MICROTONALITY, TECHNOLOGY, AND (POST)DRAMATIC STRUCTURES IN THE THEATRICAL MUSIC OF HARRY PARTCH AND MANFRED STAHNKE

By

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To my parents, whose passion for both music and academic education has inspired me

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TABLE OF CONTENTS

page

LIST OF TABLES

LIST OF FIGURES

LIST OF MUSICAL EXAMPLES

Abstract of Dissertation Presented to the Graduate School
of the University of Florida in Partial Fulfillment of the
Requirements for the Degree of Doctor of Philosophy

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Setting the stage to address his new philosophy of music, in 1940 Harry Partch (1901–1974) allegorically described the predominant Western musical tradition as a "great Cathedral," from which a keen thinker—in Partch's words: a "zealot"—shall depart. He intended to revolutionize the tenets of Western musical culture, from harmonic structures and the prevalent subdivision of the octave to the musical instruments and dramatic music. The scholarly literature has examined Partch's revolutionary aesthetic mostly in terms of his music-theoretical—and to a smaller extent in term of his dramatic—impact in the United States. However, Partch's ideas have affected not only American, but also European composers of microtonal music. This dissertation approaches Partch's rebellion not as an isolated paradigm, but in relation to Manfred Stahnke's aesthetic and music—a German composer (born 1951) who has also sought to expand the intonational and tuning idioms of Western art music, whom Partch's microtonal theories have influenced.

The analysis of the interrelationships between aesthetic decisions, microtonal structures, technological aspects, and theatrical innovations in Partch's and Stahnke's

stage works articulates the link between both composers. These interrelationships go beyond functioning as mere formative elements; they become means to mediate the philosophical, mythical, ritual, and psychological connotations of Partch's and Stahnke's music-theatrical works, as well their cultural discourse. Examining Partch's *Oedipus* (1950), *The Bewitched* (1955), and *Delusion of the Fury* (1966), as well as Stahnke's *Der Untergang des Hauses Usher* (1981), *Wahnsinn das ist die Seele der Handlung* (1982), *Heinrich IV* (1986), and *Orpheus Kristall* (2001), demonstrate the scope of their cultural criticism and the link between them.

CHAPTER 1
INTRODUCTION

Rationale

Setting the stage to address his new philosophy of music, in 1940 Harry Partch (1901–1974) allegorically described the predominant Western musical tradition as a "great Cathedral," from which a keen thinker—in Partch's words: a "zealot"—shall depart:

> The Great Cathedral of Modern Music, erected in trial and labor and pain through most of the Christian era, is a safe and beautiful sanctuary. Its one sad aspect is that it seems to be finished—there is so little, if anything, that is significant that can be added to it. On the other hand, in the wild, little-known country of subtle tones beyond the safe cathedral, the trails are old and dim, they disappear completely, and there are many hazards.[1]

Partch chose to confront the "hazards" and to relinquish his "safe sanctuary." He intended to revolutionize the tenets of Western musical culture, from harmonic structures and the prevalent subdivision of the octave to the established musical instruments and dramatic music.

The scholarly literature has explained Partch's revolutionary aesthetic mostly in terms of his music-theoretical—and to a smaller extent in term of his dramatic—impact in the United States. However, Partch's ideas affected not only American, but also European composers of microtonal music. This dissertation examines Partch's rebellion not as an isolated paradigm, but in relation to Manfred Stahnke's aesthetic and music—a German composer (born 1951) who has also sought to expand the intonational and tuning idioms of Western art music, whom Partch's microtonal theories have influenced.

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[1] Harry Partch, "Patterns of Music," in *Bitter Music: Collected Journals, Essays, Introductions, and Librettos*, ed. Thomas McGeary (Urbana and Chicago: University of Illinois Press, 1991), 160.

Comparative analysis of Partch's and Stahnke's aesthetic decisions in their stage works articulates the link between both composers. The ways in which Stahnke perceived Partch, as well as his urge to study, explain, and incorporate elements of Partch's ideas in his articles and compositions, prompted this dissertation.

Aiming to illuminate the scope of Partch's and Stahnke's critical posture toward Western musical culture and the link between both composers, this dissertation analyzes the music-theatrical works of Partch and Stahnke from four distinct perspectives: First, it explores the aesthetic ideas, which underpin these theatrical pieces, and the relationships of such ideas to the composers' individual music philosophies as rooted in their discourse. Second, it analyzes the microtonal architecture and related compositional procedures implemented in the pieces, correlating them with the composers' aesthetics. Third, it expounds upon the mediational role of the technological aspects of these works. In the case of Partch, the idiosyncratic musical instruments that he built inform the technological artifacts employed in his music. Since the principles of constructing music instruments go beyond the scope of this dissertation, Partch's instruments are only discussed in relation to his intonational system and aesthetic concepts. Stahnke's use of electronic media, especially the function of the Internet in his multimedia opera *Orpheus Kristall*, on the other hand, is explained in detail. Finally, this dissertation expounds upon the dramatic and postdramatic structures of both composers' stage works, tackling their theatrical facets. It juxtaposes the theatrical elements of these works, which remain in the scope of the conventional, plot-based, dramatic tradition, and their scenic, visual,

aural, ritual, and corporeal elements, which gain as much, or more, importance as the storyline. Such elements inform the postdramatic structures of these works.

These four perspectives, as applied to the music of Partch and Stahnke, clarify the interrelationships of microtonality, technology, and theatrical structures in their pieces. I argue that these interrelationships go beyond functioning as mere formative elements; they become means to mediate the essential philosophical, mythical, ritual, and psychological connotations of these music-theatrical works, composed between 1950 and 2002, as well as the composers' cultural discourse. As case studies, the following five chapters expound upon the microtonal, technological, and (post)dramatic structures in Partch's *Oedipus* (1950), *The Bewitched* (1955), and *Delusion of the Fury* (1966), as well as Stahnke's *Der Untergang des Hauses Usher* (1981), *Wahnsinn das ist die Seele der Handlung* (1982), *Heinrich IV* (1986), *and Orpheus Kristall* (2001).

The analysis of Partch's and Stahnke's theatrical music stands on three linked pillars: First and foremost, both composers have rejected the dominance of twelve-tone equal temperament—the prevalent tuning and intonational system in Western music. They have grappled with just intonation, non-Western and ancient tone-systems, and have even developed innovative intonational concepts based on already-existing models. Their experiments with intonation and tunings have, therefore, centered microtonality as an essential element in their compositional toolboxes.

Since the beginning of the twentieth century, several composers who have attempted to transcend the limited scope of twelve-tone equal temperament have employed microtonality as fundamental compositional vehicles. Composers such as Alois Hába and Ivan Wyschnegradsky, for instance, attempted to expand the twelve-

tone to twenty-four or thirty-sixth-tone equal temperaments, while others, such as Ben Johnston, Lou Harrison, and La Monte Young have experimented with just intonation. Furthermore, the spectralists, led by Gérard Grisey and Tristan Murail, have used spectral compositional techniques based on possibilities offered by computer analysis of the spectrum of partials, while figures including Julián Carrillo, Franz Richter-Herf, and Rolf Maedel have constructed instruments with up to seventy-two tones per octave. From the long list of composers who have delved into various degrees of experimentations with microtonality, Charles Ives, György Ligeti, Giacianto Scelsi, John Chowning, James Tenney, Georg Friedrich Haas, Johannes Kotchy, Wolfgang von Schweinitz, and Georg Hajdu, have also implemented noteworthy attempts.

A few scholarly texts have dealt with the music-theoretical and aesthetic precepts of microtonal structures in the hands of such artists, particularly in their non-theatrical music. Music research has, however, not yet explored the ways in which the compositional tool of microtonality has functioned in constructing theatrical music and in delineating the fundamental extra-musical implications of the music-theatrical conceptions, let alone Partch's and Stahnke's stage works. This dissertation, hence, examines, for the first time in the scholarly literature, the implementation of microtonal structures as constructive elements in theatrical music, specifically Partch's and Stahnke's stage works.

The lineage from Partch to Stahnke informs the second pillar upon which this dissertation rests. Motivated by Ligeti's fascination with Partch, whom he met in California in 1970s, and whose vinyls he brought back to Germany, Stahnke, a pupil of Ligeti, encountered Partch's music and ideas for the first time in Ligeti's composition

class. He subsequently came to the United States in 1979–80 to study with Partch's apprentice and friend, Ben Johnston (born 1926); at the same time, he began composing his first opera *Der Untergang des Hauses Usher*. We can, therefore, draw a direct lineage between Partch and Stahnke, mediated by Johnston. Even though Johnston's few music dramas, such as *Carmilla* (1970) and *Calamity Jane to her Daughter* (1989), do not use microtonality, he often applies extensive just intonation in his instrumental pieces, such as his ten string quartets and other chamber works. While this dissertation does not discuss Johnston's non-microtonal theatrical music, it does articulate the role of Johnston's teachings and his own approach to just intonation in transferring Partch's legacy to Stahnke.

Finally, I argue that Partch's aesthetic and theoretical ideas, as much as his intonational innovations, instruments, and music-theatrical conceptions, have affected two generations of both American and European composers of microtonal music. Partch's ideas triggered the so-called "just-intonation movement" in the United States, mostly late in his life and after his death. As examples of projects prompted by Partch's achievements, the New Ensemble led by the late Dean Drumond, who had also worked with Partch, and the master's degree of Harry Partch/ Microtonal Music Studies minor, both at the Montclair State University, resulted from the recognition of Partch's legacy in the United States since the 1970s. In Germany, sparked by Ligeti in Hamburg, various composers, particularly Stahnke, have established a tradition of experimentation and research into Partch's heritage of just intonation, extended to other intonational practices from around the world. Furthermore, the German Ensemble Musikfabrik has recently embarked on building their own copies of Partch's instruments and performing

his music, including the staging of *Delusion of the Fury* in the 2013 Ruhrtriennale, directed by the distinguished theater director Heiner Goebbels. Examining the impact of Partch's acoustical, aesthetic, and compositional concepts on German contemporary music, in this case Stahnke's vast oeuvre, is another aim of this dissertation.

Literature Review

One of the most comprehensive studies of Partch's aesthetic and music is his own treatise *Genesis of a Music*, which stands out as an essential primary source.[2] First published in 1949 and republished in 1974, *Genesis of a Music* illustrates Partch's critical perception of the history of Western music, from ancient Greece to the twentieth century. Interwoven in his discourse, Partch juxtaposes his own conception of "corporeal" music—the actuality and amalgamation of all artistic media to portray the substance of the dramatic text—and his conception of "abstract" music, which refers to either purely instrumental music, or music with melismatic, musicalized words. Partch expresses his distaste for abstraction and preference for corporeal, ritual theatrical music, which, in his own case, uses the acoustically-correct just intonation and instruments built based on this tuning system. He subsequently justifies the necessity of his various just-tuned music instruments, his percussion instruments that he was not able to exactly tune according to just intonation, his forty-three-tone-to-octave scale, and his key concept of corporeality, while introducing readers to his corporeal theatrical works.

Partch's collected journals, essays, introduction, and librettos, titled *Bitter Music*, edited by Thomas McGeary and published in 1991, comprises materials from Partch's

[2] Harry Partch, *Genesis of a Music* (New York: Da Capo, 1974).

entire oeuvre. In this source, Partch's introductions to and programs for the performances of his theatrical music, among others, *Oedipus, The Bewitched,* and *Delusion of the Fury,* include invaluable information for analyzing such pieces. *Bitter Music* also contains Partch's short essays, for instance "Bach and Temperament" (1941), "Patterns of Music" (1940), "Monoliths in Music" (1966), and "A Quarter-Saw Section of Motivation and Intonation" (1967), which have contributed to my understanding of Partch's music-philosophical views and aesthetic approaches. Elsewhere, in *Contemporary Composers on Contemporary Music*, Partch's article "Experiments in Notation" elucidates the intricacies of Partch's peculiar notational system, which employs just ratios as its basis, combing it with tablature and common Western notation. Partch's notation differs in the case of each of his instruments.[3]

The late musicologist Bob Gilmore was one of the few individuals who have published not only on Partch, but also on Johnston and his relation to Partch's music. Gilmore's 1998 *Harry Partch: A Biography* gives an overview of how Partch's musical language had evolved during his fruitful, yet solitary, life.[4] The article "The Climate since Harry Partch," written by Gilmore, touches on the legacy and impact of Partch as music philosopher, theorist, instrument builder, and composer, on the next generations of American and European composers, including Johnston and Stahnke.[5] Prior to both aforementioned publications, Gilmore's 1996 dissertation deals with Partch's early vocal

[3] Harry Partch, "Experiments in Notation," in *Contemporary Composers on Contemporary Music*, ed. by E. Schwartz et al. (New York: da Capo, 1978), 209–221.

[4] Bob Gilmore, *Harry Partch: a Biography* (New Haven & London: Yale University, 1998).

[5] Bob Gilmore, "The Climate since Harry Partch," *Contemporary Music Review* 22, 1/2 (2003): 15–33.

works, which exemplify major steps in the evolution of his concept of monophony.[6] Partch's monophony in his early works, such as *Seventeen Lyrics by Li Po (1933),* later becomes integral to the corporeality of his major theatrical music. Ronald Wiecki's article, "Relieving '12-Tone Paralysis': Harry Partch in Madison, Wisconsin, 1944-1947" summarizes Partch's theoretical achievements based on the few compositions he finished during his three years of residency at the University of Wisconsin Madison.[7]

Both Thomas McGeary's *Introduction to the Music of Harry Partch: A Descriptive Catalogue* and Philip Blackburn's "Harry Partch and the Philosopher Tone," present a generic overview of the Partch's aesthetic, theoretical, and compositional achievements, while S. Andrew Granade's recent book *Harry Partch: Hobo Composer* examines Partch's music and life from historical, cultural, political, and musical perspectives.[8] Granade analyzes Partch's so-called "hobo-period," in the context of the American hobo, transient, and migrant culture, during the era of the Great Depression. Granade's dissertation "'I Was a Bum Once Myself': Harry Partch, U.S. Highball, and the Dust Bowl in the American Imagination," and his articles "Rekindling Ancient Values: The Influence of Chinese Music and Aesthetics on Harry Partch" and "Decoding Harry Partch's Aesthetic: Satire, Duality, and *Water! Water!*," respectively deal with how hobo culture, Chinese music, and Partch's disdain for American musical popular culture, affected his

[6] Bob Gilmore, "Harry Partch: the Early Vocal Works 1930-33" (PhD diss., The Queen's University of Belfast, 1996).

[7] Ronald. V. Wiecki, "12-Tone Paralysis: Harry Partch in Madison, Wisconsin, 1944–1947," *American Music* 9, 1 (1991): 43–66.

[8] Thomas McGeary, *Introduction to the Music of Harry Partch: A Descriptive Catalog* (New York: Institute for Studies in American Music, 1991). Philip Blackburg, "Harry Partch and the Philosopher's Tone," *Hyperion* II, 1 (2008): 1–20. S. Andrew Granade, *Harry Partch, Hobo Composer* (Rochester: University of Rochester, 2014).

aesthetic.[9] On the other hand, in his book *Mavericks and other Traditions in American Music*, Michael Broyles situates Partch as one of most influential outsider-composers in the twentieth-century United States, besides figures such as Frank Zappa and John Cage.[10]

While Jake Johnson's article "'Unstuck in Time': Harry Partch's Bilocated Life" explains how Partch built his identity based on his affinity for ancient Greek themes, a handful of dissertations have dealt with the music-theoretical and acoustical tenets of Partch's music and other followers of the just intonation movements.[11] Alexander Gordon Lane's recent dissertation "From Archean Granite: The Rational Pitch System of Harry Partch, Lou Harrison, and Ben Johnston," stands out as a notable example.[12]

Both Johnston and Stahnke have written essays and articles, engaging with diverse aspects of Partch's heritage. In various essays within "*Maximum Clarity" and Other Writings on Music*, his collected writings edited by Bob Gilmore, Johnston discusses Partch's legacy from different perspectives; in "The Corporealism of Harry Partch," for example, Johnston expounds upon the realization of Partch's aesthetic of corporeality in his compositions, while in "Harry Partch/John Cage," he juxtaposes both composers as two contemporary counter-poles. Johnston expounds on Partch's

[9] S. Andrew Granade, "'I was a Bum Once Myself': Harry Partch, U.S. Highball, and the Dust Bowl in the American Imagination" (PhD. diss., University of Illinois, 2005). S. Andrew Granade, "Rekindling Ancient Values: The Influence of Chinese Music and Aesthetics on Harry Partch," *Journal of the Society for American Music* 4(1), 1–32. S. Andrew Granade, "Decoding Harry Partch's Aesthetic: Satire, Duality, and *Water! Water!*," American Music 35(2), 172–196.

[10] Michael Broyles, *Mavericks and other Traditions in American Music* (New Haven: Yale University Press, 2004).

[11] Jake Johnson, "'Unstuck in time': Harry Partch's Bilocated Life," *Journal of the Society for American Music* 9, 2 (2015): 163–177.

[12] Alexander Gordon Lane, "From Archean Granite: The Rational Pitch System of Harry Partch, Lou Harrison, and Ben Johnston" (PhD diss., Brandeis University, 2017).

percussion instrument, cloud-chamber-bowls, and explains its function in Partch's compositions in his essay "Harry Partch's Cloud-Chamber-Music." Finally, in "Beyond Harry Partch," Johnston articulates the relevance of Partch's achievements for future generations.[13]

On the other hand, Stahnke, not only a composer but also a widely-published musicologist, has expressed his thoughts on Partch's intonational system and aesthetic repeatedly. Most importantly in "Gedanken zu Harry Partch," Stahnke examines Partch's intonational efforts and their relation to his philosophical ideas from the perspective of a fellow microtonalist.[14] Stahnke explores the concept of just intonation and the disparate compositional approaches of Partch and Grisey to this concept in "Zwei Blumen der reinen Stimmung im 20. Jahrhundert: Harry Partch and Gérard Grisey," [15] In "Meloharmonik," Stahnke explains his own concept of meloharmony and its realization in his music, while bringing the function of Partch's forty-three-tone-to-octave tuning system into his own compositions, as an example of a meloharmonic microtonal configuration.[16]

Stahnke himself is the author of most of the theoretical, aesthetic, and compositional criticism of his music. In "About Backyards and Limbos: Microtonality Revisited," Stahnke elaborates on his solo guitar piece *Ansichten eines Käfers* and his

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[13] Ben Johnston, *"Maximum Clarity" and Other Writings on Music*, ed. B. Gilmore (Urbana and Chicago: University of Illinois, 2006).

[14] Manfred Stahnke, "Gedanken zu Harry Partch," *Neuland: Ansätze zur Musik d. Gegenwart*: Jahrbuch 2 (1982): 243–251.

[15] Manfred Stahnke, "Zwei Blumen der reinen Stimmung im 20. Jahrhundert: Harry Partch und Gerard Grisey," *Hamburger Jahrbuch für Musikwissenschaft* 17 (2000): 369–388.

[16] Manfred Stahnke, "Meloharmonik," in *Mikrotöne und mehr: auf György Ligetis Hamburger Pfaden*, ed. M. Stahnke (Hamburg: Von Bockel, 2005), 207–224.

solo harp piece *Diamantenpracht* as two examples of his approaches to establishing microtonal structures. He further explains the influence of Partch's eleven-limit just intonation on his harp tuning system in *Diamantenpracht*.[17] Stahnke illustrates his concepts of difference-tone harmony in his opera *Orpheus Kristall* in "Ein Tonsystem für eine Internetoper," while in "Infinite Meloharmonik: Vermutungen über den Wind," he explains the realization of the same concept in his orchestral work *Trace des Sorciers*.[18] "Mein drittes Streichquartett Penthesilea: Anmerkungen zur Entstehung eines Musikstückes mit Programm" deals with Stahnke's approach to microtonality in order to reconstruct Greek enharmonic modus, which, in turn, points to depiction of the mythical implications of his music.[19]

Stahnke's article "Mein Weg zu Mikrotönen" describes his mathematical thoughts and the resulting microtonal ratios, as well as his relationships to Harry Partch's and Ben Johnston's just intonation.[20] "Partch Harp: (Er)findung einer nicht-oktavierenden Musik," analyzes Stahnke's composition *Partch's Harp* based on the intervals of just third and just seventh, which draws from Harry Partch's microtonal system and the panpipe music from the Solomon Island. [21] Finally, in "Orpheus unter den ganzen

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[17] Manfred Stahnke, "About Backyards and Limbos: Microtonality Revisited," in *Concepts, Experiments, and Fieldwork: Studies in Systematic Musicology and Ethnomusicology*, ed. by R Bader et al. (Frankfurt am Main: Peter Lang, 2010), 297–314.

