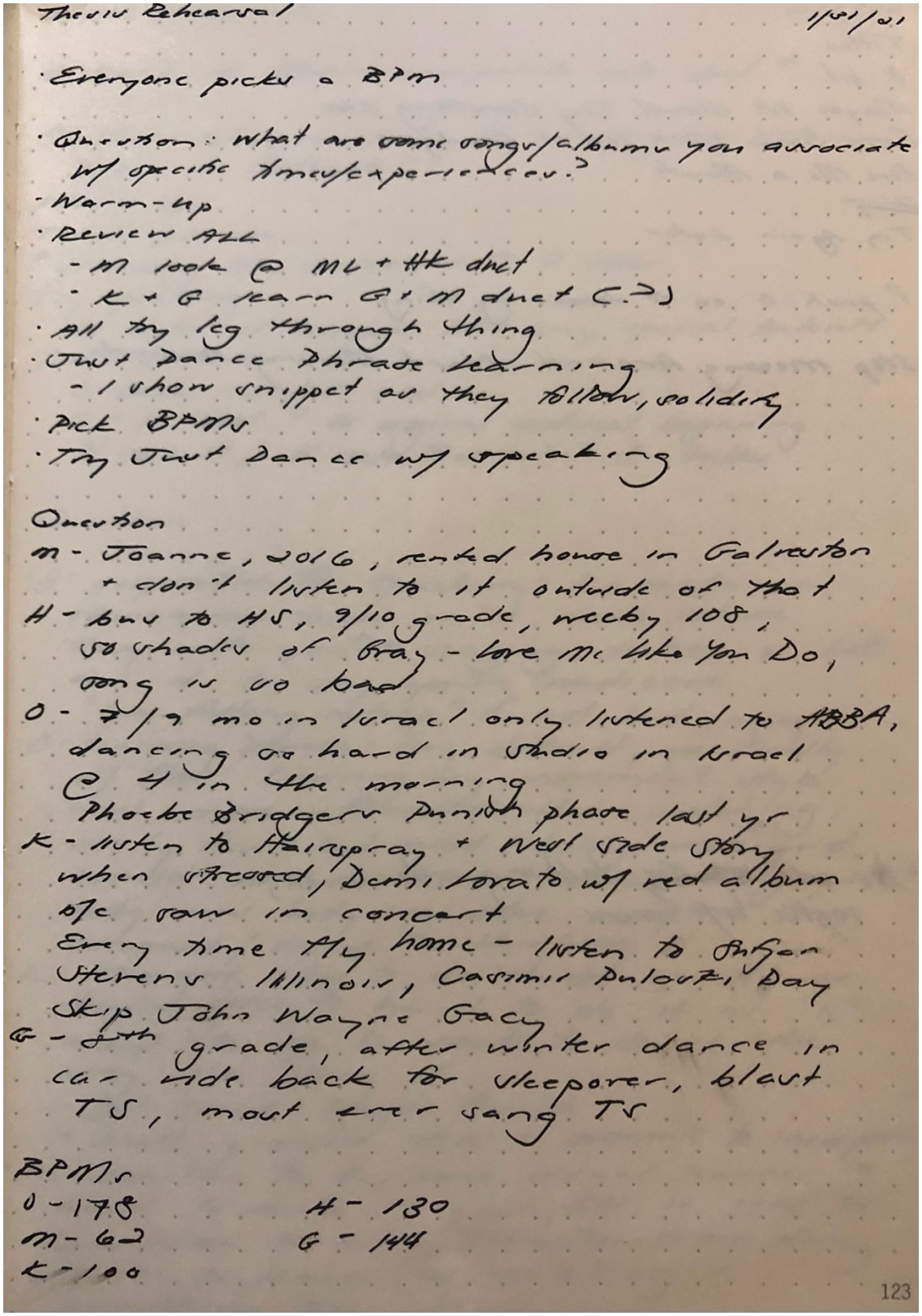
FEEDBACK SURVEY

TINYURL.COM/PLAYMETER

Appendix C: Play Meters



Appendix D: Select Rehearsal Plans and Notes



Thesis Rehearsal 1/31/21

- Everyone picks a BPM
- Question: What are some songs/albums you associate w/ specific times/experiences?
- Warm-up
- Review ALL
  - M look @ ML + HK duet
  - K + G learn G's M duet (?)
- All try leg through thing
- Just Dance phrase learning
  - I show snippet as they follow, solidify
- Pick BPMs
- Try Just Dance w/ speaking

Question

M - Joanne, 2016, rented house in Galveston + don't listen to it outside of that

H - bus to HS, 9/10 grade, nerdy 108, 50 shades of Gray - Love Me Like You Do, song is so bad

O - 7/9 mo in Israel only listened to ABBA, dancing so hard in studio in Israel @ 4 in the morning
Phoebe Bridgers Danish phase last yr

K - listen to Hairspray + West Side Story when stressed, Demi Lovato w/ red album s/c saw in concert
Every time fly home - listen to Sufjan Stevens Illinois, Casimir Pulaski Day
Skip John Wayne Gacy

G - 5th grade, after winter dance in car ride back for sleepover, blast TS, must ever sang TS

BPMs

O - 178 H - 130
M - 62 G - 144
K - 100

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Thesis Rehearsal 2/21/20

Question: 1st instinct to ask for help or try it first
Warm up
Review of Friday
K say "Ravine"
K teach H how to stand up
MM work w/ M + O on duet beginning
Try K doing #1 after little Swans
G + H sit down → thumbs ~~→ thumb war~~
G + H thumbs do @ end of duet
This time w/ thumb war (maybe K)
Go through notes from last run
Conversation? If time. G + H could go into it

