

I. COMPOSER AND CHOREOGRAPHER:
A STUDY OF COLLABORATIVE COMPOSITIONAL PROCESS
II. THE LOTUS FLOWER, BALLET MUSIC FOR
CHAMBER ENSEMBLE AND TWO-CHANNEL AUDIO

By

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Chan Ji Kim

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TABLE OF CONTENTS

	<u>page</u>
ACKNOWLEDGMENTS	iii
LIST OF TABLES	viii
LIST OF FIGURES.....	ix
LIST OF OBJECTS	x
ABSTRACT.....	xi
PART 1. COMPOSER AND CHOREOGRAPHER: A STUDY OF COLLABORATIVE COMPOSITIONAL PROCESS	
CHAPTER	
1 INTRODUCTION.....	2
Purpose	4
Content.....	4
Need for the Study.....	5
Problems within the Collaborative Process	6
Limitations	6
Notes.....	7
2 HISTORICAL BACKGROUND.....	8
Introduction.....	8
Historical Relationships between Music and Dance	9
Igor Stravinsky and Vaclav Nijinsky	12
Igor Stravinsky and George Balanchine.....	13
Aaron Copland and Martha Graham	16
Leonard Bernstein and Jerome Robbins.....	17
John Cage and Merce Cunningham.....	18
Summary.....	24
Notes.....	24

3	ISSUES OF COLLABORATION	27
	Work Process	28
	Dependent Creation	28
	Synchronous dependent creation.....	29
	Asynchronous dependent creation.....	34
	Synchronous/Asynchronous Independent Creation	39
	Performance Aesthetics	42
	Live Performance versus Recorded Music	42
	Improvisation versus Composition.....	45
	Integration of Technology	50
	Technology as a Compositional Tool.....	50
	Technology within the Collaborative Process	52
	Internet collaboration.....	53
	Alternative real-time performance collaboration	55
	Summary.....	57
	Notes.....	58
4	METHODS AND STRATEGIES OF COMMON VOCABULARY	62
	Identification and Discussion of Common Vocabulary	63
	Design	64
	Rhythm	67
	Tempo.....	78
	Time (or Duration)	82
	Phrase.....	84
	Dynamics	89
	Texture and Effect.....	96
	Form.....	99
	Space.....	102
	Style.....	105
	Summary.....	106
	Notes.....	109
5	DISCUSSION AND CONCLUSIONS.....	114
	Notes.....	119
PART 2. THE LOTUS FLOWER, BALLET MUSIC FOR CHAMBER ENSEMBLE AND TWO-CHANNEL AUDIO		
6	THE LOTUS FLOWER, A BALLET BASED UPON THE KOREAN FOLK TALE THE STORY OF SHIM CHOUNG	121
	Program Notes.....	121
	Instrumentation	122
	Performance Notes	124

APPENDIX

A	COMPOSER/CHOREOGRAPHER INTERVIEWS.....	126
	Dinu Ghezzo, Composer.....	126
	Ron Mazurek, Composer.....	130
	Tom Beyer, Composer.....	135
	John Gilbert, Composer.....	138
	Esther Lamneck, Performer.....	140
	Teresa Fellion, Choreographer.....	142
B	COLLABORATION CHRONOLOGY.....	146
	Igor Stravinsky and Vaclav Nijinsky.....	146
	Igor Stravinsky and George Balanchine.....	146
	Aaron Copland and Martha Graham.....	146
	Leonard Bernstein and Jerome Robbins.....	146
	John Cage and Merce Cunningham.....	147
	LIST OF REFERENCES.....	151
	BIOGRAPHICAL SKETCH.....	156

LIST OF TABLES

<u>Table</u>	<u>page</u>
6-1. Scene descriptions	122
6-2. Instrumentation in <i>The Lotus Flower</i>	123
6-3. Percussion instruments in <i>The Lotus Flower</i>	123
6-4. Mallets in <i>The Lotus Flower</i>	123
6-5. Performance notes in <i>The Lotus Flower</i>	124
B-1. Collaborations by Igor Stravinsky and Vaclav Nijinsky	146
B-2. Collaborations by Igor Stravinsky and George Balanchine	146
B-3. Collaborations by Aaron Copland and Martha Graham	146
B-4. Collaborations by Leonard Bernstein and Jerome Robbins	146
B-5. Collaborations by John Cage and Merce Cunningham	147

LIST OF FIGURES

<u>Figure</u>	<u>page</u>
6-1. Multiphonic Fingering for Clarinet in Bb.....	125
6-2. Multiphonic Fingering for Alto Saxophone	125

LIST OF OBJECTS

<u>Object</u>	<u>page</u>
6-1. Full score of <i>The Lotus Flower</i> as a PDF document	125
6-2. Sound file of <i>The Lotus Flower</i> , the first section of electroacoustic music in scene 2: The Blind Father and a Monk	125
6-3. Sound file of <i>The Lotus Flower</i> , the second section of electroacoustic music in scene 2: The Blind Father and a Monk	125
6-4. Sound file of <i>The Lotus Flower</i> , electroacoustic music in scene 5: Under the Sea, The Dragon Palace	125

Abstract of Dissertation Presented to the Graduate School
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This study examines the relationship between composers and choreographers in collaborative work, including an in-depth look at basic processes, issues of collaboration, and barriers to collaboration. A discussion of an ideal or ultimate collaboration and the balance of creativity between composing and choreographing is furthered by tracing the historical background of the collaboration of different composers and choreographers in modern music and dance, specifically the work of Igor Stravinsky and Vaclav Nijinsky, Igor Stravinsky and George Balanchine, Aaron Copland and Martha Graham, Leonard Bernstein and Jerome Robbins, and John Cage and Merce Cunningham.

By addressing different processes of collaboration used in contemporary works and examining the different ways music and dance use terms such as rhythm, tempo, duration, dynamics, articulation, phrase, texture, effect, form, space, and style, useful vocabularies and compositional processes can be identified. Informal interviews and

discussions with composers and choreographers about their experiences reveal the advantages and disadvantages of different types of collaboration. Through examination of different collaborative processes, this project develops strategies and exercises that assist in creating environments conducive to collaborations.

Part I of this document examines the relationship between composers and choreographers in collaborative work, while Part II is an original composition, *The Lotus Flower*, for flute, clarinet, saxophone, violin, viola, double bass, piano, percussion, and tape. The piece is for a ballet in six scenes which is based upon the Korean folk tale, *The Story of Shim Choung*.

PART 1. COMPOSER AND CHOREOGRAPHER:
A STUDY OF COLLABORATIVE COMPOSITIONAL PROCESS

CHAPTER 1 INTRODUCTION

In collaboration, rule one is you're dealing with a human being, a real personality. Not with your press, not with some projection generated by media. I need to work with passion, with urgency. From my perspective, you want first of all for them to share their questions with you, what they find urgent or beautiful.¹

—Bill T. Jones, 2002

Through collaboration, composers and choreographers create unique works of art. Gaining collaborative experience, appreciating the history of successful collaborative efforts, and understanding the common vocabulary of two disciplines involved are important components in each artist's development. An understanding of each other's art and creative approach will help ensure a successful collaboration. Collaborators must be aware of various circumstances and be able to adjust to different situations. As composer Tom Beyer says, "You always have to look at the circumstance because each collaboration is a different situation. You must be willing to have an open-mind when you decide to work with choreographers. Collaboration depends on your ability to give up things. That needs to be understood. I do not insist on using only my work, instead I think of the art, and think how we can achieve the goal together."² A composer and choreographer each develop their own method of reaching equilibrium in a collaborative work. They need to share ideas and develop respect for each other's view. By participating in interdisciplinary art forms, collaborators are exposed to new performance possibilities and gain exposure to new audiences. Many other benefits arise from collaborations. As composer Dinu Ghezzo says, "Yes, of course I want to have my own

composition, but I learn from my colleagues and collaborators, and I expand my creative ideas in my composition.”³ By sharing ideas and learning from each other, collaborators develop their creative ability.

To understand how composers and choreographers reach artistic equilibrium in a collaborative work, a brief historical review is needed. A review of successful collaborations between music and dance gives insight into various collaborative processes. It can also answer the question of how creators reconcile the potentially competing roles of the two arts. The artists involved in noteworthy collaborations covered in this study are: Igor Stravinsky and Vaclav Nijinsky, Igor Stravinsky and George Balanchine, Aaron Copland and Martha Graham, Leonard Bernstein and Jerome Robbins, and John Cage and Merce Cunningham.

Collaborative approaches can be distinguished in several ways. At one level, the approach to collaboration can be distinguished by whether the components of a collaborative work are created at the same or different times, and whether they are designed independently or not. In each collaborative venture, artists benefit by exploring different processes. Describing his class, Collaborative Production Project, John Gilbert says, “In class, they [students] develop connections, learn how to communicate with other artists, and how to balance freedom and control in collaboration.”⁴ Finding comfort within collaboration can provide artists with an environment that is conducive for creation, and which allows them to have artistic input and full participation in the process.

Collaborating on a work of art is not always easy, and it can sometimes be very difficult. Many artists create their work independently, without interference from another

artist's opinion. While many artists prefer to work alone, with effort and understanding, collaboration can be a very fruitful venture. Choreographer Doris Humphrey says, "The choice of music [for dance], in theory, is fairly simple, but in practice there are so many complications to consider in a given situation that it is a major problem, to be met with all possible knowledge, experience and advice."⁵ Likewise, composing music for dance may seem straightforward, but when all aspects of the dance are taken into consideration, the compositional process can become involved and complex. It can be difficult for the composer and choreographer to find equilibrium between writing the music and choreographing the dance.

Purpose

This study examines the relationship between composers and choreographers working collaboratively. Insight into various collaborative processes is gained by tracing the history of different collaborations in modern music and dance. This study examines the balance of creativity between composing and choreographing, and different processes of collaboration used to create contemporary collaborative works. This study is primarily for composers who are interested in collaborating with choreographers. This study is especially valuable for composers who are interested in the collaborative compositional process early in their artistic career. By identifying and comparing the common vocabulary of music and dance, composers and choreographers can better understand each other's compositional process and communicate with each other more effectively.

Content

This study consists of three parts: a historical review of collaborative works, an analysis/discussion of collaborative processes and issues of collaboration, and a discussion of the common vocabulary used by music and dance. Chapter 1 is an

introduction of the study. Chapter 2, Historical Background is the first part of the study, which covers several noteworthy collaborations in the twentieth-century that can serve as models for artists to explore interdisciplinary art forms.

The compositional process within a collaborative work and the choices made regarding performance aesthetics are discussed in Chapter 3. The different collaborative work processes discussed include the synchronous and asynchronous forms of dependent and independent collaborations. Performance aesthetics are addressed through the comparison and contrast of different tools, such as live performance vs. recorded music and improvisation vs. composition. This chapter also discusses collaborations that have involved the integration of technology.

Chapter 4 examines the similarities and differences of collaborative compositional methods and strategies that allow composers and choreographers to develop a common vocabulary. Terms such as rhythm, tempo, duration, dynamics, phrase, texture and effect, form, space, and style are addressed for their parallel usage in music and dance.

Drawing on information from the previous chapters, the study concludes with an overview of the project, including an examination and a discussion of the results.

Appendix A includes transcription of excerpts from the interviews with contemporary composers and choreographers about their own collaborative experiences, and Appendix B details the collaboration chronology discussed in Chapter 2.

Need for the Study

This study is important because it provides information on previous successful collaborative efforts, and discusses issues crucial to the collaborative process. Music and dance share many basic compositional elements and use similar vocabulary to describe the compositional process. Although these vocabularies are used in both disciplines, their

meanings vary slightly. Learning how each artist uses different terminology is important; however, little academic research has been devoted to this issue. It is valuable to study the varied meanings of common vocabulary between music and dance because adopting a commonly understood vocabulary will allow composers creating music for dance to better understand the intention of the choreographer during a collaboration. Not only is it necessary to introduce aspects of dance to composers, but also to introduce aspects of music to choreographers. The compositional processes in music and dance are similar, but each creator has different perspectives on how to combine elements when working together.

Problems within the Collaborative Process

It is difficult to analyze the relationship between composing and choreographing. Although music and dance share some fundamental characteristics such as rhythm, structure, and function, the composer and the choreographer often approach these characteristics from different viewpoints. Composing concert music and composing music for dance are different activities. In the latter, composers have to interact with another artistic world, that of dance. A primary purpose of this study is to highlight the differences in vocabulary and approaches to the creative process as well as to provide ways to bridge the gap between artists.

Limitations

This study focuses on contemporary collaborative work in music and dance. For the purpose of this study the term “modern dance” refers to works from approximately 1900 to the present. The primary audience for this study is the composer seeking an understanding of the possible differences between the tasks of composers and

choreographers. Theatrical production and logistics are not discussed, nor are financial issues discussed in detail.

Notes

¹ Joyce Morgenroth, *Speaking of Dance: Twelve Contemporary Choreographers on Their Craft*. New York and London: Routledge, 2004, p.151.

² This quote is taken from an interview with Tom Beyer at New York University on May 2005. See more in Appendix A: Composer/Choreographer Interviews.

³ This quote is taken from an interview with Dinu Ghezzo at New York University on May 2005. See more in Appendix A: Composer/Choreographer Interviews.

⁴ This quote is taken from an interview with John Gilbert at New York University on May 2005. See more in Appendix A: Composer/Choreographer Interviews. The class, Collaborative Production Project, involves Internet collaboration with students at the University of California Santa Cruz.

⁵ Doris Humphrey, *The Art of Making Dances*. Barbara Pollack, Editor. Princeton: Princeton Book Company, Publishers, 1987, pp.132–133.

CHAPTER 2 HISTORICAL BACKGROUND

Introduction

In working with Merce [Cunningham], the first thing we did was to liberate the music from the necessity to go with the dance, and to free the dance from having to interpret the music.¹

—John Cage, 1965

Experimenting with compositional approach is an important part of collaboration. Artists strive to understand each other's compositional process or develop a new process together. This chapter explores the genesis and development of music and dance as dependent art forms and discusses how they developed into independent art forms. Although the specific origins of ancient music and dance are not known, it is theorized that music and dance were first created for ritual activities. People taking part in the rituals would sing and dance, and the music was related to the dancers' body movements. In addition, this chapter discusses the historical relationship between music and dance, as well as the development of collaboration in modern dance by focusing on five important partnerships in modern dance and music: Igor Stravinsky and Vaclav Nijinsky, Igor Stravinsky and George Balanchine, Aaron Copland and Martha Graham, Leonard Bernstein and Jerome Robbins, and John Cage and Merce Cunningham. The chapter covers examples of their most noteworthy collaborations, significant features and unique qualities in their collaborative works, the influences their work had on others, and their collaborative processes.

Historical Relationships between Music and Dance

Particularly in agricultural communities, rituals are group activities that are firmly rooted in tradition. Primitive societies used rituals, which combined cultural elements such as music, dance, painting, poetry, and drama, to connect with their gods. Sometimes lasting for days, these rituals were all-inclusive collaborations that required creative visual designs, including costumes, bodily decoration, ornaments and symbols, and used sound and movement as essential elements. The performance of music and dance were dependent social activities, developing naturally from bodily rhythm. The combination of activities such as drumming, singing, chanting, dancing, clapping, and stamping made the ritual complete. Although dance and music were often interdependent in antiquity, they later began to develop independence.

The separation of music and dance occurred at different times in Western and Eastern cultures. Music began to develop independence in Western culture with the rise of Christianity. Henry Cowell discusses the separation between music and dance in *Dance Observer* in 1937:

The Christian church adopted music as part of its method of worship, and fostered its study and development; while, except for the comparatively slight dance interest in the early ritual, it abandoned the dance as a means of worship, relegating it to paganism, except in a few isolated instances.²

Throughout its history, the Christian church has tended to exclude all forms of dance including ritual dance. Outside of the church, however, dance continued to develop as secular art and entertainment. For example, folk dance and music continued to develop dependently, resulting in the creation of national folk dances. Cowell discusses the difference in the development of dance between Western and Eastern cultures:

But being disassociated with religion, it was not cultivated as a fine art and made into a composition, in the sense of concert dance, nor in the sense of a ritual. The

art-dance almost died out in the Western world. In the Orient, the art of the dance and its association with music developed continuously, and there is no problem in the relationship there; since in all Oriental cultures, both the movements of the dance and the sounds that go with them have been formalized, and certain philosophical meanings are ascribed to them.³

Ballet developed in Europe during the Renaissance period (approximately 1300 to 1600 C.E.) in the courts of the Italian and French nobility.⁴ In European society, ballet existed as a form of court entertainment until the beginning of the Romantic period. In ballet, musical elements and dance movements tend to be co-dependent and closely related. Music for early ballet combined with the dance movements to tell a story. Although some music written for ballet corresponds precisely with the dance movements, some were less closely synchronized to the dance. Many works of ballet music contained prominent use of leitmotifs, meaning “leading motive” in German. The leitmotifs—a musical fragment, related to some aspect of the drama that recurs in the course of an opera—was used to characterize different narrative elements in the ballet.⁵ Leitmotifs contributed to the formal design of the work and could help the audience recognize important moments. The structure and drama between music and dance are typically interdependent in traditional ballet. With the appearance of modern dance, however, music and dance are no longer automatically linked.

During the twentieth-century, the interdependence of music and dance was deemphasized. Henry Cowell comments on the effect of various modern ideas in music and dance:

as far as music is concerned, [music for the dance has] arisen from the natural and correct desire of the dance to be independent and not reliant on the music for its form and content. There have been dances without any music or sound. There have been dances to percussion sound only. There have been attempts to write the music in the studio at the same moment that the dance is being invented. There

have been many dances composed first, after which music was written for them. This reverses the older idea that the dance should be made to the music.⁶

Simultaneously with the twentieth-century breakdown of the interdependence of music and dance came the development of new methods of collaboration. Revolutionary concepts and technical methods of modern dance (of the past 100 years), credited to choreographers such as Isadora Duncan, Martha Graham, and Doris Humphrey, contributed to a new approach to movement. Further, Merce Cunningham and John Cage experimented with a new concept of space and time in their collaborative work. Attitudes toward music and collaboration between composers and choreographers changed in the late twentieth-century. Sally Banes distinguished three phases in the development of modern dance. She states in *Choreography and Dance* in 1992:

In the Sixties, choreographers broke away both from Horst's restrictive musical prescriptions and the Cunningham-Cage model of "collaboration at a distance" to explore every possible relation between the two arts. In the Seventies, the avant-garde arts tended to separate, with artists seeking to refine the essence of their chosen medium, and dancers often eschewed the use of music altogether. In the Eighties, the tendency toward spectacle and virtuosity, an interest in popular and non-Western dance, and the simultaneous move of new music toward social-dance forms has led to a new alliance between dance and music.⁷

Many contemporary composers and choreographers have challenged the historically rooted styles of the Sixties, and even now, new concepts of collaboration continue to appear. The products of collaboration continue to evolve into new forms: the separation of music and dance, the effect of mixed cultures, the use of alternative performance spaces such as museums and laboratories, and the involvement of technology. Composers and choreographers explore the limits and possibilities of collaboration while incorporating different types of media to produce a total artwork.

Igor Stravinsky and Vaclav Nijinsky

Igor Stravinsky and Vaclav Nijinsky's most famous collaborative work, *The Rite of Spring*, was conceived as a complete artistic work, integrating music, dance, drama, staging, and set design. This successful collaboration was very different from traditional ballet, and was shocking to audiences. Stravinsky's musical evocation of pagan Russian rituals complemented Nijinsky's strong, rhythmic choreography. The production of *The Rite of Spring*, from the choreography to the costumes and sets, was just as shocking as the music. In *The Rite of Spring*, the underlying story for the ballet is present not only in the music and dance, but also throughout the entire production. All aspects of the collaboration create a total artwork, a *Gesamtkunstwerk*.⁸

Music from *The Rite of Spring* emphasizes brief melodic fragments of folk-like simplicity, which combine to produce larger, more complex units throughout the piece. Many twentieth-century composers used small fragments of folk music within their modern musical scores; the scores of Aaron Copland, composed for Martha Graham, are one example. The use of folklore in Graham's choreography created new compositional possibilities for modern ballet as well.

Both Stravinsky and Nijinsky worked in very close contact with the other artists on all aspects of the production. The scenario for *The Rite of Spring* originated from Stravinsky's own idea.⁹ The music was designed to contribute to the entire staged work, which had a pronounced effect on the formal characteristics and compositional plan. While Stravinsky composed the music, Nijinsky choreographed the dance, working separately yet with a strong understanding of the music's planned sound and feel. While Stravinsky composed the music, he envisioned certain dance movements and even offered suggestions to Nijinsky. Both intended to create a work with radical rhythmic

characteristics, which are arguably the most significant feature of *The Rite of Spring*.

After the 1913 premiere of *The Rite of Spring* in Paris, many composers and choreographers broke from traditional ways of thinking about compositions for ballet and dance and followed new artistic paths.

Igor Stravinsky and George Balanchine

Stravinsky and Balanchine had similar backgrounds. Both men were raised and educated in Russia and came from wealthy, artistically active Russian families. Both also traveled for long periods of their lives and were influenced by Western European, especially French, culture. Eventually, both Stravinsky and Balanchine came to America and successfully collaborated on many productions. They shared artistic direction in their collaborations. Both adhered to a traditional conception of the creative artist, viewing composition and choreography as two distinct and relatively autonomous art forms.

Stravinsky describes his concept of choreography saying:

Choreography, as I conceive it, must realize its own form, one independent of the musical form though measured to the musical unit. Its construction will be based on whatever correspondence the choreographer may invent, but it must not seek to duplicate the line and beat of the music. I do not see how one can be a choreographer unless, like Balanchine, one is a musician first.¹⁰

Because Balanchine respected the autonomy of music, he conceived his choreography as an extension of Stravinsky's music. He comments on how he maintained equilibrium between Stravinsky's music and his own choreography:

When I choreograph Stravinsky's music, I am very careful not to hide the music. You see, usually choreography interferes with the music too much. When too much goes on stage, you don't hear the music. Somehow the messy stuff obscures the music. I always do the reverse. I sort of subdue my dances. They're always less than the music. As in modern architecture, you rather should do less than more.¹¹

Stravinsky and Balanchine agreed on their artistic direction under the guidance of specific stylistic and practical restrictions. Their work was the result of a new artistic atmosphere that they developed. Both collaborators discovered restraint and compactness through their collaborative work. In addition, Stravinsky paid close attention to timing when working with Balanchine, as seen in the carefully timed durations found throughout his sketches. He talks about the importance of precise timing in his ballet:

We decide the exact length of the music or rather the exact duration of each movement. . .[time is] a thing much more important in a ballet than in any other dramatic form. Precision of timing and the physical capabilities of the dancers are primary factors which I have always considered in constructing the proportions of my ballet.¹²

In *Orpheus* (1948), instead of using the whole story of Orpheus, Stravinsky and Balanchine incorporated a conceptually sophisticated formal construct. They insisted their concept of *Orpheus* not only re-describe a Greek myth but also re-create their story. The audience's recognition of sophisticated concepts depends to a large extent on their educational background and familiarity with cultural events. For example, a thorough knowledge of Orphic mythology is vital to appreciating the underlying subtleties of the relationships between the music and choreography in *Orpheus*.

In *Agon* (1957), both artists adhered to the same constructive guidelines such as strongly rhythmic gestures, the artful use of stasis or silence, counterpoint, and textural variety. Stravinsky and Balanchine were motivated by neo-classicism, which is a modern interpretation of baroque period dance and music style. They restrained their respective artistic languages, limiting themselves to only the most essential expressive tools for the task. Both artists had a thorough understanding of each other's artistic direction, and this understanding of the nature of each other's work helped the collaborative process succeed.

Apollo, which premiered in 1928, was a great success. It is a ballet with a simple set design and only four performers, Apollo and three muses. The ballet exhibits Neoclassical restraint and a deliberately restricted vocabulary, which contrasts with the drama. Each muse is stylized and concentrates on the characteristics of the mythological archetype. The characteristics of Neoclassicism in *Apollo* were also influential on other composers and choreographers. The classical presentation in music and dance of the adapted Greek myth influenced American dancers and choreographers, especially the New York City Ballet.

After the turn of the twentieth-century, contemporary ballets were less often elaborate productions. As is illustrated in Balanchine's book, *New Complete Stories of the Great Ballets*, Balanchine's new choreographic approach was inspired by Stravinsky's music:

In its discipline and restraint, in its sustained oneness of tone and feeling, the Stravinsky score was a revelation. It seemed to tell me that I could, for the first time, dare not use all my ideas; that I too could eliminate.¹³

Balanchine drew primarily from the vast repertoire of European orchestral concert music of the past and from the new music of Stravinsky. The simplification of ballet was one of the most distinguishing features of the Stravinsky and Balanchine collaborations.

The effectiveness of the Stravinsky and Balanchine collaborations was heightened through the use of carefully constructed relationships between the music and the choreography. Repetition, thematic association, the choreographer's and composer's abilities to play on the audience's pre-existing knowledge of archetypal characters, musical and choreographic conceits, and other elements make *Orpheus* and *Apollo* successful collaborations. In other words, abstract choreographic constructs—the acerbic, understated vocabulary of *Agon*, for example—are firmly united in matters of aesthetics,

philosophy, and execution to their musical counterparts.¹⁴ Many modern collaborators forcefully express psychological ideas in their work as did Stravinsky and Balanchine. The similar background of the two artists and their appreciation of each other's work helped them maintain a close relationship for over forty years, and their celebrated partnership resulted in many important works that still remain in the repertoire of the New York City Ballet and numerous other dance companies.

Aaron Copland and Martha Graham

Copland and Graham possessed an excellent sense of thematic development. Copland's incorporation of folk melodies and jazz elements into his thematic material is an integral part of the overall sound quality of his dance compositions. Copland and Graham juxtaposed characteristic features of American folk dance and music with modern elements to create new atmospheres in modern ballet. This technique set the duo apart from their contemporaries.

Copland's *Appalachian Spring* is primarily an original composition, with the exception of the final melody, which was taken from a hymn. The use of folk-like melodies and the corresponding choreography characterized the new American ballet. Building on the modern rhythms and gestures of the European ballet tradition, Copland and Graham developed their own American style. Copland especially found his own voice, one with an orchestration familiar to the ear of American audiences that came to represent American ballet of the time. As a result, other international ballet companies made conscious decisions to use more of their folk and traditional art.