[18] Manfred Stahnke, "Infinite Meloharmonik: Vermutungen über den Wind, " in *Neue Musik 2000 (Medienkombination): Fünf Texte von Komponisten*. Series: Schriften der Hochschule für Musik Würzburg, No.6, ed. Cornelia Barthelmes (Würzburg: Königshausen & Neumann, 2001), 19–26.

[19] Manfred Stahnke, "Mein drittes Streichquartett Penthesilea: Anmerkungen zur Entstehung eines Musikstückes mit Programm," *Hamburger Jahrbuch für Musikwissenschaft*. VI (1983): 347–363.

[20] Manfred Stahnke, "Mein Weg zu Mikrotönen," *Musik-Konzepte Sonderband-Musik der anderen Tradition: Mikrotonale Tonwelten*, Heinz Klaus Metzger et al., eds.(München: edition text + kritik: 2006.)

[21] Manfred Stahnke, "Partch Harp: (Er)findung einer nicht-oktavierenden Musik, " in *Musikkulturgeschichte: Festschrift für Constantin Floros zum 60. Geburtstag*, ed. P. Peterson (Wiesbaden: Breitkopf & Härtel, 1990), 11–26.

Zahlen: Ein Essay über Schwellen," Stahnke reflects on the world of the contemporary composition from a personal perspective. He then focuses on the concept of "the hearing threshold" and the ways in which his peculiar tonal system in *Orpheus Kristall* attempts to cross this threshold.[22]

Stahnke's collected writings *Mein Blick auf Ligeti/Partch & Compagnos*, published in 2017, contains the republication of several aforementioned articles, and aided my research immensely.[23] His doctoral dissertation *Struktur und Ästhetik bei Boulez: Dritte Sonate Formant "Trope" mit Mallarmé & Joyce*, although not directly related to microtonality or his own music, provides insight to Stahnke's analytical approach to the music of the Darmstadt School.[24] All three volumes edited by Stahnke, *Mikrotöne und mehr: Auf György Ligetis Hamburger Pfaden*; *Musik—nicht ohne Worte: Beiträge zu aktuellen Fragen aus Komposition, Musiktheorie und Musikwissenschaft*; and *1001 Mikrotöne/1001 Microtones* (co-edited by Sarvenaz Safari), contain chapters by composers, performers, and researchers, dealing with issues related to microtonality, tuning, and intonation.[25]

In addition to Stahnke's own articles, a few authors have published on diverse aspects of his compositions and aesthetics. In "Aktualität eines Mythos: Orpheus Kristall

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[22] Manfred Stahnke, "Orpheus unter den ganzen Zahlen: ein Essay über Schwellen," in *Melodie Und Harmonie: Festschrift für Christoph Hohlfeld zum 80. Geburtstag*, ed. R. Bahr (Berlin: Weidler, 2002), 196.

[23] Manfred Stahnke, *Mein Blick auf Ligeti/Partch & Compagnos* (Norderstedt: BoD, 2017).

[24] Manfred Stahnke, *Struktur und Ästhetik bei Boulez: Dritte Sonate Formant "Trope" mit Mallarmé & Joyce* (Norderstedt: BoD, 2017).

[25] Manfred Stahnke, ed. *Mikrotöne und mehr: auf* György *Ligetis Hamburger Pfaden* (Hamburg: Von Bockel, 2005). Manfred Stahnke, ed. *Musik - nicht ohne Worte Beiträge zu aktuellen Fragen aus Komposition, Musiktheorie und Musikwissenschaft* (Hamburg: Von Bockel, 2000). Sarvenaz Safari et al. ed. *1001 Mikrotöne / 1001 Microtones* (Hamburg: Von Bockel, 2014).

im Quintet.net," Georg Hajdu explains the function of his own-developed interactive performance system Quintet.net in Stahnke's opera *Orpheus Kristall*.[26] Lutz Lesle's article "Ars subtilior im Computerzeitalter: Der Hamburger Komponist Manfred Stahnke," deals with Stahnke's compositional procedures from aesthetic and theoretical perspectives.[27] In "Diamond Splendor," Sarvenaz Safari analyzes Stahnke's piece *Diamantenpracht* for solo harp in scordatura, focusing on the aspects of tuning, scale structures, and microtonal elements.[28] Jason D'Auost's recent article "Orpheus in New Media: Images of the Voice in Digital Operas" situates *Orpheus Kristall* within the article's epistemological discourse, explaining how voice can render an illusion of embodiment in immersive, multimedia artworks.[29] Lastly, in my published articles, "Technology, Microtonality, and Mediation in Manfred Stahnke's *Orpheus Kristall*" and "Parallel Trajectories in Manfred Stahnke's Internet Opera *Orpheus Kristall*," I employ distinct conceptual frameworks to analyze Stahnke's synthesis of digital media, microtonal structures, and contemporary re-invention of the ancient myths, in his opera.[30]

[26] Georg Hajdu, "Aktualität eines Mythos: Orpheus Kristall im Quintet.net," *Positionen: beiträge zur neuen Musik* 51 (2002): 47–50.

[27] Lutz Lesle, "Ars subtilior im Computerzeitalter: Der Hamburger Komponist Manfred Stahnke," *NZ: Neue Zeitschrift für Musik*, 150, 11 (1989), 18–23.

[28] Sarvenaz Safari, "Diamond Splendor," *Sonus: A Journal of Investigations into Global Musical Possibilities*, 32, 1 (2011) 40–57.

[29] Jason D'Auost, "Orpheus in New Media: Images of the Voice in Digital Opera," *International Journal of Performance Arts and Digital Media* 8, 1(2012), 31–48.

[30] Navid Bargrizan, "Technology, Microtonality, and Mediation in Manfred Stahnke's Orpheus Kristall," *Müzik-Bilim Dergisi, The Journal of Music and Science* 2015 Vol.1, Issue 6 (2015). Navid Bargrizan, "Parallel Trajectories in Manfred Stahnke's Operas*," eContact! Online Journal for Electroacoustic Practices*, 18, 4.

In addition to Partch's and Stahnke's own writings, Steven Dixon's extensive study of the technological integration in the theater, *Digital Performance: A History of New Media in Theater, Dance, Performance Art, and Installation*, contributed to conceiving chapter 3, "Technology, Mediation, and Intermediality."[31] Furthermore, various chapters in Freda Chapple's and Chiel Kattenbelt's edited volume *Intermediality in Theatre and Performance*, helped to frame the concept of Intermediality as an analytical framework in chapter 3.[32] Chapter 5 owes much to Hans-Thies Lehmann's momentous book *Postdramatic Theatre*, in which he explains his theory of postdramatic theater—the borrowed analytical core of this chapter.[33]

Chapter Outline and Analytical Key-Concepts

Chapter 2 of this dissertation delves into the nuances of Partch's and Stahnke's music-philosophical points of view and aesthetic preferences. It explains each composer's standpoints individually, before juxtaposing them, intending to clarify their discrepancies and similarities. Since Partch's and Stahnke's theatrical music mirrors their aesthetic views, Chapter 2 works as a prelude to the analysis of their pieces from the perspective of microtonal structures, technological devices, and theatrical elements in the following chapters. In the case of Partch, his idiosyncratic notion of "corporeality," juxtaposed with his appropriation of the notion of "abstraction" inform his core aesthetic. In the case of Stahnke, on the other hand, his "*wässriges System*," a flexible and inclusive compositional system, as much as the concept of "self-reflection"

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[31] Steve Dixon, *Digital Performance: A History of New Media in Theater, Dance, Performance Art, and Installation* (Cambridge, MA: The MIT Press, 2007).

[32] Freda Chapple and Chiel Kattenbelt, eds. *Intermediality in Theater and Performance* (Amsterdam: Rodopi, 2006).

[33] Hans-Thies Lehmann, *Postdramatic Theatre*, trans. Karen Jürs-Munby (New York: Routledge, 2006).

demonstrates his central aesthetics. These concepts, hence, substantiate the analysis of Partch's and Stahnke's music philosophies and aesthetics in Chapter 2.

Chapter 3 examines the microtonal constructions and related compositional procedures in each of the seven music-theatrical case studies. The analysis follows an introduction to each composer's approach to integrating microtonal elements and tuning systems other than the twelve-tone equal temperament. Partch's concept of "monophony," the theoretical basis of his forty-three-tone-to-octave scale and microtonal instruments, as well as Stahnke's concept of "meloharmony," the term that he formulated to refer to his flexible approach to harmonic and melodic microtonal fabrics, function as the main analytical frameworks of Chapter 3.

The discussion of the historical evolution of technological integrations in the theatrical performances, and subsequently in music-theatrical conceptions, opens Chapter 4, before delving into Stahnke's multimedia opera *Orpheus Kristall* and the interface Quintet.net, which enabled the Internet musicians to participate in the opera. The concept of "intermediality," proposed and employed by an array of theater scholars, especially Freda Chapple and Chiel Kattenbelt, constitutes the main analytical tool in Chapter 4.[34] This concept articulates the mediational role of the Internet as a digital medium in *Orpheus Kristall*. The chapter also employs the concept of "trajectories," introduced by Steve Benford to explain the interaction of multiple constituents in mixed-reality performances, unfolding the relation of various onstage and offstage performing forces to the fundamental philosophical associations of *Orpheus Kristall*.

[34] Chapple and Kattenbelt, eds. *Intermediality in Theater and Performance*.

Chapter 5, which examines the notion of corporeality, begins with a brief introduction to the significant use of this notion in scholarly publications in the context of disciplines other than music and theater. Chapter 5, then, shifts toward Partch's peculiar appropriation of the notion of corporeality, conceptualizing it as an extension of Wagner's notion of *Gesamtkunstwerk* (total artwork). While it situates Partch's notion of monophony as dependent on his notion of corporeality, Chapter 5 also expounds on Partch's use of the term "abstraction" as the counter-pole to corporeality. Since Partch's discourse about corporeal vs. abstract music hinges upon his historical and ethnographic analysis, the last section of Chapter 5 explains Partch's perception of the history of Western and non-Western musical cultures.

Chapter 6 borrows the theory of postdramatic theater from Hans-Thies Lehmann to identify and differentiate the dramatic and postdramatic facets of Partch's and Stahnke's theatrical music.[35] Chapter 6 explains the precepts of the theory of postdramatic theater, shedding light on the theatrical elements in Partch's and Stahnke's works, which display postdramatic tendencies. It claims that even though certain aspects of these pieces remain faithful to the dramatic theatrical tradition, other aspects manifest clear postdramatic characters.

Methods of Research

In addition to the scholarly literature, five hours of recorded interviews with Manfred Stahnke in 2011 and sixteen hours of interviews in 2015, including a three-hour session with the participation of Georg Hajdu, comprise the most crucial source for the part of this research related to Stahnke's ideas and music. A month of archival research

[35] Lehmann, *Postdramatic Theatre*.

during summer 2015, at Harry Partch State Archive and Harry Partch Collection, both located at the University of Illinois, Harry Partch Music Scores located at the University of California San Diego, and Ben Johnston Archive at Northwestern University, has underpinned my understanding of, and critical approach to, Partch's aesthetic, music, and life. The study of the primary and secondary literature along with the analysis of scores and recordings of both composers has guided the structure of each chapter and the entire dissertation.[36] In other words, none of the key concepts used as the tool of analysis have been taken *a priori*, but have resulted from analyzing the scores, recordings, and archival as well as scholarly sources.

[36] Stahnke's scores and recordings are generously made available by, and used with the permission of, Stahnke-Verlag. Partch's manuscripts, scores, and recordings are use made available by, and used with the permission of, Harry Partch Estate Archive and Harry Partch Collection at the Sousa Archives and Center for American Music, University of Illinois at Urbana-Champaign, and Harry Partch Music Scores,1922-1972 at the University of California San Diego Library, Special Collections.

CHAPTER 2
MUSIC PHILOSOPHY AND AESTHETIC IDEAS

Cultural Criticism Ingrained in Partch's and Stahnke's Music Philosophies

The music philosophies and aesthetic choices of Partch and Stahnke not only underpin their compositional decisions, but also inform their cultural criticism of the standardized and commercialized Western art music. Their approaches to integrating microtonal structures and technological renderings spring from their individual critical thoughts; the analogies, discrepancies, and correlations of their views from their philosophical similarities and differences. Considering that both Partch and Stahnke—as opposed to a plethora of their contemporaneous colleagues—stepped into the world of unconventionality, developing unexplored conceptual and tonal horizons, their personal, cultural, and existential perspectives add essential context to our understanding of their cultural discourse, as well as the musical structures in their theatrical works.

This chapter explains the most important aspects of Partch's and Stahnke's music-philosophical views and aesthetic approaches, ingrained in their polemical stance toward the predominant Western art music. Before juxtaposing both composer's views, it examines each separately. As an introduction to the discussion of the microtonal, technological, and theatrical facets of both composer's stage works in the next sections, Chapter 2 builds on their published texts and conducted interviews. It aims to reveal the scope of Partch's and Stahnke's cultural discourse, while comparing them to illuminate the link between their ideas.

Partch's Music-Philosophical and Aesthetic Views

Writing about a pivotal shift in his musical language, Partch makes the following statement in his theoretical, philosophical, and historical treatise *Genesis of a Music*:

> Sometime between 1923 and 1928, I finally became so dissatisfied with the body of knowledge and usage as ordinarily imparted in the teaching of music that I refused to accept, or develop my own work on the basis of, any part of it. With respect to current usage, this refusal was a rebellion; from the standpoint of my creative work it was the beginning of a new philosophy of music, intuitively arrived at.[1]

With this statement, Partch, who was already a prolific composer, sought to abandon the dominant tenets of the Western musical culture. He went so far as to destroy all of his previous compositions, which reportedly included a symphonic poem, a string quartet, and a few other post-Romantic orchestral pieces.[2]

Even though Partch's invention of novel music instruments and a microtonal intonational system from scratch, as well as his turn toward absorbing non-Western and ancient musico-dramatic rituals, shall be considered a revolution, his music, at the same time, furthers the Wagnerian concept of *Gesamtkunstwerk.* Partch's aesthetic extends *Gesamtkunstwerk*—an intertwined total artwork consisting of various artistic media—toward an even more integrated music-theatrical concept. Partch, however, viewed his paradigmatic breakthrough, not as an extension, but as an "antithesis" to the prevailing states of Western musical culture, stating: "I speak from my own mental experience in breaking with the accepted ways. Mine is a procedure more of antithesis than of simple modification […]. The break came first, by intuition; the justification came second, by

[1] Harry Partch, *Genesis of a Music* (New York: Da Capo, 1974), 4.

[2] Mentioned by Partch, in the introduction to *Genesis of a Music*, X.

critical and historical analysis."[3] But, although Partch's legacy demonstrates an antithesis, it simultaneously informs a continuation of the Western Romantic musical tradition.

To justify the necessity of his paradigmatic shift, Partch discusses the nuances of Western musical practices, not only in *Genesis of a Music*, but also in his essays and concert programs. His view toward these practices demonstrates doubts and disappointment with the course of the Western music since the Middle Ages. For instance, he explains the destiny of a composer shackled by the conventions of the Western musical tradition—in which he found himself prior to his paradigmatic breakthrough—as follows: "Before he [a composer shackled by the conventions] ever writes a note, the most brilliant composer is doomed to a system that is not capable of growth at his hands—or even of elasticity—and thus to a weary sea of worn-out forms, phrases, progressions, cadences, and chords."[4] On the same note, the nonconformist Partch expressed his distaste for not only the avant-garde, but also most of the conventions of the Western musical tradition, including popular music and the academy. He often referred to the Western art music in harsh, bitter, and sardonic remarks, which bolstered the controversies surrounding him. In his words: "The notion that there must be a standard pattern of tonal belief (the piano scale), of behavioral belief (the concert), even of dress belief (ties and tails), without which music cease to exist is a crag so monstrous that it blots out vision."[5] His solution to confront conventions, however,

[3] Partch, *Genesis*, 4.

[4] Partch, "Patterns of Music," 160.

[5] Martin Bernheimer, "Partch: A Latter-day Don Quixote," *New York Times*, September 8, 1968.

proved not to be the experimental or electronic music common of the mid-twentieth century.

Partch disapproved of the abstraction inherent in electronically-produced sounds. Although he used some pre-recorded tapes in a few of his pieces, he found electronic music too "impersonal," asserting: "Man, not machine, is the ultimate instrument."[6] He preferred the actual engagement of the physical human body—in addition to mental presence in the action of composition—during the whole process of creating and performing. Partch formulated his appropriated concept of corporeality, which informs his preference and the revolution that he intended to launch, in the age of the progress of the electronic music at institutions such as Columbia-Princeton Electronic Music Center and Cologne Electronic Music Studio of West German Radio.

Partch articulates his central aesthetic of corporeality—his revolution to renounce the autocracy of the older and contemporary Western tradition—as follows: "I believe in musicians who are total constituents of the moment, irreplaceable, who may sing, shout, whistle, stamp their feet; in costume, always, or perhaps half-naked, and I do not care which half."[7] He pursued his desired corporeality in the hobo folk songs, and in the ancient Greek, Asian, African, or Native American rituals—a path removed from the critics or artists supportive of cutting-edge technological advancements, or the conventions of the common-period music.

Juxtaposed with corporeality, Partch proposes the term "abstraction" to refer to some common forms in the Western art music, such as symphonies and operas, where

[6] Bernheimer, "Partch: A Latter-day Don Quixote."

[7] Bernheimer, "Partch: A Latter-day Don Quixote."

the intricacy of the sound structures or melismatic vocal lines rule over the clarity and intelligibility of the text or the drama. As instances of corporeal music Partch counts stories sung or chanted and poems recited or intoned in folk music and some popular music; dramas, as in early seventeenth-century Florentine music-dramas; ancient or modern dance-music, which tells a story or describes a situation. He considers all purely instrumental music and songs or dramas with words that are not intended to convey meaning, but simply to set the mood of the music, as instances of abstract music.[8]

Partch intended to implement a different sort of reformation to the common musical tradition in comparison to his contemporaries, such as John Cage, who also sought to reform Western art music. Apart from Partch, perhaps no other figure aimed to turn the precepts of the Western musical tradition upside down more than Cage. A comparative explanation of Cage's and Partch's views—two iconoclastic figures of the mid-twentieth century—sheds light on the ways in which Partch's anti-establishment aesthetic differs from the predominant discourses of his time, specifically from Cage's aesthetic. As Michael Broyles accurately demonstrates, both composers maintained vastly different aesthetic convictions.[9] Cage advocated restraining the composer's role in favor of experimentation and fostering spontaneity, whereas Partch sought maximum control over both the creative process and the performance. Dismissing the precepts of aleatoric music Partch mentions: "For me everything must make its own kind of logic.

[8] Partch, *Genesis*, 9.

[9] Michael Broyles, *Mavericks and other Traditions in American Music* (New Haven: Yale University Press, 2004), 203–242.

Everything must be predetermined, systematically preconceived."[10] He elaborates on Cage's experimental music, "I laugh and say, come again? What?—tickling a big brass gong with a toothpick? Drinking carrot juice with an amplified gullet? Prepared piano? Zen Buddhism? (a gimmick that has contributed substantially to a couple of careers.) showmanship? Fine. Innovation? Not for me."[11] As the music critic Martin Bernheimer formulated in 1969: Partch "does not suffer as do many of his contemporaries, from a twentieth-century complex."[12] Rather than conforming to the prevailing Western musical tradition, or to the avant-garde, Partch chose to remain an outsider, absorbing elements from ancient and non-Western practices into his own.

While shunning the common period and avant-garde aesthetics, Partch looked to the past—as far back as the ancient Greek and Chinese cultures—to find inspiration. In his words: "nothing could be more futile or downright idiotic than expressing one's own time. The prime obligation of the artist is to transcend his age, therefore to show it in terms of the eternal mysteries."[13] Reiterating Partch's endeavors to retrieve the corporeal and ritual past, Ben Johnston—Partch's apprentice and long-lasting friend—characterizes Partch's music as "socially conscious." He mentions: "Partch's art is in the best sense of the term socially conscious, encompassing the role of the musician in his community as well as his responsibility to his materials. Whether in his intimate, folk-

[10] Bernheimer, "Partch: A Latter-day Don Quixote."

