DANCING NOTES: ANALYZING THE CONNECTIONS BETWEEN CHOREOGRAPHY AND MUSIC IN THE BALLETS OF GEORGE BALANCHINE

SIGNIFICANCE AND CONTRIBUTION. George Balanchine was one of the most prolific and influential choreographers of the twentieth century. He was also a skilled musician, trained at the St. Petersburg Conservatory. His ballets continue to be celebrated for their musicality by prominent dancers and musicians alike. Dancers have noted that steps seem to fit the music like lyrics to a song, and musicians have compared the choreography to musical counterpoint. While such observations are intriguing, they are usually vague, favoring poetry over precision when speaking of how the dance relates to the music. Responding in part to the vagueness of the discourse, scholars and critics began publishing analyses of Balanchine ballets approximately ten years after his death, starting in the early 1990s. Scholarly interest in Balanchine has been accelerating in recent years, with most research focused on his ballets to music by Igor Stravinsky, with whom he had an extraordinary collaborative relationship.

This project offers a complementary perspective on Balanchine's artistry, and it aims to advance both the precision and accessibility of choreomusical (dance-music) research. Balanchine set more scores by Stravinsky than by any other composer—around 40 out of more than 400 works—but the remaining ninety percent of Balanchine's output has received little attention. Focusing on several of Balanchine's most performed ballets set to music by other composers, my analyses trace connections between music and movement using choreomusical notation, a method of dance transcription that I developed to facilitate the comparison of musical and choreographic patterns across both time and media. Adapting Western staff notation to represent dance, I designed choreomusical notation to take advantage of higher literacy rates in that system than in any existing dance notation system. For even broader accessibility, especially to dance practitioners and interdisciplinary scholars, I illustrate my analyses in an audiovisual format using a variety of digital video editing techniques. My research will result in a permanent virtual public exhibition of analytic videos and supplementary materials to be hosted on the website of The George Balanchine Foundation ("GBF," www.balanchine.org), the leading research organization related to the choreographer's legacy. Among GBF's sponsored projects, my analyses will form a counterpart to Stephanie Jordan's 2002 video, *Music Dances: Balanchine Choreographs Stravinsky*, expanding in the direction of choreomusical analysis the Foundation's already extensive repertoire of public-facing research on Balanchine.

Motivated by Balanchine's own creative process, this project studies his ballets from a music-theoretic perspective. In interviews and essays, Balanchine revealed that he often began with a thorough study of the music, including listening to recordings, playing through scores personally, making piano transcriptions, and even analyzing the music.[1] Therefore, I examine the music through the lens of his conservatory training and then examine the choreography against the music. What I have found so far is that the choreography often reflects a score-based study of music, imitating patterns of musical pitch and rhythm through dance. However, these music-movement connections are sometimes obscured. For example, choreographic patterns may not occur simultaneously with their musical models; instead, they may occur immediately before or after the related musical pattern is heard, or sometimes separated by longer temporal distances. In addition, musical models may be selected for imitation not only from the primary melody but also from the bass or less-prominent musical lines. When music-movement connections are subtle, viewers (and dancers) may sense a relationship but struggle to identify what is causing that feeling. Analysis offers the opportunity to make intuitions explicit. A central thesis of this project, therefore, is that tools for music analysis can be applied productively to the study of musical qualities in Balanchine's ballets.

To date, even as the internet has become a significant repository of dance content, dance scholarship and criticism have remained largely in prose. A methodological aim of this project, therefore,

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[1] In a 1964 interview, he said, "You have to analyze in advance what this music is all about, what kind of a sound it is, why it's written this way, what it represents." Quoted in Nancy Reynolds, *Repertory in Review: 40 Years of the New York City Ballet* (New York: The Dial Press, 1977), 183.

is to demonstrate how digital video editing techniques, which have become much more accessible in recent years through basic software, might be used in dance and choreomusical scholarship to reach a wider audience. I present my analyses using annotated video clips, where I illustrate analytical points through visual markings (including text, arrows, and spotlights) or voiceover commentary, and through other video manipulations (described under "competencies"). Recent scholarship increasingly appends simple video clips. However, I believe that advanced annotations and video manipulations can improve the precision and comprehension of arguments about audiovisual art forms and are not yet employed to their full advantage.

Through a series of fifteen-minute video lectures, the *Dancing Notes* exhibition aims to strengthen the impact of choreomusical research by facilitating cross-disciplinary conversations and communications that bridge theory with practice. Analyses of specific music-dance relationships in Balanchine ballets can supply case studies for research in musical multimedia, multimedia perception, and music embodiment. Moreover, the methodologies demonstrated in this project may provide tools for music theorists and dance scholars to cross over their disciplinary boundaries more easily, expanding Dance Studies into greater acceptance of observer studies (in addition to the more traditional expert-practitioner studies) and expanding Music Theory into greater acceptance of dance as expressions of musical artistry. For GBF's established audience of choreographers, aspiring choreographers, dancers, musicians, critics, scholars, and interested members of the public, *Dancing Notes* will offer discussions of Balanchine's musicianship in a format that will be easier to access and consume than prose scholarship.

ORGANIZATION, CONCEPTS, AND METHODS. In order to examine Balanchine's musical artistry, the choreomusical style of his ballets, and the music-movement relationships that create the perception of musicality in his choreography, my project transcribes dance into a music-based staff notation. As shown in Appendices 1, 2, and 3, the vertical position of the dancer is represented by the vertical placement of noteheads on the three-line dance staff; the dancer's placement of weight (on the left leg, right leg, or both) is represented by stem positions on the left or right of the notehead (mirroring the reader's orientation); and time is represented on the horizontal axis, where durational symbols are adopted from music rhythmic notation for the representation of dance rhythms.[2] On a choreomusical score (like the excerpt shown in Appendix 3), representations of dance and music are isomorphic, so that patterns in the music can be compared easily with patterns in Balanchine's musical-score-based choreography.