In Graham's collaboration with composers, which she initiated, the music was always composed to the dance.¹⁵ Her work with Copland was no different. Graham initially presented Copland with a simple scenario consisting of a young couple's

wedding and house-raising in a new frontier town in Pennsylvania. After Copland and Graham established a basic plot and dramatic goals, Graham estimated the approximate duration of each event of the scene. Based on this duration, Copland then composed short musical ideas or thematic sketches for each event on the piano, which he later scored for a chamber ensemble of thirteen string and wind instruments. They revised the work several times during rehearsal in order to resolve conflicts between musical and choreographic meter. Although both artists created separate titles for the piece (Copland titled it *Ballet for Martha*), Graham's *Appalachian Spring* became the final title over Copland's title of homage to Graham.¹⁶

Leonard Bernstein and Jerome Robbins

The first collaborative work of Bernstein and Robbins was *Fancy Free*, followed by another work entitled *Facsimile*; however, their most famous work was *West Side Story*.¹⁷ Its popularity was due in part to its familiar story. Shakespeare's tragic love story, *Romeo and Juliet*, works well set in 1950's New York City. In addition to the audiences' familiarity with the subject matter, the work was also successful because the dance functioned as both action and narrative for the audience. One of the memorable events was a battle scene between the Puerto Rican and white American gangs on the West Side. The complex mixed rhythms and street sounds of late 1950s New York City enhanced the ballet score; Robbins' choreography had a similar character and fit the music well. Drawing from a well-known story and developing an exciting action-packed musical contributed to the work's success.

Although the choreography of *West Side Story* may be better suited for Broadway musical dancers, Bernstein and Robbins insisted on casting traditional ballet dancers in the roles. This choice was significant because it involved crossing the boundary between

popular and traditional art. Many artists who have attempted to combine traditional and popular art have been influenced by the collaborations of Bernstein and Robbins.

The collaborative process of *West Side Story* was a little bit different from previously discussed collaborations, because Bernstein and Robbins worked with an additional collaborator—the playwright Arthur Laurents. Robbins’ initial concept was to translate Shakespeare’s tragic love story, *Romeo and Juliet*, into modern day New York City. Robbins first worked with Laurents, and then shared the story with Bernstein. After Laurents completed several scenes, Bernstein recommended changing the initial characters from Jewish and Catholic to Puerto-Rican and white American. They spent a long time revising and establishing a well-crafted story, which is one of the important reasons why this work was a success. Bernstein composed complex, mixed rhythms in a couple of scenes, including the battle scene. After some revision, Robbins provided choreography to match the pacing of Bernstein’s score.¹⁸ The collaboration was successful because of the integration of choreography and musical score through the catalyst of an updated classic tale of romance.

John Cage and Merce Cunningham

John Cage and Merce Cunningham experimented with a new concept of space and time in their collaboration. Throughout most of their collaboration, Cage and Cunningham worked independently. Therefore, the choreography had a more conditional or accidental (aleatoric) relationship with the music. In *Choreography and Dance*, Sally Banes called Cage and Cunningham’s work “collaboration at a distance.”¹⁹ The approach of most traditional choreographers, or even contemporary dancers, often seems hackneyed or old-fashioned compared to what can be seen in Cunningham’s work. Cage and Cunningham ignored the collaborative tradition and found a new way to work.

Cunningham mentions his new process in his interview with Jane Morgenroth: “The independence allowed for a sense of freedom. The dancers weren’t dependent on the music.”²⁰ In contrast to the romantic expressionism and dramatic irony which characterized the work of their contemporaries, the fertility of Cage and Cunningham’s new approach was recognized by a whole generation of artists.

The separation between the music and dance, a concept developed by Cage and Cunningham, was the key to their lifelong collaboration. The independence of their creative process allowed for freedom of rhythm in dance. Discussing how this separation idea started in their collaboration, Cunningham says:

When I began working with John Cage in the 1940s we soon separated the music and the dance. He would compose a piece of music and I would choreograph a dance of the same duration, but we didn’t have to know anything more about what the other was doing. That independence immediately provoked a whole different way of working physically. The dancers had to learn how to be consistent in the timing of their movement so that no matter what they heard in performance, the dance would take the same amount of time to perform. I began to use a stopwatch in rehearsal. This way of working was difficult but, at the same time, it was unbelievably interesting and has remained that way. The dance was freed to have its own rhythms, as was the music. Steps could be organized independently of the sound.²¹

They both had a significant knowledge of music and dance, but they worked separately in their collaboration, not encroaching upon each other’s artistic freedom. By not predetermining details of the performance, Cage and Cunningham resisted limitations and allowed for the elements of surprise and chance.

Cunningham has always chosen equally radical collaborators. For example, his work with painters such as Robert Rauschenberg, Andy Warhol, Frank Stella, and Jasper Johns contributed immensely to the success of Cunningham’s career, although his unorthodox dance philosophy insisted upon the total independence of their input.²²

Cunningham remarks, referring to his work with visual artists:

I don't think I've ever demanded a particular thing. My ideas about dancing are all so flexible, and working with artists has made them more so. I could just as well tell people to go and dance in a field, with or without a tree—it would be nice if there were a tree, but not essential. So many people think that decor should emphasize something, or define it, or frame it somehow, but life doesn't work that way, and I don't either. I grew up with this business of dance movement [and the idea that it] could mean a lot of different things, and that it didn't make much sense to act like a dictator.²³

Cunningham's collaborative works were designed to function around not one center or axis, but a multiplicity of centers that connected and equalized the work and value of each partner's artistic input. The novelty of this approach made him a leader in American avant-garde dance. Cunningham and his collaborators developed pieces individually; indeed, Cunningham's choreographic materials were created in isolation, relying on neither music nor set design. Cunningham rarely composed dances to existing music, and often combined his choreography with music for the first time in performance. He worked mostly with composers who were willing to share his unorthodox compositional process, such as establishing duration as the only common element.

The use of chance operations opened up many possibilities in the compositional process for both Cage and Cunningham. Cunningham noted the use of chance in his own compositional process and in his collaborations with Cage. Describing their collaborative approach, Cunningham says, "The use of chance allowed us to find new ways to move and to put movements together that would not otherwise have been available to us."²⁴ Cage was similarly willing to allow chance to play a role in his artistic process while composing many of his works. For example, in the piece *I Ching*, Cage allowed the toss of a coin to determine different aspects of the composition. Cunningham used chance operations to determine the sequence of movements and the choice of different spaces. In

fact, Cage and Cunningham regularly used chance to determine nearly all the elements of a composition except its duration.

Merce Cunningham discusses working with John Cage in his *Collaborative Process Between Music and Dance* in 1982:

What follows concerns a selection of the works that John Cage and I have collaborated on over the past four decades. It is in no sense a complete survey; there are numerous others not included. But these are some of that history that reflect to me a change or enlargement of the underlying principle that music and dance could be separate entities independent and interdependent, sharing a common time. There is a continuing flexibility in the relation of the two arts. We are involved in a process of work and activity, not in a series of finished objects. Whatever tremors it may have provided for the various dancers who have shared these experiences with me, I think they would agree that it is also exhilarating and adventurous. It keeps one on one's toes, and jumps the mind as well as the body.²⁵

When Cage and Cunningham started to collaborate, they were both involved in what they called “macro-microcosmic rhythmic structure” in the compositional process, which is the relation between the large rhythmic structure and the small rhythmic unit. The two are related through their division of time. Especially for John Cage, the technique is constructive—as one of his titles, *First Construction* suggests—rather than developmental, a process involving transformation rather than varied repetition.²⁶ Cage and Cunningham did not strictly adhere to these guidelines, however, and applied their own individual interpretations.

One of the primary features of the mid-twentieth century avant-garde was the “happening.” This expression embodied two ideas: first, art is play, with the added element that the player “observes” or is aware of the game; and second, a real fully realized artwork may well be consumed, used up, in the process of creation.²⁷ The result of collaboration between Cage and Cunningham was the “happening” in time and space. As Merce Cunningham states in his book, *Space, Time and Dance*, “The dance is an art

in space and time. The object of the dancer is to obliterate that.”²⁸ Cunningham abandoned traditional ways of thinking about form and time in dance, and explored the importance of every moment. He says, “There is also a tendency to imply a crisis to which one goes and then in some way retreats from. Now I can’t see that crisis any longer means a climax, unless we are willing to grant that every breath of wind has a climax (which I am), but then that obliterates climax, being a surfeit of such.”²⁹ With Cunningham, the role of the dancer becomes to treat every moment as equally important. Cunningham continues to describe his thinking on dance:

For me, it seems enough that dancing is a spiritual exercise in physical form, and that what is seen, is what it is. And I do not believe it is possible to be “too simple.” What the dancer does is the most realistic of all possible things, and to pretend that a man standing on a hill could be doing everything except just standing is simply divorce—divorce from life. . . . Dancing is a visible action of life.³⁰

Cage and Cunningham had mutual respect for each other’s thinking about space and time in his arts. Neither tended to adhere to traditional ways of organizing music and choreography.

In addition to collaborating with choreographers, Cage also worked in a variety of mixed media. For example, *The Black Mountain Piece*, a collaboration involving artists in music, dance, poetry, painting, and theater, was the first (and best known) of multi-disciplinary happenings at the dining hall of Black Mountain College in the summer of 1952. Leta E. Miller describes these happenings in *The Cambridge Companion to John Cage*:

The Black Mountain happening was in the broadest sense a collaborative artwork. . . .Cage, [and] Rauschenberg [created] segments that were assembled linearly or simultaneously by prior plan. But instead of creating a fixed work, they collaborated in a *process*, governed by rule but free in its realization. This event has often been cited as a watershed in Cage’s career, marking a change in his compositional procedures. But though it was a beginning, it was also a

culmination: the logical extension of a history of interdisciplinary collaboration that had engaged his attention for years.³¹

Although indeterminate in details, this collaborative work took place in the context of a predetermined overall duration and fixed locations of assigned participants with the exception of the dog.³² For example, John Cage stood on a ladder at one edge of the square dressed in a black suit reading his lecture; M.C. Richards and Charles Olson ascended a ladder to read poetry; Robert Rauschenberg painted on the ceiling; Nicholas Cernovitch provided the backdrop for slides and a film; Merce Cunningham danced down the aisles followed by a dog; and David Tudor played the piano.³³ Miller remarks:

Process was predetermined; product admitted chance interaction. At the same time, the happening set the stage for a further (radical) extension of Cage's "time compartment" procedures.³⁴

The performance of *The Black Mountain Piece* expanded the role of independence within the collaborative process, and allowed every collaborator's input to contribute to the piece.

Both Cage and Cunningham extended their concept of collaboration by integrating technology into their process. For example, Cunningham is one of the first choreographers to use computer technology to create movement sequences on screen before presenting them to his dancers.³⁵ His interest in technology influenced Cage's electronic music. As electronic music became more common during the 1970s, it took a more prominent place in Cunningham's performance with his dance company. Cage and Cunningham's use of electronic music is discussed in more detail in the next chapter, Issues of the Collaborative Process, under the heading "Integration of Technology."

John Cage and Merce Cunningham's work has significantly influenced other composers and choreographers. Cunningham's works are in the repertoire of many

modern dance companies around the world, and his dance company has toured extensively. Their experimentation with independent collaboration offered new possibilities and freedoms.

Summary

The collaborators discussed in this chapter did not adhere to the popular traditional conceit of the artist as a genius who worked alone, answering only to his/her own inviolable vision. Although some allowed many elements to be determined by chance, they retained their creative artistic direction through communication and understanding. The relationship between music and dance continually changes, and varies from work to work in both definition and function. Composers and choreographers often use this relationship in completely different manners. Successful collaboration depends on both the composer and choreographer maintaining the equilibrium between music and dance while acting in synergy rather than independently. Composers and choreographers need to interpret each other's artistic values and be open to ideas and interpretations from different perspectives.

Notes

¹ Richard Kostelanetz, *Conversing with Cage*, Second Edition. New York and London: Routledge, 2003. p.204.

² Henry Cowell, "Relating Music and Concert Dance," *Dance Observer*. Vol.4, No.1. New York: The Dance Observer, 1937, p.1.

³ Ibid.

⁴ Joan Cass, *Dancing Through History*. Englewood Cliffs: Prentice-Hall, Inc., 1993, p.50.

⁵ Don Michael Randel, Editor. *The New Harvard Dictionary of Music*. Cambridge and London: The Belknap Press of Harvard University Press, 1986, pp.443–444. The term leitmotif is used most often in connection with Wagner's later works. Wagner achieved

through the leitmotif a synthesis of two important 19th-century compositional techniques: thematic recollection or reminiscence and thematic transformation.

⁶ Cowell, p.1.

⁷ Sally Banes, “Dancing [with/to/before/on/in/over/after/against/away/from/without] the music: Vicissitudes of Collaboration in American Postmodern Choreography,” *Journal of Choreography and Dance*. Vol.1, Part 4, 1992, p.5.

⁸ Randel, p.339. *Gesamtkunstwerk* means total artwork in German. Richard Wagner used the term to describe his mature operas, in which all the arts (including music, poetry, and visual spectacle) were to be perfectly fused.

⁹ Robert Morgan, *Twentieth-century Music*. New York and London: W.W. Norton & Company, 1991, p.92.

¹⁰ Joseph, Charles M. *Stravinsky and Balanchine*. New Haven and London: Yale University Press, 2002, p.1.

¹¹ Ibid.

¹² Ibid, p.190.

¹³ Cass, p.178.

¹⁴ Morgan, p.92.

¹⁵ Cass, p.261.

¹⁶ Estelle Souche, “Dance pages” in the personal website.
<http://www.cmi.univ-mrs.fr/~esouche/dance/Appala.html> (accessed June 5, 2005)

¹⁷ Leigh Witchel, “Robbins–Bernstein: New York City Ballet/West Side Story Suite,” *The Dance View Times*. Spring, 2004, p.1.

¹⁸ Ibid.

¹⁹ Banes, p.2. Sally Banes comments in her abstract of the article, “In the Sixties, choreographers broke away both from Horst’s restrictive musical prescriptions and the Cunningham-Cage model of ‘collaboration at a distance’ to explore every possible relation between the two arts.”

²⁰ Joyce Morgenroth, *Speaking of Dance: Twelve Contemporary Choreographers on Their Craft*. New York and London: Routledge, 2004, p.16.

²¹ Ibid., p.15.

²² Debra Craine and Judith Mackrell, Editors. *The Oxford Dictionary of Dance*. New York: Oxford University Press Inc., 2004, p.120.

²³ Calvin Tomkins, “On Collaboration (1974)” in *Merce Cunningham: Dancing in Space and Time*. Richard Kostelanetz, Editor. Chicago: Chicago review press, 1992, p.47.

²⁴ Morgenroth, p.16.

²⁵ Merce Cunningham, “A Collaborative Process Between Music and Dance (1982)” in *Merce Cunningham: Dancing in Space and Time*. Kostelanetz, Richard, Editor. Chicago: Chicago Review Press, 1992, p.139.

²⁶ David Bernstein, “In Order to Thicken the Plot: Toward a Critical Reception of Cage’s Music” in *Writings Through John Cage’s Music, Poetry, and Art*. Chicago and London: University of Chicago Press, 2001, p.26.

²⁷ Cass, p.342.

²⁸ Merce Cunningham, “Space, Time and Dance (1952)” in *Merce Cunningham, Fifty Years*. Harris, Melissa, Editor. New York: Aperture Foundation, Inc., 1997, pp.66–67.

²⁹ Ibid., p.67

³⁰ Ibid.

³¹ Leta E. Miller, “John Cage’s Collaboration” in *The Cambridge Companion to John Cage*. Nicholls, David, Editor. London: Cambridge University Press, 2002, pp.151–152.

³² Ibid. The time frame was based on John Cage’s “Julliard Lecture.” It was about forty-five minutes long.

³³ Ibid.

³⁴ Ibid., p.158.

³⁵ Craine and Mackrell, p.121.

CHAPTER 3 ISSUES OF COLLABORATION

It is not really natural for artists to work together. There is only uncertainty: before the collaboration though, you will have revealed yourselves to each other; you will be absolutely exposed. A certain blind courage is necessary.¹

—Martha Graham, 1963

Studying the collaborative relationship of the composer and choreographer reveals an interdependent pair of artists engaged in vastly different artistic processes, while often sharing a common goal. Collaborations exist and develop in different ways. The numerous possible relationships between music and dance may create difficulty during the collaborative process. The artistic independence of the composer and choreographer during the collaborative process needs to be addressed.

To explore the different processes that are useful to collaborators, this chapter addresses work process and performance aesthetics. In addressing work process, this study focuses on the process of collaboration and the need for communication between artists. In collaboration, creation can be dependent or independent. In collaborations where each art form is a dependent creation, the process can be synchronous or asynchronous. In the synchronous dependent collaboration, collaborators work closely together at approximately the same time, building a work whose music and dance components grow contingent with the development of each other. In the asynchronous dependent collaboration, one half of the collaboration is created before the other is begun. For example, the music may be completed before the choreography with the

choreographer then responding, or vice versa. Lastly, collaborations can also be structured around not dependence but independence. In this unusual approach, collaborators work according to certain large-scale constraints but without specific knowledge of each other's work, goals, or progress, at least not until the final performance when the different arts are combined. John Cage and Merce Cunningham are famous for their use of the independent collaborative process, adopting it regularly from their first collaboration, *Credo in Us* in 1942. They kept this approach for almost fifty years. Within work process, it is also important to address the initiation of the collaboration. How is it initiated? What is the initial creative goal? The type of collaborative process should be addressed during the first steps of a collaboration.

In addressing performance aesthetics, this study discusses two categories: live performance versus recorded music, and improvisation versus composition. This study also discusses the varieties of improvisation in collaboration, such as music improvised to choreography, dance improvised to music, or musicians and dancers improvising together. The integration of technology within a collaboration is yet another aspect of collaboration that will be covered.

Work Process

Dependent Creation

Synchronous dependent creation can be an ideal form of collaboration in which music and dance complement and reinforce each other; the reinforcing effect of this approach is achieved by the way collaborators work simultaneously and dependently. In contrast, asynchronous dependent creations are works in which one art, music or dance, is composed following the completion of the other. Both synchronous and asynchronous

strategies are possibilities that collaborators can choose to follow in the collaborative process.

Synchronous dependent creation

An ideal form of collaboration occurs when composers and choreographers work simultaneously. The term “collaboration” originated from the Latin *collaboratus*, which means working (*labor*) together (*col*). Working together during the entire compositional process regardless of how the project begins is important. A collaborative project can begin as an individual project or may be initiated by collaborators simultaneously.

The most important prerequisite in synchronous dependent collaboration is communication between collaborators, which should occur during every step of the process. Because the collaborative process differs in each situation, collaborators encounter a variety of possible avenues of communication. One scenario of synchronous dependent collaboration is as follows: establish a concept; decide on the duration of the piece, the size of ensemble, the form and structure of the composition, motivic ideas, etc.; develop the work; rehearse; and realize the performance.

When the composer and choreographer begin a collaborative work, they generally share their initial concepts for the piece. They work together to establish a concept by striking a balance between each other’s ideas. An important factor in determining the work’s concept is its ability to be expressed in both music and dance. A well-formed concept, focusing on either narrative or abstract ideas, can facilitate collaboration by exciting the imagination of its collaborators. After agreeing on the overall concept of the work, collaborators can begin the real collaborative compositional work. Identifying the work’s principle events, points of tension and release, and approximate scene and event durations can help the early development of the work. These decisions and others—such

as general ideas about the size of the ensemble, instrumentation, number of dancers, and the role of additional media such as lighting design or projected images—can be made by either the choreographer or composer alone, or both together.

After initial parameters are established, the composer and choreographer can discuss the role of form or structure in the work. Sometimes the use of traditional terminology to describe the form, terms such as Binary (A-B), Ternary (A-B-A), Rondo (A-B-A-C-A), Theme and Variations, etc., is helpful. After discussing initial concepts, the composer can work on musical ideas or thematic sketches for each event, while the choreographer works on gestures and movements. As the artists bring their work together, they revise and adjust it continuously throughout the developmental process. During this process, collaborators do not necessarily create every detail together, but nonetheless maintain communication that is vital for the successful completion of the work. Once the first draft of the work is successfully in place, rehearsals can help in developing the details and fine-tuning. This may make it seem as though collaboration is easy; however, composers and choreographers often encounter misunderstandings during a collaboration, especially when dealing with compositional elements such as rhythm and tempo.

Maintaining good communication during the synchronous dependent creation of music and dance can help to overcome artistic differences and minimize the misunderstandings that can create challenges for both artists during the collaborative process. The collaboration between music and dance is not about music visualization or making background sound for dance; rather, it is about the synchronized, balanced presentation of two different art forms working toward a concerted goal. There certainly

can be conflicts of interest between music and dance, not only because they are different art forms, but also because they involve different opinions. Some basic choices, such as the choice to use live music rather than recorded media, or to join music and dance together through constant rhythm rather than allow them to develop independently, can be addressed before collaborators begin to work. While a more independent approach to the development of music and dance may allow artists to focus more on the details of their own work, it is important for collaborators to respect each other's work and to remember their common goal. A collaboration initiated by both the composer and choreographer can be ideal as it begins as a partnership of equals, recognizing, from the very beginning, not only common artistic goals, but the desire of collaborators to be, when necessary, free to choose.

Because of the intrinsic need of dance to grow out of musical energy, it is most common for choreographers to initiate collaborations with composers. Existing music and recorded sounds may not be suitable for a choreographer's conceptual and structural needs. For this reason, many choreographers prefer to present their work with new music performed live during the dance, while others may choose to present their projects with recorded music. Additionally, though most choreographers present their work with music, some choreographers, such as Trisha Brown, have chosen to perform some works without music. However, the connection between dance and music is so strong that inevitably, most choreographers benefit from collaboration with composers. Because audiences of the two art forms are combined for the performance of a collaborative work, collaborators often reach different audiences. In addition to new audiences for their performances, collaborators may also find a supportive partner with common goals.

Choreographer Martha Graham always commissioned a composer to create music specifically designed for her dance. Her approach was to suggest initial scenarios and concepts to composers, as she did with Aaron Copland and Henry Cowell, two of her major collaborators. One of Graham and Cowell's collaborations was rather unusual because it took place while Cowell was in prison for four years, from 1936 to 1940.² Graham initiated the collaboration: she visited him and requested music for her work *Immediate Tragedy*, a dance dealing with issues from the Spanish Civil War.³ Graham visited Cowell several times in prison and communicated with him by writing letters. After initiating the project, she then worked on it at her studio while Cowell, still in prison, composed the music. Graham reflected on the collaboration saying:

Louis Horst and I looked at it and agreed that we had never seen anything like it. Cowell had written two basic phrases to be played by oboe and clarinet. Each phrase existed in two-measure, three-measure, and eight measure versions. . . . All that was necessary was to fit a five-measure musical phrase to a five-measure dance phrase—or make such overlaps as were deemed necessary. . . . The total effect was complete unity.⁴

Most choreographers choose to use music with their dance. Because composers do not generally need dance to accompany their music, while choreographers generally do need music to accompany their dance, choreographers usually initiate collaborations. Some composers add multimedia elements such as dance, images, or other theatrical elements to their concert music. Dance is just one of many art forms with which composers have the opportunity to collaborate. However, because of the need for music, choreographers, with the support of professional and amateur dance companies, are more inclined to initiate collaboration with composers. Choreographers who begin their careers within a dance company may be able to receive grants to commission a composer for their project. Although several music organizations do support the collaboration of

composers with dance or theater, composers usually have more limited sources of funding than do choreographers.

Composing music for dance is different from composing for the concert hall. Most composers who are successful in collaborating with choreographers have at least some experience with dance or are interested in gaining knowledge about dance in performance and practice. Composers can gain choreographic knowledge by taking a dance class, studying recorded dance performances, or serving as musical accompanist during dance rehearsals. Ken White, a composer, performer, and dance accompanist commented on collaboration during a May 2005 interview. In order to compose for dance, he feels that it is important to first play for dance classes and connect with choreographers and what they do.⁵ Many choreographers enjoy working with White because of the experience he brings with him from dance classes. Working with experienced composers gives dancers and choreographers valuable experience that can improve their collaborative communication skills. Composition students are also often encouraged to work with other artists to gain this type of experience.

Today, the composer-initiated collaboration is more common, particularly in academic settings. Some colleges and universities have diversified their music composition programs by including courses on scoring for film or multimedia that allow composition students to collaborate with other artists. With each new project, composition students have the opportunity to work with a different medium and artists, and learn more about the collaborative process.

Many problems and concerns arise during the process of synchronous dependent creation. Although composers and choreographers generally have different points of

view, as do any two artists, clear communication allows those viewpoints to coalesce to create a new cohesive work. Henry Cowell addressed choreographers directly on the issue of equality in the collaboration between music and dance in his article, “Creating a Dance: Form and Composition” in 1941. He says, “Music must become less structured, dance more so,” while also noting that, “Most choreographies are constructed through casual experiment, by improving [their experiments] and then stringing together a series of selected gestures.”⁶ In addition, Cowell suggests that dance could be improved if choreographers would imitate procedures used by composers. He recommends the following process: devise an initial idea; fix the point of climax; compose the initial themes (along with the passages leading up to and away from them); build a plan for repetition and development, (if the piece contains only one idea); determine the balance between ideas, (if there are two ideas or more); and then compose the details.⁷

Asynchronous dependent creation

While working together can be invaluable in the creation of collaborative synergy, practical concerns or preference may necessitate the use of an asynchronous dependent process. In particular, an asynchronous process can offer collaborators more freedom in how they manage their own time and deadlines. As well, music’s frequent role in inspiring dance may lead choreographers to prefer to work in response to a finished piece of music. Asynchronous dependent creation can be divided into two subcategories: one in which a commissioned composition is composed prior to the choreography, or one in which the choreography is completed before the music is created. While the use of a two-staged process is not necessarily a true collaboration in the sense of working together, at the same time, asynchronous dependent creation is, nonetheless, still a collaborative process since collaborators, working this way, are no less involved, having initiated their

project together, shared initial concepts, and made plans on how to proceed. In order to finish an asynchronous dependent creation in a timely manner, collaborators must meet their deadlines and keep lines of communication open.

The process of composing the music before the choreography is often referred to as ballet music procedure. Pia Gilbert and Aileene Lockhart discuss ballet music procedure in *Music for the Modern Dance*:

[In ballet] usually the detailed choreography does not get under way until the main body of the music is almost completely structured. The choreographer then works to the composed music, and that is as it should be in the ballet idiom. The story and the thoughts expressed [in music] are important. . . . The accompanimental scores for the ballet, therefore, can be fully orchestral, complete pieces of music per se.⁸

This is the traditional model of a dance-music collaboration in which the composer writes music specifically for the project with the choreography then set to it. This process works well for the creation of ballet because the composer knows to use themes and/or a narrative that will inspire a dance, and to create music expressly intended for dance. The successful composer of ballet music needs to be aware of the characteristic features of dance movement and how those features might be used in conjunction with the music. However, the choreographer is the one who decides which parts of the music will or will not be choreographed, and therefore, the role of dance-less sections of music. The development of a ballet usually begins with the composer working out a basic musical outline. The composer and choreographer then adjust the concept and overall structure to fit the composer's outline. Sometimes the original concept and the outline are created entirely by the choreographer.