[11] Bernheimer, "Partch: A Latter-day Don Quixote."

[12] Bernheimer, "Partch: A Latter-day Don Quixote."

[13] Bernheimer, "Partch: A Latter-day Don Quixote."

song-like chamber pieces, or in his large and complex dramatic works, Partch remains the individualist, glorifying the unorthodox, rediscovering the orthodox."[14]

But what is the "orthodox" that Partch rediscovered through his "unorthodox" ways? This crucial question illustrates, in fact, an instance of the descriptive problems that escalated the common misunderstanding of Partch's works. In January 11, 1969, Bernheimer explained in the *Los Angeles Times* that in his view a "complex primitivism" is the orthodox that Partch strives through his very unorthodox "independent 20th-century visions." The orthodox "complex primitivism" refers to the ancient, corporeal music-dramatic traditions that Partch idealized and attempted to rediscover, while his unorthodox intonational system and instruments inform Partch's "independent 20th-century visions." Bernheimer elaborates: "the profundity of Partch's endeavor, with its convoluted mysticism and self-conscious programmatic gestures, remains open to question. But its freshness, vitality, and ingenuity are unmistakable."[15] The "complex primitivism" and "convoluted mysticism" partially emerge from the fact that, as opposed to most composers, Partch single-handedly and meticulously created every element in his dramatic works: the philosophical libretti, the intonational and notational system, the instruments, the music, and even the dramaturgical concepts. In Michael Broyles' words:

> The Partch Myth has taken on several guises: There is Partch the theorist and composer known and written about precisely for his tuning system, the composer who inspired the entire just intonation movement. There is Partch the Orientalist, the man who turned his back on the West and retreated to his parents' adopted roots, Asia. There is Partch the dramatist, the creator of a twentieth-century *Gesamtkunstwerk*, a total

[14] Bernheimer, "Partch: A Latter-day Don Quixote."

[15] Found in Partch Estates Archive, University of Illinois; it is typed on a sheet by Partch himself, where he listed some of the reviews of his music here and there.

> theatrical experience, with roots in ancient Greece and at its heart his music, including his own unique instruments. And there is Partch the defiant, the man who rejected, in one grand epiphany in New Orleans, the entirety of modern Western musical culture, only to start over and to remain ever aloof from Western institutions.[16]

As Broyles implies, these descriptive problems exacerbate the mixed and inconsistent reception of Partch's theories and music throughout his lifetime and beyond.

Drawing an analogy between the aesthetics of composers devoted to the conventions and a "weary sea of worn-out forms," Partch explains his standpoint toward such composers: "before he ever writes a note the most brilliant composer is doomed to a system that is not capable of growth at his hand—or even of elasticity—and thus to a weary sea of worn-out forms, phrases, progressions, cadences, and chords."[17] Whether Partch uses "the most brilliant composer" sarcastically or not, it is safe to say that he dismisses composers, who do not seek ways outside the "abstracted" Western musical culture, and who do not challenge its established paradigms. Articulating this view and his personal wish to challenge the established paradigms of Western musical culture, the young Partch says in 1942: "I hold no wish for the obsolesce of the widely-heard instruments and music. My devotion to our musical heritage is great—and critical. I feel that more ferment is necessary to a healthy musical culture. I am endeavoring to instill more ferment."[18] What Partch devoted himself to, however, proved not to be the predominant musical culture, underpinning of the academic studies of music. He left the academy to find his autonomy.

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[16] Broyles, *Mavericks*, 207.

[17] Partch, "Patterns of Music," 160.

[18] Quoted by Thomas McGeary as an opening to *Bitter Music*.

Partch, in fact, expressed his pessimism toward the academies frequently—a pessimism that led to him dropping out of the University of Southern California, where he begun studying music in the 1920s. Ranting about his acerbic view of the veneration of Bach's music in the academies, Partch cynically suggested the academic degrees of "B.B., Bachelor of Bach; For the female students: M.F., Mistress of the Fugue; D.B., Doctor of Bach; and D.B.D, Doctor of Bachic Divinity;" all of which, as Partch states, would require "the candidates to undergo twelve solid years (one for each scale degree of the twelve-tone equal temperament) of incarceration in a labyrinth lined with Bach biographies, each shelf dedicated to one minute of the master's life."[19] According to Partch, the final degree is supposed to be the B.V.D., Bach Verus Dominus, which would require the candidate to "rewrite the entire *B-minor Mass*—as Partch elsewhere refers to it: the "'*Excuse Me Mass*'"—under massive doses of sodium pentathol."[20]

Opposing every aspect of the academic studies of music, as the following quote demonstrates, Partch saw himself as a "zealot" abandoning the "safe sanctuary" of the Western musical tradition:

> The zealot driving into this wilderness should have more than one life to give: one to create instruments within the tyranny of the five-fingered hand, to play the tones he finds; one that will wrestle with notation and theory, so that he can make a record of what he finds, and give it understandable exposition; still another that will create and re-create significant music for his new-old instruments and in his new-old media; and finally, another that will perform it, give it—as a revelation—to the general wealth of human culture.[21]

[19] Philip Blackburn, ed., *Enclosure 3: Harry Partch* (Saint Paul: American Composers Forum, 1997), 86.

[20] Blackburn, *Harry Partch*, 86.

[21] Partch, "Patterns of Music," 160–161.

Partch, the "zealot," however, did not offer simple renderings of the precepts of the Western music; in his own words, his alternative was rather an "antithesis." Although Partch's fundamental aesthetic of corporeality is reminiscent of significant historical models, ranging from ancient Greek, or Chinese rituals, to the Florentine and Wagnerian dramas, it is not a mere imitation of these models. He consciously attempted to justify his original aesthetic through addressing these prototypical models in the course of history, particularly in the first chapter of his treatise *Genesis of the Music* (1949-1974). The following examination of Partch's discourse about his reception of the history of Western music—what he approved and what he dismissed—will, in fact, lead to a better assessment of his own aesthetic standpoints.

Partch's conceptions in his major dramatic works such as *Oedipus*, *The Bewitched*, and *Delusion of the Fury*, derive from the way he characterizes Greek drama. In *Genesis of the Music*, Partch begins his critical discussion of the Western musical culture, expounding upon the ancient Greek drama—his enduring ideal of a corporeal, integrated theatrical music:

> For the Greeks the noblest purpose of music was to enhance drama. Dramatists were frequently the composers of the music for their words. This music took the form of recitative in some of the dialogue, accompanied note for note by aulos or kithara or both. In the economy of accompaniment, the words were perfectly understood by the audience. There were also lyrical passages and, at critical dramatic points, floods of music, by chorus, actors, and instruments.[22]

Partch observes that even Plato noted a trend toward the abstraction of the Greek musico-dramatic archetypes. He exalts every historical case where thinkers attempted to revive such archetypes. He, therefore, underlines the efforts of the *Florentine*

[22] Partch, *Genesis*, 10.

Camerata to restore Greek paradigms in their operas and monodies. Discussing the theories of Galilei as realized in the music of Caccini and Monteverdi, Partch explains the rebellious practice of the Florentine composers, who pursued a corporeal theatrical music based on Greek dramatic models. In these dramas, the voice of an individual, which presents the essence of the drama, is the target of the unified artistic aspects.

Partch elaborates on the Florentine rejection of the abstract, polyphonic vocal lines, stating:

> The first "operas" in the Florence of about 1600, which in expressed theory have so little in common with opera as currently practiced, were a reaction, a rebellion, an insurgence, written by composers who happened also to be scholars and aristocrats. In general terms the movement was the scholars' counterpart of the troubadours' reaction to the dry theology and restrictive bans of the Church, but it was specifically a reaction against word distortion in the florid secular polyphony and word distortion in the restrictive liturgical polyphony.[23]

Partch perceived the early-seventeenth-century operas, for instance Monteverdi's works, as efforts to turn away from the intricate polyphony of the late Renaissance toward the Greek ideal of a single, intelligible vocal melody and accompaniment, which, does not have much in common with the late-Romantic or early-twentieth-century opera. Intending to challenge the melismatic texts of Renaissance music—as did the Florentine masters—Partch articulated the importance of capturing all the inflections of spoken words. He, therefore, designed his intonational system consisting of forty-three tones, which granted him the ability to intone the text as clearly and thoroughly as possible, and to assign the music the task of harmonizing the text. In his own words:

> Some seventeen years ago I abandoned the traditional scale, instruments, and forms in toto (I had begun to abandon them as early as 1923), and struck out on my own. I came to the realization that the spoken word was

[23] Partch, *Genesis*, 21.

> the distinctive expression my constitutional makeup was best fitted for, and that I needed other scales and other instruments.[24]

According to Partch, the accompaniment-music and the text intoned by the voice of an individual shall work hand-in-hand to depict the essence of the dramatic content.

Partch's critical view of the canonical Western composers as a means to justify his own paradigmatic shift extends also to Bach and Beethoven. He scorned, for example, Bach or Beethoven for the musical abstraction realized in their instrumental works, or in their vocal works where the dramatic text is less significant than the instrumental lines; in Partch's words: "The drama and the intimacy of the individual are superseded by a different esthetic or sociological quality."[25] He favored individual efforts of Berlioz or Mussorgsky, among others, where the corporeal drama and the voice of the individual—as Partch formulates it: a monophonic concept—play a major role. Although Partch dismisses the grand symphonic orchestras accompanying Wagner's operas, he praises Wagner for his emphasis on an integrated music drama—conceptualized as his concept of *Gesamtkunstwerk*— where all the artistic elements serve the essential dramatic content.[26] Explaining the flaw that he perceived in Wagner's music dramas, Partch mentions: "It is sufficient to note that Wagner defeated himself (in the light of the Corporeal) by prescribing a full symphony orchestra—the right bower of the Abstract concept—as an accompaniment to the subtle drama of spoken—that is, musically declaimed—words, a situation which goes the limit in human contradiction."[27] As instances of post-Wagnerian music in *fin de siècle* Vienna that he

[24] Partch, *Genesis*, 5.

[25] Partch, *Genesis*, 7.

[26] Partch, *Genesis*, 28–33.

[27] Partch, *Genesis*, 31.

appreciated, in *Genesis of a Music* Partch addresses the indispensable supremacy of the dramatic spoken words in Mahler's *Das Lied von der Erde* and Schoenberg's *Pierrot Lunaire*. He sets apart these two works from Mahler's and Schoenberg's other works, considering them as exceptions of corporeal drama in the Austro-German school at the turn of the twentieth century.[28]

Advocating his own aesthetic, Partch's historical discourse includes his American experimental peers, as observed in the case of Cage. By documenting the American hobo culture while living as one for years, and by composing pieces based on hobo experiences, texts, and songs, using his idiosyncratic intonational system and instruments imbued with American experimental spirit, Partch forged an identity as an American composer unlike any of his contemporaries. As Andrew Granade argues, Partch's music became conceptually American, as opposed to using American themes or melodies as decorative elements within the apparatus of common Euro-American art music. To elucidate the magnitude of Partch's cultural and artistic value in the United States, Granade articulates that Partch's conceptual exoticism and his documentary imagination were unprecedented. The fact that Partch collected and set the inflections of hobo texts to music while he was hoboing grants his works an exoticism that emerges from the existential underpinnings of the American folk culture.[29] In Granade's words: "Partch presents life as hoboes lived it and allows the audience to infer what it will."[30] He demonstrates that decorative exoticism, that is, the superficial integration of

[28] Partch, *Genesis*, 34–40.

[29] Partch lived as a hobo among the multitude of unemployed, homeless men during the Great Depression and after, from 1928 to 1943.

[30] S. Andrew Granade, *Harry Partch, Hobo Compose*r (Rochester: University of Rochester Press, 2014), 12.

folk elements within the apparatus of Euro-American art music, deviates from Partch's complete immersion in the U.S. folk tradition in pieces such as *Barstow*, *U.S. Highball*, or *The Letter*. On the other hand, even as he lived it, Partch was also documenting hobo culture. His direct engagement with hobo songs took on the aspects of documentary, as we observe in his *Bitter Music*—a musical, visual, and literary journal of his hobo years (see Figures 2.1, 2.2, and 2.3). The unparalleled conceptual exoticism of Partch's aesthetic and music gave him a ground to criticize the scene of the modern electronic and experimental music in the United States, again, as a way to justify his own approach.

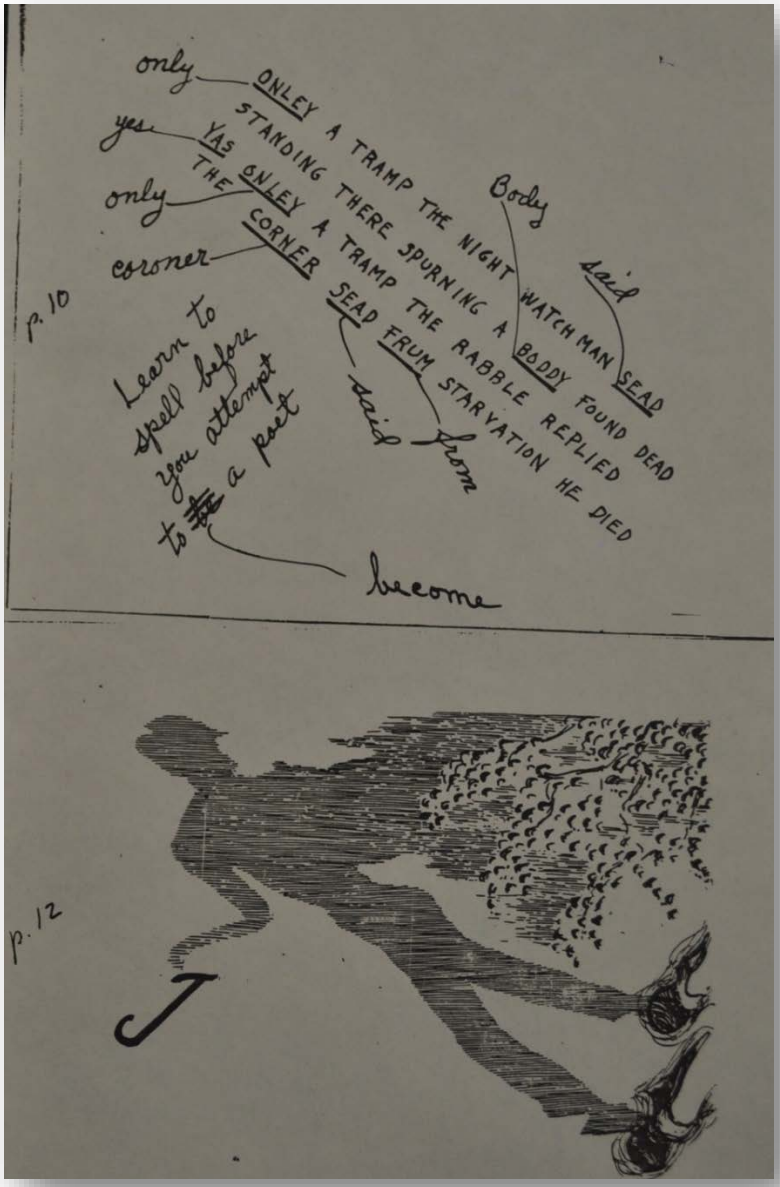

Figure 2-1. *Bitter Music*; Harry Partch Estate Archive and Harry Partch Collection, Sousa Archives and Center for American Music, University of Illinois.

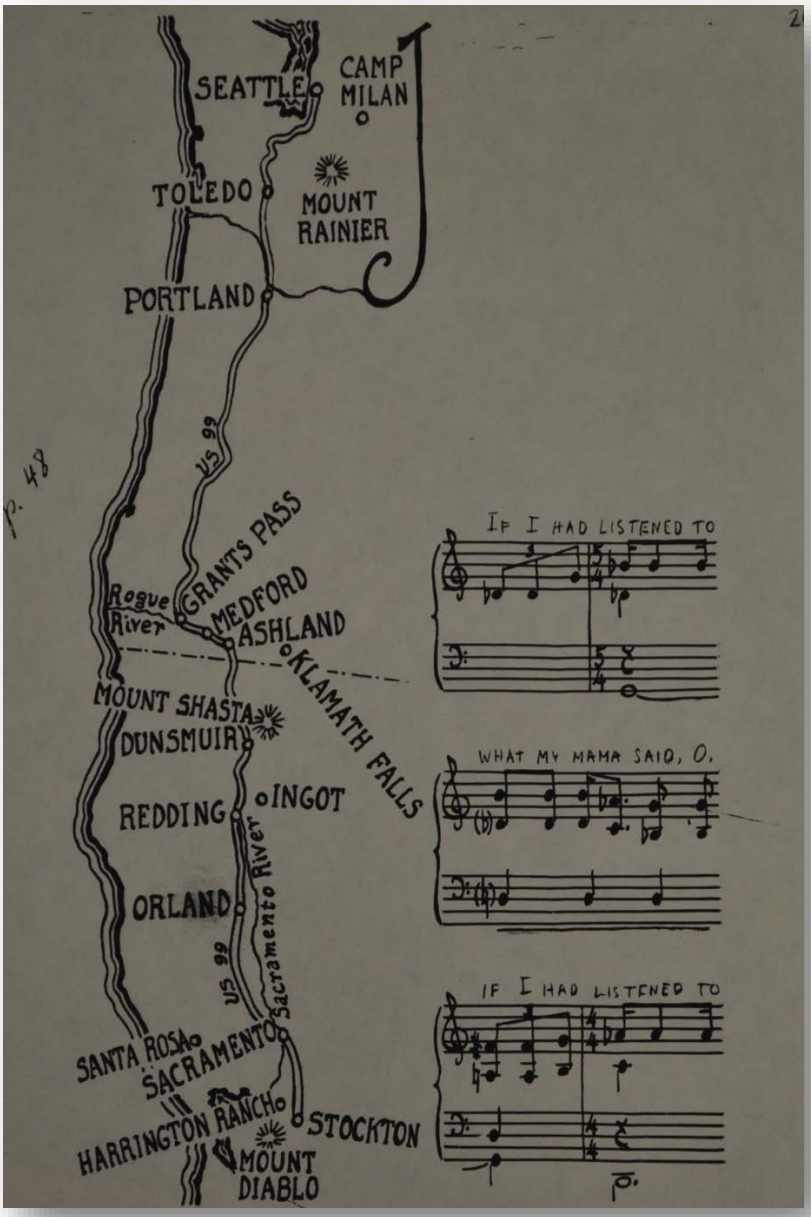

Figure 2-2. *Bitter Music*; Harry Partch Estate Archive and Harry Partch Collection, Sousa Archives and Center for American Music, University of Illinois.

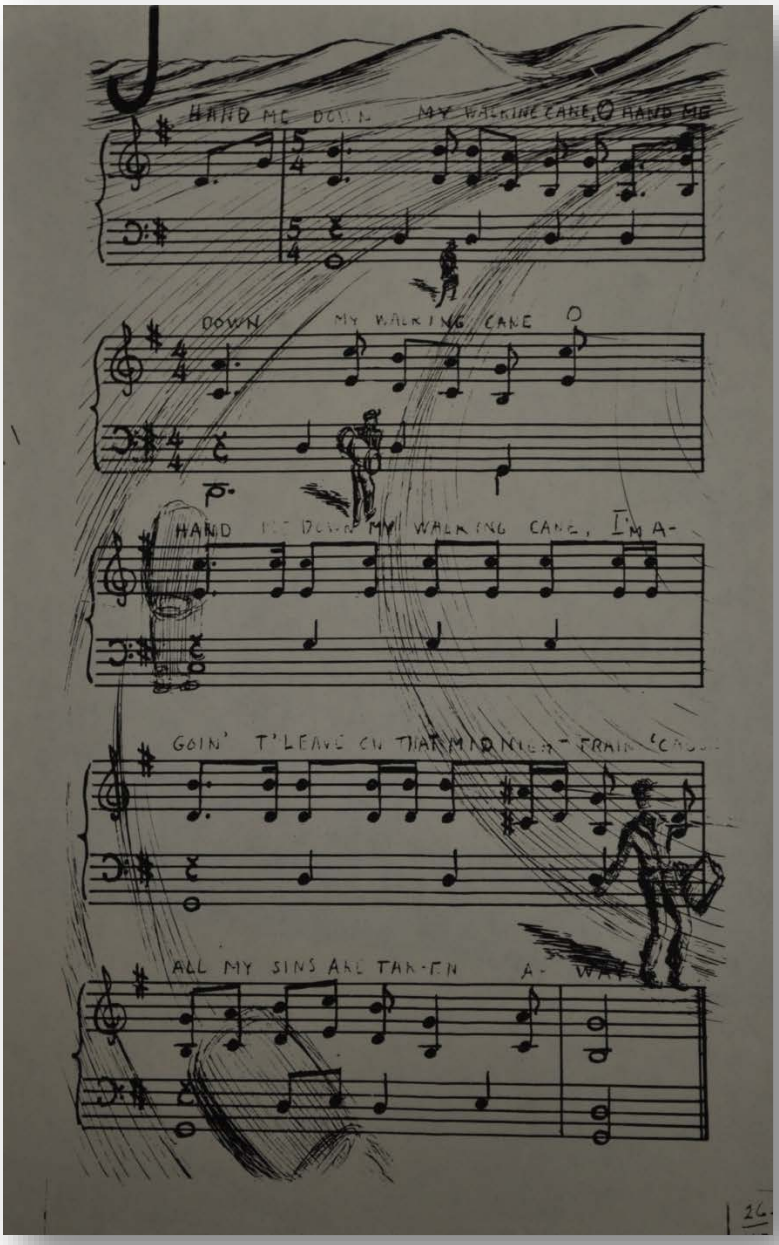

Figure 2-3. *Bitter Music*; Harry Partch Estate Archive and Harry Partch Collection, Sousa Archives and Center for American Music, University of Illinois.