For each ballet to be analyzed, my research begins with an examination of various source materials to arrive at a choreographic text for analysis, with the understanding that some ballets are more set choreographically than others. Sources include video recordings of performances, with those recorded during Balanchine's lifetime and with his input being given greater authority. For some ballets, there are also staging notes, piano scores used during Balanchine's tenure that are annotated with choreographic details, dance notation scores created during Balanchine's lifetime or shortly after his death, documentary videos of coaching sessions (created by GBF), and the living dancers who originated roles. After deciding on a text (or, in some cases, a few versions), I analyze the music using traditional as well as current tools of music analysis, and then I compare dance patterns to musical ones, creating choreomusical transcriptions of complete works or excerpts of longer works. Video editing software helps me to analyze some excerpts frame by frame, to adjust music-movement synchronization as needed on older recordings, and to illustrate my analytical points. Sample frames of annotated video clips used in video lectures are shown in Appendices 4 through 7. Other techniques I have used are described below.

The virtual exhibition planned in partnership with GBF will include approximately seven ballets, which were chosen for their combination of audience popularity and musical interest, and because they represent a wide range of musical styles and time periods in Balanchine's career. The ballets are *Serenade*

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[2] Weight placement, rhythm, and vertical position are the primary features ballet dancers mark with their hands when learning or teaching steps, and they are the features represented in the columns adjacent to the center line in Labanotation. The sense of rhythm in classical ballet is closely associated with shifts of weight in the steps, or *pas*. Dance movements are more continuous than music notation can depict, so durational symbols mark the intervals between arrivals at prescribed dance positions (body shapes).

(1935, music by P.I. Tchaikovsky), *Concerto Barocco* (1941, J.S. Bach), *Symphony in C* (1947, G. Bizet), *Symphonie Concertante* (1947, Mozart), *Tschaikovsky Pas de Deux* (1960, Tchaikovsky after L. Minkus), *Who Cares?* (1970, G. Gershwin), and *Mozartiana* (1981, W.A. Mozart, orchestrated by Tchaikovsky). These ballets will show Balanchine working with various musical structures (including sonata form, ritornello form, theme and variations, and fugue) and styles (including Baroque, Classical, Romantic, and jazz-influenced American). The work on two of the seven ballets can be completed quickly; I have already published print articles on *Concerto Barocco* and *Tschaikovsky Pas de Deux*, and I have already published a videocast article on the former (https://vimeo.com/495091183). The other five analyses have been started to varying degrees or are yet to be started but will be manageable in a one-year time frame. In the future, this project may be expanded by adding analyses of additional ballets.

The project will be structured on the website as follows. An introductory webpage will include the rationale and methodology, information on choreomusical notation, some highlights (what to look for) and general observations about Balanchine's choreomusical style based on the analyses. Each of the seven ballets will then have its own page with a brief description and historical information, an embedded video lecture, and thumbnail links to supplementary materials, including a transcript (in addition to closed captioning on the video), musical and choreomusical scores, digitized primary sources and historical images located on library websites, a bibliography, and an alternate version of the video that narrates the visual images for audio-only or visually impaired audiences. Appendix 8 shows a sitemap based on the description above.

COMPETENCIES, SKILLS, AND ACCESS. Choreomusical analysis is my research specialty, and it brings together my lifelong training in music and in dance. Music theory is my primary academic discipline, and my training was based in a curriculum that endured throughout most of the twentieth century. Charles Joseph (2002) shows that Balanchine had very similar musical training. My dance education includes studying ballet with teachers who danced for Balanchine (Lois Ellyn and John Prinz). I have also studied American vernacular dance traditions (jazz and rhythm tap), which has been helpful in exploring Balanchine's stylistic innovations. I have studied at the Laban/Bartenieff Institute for Movement Studies in New York and am able to read dance notation scores (Labanotation most fluently). During my fellowship in 2019 at The Center for Ballet and the Arts at New York University, I developed connections to current and former dancers from Balanchine's company, the New York City Ballet, who have helped to further some of my research. My video editing skills have been sharpened through the video dance analysis work I have been doing over the past fourteen years. Using Adobe Premiere Pro software, I have devised new ways of illustrating choreomusical arguments by annotating videos with texts and scores or by manipulating them to show side-by-side comparisons, change playback speeds, change audio-visual synchronization, or show alternative hypothetical choreographic choices through cutting and pasting clips. Based on my experience and training, I feel confident that I am well equipped to execute this project. I will be able to complete my work using mostly digital sources (performance videos already in my possession or being acquired through GBF) and with a few visits to archives at the Harvard Theatre Collection and The Jerome Robbins Dance Division of The New York Public Library.

FINAL PRODUCT AND DISSEMINATION. As my work is finalized, each part will be reviewed by GBF, dance scholar Stephanie Jordan (a volunteer consultant to this project), and various music scholars before publication on GBF's website, social media accounts, and streaming services. We intend to release video lectures and individual ballet webpages as they are completed.

Permissions from various rights holders (artist unions, The George Balanchine Trust, and the New York City Ballet) are being sought in partnership with GBF. The agreements, which are expected to be finalized imminently, will enable GBF to share the video lectures with the public indefinitely.

By partnering with GBF, my research will be brought directly to the attention of GBF's audience and made available to the public through advance agreements with copyright holders. (These rights are usually a significant limiting factor in Balanchine research.) As a public-facing permanent virtual exhibition of video dance analyses, *Dancing Notes* will offer specific examples to support general intuitions about Balanchine's musicality, and it will provide new ways of discussing musicality in dance with greater precision using annotated digital videos and choreomusical transcription.