While choreographers can work out overall concepts before hearing the music, waiting for the finished music allows them to create their choreography through

interpretation of the music and its structure, in what is commonly referred to as an *interpretive dance*. The term *interpretive dance* is defined as “a style of dance that seeks to interpret the meaning inherent in music.”⁹ It is “a form of modern dance in which the dancer's movements depict an emotion or tell a story.”¹⁰ Interpretive dance translates particular feelings, emotions, or stories into movement with dramatic expression, and often relies on creative movement and improvisation. While interpretive dance is often associated with spontaneous movement and improvisation, the term can also refer to (non-improvised) choreography designed around the interpretation of a music, or to improvised interpretations guided by predetermined choreographic elements.

Similar to traditional ballet, an interpretive dance dramatizes previously composed music. Because interpretive dance is created in response to a music, dancers have to beware of the servile, response-prone, position they are put in by making their interpretation less immediate and direct, more delayed. Interpretive dance causes concerns for collaborators. Dancers often improvise without the benefit of choreographic structure, and end up following the music rather than performing a truly “interpretive” dance. Composer Henry Cowell addresses the problem of interpretive dance in his article, “How Relate Music and Dance?” in 1934. Cowell comments on the major problems with interpretive dance:

“Interpretive” dancing came under bad repute not only because under it the dance was assumed to have no meaning in itself but also partly because in almost no instance was the music really interpreted. . . . The form, melodic line, and harmonic structure of the music were not considered. The dance usually has no outline. . . the music was so interesting that it tended to distract the auditor from the dance. One missed the primitive relationship of the movements to the actual beat. . . . If one watches the dance, one loses interesting musical values. If one listens to the music, the dance is not duly appreciated.¹¹

As Cowell indicates, music can often overshadow interpretive dance, which may be why some modern choreographers work entirely without music. Trisha Brown is a modern choreographer who chooses to dance some of her works in silence. She says:

My analogy was when you look at a piece of sculpture or a painting you don't need to hear music, do you? . . . I treasured the communication, the signaling that goes on between dancers in a tightly organized ensemble when you have no music to tell you where you are. I treasured the silence and the sound of our being present and dancing. It went so much against the convention of how one views dance; but dance viewed with music and viewed on its own are two separate things.¹²

Brown sees a problem with the potential lack of communication between composers and choreographers in the creative process: the musical structure and the choreographic structure may be difficult to put together. Her solution to these communication problems is to often work without music.

Just as it is that the creation of the music in asynchronous dependent creation can precede the creation of the choreography, so too can the music follow the choreography, responding in a similarly interpretive, dependent way. Several notable composers such as Henry Cowell, John Cage, and Lou Harrison worked in this manner. Louis Horst, Martha Graham's resident composer from 1926 to 1948, was familiar with asynchronous dependent creation and the process of composing music in response to a choreography. When the choreography is completed before the music, the composer can watch the entire dance, take metrical cues from the movements, and try to match the composition to the specific choreography.¹³

Some composers prefer to compose while viewing a recorded version of the choreography as the timing and details it conveys helps to ensure that the music will work with the choreography. Just as it is with scoring films, scoring music for dance requires that composers be given the exact duration of the dance and its sections. When a

choreographer has predetermined ideas about what the music should be, the composer's task becomes more difficult and the musical response the composer crafts less his or her own; however, respecting a composer's freedom to respond to a choreography as he or she sees fit can lead to music that is very different from what the choreographer has imagined. In many cases, the composer writes music to match the exact tempo and counts of the dance movements. While the asynchronous, staged completion of the creative process allows both sides to control the artistic direction of their respective part, both processes—composing the music before the choreography and composing the choreography before the music—do not necessarily treat both art forms as equals; rather, they may show bias towards that which is composed first.

Collaborators might discuss the choice of musical instrumentation, regardless of the type of collaboration they choose and the creative independence it allows. Once an ensemble is agreed upon, the composer needs to be sensitive to the affect of thick textures that might overwhelm the choreography. Composer and choreographer should take the size of the ensemble into consideration and its impact on the project's finances and aesthetic. Early agreement by composer and choreographer on working process and final production details can help to assure that the collaboration they pursue, together, will proceed smoothly to its final form and performance. Most of all, composer and choreographer should be willing to compromise, since only compromise will preserve the partnership behind the collaborative process. Negotiating a proper balance between composition and choreography is key to dependent creation. Developing the appropriate balance within the composer and choreographer team is an integral part of the process regardless of who initiates the project. Choreographers and composers should decide with

whom to work based on their agreement upon the concept for the project. Some collaborations result from the familiarity composers and choreographers have with each other's work; this familiarity can facilitate communication and lead to a more efficient and comfortable, if not long-term, working relationship. The long-term dance-music partnerships of Stravinsky and Balanchine, and Cage and Cunningham, are two notable examples. While each is distinguished by its very different approach, both, nonetheless, grew stronger with each successive collaboration, and the knowledge gained from it.

Synchronous/Asynchronous Independent Creation

In seeming contradiction of the idea of collaboration, some collaborators choose to celebrate and preserve their differences in both working process and respective art by adopting an independent approach. The collaborations of Cage and Cunningham, in which the only shared feature is duration, are examples of this. Unlike dependent collaborations, independent collaborations are not distinguished for the synchronous or asynchronous way they develop dependency on each other; with independent collaboration, the question of when the different parts take shape, be it at the same time (i.e. synchronously) or at different times (i.e. asynchronously), is neither relevant nor consequential given the independence of collaborators.

Some collaborators find the ideal synthesis of different art forms through creative independence, be it practiced synchronously or asynchronously. This form of collaboration uses the unique practice of collage to combine individual compositional elements from both music and dance, allowing them to merge on the same stage without reconciliation of their emerging differences. This form of collaboration often produces complex and surprising work, which is often what its collaborators are pursuing.

Independent creation is no different from dependent creation in that it calls on collaborators to address matters of composition (form, structure, motivic design, and development) and performance preparation. Where independent creation differs is in how much actual collaborative decision-making it employs; in dependent creation, collaborators decide each step together; in independent creation, however, they make the majority of decisions separately. In some cases of independent creation, collaborators meet initially to establish concepts, and then at the end to finalize the performance, but communicate very little in-between. Collaborators can and may choose to share compositional elements and ideas, and typically do share, at least, an overall time structure; however, beyond this, collaborators engaged in independent creation work separately. While time is an element common to both disciplines, rhythms and event durations are, by design, composed independently, allowing collaborators the freedom to work with their own ideas about phrasing.

John Cage and Merce Cunningham's collaborations are famous for their celebration of creative independence; they never tried to subordinate each other's art. Their intention was to avoid making any direct connections between the music and the dance by creating each separately, and presenting each with equal importance.¹⁴ Even though both would take place during the same sequence of time, for them, each was a separate and unique activity, not dependent upon the other. This process allowed for more freedom and flexibility during collaboration.

The independence and freedom in Cage and Cunningham's collaborations allowed each to express his own artistic direction, so much so that they eventually adopted the practice of choosing separate titles for the music and dance components. One

important consequence of their mutually embraced freedom was the way it allowed them to adjust dance movements and musical phrases independently. Other collaborators choosing an independent creative process often do so for similar reasons. Some choose this process for practical reasons, or to experiment with the element of surprise. Most are undoubtedly drawn to the process for the freedom and many possibilities it offers.

Achieving equilibrium in the collaborative process is often difficult. Calvin Tompkins, author of “One Collaboration,” wrote that Cage and Cunningham’s collaborations consist of:

not one center but a multiplicity of centers, connected and equal in value. Cunningham and Cage are there in that expanding field of awareness and we are there with them, if we are lucky. This is the new situation.¹⁵

For a “multiplicity of centers” to emerge out of the collaborative synthesis of different art forms, a new working process is required, one far different than the process traditionally used in music and dance collaborations. This new process neither makes nor intends to connect music and dance beyond their common duration and their final joining together on the same stage. The process requires no communication, and, in fact, works to avoid any communication that would lead to more conventional goals such as the matching of musical form with dance, or the mimicry of dance phrases by musical themes. This is how Cage and Cunningham achieved equilibrium or equal balance in their collaborations.

When choreographers work independently, they do not need to consider the similarities between auditory and visual elements. In fact, overemphasizing the relationship between music and dance can inhibit their individual freedom of expression. Independent creation allows collaborators to pursue their individual ideals; however, as it supports individual expression, it can seem to subvert some of the basic ideas of

cooperation. Since “collaboration” means working together; the concept of independent collaboration might seem, on the face of it, contradictory, and the term problematic. However, independent collaboration involves more than the simple collecting together of random events; at the minimum, collaborators working in this way share the common goals of performing together and, ideally, the introduction into the process of collaboration of welcome surprises that only independence and unplanned combinations can offer. Therefore, the process of independent creation does not contradict but expands the definition of the term “collaboration” by allowing new collaborative situations to occur, ones made possible through the introduction of the unexpected.

Performance Aesthetics

Live Performance versus Recorded Music

Live performance brings excitement to the presentation of both sound and movement. For many audiences, the suspense of watching and listening to a live performance cannot be compared to one using only recorded sound. Live music possesses an intrinsic energy that motivates a dancer’s gestures and affects audiences. Without the presence of live performers, recorded music tends to be perceived as background music. The excitement of playing and interacting with live dancers has led some new music ensembles to initiate collaborations. Composers and choreographers usually prefer to have the music performed live, but there are some issues that need to be considered for this to be possible.

First, finances should be considered. The choreographer and/or the composer need to secure funding for the live performance. Scheduling and rehearsal costs could limit the number of times that dancers and musicians meet. Even if collaborators decide to have a live music performance, they typically use recorded music for rehearsals. Some dance

companies use a piano accompanist playing a piano reduction of the musical score in order to avoid the, no doubt, exorbitant cost of hiring performers to play the many rehearsals dancers require. If the choreographer uses some form of recorded music during rehearsals, it will be different from the live music performance, especially if the choreographer uses a MIDI (Musical Instrument Digital Interface) realization of the music which can often fail to capture the nuances of live performance. While collaborators certainly prefer to have live music in every rehearsal, this is very rare and usually unrealistic. If the choreographer chooses to work with pre-recorded music in rehearsals, but live music in the final performance, then adjustments to the music may be necessary come the final performance. Live music has the disadvantage that it is rarely the same in every performance. However, live performance brings the excitement of the unexpected, a feature that perhaps explains the interest of audiences in it.

Instrumentation and stage placement must also be addressed in order to create a balance between the music and dance. The size and type of music ensemble contributes to the character of a collaboration. Different combinations of instruments can be used to emphasize certain movements or actions. The special characteristics of each instrument can be used to enhance the choreographer's intentions, and provide a feeling of flow or incisiveness in the dancers' movements. Many modern choreographers prefer to use percussion instruments with their choreography. Henry Cowell talks about the use of percussion for a dance concert in his article, "A Discussion of Percussion" in 1938. In this article he explores the many counterpoints between music and dance that percussion makes possible, saying, "most well-balanced art partakes of both elements in judicious mixture."¹⁶ Collaborators also need to consider the number of musicians and their

availability come the live performance. In ballet, musicians are usually located in the orchestra pit or on the side of the stage; however, a small theater may make it necessary to have musicians play from backstage. The ability to send signals or make cues between the conductor, musicians and dancers is important for a successful performance, especially at the beginning and ending of scenes or during tempo changes. It is also necessary to consider the placement of musicians and dancers in order to facilitate clear communication among the entire ensemble during the performance. If the musicians are positioned onstage, communication with dancers can be easier; however, if the ensemble is too large and the stage is too crowded, the entrance and exit of dancers may be disrupted.

In addition, incorrect positioning of musicians may create acoustic problems. When an ensemble is set up backstage (without sound reinforcement), the sound will be weaker and more diluted than if the musicians are placed on the front of the stage or in the orchestra pit. Use of the stage or pit often enables audiences to enjoy the presence of the live music and its interaction with the dance, which is one of the goals of a live performance. Since reliable communication between musicians and dancers is paramount, collaborators should take the placement of the ensemble into serious consideration. In addition to the proper placement of musicians, collaborators also need to determine whether to use amplification (i.e. sound reinforcement), a decision that is based on the size of the theater and the instruments used.

In some cases, collaborators combine live performance with recorded music, particularly when using sound effects, spoken words, or electroacoustic music. The use of recorded music is quite common in music-dance collaborations. Limited finances may, of

course, lead collaborators to choose recorded music given the financial savings it offers. While the ideal performance often involves live music, the expense can be prohibitive. Recorded music also has a practical function in dance rehearsals since it provides choreographers and dancers with consistent tempi. With recorded music, dancers do not need to be concerned about cues, as they do with live music. The use of electroacoustic music in collaboration with dance is increasingly common, perhaps because, like recorded music in general, its invariant timings bring predictability and security to rehearsals and performances. The use of prerecorded instrumental music is usually perceived as unnatural because it merely represents the music's ideal medium, that of live performance. Yet this is not a problem for electroacoustic music which is created with and reproduced through recording. When recorded music is used in a performance, collaborators should consider incorporating a quality sound system. Even if the recorded music is professionally produced, a mediocre sound system can sometimes result in poor-sounding music.

In addition to the collaborative working process, performance aesthetics should also be considered. Issues and aesthetics associated with the final performance should be considered from the outset. The artistic vision of both the composer and choreographer should shape not only the creative process, but also the final performance. Live musicians, used from beginning to end, help maintain a sense of collaboration; their ability to respond and interact with dancers lends credibility to the working process and final collaborative performance.

Improvisation versus Composition

Improvisation can radically change a work, detrimentally so, leaving the artistic goals of composer and choreographer unmet; therefore, it is important to carefully

consider the role of improvisation in a work and the freedom and control given to performers. Improvised works raise many questions, especially when they are collaborative, for example:

- How much should collaborators depend upon improvisation?
- How will the use of improvisation in the work affect the interactions between dancers and musicians?
- How will the inclusion of improvised performance allow for the formation of thematic elements in the piece?
- How much freedom will be given to the performers to improvise, or how closely must they develop the music and/or choreographic themes?
- How will the use of improvisation challenge the identity of the work as a composition?

During an interview in May 2005, New York composer Dinu Ghezzo said, “The good improviser needs to be a good observer.”¹⁷ As a strong proponent of improvisation in the collaborative process, he believes performers need to use eye contact, and other forms of non-verbal communication, to establish a kind of continuous conversation that allows them to respond to each other as quickly as possible. Ghezzo believes improvisation is an important part of the compositional process in a collaboration. While close observation of the gestures of other performers (essential to a good performance) can easily lead to imitation, good improvisation involves more than imitation, relying as much on the freedom and personal expression of individual performers as it does on the ability of performers to respond to each other through imitation.

Clarinetist Esther Lamneck, who actively collaborates with both composers and choreographers, says, “It [improvisation] is a very difficult technique to use. It spontaneously connects another performer’s expression with your own.”¹⁸ As a professor in New York University’s summer abroad class in improvisation skills for collaboration,

held in Pisa, Italy, Professor Lamneck believes improvisation is one of the most important techniques that performers can learn and practice. Improvisation challenges a performer's technical ability and musical sensibility.

There are several ways to involve improvisation within collaboration: music improvised to dance, dance improvised to music, or both music and dance improvised together. When musicians and dancers improvise together on stage, the integration of sound with movement can be quite effective. When musicians and dancers join together on stage in mutual improvisation, the addition of the musicians' visible movement expands and enhances the drama and theater of the choreography. Improvisation can enhance a performance through the excitement and unpredictability it adds.

Improvisation is especially effective when musicians react to the choreography, drawing upon ideas within the choreography. The musicians' theatrical performance and accompanying improvised physical gestures add unexpected events to the live performance. Most dance classes prefer having a live accompanist present who can improvise music to the dance. An accompanist capable of following cues can allow a dance teacher to change tempi and moods phrase-by-phrase. This process is similar to the situation created when music is improvised to choreography. The decision to use improvising musicians in dance classes often arises out of a desire to extend the improvisational sensitivity of dancers into the evolving music, and the musicians creating it.

In his article, "Creating a Dance: Form and Composition", written in 1941, Henry Cowell discusses the problems of dance improvisation:

Improvisation is useful only as an initial indication of talent, since the improviser tends to gravitate toward familiar configurations, resulting in a work that is a

jumble of ideas taken from others. At worst, such compositions wander aimlessly; at best, some balanced phrases emerge.¹⁹

While some dancers present improvisation as composition, there are problems in doing so, as Cowell discusses later on. Cowell says that a ‘true composition’:

must build up. . . every sound and rhythm. . . toward an inevitable point, through many. . . smaller climaxes and recessions. Melodies, rhythms, harmonies, tone qualities and counterpoint. . . enhance each other, and broader unity. . . [of these elements is] achieved through development of motives, contrasts, leading passages which presage something of importance, and recapitulations of ideas in which the original form has gathered more meaning through new connotations.²⁰

When collaborators decide to include improvisation in their work, they still need to discuss the structure and development of the improvised elements. Without a plan, every rehearsal and every performance will produce different results; therefore, the composer and choreographer should, at the minimum, create a simple outline for any improvisation, one that will create continuity from one performance to the next, and bring identity to the work. Armed with this outline, improvisers need to add a similar compositional integrity to the work, not by simply improvising, but by taking care to think about the next phrase, when it will start, what kind of rhythm it will have, and how long it will last. With improvisation, interplay can take place not only between musicians, or between dancers, but also between musicians and dancers, the result of which is a uniquely interdisciplinary work where abstract ideas pass back and forth between movement and sound. Choreographer Bill T. Jones, while thinking about dance improvisation, interdisciplinary interactivity, and his responsibility in listening to the music and responding to it, says:

When I improvise. . . I have to listen to it [the music] and think just as I used to think when I’d stand in front of the jukebox in our living room when I was about ten or twelve years old and was dancing to that other music. Hearing the Beethoven, I try to find a groove. . . how to use it? How to arrange it? How to inflect it?²¹

When both the music and dance are improvised together, interactively, the resulting arrangement is spontaneous. When musicians and dancers can see and hear each other, the music and dance come together in the performance in a way that seems more natural, more organic. When audiences are aware of the improvisational aspect of the music and choreography, it affects their perception of the entire work.

While music and dance share some compositional elements, their strongest connection is through their mutual use of time. When music and dance are improvised to each other, it is important to maintain control of the duration of the work's different sections and events; otherwise, the composer and choreographer's outline and formal plans may be corrupted. Dancers have different approaches to counting and rhythmic structure. Musicians follow the score allowing them to have a consistent counting system; however, dancers base their timing on events and phrases. Dancers and musicians need to be aware of the different counting approaches of each art form. Once the duration of different sections and events is established, performers are free to improvise changes to dynamics, rhythm, and accent patterns.

Collaborators need to consider how much improvisation should be involved in their project. Improvisation can be incorporated into a section of the piece, or it can be used throughout the entire collaboration. If improvisation is introduced between composed sections of music, performers should maintain eye contact so they can communicate with each other during the sections of improvisation and make effective transitions to and from them. Sometimes a cue helps improvising performers to move on to the next phrase. In many cases, collaborators need to make a clear outline, with predetermined materials on which the musicians and dancers can base their

improvisations. Improvisational guidelines, which indicate how performers should approach improvisation during performance, are useful; they shape the creativity of improvisers much the way formal structures guide composers.

While performers in an improvisation are free to select their own materials, the development of those materials during performance is limited and controlled by the interactions they have with other performers, and the close, observant attention they pay each other. In fact, improvisational collaborations depend heavily upon the close attention performers show each other, not only during the final performance, but also throughout the work's development. Combined with useful guidelines set by composers and choreographers, the close attention of performers to each other can facilitate inter-performer communication, and move a collaboration toward its ideal form.

Integration of Technology

Recent developments in technology bring new opportunities to music and dance collaborations. An extensive exploration of new technology can lead to new ideas and perspectives about collaboration. Technology offers composers and choreographers new types of music (recorded music, electroacoustic music, and computer music), and new tools (like the LifeForms computer choreography program) that can enhance the creative and collaborative process. New technologies, such as the Internet and alternative real-time performance controllers, can dramatically change the relationship choreographers and composers have with each other and their art.

Technology as a Compositional Tool

Using technology as a compositional tool allows for new production methods. Musical elements such as intensity, timbre, texture, and others, can be affected by the use of technology. The development of recordings, electroacoustic music, and computer

music has allowed composers to reach beyond traditional music composition. The use of new music-making technologies can also affect choreographic elements such as dynamics, acceleration, speed, position, space, and others. The use of alternative controllers has allowed the transfer of the control of musical parameters to dancers, allowing them to modify texture, timbre and tempo. The use of electroacoustic music or live-electronic music can have a profound effect on music-dance collaborations, leading to new relationships between composer, performer and choreographer.

One of the pioneering uses of technology in collaboration was that of the Cage-Cunningham collaboration in the 1950s. The use of electronic music in their collaborations increased in the 1970s, becoming thereafter a predominant musical medium of the Cunningham Dance Company. The invention of the tape recorder and amplification had an impact on compositional techniques which influenced John Cage's compositional practices.²² From early electronic music and magnetic tape to live-electronic music, Merce Cunningham was interested in using new music systems as well as technology in his choreography. Cunningham says, "It's not that I'm trying to put technology into dancing, but it is one of the elements that exists for us now, and then we should, or I just feel I would like to be involved with it."²³

Similarly, the development of the computer dance program called LifeForms led Cunningham into new choreographic discoveries.²⁴ Cunningham has always searched for new ways to develop how he thinks about choreography; his search led him to the LifeForms program:

I have been working with the LifeForms program since the early nineties. Using LifeForms, if you put a computer-generated figure into one position and then into another, the program does the transition from one to the other. You can first make the phrases on the computer, then teach them to the dancers. The resulting

movements may be more peculiar than a body would tend to do. . . . The changes may be for practical reasons or because I now see other possibilities. I use the computer as a tool. Like chance or the camera or the other tools I've used, it can open my eye to other ways of seeing or of making dances.²⁵

The impact of technology on music can be seen in the development of new electronic musical instruments and new forms of live-electronic music performance. Computers have, in general, made possible the development of new tools for music composition and choreography. Developments in software and hardware now allow collaborating composers and choreographers interested in the transfer of motion to music to design special-purpose devices and interfaces to meet their particular needs. Some devices and interfaces can be programmed to recognize the movement, position, and acceleration of performers and dancers; once captured, the motion can be converted into standard MIDI and used to control electronic sound or computer-controlled lighting.²⁶ The use of MIDI-enabled sensors mounted on instruments can be used to transfer the control of real-time electronic devices and sound processors from composers and technicians to performers. This transfer of control is a new challenge for both composers and choreographers.

Technology within the Collaborative Process

The collaboration that incorporates technology within the entire work may involve more participants such as engineers and technicians. John Cage and Merce Cunningham's large-scale multimedia work *Variations V*, composed in 1965, was one of the first works to employ an electronic performance system that integrated music, dance, and some aspects of lighting.²⁷ The stage was rigged with a system of photoelectric and capacitive sensors; dancers triggered sounds each time Cunningham's choreography positioned them between light activated photoelectric cells.²⁸ It was a revolutionary work

using technology that challenged traditional ideas about the relationship between the composer and choreographer.

Since Cage and Cunningham's *Variations V*, the way composers and choreographers collaborate has developed in many different ways. In the traditional ballet model, the dance does not control the music, but rather follows it. However, with the linking of the choreography to the real-time making of the music, the choreographer is no longer tasked with synchronizing the choreography to a fixed musical score; the dance no longer follows, and may actually lead. Using motion-tracking technology establishes a different collaborative process between the composer and the choreographer. For example, a dancer's movement could be translated into music or a dancer could directly control the compositional process. No doubt, the introduction of interactive technologies and the embrace of the aesthetics behind them have radically expanded the meaning of collaboration.

Technology also breaks the limitation of space in dance performances. Internet collaborations give artists another way to create multimedia works involving music, dance and video. These multimedia works are performed in concert between two or more ensembles in different places via an Internet connection. Technology offers many new ways to collaborate; the following discussion focuses on the opportunities offered by the Internet and new types of performance.

Internet collaboration

As Cunningham says, dance is art in space and time.²⁹ Space is a very important compositional element in dance; Internet collaboration expands what space can mean, both to the choreographers who design in it, and to the musicians who play in it. In Internet collaborations, the performance, or even rehearsals, can happen in different

spaces using a high-speed Internet connection. The Internet facilitates a collaborative environment in which composers and choreographers interact in different places in near real-time. Cameras, outfitted with real-time two-way feeds, are placed in both locations, allowing participants on both ends to hear music and see each other's movements. Because of the network's high-speed capacity, audiences are able to watch a dance concert taking place in multiple locations in near-real time with high-quality video and sound.

Internet collaboration may invite other artists, such as video artists, into the process. The video artist can introduce new images into the recorded choreography, creating a form of multimedia collaboration. Interestingly, the Internet can also serve as the means by which collaborators meet and discuss their collaboration, removing even the need to meet physically in the same space.

Using technology in collaborations, especially networks, is a growing trend in higher education. New York University has led this trend with a collaborative project course, conducted by composer and music educator Dr. John Gilbert. The course is open to composers, actors, directors, dancers, choreographers, stage technicians, video and image artists, musicians, and others who are interested in learning about multimedia production, collaboration, and the use of technology and the Internet in the creation of art. All participants are encouraged to expand their sphere of reference as they collaborate with others. Students do not need prior experience in technology; however, experienced arts technologists can use the opportunity to develop additional skills and share their expertise in creative, collaborative projects.³⁰ The New York University course meets simultaneously with a class at the University of California, Santa Cruz. These courses

have as their objective the development of projects in the performing arts through collaborative work facilitated and inspired by Internet 2 communication and current manifestations of the web.³¹

Internet collaboration is based on the idea of utilizing new communication resources of the Internet and related multi-media technology in the creation of interdisciplinary art. Artists in Internet collaborations face new challenges as traditional ideas about performance, rehearsal, space, and location are extended, if not redefined, by the Internet's new forms of real-time communication using sound and video.

Alternative real-time performance collaboration

Alternative real-time performance collaboration is an integration of music, dance, and technology. Technology expands the relationship between music and dance, especially through the use of alternative real-time collaboration. Technology allows choreographers to develop interactive dance environments that detect the movements of dancers and translates them into musical events.