In his book, Granade expounds upon the cultural value of Partch's musical documentary imagination, rightfully setting Partch alongside such figures as Dorothea

Lange in photography and John Steinbeck in literature, who contributed to the documentation of the hobo, transient, and migrant traditions.[31]

Explaining the sorts of texts that he set to music in his unique speech-music style, Partch elaborates on his experience as a hobo as follows:

> I set lyrics by the eight-century Chinese Li Po, intoning the words and accompanying myself on my Adapted Viola, scenes from Shakespeare, Biblical Psalms; later, drawing on my experiences as a wanderer, I wrote music exploiting the speech of itinerants (*Bitter Music*), hitchhiker inscription copies from a highway railing *(Barstow)*, a cross-country trio (*U.S Highball*), and newsboy cries (*San Francisco*), generally using an ensemble of my own instruments.[32]

This remark illuminates the vast extent to which Partch's aesthetic hinges not only upon his years of hoboing during the era of the Great Depression, but also upon his affection for non-Western, ritual, and ancient musical cultures. This dependency extends from Partch's smaller speech-music pieces to his corporeal theatrical music such as *Oedipus*, *The Bewitched*, and *Delusion of the Fury*. As the following chapters of this dissertation will demonstrate, Partch intertwined non-Western cultures, for example Japanese Noh tradition and Ethiopian folk tales, in his ambitious dramatic conceptions.

Stahnke's Music-Philosophical and Aesthetic Views

Manfred Stahnke, a key figure of microtonality, has established microtonal structures as substantial tools to create not only instrumental pieces but also dramatic music. Stahnke has elevated microtonality from a mere structural element to a paramount mode of mediating the essential philosophical, mythical, and psychological connotations of his music. As a pupil of Ligeti, Stahnke was influenced by Ligeti's

[31] Granade, *Harry Partch*.

[32] Partch, *Genesis*, 6.

constant curiosity for diverse tonal systems and rhythmical organizations in various musical cultures, as well as his experiments with intonation and tuning, among other concepts. In the late 1970's, Stahnke also studied in the United States with Harry Partch's apprentice, the microtonalist Ben Johnston, inheriting Partch's just intonational legacy from Johnston. Akin to Partch's and Johnston's music, structures based on just intonation have, consequently, underpinned many of Stahnke's pieces, including his four major stage-works. We can, therefore, draw a direct lineage between Partch and Stahnke, as I will constantly do in this dissertation. Although both Partch's and Johnston's just intonation and Ligeti's view of the process of composing as analogous to scientific research have had major imprints upon Stahnke's thinking, his own personal hybrid, flexible, and non-dogmatic compositional approach has evolved. [33] In his own words:

> Basically, I do not tend to work within the tradition of the European microtonality, e.g. *Hába*, Wyschnegradsky, but rather the American one (Partch and Johnston). […] Yet, I dismiss Partch's idea that the pure intervals could be precisely-realized without any beating. On the contrary, through working with computers, I have experienced that impurity, to some extent, "lends soul" to sound. With his chromelodeon, a de-tuned reed organ, Partch intended to generate pure sounds up to the eleventh partial. I believe that the absolute purity of intervals is just a utopia. [34]

[33] By making analogy between scientific research and his way of composing music, Ligeti by no means meant to state that the precepts of scientific research and composition are the same. But he rather saw them analogous in the sense that the composer would ask a critical musical question, or would tackle a new and curious compositional structure, or would search to find new tonal horizons; then, he would work to find a musical solution, and to make sense of his tonal structure. See Manfred Stahnke, "György Ligeti und Manfred Stahnke: Gespräch am 29. Mai 1993," in *Musik - nicht ohne Worte*, ed. Manfred Stahnke (Hamburg: Von Bockel, 2000), 121–152.

[34] "Die Richtung, in der ich arbeite, folgt grundsätzlich nicht der europäischen Mikrotontradition (wie etwa Hába, Wyschnegradsky usw.), sondern eher der amerikanischen (Partch, Johnston). […] Ich versuche jener Vorstellung Partchs aus dem Weg zu gehen, reine Intervalle seien am besten bei totaler Schwebungsfreiheit, also 100% exakter Realisierung. Im Gegenteil habe ich bei meiner Arbeit mit Computern die Erfahrung gemacht, dass erst gewisse Unreinheiten den Klang „beseelen". Partch wollte bei seinem „Chromelodeon" [einem umgestimmten Harmonium] Schwebungsfreiheit bis hinauf zu Intervallen mit dem 11. Ton erzielen. Ich erkenne die pure Reinheit der Intervalle aber als Utopie." In

Stahnke's compositional approach, hence, projects as a constant effort to avoid being shackled by any compositional or artistic ideology and mannerisms, even in regard to microtonal configurations.[35]

Stahnke's experiments with microtones, intonations, and tunings are utterly in line with his music philosophy. In fact, he does not confine himself within the boundaries of the twelve-tone equal temperament, other renderings of equal temperament, e.g. twenty-four-tone and thirty-six-tone equal temperaments, or even just intonation. He is steadily in search of new tonal structures inspired by folk musical traditions combined with the possibilities that the spectrum of partials grants him, while experimenting with electronics, micro-rhythms, tunings, intonations, and other kinds of equal temperaments.

From the early 1980s to the early 2000s, Stahnke's artistic mindset went through a gradual shift from a sort of "monotone" thinking to a rather "critical" one. In other words, his microtonal structures solely based on just intonation evolved into structures, where he took intonational elements from non-Western musical culture to critically challenge his rigid just-intonational fabrics. The way Stahnke has resynthesized improvisation and non-Western rhythmical patterns in his music also inform his gradual transition from a monotone to a critical aesthetic approach, where he constantly questions and revises his aesthetics. Stahnke came to the USA in 1980 to study with Ben Johnston at the University of Illinois, where he examined Partch's theory of just

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Manfred Stahnke, "Mein Weg zu Mikrotönen," *Musik-Konzepte-Musik der anderen Traditionen: Mikrotonale Tonwelten* Sonderband (2003), 129. Hereafter, all translations are mine.

[35] Here, I have used "Mannerism" to imply the repetitive, or habitual, mode of artistic creativity. It does not refer to the infamous artistic style in the sixteenth century.

intonation—his initial impulse to delve into world of microtonality. He began to research and compose pieces to experiment with just intervals of, among others, 5/4 (just major-third), 7/4 (just minor-seventh), or 11/8 (just tritone). His opera *Der Untergang des Hauses Usher* (1981)—his first theatrical work, based on Edgar Allen Poe's *The Fall of the House of Usher*—originates from around the same time. Returning to Germany, the ensemble that he—in collaboration with Ligeti's other students—founded, was an attempt to demonstrate, among other aspects, their innovative microtonal experiments with just intonation. The Ensemble Hamburg (later Ensemble Chaosma) led Stahnke to several countries, where, through ethnological research, he collected microtonal music beyond the boundaries of just intonation—for example the strange microtonal pentatonic scales of the Andes, or the microtonal equidistant pentatonic scales in the Indonesian Slendro.

As a result of his ethnomusicological research, in addition to his constantly-increasing interest in the world of computer music, Stahnke's aesthetic horizon expanded. He reflected on his aesthetic by asking himself:

> What is the phenomenon of 'tone' at all? How can we organize the tones? Is tone a fixed phenomenon? Don't the tones constantly shift? Can I logically delve into an unstable tonal world? Should I confine myself within a certain mannerism? Or should I remain open? But what happens when I am open? Don't I lose my safety?[36]

[36] Paraphrased and summarized from: "Da entsteht die Frage: Was ist überhaupt der Ton? Wie kann er geordnet werden? Ich kam dann sehr schnell in ein Feld hinein, eigentlich eine Art „wässrige" Umgebung, wo der Ton keinen festen Ort haben muss, sondern eigentlich unendlich flexibel behandelt werden kann. Das führte in meiner Komposition aber zu sehr starker Infragestellung: Plötzlich habe ich gar kein System mehr, also auch kein System wie „Naturreine Stimmung" („Just Intonation"), das geht verloren. Letzteres ist sozusagen ein extremer Punkt, fast wie ein Kristall. Slendro z.B. war für mich nur ein mögliches System. Alle Systeme, die ich dann bis Ende der 90er-Jahre erfahren habe, waren dann eigentlich nur Eckpunkte, die ich in ein „wässriges" System von großer Flexibilität reingeschmolzen habe. Meine große Frage ist entstanden: Habe ich überhaupt einen Ton? Ändern alle Töne sich nicht stetig? Kann ich sinnvoll in eine Welt, die keine Stabilität mehr hat, reinsteigen? Es entsteht die grundsätzliche Frage, die eigentlich jeder Komponist an sein eigenes Denksystem stellt: Ist das sinnvoll? Wo stehe ich überhaupt? Darf ich mich in so einen Manierismus hineinsteigern? Also Manierismus als Beengung eigentlich, als Stil

These critical questions guided Stahnke to an inclusive aesthetic standpoint, where his tonal fields are not limited to any particular intonational system, and rhythmical, technological, and extra-musical aspects of his compositions are flexible, not bounded by any specific approach; in his own words, a "*wässriges System"*: a fluid, or pliable, system.

As a composer, Stahnke has always cultivated two parallel compositional worlds: one of precisely-constructed microtonal proportions and harmonies, and at the same time, improvisation. Several of his pieces, in fact, emerge from his transcribed improvisations on the piano (or Disklavier) as a contrast to his meticulous just-intonation fabrics. Articulating his parallel compositional worlds, Stahnke says: "I believe that we should always remain multifaceted and should always have diverse worlds, to avoid boring and disgusting ourselves by constantly repeating ourselves."[37] In line with his artistic philosophy, since the early 1980s, Stahnke's compositional approaches have demonstrated his inclination toward research, recombining, and resynthesizing microtonal and micro-rhythmical elements from various musical traditions. Stahnke's music demonstrates, in fact, both pure, well-proportioned mathematical structures, as much as the spontaneity and freedom imbedded in improvisation; in other words, strict structuralism vs. rejection of structuralism; a floating position in-between hermetic art and the primordial charm of folk traditions. Both of these seemingly contrasting aesthetics are evident not only in Stahnke' chamber music, but also in his stage works.

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oder als Denkweise. Oder sollte ich nicht offenbleibe? Aber was passiert, wenn ich offen bin? Verliere ich dann nicht alle Sicherheit? Geht der Boden unter meinen Füßen nicht verloren? " In Navid Bargrizan, "Aspekte mikrotonaler Komposition" (Master's thesis, University of Hamburg, 2012), 104.

[37] "Ich glaube, dass wir immer reich sein müssen und auch immer verschiedene Welten haben müssen, damit wir uns selbst nicht langweilig sind und uns durch Wiederholung vor uns selbst nicht ekeln." In Bargrizan, "Aspekte mikrotonaler Komposition," 98.

In *Orpheus Kristall*, for instance, the way he juxtaposes sections consisting of rhythmical figures played by the African percussion instruments and the just-intonational sections attests to this approach. In both *Der Untergang des Hauses Usher* and *Heinrich IV*, Stahnke's use of equi-pentatonic and equi-heptatonic scales, common in some non-Western musical cultures, on top of just intonation, demonstrates how he constructs pieces based on re-synthesis of his two compositional approaches.

Expressing his distaste for an artistic philosophy saturated by conventions and aloof to research, Stahnke expresses:

> In the West, our tendency to construct systems has forced us to the conviction that the equal temperament is the standard state. We constantly seek standardization. We seek rules, because the flow of the [unknown] nature intimidates us. It's a pity that humans confine themselves within small categories. In other words, simplification! Red or green; not the whole range of colors between these two poles.[38]

To avoid simplification and standardization of systems, Stahnke has viewed the notion of culture as a conglomerate of diverse components. He has constantly sought ways outside the exclusive norms of Western musical culture; he strives for the hybridization of approaches (*Hybridisierung des Denkens*).

Another significant constituent of Stahnke's music philosophy is the concept of self-reflection. About self-reflection in his theatrical music, Stahnke asks: "What is theater? Theater shows us something. But because it is like a mirror, it shows us to

[38] "Wir haben durch Systembildung im Westen, auch durch Fixierung auf das Klavier, durch die Stimmung des Klaviers, durch gleichschwebende Temperatur, unsere heutige Temperatur, gedacht, dass das sozusagen der Standard ist. Wir suchen immer Standardisierung, wir suchen nach Gesetzen, weil wir zu große Angst vor dem Fluss der Natur haben. Überall verengen sich die Menschen in kleinen Kategorien und bleiben drin, und das ist leider sehr schade! Vereinfachungen! Es gibt Rot und Grün, also nicht die super Bandbreite zwischen diesen Farben." In Bargrizan, "Aspekte mikrotonaler Komposition," 103.

ourselves."[39] Expressing his affection for an art, which, like a mirror, reflects us back to ourselves, Stahnke elaborates: "Making music is the possibility for me to reflect on myself; simply to reflect on what I have perceived, and on what I have not. It gives me the chance to see and recognize my limitations very clearly."[40] Relating the concept of self-reflection to the notion of madness—a recurring fundamental element in all of his operas—and to his music-philosophical views, Stahnke states:

> If we scrutinize our mind and actions, we see that everything we do is a sort of a preoccupation with ourselves. Then, we might figure out our sane and insane dimensions. What are my insane aspects? Why do I compose such a music that is difficult to be performed and to be accepted? Why do I make it difficult for myself? Why am I insane? Why not write a simpler music that is easier to tune, and easier to be acknowledged by others? It can be the case that we compose as therapy for ourselves; to find and define ourselves.[41]

Speaking of self-reflection, a sort of music that captivates the listener by its emotional lure does not appeal to Stahnke. He seeks to reflect on his personal and cultural existence by building structures which grant himself and the listeners the chance to keep their distance, to contemplate, and to reflect on the ontology of the art, the function of art in society, and its cultural importance. According to Stahnke's music philosophy, being confined within systems, without the urge to conduct research, leads to

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[39] "was ist ein Schauspiel? Ein Schauspiel zeigt uns etwas, aber weil es wie ein Spiegel ist, zeigt es uns selbst." (Navid Bargrizan, Interviews with Manfred Stahnke, summer 2015.)

[40] "Musik zu machen ist eine Möglichkeit für mich, sich zu reflektieren; Einfach zu reflektieren, was ich bisher verstanden habe, oder wo ich eine Unmöglichkeit sehe etwas zu verstehen; Ich sehe ganz klar meine eigene Begrenzung, die ich akzeptiere." (Bargrizan, Interviews with Manfred Stahnke.)

[41] "Wenn wir uns wirklich tief mit uns selbst beschäftigen, alles was wir tun, ist eine Selbstbeschäftigung. Dann wirst du vielleicht selbst sehen, was ist Normalität, und was ist Wahnsinn. Was ist an dir selbst wahnsinnig? Warum schreibst du solch eine Musik, die eigentlich so kompliziert zu spielen ist, zu stimmen ist, zu akzeptieren von den anderen ist. Ich mache es mir schwer. Warum bin ich so wahnsinnig? Und warum mache ich nicht einfachere Musik? Sehr merkwürdig, wie Menschen sind! Es ist wahrscheinlich so, dass wenn wir selbst etwas bauen, wir vielleicht uns therapieren; uns selbst finden, uns selbst definieren." (Bargrizan, Interviews with Manfred Stahnke.)

commercialization, the most detrimental hazard facing art. Commercialized art loses its value as a constituent of the culture, and facilitates the evolution of a society insensible to the cultural nuances and subtleties. In his music, Stahnke seeks to avoid commercialization, while enabling the listeners to reflect on its threat.

Explaining the above-mentioned aesthetic, Stahnke expresses his distaste for the overwhelming and hypnotic magnetism of Wagner's music, as follows:

> I would like to take distance. Am I influenced by Bertolt Brecht, who also seeks distance? In the theatrical music, even though I see the possibility of a sort of a medial reflection, I dislike the aspect of Wagner's music, which overwhelms the listener; which sucks you in; from which you cannot liberate yourself. I, therefore, despise the endlessness of *Tristan und Isolde*, although its concept and its music are fantastic.[42]

Juxtaposing the duality of composed microtonal structures vs. improvisational sections, Stahnke views music as a means to produce distance and to facilitate self-reflection. Expounding upon the juxtaposition of microtonality and improvisation in his opera *Heinrich IV*, Stahnke mentions:

> In *Heinrich*, the medieval [entertainment] music illustrates the medieval narratives in the plot. On the other hand, the synthesizer not only displays the superficial aspects of Mathilde's soul as much as the superficiality of today's world, but it also produces tempered jazz chords on top of the microtonal strings, or harp, to generate a contrasting position; a dichotomy of realities. I see the danger of my [sheer] microtonal *wässriges System* in *Heinrich*, without creating distance and building a contrasting stance to reflect on it. In *Heinrich*, I seek the multi-phony of postures (*Multiphonie von Haltungen*).[43]

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[42] "Ich möchte immer eine Art Abstand. Bin ich beeinflusst von Bertold Brecht, der auch Abstand sucht? Also das Theater hat eine ganz andere Befindlichkeit: die Uneigentlichkeit des Theaters. […] Das sehe ich auch als eine Möglichkeit für mich, dass Musik, wenn sie klingt, nicht was Wahres ist, sondern sie muss als etwas Reflektierendes erscheinen. Alles ist doch eine Art mediale Reflexion. Aber das ist kein Eintauchen wie bei Wagner in eine Überwältigung. Vielleicht könnte man sagen, dass ich die Überwältigung hasse; dass ich dann wie eine Droge Musik mache, um die Hörer einzusaugen; und sie können sich nicht befreien. Ich hasse deshalb diese Endlosigkeit von Tristan, obwohl die Idee und die Musik fantastisch sind." (Bargrizan, Interviews with Manfred Stahnke.)

[43] "Also in Heinrich ist die Mittelaltermusik eine Illustration von Mittellalterkomponente in der Geschichte. Oder der Synthesizer ist nicht nur die Seele der Mathilde oder ein Zeichnen vom oberflächlichen Heute.

In other words, Stahnke seeks the confrontation of his hermetic microtonal fabrics and the flexibility of improvisation, the extreme concrete and extreme abstract; in his words, he "dances upon possibilities."[44]

Emphasizing his desire for a sort of a positive naiveté, which enables him to reflect critically on his precisely-constructed microtonal configurations, Stahnke points to Partch's early pieces and their influence on his own compositional approach, as follows:

> Partch's early pieces, which are not as professional as *Delusion*, have a peculiar charm, like a child who gradually explores the world. I know this charm, and I sometimes try to reach it in my works consciously. I try to retrieve the naiveté constantly. One of my favorite poets, the Russian Daniil Kharms [1905–1942], talks about the concept of "half-illiterate siskin"; the siskin is illiterate, but he has learned the alphabet to some extent, and he reproduces what he has learned; yet not so skillful and adept.[45]

This sort of an intentional self-reflective approach, as opposed to Stahnke's intricate microtonal structures, derives partially from his avid interest and consistent research into non-European musical traditions. Since the early 1990's, Stahnke has emulated intonational and rhythmical elements from these traditions—e.g. Slendro, Gamelan, Andes, Persian, and African—not only into his multi-layered instrumental pieces, but

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Sondern dadurch, dass Jazz-Akkorde in Temperierung über die mikrotonalen Streicher oder Harfe schwanken, schafft er eine Dualität von Wahrhaftigkeit über dem, was die Streicher machen. Also ich sehe die Gefahr, dass die mikrotonale wässerige Welt in einer komponierten positiven mikrotonalen Welt käme ohne Abstand. Das ist die Multiphonie von Haltungen, die ich eigentlich in Heinrich suche." (Bargrizan, Interviews with Manfred Stahnke.)