Questions
G - always stand up + try to look, but if I conveniently see a person I'll ask
M - don't want to bother but look a little
H - ask workers, although sometimes they react poorly
O - look for a long time if alone, but will always be the person from a group to ask
K - ask w/ away, feel like it's obvious when I wander aimlessly, all about efficiency (except sometimes fun to wander)
H - long time @ Emory CVS
K - ask for help to solve maze in health class

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Theuir Rehearsal 2/25/2022

Do Big Swans w/ score of traveling all
the way across
Try m BPM w/ Ceremonial

Question: what do you feel is your relationship to
others in the dance?
do this last

M + H duet → M jump → balls release → clean up
while M + H play chess
Put them out as fast as possible → they will roll,
clean up again

19:22
20:08
46

Music
Replace 6.2 w/ Ceremonial (0:50)
Solo ≈ 46 sec
Walk ≈ 9 sec, maybe 10

00:11
20:20

Note of risk,
energy

ACDA
Loading
K + O
Little swans
H + G
M
M + O
Trio
M + H

Try ending (see Google doc)
Try pt of H + G duet @
beginning
O + M w/ more sit + shift
Figure out O transition up
Figure out trio entrance
Maybe jumps
Big swans
Costumes + question

G + H switch roles for #1
Hand leapfrog
Stand up w/ wobble
into come hither for M+O → leave
when M leaves

Bibliography

Association for Psychological Science. "Young children learn to take turns for mutual gain." ScienceDaily. June 21, 2016. www.sciencedaily.com/releases/2016/06/160621091048.htm

Banes, Sally. *Terpsichore in Sneakers: Post-Modern Dance*. Middletown, Connecticut: Wesleyan University Press, 1987.

Braguinski, Nikita. "The Resolution of Sound: Understanding Retro Game Audio Beyond the '8-bit' Horizon." Necsus. July 31, 2018. https://necsus-ejms.org/the-resolution-of-sound-understanding-retro-game-audio-beyond-the-8-bit-horizon/

Filiciak, Miroslaw. "Hyperidentities." In *The Video Game Theory Reader*, edited by Mark J.P. Wolf and Bernard Perron, 87-101. New York: Routledge, 2003.

Gray, Peter. "Definitions of Play." Scholarpedia. April 19, 2013. http://www.scholarpedia.org/article/Definitions_of_Play#:~:text=In%20his%20classic%20book%20Homo,the%20player%20intensely%20and%20utterly

"Guitar Hero® World Tour ad featuring Kobe Bryant, Alex Rodriguez, Tony Hawk and Michael Phelps." October 24, 2008. YouTube video, 0:32. https://www.youtube.com/watch?v=30DewN99MIQ

Jensen, Graham H. "Making Sense of Play in Video Games: Ludus, Paidia, and Possibility Spaces." *Eludamos. Journal for Computer Game Culture* 7, no. 1 (2013): 69-80.

Lombard, Matthew and Ditton, Theresa. "At the Heart of It All: The Concept of Presence." *Journal of Computer-Mediated Communication* 3, no. 2 (September 1997). https://doi.org/10.1111/j.1083-6101.1997.tb00072.x

McMahan, Alison. "Immersion, Engagement, and Presence." In *The Video Game Theory Reader*, edited by Mark J.P. Wolf and Bernard Perron, 67-83. New York: Routledge, 2003.

Miller, Kiri. *Playable Bodies: Dance Games and Intimate Media*. New York: Oxford University Press, 2017.

Miller, Kiri. "Schizophonic Performance: Guitar Hero, Rock Band, and Virtual Virtuosity." *Journal of the Society for American Music* 3, no. 4 (2009): 395–429. doi:10.1017/S1752196309990666.

Nelson, Hauk. "Esports Explained: Discord." KemperLesnik. May 2020. https://www.kemperlesnik.com/2020/05/news-esports-explained-discord/#:~:text=It's%20been%20likened%20to%20a,%2C%20non%2Dgaming%20related%20projects.

Robinett, Warren. “Forward.” In *The Video Game Theory Reader*, edited by Mark J.P. Wolf and Bernard Perron, vii-xix. New York: Routledge, 2003.

Steuer, Jonathon. “Defining Virtual Reality: Dimensions Determining Telepresence.” *Journal of Communication* 42, no. 4 (December 1992): 73-93. https://doi.org/10.1111/j.1460-2466.1992.tb00812.x

Van Der Westhuizen, Matt. “Turn-Based Strategy: Genre Overview.” Chaotik. September 4, 2018. https://chaotik.co.za/tbs-genre-overview/

Wolf, Mark J.P. “Abstraction in the Video Game.” In *The Video Game Theory Reader*, edited by Mark J.P. Wolf and Bernard Perron, 47-64. New York: Routledge, 2003.

Wolf, Mark J.P. and Perron, Bernard. “Introduction.” In *The Video Game Theory Reader*, edited by Mark J.P. Wolf and Bernard Perron, 1-24. New York: Routledge, 2003.

Young, Antony. “Guitar Hero vs. Rock Band – Which Media Plan Rocked?” *Ad Age*, January 28, 2010. https://adage.com/article/media/advertising-guitar-hero-5-beatles-rock-band/141792