In collaboration using interactive technologies, sensors (or detectors), interfaced to a computer, are used to track a dancer's movement. Motion detection technology can be classified according to the location of the sensors and detectors: sensors placed on the body to track the motion of different body parts; sensors placed on stage, around the body; and a combination of body and stage sensors with stage sensors placed in strategic places.³² Many different technologies have been used for detecting motion in dance; examples include: data gloves, compasses, head-mounted cameras, video cameras, and infrared sensors.³³

Systems that map motion into music are changing the relationship between music and dance. These systems translate a dancer's movement into sound; some work by

creating a simple one-to-one correspondence between movement and sound, others use a number of sensors to feed a more complicated scheme whose linking of sound to movement is less transparent.

In alternative real-time performance collaborations, the interactive link between the dance movement and sound-making technology makes dancers into musical performers as well. Improvisation can be an important element in this type of interactive performance. The interactive process may be evident or not depending on the goals of the collaborators; similarly, the type of sound produced may be simple, or complex and layered, as a result of the interaction between the dancer and those controlling the technology.

Clarinetist and improviser Esther Lamneck talked about the importance of improvisation in real-time performance during an interview in May 2005. As a performer, she prefers works that utilize improvisation in real-time performance.³⁴ The balance between control and freedom is an issue in improvised performance. In interactive performance and improvisation, performers can control the compositional process; at the same time, the composer can control the performance through their design and manipulation of the technology.³⁵ Similar issues arise with dance technology systems that turn dance motion into sound; dancer and composer work together, exercising different types of control over the music process.

Composers, choreographers, and performers need to consider their artistic roles in interactive performance collaboration. The artistic roles of dancer and musician in interactive performance collaboration are similar to their roles in live improvised performance in that dancers perform and improvise based on the choreographer's

established forms and structures of movement. Dancers, however, also respond to the technology and the forms and structures the composer programmed into it. Dancers control the process; therefore, their interpretation of the original composition and the choreography will control the image and feel that the work projects. The use of interactive technology can give equal importance to both creators and performers while expanding compositional methodology beyond its traditional boundaries. Interactive technology challenges dancers to perform in a way that realizes the original vision of both composer and choreographer.

Summary

There are as many ways to manage the collaborative process as there are artists interested in collaborating. Composers and choreographers need to learn many things about each other's art. Although many collaborators follow a general process of dependent collaboration, each situation shapes the process differently. Collaborators encounter a variety of possibilities from the moment they establish a concept to the moment when they finally put a work together on stage. Therefore, communication is essential at every step of a collaboration, except, of course, in an independent collaboration where, paradoxically, the process, and its near absence of communication, requires not communication, but trust.

The ideal form of collaboration for composers and choreographers may be synchronous dependent creation; but in spite of this, some collaborations are created independently in order to preserve the unique vision of each collaborator. Many collaborators prefer live music performance, but because of financial or other reasons, sometimes, recorded music is used. The use of electroacoustic music brings a consistency of timing to the dance that can be useful in both rehearsals and the concert, especially

when the music is composed before the choreography. Improvisation can be an important element within collaboration, especially when it cultivates a kind of spontaneous communication that engages performers and audiences alike. The use of technology in collaboration opens music composition, choreography, improvisation, and performance to new possibilities. In particular, the use of the Internet and interactive dance systems can break conventional approaches to space and time and radically change the way collaborators work. Regardless of the process collaborators choose, their goal should be to establish an effective collaboration.

While the elaboration of the collaborative process produces numerous examples, each is distinguished by the basic process underlying it. Robert Cohan, editor-in-chief of *Choreography and Dance* in 1992, discusses three basic rules for collaboration:

The first and maybe the most difficult is the basic human relationship. Those things like generosity, listening, caring and understanding are all very difficult in the throes of artistic creation. Second are all of the work problems specific to each craft. . . . The third are all the artistic and creative considerations that the whole collaboration is about.³⁶

When composers and choreographers collaborate, their role as artists remains the same as when they work alone. Collaborators remain responsible for the form and structure of a work, regardless of the collaborative process they choose. They also need to be aware of the problems that can arise from their particular situation, and from the collaborative process they choose. All such problems can be easily solved through good communication. The development of a successful collaboration depends upon the vitality of its collaborators and the stimulus it provides.

Notes

¹ Robert Tracy, *Goddess: Martha Graham's Dancers Remember*. New York: Limelight Edition, 1996.p.4.

² Leta E. Miller, “Henry Cowell and Modern Dance: the Genesis of Elastic Form,” *Journal of American Music*. Vol.20, No.1, 2002, p.16. For details on Cowell’s episode in prison, see Michael Hicks, “The Imprisonment of Henry Cowell,” *Journal of the American Musicological Society*, Vol.44, No.1, pp.92–119.

³ Miller, p.10. This article was subtitled as “Prison Collaboration: Cowell and Graham.” During the prison collaboration, Cowell explored elastic musical forms, and continued to contemplate the possibilities of music-dance counterpoint. However, imprisonment prevented him from visiting Graham’s studio or observing the development of her choreography, a fact that may have limited the development of his ideas.

⁴ Ibid.

⁵ This quote is taken from an interview with Ken White at New York University on May 2005.

⁶ Miller, p.17.

⁷ Ibid.

⁸ Gilbert, Pia and Lockhart, Aileene, *Music for the Modern Dance*. Dubuque: WM. C. Brown Company, Publishers, 1973, p.33.

⁹ Farlex. Inc. “encyclopedia pages” in the Free Dictionary website.
<http://encyclopedia.thefreedictionary.com/interpretive+dance> (accessed June 1, 2006)

¹⁰ Word Reference website. Adapted from: WordNet 2.0 by Princeton University, 2003.
<http://www.wordreference.com/definition/interpretive+dance> (accessed June 1, 2006)

¹¹ Henry Cowell, “How Relate Music and Dance?” *Dance Observer*. Vol.1, No.5, 1934, pp.52–53.

¹² Joyce Morgenroth, *Speaking of Dance: Twelve Contemporary Choreographers on Their Craft*. New York and London: Routledge, 2004, p.62.

¹³ Miller, p.2.

¹⁴ Calvin Tompkins, “On Collaboration (1974)” in *Merce Cunningham: Dancing in Space and Time*. Richard Kostelanetz, Editor. Chicago: Chicago review press, 1992, p.45. See more in Chapter 2, John Cage and Merce Cunningham in Historical Background.

¹⁵ Ibid.

¹⁶ Ibid, p.17.

¹⁷ This quote is taken from an interview with Dinu Ghezzo at New York University on May 2005. See more in Appendix A: Composer/Choreographer Interviews.

¹⁸ This quote is taken from an interview with Esther Lamneck at New York University on May 2005. See more in Appendix A: Composer/Choreographer Interviews.

¹⁹ Miller, p.17.

²⁰ Ibid.

²¹ Morgenroth, p.144.

²² Gordon Mumma, "Electronic Music for the Merce Cunningham Dance Company" in *Merce Cunningham*. Germano Celant, Editor. Milan: Edizioni Charta, 1999, p.202.

²³ Merce Cunningham, *The Dancer and The Dance: Merce Cunningham in conversation with Jacqueline Lesschaeve*. New York, London: Marion Boyars Publishers, 1985, p.129.

²⁴ David Vaughan, *Merce Cunningham, Fifty Years*. Melissa Harris, Editor. New York: Aperture Foundation, Inc., 1997, p.276. Merce Cunningham's work changed at four pivotal junctures in response to his introduction to art-changing work methods, media, or technology: the first, in the forties, coincides with his work with Cage and the exploration of the collaborative combination of music and dance created and structured independently; the second, in the fifties, coincides with his introduction to the use of chance operations in the random sequencing of dance phrases; the third, in the seventies, coincides with his film and video work; and the fourth, in the early nineties, coincides with his work with the dance choreography program LifeForms.

²⁵ Morgenroth, p.17.

²⁶ Wayne Siegel, and Jens Jacobsen, "The Challenges of Interactive Dance: An Overview and Case Study," *Computer Music Journal*. Vol. 22, Issue 4, 1998, p. 33. The interface used is one of the motion-detecting systems commercially available from the company Big Eye. The system was developed at STEIM by Tom de Meyer and consists of a software package that runs on a Macintosh computer with a standard video camera.

²⁷ Mumma, p.203.

²⁸ Ibid.

²⁹ Vaughan, p.66.

³⁰ This quote is taken from an interview with John Gilbert at New York University on May 2005. See more in Appendix A: Composer/Choreographer Interviews.

³¹ John Gilbert, “Collaborative Projects in the Performing Arts” in Dance Education Program official website at New York University. New York: New York University. <http://www.nyu.edu/classes/gilbert/collaboration/index.html> (accessed December 10, 2005). This is the NYU-UCSC collaboration class official website.

³² Roberto Morales-Mansanares, Eduardo F. Morales, Roger Danenberg, and Jonathan Berger, “SICIB: An Interactive Music Composition System Using Body Movements,” *Computer Music Journal*. Vol. 25, Issue 2, 2001, p.24.

³³ Siegel and Jacobsen, pp.30–31.

³⁴ This quote is taken from an interview with Esther Lamneck at New York University on May 2005. See more in appendix A: Composer/Choreographer Interviews.

³⁵ Ibid.

³⁶ Robert P. Cohan, “Choreographers/composers/collaboration,” *Journal of Choreography and Dance*. Vol.1, Part 4, 1992, pp.1–2.

CHAPTER 4 METHODS AND STRATEGIES OF COMMON VOCABULARY

The two things that music now is able to free itself from, as I see it, are pitches and rhythms, because those are the two aspects that were easily measured. It is difficult to measure tone quality or overtone structure, [and] dynamics, but easy to measure pitch [and rhythm] so as we give up those measurements. . . in dance, if you give up things that correspond to rhythm and pitch—namely, movement on two legs—what do you have? It's almost as though you couldn't give it up. . . . There is nothing about scales and periodic rhythm in the art of music that makes [dancers] so eternally necessary. Rather, I agree with Busoni, who says that music gains its true nature when it is free of all such physical necessities; and where we notate regular rhythms, as Busoni says, they come to life only with rubato, they come to life only with irregularity. But in the very nature of the dance are such questions as balance, muscle control, left-right, etc.¹

—John Cage, 1965

A challenge for composers and choreographers during a collaboration is to establish parallels between musical elements and individual dance elements. There are many compositional elements that composers and choreographers use including design, rhythm, tempo, time (or duration), phrase, dynamics, form, space, and style. Dance draws its overall formal structure from phrases and rhythms. Dance rhythms are drawn from the pulse, and the phrases come from natural breathing rhythms. “Breath rhythm” comes out of the natural physical rhythm of the body, and was formulated under the term “dynamism” in the early twentieth-century.² At the beginning of phrases and at cadences, dance is dependent on the rhythmic units of the music. The mark of a well conceived work for dance often comes out of the strong stylistic connections it makes between the music and dance elements and the overall artistic concept. To ensure clear communication, and the creation of a successful collaboration, composers and

choreographers need to understand each other's viewpoints on the role of different structural elements and artistic vocabularies.

Because music and dance are temporal art forms, rhythm and duration are, therefore, fundamental elements. Phrases are measured and coordinated using different types of temporal units either regular or irregular, fast or slow, obvious or subtle. Because time is unalterable, it is the structural foundation upon which all musical and choreographic events are ordered. Composers and choreographers utilize terminology that deals with the movement through time of music and dance, terms such as *phrase*, *breath*, *pause*, *tempo*, and *pulse*. Although music and dance use similar vocabulary, the meanings of the words vary slightly. Composers and choreographers express concepts that unfold throughout the compositional process through the artistic structure of the work. The primary component of the structure in both art forms is time. The differences in vocabulary between the two art forms can be subtle or obvious, and terms can function independently or be strongly connected to other terms. This chapter examines the respective vocabularies of compositional elements between music and dance.

Identification and Discussion of Common Vocabulary

How do the vocabularies of music and dance differ from each other? This chapter identifies the common vocabulary used in music and dance, focusing especially on terms associated with early modern dance. Terms are used to describe the different art forms; however, the definitions of these terms vary depending on the discipline. Composers and choreographers can benefit from examining the etymology of a word and how it applies to music and dance.

Design

A useful first step in the compositional process can be the development of a plan. Developing a plan (a general term encompassing the overall approach) is different from creating a formal design (which focuses on structural elements); while the overall plan relates to the compositional process chosen at the beginning of a collaboration, the formal design is the contour and structure of something as distinguished from its substance.³ According to *The American Heritage Dictionary of the English Language*, “design” is a drawing or sketch; “the invention and disposition of the forms, parts, or details of something according to a plan; a decorative or artistic work; a visual composition or pattern; the art of creating designs; a plan, project, and undertaking; and a reasoned purpose or intention.”⁴ *Design* is the compositional plan, or sketch, created by the composer and choreographer during the initial stage of collaboration that describes the compositional material such as instrumentation, number of dancers, form, duration, and style.

The *Oxford Dictionary of Dance* explains “design” in relation to the stage and costume design. Since dance is a visual art form, the design of the stage and costumes naturally plays a major role in establishing the style and tone of any work.⁵ Stage setting and costume design are significant, especially in narrative works because they help identify the characters and plot of the story. Even the mood of an abstract dance may be drawn from setting, lighting, or costumes. In addition, the stage setting or dancers’ costumes influence the audiences’ interpretation of the piece. The choreographer’s design lays the foundation of the work, determining many elements of the production including the style and overall tone of the dance.

Similar to other twentieth-century artists who abandoned traditional modes of expression, many twentieth-century choreographers rejected the rules of traditional ballet by using abstract choreography, stage settings, and costumes. During the development of twentieth-century art, many divergent schools of thought were established. One of the pioneers of the modern ballet, Sergei Diaghilev, integrated new aesthetics from visual art such as Cubism, Fauvism, and Surrealism into his stage work. Diaghilev often commissioned avant-garde painters to produce sets or props for his ballets. For example, Picasso's setting and costume design for *Parade* (1917) influenced Diaghilev's choreography to the extent that the ballet is sometimes referred to as a Cubist ballet.⁶

Many collaborations of the twentieth-century focused on the amplification of the symbolism in the dance, music, or other arts involved in a piece. Many of the artists in these collaborations would share ideas and develop the work together, in collaboration with each other; however, some choreographers such as Merce Cunningham frequently approached collaboration with artists in a different way. Cunningham and his collaborators often discussed the initial ideas, but then developed them independently. The study of Cunningham's choreography is discussed in chapter two, Historical Background. Some examples of his collaboration include Andy Warhol's helium-filled balloons which bobbed unpredictably through *RainForest* (1968) or Jasper John's free-standing set for *Walkaround Time* (1968) which squeezed the dancers into confined spaces.⁷ Such set designs in modern dance usually do not aim to define meanings within the choreography; indeed, the design creates an independent visual place for the performance of the dance.

The dance critic Paul Love does not limit design to appearance, but defines the term in his book *Modern Dance Terminology* in five different categories:

1. Ordering: composing
2. Design in time: a design in time is one which takes several counts or beats to be completed. For a simple example, we might take the body that is moving in a straight line, while the arm is slowly rising and completing an arc over the head. It will take several footsteps before the arm has finished its pattern.
3. Design in space: a design in space refers to one, which is presented instantaneously, without occupying several counts to be completed. It is a movement seen only as an accent. Thus, a leap in the air is a design in space. It is the pattern of the figure in the air and not the few seconds of leaving the ground and returning to it which is remembered.
4. Design in dynamics: a design in dynamics refers to one, usually both in time and space, which emphasizes a crescendo or a decrescendo. It is dynamism that controls the muscular phrases, that is the succession of variations in movement which are performed on a sustained muscular impulse.
5. Combination: designs in time and designs in space may be used separately, that is, with the greater emphasis on the one or the other aspect. However, all design is composed of both elements, and it is only the emphasis on one or the other which justifies the use of the separate term for a series of movements.⁸

Love's definition refers primarily to the choreography of modern dance. The definition of design is not limited exclusively to the appearance of stage setting or costumes, but also includes dance composition, or the ordering of events in time and space. Establishing the time and space in which a choreography will take place is essential; as well, the composer of the music needs to understand how time and space are used within the dance, and how they will impact the collaboration's compositional process. Doris Humphrey also considered time and space to be an important aspect of design and discusses this in her book, *The Art of Making Dances*:

It must be clearly understood that dance is an art in which design has two aspects: time and space. We can speak of design in the sense of static line. That is, a dance can be stopped at any moment and it will have a design in space. . . . In addition, there is the design in time, which exists through any moving sequence, lasting from a few seconds to a full-length dance. This is much more complex than the single-space design.⁹

Composers and choreographers set up phrases and transitions either from moment to moment or from within the overall shape of a design. According to Humphrey, the design in time of the dance is much more difficult than its design in space, not only for the choreographer but also for the composer. Designing a dance in time requires the determination of exact points of transition from one movement to another in order to establish the overall shape. The shape of a work in time is related to its form. The term design is an over-arching concept encompassing form as well as other elements. The overall design of a work should include original material, building blocks that are essential for the development of a piece. These materials could be sketches for the whole piece or detailed descriptions for certain parts of the work.

Designing dance is similar to composing music. While composers do not necessarily think of set design or costumes as much as choreographers, they need to design in time as well, giving consideration to how mood (drama), dynamics, and instrumentation support the dance. Establishing the design is the first step in a collaboration; as such, it can be easily complicated by differences of opinion and personal taste. Once a plan for the work is set, composers and choreographers can move onto the next step: considering the main compositional elements in detail.

Rhythm

Simply put, *rhythm* is a pattern of accents in time, seen or heard, with a predictable or unpredictable character. Rhythm exists in both music and dance; however, composers and choreographers approach rhythm from different viewpoints. Doris Humphrey described rhythm as the most persuasive and most powerful element, with the possible exception of virtuoso technique and individual personality. She says, “Design is

striking, rhythm is rousing, and dynamics are subtle coloring compared to a driving rhythm.”¹⁰

The *American Heritage Dictionary of the English Language* defines the term “Rhythm” as:

1. Any kind of movement characterized by the regular recurrence of strong and weak elements
2. Nonrandom variation, especially uniform or regular variation, of any quantity or condition characterizing a process
3. In music, a regulated pattern formed by long or short notes, or a specific kind of such a pattern
4. In painting, sculpture, and other visual arts; a regular or harmonious pattern created by lines, forms, and colors.¹¹

The word “rhythm” is derived from the Latin word *rhythmus* and the Greek word *rhuthmos*, meaning recurring motion and measure.

It is interesting to compare rhythmic patterns of lines or colors in the visual arts to the patterns of notes in music. Rhythmic patterns can play a strong role in music and visual art, whether presented forcefully or with nuance and subtlety. The patterns of accented lines or colors in a painting have much in common with the patterns of notes in a musical composition; however, where music and dance depart from the rhythms of visual art is in their presentation in time, a fact that draws in matters of duration and its impact on the perception of phrase. *The Harvard Dictionary of Music* defines the term “rhythm” as the pattern of movement in time. In a general sense, rhythm encompasses all aspects of musical movement as ordered in time, as opposed to other aspects of musical sound such as pitch and timbre. Jaques Dalcroze describes rhythm in his book, *Rhythm, Music, and Education*: “While precise relations of time, space, and energy determine the form of the movement, rhythm demands different forms of movement for different accentuations, in other words, different degrees of muscular energy.”¹² One form of

richness in works of music or dance often comes from the variety of rhythmic patterns they use.

Some synonyms of rhythm are meter, cadence, and beat, according to the *American Heritage Dictionary of the English Language*. Rhythm denotes a regular pattern, an ebb and flow, of sounds and movement in speech, music, writing, dance, and other physical activities, including natural phenomena such as the rhythm of the heart. *Meter* means measurement and is applied to a system of recurring patterns of length, beat, or numbers. *Cadence* refers specifically to the rise and fall of the voice in speech or singing and to the harmonic sequence of chords in music indicating a conclusion. *Beat* refers to rhythmic stress, but it may also be used loosely for rhythm in general.¹³

Individual beats are not the same as rhythm; however, a pattern of beats and its repetition is synonymous with rhythm.

The pattern of pulsation (the ebb and flow) of movement in music and dance is connected with rhythmic variation. Rhythms are patterns, either steady or irregular, the basic premise of which was explored by modern dancers in new rhythmic theories. Paul Love discusses rhythm in dance in his book, *Modern Dance Terminology*:

Rhythm was no longer synonymous with beat but came to mean a sequence of self-evolved movements, harmonized with the fundamental pulse and flow of the body-rhythms and capable of repetition. Movements were used only in relation to a central dynamo of motor power, which Isadora Duncan located in the chest, the seat of the two vital rhythms of the body, blood and breath. The shift in the meaning of dance was one from line to mass, from building by accretion to organic evolution.¹⁴

One of Isadora Duncan's important contributions to choreography is her theory of breath rhythm, which along with her concept of the wave, is related to dynamics in modern dance. Natural breathing involves the alternation and counterpoise of two opposites, inhaling and exhaling, which is related to the concept of tension and release as

practiced in dynamics. The term “dynamic” is discussed later in this chapter. The theory of *breath rhythm*, which is similar to Martha Graham’s theory of *contraction-release*, is also related to dynamics in dance. According to the book *Modern Dance Terminology* by Paul Love, breath rhythm is:

one of the natural physical rhythms, which was observed and consciously used by followers of Isadora Duncan and others. The use of these natural rhythms was later formulated under the term dynamism. The inhalation and expiration of the breath, taken as a synthesis, provide a natural physical rhythm and may be used as a dynamic governing principle, the various lengths and exaggerations providing a dynamic rhythm.¹⁵

Dynamism is a concept practiced in early modern dance, if not also the music that accompanies it, that comes out of an interest in the ebb and flow of rhythmic patterns, and the dance motions that drive them. The use of dynamic rhythms, including precise rhythmic patterns and loosely flowing rhythms, provides variety in both music and dance. Doris Humphrey used her term “fall-recovery” as an example of dynamism, which is also based on the theory of *breath rhythm*. Doris Humphrey remarks:

The breath rhythm in the time sense is a two-part phrase, the first longer than the second. In the space sense, it is a filling and expanding followed by a contraction. In the dynamic sense, it is a continuous movement growing in tension, followed by a letting of tension, which finishes with an accent.¹⁶

Breathing is the basis of human life, and the two-part phrase of inhalation and exhalation can be accelerated or slowed by the naturally changing state of the body. By concentrating on these natural rhythms, modern choreographers break from the traditional rhythmic patterns of Romantic ballet.

Isadora Duncan used the term, “wave rhythm” to describe natural rhythms. She talks about *wave rhythm* in *The Art of the Dance*:

With the strengthening of the breeze over the seas, the waters form in long undulations. Of all movement which gives us delight and satisfies the soul’s sense of movement, that of the waves of the sea seems to me the finest. This great wave

movement runs through all nature, for when we look over the waters to the long line of hills on the shore, they seem to have the great undulating movement of the sea; and all movements in nature seem to me to have as their ground-plan the law of wave movement.¹⁷

This natural rhythm brings freedom to the rhythmic patterns of dance, allowing them to rise, hold, curl, and break. Duncan's use of these natural rhythms influenced many other choreographers. The natural character of call and response, introduced into the rhythmic patterns of dance, brought a similar realism. Composers also experimented with natural rhythms. In reference to modern music, in a 1939 edition of *Dance Observer*, Louis Horst remarks:

But this experimentation away from rhythmic regularity was not only a desire for greater rhythmic freedom, it basically was really a desire for greater truth in action, a way towards a new realism. And it is this view of rhythmic experimentation in music that links it so closely to the contemporary dance's urge towards a factual and honest employment of action-rhythms—a true and new realism based on action, not attitude.¹⁸

The use of natural rhythms in music often produces certain irregular patterns requiring irregular meter or single-beat bars. Certain natural rhythms, which rise and fall without notice, and exhibit no regular patterns or pulse, require neither meter nor beats. Some composers have developed new systems of rhythmic notation, such as time or spatial notation, in which there is no indication of meter in the score, only duration measured against the tick of an unheard clock. Although some natural rhythms do not necessarily conform to identifiable metric systems, they still have rhythmic accents. A metric accent corresponds with the first beat of the bar, but a rhythmic accent may occur anywhere within a rhythmic group.¹⁹ The flow of rhythmic patterns sometimes shapes the character of a piece.

Choreographers use various techniques to help with the flow of dance and even create rhythmic dissonance with music. Musical rhythm and dance rhythm are not

necessarily the same. If the music is comprised of sustained notes without any accents or downbeats, how is the rhythm of the dance counted? Some composers take different approaches to rhythm, which require new metric systems.

Composer Toru Takemitsu incorporated the distinct and unusual sound and instruments of traditional Japanese music into his own music, as well as concepts of time borrowed from Japanese culture. Rhythmic flow is an important musical aesthetic in Asian cultures. Takemitsu described his music as expressing traditional Japanese musical aesthetics of time; he expounded on the concept of “ma”—an unquantifiable metaphysical duration of dynamically tensed absence of sound—as a philosophy of musical time applied to the majority of his works.²⁰ By incorporating natural flowing rhythms, composers move away from traditional concepts of metrical organization. Accents can occur on any beat, or even slightly off the beat, developing naturally without counting time. With natural rhythms, rhythmic flow becomes more closely aligned with nature than with mechanical systems. Natural rhythms introduce a flexibility, which makes metric groupings of traditional regular rhythm in four or eight less appropriate.

Composers and choreographers need to establish a balanced and consistent metrical relationship between the music and the dance. Determining a consistent system for counting time, useful to both, is one of the most basic and crucial problems collaborators face. One of the fundamental issues in this process is the placement of beats within each phrase in music and dance. It is not necessary to count throughout a piece; however, because dancers do not dance by following a score, counting during practice helps them, especially when working in large groups. The decision of whether to count in exact beats or naturally grouped phrases is a matter of personal taste. For practical

reasons, some choreographers rarely try to connect metrically with the music. For example, consider the duration of three measures in 4/4 meter which is the same as a duration of four measures in 3/4 meter. If the choreography is in 4/4 meter and counted 1, 2, 3 and 4, the same amount of music in 3/4 meter would be quite different from what the composer initially intended, and the placement of accents in the music and dance would be misaligned.

Meter is an element of musical rhythm, which is the result of regular rhythmic accents. Meter is more applicable to time in music and its notation than it is to time in dance. The time signature and the basic time-units—whole note, quarter note, and eighth note—are important to music, but in dance, these are not standard elements. In modern dance, the choreographer focuses primarily on flow, rather than on a measured rhythmic system. Musical rhythm is similar to flow rhythm, however, musical rhythm is usually created using a metric system, whereas flow rhythm is based more on the sequencing of asymmetric phrases or movements.

Doris Humphrey makes a distinction between meter and rhythm by referring to metric rhythm or *motor rhythm* first, and *breath rhythm* second.²¹ Taken literally, the term meter means measure, and it applies to a system of measured repetitions of length or beat. Breath rhythm is distinguished from metrical rhythm through its dependence on flow, which is similar to speech phrase—a series of connected movements or a movement-rhythm depending upon the breath length.²² Humphrey says, “The speech phrase, with its pauses similar to those of the spoken phrases or sentence, provides rhythm.”²³ Humphrey combined breath rhythm, which is similar to *speech phrase*, with

kinesthetic phrase, which is driven by body movement, to create what she called “movement-phrase,” a grouping of movements.