[44] "Bin ich vielleicht ein Tänzer über Möglichkeiten." (Bargrizan, Interviews with Manfred Stahnke.)

[45] "Die frühen Sachen Partchs, die nicht so professionell sind wie *Delusion*, haben einen Charme des Frühen; des Ersten; des Kindes, das eine Welt entdeckt. Ich kenne das und ich versuche das bewusst manchmal zu bauen. Ich versuche das Naive, das Unverstandene, immer wieder zu holen. Der russische Dichter Daniil Kharms, den ich sehr liebe, hat das Konzept von „halb-analphabetischem Zeisig." Er ist analphabetisch, aber hat schon was gelernt und erzählt, was er gelernt hat; Allerdings nicht wirklich von der Warte des Könners oder Professionellen." (Bargrizan, Interviews with Manfred Stahnke.)

also in his theatrical music such as *Orpheus Kristall* and *Heinrich IV*, as I will demonstrate in the next chapters.

Self-reflection enables Stahnke to challenge the commercialization of Western music. For him, rather than being just means of entertainment, music has the pertinent role of enriching his understanding of nature and history. Explaining his distaste for commercialization and relating it to his critique of the commercialized contemporary composers, Stahnke mentions:

> Western music is commercialized; hence, it is doomed! Music has always been a metaphor for the universe, as we clearly see in the ancient Greeks by Pythagoras for example, or in the medieval times, or the contemporaneous Indian music. Music has mirrored the divine principles of the world. We observe this, for instance, in the Platonic and astronomical aspects of music. Nowadays, it would have been great if music would not only have been a type of entertainment, but also a means of returning to the natural principles of the world, far from commercialization. I am glad to explore new elements, which I am not familiar with. I have a hard time understanding Penderecki's and Berio's late phase, or even certain piano pieces, where I would like to ask the composers: 'Schumann did that beautifully! Why do you repeat it?' When something works well, some people keep on repeating it; like Arvo Pärt, for example. Ligeti was different, though! He constantly attempted to find new ways. Real art means to abandon the already-established ways, as did Picasso constantly![46]

Stahnke's questioning, critical, and hybrid *wässriges System*—his aspiration for recombining and re-synthesizing the mathematical proprieties of the phenomenon of

[46] "Die Westliche Musik ist kommerzialisiert und damit tödlich! Das Erhalten der Freiheit ist wichtig! Musik war immer eine Art Gleichnis; im Mittelalter ein Spiegel des göttlichen Prinzips der Welt. Zum Beispiel ist Musik bei Pythagoras ein Bild des Universums. Das ist so bei den Griechen ganz klar; oder bei der heutigen indischen Musik; Platonische und astronomische Aspekte der Musik. Das wäre schön, dass Musik nicht nur ein Unterhaltungsmittel wäre, aber ein Transportmittel; ein Weg zur Welt zurückzukommen; Wegzukommen von Kommerzialisierung. Ich bin immer froh im Entdecken von den Dingen, die ich nicht kenne. Das ist nicht einfach für mich, den späten Penderecki zu verstehen, oder den Berio von Wassermusik, oder bestimmte Klavierstücke, wo ich sage, Leute! Das hat Schumann so schön gemacht! Warum macht ihr das nochmal. Wenn etwas einmal funktioniert, bleiben die Leute dabei. Arvo Pärt bleibt bei sich! Ligeti war doch anders! Er hat immer wieder versucht, neue Sachen zu finden. Die wirkliche Kunst ist, wegzugehen! Wie bei Picasso! " (Bargrizan, Interviews with Manfred Stahnke.)

sound with intonational or rhythmical elements of non-Western musical culture on top of improvisation—informs his inclination to comprehend the physical and cultural dimensions of the world, and his urge to avoid superficiality and intellectual stasis imbedded in commercialization.

Partch's and Stahnke's Music Philosophies and Aesthetics Juxtaposed

Even though Partch's legacy—his theoretical research and innovations as much as his concept of corporeality and his keen desire to explore the distant musical cultures—left a major imprint on Stahnke's aesthetic approaches, their music philosophies also feature significant discrepancies. What, then, are the analogies and correlations as well as the differences and incongruences of Partch's and Stahnke's aesthetic standpoints? The following comparative analysis aims to establish the lineage from Partch to Stahnke, as much as it aims to illuminate the contrasts in their music philosophical points of views and aesthetic *modus operandi*.

Aspiring to create novel sound structures that will expand the tonal boundaries imposed by the twelve-tone equal temperament stands out as the most significant mutual music-philosophical view of both composers. Studying Helmholtz's *On the Sensation of Tone* took Partch's path to the examination of the acoustical phenomenon of tone—the physical spectrum of the natural sounds—realized in his 11-limit just intonation and the language of ratios.[47] Somewhat similar to Partch, Stahnke's long-lasting curiosity for investigating the issue of intonation, as much as his exposure to

[47] Hermann Ludwig Ferdinand von Helmholtz, *Lehre von den Tonempfindungen als physiologische Grundlage für die Theorie der Musik* (Braunschweig: Druck und Verlag von Friedrich Vieweg und Sohn, 1863); translated to English by Alexander J. Ellis, under the title: *On the Sensation of Tone as a Physiological Basis for the Theory of Music* (London: Longmans, Green and Co., 1875).

Ligeti's critical compositional mindset, took him to Illinois in 1979, where he witnessed Ben Johnston's teachings of Partch's theories. Since then, the properties of natural harmonics, just-intoned configurations, and the mathematical language of the ratios have become essential elements in Stahnke's compositional toolbox. Thinking in terms of the pure ratios of the natural harmonics, embedded in the spectrum of partials, and the microtonal relationships emerging from these ratios, therefore, demonstrate an integral correlation between Partch's and Stahnke's aesthetics.

On the other hand, both composers have sought to find inspirations beyond the safe zone of common Western musical practices in non-Western cultures. While Partch's scrutiny extended mostly to the ancient Greek and Chinese aesthetic as well as the theatrical and music theoretical concepts, Stahnke, in addition to emulating Partch's approach, explored Andeans, Indonesian, African, and Persian musical cultures, among others. Whereas the microtonal and micro-rhythmical concepts of these non-Western traditions, as well as their characteristic scales and exotic instruments, have frequently found their way into Stahnke's compositions for common Western ensembles, Partch constructed his whole squad of visually-spectacular and acoustically-compelling instruments to emulate non-Western elements in his compositions.

On the same note, both composers have been fascinated with marginalized musical cultures. While Partch not only lived as a hobo, but also synthesized hobo culture in his music, in the case of Stahnke, we observe his tendency toward the artists existing outside the mainstream in his passion not only for Partch, but also Edgar Allen Poe—an author who was perceived as an outsider during his life, and whose works

Stahnke explored in two of his theatrical pieces: *Der Untergang des Hauses Usher* and *Wahnsinn das is die Seele des Handlung*.[48]

Stahnke's instrumental pieces inspired by street musicians demonstrate another form of his re-synthesis of marginalized cultures.[49] Underlining his enthusiasm not only for Partch's precisely-constructed intonational system and instruments based on natural physics, but also for Partch's role as an observer, collector, and integrator of marginalized cultures, Stahnke mentions: "Partch had also these two worlds: precisely-constructed intonation, but also the freedom and discovering the nature. [Like Partch] I also look for various situations."[50] "Various situations" means for Stahnke the critical juxtaposition of the mathematical just-intoned proportions, improvisation, and concepts taken from non-Western and outsider traditions, all of which are featured in his theatrical and instrumental pieces.

While Partch's works display similar approaches, he disregarded improvisation in an attempt to control as many elements in the performance of his music as possible—a maximalistic *Gesamtkunstwerk*. Partch's obsessive control of all aspects of his works partially arises from his eccentric instruments based on an unconventional intonational system, as much as his idiosyncratic notation.[51] In other words, since his artworks consisted of several unorthodox elements, he tended to remain pedantically in-control of

[48] Poe (1809–1849) was seen as a maverick in his own time.

[49] E.g. *Street Music I-V* and *Harbor-Town Love at the Millennium's End*.

[50] "Partch hatte auch diese zwei Welten: präzis-gebaute Just Intonation, aber auch Freiheit und Naturbeobachtung. Ich suche auch verschiedene Situationen." (Bargrizan, Interviews with Manfred Stahnke.)

[51] For instances of Partch's idiosyncratic notational system, see the next chapter. Partch uses a combination of rations, traditional notation, and tabular, tailored in the case of each instrument. His notational systems for his different instruments, therefore, differ.

the whole process of performance. Partaking in a performance of Partch's music most often meant submitting to months and months of strict apprenticeship to comprehend his intonational system, to learn to read his notational system, and to master his unique instruments—a fact that has caused the performance of his works to be prohibitively difficult and costly.

The most significant difference between Partch's and Stahnke's music philosophy, however, is undoubtedly their contrasting views of academies and institutions. Partch, famously, dropped out of the University of Southern California because he believed that the academy could not fulfill his desire to explore unexplored or forgotten theoretical and conceptual territories. He remained adverse toward academies throughout his life, although he accepted some engagements as lecturer or researcher at the University of Illinois, University of Wisconsin, and University of California San Diego. A large number of the most memorable performances of Partch's grand dramatic works, e.g. *Oedipus*, *The Bewitched*, *Revelation in the Courthouse Park*, and *Delusion of the Fury,* in fact*,* took place at universities such as Mills College, University of Illinois, and UCLA. Moreover, while Partch lived in the Northeast attempting to establish his reputation, eminent figures such as Howard Hanson, Otto Leuning, and Douglas Moore invited him to give lectures and demonstrations of his works at institutions such as the New England Conservatory or the Eastman School Music multiple times. Whereas the students at these and other institutions often cheerfully lauded his presence, the faculty repeatedly neglected his significance arguing for not extending his expiring contracts or ending his engagements prematurely. The negative reception by academic colleagues in addition to Partch's inherent pessimism

toward Western educational system, in turn, caused him—an autodidactic outsider—to remain mostly distant to, and harshly critical of, the academies. Partch's detachment from academies was one of the most relevant reasons for the mixed and incongruent reception of his music, throughout his life.

As opposed to Partch, Stahnke—a lecturer of music theory (1983–1989) and professor of composition and music theory since 1989 at the *Hochschule für Musik und Theater Hamburg*—has always remained devoted to academic education, even though his own music-philosophical ideas and compositional procedures demonstrate his keen pursuit of paths beyond the scholastic routine of Western institutions. Stahnke—himself a pupil of Klaus Huber, Robert Fortner, Bryan Ferneyhough, György Ligeti, Ben Johnston, John Melby, and John Chowning in composition, and Constantin Floros in musicology—argues for a non-dogmatic and inclusive compositional approach based on acoustical and ethnographical research, while working within academies and attempting to expands the, at times, monotone and biased frameworks of academic studies in music. Although both composers have been mainly perceived as outsiders, who have expressed their aesthetic and theoretical ideas in publications to propose ways of reassessing the prevailing musical culture, their conflicting perspectives in terms of the role of academies in this reassessment could not be more divergent; one persisted in his anti-establishment ways, stubbornly resisting his inclusion, while the other promoted ways of avoiding the commercialization of the mainstream culture, negotiating a compromise.

To set the stage for the scrutiny of the microtonal, technological, and dramatic—or postdramatic—facets of Partch's and Stahnke's theatrical works, this chapter put into

perspective the music-philosophical views and aesthetic approaches of both composers fundamental to their compositional process by explaining their foundations and underpinnings as much weighing and comparing them. These views, in fact, inform the tenets of most of the theoretical concepts and musical analysis that follows in the next sections of this dissertation. Like this chapter, the following chapters analyze the aforementioned aspects of Partch's and Stahnke's music separately, before juxtaposing their frameworks and details to shed light on their correlations.

CHAPTER 3
FROM MONOPHONY TO MELOHARMONY: MICROTONALITY AND COMPOSITIONAL PROCEDURES

Microtonality in Partch's and Stahnke's Music

The music-theoretical underpinning of Partch's and Stahnke's theatrical music consists of microtonal configurations that extend beyond functioning as mere tonal frameworks; they become a part of the music-theatrical conceptions and a means to underscore the theatrical dimensions. Partch's notorious forty-three-tone-to-octave scale, which authors and critics have wrongly perceived as his most significant milestone, goes far beyond providing tonal materials to compose with. It not only substantiates Partch's unique instruments and the way he handles voices, but it is also firmly entrenched in his idealized Greek, or non-Western, ancient rituals, and hence, closely-related to his music philosophical standpoints. Figure 3.1 demonstrates a graphic representation of the forty-three-tone scale.[1]

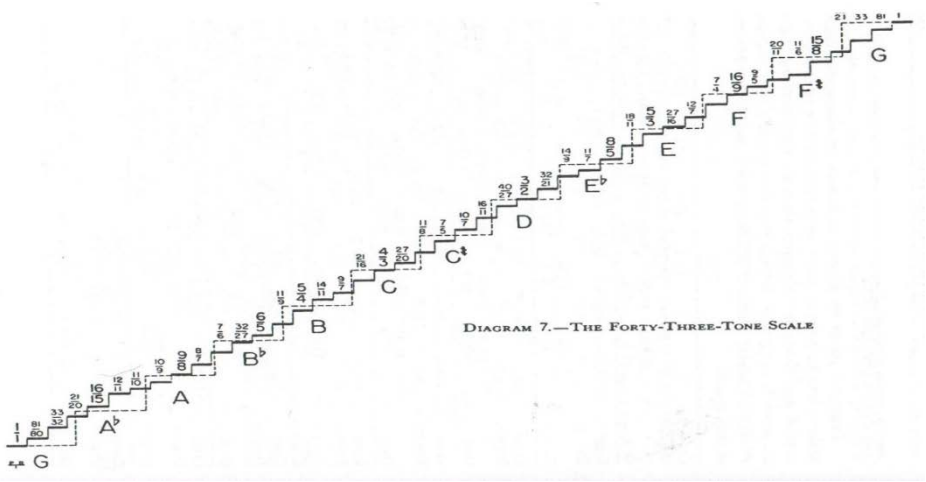

DIAGRAM 7.—THE FORTY-THREE-TONE SCALE

Figure 3-1. Partch's forty-three-tone-to-octave scale[2]

[1] Partch, *Genesis,* 134.

[2] Partch, *Genesis,* 134.

Music critics and scholars tend to focus on Partch's microtonal scale and his instruments, while ignoring their aesthetic foundations in Partch's ideal of ancient Greek, Chinese, or other non-western musical cultures—a fact that Partch objected to repeatedly. Rejecting the controversial idea of the absolute dependency of his aesthetic on his forty-three-tone scale, an assumption common in journal articles written about him during his life, Partch states: "News stories, and even reviews, have almost consistently latched onto the number forty-three, as though this were somehow the touchstone of my life. […] It is totally misleading. Even on instruments of fixed pitch, I do not necessarily limit myself to forty-three, just monophonic tones."[3] Partch—in his own words a "philosophic music-man seduced into carpentry"—designed a plethora of percussion instruments, for example the cloud chamber bowls, or the mazda marimba, both of which he was indeed not able to perfectly tune according to his just forty-three-tone scale (see Figures 3.2, 3.3, and 3.4).[4]

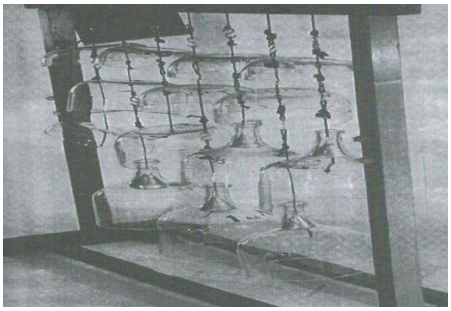

Figure 3-2. Cloud Chamber Bowls[5]

[3] Harry Partch, "A Quarter-Saw Section of Motivation and Intonations," in *Bitter Music: Collected Journals, Essays, Introductions, and Librettos*, ed. Thomas McGeary (Urbana and Chicago: University of Illinois Press, 1991), 197.

[4] The phrase "philosophic music-man seduced into carpentry" comes from Partch's own narration in the 1958 documentary film: *Music Studio—Harry Partch*, in *Harry Partch*: *Enclosure one: four films; with the music by Harry Partch*, directed by Madleine Tourtelot (1958–1961; Saint Paul, MN, Innova recordings, 1995), VHS. The music critic Martin Bernheimer also mentions "A Philosopher Seduced into Carpentry," quoting Partch in *Los Angeles Times*, January 5, 1969.

[5] Partch, *Genesis,* 299.

Figure 3-3. Mazda Marimba[6]

On the other hand, not only did Partch exploit all possible sorts of pitches in-between the forty-three tones on his fretless instruments such as the adapted viola (the body of a viola attached to fingerboard of a cello, see Figure 3-4), but he also used common wind instruments such as clarinets and trumpets in pieces such as *Oedipus* (1950), or *Ulysses Departs from the Edge of the World* (1955).

Figure 3-4. Adapted Viola[7]

[6] Source: www.harrypartch.com, accessed 04.12.2017.

[7] Source: http://partch.virb.com/instruments-new, accessed 4.12.2017.

These misconceptions caused such controversies. For example, Partch sarcastically threatened to curse John Cage if he insisted on using only forty-three words to describe Partch's music and aesthetic for *Source*, a publication devoted to the documentation of the experimental composers and their musical works. On October 14, 1967, Partch writes to Cage:

> I tried not to get difficult. But when you insist on a statement from me that is exactly 43 words you are being difficult. […] Again however, if you dare to mention that number 43 you are deliberately misrepresenting me. It is the one-half truth of the one-fourth factor. And I shall curse you. You have been cursed before, but never by me, and if you are cursed by me there will be a difference.[8]

Adopting Partch's sarcastic tone, on October 26, 1967, Cage replies: "For Heaven's Sake, please don't curse me! I'd never recover. I promise, of course, not to mention numbers again."[9] These remarks demonstrate the extent of Partch disapproval of perceiving his achievements merely in terms of his intonational system. There is, however, no doubt that his microtonal scale, derived from eleven-limit just intonation, not only represents his longing for ancient, non-Western musical cultures, but it also substantiates his unique instruments, which in turn, underpin his dramatic works. As Partch himself devotes a large part of his treatise, *Genesis of a Music*, to the explanation of his microtonality, this chapter expounds upon the historical and theoretical basis of his intonational system, realized in Partch's conception of "monophony" and in his instruments. It illuminates the relationship of Partch's theories

[8] This letter is located at Harry Partch Estate Archive and Harry Partch Collection, The Sousa Archives and Center for American Music of the University of Illinois.

[9] Ibid.

to his aesthetic views, and to the dramatic narrative of his major theatrical works, *Oedipus*, *The Bewitched*, and *Delusion of the Fury*.

On the other hand, even though he was influenced by Partch's intonational ideas, Stahnke's approach to microtonality exceeds the realm of just intonation. On top of just intonation, since late 1970s Stahnke has developed his own flexible way of handling the element of pitch, as his concept of "meloharmony" informs. Stahnke explains meloharmony—a term that he himself coined to define the crux of his microtonal mindset—as follows:

> Meloharmony is a word that I came up with to denote the interrelationship of vertical and horizontal pitch organization within an open microtonal field. By definition, this field is open to every aspect of pitch organization; interval relationships may exist within this field regardless of whether or not they are also related to older forms of melodic-harmonic relationships. The only restriction lies in the avoidance of addressing "anonymous" fields, where neither horizontal nor vertical pitch relationships play a distinct role.[10]

Building upon Stahnke's concept of meloharmony, this chapter explains the meloharmonic structures of Stahnke's operas and their significance in the (post)dramatic structures of these works, which represent facets of Stahnke's music philosophical beliefs. It also illustrates their relation to Partch's theories as well as other Western and non-Western intonational systems. The range of Stahnke's microtonal procedures is more complex than those of Partch. We will, therefore, encounter a variety of compositional techniques, scales and intonational systems, as well as ways of conceiving vertical and horizontal microtonal structures in each of Stahnke's theatrical pieces.

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[10] Manfred Stahnke, 2007, "Hybrid Thinking in Meloharmony," in *Proceedings of the International Conference: Composer au XXIe Siècle – Processus et Philosophies*, 2007, 1–17. Montréal (Québec) Canada.

In his four dramatic works, Stahnke's integration of digital media and electronics enhance the function of his meloharmonic construction in the dramatic narrative of his works. In his multi-dimensional approach to the art, Stahnke creates new opera concepts, which rest upon incorporating and synthesizing exotic intervallic and harmonic ideas; improvisation; electronic sounds; and digital media, all the while basing his constructions on elaborated versions of literary sources, which contain philosophical, psychological, and existential connotations. Stahnke assigns an essential role to the meloharmonic structures as well as technological devices, in the context of his hybrid operas.

Partch's Microtonality and Compositional Techniques in His Theatrical Music

Partch's concept of "monophony" informs his intonational system in all of its aspects. While his intonational system privileges the reciting voice, it is also a monophonic one. In the early 1930s, while Partch conceptualized his intonational fabric and lived as a hobo, he envisioned a more comprehensive system than twelve-tone equal temperament—a system that would enable him to capture all the inflections of the human speech in the hobo folk songs he was collecting and reworking. His frequent excursions away from transient camps and part-time jobs—mostly picking fruit in Northern California—brought him to public libraries, where he delved into the theoretical precepts of ancient Greek and Chinese music as well as into Helmholtz's seminal text *On the Sensation of Tone*, all of which influenced him immensely.

Soon thereafter, Partch conceived his just-intoned, eleven-limit, forty-three-tone-to-octave intonational system—a system that rests upon the simple ratios of the harmonic series up to the eleventh harmonic deriving from divisions of octave on a

simple monochord.[11] In *Genesis of a Music*, Partch explains his use of the term "monophony" and its historical background as an intonational system, as follows:

> An organization of musical materials based upon the faculty of the human ear to perceive all intervals and to deduce all principles of musical relationships as an expansion from unity, as 1 is to 1, or—as it is expressed in this work—1/1. In the sense of growth from unity, monophony is a development of the theories deduced by Pythagoras of Samos on his monochord, in the sixth century B.C.; beginning with the whole string of the monochord, or 1, Pythagoras divided the string into two parts and produced the interval 2/1, then into three parts and four parts, producing the intervals 3/2 and 4/3. In another sense monophony may be regarded as an organization deducible from the sounding of one tone, or the sounding of 1, or 1/1; in this sense it is an evolved expression of the phenomenon of the overtone series, first perceived by Martin Mersenne, French monk of the seventeenth century.[12]

As it was the case in the ancient world and still is in several folk musical cultures, Partch intended to revitalize the dominance of the natural tones, rejecting the boundaries of the prevailing equal temperament. He theorized a new intonational system on the basis of ancient models and constructed his own instruments designed to realize this system.

Partch's affection for the ancient Greek instruments, a substantial source of inspiration for his own instruments, served as a model for him to build a new just-tuned intonational system, using the simple ratios of the harmonic series up to the eleventh harmonic. He, accordingly, built several, original instruments based on his extended just-intonation, which apply the possibilities of the overtone and undertone series, realized through his concepts of otonality and utonality in his eleven-limit Tonality-

[11] In five-limit just intonation, like most Western tunings, the prime-numbered harmonics up to the fifth harmonic produce all the frequencies. Likewise, seven-limit, eleven-limit, and thirteen-limit just intonations point to the prime-numbered harmonics up to the seventh, eleventh, and thirteenth harmonics as the foundation of all the frequencies. Partch created his eleven-limit just intoned system and built several instruments on its basis. See Navid Bargrizan, "review of Ben Johnston: String Quartets Nos. 6, 7 & 8 by Kepler String Quartet. New World 80730-2, 2016, CD," *Journal of the Society for American Music* 11, 1 (2017), 118–120.

[12] Partch, *Genesis,* 71.

Diamond. Partch's terms otonality and utonality refer respectively to a collection of pitches of a harmonic series analogous to major tonality in the common period harmony, and a collection of pitches of a subharmonic series (an exact inversion of a harmonic series) analogous to minor tonalities. Partch designed an arbitrary two-dimensional diagram called a tonality diamond, where one dimension presents the otonalities and the other dimension the utonalities (see Figure 3.5). [13]

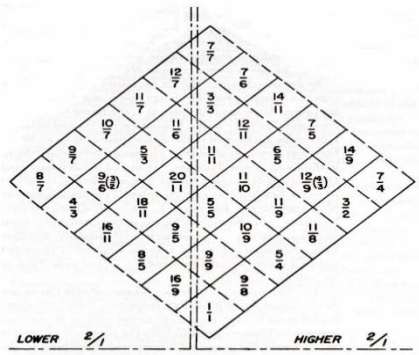


Figure 3-5. Partch's eleven-limit tonality diamond[14]

The monophonic intonational system, demonstrated in the above tonality diamond, presents the interrelationships of just tonalities stemming from unison (1/1) within an octave (2/1). Because it expands the five-limit to the eleven-limit intonational system, it offers twenty-eight possible tonalities, more than the number of tonalities inherent in the common five-limit twelve-tone equal temperament, or in five-limit just intonation (see Figure 3.6).[15]

[13] See Bargrizan, "review of *Ben Johnston: String Quartets Nos. 6, 7 & 8*."

[14] Partch, *Genesis*, 159.

[15] Partch, *Genesis*, 160.

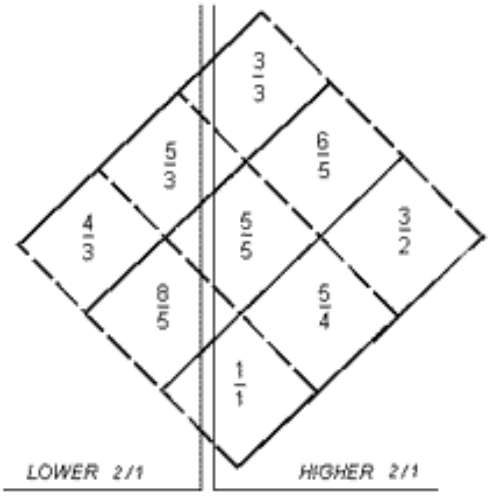


Figure 3-6. Five-limit tonality diamond[16]

In the eleven-limit tonality diamond, as in the five-limit diamond, otonalities appear between solid lines from left to right, and utonalities between dotted lines from right to left. For example, in the eleven-limit diamond, the ratios of 8/5 (just-minor-sixth) otonality are 9/5 (large-just-minor-sixth), 5/5 (unison), 11/10 (undecimal-neutral-second), 6/5 (just-minor- third), and 7/5 (lesser-septimal-tritone, also known as Huygen's tritone).[17] The tonality's numerary nexus is 5, and the odentities (otonality identities) are 8, 9, 5, 11, 6, and 7. The line of the six ratios demonstrates the maximum number of the consonance that can be achieved by expanding the identities 1-3-5 of the five-limit system to 1-3-5-7-9-11 of the eleven-limit system. Partch's eleven-limit just intonation, therefore, makes hexads (chords consisting of six notes) possible, instead of triads (chords consisting of three notes).[18] The intonational system explained above is

[16] Partch, *Genesis*, 110.

[17] Christiaan Huygens (1629–1695), the Dutch theorists, invented an equal-tempered, thirty-one-note-to-octave scale, which Adriaan Fokker (1887–1972) revived and built an organ on its basis.

[18] Partch, *Genesis*, 72. Partch explains "numerary nexus" as "the number common to all identities in the ratios of one tonality—the common anchor; the characteristic of a series of rations that determines them as a tonality."

the foundation of Partch's instruments as well as his theatrical compositions, in which Partch emulates his microtonal system and his instruments as part of the dramatic narrative.

After two decades of composing small chamber pieces influenced by the hobo or non-Western cultures—e.g. *Seventeen Lyrics by Li Po* (1930-33), *Barstow* (1941), and *The Wayward* (1941–43)—Partch conceived the grand dance-drama *Oedipus*, his first effort to compose large theatrical music prior to *The Bewitched* and *Delusion of the Fury*. Based on William Butler Yeats's version of Sophocles's drama, Partch staged this piece under the title *King Oedipus* at Mills college on March 14–16, 1952. [19]

In *Oedipus*, several of Partch's unique instruments, such as adapted viola, adapted cello, adapted guitars, kithara, harmonic canon II (Castor and Pollux), chromelodeon, diamond marimba, bass marimba, marimba eroica, gourd tree and cone gongs, and cloud chamber bowls, in addition to the common clarinet and bass clarinet in B-flat, accompany the singers and the chorus.[20] As the following figures demonstrate, Partch devised a notational system that combined the language of ratios (as necessary for certain instruments) and conventional notation. A comprehensive legend at the beginning of the score and months of strict training for the musicians were required for the musicians to be able to read, comprehend, rehearse, and stage this work, as was the case in Partch's subsequent music dramas (see Figures 3.7, 3.8, and 3.9). In these

[19] In 1934, Partch received a Carnegie Corporation grant to conduct research on microtonality in Europe. He traveled to the United Kingdom, and worked in the British Museum for a whole year. He also managed to meet Kathleen Schlesinger, the distinguished music archaeologist, and Yeats, the prominent Irish poet, who Partch was fond of, and whom ideas regarding speech-music resonated with Partch.

[20] Although Partch made his first Kithara in 1938, he redesigned it extensively until 1960s, see *Genesis of a Music*, 220–235. His exchange with Schlesinger, the curator of the music instruments at the British Museum and an authority on the ancient Greek instruments, was determining for Partch's revisions. He also built other innovative sorts of Kitharas, among others, surrogate kithara and kithara II (bass kithara).

three pages of the legend, Partch explains the structures and ranges of the instruments and voices, as well as the notational system used for each. Partch's notational system differs in the case of each instrument. For some instruments, he employs tablature, for some traditional notation, and for the others a combination of just-ratios and tablature, or just-ratios and traditional notation. As opposed to the common Western musical culture, depending on the construction and function of each instrument, Partch adopts a different notational system, which makes learning and performing his music even more cumbersome.

Partch constructed these instruments based on the just, eleven-limit, forty-three-tone-to-octave scale, not only to accompany human dance and movement—essential components of his conception of corporeality— but also to accompany the human voice, another significant element of his concept of corporeality. Although I will elaborate on Partch's corporeality and its constituents in the following chapters, here, I explain Partch's peculiar approach to incorporating human voice. Partch sought a sort of non-musicalized singing analogous to human speech that would enable the audience to perceive the intonations of the words and, consequently, the essence of the drama.

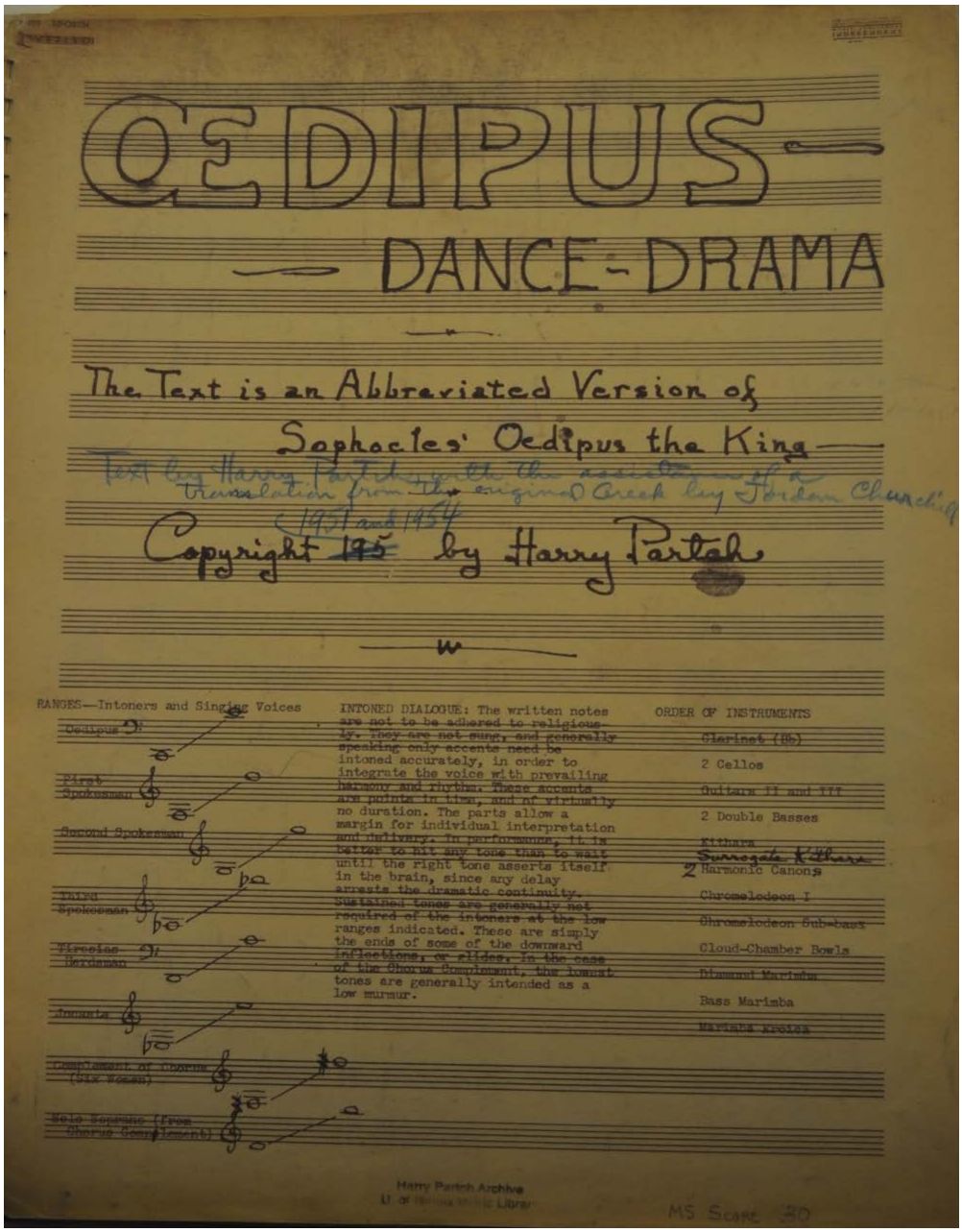


Figure 3-7. Manuscript of *Oedipus*; cover page and first page of legend. Located at Harry Partch Estate Archive and Harry Partch Collection, Sousa Archives and Center for American Music of the University of Illinois.

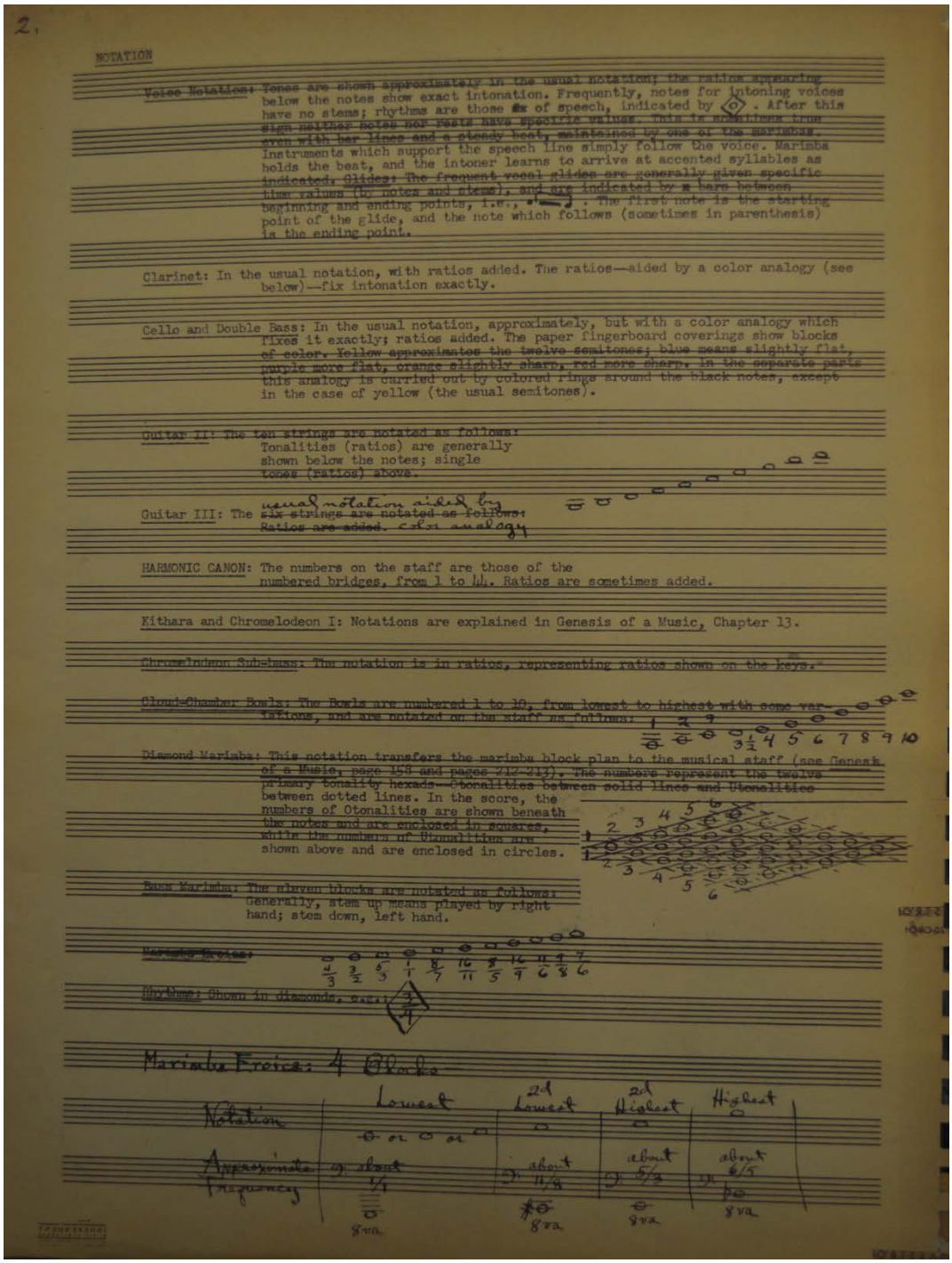


Figure 3-8. Manuscript of *Oedipus*; second page of legend. Located at Harry Partch Estate Archive and Harry Partch Collection, Sousa Archives and Center for American Music of the University of Illinois.