Emphasizing breath rhythm in dance gives choreographers more flexibility in the way they conceive, design, and vary rhythms. In music, some composers found rhythmic flexibility in new approaches to meter and time; for example, Eric Satie eliminated bar-lines, and Igor Stravinsky sometimes changed the time signature in almost every measure. Mixed meters or changing meters in music is not the same as *movement-phrase* in dance. While both mixed meter and flow rhythm are distinguished by their continuously variable rhythms, the rhythmic profile of mixed meters is more pronounced and articulated through its more common use of metric accents, and accent-induced, rhythmic variations. Henry Cowell mentions the need for a new metric notation: “Such a notation would make [composers’] music easier to read, since at present the performer has no means of deciding where these composers wished notes accented, or where to find the underlying pulse which at times undoubtedly exists in their music.”²⁴ The *accent* of the first beat in a musical phrase is similar to the first beat of the *movement-phrase*, which is borrowed from speech pattern. A metric system is based upon the counting of time, while rhythm, taken as simply the sequencing of durations, does not. H. W. Fowler’s definition of rhythm in speech is appropriate to the dance. He talks about “Rhythmless speech or writing” in the *Dictionary of Modern English Usage*:

[Rhythmless speech] is like the flow of liquid from a pipe or tap; it runs with smooth monotony from when it is turned on to when it is turned off, provided it is clear stuff; if it is turbid. The smooth flow is queerly and abruptly checked from time to time, and then resumed. Rhythmic speech or writing is like the waves of the sea, moving onward with alternate rise and fall, connected yet separate, like but different, suggestive of some law, too complex for analysis or statement, controlling the relations between wave and wave, waves and sea, phrases and phrase, phrases and speech. Rhythm is not a matter of counting syllables and

measuring the distance between accents. It does mean so arranging the parts of your whole that each shall enhance, or at least not detract from, the general effect upon the ear. Meter is measurement, rhythm is flow, a flow with pulsations as infinitely various as the shape and size and speed of the waves; and infinite variety is not amenable to tabulation such as can be applied to meter.²⁵

While choreographers have more flexibility in their approach to irregularities of rhythm, composers still follow the metric system using mixed or changing meters.

In a collaboration between composers and choreographers, it is necessary to distinguish the metric pulse from the beat. The meter and its beats is to music what the overall phrase and its count of movements or steps is to dance. Musicians follow the meter system, counting the beats in each measure, beginning each measure with beat one, while dancers usually count beats within a single phrase. Because music and dance utilize different counting systems, metric and dance accents end up being juxtaposed against each other. Varied accents can appear in the same phrase of the dance, but this is different from the kind of accents found in metrically notated music. The term “phrase” is discussed later in this chapter. Henry Cowell addresses the problem of new metrical ideas in dance and music collaboration:

What is required to re-create interest in meter is not to do away with so powerful a musical element, not to keep the bar-lines always the same and then negate them by accents; because accents within the measure are never felt to be the same as first beats in the meter. Neither is it necessary to make of meter a sort of skeleton-in-closet. . . essential to preserve, but so unlovely that it must be covered by almost any accenting of phrase which will disguise the metric foundation. . . . When meters change frequently, or when harmonies are formed from them, they give pleasure, and it is again of interest to hear them clearly defined, instead of disguised.²⁶

Rhythmic accents are essential in the organization of a piece, as they give pattern and shape to phrases. A rhythm is a patterned configuration of attacks that may or may not be constrained by a prevailing meter or associated with a particular tempo.²⁷ As Cowell previously mentioned, rhythmic accents do not necessarily only fall on the initial

beat in any particular meter. Accents play an important role in the structure of dance phrases. According to *Modern Dance Terminology* by Paul Love, the accent is:

A stronger or sharper movement in a series of movements, the chief element being force. Accents may be given to one or more parts of a movement-phrase, or to a number of movement-phrases in relation to other phrases.²⁸

The term stress is synonymous with accent, which is “the emphasis upon any movement or group of movements over and above other movements that precede or follow it.”²⁹ Stress may be introduced through an increase in intensity or through a change in the quality of a movement. It can also be introduced through variations in the speed of movement. Accents or stresses are the result of the rhythmic dynamics in a phrase. Variation in the number and placement of accents can lead to variations of rhythm that can add character to a piece. Doris Humphrey analyzed the principle of dynamic rhythms, and says:

The Rhythm exercises specify the duality, the conflict which is the basis of rhythmic movement: fall and recovery, which visualizes the two poles, at each of which the motion might cease. . . . The initial emphasis is on feeling, on the definitely receptive reaction of the body to the particular movement. When the body is not repeating it mechanically by rote, but has accepted it and has complete control of it, then the ‘count’ is analyzed and learned; and following this, accent. To make a bridge between the two, the accent may be placed at first in a simple routine order, coinciding with the strongest body movement. Later it may be shifted to the weaker movement, preceding or following the strong movement. By becoming an off-accent, it increases the student’s feeling of the body and also increases the strength of the strong movement, which has to depend on itself alone for accent.³⁰

A system for counting time is necessary for both the analysis and effective rehearsal of a piece. The introduction of accents can help organize how the music and dance are counted. As previously mentioned, a problem that occurs in collaboration is deciding how to count. This is not typically a problem for musicians, as they follow the meter system in the score. However, the absence in dance of both scores and metrical

thinking makes the discussion of how to count a dance not only relevant, but crucial.

Rhythm in dance cannot be organized without first inventing a method by which to count it.

Musicians may be better at keeping time than dancers; however, musicians follow a score with a clear view of a conductor. On the other hand, dancers follow the count by ear, and then express it with their body movements. Counting is important for a group dance, especially one with continuously changing rhythms. Choreographers can sometimes capitalize on the way individual dancers count, and their peculiar (or unique) habits. Some choreographers embrace the issues surrounding the counting of rhythm by allowing dancers to count time each in their own way. An extreme example of this is the work of Merce Cunningham whose choreography does not even stress rhythmic issues. Instead, his choreography focuses on the independence of dancers through the use of chance operations. This approach not only simplifies how dancers count, but leads to some surprising happenings.

Doris Humphrey was conscious of the potential rhythmic problems in her choreography. She says, "Coming to problems of rhythm in dance, every director and teacher knows the arhythmic individual who has so imperfect a co-ordination between the ear and the body that he cannot conform to a beat later than he should, and in general is hopeless rhythmically."³¹ Because of the rhythmic challenges, she focused on developing a theory of dance rhythms, such as motor rhythm, breath rhythm, and emotional rhythm. To perform her types of rhythm structures, dancers count by extension of their breathing, their bodies, and even, particular emotional states.

Choreographers are aware of the problems of counting that exist between music and dance as a result of their different theories of rhythm. However, if the music uses distinctive, repeating rhythmic patterns, it becomes much easier to count and coordinate dance movements, especially if the movements also repeat. The use of consistent, repeating, patterns of accents, something similar to single beat bars, can also simplify how musicians and dancers count and coordinate.

Collaborations between composers and choreographers raise many questions, especially about rhythm. For example:

- How will choreographers respond to changes in musical meter?
- What if sudden contrasts and changes occur in the musical/dance phrases, how does the choreographer/composer respond?
- How should the dance respond to silences, particularly those following sections of continuously changing, highly active rhythm?
- Is it necessary that the rhythms in the music and dance concur?

Rhythm is an important shared element in collaboration. While collaborators may take a freer approach to rhythmic synchronization, it is still important to understand each other's approach to rhythm. Dancers express not only mechanical rhythm, but more importantly and commonly, the natural rhythm of their bodies. Composers, too easily yoked by notation's rigid and simplistic structures, need to explore the rhythmic expressions of dancers and their origin in the natural breath with its inhalation, suspension, and exhalation.

Tempo

Some music terminology refers to the close relationship of music and dance. Frequently, musical terms are used to describe motion in dance, for example, *ritardando*, *accelerando*, *andante*, and so on. The term "tempo" originated from the Latin *tempus*,

which means “time.” *The Harvard Dictionary of Music* defines tempo as “the speed at which music is performed.” In music, *tempo* is the rate per metric unit of time in performance, such as *a tempo* (return to the original tempo) or *ritardando* (gradually slowing down). Dance has its definition for tempo as well. Paul Love defines tempo in his book *Modern Dance Terminology* as:

The rate of speed with which a series of movements is performed. Physical correspondences are found for the following musical terms: hesitatingly for *largo*, slowly for *lento*, smoothly for *adagio*, moderately for *andante*, briskly for *allegro*, and hurriedly for *presto*.³²

In music, it is difficult to determine the exact meaning of *largo* and *lento*, *adagio* and *andante*, or *allegro* and *presto*. This tempo vocabulary is imprecise in music, and it is further complicated when applied to dance. An interesting aspect of tempo in music is how it relates to dance. While tempos have their place and meaning in musical scores, their use by dancers and choreographers requires a more detailed explanation given the way the body comes into play. Choreographers interpret musical tempo not in terms of absolutes but in relation to the mechanics of the body. Doris Humphrey provides a solution to the problem of interpreting musical tempos by explaining, “the measure for tempo [for dance] is the rate of normal walking—not the heartbeat, although this [musical tempo] is a contributing factor.”³³ Dance deals with tempo relative to various walking and running speeds, which in dance can be classified as different named tempi. Knowing the previous tempo can help in determining the speed of the following phrase. Humphrey also discusses the relationships between tempi:

Slow and fast, as related to the walk, have psychological effects. Slower than the normal pace is always more lethargic, even though it is thoughtful; faster is always more exciting, exhilarating, indicating a quickened desire and increased vitality.³⁴

Musicians typically set rates of speed or tempo using a metronome, especially when exact rates are needed; dancers, however, take their tempos not from a series of predetermined metronomic speeds but from the piece's changes in character. Doris Humphrey's ideas about tempo embrace the idea of tempo as a matter of character and psychology, rather than of the metronome. For example, while short fast motions typically indicate a fast dance tempo, short passages of fast motion interjected into otherwise slow moving, long phrases do not change the overall tempo of the phrase which remains slow; however, the fast interjections can and do change the character of the phrase. When applied to music, tempo refers to the overall speed of a piece, whereas in dance, tempo often indicates rhythm, either fast or slow. Tempo in music is basically the rate of speed. According to *The New Grove Dictionary of Music and Musicians*, tempo changes occur either abruptly or gradually throughout a piece:

But it is worth noting that even within passages that seem to be in stable tempo, the bare rate is not mechanically constant, save in performances that involve electronic or mechanical means of articulating beats and rhythms. Rather, in normal performances tempo systematically fluctuates within the bar and the phrase.³⁵

Composers indicate tempo on a score with words such as *Andante* or *Allegro*, or with metronome markings. The metronome measures out a specific number of beats to the minute as indicated by the marking in the music; however, metronome settings indicate only the proportional time and have no performance implications other than speed. Since the twentieth-century, most composers have preferred to indicate the exact tempo of a musical score by providing both descriptive words and metronome markings.

Sometimes the speed of a given tempo may be flexible, as in *tempo rubato*, *accelerando*, and *ritardando*, three terms originating in music. *Tempo rubato* calls for a fluctuating tempo that changes fluidly in conjunction with the expressive goals of the

musical performer. *Accelerando* and *ritardando* allow for gradually faster or slower tempos, and can be handled with some flexibility. The idea of rhythmic freedom, as practiced in modern dance and music, is often associated with flexible tempo in which performers freely increase and decrease tempo according to the needs of the performance. In modern dance, free tempo has a strong relationship to natural rhythm or breath rhythm in which pulse is drawn more from the body than the metronome and often varies as a consequence. When variations in tempo are driven by the personal tastes and changing physical states of a dancer's body, they have a strong connection to the general concept in dance of dynamics, discussed later in this chapter.

The determination of tempo comes together naturally with the unfolding of other elements within a composition. David Epstein talks about the 'right' sense of time and tempo in his book *Shaping Time*:

Tempo has generally been acknowledged as a consequence of the sum of all factors within a piece—the overall sense of a work's themes, rhythms, articulations, "breathing," motion, harmonic progressions, tonal movement, contrapuntal activity. . . . Tempo is a reduction of this complex Gestalt to the element of speed per se, a speed that allows the overall, integrated bundle of musical elements to flow with a rightful sense.³⁶

The New Grove Dictionary of Music and Musicians provides a similar explanation about the 'right' tempo:

A true sense of tempo, then, is a product of more than the successive note-to-note articulations; it involves the perception of motion within rhythmic groups and across entire phrases. Finding the 'right' tempo within and between sections of a piece is one of the subtlest and most difficult tasks facing the performer.³⁷

In collaboration, finding the appropriate sense of tempo is essential. The key to finding an appropriate tempo can be found in the unfolding of all the elements of a work.

Time (or Duration)

Time is the most significant shared compositional element in a collaboration. For example, although John Cage and Merce Cunningham worked independently, time remained a primary element in their collaboration. In addition, Merce Cunningham has stated in interviews that music and dance share only one element, time, and that all other notions about correspondence between the two arts are “intellectual constructs.”³⁸

John Cage considered time to be the most fundamental element in music, encompassing pitch, loudness, and timbre as well as silence. In John Cage’s essay *Experimental Music*, he discusses the concept of duration as the basis of musical rhythm. Cage defines rhythm as durations of any length coexisting in any state of succession and synchronicity.³⁹

When music and dance share the same duration in a collaboration, it is not necessary to fill every moment with sound or motion. Once the composer and choreographer agree on the duration of the piece, the work’s smaller sections can be determined, either independently or together, by dividing the overall duration and then filling the sections with single notes, gestures, or even just silence. The equivalent in dance of musical silence is the absence of motion or the immobile posture. The choreography and the musical score can also vary from performance to performance and lead to fluctuations of time that can change the movement itself. It is up to the collaborators to determine how much temporal accuracy each gesture needs.

In music, time is divided into a variety of lengths of time-units determined by the notation system used. Individual note values, such as quarter notes or sixteenth notes, subdivide these time-units in ways that performers are experienced at reading and interpreting. Although musicians are trained in how to carefully and accurately follow a

metric system and its tempo indications, their personal conceptions of time will affect the work's actual durations, large and small, and in general, the presentation of its clocklike metrical design. The same is true for dance; while dancers have set movements to sequence, the way they perform them and count through them, phrase-by-phrase, varies in response to the experience they have while performing. Consequently, they too affect the durational aspects of the work as their experience changes what would otherwise seem to be driven by the clock and the count. David Epstein addresses the difference between clock time and experiential time:

Time has dual modes of structure. One is essentially clocklike, a measurement mode that mechanically delineates equal periods. The other mode relies upon experience for its demarcation—experience that is particular and unique. Time, seen in the context of such experience, is anything but mechanical or external; quite the opposite, it is integral to the experience itself. As a consequence, it is often measured, or delineated, in terms of that experience.⁴⁰

The choice of whether or not to use a system of metrical organization is a significant decision. A work's durations, large and small, will vary from performance to performance. When the choreography requires rhythms that are evenly measured, it may be easier to align dance movements and their durations with the metrically ordered music. Since music and dance need to share the same overall duration in a collaboration, performers need to control their personal expressions, especially during gradual tempo changes such as *ritardando*, *accelerando* and *rubato*. It is important to control the experience to keep the work a consistent duration. Dancers and choreographers deal with this problem in different ways; for example, Cunningham used a stopwatch for controlling the duration, especially in a group dance. Duration is a very important compositional element, especially in Cage-Cunningham collaborations in which it is the only shared element, all other creative work being developed independently.

Phrase

Phrases, both in music and dance, take on shape and identity through the themes, motifs, and rhythmic patterns contained within them. In dance, the overall movement of the body, and its tendency to rise, fall, or break, plays a unique and significant role in giving shape to dance phrases; choreographic vocabulary often distinguishes phrases this way, that is, as phrases that rise, fall, rise and fall, or break suddenly. In modern dance, phrase sequences often have more independence than they do in traditional ballet.

Most traditional ballet is structured to accommodate musical phrases, the lengths of which are usually divided into four, eight, sixteen, and thirty-two bars. Even when meters such as 5/8 or 7/8 are used in traditional ballet, dancers typically prefer to divide the meter's ongoing, background pulse (i.e. the eighth note in 5/8) into beats of constant length that cross bar lines in their search for regularity. In modern dance, however, the length of musical phrases, or the division of them, is rarely regular. In dance, the introduction of different types of flow rhythm, such as the "breath rhythm" developed by Doris Humphrey, or the "wave rhythm" developed by Isadora Duncan, has expanded the nature and meaning of phrase in dance.

According to the *New Harvard Dictionary of Music*, the term *phrase* is "a unit of musical syntax, usually forming part of a larger, more complete unit sometimes termed a period."⁴¹ The identification of musical phrases begins provisionally with the identification of cadences or equivalent pauses. Phrases are often distinguished through the shape of a melodic line, or the repetition of a rhythmic pattern. Phrases in dance are similarly distinguished by lines, not those following the path laid by musical tones, but those traced by hands, feet, body, or even group movement. Paul Love speaks about line in dance, and its connection to musical line. For Love, the equivalent in dance of melodic

line is to be found in movement that flows smoothly without staccato interruptions; an evenly progressing, unbroken line. As well he adds, “The movement in [a] melodic line [in dance] will be curved movement.”⁴²

Both composers and choreographers use the terms *phrase* and *period*.

A phrase in music is a series of notes that begins and completes an intended expression.

A phrase can be extended and connected into other phrases which, when grouped together and ended with a cadential phrase, can be called a period. Phrases and periods shape time differently. According to the *New Grove Dictionary of Music and Musicians*, a phrase is:

One of the smallest among the divisions, which distinguishes the term of a musical work. Where there are distinct portions marked off by closes like full stops, and half closes like stops of less emphasis, the complete divisions are generally called periods, and the lesser division phrases. The word can hardly be used with much exactness and uniformity, for sometimes a phrase may be all, as it were, contained in one breath, and sometimes subordinate divisions may be very clearly marked.⁴³

Paul Love describes the use of period and movement-phrase in modern dance vocabulary:

In as much as the term “period” is sometimes used in modern dance to express the same thing as the term “movement-phrase,” the terms may lead to some ambiguity in the dance as they do in music. If both are to be used, it may be stated in general that a phrase is shorter than a period.⁴⁴

Periods are often divided into two balancing, complementary halves, with the halves not necessarily being equal.

In ballet, a series of combined steps and movements is called a *movement-phrase*.

The movement-phrase separates foot and arm movements; in contrast, phrase structures in modern dance often move beyond the steps, engaging the entire body in integrated movements. According to John Martin in his book, *Introduction to the Dance*, “movement-phrase” is:

A succession of movements form a common impulse, not necessarily sufficient to constitute a complete statement of action but containing either the introduction of a theme or a response to such a theme already introduced. . . . The series of movements would necessarily have a characteristic pulse, though they need not inevitably be evenly spaced or timed, and would possess a unity that set them apart from what had been done previously or what was to follow.⁴⁵

Motor phrase is a type of movement-phrase in which the dynamic breath rhythm of the body determines durations and the timing of movement.⁴⁶ Unlike the arbitrary and irregular design of some musical phrases, the motor phrase is organic and regular; its origin in human breathing makes it similar to the speech phrase developed by Doris Humphrey, previously discussed in the rhythm section of this chapter.

In general, the structure of the phrase in modern dance is different from the structure of phrases found in historic ballet scores in which two-measure or four-measure phrases predominate. In modern dance, phrases are often shaped by the natural rhythms of the human body using what dancers call *breath rhythm*, *wave rhythm*, or *speech rhythm*. The way these types of dance phrases emerge out of the natural and regular movements of the human body has some parallel in the experience of composers who find regular rhythms and phrase groups emerging in music they have otherwise designed to be irregular and free; no matter how much composers work to take a freer approach to rhythmic design, occasional regularity is inevitable.

Dancers and musicians both count in order to properly perform a score or choreography and to stay synchronized with others; however, the way dancers and musicians count is different, a fact that in collaborative work gives rise to the bar-phrase system. The bar-phrase system deals with the seeming conflict in collaboration between musicians who, following music notation, count beats in a bar, and dancers who, following movement-phrases, count beats or events in a phrase. While counting in music

is fairly straightforward, counting in dance is more unusual, although based on practical concerns. Dancers typically prefer to start counting from the beginning of the phrase. Phrases typically begin with the first strong beat or point of emphasis; however, counting actually begins with the first gesture, no matter how small or preparatory it might be. The bar-phrase system in music is more straightforward; in bar-phrase, the metrical structure of the notated music determines the placement of downbeats. Since dance does not have a standard system of metrical downbeats as in music, downbeats are generally taken to occur at the beginning of musical phrases. The movement-phrase in dance is a sequence of combined arm and foot movements with a beginning, middle, and end; unlike music, the movement-phrase has no bar-system and is, therefore, counted more freely. For example, a three measure musical phrase with a time signature of 3/4 would be counted *one, two, three, two, two, three, three, two, three* in order to keep track of the passage of both beats and bars. Downbeats are naturally found at the beginning of bars. Dance phrases that cover three measures, however, will most likely not be divided in the same fashion; instead, a full nine beats will be counted without any reference to the underlying 3/4 organization of the music. Counting is used for practical reasons in both music and dance. In fact, the problem of grouping the phrases between music and dance comes from the way in which the rhythms flow within the phrase in dance.

The organization of a dance into phrases is, in part, revealed by *pauses* in its motion or by silences in the accompanying music. New phrases appear with the continuation of motion following a *cadence*. A short pause in motion is similar to a breath mark in a music score; longer pauses are equivalent to rests in the music, and are often aligned with them in collaborations. Silence plays a significant role in modern

music as well as modern dance. The rest in music can be compared to a hold moment (stillness) in dance; brief pauses without sound and motion retain energy that can connect adjacent phrases. According to Paul Love, the author of *Modern Dance Terminology*, a *pause* in dance is:

any moment in the dance where no directional movement occurs; synonymous with “rest” in music. Also [it is] used in dance notation to indicate any point where the movement of one member of the body is held while some other member performs a movement or gesture. . . . The pause is far more significant in modern dance than in classical ballet where, because of the stress in the latter upon the concluding attitude rather than upon the movement that leads to it, the pause becomes an abrupt cessation of movement.⁴⁷

Theodore Meyer Greene remarks about silence in dance in *the Arts and the Art of Criticism*, “Just as a musical rest is not mere silence, but silence impregnated in the dance, what is sheer absence of movement at the level of the raw material can become, in conjunction with bodily movement, profoundly expressive.”⁴⁸ While silence and pauses in motion can indicate the ends of phrases or cadences, silence and stillness can also play an important role within phrases, as is often found in modern dance and music.

Phrases are developed through varied repetitions. The use of similar and varied patterns of motion is one way to develop phrasing in a collaborative work. However, for contrapuntal ideas to develop between music and dance, composers need to understand the dominant use of the motion phrase, the breath rhythm included within it, the role of the body in phrasing, and the importance of physical rest. Knowledge of dance dynamics—i.e. the effect of tension and relaxation brought about through variations in speed—and the role of *rubato* in dance is important as well.

When composing a piece, it is important to be aware of phrasing, especially in collaboration. Many pieces develop a phrase at a time. For constructing phrases, Doris Humphrey frequently used expressive words such as “eagerness advancing” and

“hesitation.” Humphrey says, “There are other ways of constructing a phrase—rhythmically instead of dramatically, for instance—but since the analysis of rhythm is yet to come, I prefer starting with feeling, which is simpler and was the original motivation for the nine words.”⁴⁹ Personal expression is an important element of dance phrase construction. Phrase lengths will vary in response to dramatic timing regulated by breathing. In collaboration, the structured phrase is better suited for working with dancers than non-structured phrasing.

Dynamics

Dynamic is a vocabulary word common to both music and dance; while both frequently use the word, each gives it a different meaning and function. In music, dynamic usually refers to a degree of loudness such as *forte* or *piano*. In modern dance, dynamic can refer to a number of attributes, including the scale of motion or the number of dancers. The *American Heritage Dictionary of the English Language* defines the term “dynamic”:

1. Of or pertaining to energy, force, or motion in relation to force
2. Characterized by or tending to produce continuous change or advance
3. Energetic; vigorous, forceful
4. Of or pertaining to variation of intensity, as musical sound.⁵⁰

The word “dynamic” originated from the Greek *dunamikos* which means powerful (*dunamis*) or power (*dunasthai*).

The concept of dynamics is particularly significant in modern dance. While dynamic refers to the degree of loudness in music, in dance, it refers to the size or scale of an energetic event or moment or is related to the force of body movement. For many dancers, dynamics refers to the range of movement from stillness to energetic motion.

Paul Love addresses the role of *dynamism* in modern dance:

Theoretically, the modern dance is based on dynamism; on what Bergson calls “contradictory concepts”, on the collision of two opposites such as contraction and release, fall and recovery, tension and relaxation, etc., which were formulated from natural rhythms, originally used literally, such as the breath rhythm, the wave rhythm, folding and unfolding, etc.⁵¹

One example of dynamic movement in dance would be the *crescendo*; similar to the musical term that calls for an increasing amount of sound, the dance crescendo emerges out of stillness through the introduction of increasing amounts of motion. Dynamics also includes various scales of body movement ranging from smoothness to sharpness or gradual to sudden. In addition, the concept of dynamics is related to texture and density in dance, which is covered later in this chapter. Dynamics changed modern dance through its new approach to the body and movement.

The dance critic, Paul Love divides the term “dynamism” into five categories in *Modern Dance Terminology*:

[Dynamics:]

1. Any theory which views the universe as essentially or imminently constituted by forces.⁵²
2. Dynamism is one of the four distinctive elements of the modern dance, the other three being movement as substance, metakinesis, and form. John Martin was one of the first to state clearly the distinction between ballet and modern dance. Modern dance is actually dance presented in its fullest expression: a series of movements so ordered and composed as to express the subject matter; a series of movements, furthermore, that are evolutionary in the sense that they grow one from the other. This makes the dance a composition in sustained movement, which may place no greater accent on the beginning and end of movement than on the interval that connects them. It dispenses with the static element that is inferred in poses and attitudes and substitutes for its dynamic flow. This led, early in the history of the modern dance, to the consciousness of pulsations in movement. The Germans, particularly Rudolf von Laban and Mary Wigman, stressed these pulsations in the term “*anspannung*” and “*abspannung*”—the ebb and flow of muscular impulse. This same quality lies behind Isadora Duncan’s interest in the rhythms of the breath and the waves. These, and other American variations such as contraction-release and fall-recovery, contain within themselves periods of greater and of lesser tension. The dynamic element enters mainly in the giving of accent of stress, which will usually mean and increase in the power or intensity of the movement.⁵³

3. Dynamics is the science of gradations of force, most apparent in modern dance through modifications of space. A section in Martha Graham's *Primitive Mysteries* might illustrate this, where she emerges from a surrounding group of dancers. If the group from which the dancer emerged were static, a certain dynamic effect would be produced. By having the group moving downward as she moves upward from the center, the dynamic effect is enormously increased.⁵⁴
4. The basis of this philosophy is the dynamic comprehension of things: being as a constant becoming from the interaction of two contrasting opposites. Synthesis, arising from the opposition between thesis and antithesis. The interaction of the two engenders and conditions [is] dynamism. The degree of distance determines the intensity of the tension. The form of this dynamics in space and time is expression. The tension-stages are Rhythm. The dynamic comprehension of things is the basis for the correct understanding of art and all art-forms. In the realm of art this dialectic principle of dynamics incarnates itself in conflict as the fundamental basic principle of the substance of every art-work and every art-form.⁵⁵
5. This interaction was first consciously used as a basic principle in dancing to natural rhythms, such as the rhythm of the blood, the breath rhythm, the wave rhythm, folding-unfolding, etc., and was later formulated by Rudolph von Laban in his theory of tension and relaxation. Although never clearly formulated by Isadora Duncan, the dynamic principle was nevertheless the basis of her work. In 1909 she stated: "And when we come to the movements of organic nature, it would seem that all free natural movements conform to the law of wave movement: the flight of birds, for instance, or the bounding of animals. It is the alternate attraction and resistance of the law of gravity that causes this wave movement."⁵⁶

Similarly, in dance choreography, dancers control the dynamic forces of the body and the way force drives motion and movement. Of course, while dancers control dynamics, the character of a choreography may be designed with dynamics specifically in mind. Dynamism in dance is about the interaction and balance of opposites and is related to the theory of tension and relaxation in modern dance. Controlling the interaction between these opposite conditions is important to the balance of any piece based on dynamics. Developments in modern dance have largely been driven and inspired by new approaches to the control of dynamism.

Dance dynamics, and the forces that drive them, can change gradually or suddenly. As Paul Love previously mentioned, dynamics is the science of gradations of force. Dynamics in dance is about the exploration of opposing conditions or poles and the continua that connect them. The musical terms *crescendo* and *decrescendo* mean to change the amount of force, and when followed to their extremes, produce sound of maximal or minimal force. While the intensity and effect of dynamics in dance can be conveyed through the movements of a single dancer, dynamics are most effective in group dances performed in large spaces. Changing the number of dancers modifies the perception of space and contributes to the gradations of force in a dance. Dynamic dance effects can be achieved by varying the size of the ensemble surrounding a soloist; the effect is similar to the interaction in music of soloist and accompanying ensemble. Dynamic effects in dance, using soloists or groups, are produced largely through changes in the amount of motion, taking dancers from states of immobility into highly energetic gestures and back.

Dynamic effects can be complicated, with different musical and choreographic situations producing different results. For example, the type and magnitude of a dynamic effect will vary depending on the number of dancers and instruments used, the accent placed on individual movements and sounds, and the gradations in intensity of dance movement. The combination of these different factors can intensify a dynamic effect. Dancers often refer to dynamism as the interplay of two contrasting, polarized types of movement.

It is interesting to think of dynamism as a kind of constant state of tension born out of the play of opposing forces. The tension of this state can be found in the dynamism

and presence of musical sound as well as in dance. The way in which a piece emphasizes dynamism depends on the intentions of the composer and choreographer. The intensity of a dynamic effect is directly affected by the presence and interaction of its underlying polarized forces: the greater the interaction, the greater the intensity of the effect and perceived distance between its interacting poles.

Many modern choreographers have established their own theories of dynamism; tension and relaxation, two foundational components of dynamism, are the primary concepts and most common terms used in their theories. Martha Graham also uses the concept of “contraction-release”, whereas Doris Humphrey speaks of “fall-recovery”. Martha Graham says, “The two basic movements are what I call contraction and release. I use the term ‘release’ to express or denote the movement when the body is in breath, has inhaled, and has an aerial quality, and the term ‘contraction’ when the drive has gone down and out, when the breath is out.”⁵⁷ This is similar to Isadora Duncan’s theory of breath and wave rhythms, discussed previously in this chapter. Martha Graham gives a more detailed explanation of the term “contraction-release”:

The first principle taught, in floor exercises, is body center. The first movement is based upon the body in two acts of breathing—inhaling and exhaling—developing it from actual breathing experience to the muscular activity independent of the actual act of breathing. These two acts, when performed muscularly only, are called ‘release’, which corresponds to the body in inhalation, and ‘contraction’ which corresponds to exhalation. The word ‘relaxation’ is not used because it has come to mean a devitalized body.⁵⁸

The other interpretation of the tension-relaxation view of dynamism is “fall-recovery,” developed by Doris Humphrey. She states, “My entire technique consists of the development of the process of falling away from and returning to equilibrium.”⁵⁹ The focus of this technique on a kind of constant losing of one’s balance may cause muscular and structural problems for dancers.

Humphrey's emphasis on the alternation between states of balance and unbalance produces dynamic rhythm. Paul Love talks about Doris Humphrey's *fall-recovery*:

Fall-recovery is a synthesis resulting from the interaction of two opposites: a period of unbalance and a period of relative balance. Actually, there are three parts: a falling movement, a recovery, and a suspension, but the last two occur as one movement, the suspension being a hold at the peak of the recovery. All movement from the simple change of weight onward is an alternation between these two periods of balance and unbalance. The periods may be shortened or lengthened. For example, in a quick falling run followed by a slow walk, the period of unbalance seems to occupy the complete length of the run, although obviously the run is composed of successive periods of balance and unbalance. By slightly exaggerating the falling tendency of the run and the erectness of the walk, the minor balances and unbalances are elided or glossed over.⁶⁰

The *fall-recovery* technique extends to other elements of movement such as simple falls and recoveries to standing position. In addition, other elements such as rhythm and space are involved. The main feature of this technique is its constantly changing intensity—its dynamism. Doris Humphrey says, “In a series of falls and recoveries, accents occur which establish a rhythm, even a phrase, as the time-space is varied due to gravitational pull on the mass of the body.”⁶¹

The idea of tension-relaxation, another example of the dynamic principle, can be found in German dance. The choreographer, Jan Veen defines *tension-relaxation* as:

Consideration of rhythm [which] leads to the polar principles of relaxation and tension. Complete relaxation is one hundred per cent working of gravity in body function. It is a fiercely conscious faculty in itself far removed from sluggishness. It is a concentration away from activity. But there is a world of difference between unconscious and controlled relaxation. The former spells inertia, the latter means release of energy. At the opposite end of the relaxation-tension pole is tension, which is contraction of muscle, the concentration of force in its most animate form. Tension is an unswerving drive in any direction in defiance of gravity of inertia. When tension is the aim[,] there can be no compromise with softness nor can relaxation be curbed by restraint. Each in its final development is a diametrically straight action. Relaxation is a ninety-degree drop in relation to the ground, and tension is a drive in any given direction.⁶²

All theories of the dynamic principle—breath rhythm, contraction-release, folding-unfolding, wave rhythm, and tension-relaxation—are different expressions of dynamics in modern dance, and are related to the control of intensity.

Intensity is the degree of stress in movement. Variations in intensity from weak to strong provide pulsations or an ebb and flow of muscular impulse.⁶³ Isadora Duncan's awareness of the ebb and flow of muscular impulse contributed to her development of the "wave rhythm" concept. The wave rhythm and rhythmic dynamics have a place not only in dance but music as well. Both can be seen as movement whose varying degrees of stress produces a type of fluid rhythm. The dance critic, Charles Weidman comments on the role of stress and intensity in creating rhythm and meaning, "Intensification denotes the meaning; . . . a movement by itself, that is, in a generalized form, contains no meaning whatsoever."⁶⁴ Dynamics change throughout a piece with the changing interaction of opposing forces. The choreographer, Helen Tamiris comments about oppositional dynamic changes:

Some degree of opposition must be in force constantly, as: if a dancer tilts somewhat sideward, raises the right arm side-high and the left side-deep and comparatively close to the body with the focus of attention in the arm, the vitality of the arm movement, which stretches upward, will be preserved and increased by a contrasting downward pull through the opposite leg.⁶⁵

Oppositional dynamic changes are established within a phrase or within the work as a whole. Dance has different levels of loudness that can be compared to audible loudness. Certain gestures, such as multiple dancers running and jumping in unison or slowly crawling on the floor, create dynamics of amplitude in dance. Oppositional dynamic changes in dance can produce different effects. Dynamics is related to the compositional element of texture or effect, discussed later in this chapter.

Although there is no exact definition in dance of the term “articulation,” some dancers equate articulation with dynamics. In music, articulations can create a variety of effects. For example, in music, a crisp *staccato* passage and a smooth *legato* passage are different in terms of dynamics and are related to contraction and release in dance.

Articulation is the manner in which musical tones or dance movements begin and end, which is often referred to as attack and decay. A single movement may take dynamic effects into consideration.

Texture and Effect

Understanding a partner’s artistic direction and personal vocabulary is important in a collaboration, especially when vocabularies overlap, as is the case with the terms *texture* and *effect*. In music, the term “texture” or “timbre” is related to tone color; for example, *pizzicato* strings, *legato* or *staccato* bowing, and muted brass instruments produce different tone colors. However, in dance, texture refers to different choreographic effects, such as stage-wide runs, quick footwork, or large leaps. Textural vocabulary is an important element that should be taken into consideration while developing the compositional elements of a collaboration.

The term *texture* refers to surface, in particular, how we perceive or represent surface structure as distinct from deep structure. *The New Grove Dictionary of Music and Musicians* states, “texture may apply either to the vertical aspects of a work or passage, for example the way in which individual parts or voices are put together, or to attributes such as tone color or rhythm, or to characteristics of performance such as articulation and dynamic level.”⁶⁶ Texture can determine the character of a piece. The density of sonority is an aspect of musical texture. Texture became a particularly important compositional element in the early twentieth-century when the tonal system broke down and other

interests developed, including aleatoric music. Just as modern choreographers focused on dynamism in modern dance, texture became a focus of contemporary composers.

Texture is not the same as dynamics in music and dance. In fact, texture and dynamics are two distinct elements. While texture and dynamics in dance both produce distinctive results, rich with character, textures are scaled not along a single range delimited by opposing extremes, such as loud and quiet, but along a number of parametric ranges and their independent variations. The texture of a piece can be influenced by the choice of instruments, orchestration, or the number of dancers. Both dynamics and texture are significant elements, particularly in modern dance and music.

In the twentieth-century, the variation of timbre became an important compositional technique. Timbre is, in general, a more complex element of sound than pitch or volume; one sign of that complexity can be heard, for example, in the way timbre changes in conjunction with changes in pitch or volume. The use of the word *effect* in describing dance is similar to the composer's use of the word timbre.

Another aspect of texture in dance comes from costumes and lighting. The use of costumes can add drama to a dance, while the introduction of varied lighting can greatly affect its mood. For example, the use of certain colors can create either a violent or peaceful mood, or the use of a single color and simple costumes can create a minimalist atmosphere. As well, changes in musical timbre can be designed to create atmosphere, paralleling the role of costume changes or programmed lighting schemes.

The use of special effects, such as speaking parts for dancers—narration, song, dialogue, or vocal sounds (meaningless words)—can radically change the quality of a dance. The surprise of vocal sound added to a repeating gesture can change the function

and appearance of dancers and make old movements seem suddenly new. Dancers can also produce special sound effects using their bodies, such as stamping their feet or breathing heavily. These unusual sounds are similar in function to extended techniques or sound effects in music, which are often surprising and unexpected.

Although words and body sounds have been used since the earliest days of dance, it has taken the work of modern choreographers to re-discover the role and value of these sounds in the reinforcement of drama. Doris Humphrey classifies the use of words in modern dance into five categories: narrative, song and chanting, dialogue, word play, and words used for their sound rather than their meaning (i.e. percussive sounds).⁶⁷ The different styles of text, narrative, and vocalizations can be used in different ways. When selected words from a longer text are added to a dance for special effect, the choreographer must choose key words carefully, and give proper consideration to how they will be performed. According to Doris Humphrey:

In using words there is reason for caution, and as much understanding as possible of the difference between the arts of language and of dance. . . . Another great area of divergence exists in the timing. Words can bring images to the mind at a very rapid rate indeed, especially in poetry, which is often very soon defeated if he attempts to follow the fast timing.⁶⁸

The voice brings a diverse and appealing range of sound to dance, offering new types of accompaniment. Traditional ballet does not call upon dancers to introduce sound into the choreography, which is designed to be effectively silent. Only with the developments of modern dance have these sounds been added to the choreographer's palette. Special sound effects created by the choreographer should be used in moderation, and should not overpower or interfere with dance movement and motion. Musical texture and timbre depend upon the particular instruments or techniques used in a work. Textural effects in music can also be produced through the use of antiphony in which instruments

and/or ensembles are separated in space and engaged in patterns of call and response. Choreographed alternations of movement between dancers separated in space can function in a way similar to antiphony in music. Many choreographers feel that the varied and mixed use of stage depth, from foreground, middle ground, to background, is another form of dance texture; clearly, the use of “space” in dance, discussed later in this chapter, is a central consideration for choreographers.

Communication between dancers and musicians is crucial during both rehearsals and performances. Verbal and non-verbal cues can be used to increase the awareness of performers as to the direction of the work. Different themes and textures, distinguished by prominent soloists or instrumental groups, can serve to cue dancers; likewise, vocalizations or distinguishing movements can cue musicians or conductors. Using musical texture as a cue for dancers is more difficult, requiring previous discussion and introduction of dancers to textural elements.

There are many ways to introduce new textures into a work. In the initial design of the work, collaborators should discuss the role texture will play, and consider the potential depth and character added by different musical timbres and special dance effects.

Form

Form is the organization of all compositional elements in music and dance. Music and dance define form more similarly than other elements. Choreographers often use generic musical forms such as ternary form, sonata, rondo, theme and variation, and suite, all of which approach the development of compositional materials similarly. Formal organization can be established after the design process, which focuses on the organization of surface elements, as discussed earlier. The planning of thematic and

rhythmic material is part of the design process; in addition, the organization and division of material into structural sections is essential in the creation of a unified form.

Form results from the application of different types of development, repetition, contrast, variation, and imitation to compositional materials, and from the continuity and pacing of both the music and dance. While composers and choreographers deal with continuity in different ways, their common search for form requires that they seek out the logic and integrity behind their collaborative effort. Collaborators must develop a satisfying formal structure, one that gives shape to the composition. While some forms are based upon recognizable shapes with clear beginnings and ends, others are built on the more general principle of continuous variation. Some forms are based on changes of mood, either within or between sections. The decision to challenge or conform to an established style can be a key factor in how a form is distinguished.

Forms are strongly distinguished by their developmental continuity, perhaps more so than their formal design, which may or may not be recognizable. Examples of some general formal structures are ternary form, rondo form, theme and variation, and open form. A ternary form (ABA) consists of two similar to identical, thematically related outer sections and a contrasting middle section. Rondo form is an extension of ternary form; rondo form includes multiple contrasting themes or sections that develop continuously between returns of a primary theme or refrain. Theme and variation form simply repeats an opening theme, continuously developing it with each successive restatement. Open forms generally lack the continuity and repetition of more set formal plans, while being much more open to change and surprise. Formal structures develop through exploration of the continuity and contrast of musical materials.

Modern choreographers and composers do not hesitate to invent new forms. In fact, the process of creation itself could be a form. Merce Cunningham and John Cage followed this philosophy, considering process in their collaborations to be equal to form. They did not follow traditional forms or developmental plans in their collaborations, but created works using chance operations. The origin of form and new forms is discussed in *The New Grove Dictionary of Music and Musicians*:

The fact that there is more to composition than form, and that discussing form separately from content in all but the most directly technical sense is purely pedagogical, has encouraged musicological interpretation of the musical work as a multivalent entity. For Nattiez, a composition is not merely “a whole” composed of “structures”. . . . Rather, the work is also constituted by the procedures that have engendered it, and the procedures to which it gives rise: acts of interpretation and perception. The effect of this and other later twentieth-century strategies is to challenge the stability and singularity of formal categorization as a means of defining and determining the essence of the musical work.⁶⁹

The form of a work is comprised of compositional material, which unfolds and develops as the work progresses. It is not always necessary to follow the specific formal structures designed or chosen at the outset of a collaboration. Indeed, flexibility about form can educate collaborators in differences of form, and lead them to the most appropriate type given their needs. Composers and choreographers may have certain forms that work best for them, forms that have a proven record of providing a useful framework and solid basis for composition and collaboration. Whether a form is set or open, it is an important element that collaborators should consider together.

Form is not only a plan, it is also a procedure or strategy for creating continuity and interdisciplinary connection. When the emphasis is on process, form becomes a result—that which took shape or form as the work developed. Whether form be prescribed or found, it is important for collaborators to share a timeline. Henry Cowell talks about the importance of form, especially in modern music, “a form would make for

perfection of outline, and it would give a clarity and purpose to the composition as a whole, which are often lacking in works using experimental material.”⁷⁰

Within collaboration, there are many choices to make with a variety of compositional elements. Form is an important element that should be discussed by collaborators when they start their work together. A clear idea of form can provide a strong foundation for the collaborative process. In addition, setting up a form for a piece, especially in collaborations, helps to simplify the compositional process by identifying the order and relationship of individual movements and phrases.

Space

Time and space are the most important elements in modern dance. Time is a commonly shared element within a collaboration, which we see manifest through the common concern by both music and dance with things like tempo, duration of events and sections, and changes of speed. *Space* is another shared element in music-dance collaborations. Dance takes place in three-dimensional space; its gestures, motions and steps play upon the horizontality, verticality, and depth of that space, and the many diagonals that run through it. Music shares the same spatial features as dance but uses them in a different manner. The proscenium stage, standing at a distance from the audience, orients dance more toward the horizontal and vertical dimensions, and frames choreographic design. Dance space is also found in the more local area of an individual dancer’s movement and body; while much smaller, this space contributes to the space of the dance as well, especially when highlighted by the choreography.

Dancers, not choreographers, are the ones who ultimately negotiate how to move through stage space; choreographers, therefore, need to be aware of the decisions and movements of dancers, and how the performance stage impacts them. A stage is a highly

specialized kind of space whether it is round, square, or wide open like an outdoor-stage; an oblong stage is usually marked at its four corners. The concept of three-dimensional dance space has its parallels with the spatialization of sound. The spatialization of sound, and the creation of three-dimensional sound environments through the positioning of musicians and loudspeakers, has become important to contemporary music, especially electroacoustic music. Just as dancers can move selectively within time and space, so too can sound.

Precise staging and spacing of dancers can be an important consideration when working with innovative rhythmic movements and steps. This is especially true with the “resultant rhythms” of modern dance in which different layers of rhythmic activity combine to create polyrhythm.⁷¹ In dance, a polyrhythm is the result of two or more rhythms performed simultaneously by dancers sharing the same stage. Two groups with distinctive rhythmic characters performing in different areas of the same stage can also be perceived as polyrhythmic. The use of space in dance to articulate different layers of rhythmic activity is similar to the practice in music of distinguishing different layers of sound in an orchestration.

Other ways in which space is found in dance is in the use of “low” and “high” levels of movement. Lower-level movements are performed while sitting or lying on the floor, and higher-level movements are performed while standing, jumping or lifting in the air. The exact division between “low” and “high” levels in dance is vague. According to dance critic Paul Love, the term “high” denotes any general movement with an upward tendency “above the head,” and, in particular reference to Rudolf von Laban’s dance notation, Love says:

1. In the vertical body: any leg movement above the horizontal plane that cuts through the hips and is parallel to the floor; the vertical, erect torso; any arm movement above the horizontal plane that cuts through the shoulders and is parallel to the floor.
2. In other position: all arm movement is considered in relation to the torso, as: with the legs vertical and the torso bent forward at right angles to the legs and parallel to the floor, if the arms are forward and in direct line with the torso, they are considered “place high,” even though they are in a horizontal plane which, for the vertical body position, would make them “middle.” All leg movements are considered in relation to the vertical body.
3. The torso might be considered as a spool whose two ends constitute the two horizontal planes through the shoulders and the hips. These two ends or planes always remain in their same relationship to the connecting tube no matter in what position the body may be tilted or bent. Thus, the dimensions of the arm and leg movements may be immediately placed. The torso, however, is always considered in relation to an imaginary vertical line, or to the complete vertical body.⁷²

Most classical ballet works to create linear forms in space. For modern choreographers, an expanded approach to space, ranging from the full expanse of stage space to the small regions of personal body space, opens dance to new possibilities and forms of expression. Dance movements are more flexible and free in larger spaces. Powerful vertical motion energizes body movement when performed in larger spaces. When a range of spaces is used, and the contrast and tension between small and large space explored, the effect is related to dynamics. In fact, the use of space cannot be separated from the issue of dynamism in modern dance. Music can be designed in similarly spatial ways, and used to support and connect to dance’s use of space and the novel patterns, shapes, and phrasings that arise; however, making the connection is not simple. The idea may require more than just a rethinking of orchestration and compositional layering; the placement of loudspeakers and musicians, in multiple and unusual places, may need to be considered as well.

Style

Style is a term that describes the combination of distinguishing features by which we identify something, or the character or way something is expressed. Music and dance collaborations can acquire their style through imitation of different types of classical or secular music, such as programmatic, abstract, modal, minimal, jazz, or ethnic music. They can also display style through the work's level of complexity, be it exceedingly simple or highly detailed. Of course, imagination and the personal preferences of the composer and the choreographer determine the quality and style of a work. And it should not be assumed that agreement on a theme or subject for collaboration assures that its collaborators will also agree on style. In addition, styles may be influenced by a cultural context and the functional purposes of music or dance. According to *The New Grove Dictionary of Music and Musician*, style is:

A term denoting manner of discourse, mode of expression, and type of presentation. . . . In the discussion of music, which is orientated towards relationships rather than meanings, the term raises special difficulties; it may be used to denote music characteristic of an individual composer, of a period, of a geographical area or centre, or of a society of social function.⁷³

Style involves human behavior and personality. John Cage says, "Personality is a flimsy thing on which to build an art. This does not mean it should not enter into art, for indeed, that is what is meant by the word 'style'."⁷⁴ Style can be completely original, but often takes into consideration previous practice. Music critic Leonard B. Meyer says, "Style is a replication of patterning, whether in human behavior or in the artifacts produced by human behavior, that results from a series of choices made within some set of constraints."⁷⁵ According to Meyer, human behavior within all realms, including culture and religion, involves choosing a style; therefore, individual styles are the result of different choices. Choice is constrained by context and the initial concepts of the

composer or choreographer. The choice to use aleatoric procedures or random sound phenomena can be a stylistic one. No doubt, the style of a piece comes from many choices, all made by its creators.

The particular features of a style are revealed in the design of its compositional elements such as rhythm, tempo, texture, and form. In fact, elements in music and dance, when designed in characteristic ways, can be thought, as well, to have style, as in rhythmic style, melodic style, movement style, etc. The choice to use a particular style reflects how composers or choreographers wish certain elements or characteristics to function in a work, such as the balance of consonance and dissonance, or symmetry and asymmetry.

In collaboration, it is important for the composer and choreographer to agree on the style of the piece. Style is manifested in shared compositional elements; therefore, it is meaningful to share concepts of the collaboration through the choice of similar styles for the music and dance.

Summary

Many questions regarding a project arise during the collaborative process, not only about the piece itself, but also about the common vocabularies artists share. During the collaborative process, collaborators should exchange views with each other about their ongoing work. These exchanges should address a number of questions:

1. Are there rhythmic relationships between the music and dance?
2. Will the music have a set form, or will it vary with each performance?
3. Do the musical phrases join at certain points with certain dance movements?
4. Does the music have similar or contrasting phrasing?
5. Is the music a sound backdrop for the dance?

6. Should the synchronization of the music and dance be strict or flexible?
7. Is there a relationship between the density of sound and the number of dancers?
8. Does the music expressively enhance the dance, innocuously merge with it, or stand in contrast with it?
9. When the timbre or texture changes in the music, should the choreography respond? And if so, how clearly?
10. Does the repetition of sections of music or choreography affect the form of the piece?
11. Is it necessary that the music repeat when the dance repeats, and vice versa?

These and other questions about the relationship between the compositional elements in music and dance need to be addressed during collaboration.

Most compositional elements of music and dance are related to each other. While some of these related elements develop independently in a collaborative work, others develop together, forming interdependence. Time is the most important element because it is always present through rhythm, phrase, accent, etc. Merce Cunningham's remarkable quote regarding time states that, "The dance is an art in space and time."⁷⁶ Time coordinates music and dance through the fundamental role it plays in common matters of overall structure, phrase, rhythm, and accent. Music and dance manifest continuity differently. However, despite this and other differences, music and dance should not be automatically joined together in beat-by-beat rhythmic correspondence; more inventive, less transparent, ways to connect music and dance are available to those who seek them.

Composers are often critical of the counting systems choreographers use. However, composers and choreographers do not count time and rhythm the same way, and it is often impractical for choreographers to follow what composers do. Nonetheless, composers and choreographers can use mutual accents or downbeats as an opportunity to

bring music and dance together. It is important that these points of contact be handled carefully, avoiding the natural tendency to increase the overall accent, and to treat both music and dance in the same way.

There are important details that must be discussed during any collaboration, as the work of choreographers such as Doris Humphrey, Martha Graham, and Merce Cunningham demonstrates. Their strong knowledge of specific vocabularies and modern choreographic styles, combined with a knowledge of music, brought them success in the collaborations for which they are now famous. Their example shows the importance of having knowledge not only of one's own discipline, but also of one's collaborator's discipline as well.

Clear communication from the outset of a collaborative project is essential; the difficult and unpredictable first steps of any collaboration demonstrate this. Clear communication and a close working relationship helps collaborators to properly address the progress of their work together, and see it for what it is, from the work already completed to the work yet to be done. As the collaborative process progresses, it reveals how particular musical elements work to control and affect our perception of the dance, and vice versa. It is important, therefore, that collaborators keep each other's artistic ideas and stylistic interests in mind, using the developing work to see exactly what those ideas are, and how they work. The choreographer Jennifer Muller, who teaches at the Alvin Ailey School in New York, comments, "The worst thing to do is to work with a dancer who only cares about the steps. You gotta know musical styles."⁷⁷ It is not only the choreographer who must understand music, but also the composer who must understand

the phrasing of dance. This understanding has the potential to create a symbiosis that resonates throughout a collaboration, and into the field of music and dance.

Notes

¹ Richard Kostelanetz, *Conversing with Cage*. New York and London: Routledge, Second Edition, 2003, p.210.