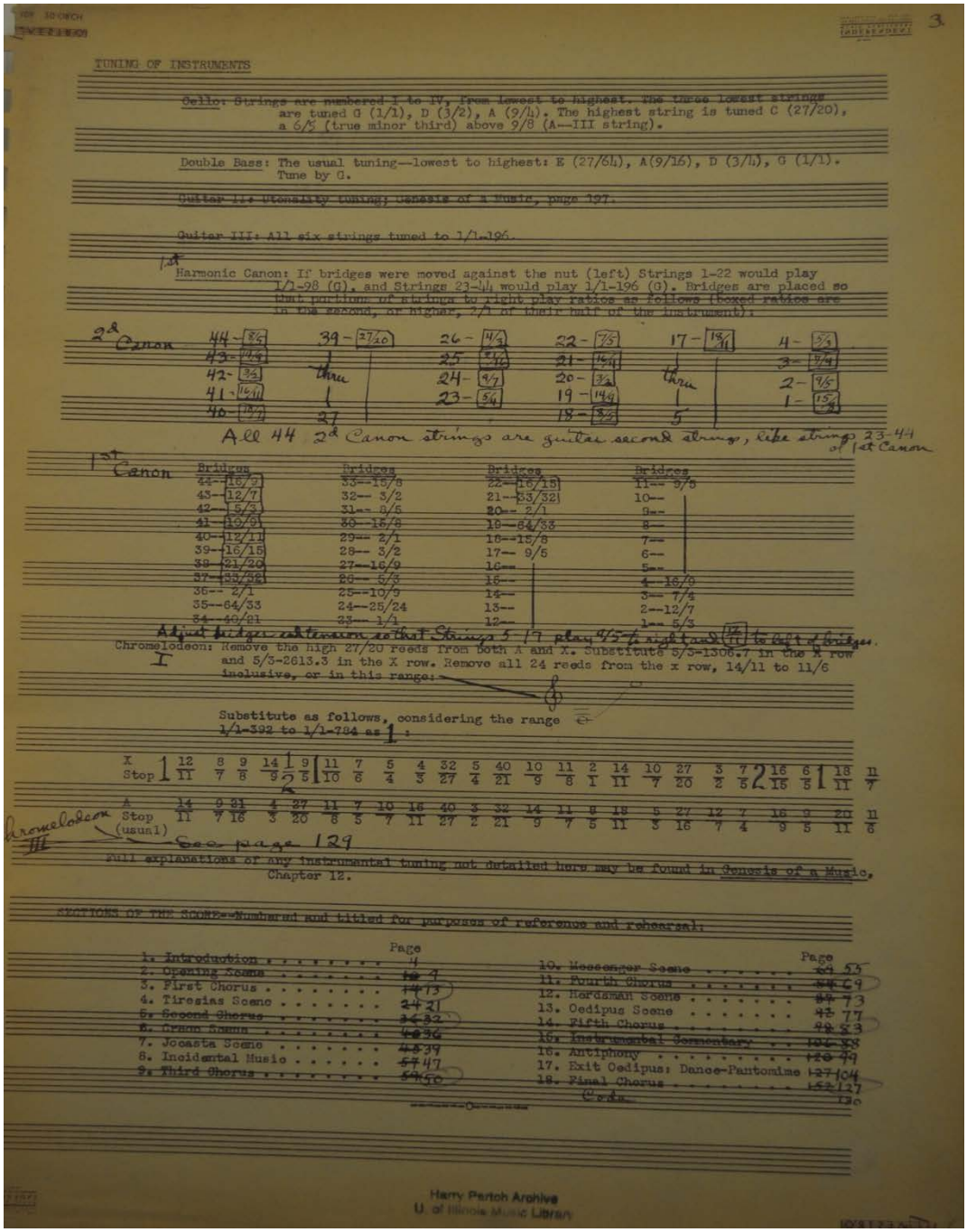
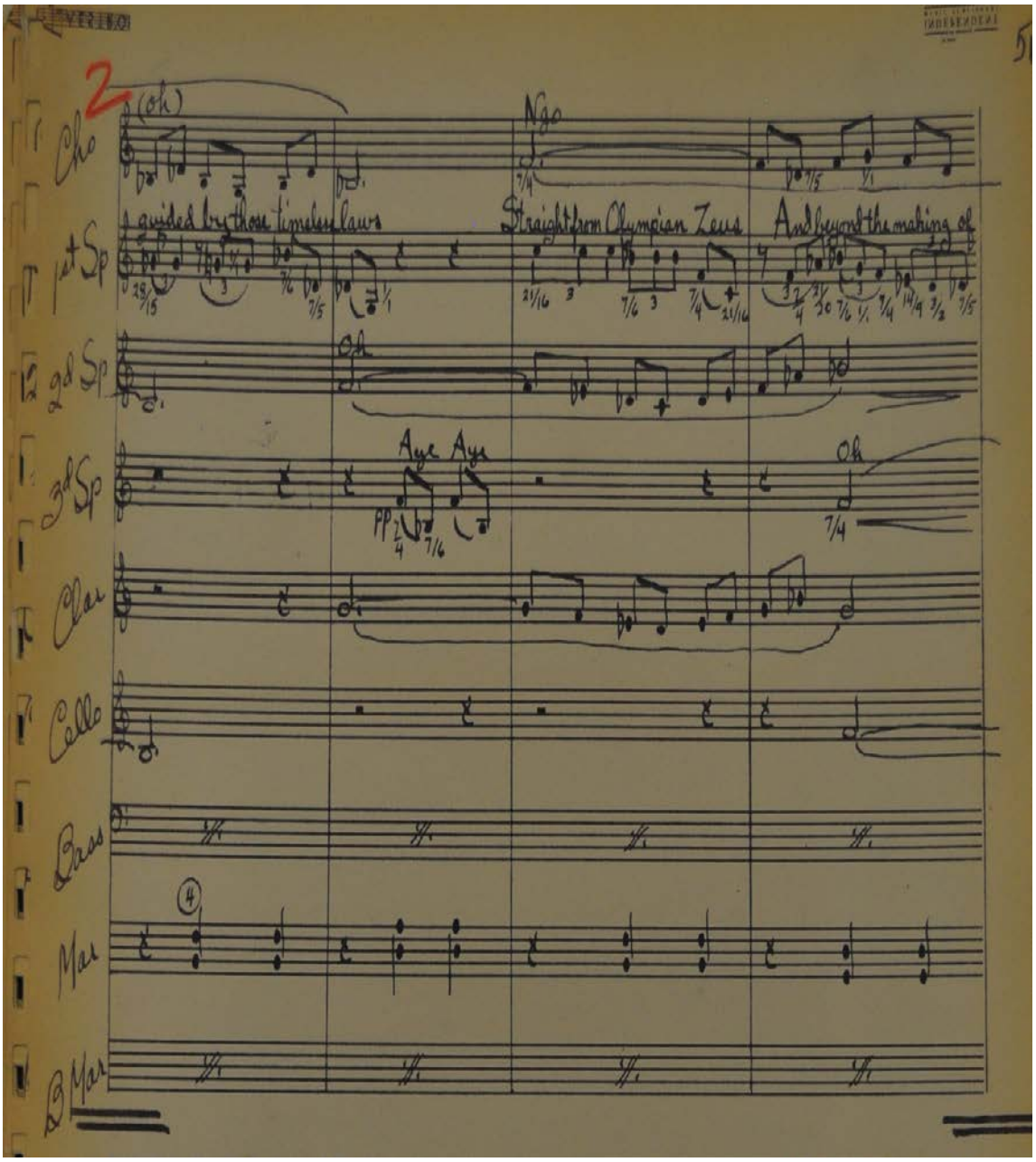


Figure 3-9. Manuscript of *Oedipus*; third page of legend. Located at Harry Partch Estate Archive and Harry Partch Collection, Sousa Archives and Center for American music of the University of Illinois.

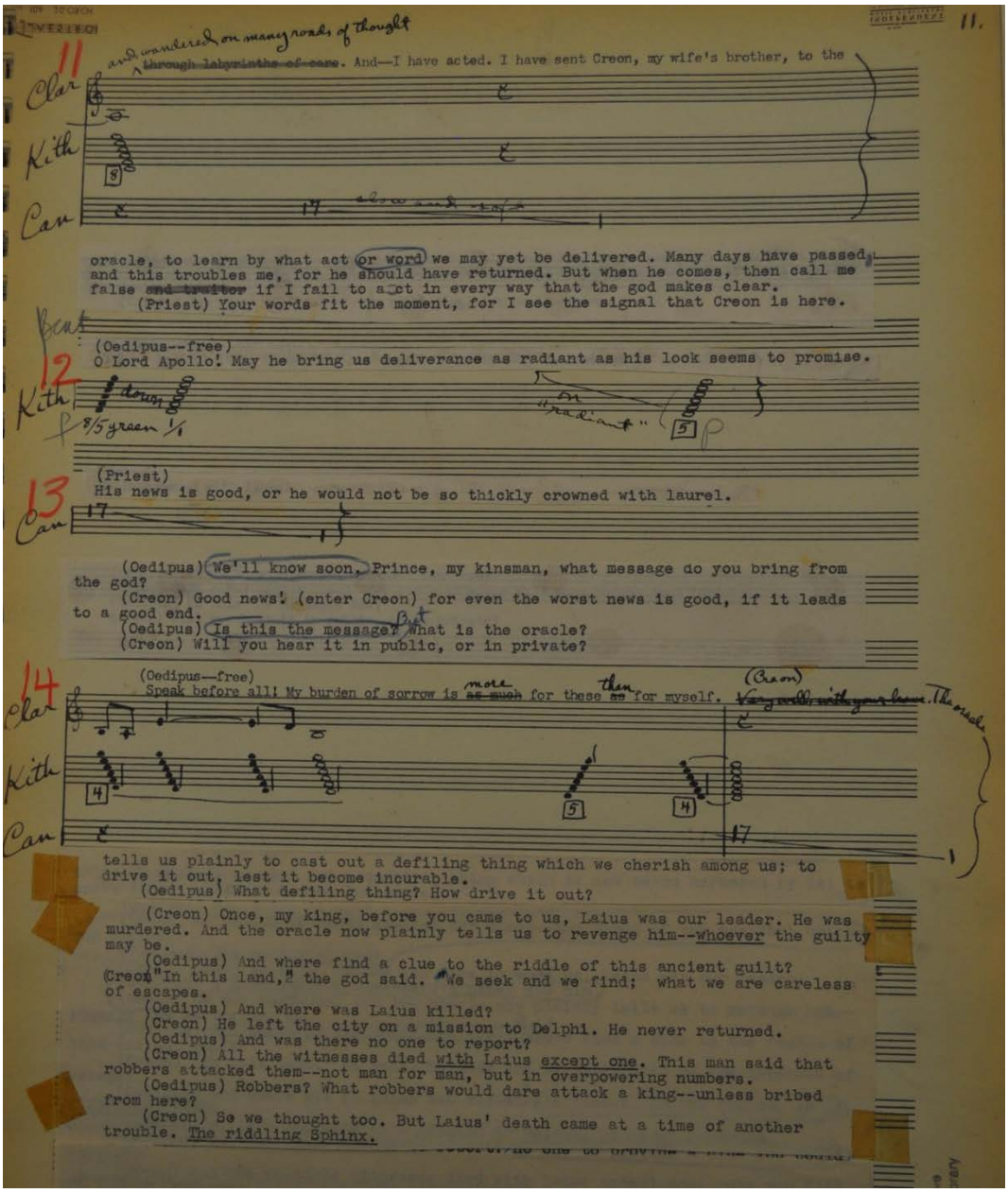
Drawing upon ancient Greek theater, Partch conceptualized corporeal dramatic works, where all the artistic aspects—including the instruments, staging, acting, costumes, and lighting—join the voices intoned as close as possible to the human

speech, to delineate the essence of the philosophical plots. His aforementioned early chamber works are, therefore, often called “speech-music pieces.” The over-exaggerated microtonal scale of Partch was, in fact, a necessity; a tool for him to capture all the inflections of the human speech—the subtle inflections that the twelve-tone equal-tempered scale is not capable of capturing. Partch’s microtonal scale realized in his instruments and the way he handles voices is inextricably attached to the musical and theatrical foundation of Partch’s aesthetic ideas.

In *Oedipus*, Partch writes for the voices in two distinctive ways: first, sections of voices—choir or solo—sing the exact written pitches and rhythms. Second, in sections of long, recitative-like speeches for solo voices, where Partch demands the singers to intone words more or less in a free style, yet as close as possible to the human speech in a certain duration of time and with certain instrumental accompaniment. As visible in Example 3.1, the soprano intones the exact, written pitches and rhythms, whereas in Example 3.2, the characters of Oedipus, Creon, and the Priest intone words in a rather free manner.



Example 3-1. Manuscript of Oedipus; Third Chorus, p. 51. The sopranos sing the exact, written pitches and rhythms. Located at Harry Partch Estate Archive and Harry Partch Collection, Sousa Archives and Center for American Music of the University of Illinois.



Example 3-2. Manuscript of *Oedipus*; opening scene, page 11. Located at Harry Partch Estate Archive and Harry Partch Collection, Sousa Archives and Center for American Music of the University of Illinois.

Although Partch's just, eleven-limit intervals and his forty-three-tone scale are the music-theoretical foundations of this piece, whether in the fully instrumental sections, or in the mixed vocal and instrumental parts, Partch rarely employs microtonality in terms of just harmonic intervals, unless chromelodeon accompanies the voices, or if relatively-

static moments of two, vertical just pitches on top of each other appear. Not only Partch's *Oedpius*, but also his other theatrical pieces often sound, in fact, as a constant percussive pattern, interrupted with microtonal glissandi, and barely justly-tuned—what Stahnke names "Partch's strange intonation."[21] When Partch's chromelodeon, an adapted organ capable of demonstrating just intervals, sounds, however, we delve into pure just intonation (see Figure 3.10).

Figure 3-10. Partch's chromelodeon; the ratios of the just intervals are marked on the keyboard.[22]

In other words, even though eleven-limit just intonation underpins every aspect of Partch's conceptual and acoustical terrain, because of the clashes of the timbres, various instrumental techniques, limitations of certain instruments, and oftentimes fast and percussive rhythmical patterns, it is difficult to perceive and categorize the resulting

[21] In my interviews with Stahnke, he used "strange intonation" to refer Partch's music repeatedly.

[22] Photo by Stan Sadowski. Source: http://www.sonoloco.com/rev/innova/401-405-406/partch.html, accessed 05.03.2017.

sounds as just intoned. On the other hand, some “strange” intervals emerging from simultaneity of rich layers of microtones hinder our perception of the pure ratios, throughout.

In 1957, Ben Johnston—at the time a professor of composition and music theory at the University of Illinois—invited Partch to the annual Festival of the Contemporary Arts in Urbana-Champaign, for which Partch conceptualized his dance-satire *The Bewitched*. After months of rehearsals, the scandalous premiere—fueled by the vastly different artistic visions of Partch and the choreographer Alwin Nikolais—took place on March 26, 1957. Partch’s iconoclastic story of the interaction of a witch, witch’s chorus (the orchestra), and the bewitched (the dancers) has proved to be his most successful theatrical piece, having been reworked by Partch and restaged, among others, at Julliard in 1959, Columbia University in 1962, and at the University of California San Diego in 1975.

In *The Bewitched*, Partch’s instruments dominate the stage set; their sculptural beauty work as an essential part of the décor on the stage.Aaccompanying witch’s chorus, they are fully integrated in the psychological story-line—Partch’s social and cultural criticism: in his words, “stories of release through salutary and whimsical witchery; from prejudice; from individual limitations; even from the accidents of physical form; of sex that create mental obstacle to vision.”[23] Partch arranged the stories in the following ten “scenes of witchery,” in which the witch is supposed to release the “lost

[23] Harry Partch, “*The Bewitched*,” in *Bitter Music: Collected Journals, Essays, Introductions, and Librettos*, ed. Thomas McGeary (Urbana and Chicago: University of Illinois Press, 1991), 307.

musicians" from their mental and physical limitations. Table 3.1 lists the scenes and their titles. [24]

Table 3-1. List of scenes and titles in Harry Partch's *The Bewitched*

Scene	Title
1	Three Undergrads Become Transfigured in a Hong Kong Music Hall
2	Exercise in Harmony and Counterpoint Are Tried in a Court of Ancient Ritual
3	The Romancing of a Pathologic Liar Comes to an Inspired End
4	A Soul Tormented by Contemporary Music Finds a Humanizing Alchemy
5	Visions Fill the Eyes of a Defeated Basketball Team in the Shower Room
6	Euphoria Descends a Sausalito Stairway
7	Two Detectives on the Tail of a Tricky Culprit Turn in Their Badges
8	A Court in its Own Contempt Rises to a Motherly Apotheosis
9	A Lost Political Soul Finds Himself among the Voteless Women of Paradiso
10	The Cognoscenti Are Plunged into a Demonic Descent While at Cocktails
Epilogue	The Witch Vanishes, and the Lost Musicians Wander Away

Partch applies a combination of female solo voice, dancers, chorus leader (the chorus members are the instrumentalists), kithara, koto, harmonic canon, surrogate kithara, chromelodeon, cloud-chamber bowls, spoils of war, diamond marimba, boo, bass marimba, and some common Western instruments such as piccolo, clarinet, bass clarinet, and cello in *The Bewitched*. Except for the common instruments, Partch gives a detailed legend at the beginning of the score, explaining the ranges, tunings, and notational subtleties of every instrument. These instruments are all based on Partch's eleven-limit just intonation, with all the pitches emulated in his forty-three-tone scale, and the emerging hexads. Because of the intricate and novel design of each instrument and different styles of notations used for each, however, the individual instruments required in-depth explanation in the score (see Figure 3.11 through 3.14).

[24] Partch, "*The Bewitched*," 308–318.

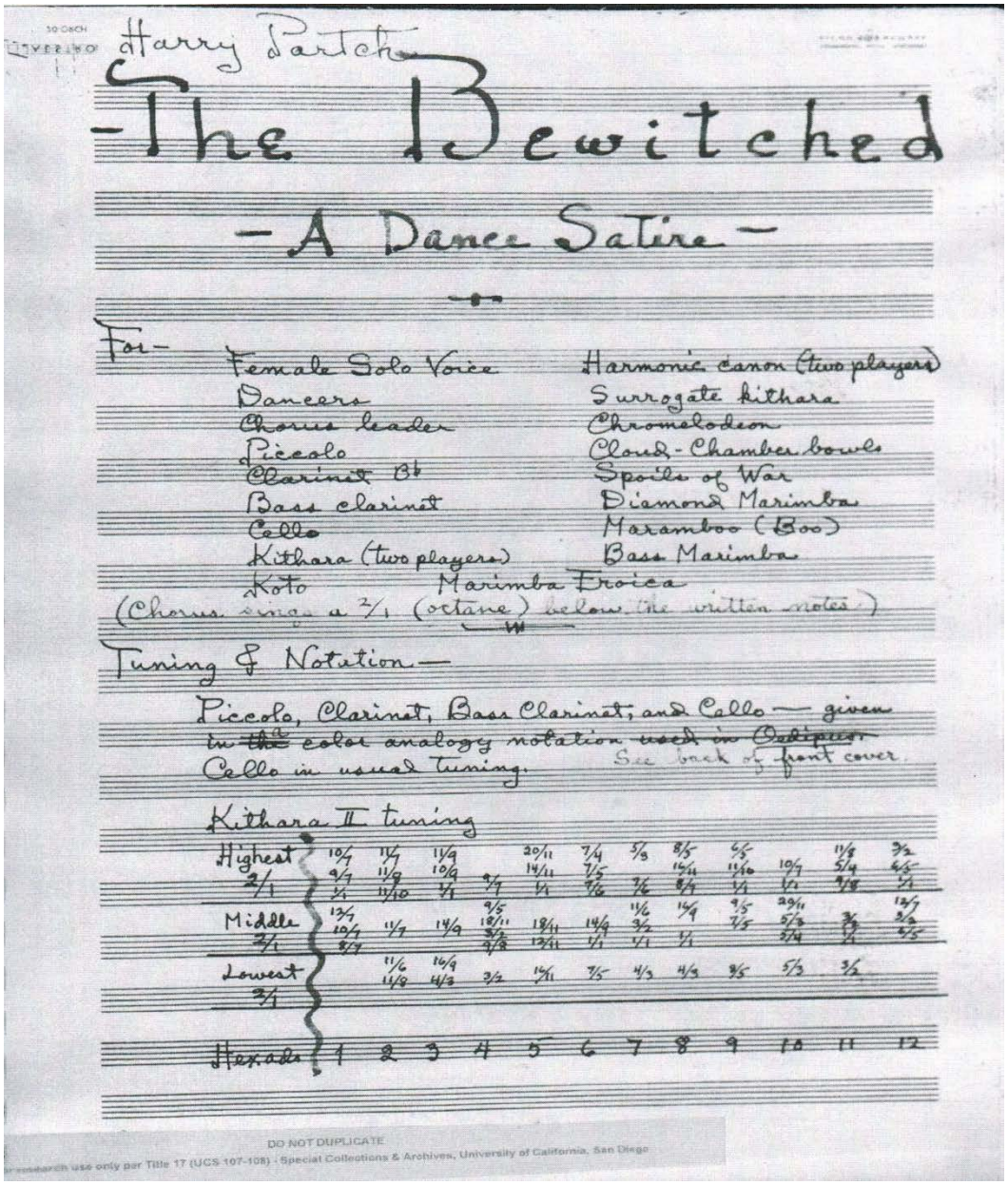


Figure 3-11. Manuscript of *The Bewitched*; legend, page 1. Located the library of University of California San Diego.