² Paul Love, *Modern Dance Terminology*. Princeton: Dance Horizons, Princeton Book Company Publisher, 1997, p.11.

³ William Morris, Editor. *The American Heritage Dictionary of the English Language*. Boston and New York: American Heritage Publishing Co., Inc, 1973, p.516.

⁴ Ibid.

⁵ Debra Craine and Judith Mackrell, Editors. *The Oxford Dictionary of Dance*. New York: Oxford University Press Inc., 2004, p.139.

⁶ Ibid., p.139.

⁷ Ibid., p.140.

⁸ Love, p.24.

⁹ Doris Humphrey, *The Art of Making Dances*. Barbara Pollack, Editor. Princeton: Princeton Book Company, Publishers, 1987, p.49.

¹⁰ Ibid., p.104.

¹¹ William Morris, Editor. *The American Heritage Dictionary of the English Language*, Boston and New York: American Heritage Publishing Co., Inc, 1973, p.1115.

¹² Jaques Dalcroze, *Rhythm, Music, and Education*. Harold F. Rubinstein, Translator. New York: Benjamin Blom, Inc., 1872, p.89.

¹³ Morris, p.1115.

¹⁴ Paul Love, *Modern Dance*. Stewart, Virginia, Editor. New York: Weyhe, 1935, p.97.

¹⁵ Love, *Modern Dance Terminology*, p.11.

¹⁶ Ibid.

¹⁷ Isadora Duncan, *The Art of the Dance*. New York: Theater Arts, 1928, p.68.

¹⁸ Louis Horst, "Modern Forms: Rhythm," *Dance Observer*. Vol.6, No.5, 1939, pp.289–299.

¹⁹ Stanley Sadie, Editor. *The New Grove Dictionary of Music and Musicians*, Second Edition, Vol.21. London: Macmillan Publisher Limited, 2001, p.278.

²⁰ Yayoi Uno Everett, "Intercultural Synthesis in Postwar Western Art Music" in *Locating East Asia in Western Art Music*. Frederick Lau, Editor. Middletown: Wesleyan University Press, 2004, p.14. The term "ma" refers to silence or the pause between sounds in traditional Japanese music; Toru Takemitsu defines the term as "an unquantifiable metaphysical space (duration) of dynamically tensed absence of sound." Japanese music is distinguished by its conscious integration of silence and the way silence connects sounds.

²¹ Love, *Modern Dance Terminology*, p.77.

²² *Ibid.*, p.83.

²³ *Ibid.*

²⁴ Henry Cowell, *New Music Resources*. New York and London: Cambridge University Press, New edition, 1996, p.70.

²⁵ Henry W. Fowler, *A Dictionary of Modern English Usage*. London: Oxford University Press, 1926, p.504

²⁶ Cowell, pp.70–71.

²⁷ Don Michael Randel, Editor. *The New Harvard Dictionary of Music*. Cambridge and London: The Belknap Press of Harvard University Press, 1986, p.700.

²⁸ Love, *Modern Dance Terminology*, p.6.

²⁹ *Ibid.*, p.86.

³⁰ Love, *Modern Dance*, p.111.

³¹ Humphrey, p.104.

³² Love, *Modern Dance Terminology*, p.89.

³³ Humphrey, p.108.

³⁴ *Ibid.*, p.109.

- ³⁵ Sadie, p.271.
- ³⁶ David Epstein, *Shaping Time*. New York: Schirmer Books, 1995, pp.98–99.
- ³⁷ Sadie, p.270.
- ³⁸ Don Daniels, “Cunningham, in Time (1985)” in *Merce Cunningham: Dancing in Space and Time*. Kostelanetz, Richard, Editor. Chicago: Chicago review press, 1992, p.162.
- ³⁹ Ibid.
- ⁴⁰ Epstein, p.7. In practice, the dual modes, clock time and experiential time, run simultaneously, at times corresponding, and others not. Additionally, David Epstein comments on other ways of organizing and experiencing time that address duality, hierarchy, and motion.
- ⁴¹ Randel, p.629.
- ⁴² Love, *Modern Dance Terminology*, p.54.
- ⁴³ H. C. Colles. *The New Grove Dictionary of Music and Musicians*. Third edition, Vol.4, London: Macmillan Publisher, 1947, p.146.
- ⁴⁴ Ibid., p.61.
- ⁴⁵ John Martin, *Introduction to the Dance*. New York: Norton, 1939, p.69.
- ⁴⁶ Love, *Modern Dance Terminology*, p.9.
- ⁴⁷ Ibid., p.71.
- ⁴⁸ Meyer Greene, *The Arts and the Art of Criticism*. Princeton: Princeton University Press, 1940, p.68.
- ⁴⁹ Humphrey, p.71. The “nine words” refers to one of Doris Humphrey’s student exercises. Students were given suggestive words or expressions, such as “eagerness advancing” and “hesitation,” and asked to create dance phrases or sentences through interpretation of them.
- ⁵⁰ William Morris, Editor. *The American Heritage Dictionary of the English Language*. Boston and New York: American Heritage Publishing Co., Inc., 1973, p.407.
- ⁵¹ Love, *Modern Dance Terminology*, p.56.
- ⁵² Ibid., p.29.

⁵³ Ibid.

⁵⁴ Ibid.

⁵⁵ Love, *Modern Dance Terminology*. pp.29–30. See more in Sergei Eisenstein’s article, “The Principles of Film Form” in *Experimental Cinema*. Cinema, Vol.4, 1933.

⁵⁶ Isadora Duncan, *The Art of the Dance*. New York: Theater Arts, 1928, p.69.

⁵⁷ Love, *Modern Dance Terminology*, p.91. The term “contraction-release” refers to a theory of dance rhythm, developed by Martha Graham; the theory is based upon breath rhythm, which is one of several manifestations of dynamics in dance.

⁵⁸ Martha Graham, *Dance: A Basic Educational Technique*. Fredrick Rand Rogers, Editor. New York: Macmillan, 1941, pp.185–186.

⁵⁹ Ibid., p.189 (Chapter by Doris Humphrey). Doris Humphrey described her theory of “falling and recovering” as originating in the constant flux going on in every living body, and in the strong emotional response associated with the danger of the fall and the relief and repose of having prevented it.

⁶⁰ Love, *Modern Dance Terminology*, p.35.

⁶¹ Graham, p.190 (Chapter by Doris Humphrey). The fall-recovery technique is more nuanced than its name might suggest. Other elements and concerns, shared by other techniques, come into play; Doris Humphrey focused on the role of three in particular: rhythm, dynamism, and design.

⁶² Ibid., p.72.

⁶³ Love, *Modern Dance Terminology*, p.47.

⁶⁴ Love, *Modern Dance*, p.121.

⁶⁵ Love, *Modern Dance Terminology*, p.69.

⁶⁶ Sadie, p.323.

⁶⁷ Humphrey, pp.127–131. Doris Humphrey had different categories of words that she asked students to speak, sing, or use as sound effect in their dance assignments. She was aware of the meaning that words could bring to a dance, a meaning it could not communicate by itself, and impressed on students the need to respect the function of words and to justify their use in dance as indispensable information.

⁶⁸ Ibid., p.130. Doris Humphrey also suggested avoiding the use of complicated language, recommending the use of slower and simpler words, and the editing or excerpting of poems.

⁶⁹ Sadie, p.93.

⁷⁰ Cowell, p.84.

⁷¹ Love, *Modern Dance Terminology*, p.76. Paul Love illustrates examples of “resultant rhythm”: A group may perform two rhythms in different meters (for example, duple or triple meters). Three groups may perform: two groups in different meters and the third group moving only on the coinciding beats.

⁷² Love, *Modern Dance Terminology*, pp.44–45.

⁷³ Sadie, p.638.

⁷⁴ Leta E. Miller, “John Cage’s Collaboration” in *The Cambridge Companion to John Cage*. David Nicholls, Editor. London: Cambridge University Press, 2002, p.44.

⁷⁵ Leonard Meyer, “Toward a Theory of Style” in *The Concept of Style*. Berel Lang, Editor. Ithaca and London: Cornell University Press, 1987, p.21. This essay is a draft of the first chapter of a book tentatively titled *Style in Music: Theory, Analysis, and History*.

⁷⁶ David Vaughan, *Merce Cunningham, Fifty Years*. Melissa Harris, Editor. New York: Aperture Foundation, Inc., 1997, p.66.

⁷⁷ Katherine Teck, *Music for the Dance: Reflections on a Collaborative Art*. Westport: Greenwood Press, 1989, p.182.

CHAPTER 5 DISCUSSION AND CONCLUSIONS

Trust between the designer, the composer, and the choreographer is a complex subject. I do the best choreography I can and I want the look and sound to support its being the most significant work I can make at this stage of my career.¹

—Trisha Brown, 2002

A successful collaboration includes clear communication, which creates an open environment where all artists are equally involved. The ultimate goal is to find common ground between the art forms and artistic approaches. Because of the multiple, varied artistic approaches working in tandem on one project, the development of the collaborative process is crucial. The collaborative process that drives the composition of music and dance is very complex. There is no standard collaborative process. As Stravinsky advised his young collaborator during the making of *Apollo*, “Be precise, imaginative, formal—never attempt to create a masterpiece, only a well-made work of art.”² In Stravinsky’s *Poetics of Music*, he states:

For imagination is not only the mother of caprice but the servant and handmaiden of the creative as well. The creator’s function is to sift the elements he receives from her, for human activity must impose limits upon itself. The more art is controlled, limited, worked over, the more it is free.³

Practical matters and decisions abound in collaboration; still, composer and choreographer need to stay focused on their original conception and learn how to use clear communication to reconcile differences in approach. The successful collaboration is founded on the ability of its collaborators to work toward a common goal, to determine what needs to be done, and to cooperate with one another. One central decision

collaborators need to manage is whether or not to work synchronously or asynchronously, that is, at the same time or one after the other. The ideal collaboration may engage collaborators in synchronous work in which music and dance develop together; however, many collaborators choose a staged, asynchronous process in which one half of the collaboration, be it music or dance, is created before the other is begun, the second being, in this case, a response to the first. Sometimes collaborators choose to create each part independently and, in a sense, in isolation from each other; working this way can allow each artist to maintain control of their portion of the work and how it functions in the collaboration.

Performance aesthetics combined with creative aesthetics define the artistic direction of a collaboration. Both the composer and choreographer need to settle on a process with which they are most comfortable. The composer and choreographer need to address the artistic direction of the collaboration and its impact on how they will create and ultimately perform in the work. Many collaborators prefer live music in performance however, due to financial issues, recorded music may be more practical. Recorded music can also meet the need of rehearsals and performances for a consistently timed musical score.

Another important option to consider is the use of improvisation. If collaborators decide to include improvisation, they need to decide how much it will be used; a collaboration can be quickly changed by unrestrained improvisation. Musicians and dancers should also understand the scope of improvisation in the work and how it functions within the compositional structure. Related to improvisation is the use of interactive real-time performance technology which can allow collaborators to move in

new directions and create new environments for performance. Interactive systems in which the music is controlled by the movement of dancers can redefine the artistic role of composer, choreographer, performer, and dancer; the transformation of dance performance is especially profound, making it essential that dancers understand their role in the original composition and choreography.

Composers and choreographers strive to create interesting, intriguing, and valuable work, representative of a viable artistic direction. Collaboration complicates their search with the need to make audio and visual stimuli work together. How composers and choreographers work together, as both artists and collaborators, is not obvious; it is equally unclear how, in the face of competing goals and interests, they choose the “best” collaborative process for their work together. Nonetheless, good collaborators can usually make the collaborative process work, especially if they show flexibility and understanding toward each other’s compositional direction.

Successful collaborations between music and dance often depend upon the ability of collaborators to communicate using a common vocabulary. Collaborators can help each other find and learn about their common vocabularies by openly exchanging views and ideas about their respective disciplines. Composers and choreographers deal with similar, fundamental compositional elements such as design, rhythm and tempo, time (duration), dynamics, phrase, texture, form, space, and style. Many of these elements are interconnected and share their organization in terms of time, a fundamental link between music and dance.

Music and dance are often counted differently, a fact that can lead to problems in collaboration. Dancers utilize not only metrical rhythm but also the natural rhythms of the

body; some modern dance theories of rhythm count dance not according to rigid metrical schemes but in terms of body movement. When collaborating with dancers, composers benefit from understanding the varied ways dancers approach rhythm and counting, and may find that, in their work with particular dances, a non-metric approach to notation better serves the coordination of music with dance. While rhythm is common to both music and dance, its conception and use by each can be very different; consequently, collaborators should develop a mutual understanding about the conception and function of rhythm in their work together and, wherever possible, be open to the practical needs of each discipline for adjustments.

Collaboration offers the unique opportunity to reflect and amplify characteristics of one discipline through another. These type of opportunities and cross-disciplinary connections are often revealed during the working process with the discovery of compositional elements common to both disciplines. In general, collaborators benefit from using the collaborative process to explore, find, and develop a work's structure, and the many components, from small phrases to larger macro ideas, that give a sense of unity and coherence to the completed work.

Most choreographers prefer to work with music rather than just dance alone; however, there are some exceptions. As a young choreographer, Trisha Brown thought that dance alone was enough, choosing to omit music from her choreography altogether. Later in her career she became involved in collaborating with designers and composers.

Collaborating with a composer can change the perspective of the choreography. The choreographer Bill T. Jones' first rule of collaboration is to deal with a real person, a human being.⁴ He says:

[The important thing is] what the music is, the shape of the work, and what really goes into it—but I leave it wide open for people to give their best to it. I also need to feel connected to a larger world of creation through collaborators, musicians, and other artists. Consider a person who is a great artist in another medium: You're curious to be intimate with that person, spend time with them, and try to fashion something together. Through that contact I learn and I'm encouraged. Rejuvenated. That's important.⁵

Nonetheless, artists who share their art and craft across disciplines contribute to the development of the artistic communities in which they work, and in some circumstances, even create new ones. History reminds us that all arts change course, and that a change of course often begins with an artist's changing interests or exploration of other media. While this document has looked mostly at collaboration between music and dance, visual art, film, video, and drama have all played a role in enlarging the meaning of music and dance through collaboration; their example has, no doubt, prepared the groundwork for the current exploration of interactive technologies in music and dance collaboration, an area of rapid development and inspiring potential.

Music and dance are joined together in their ability to convey wordless messages of great power and importance. Yet, however joined, they remain different disciplines, brought into being by different kinds of artists working with different media and different sensibilities; where dance works to create an unbroken fabric of gestures and movements out of the visible and familiar material of the human body, music works with the invisible and fleeting medium of sound. That they are different makes the decision to bring them together, in collaboration, notable. Yet the decision of collaborators to join their arts together and act as equal partners is only the beginning, for the larger challenge resides in finding the synergistic balance of the relationship. Collaborative synergies can be complex and difficult to forge, as they require composers and choreographers to not only study and appreciate each other's artistic perspective, but to also interpret that perspective

while feeding back into the project and each other's work with relevant and useful ideas and suggestions. To collaborate is to meet this challenge and find the artistic balance out of which true collaboration comes to exist.

Notes

¹ Joyce Morgenroth, *Speaking of Dance: Twelve Contemporary Choreographers on Their Craft*. New York and London: Routledge, 2004, p.68.

² Barid Hastings, *Choreographer and Composer*. Boston: Twayne Publisher, 1983, pp.128–129.

³ Igor Stravinsky, *Poetics of Music*. Cambridge: Harvard University Press, 1970, p.63.

⁴ Morgenroth, p.151.

⁵ *Ibid.*, p.150.

PART 2. THE LOTUS FLOWER, BALLET MUSIC FOR
CHAMBER ENSEMBLE AND TWO-CHANNEL AUDIO

CHAPTER 6
THE LOTUS FLOWER, A BALLET BASED UPON THE KOREAN FOLK TALE
THE STORY OF SHIM CHOUNG

Program Notes

The Lotus Flower, a ballet based upon the Korean folk tale “The story of Shim Choung,” is composed in an overture and six scenes. This folk tale is a well-known Korean children’s story, which left a great impression on me when I was young. The story is based on a Buddhist theme of reincarnation (represented by the lotus flower) as well as the Korean tradition of female sacrifice. The main character, Shim Choung, is sacrificed for her father, but the dragon king has mercy on her and she returns to life. The four main characters in the story are Shim Choung, her blind father, a monk, and the dragon king under the sea.

Although Shim Choung and her blind father live in poverty, they are happy in their peaceful village. One day, Shim Choung’s father meets a monk from a famous temple, and promises that he will contribute 300 bags of consecrated rice to his Buddhist temple. The blind father realizes that it is impossible to make such a large contribution and becomes very frustrated. After listening to her father’s frustration, Shim Choung decides to sell herself to sailors and then sacrifice herself to ensure their safe journey. Since Shim Choung has always wished for her father to regain his sight, she prays to Buddha to grant her last wish before plunging herself into the water to die. While under water, she meets the dragon king and sea ladies in the surreal world of the dragon palace. The dragon king takes pity on her and orders her to go back to the real world. The sea

ladies put her into a giant lotus flower and bring her back to the village. Although all of the villagers try to open the giant lotus flower, it does not open until Shim Choung's blind father touches it. Finally, the flower opens, and suddenly the blind father's eyes open too.

The original story of Shim Choung consists of many other characters and sub-stories; however, the story was reconstructed for this collaborative work. The ending has been altered from the original story. Instead of concluding with the big feast where all the villagers are celebrating the miracle, *The Lotus Flower* ends with a quiet moment between Shim Choung and her father.

Table 6-1. Scene descriptions

Scene	Ensemble	Dancers
Overture	Full ensemble	
Scene 1: The blind man and his daughter Shim Choung	Full ensemble	The villagers, the blind father, and Shim Choung
Scene 2: Three hundred bags of rice	Full ensemble and Tape	The blind father and a monk
Scene 3: The night prayer	Solo alto flute and recorded voice	Shim Choung
Scene 4: The sacrificial rite	Full ensemble	The villagers, sailors, and Shim Choung
Scene 5: Under the sea, The Dragon Palace	Full ensemble and Tape	The Dragon King, Sea ladies, and Shim Choung
Scene 6: The lotus flower opened. The blind eyes see!	Full ensemble	The villagers, the blind father, and Shim Choung

Instrumentation

This piece is for flute, alto flute, Bb clarinet, bass clarinet, alto saxophone, violin, viola, double bass, piano, percussion, and tape. The alto flute is used as a solo instrument

in scene three, *The Night Prayer*, along with the mezzo-soprano which is recorded and sung in Korean. Electroacoustic music is used in scene two and scene five to represent a surreal world.

Table 6-2. Instrumentation in *The Lotus Flower*

Instrumentation
Flute, Alto Flute
Bb Clarinet, Bass Clarinet
Alto Saxophone
Violin
Viola
Double Bass
Piano
Percussion

Table 6-3. Percussion instruments in *The Lotus Flower*

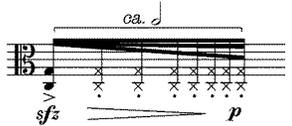
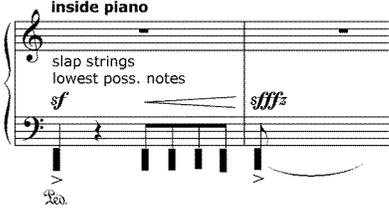
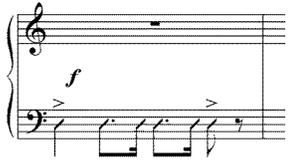
Pitched percussion	Non-pitched percussion
Glockenspiel	Anvil
Xylophone	Finger Cymbal
Tom-toms (3)	Suspended Cymbal
Temple Blocks	Gong
	Korean Kaeng-ga-ri (or Small Tam-tam)
	Tambourine
	Tenor Drum
	Vibra Slap
	Wood Block

Table 6-4. Mallets in *The Lotus Flower*

Mallets
Light Plastic Mallet
Hard Plastic Mallet
Soft Rubber Mallet
Hard Rubber Mallet
Soft Yarn Mallet
Hard Yarn Mallet
Tenor Drum Sticks
Wood Sticks
Wire Brush
Handle (use handle of mallet)
Hands (play with both hands)

Performance Notes

Table 6-5. Performance notes in *The Lotus Flower*

Instruments	Score example	Descriptions
All instruments		Indicates to play the notes as fast as possible for the duration indicated. Continue the figuration ad lib. (chromatic)
		Pitch bend.
Winds		Free glissando.
		Wild finger moves without air.
		Slap keys.
		Breathe out.
Strings		Jeté: strike randomly for the duration indicated. Play slow to fast.
Piano		Slap highest or lowest notes possible with palm. If “inside piano” is indicated, follow the indication to either strum or slap the strings.
		The rhythmic notation in scene 4: play with hard felt mallet, and play on the lowest strings possible.

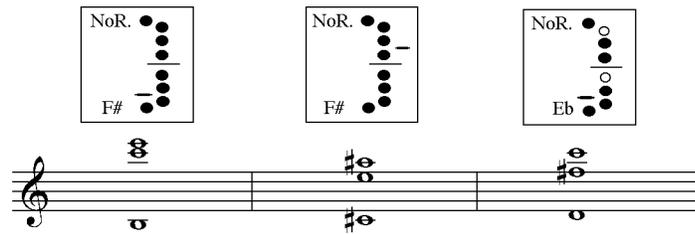


Figure 6-1. Multiphonic Fingering for Clarinet in Bb

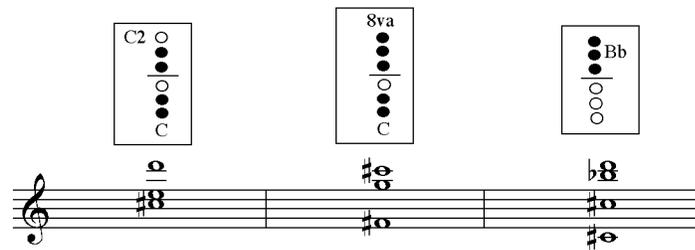


Figure 6-2. Multiphonic Fingering for Alto Saxophone

Object 6-1. Full score of *The Lotus Flower* as a PDF document (1.4 MB, [lotus.pdf](#))

Object 6-2. Sound file of *The Lotus Flower*, the first section of electroacoustic music in scene 2: The Blind Father and a Monk (5.6 MB, [lotus2_1.aif](#). 56 seconds)

Object 6-3. Sound file of *The Lotus Flower*, the second section of electroacoustic music in scene 2: The Blind Father and a Monk (2.4 MB, [lotus2_2.aif](#). 24 seconds)

Object 6-4. Sound file of *The Lotus Flower*, electroacoustic music in scene 5: Under the Sea, The Dragon Palace (56.5 MB, [lotus5.aif](#). 5 minutes 37 seconds)

APPENDIX A
COMPOSER/CHOREOGRAPHER INTERVIEWS

Dinu Ghezzo, Composer

Dinu Ghezzo is a professor of music at New York University, director of the Composition Program. In addition to his activities at NYU, Dr. Ghezzo is an associate conductor of Constanta Symphony Orchestra and Oradea Philharmonic (Romania), director of Constanta International Music Days and of The Week of American-Romanian Music in Oradea (Romania), director of the International New Music Consortium (INMC) Inc., and founder & past director of Gubbio Festival (Italy).

This interview took place at New York University on May 25, 2005.

Chan Ji Kim: How have you benefited from your involvement in music and dance collaboration?

Dinu Ghezzo: Each one of us as a composer has a different personality, perception and different areas of interest. What is very important to me, as a person, is that I feel safe working with other composers and choreographers. Many composers focus on individual work. From my school of thought, I believe in the community. It is part of my education. From my undergraduate study until now, I've always shared everyone's ideas. Of course you couldn't share every single thing with other artists, but I learned from other artists through communication and collaboration. I learned how to work with other artists and how to help each other. I was only sixteen years old then. I'm sixty-four now.

Throughout my entire career, I have always tried to keep this relationship as rule number

one. I am a part of the community. All of my colleagues are very different from me. That's why I can learn so many different things from them. It is very important to develop yourself not only in the composer's society but also within other art forms.

CJK: What about your individual composition?

DG: Yes, of course I want to have my own composition, but I learn from my colleagues and collaborators, and I expand my creative ideas in my composition. As for a group of artists who have the same interest, the result is successful. Basically I work on this, and I benefit from this, and I'm still benefiting from that.

CJK: As a teacher, do you recommend collaboration?

DG: For young composers, particularly in United States, which is very decentralized. Unlike European countries like France, Italy, or Germany, we don't have a center. It's very divergent. There is nobody that can help you if you are only in one place. If you go out there and look, the competition is immense. It is important to talk to other artists. We do many collaborations here at New York University, and also collaborate with other countries. I know many people in other countries. These connections are a huge benefit to me from the many collaborations that I did in Europe when I was young. What is very important to my students is that they interact with other composers, performers, and dancers from other countries. It is the same thing I was doing when I was a young composer. Of course, you, as a young composer, have to develop your own thoughts, but you also need to expand ideas among others.

CJK: When you work with choreographers, how do you deal with common vocabularies that exist between music and dance?

DG: Many people think rhythm and meter in music and dance are very different but they are not. The origin of dance and music is in the primitive society. They are very closely related to each other. The meter is from dance and from poetry. In an anthropological study, you will learn very strong connections. There is a historical connection. Now, 90 percent of what dancers do, they use music. You could dance in poetry or images. But it is an overwhelming fact that dancers need music. In the angle of dance, that's what they do. On the other hand, musicians have a different angle. We don't always need dance. We can write for dance, but we also write music just thinking about dance. It is different. One of my good friends, who is a great dancer and choreographer in France can dance with any type of music. He has no problem with rhythm or any music metrical system. For composers who write for dance, like me, it is more complicated. Composers need to understand the non-related metric and rhythmic element in dance. Rhythm exists not only in metrical systems. I don't insist on using only my view. Choreographers have many possibilities now using technology, and multi images. It is a new art form. The interpretation is very important.

CJK: Did you have any problem with them in a collaboration?

DG: The relationship I have with my choreographer is very profound. She was one of my students, and now I work with her all the time. She is very interested in the use of technology and improvisation. We both have similar interests, and we don't push each other. We always discover something new.

CJK: What types of collaborative process do you prefer?

DG: It is always a help to you as a composer when you see what they do. It is important to share directly what you are doing and what they are doing. I never forgot one of the

collaborative projects I did a long time ago. It was the summer of 1992, and I was a composer-in-residence in a summer dance seminar in Massachusetts. Basically what I did was work with choreographers every day. We had a plot and we needed to develop it every day. At the end of the seminar, we had a final project. It was a very good set up for both composers and choreographers. I liked the process and I learned a lot. Usually what composers do is different from that; writing music before the choreography, or other ways. When you write music you just think of dance, and later, give it to the choreographer. There is nothing wrong with the process. I'd like to say that they still need to have a common concept of the piece; some kind of narrative scenario or abstract idea. Close communication is still important.

CJK: Did you work independently, that is, only sharing the concept but developing composition separately?

DG: For the project in December of 1996, I had a hard time communicating with the choreographer. She was on the West Coast, and I was here in New York. The communication is much easier now. Everyone has access to e-mail and everyone has a cellular phone. Back then, because the technology was very limited, we decided to have fragmented ideas. We shared the concepts at the beginning of the process and had fragment composition for twenty-seconds. We worked separately and got back together three months later. Each of us had very different pieces from the same initial thoughts and idea. It brought new possibilities into the piece.

CJK: How do you begin working in a collaboration?

DG: I see what they have, and we discuss concepts; what they want and what I want. We search for common points, then try to work together closely. I still need to keep in touch with the choreographer through the midpoint.

CJK: What about improvisation? Do you prefer to have improvisation in collaboration?

DG: Improvisation is very important. It is a certain element of freethinking of composition. There are many elements of freedom that you can choose in your composition. Composition is a feeling of choices. Variation is certainly improvisation. For me, the best way to express myself is having improvisation. The only difference is what is written and what is not. Obviously when you work with choreographers, you have to leave some freedom in the dance. It could be done in a controlled way or combine both structured and not structured. We need to decide what is controlled and what is not controlled in the process. I like to leave the freedom for dancers and performers to use personal expression. Of course I have improvisation in my piece because I trust them to express, in their best way, based on my concepts.

CJK: Do you give some direction to choreographers in improvisational parts?

DG: I give dancers imagery of my thoughts, but not of the technical stuff.

CJK: Do you have any important advice to young composers who are interested in collaboration?

DG: One important thing, I discover throughout all of my collaboration is that you need to understand that you are working with people. It's always different. You have to accept the relationship between collaborators and open it up.

Ron Mazurek, Composer

Ron Mazurek is an Adjunct Assistant Professor at New York University teaching composition, and collaborating and creating multidisciplinary works with the NYU New

Music Ensemble. He has participated in the NYU summer International Music Festival in Italy, since 1985, where his teaching responsibilities have also included interactive music, dance, and visual art. Many of his works feature dancers, video, improvisation and interactive theater combined with the latest innovations in computer technology.

This interview took place at New York University on May 25, 2005.

Chan Ji Kim: What is the benefit of music and dance collaboration? Why do you work with choreographers?

Ron Mazurek: Today, it is extremely important to find new ways in which to reach out to audiences who are looking for innovative approaches in the musical arts. Many of the public who are engaged with the arts are drawn to the visual aspect, especially film. Film is the most substantial and successful art form in the twentieth-century. This is one of reasons why I am involved in collaboration with artists in dance and animation.

Generally, audiences don't go to new music concerts but certainly attend performances in which aspects of multimedia are prevalent. When you go to a modern dance concert, you see that there are many in the audience who are more accepting of the new in dance than in modern music. Last week, I went to the "Dance on the Camera" festival at Lincoln Center. It was absolutely sold out, even though all the works were basically premieres in contemporary dance. I saw that most of the audience were thrilled, energized, and provoked by the latest innovations in dance with camera. There is certainly a very strong relationship with visual image in conjunction with other aspects of contemporary music. Think about how many young people grew up with all kinds of computer games, animation, and even TV shows and certainly MTV. You can't ignore an audience who are looking for the melding of image and music.

CJK: Is the audience's reaction important for you?

RM: Of course, I certainly do enjoy when the audience reacts favorably to my work. Due to new software and the computer there are now many innovations in art that appeal to audiences. Multiple images and visual animation with dance is just one of the many aspects that have a wide appeal to the public who are interested in innovation in this field. Audiences seem to enjoy the multimedia aspect, which brings to the concert platform another dimension of experience. They are excited for new visual experiences, and when combined with new music seems to have a much greater connection. Much of contemporary music is isolated and needs perhaps other venues than the usual concert situations. When you engage with the visual it is a visceral experience, which I have found to be successful with audiences. I love to compose chamber music pieces, but I enjoy even more the dance/music collaborative work. I think that I'm more successful with the multimedia aspect with dance, music, and animation. I have had many invitations to participate in dance collaborations and I thoroughly enjoy this type of experience.

CJK: When you compose music for dance, do you have any images of dance?

RM: I'm always attempting to visualize my music, even when writing for chamber music groups. When I am writing for dance, I'm thinking of how the music might relate to various images. Fortunately, I have a connection with great choreographers, and I have many chances to work with them. We trust each other and we respect each other's art form.

CJK: What is true collaboration for you?

RM: Of course, working with a choreographer and dancers simultaneously during the collaborative process is the ultimate method for me. But economics is always a problem. And you cannot ignore either that issue or the time elements for the project. That's why many composers rely on the independent process in which the composer may create the music and afterwards the choreographer brings to the work their interpretation of music. I wish I could work with the choreographer simultaneously, but I can't do it that way all the time.

CJK: During the process, how much control does the composer/the choreographer have?

RM: Ego seems to be an issue in collaboration. Both the composer and choreographer ideally should serve and contribute to the work and respect each other's opinions and goals. If there were a director involved in the project, like a film, it would be a different situation since many times the director is the one making the final edits.

CJK: What about common vocabulary? How do you work with them using a common vocabulary?

RM: I had a difficult time in one of the collaborations. I wasn't happy about the work at all, especially with the animation. It was difficult for me at that time to express my concerns and frustrations with the image-related material. Fortunately, the choreographer eventually understood what I wanted, and we both decided to bridge the gap with new animated dance images. We were using video images for our project which were not clear and concise and relevant to what we were intending to convey. When we agreed, the choreographer was able to make some minor alterations to the dance and then the re-edited image material worked for both of us.

CJK: How do you keep the balance?

RM: Most of the time we both need to keep an open line of communication. One time, I needed to talk directly to the choreographer as soon as I saw the dance for the first time. The music was very moving, and lively, but the choreography was very slow. It didn't work at all. I had to get directly involved in this process, not only with the choreographer, but also in conveying my sense of the music directly to the dancers.

CJK: What is the beginning of the process? What do you do?

RM: We share the concepts as to what possibilities the music might suggest. I like to have some sense of a story line, a kind of narrative within the collaboration. I'm more into combining the abstract qualities of the electronic sound with an ongoing narrative line.

CJK: Do you use improvisation in collaboration?

RM: I do have improvisation in some aspects of specific pieces within my dance/music collaboration. I utilize a very controlled improvisation in my work and within specific boundaries as to the material for improvisation. In one of my recent works, "Satori", there is one section which is an entirely controlled improvisation. I gave pitch, and rhythmic ideas and it worked with my concept of the piece. After the first rehearsal with music and dance, the choreographer wanted to stretch the piece. She asked me, "Do you mind if the clarinetist plays more than one minute in the improvisation?" I trusted the choreographer and the performer in this piece and went along with the concept. In improvisation, I always give the specific duration and the material which the improvisation is based upon. This was an instance where the choreographer was able to alter the composition to better suit the dance format and it added to the conceptual aspect of the piece.

CJK: Do you have any advice for the young composer?

RM: Search for choreographers who would want to be involved in collaboration with you and respect your music. You will eventually have an opportunity to meet a choreographer who can understand your work well. Work as a unit and be involved in the total process. Constant communication is needed all the time in order for a successful collaboration. As a young composer, many experiences are important, and learning from different choreographers will be a benefit and usually lead to a successful collaboration.

Tom Beyer, Composer

In addition to being a member of the New York University Composers Ensemble, Tom Beyer performs regularly around New York, does engineering, sound design and composes for Internet and varied multimedia projects. He joined the adjunct faculty at New York University in 1999, where he currently is also the Chief Systems Engineer for the Music Technology Program. His compositions, in many genres, ranging from solos to huge multimedia extravaganzas have been performed in many venues and festivals in Europe.

This interview took place at a restaurant in Greenwich Village, New York NY on May 25, 2005.

Chan Ji Kim: What is the most important rule for you when you work with a choreographer?

Tom Beyer: You always have to look at the circumstance because each collaboration is a different situation. You must be willing to have an open-mind when you decide to work with choreographers. Collaboration depends on your ability to give up things. That needs to be understood. I do not insist on using only my work, instead I think of the art, and think how we can achieve the goal together.

CJK: How do you communicate with your collaborator?

TB: At the beginning of the process, we discuss the concepts of the project and ask each other: What is the purpose? What is the main point? What do you want to show?

CJK: What is the benefit of collaboration?

TB: There are many benefits of collaboration, but I can tell you two main things. First of all, having another artists' view brings out some different aspects. Sometimes you have two different and complicated results, and sometimes you have a unified one, you are working with other collaborators in different styles of collaborations. It is never the same. Even though you are working with the same collaborator in different collaborations, you don't know what they have in their mind. It all depends on your communication. Second, you see audiences' reaction after the concert, and you learn more for future work.

Generally artists share the idea or view of what composers or choreographers see, yet we don't know what the audience's view is. By processing the reaction to the work, which each of the collaborators get from audience members, you learn more about the creative process.

CJK: So you say, audiences also benefit from collaboration?

TB: Yes. We show multimedia concerts to audiences who are interested in new experiences. Some audiences feel it is easy to understand because they can see and hear at the same time, but some have a more difficult time understanding because they cannot just focus on one thing, there are two different art forms at the same time. It depends on the individual.

CJK: What types of collaborative process do you prefer?

TB: I like working with a choreographer from the beginning, and to talk to choreographers throughout the project. Sometimes I have certain concepts or ideas for a piece, sometimes my choreographer has it, then she or he contacts me. If they are here in New York, it is easy to communicate with them. In the beginning, if I have some ideas of movements or gestures, then I share that with the choreographer as well as music and/or sound. Then, we set up the duration and shape of the piece. In my collaboration, the original idea nearly always stays, and we add some new ideas to shape it.

CJK: Does it make a difference who initiates the collaboration?

TB: Not really. In many cases, each artist helps setting up the original idea, even though one initiates the project. When both have ideas, we start talking and try to set up the common points. It's different every time. If I decide to have a collaboration, it's important that I don't try to have complete control of the piece. Even though I initiate the project, I need to interact with the other artist. I need to understand the process. It is necessary to look at the process as a back and forth process. When you observe each other's work closely, it helps not only your creation, but also the process. I always look at the interaction of the process.

CJK: What kind of discussion do you have with the collaborator during the process?

TB: I ask them about some gestures of the choreography. Sometimes I require some movements that I have in my mind. They do that too for my music. Then we adjust the requirements. We make sure there's good health of the collaboration during the process. I always think of it is as a group or ensemble, not a solo.

CJK: So it is important to understand the other's situation, right?

TB: Collaboration is a temporary marriage. Try things, accept each other's ideas, and then see what happens. Especially in improvisation, you really need to see the other point of view, what they are doing.

CJK: How do you work with choreographers in improvisation?

TB: The choreographer and I still keep the same original concept and idea. The important thing is that you trust each other. It is collective ideas from each other's performance. It happens simultaneously, so we need to constantly see and listen to each other. We do that in the Internet collaboration too.

CJK: Tell me about the process of Internet collaboration.

TB: Of course most artists are not in the same place, so we communicate by e-mail. It's a little difficult because you can't see their emotional feedback right away. So you need to be more careful with your communication. Internet collaboration has another impact because you are dealing with a time delay. You need to produce different textures more than working temporally. Also the performance exists in different spaces and that affects the dance, the music, and the audience. The experience is different in each of the locations as the delayed items are different depending on the location. The audience's experience is the combination of the local dance space and music-space at the moment, along with the distance locations response to what was transmitted to them a portion of a second ago.

John Gilbert, Composer

John V. Gilbert is currently teaching in The Department of Music and Performing Arts Professions, where he served as Chair from 1985-1992. He holds the B.M. and B.A. from Texas Tech University and his masters and doctoral degrees from Columbia University. He has composed multimedia works for dance, opera and musical theatre.

This interview took place at New York University on May 26, 2005.

Chan Ji Kim: I know that you teach the collaboration course at New York University. Could you tell me about this course?

John Gilbert: It is a new course that is called “Collaborative Production Project”. It involves Internet collaboration with the University of California Santa Cruz. There are composition majors, dance majors, performance majors, music education majors, theater majors, and music technology majors. Students meet other artists and share their ideas. They always communicate through the Internet and e-mail. It is a way of developing the project. In class, they develop connections, learn how to communicate with other artists, and how to balance freedom and control in collaboration. I always tell them, there is one connection, the original idea: “You should not change the original idea.”

CJK: Did you have any problems with Internet collaboration?

JG: Technology always brings new possibilities, but sometimes it brings problems. Time delay adds another texture in music and dance. It is like an illusion. Time delay always gives audiences new reactions. Audiences see and hear at the same time, plus they see two different spaces which add more visual effects.

CJK: What about the time frame in Internet collaboration? Is it different from others?

JG: It’s the same as others’ process. Time frame is based on how much detail you want in the collaboration. If there were not much time (including rehearsal time) available for the final production, I would use mostly improvisation; even for the lighting designer. But we all share the original concept, and we consistently see and listen to each other. I always do highly structured improvisation.

CJK: What is the best advice you have for your students in the collaboration class?

JG: I always tell them, “Don’t try to control other people.” It is important to have an open-minded process with other artists, then you will discover new art.

Esther Lamneck, Performer

Esther Lamneck is currently conductor of the NYU New Music Ensemble, director of the New Music Performance Program and director of Instrumental Studies. Dr. Lamneck is also director of the NYU International Music Festival and NYU Graduate Music Program in Italy. A versatile performer and an advocate of contemporary music, Dr. Lamneck is dedicated to expanding the traditional boundaries of music to create new art forms based on elements of jazz, folk and contemporary music idioms.

This interview took place at New York University on May 26, 2005.

Chan Ji Kim: What is the benefit of collaborating with composers and/or choreographers as a performer?

Esther Lamneck: I like to share my ideas with other artists. As you know I am a director of the New York University New Music Ensemble and I frequently collaborate with composers, dancers, and music technology people.

CJK: With whom have you been collaborating?

EL: I’ve been collaborating with Douglas Dunn for a long time. As you know, he danced with Merce Cunningham for many years. We both love the ideas behind the Cage-Cunningham collaboration, especially Cage’s new ideas that music comes from a single sound, and dance from the single movement.

CJK: Tell me about your summer class, “NYU New Music, Dance, and Technology in Italy.”

EL: It is all about collaboration, especially multimedia interactive projects. Composers, performers, and dancers interact with each other through improvisation. Now, we add

video and it brings new results. The video processing of dancers' movements could be improvised or not. Students are also interacting with visual image and music.

CJK: I guess, improvisation is an important tool in collaboration.

EL: It is an important compositional tool, and performers also need to learn how to improvise. I teach them how to improvise within the original score. Students need to memorize the score. They need to analyze basic elements like harmony, rhythm, and gestures, and then learn how to improvise with those elements. Improvisation is free but very exclusive. In the course, dancers also learn how to interact with musicians. For dancers, improvisation is physical interaction and emotionally free. In improvisation, dancers need to learn physical movement: how they move fast or slow, how much control you have, and how they use those elements to obtain different results.

CJK: Do they only control their own art or do they also control each other's art?

EL: The use of technology brought many different possibilities into collaboration. Now, dancers control the processing of sound. Of course with a composer's agreement, sound is controlled by the dancers' physical movements. The performance can be interactive in three ways, through music, dance and technology, and can create new multimedia forms: dance controlling the sound, musicians controlling visual image, and both plus the original composition.

CJK: What is the most important role of a performer in a music and dance collaboration?

EL: Of course composers and choreographers create a work, but the piece stretches out by how the musicians play and how the dancers move. Dancers and performers learn the score and then learn the shape of the work. Then, they add color into the piece. Now technology is very important to performers too. Controlling the sound and making

patterns of them on the stage brings theatrical effects that audiences also enjoy. We cannot ignore audiences who want to see more visual images, like what performers are doing on the stage. So performers need to communicate with audiences as well as composers and choreographers.

Teresa Fellion, Choreographer

Teresa Fellion has taught modern and jazz dance to diverse age groups in New York City. She also performed her own choreography at The Chocolate Factory Theater in Long Island City, Queens. Her dance-theater company, interCATaction/ Children's Adaptive Theater, performs interactive dance-theater storytelling events, conducts workshops and residencies in public elementary schools throughout the New York area.

This interview took place at a restaurant in the West Village, New York, NY on May 26, 2005.

Teresa Fellion: I'm so happy to talk about the issue of collaboration with you since there is not much information about this. Many choreographers are working with composers, as you know. However, we actually don't always analyze the specific components of collaborating. We do it because we want to explore new music, to collaborate with new artists, and to discover music that works well with our choreography or vision (if there isn't already established choreography).

Chan Ji Kim: What types of process do you prefer in collaboration?

TF: When I was working with T. Lion Dance Company in New York, I had completed music, and I choreographed to it. It is quicker and easier for me to work with, however it is not always as gratifying. I enjoy working with original music more than recorded music because of the ideas behind collaboration and because both composer and choreographer can experience more freedom. We performed seven pieces at a Phish

concert to one of their recorded albums. There were even more ideas that I wanted to pursue, being that we had an outdoor venue with limitless possibilities. However, we did have to be married to the pre-existing structure of the music. Even with recorded music, it is more interesting if you can reshape and resample it. Sometimes I have completed choreography and ask the composer to write music for me. I have only had a few projects that I did a collaborative process where the dance and the music were created during the same time frame. It takes longer because both the composer and I need to make some changes during the process, and adjust back and forth all the time. In all cases, sharing and discussing the concepts is important in the beginning of the process. I need to know what the composer wants in the piece, and also I need to tell them what my intention is about. We must mold our ideas together to have a cohesive vision where we are each exploring within ourselves and with each other.

CJK: Can you tell me about your process of choreography?

TF: I always write down all information. Sometimes I draw figures. Of course I do video record as many other choreographers do. I record all dancer's improvisation based on my concept and my fragmented ideas. I also record my own improvisations in studio.

Sometimes I refer back to these records and sometimes not, but it is important for me to keep a lexicon of movement so I can begin to shape the mood and structure of the piece. I collect this information and sometimes use it in my composition. Depending upon the music and if the choreography has specific counts, I usually count eight for one section, transition, and then the next section. For example, there are thirty-two beats (eight times four), I have four phrases in my mind.

CJK: What if the music was not based on eight beats a phrase?

TF: The initial counting is just for practical reasons. It is easier to choreograph and work with dancers at the rehearsals. Even though I count eight, the strong beat is not only at beat one. An eight-count phrase of choreography could really be a 4/4 or even a 2/4.

CJK: What is dynamics in dance?

TF: It is contrast effect, such as gradual/ sudden, contradiction (tension and release), and change from smoothness to sharpness in a phrase. I guess this is close to the musical term, you call “crescendo or decrescendo.” For me, it is about moving energy from motion to motion. It can also be how you change gestures or choose to transition between movement and gesture.

CJK: What about timbre or texture? Do you use these words in dance?

TF: Not really, but I know what you are talking about. It is effect in dance. It’s like a shifting mood. Sometimes we speak or sometimes we scream. As far as timbre goes, sometimes we make noise from our body, like stamping the floor, clapping, vocals, etc. It changes the overall mood in a piece and alters our relationship to the audience because they see us as more of a multi-sensory performer or somehow more human and less removed once we are no longer in silence.

CJK: What about space in dance?

TF: Space involves levels and also our parameters/limits/boundaries for choreography. Manipulating space and a dancer’s relationship to space is one of the main components of choreography and dancing. It’s like the space is a blank canvas and the dancer is paint that is shifting around constantly or staying calm within one spot. Think of an etch-a-sketch. Levels are very important for modern dance: sitting, standing up, laying down on the floor, or up in the air. Jumping or lifting is all related to space and levels. I also need

to think of group space as well as individual space because how many dancers you're working with obviously affects the relative negative space onstage. I guess in dance, space can be related to the texture, timbre or effects to that of music or sound.

APPENDIX B
COLLABORATION CHRONOLOGY

Igor Stravinsky and Vaclav Nijinsky

Table B-1. Collaborations by Igor Stravinsky and Vaclav Nijinsky

Title	Dancer	Place of Premier and Date
The Rite of Spring	Ballets Russes	Paris, May 29, 1913

Igor Stravinsky and George Balanchine

Table B-2. Collaborations by Igor Stravinsky and George Balanchine

Title	Dancer	Place of Premier and Date
Apollon Musagète	Ballets Russes	Paris, June 12, 1928
Orpheus	The Ballet Society at New York City	New York, NY April 28, 1948
Agon	New York City Ballet	New York, NY December 1, 1957

Aaron Copland and Martha Graham

Table B-3. Collaborations by Aaron Copland and Martha Graham

Title	Dancer	Place of Premier and Date
Appalachian Spring	Martha Graham, Erick Hawkins, May O'Donnell, Merce Cunningham	Library of Congress in Washington D.C., October 30, 1944

Leonard Bernstein and Jerome Robbins

Table B-4. Collaborations by Leonard Bernstein and Jerome Robbins

Title	Dancer	Place of Premier and Date
Fancy Free	New York City Ballet	New York, NY April 18, 1944

Table B-4. Continued.

On the Town	Adelphi Theatre	New York, NY December 28, 1944
Facsimile	New York Ballet Theater	New York, NY October 24, 1946
Age of Anxiety	New York City Ballet	New York, NY February 26, 1950
West Side Story	Winter Garden Theater	New York, NY September 26, 1957
Dybbuk (Renamed The Dybbuk Variation in 1974; Suite of Dances in 1980)	New York City Ballet	New York, NY May 16, 1974

John Cage and Merce Cunningham

Table B-5. Collaborations by John Cage and Merce Cunningham

Title	Dancer	Place of Premier and Date
Credo in Us	Merce Cunningham and Jean Erdman	Bennington, VT August 1, 1942
Totem Ancestor	Solo MC*	New York, NY October 20, 1942
In the Name of the Holocaust	Solo MC	Chicago, IL February 14, 1943
Shimmera	Solo MC	Chicago, IL February 14, 1943
Triple-Paced	Solo MC	New York, NY, April 5, 1944
Root of an Unfocus	Solo MC	New York, NY, April 5, 1944
Tossed as it is Untroubled	Solo MC	New York, NY, April 5, 1944
The Unavailable Memory of	Solo MC	New York NY, April 5, 1944
Spontaneous Earth	Solo MC	New York NY, April 5, 1944

Table B-5. Continued.

Four Walls (A Dance Play)	MC and Julie Harris	Steamboat Springs, CO August 22, 1944
Mysterious Adventure	Solo MC	New York, NY January 9, 1945
Experiences	Solo MC	New York, NY January 9, 1945
The Encounter	Solo MC	New York, NY January 9, 1945
The Seasons	MC with The Ballet Society	New York, NY May 18, 1947
Dromenon	MC and group	New York, NY December 14, 1947
Dream	Solo MC	Columbia, MO, May 8, 1948
A Diversion	MC, Sara Hamill and Louise Lippold	Black Mountain, NC August 20, 1948
Orestes	Solo MC	Black Mountain, NC August 20, 1948
Effusions avant l'heure (Later called Games and Trio)	MC, Tanaquil LeClerq and Betty Nichols	Paris, Summer 1949
Amores	MC and Tanaquil LeClerq	Paris, Summer 1949
Sixteen Dances for Soloist and Company for Three	MC, Dorothy Berea, Mili Churchill and Anneliese Widman	Millbrook, NY January 17, 1951
Solo Suite in Space and Time	Solo MC	Baton Rouge, LA June 23, 1953
Minutiae	MCDC**	Brooklyn, NY December 8, 1954
Suite for Five in Space and Time (Later called Suite for Five)	MCDC	South Bend, IN May 18, 1956

Table B-5. Continued.

Antic Meet	MCDC	New London, CT August 17, 1958
Theater Piece	MC and Carolyn Brown	New York, NY March 7, 1960
Music Walk with Dancers	MC, Carolyn Brown	Venice, September 24, 1960
Aeon	MCDC	Montreal, August 5, 1961
Field Dances	MCDC	Los Angeles, CA July 17, 1963
Paired	MC and Viola Farber	Hartford, CT, March 21, 1964
Variations V (With Film and TV images)	MCDC	New York, NY, July 23, 1965
How to Pass, Kick, Fall and Run	MCDC	Chicago, IL November 24, 1965
Second Hand	MCDC	Brooklyn, NY January 8, 1970
Landrover (Collaboration with Gordon Mumma and David Tudor)	MCDC	Brooklyn, NY February 1, 1972
Un Jour or deux	Paris Opera Ballet	Paris, November 6, 1973
Changing Steps	MCDC	Detroit, MI, March 7, 1975
Solo	Solo MC	Detroit, MI, March 8, 1975
Travelogue	MCDC	New York, NY January 18, 1877
Inlets (Revived by Paris Opera Ballet, 1983)	MCDC	Seattle, WA September 10, 1977
Exercise Piece II	MCDC	Toronto, Ontario August 18, 1978
Tango	Solo MC	New York, NY

Table B-5. Continued.

		October 5, 1978
Exercise Piece III	MCDC	New York, NY February 26, 1980
Duets (Revived by American Ballet Theater, 1982)	MCDC	New York, NY February 26, 1980
Fielding Sixes (Revived by Ballet Rambert, 1983)	MCDC	London, June 30, 1980
Trails	MCDC	New York, NY, March 16, 1982
Roaratorio	MCDC	Lille-Roubaix October 26, 1983

*MC = Merce Cunningham

**MCDC = Merce Cunningham Dance Company

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BIOGRAPHICAL SKETCH

Chan Ji Kim, a native of Korea, earned her BA at E-Wha Women's University in Seoul, Korea, where she studied composition with Prof. Eun-Hye Park, and her MA at New York University, where she studied composition and film scoring with Dr. Ron Mazurek and Dr. Dinu Ghezzo. Her music has been performed at dance concerts, multimedia concerts, and chamber music concerts in Asia, Europe, and North America includes the World Music Days in Timisuara, Romania; the New York Millennium 2000 Concert; the Summer New Music Festival in Florence and Assisi, Italy; International New Music Consortium (INMC) concert; the New Music Society concert in Seoul, Korea; the Sinfonia Orchestra of Bucharest in Romania; the Berlin New Music Concert in Berlin, Germany; the R20 (String Orchestra) concert in Wroclaw, Poland; International Alliance of Women in Music (IAWM) congress, International Double-Reed Society (IDRS) conference, the Southeastern Composers Symposium; the Society of Composer, Inc. (SCI) national conference; and the Florida Electroacoustic Music Festival. She has been commissioned by major international chamber ensemble groups: Anton Webern Quartet in Berlin, Germany; ProContemporonia in Bucharest, Romania; Les Basses in Seoul, Korea; and R20 (String Orchestra) in Wroclaw, Poland.