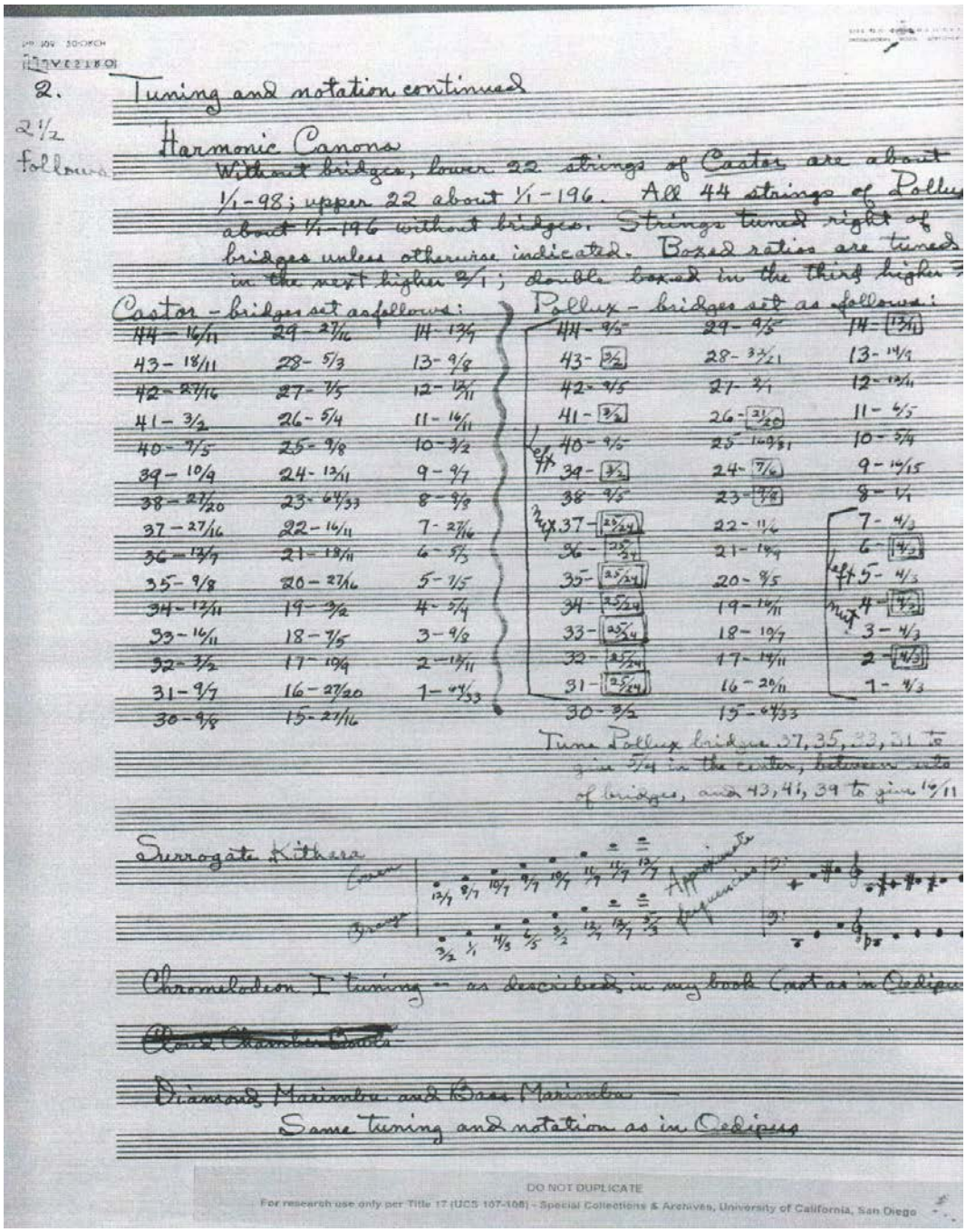


Figure 3-12. Manuscript of *The Bewitched*; legend, page 2. Located the library of University of California San Diego.

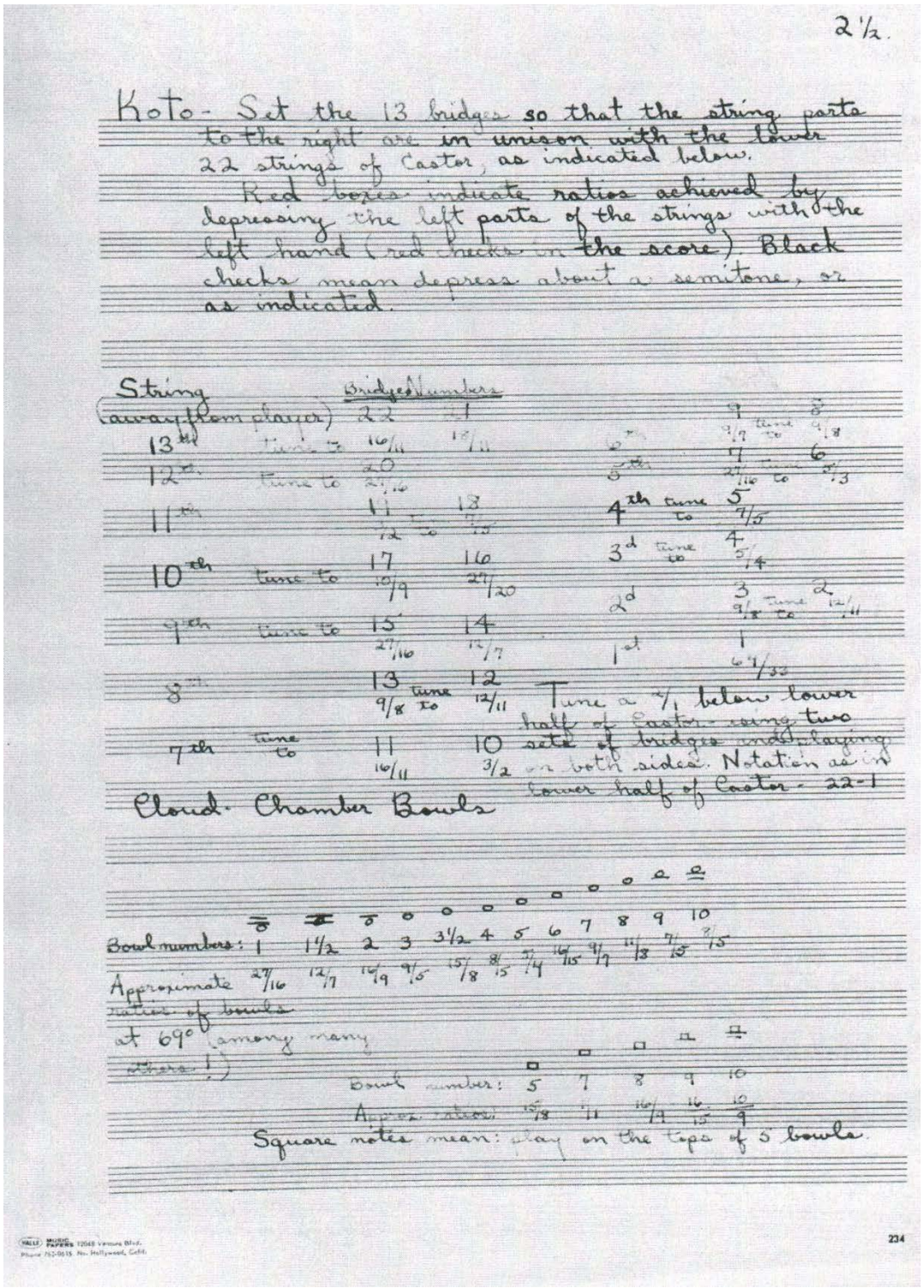


Figure 3-13. Manuscript of *The Bewitched*; legend, page 2 ½. Located the library of University of California San Diego.

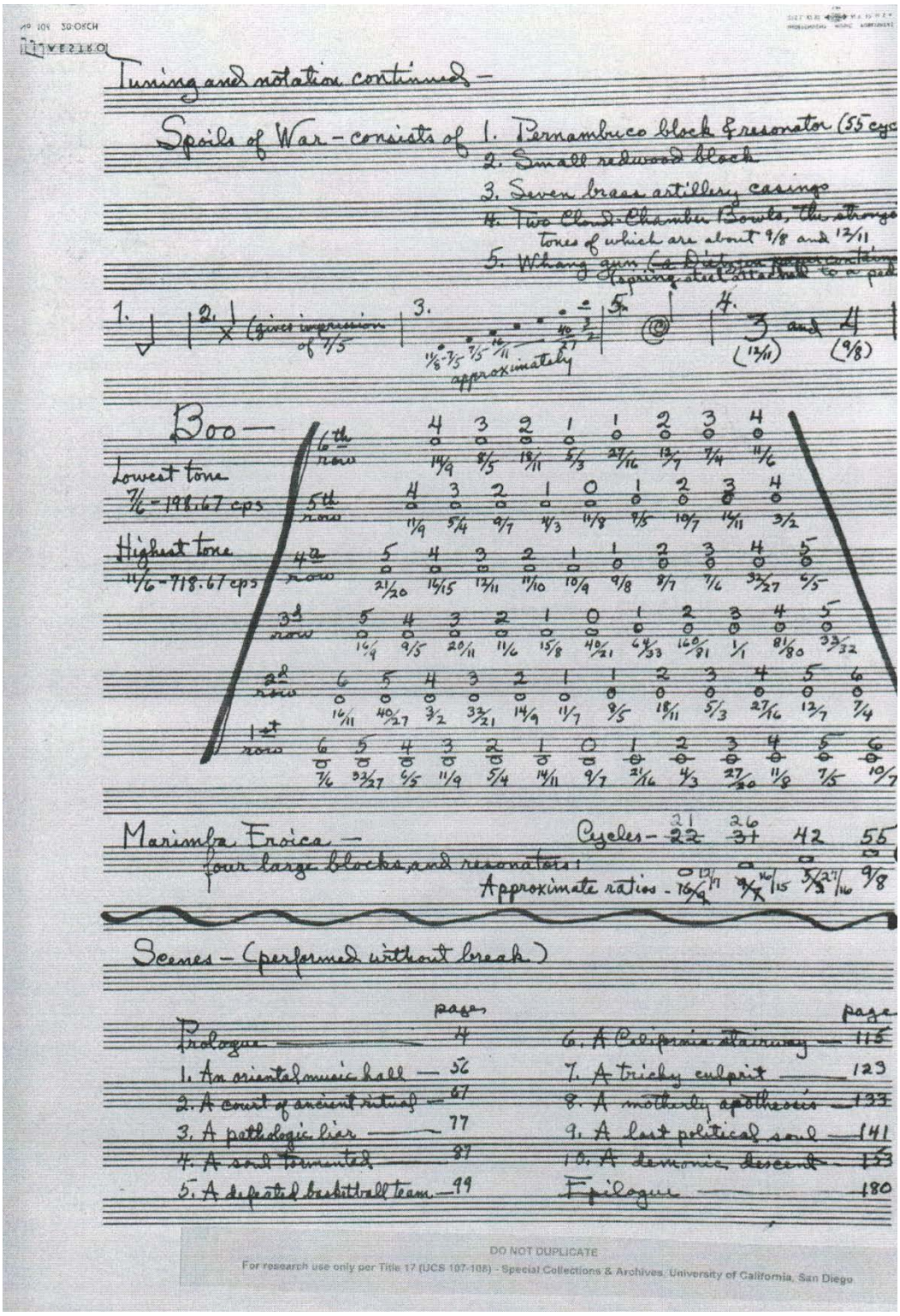
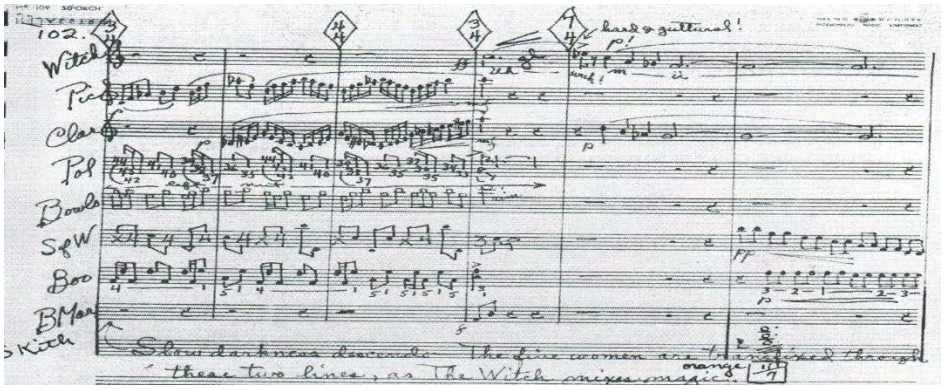


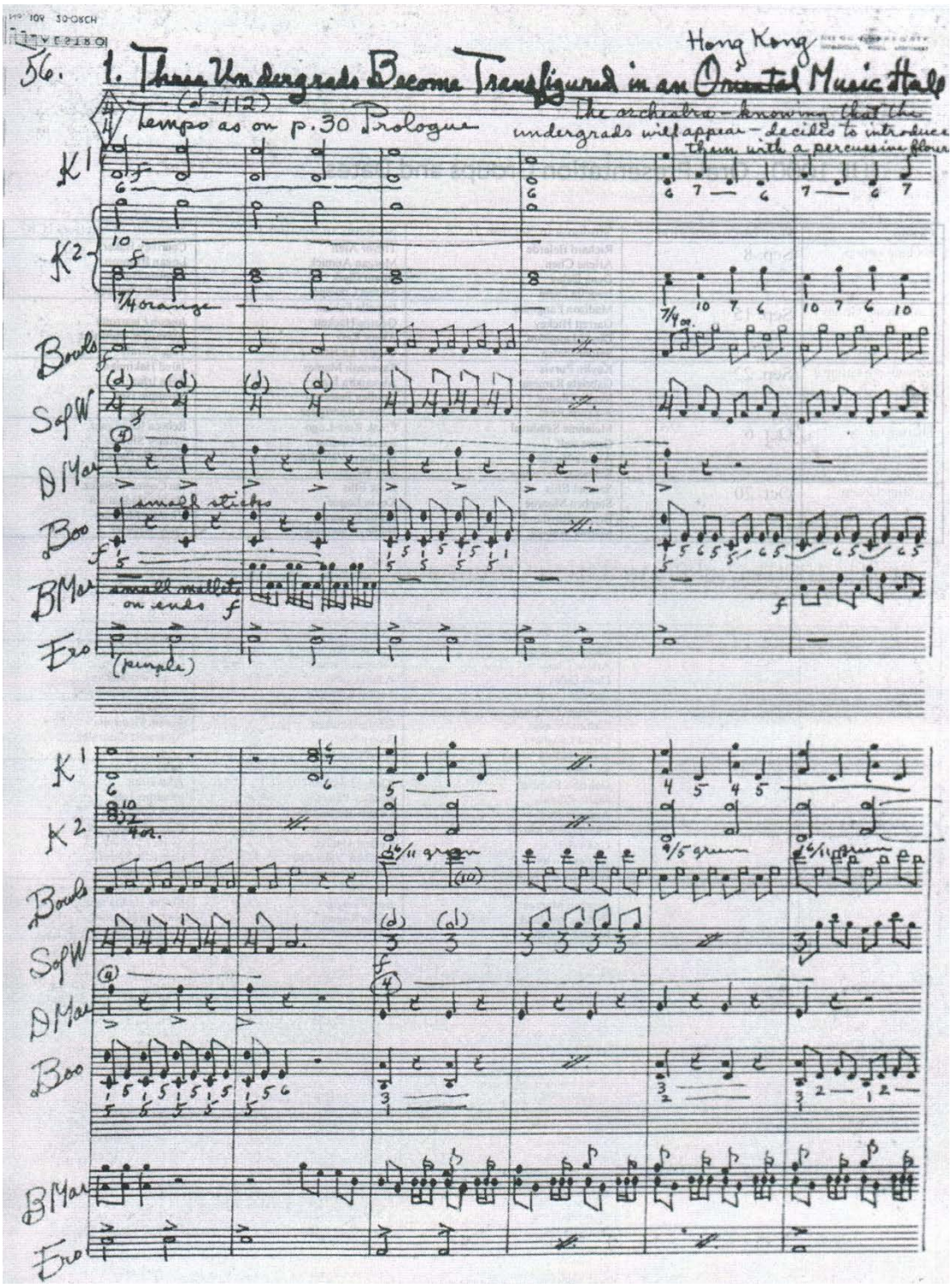
Figure 3-14. The Manuscript of *The Bewitched*; legend, page 3. Located at the library of University of California San Diego.

The dance-movements in *The Bewitched* are based on Partch's impression of Non-European dance and theater cultures, for instance kabuki, albeit in the disguise of a fictional story. Considering that micro-intervals substantiate these musical cultures, Partch's just and strange intonations—emerging from his microtonal scales, just chords, and instruments—seem particularly suitable to depict these non-Western dance movements. They are fully absorbed into the absurd dramatic and sounding body of the work.

Partch handles the witch's voice, the only singing part in the piece, in a way that the role of the witch does not have any words to sing; she just intones specific sounds from the throat to reinforce the essential mood of the scene accompanied by the witch's chorus, which is actually an orchestra. In *The Bewitched*, purely instrumental dance scenes, occasionally joined by witch's voice, dominate. The corporeal presence of the character of the witch, the "bewitched" dancers, and the witch's chorus (orchestra) featuring Partch's microtonal instruments and exotic sound-structures become, therefore, an integral element in the dramatic construction of the work, without which the whole conception would cease to exist (see Examples 3.3 and 3.4).



Example 3-3. Manuscript of *The Bewitched*, scene 5, p.102; witch's voice and Partch's instruments. Located the library of University of California San Diego.



Example 3-4. Manuscript of *The Bewitched*, scene 1, p.56; instrumental dance. Located the library of University of California San Diego.

Partch's magnum opus *Delusion of the Fury* (premiered 1972 at UCLA) portrays six main characters: the slayer, the ghost of the slain, and the son of the slain in the first act; and a young vagabond, an old female shepherd, and the judge in the second—in addition to several instrumentalists who also sing, act, and dance. The characters, surprisingly, do not have much text to sing; ten words in the first act, and forty-four in the second, all written by Partch in colloquial English. This fact seems to contradict the way Partch deals with the voice in his earlier speech-music pieces, as well as his music dramas prior to *Delusion of the Fury*, where the reciting voice plays a significant role. Regarding the sparse handling of the voices in *Delusion of the Fury,* Partch says: "I feel that the mysterious perverse qualities of these story ideas can be conveyed through music, mime, lights, with more sureness of impact than with spoken or sung lines, and spoken or sung lines in reply."[25] Although "individual's vocalized words" remain a relevant element of Partch's corporeal medium, in *Delusion of the Fury*, he employs voices in a fundamentally distinctive manner than his early speech-music pieces, and even *Oedipus*.

Delusion of the Fury features tragic and comic existential stories about life and death inspired by Japanese Noh drama (first act) and Ethiopian folk tales (second act), written by Partch himself. In this piece, the used, seemingly, "meaningless sounds from the throat"—rather than words which are meaningful in the verbal communicative language—are not actually meaningless in the music; according to Partch, "They are vibrations from assembled throats."[26] Accompanying the human voice and the dances,

[25] Partch, *Bitter Music*, 252.

[26] Partch, *Bitter Music*, 253.

in *Delusion of the Fury*, Partch exploits almost all of the instruments that he had ever built based on his extended just intonation. With the exception of Partch's self-made koto, which—although not the same—is inspired by the Japanese version, Partch employs neither Japanese music instruments, nor Japanese scales in this piece. Furthermore, even though Partch applies several percussion instruments of his own design, he does not integrate any African element in the piece. According to Partch: "I am not trying to depict African ritual, although African ritual, as I have heard it on records, has obviously influenced my writing, in this and several other works."[27] Much as in his earlier works, Partch's forty-three-tone scale and his eleven-limit just intonation substantiate his writing for both the voices and the instruments in *Delusion of the Fury*.

Partch fully integrates his array of microtonal instruments into the dramatic conception of this piece as much as, if not more, in *The Bewitched* and *Oedipus*. He employs his adapted guitar, chromelodeon, kithara, harmonic canon, bloboy, koto, crychord, diamond marimba, boo, mbira bass dyad, gourd tree and cone gongs, cloud-chamber bowls, spoils of war, zymo-xyl, and several other large and small hand-instruments in *Delusion of the Fury*. Displaying Partch's most comprehensive instrumentation, this piece also features, for the first time, two of his most intriguing instruments: quadrangularis reversum and eucal blossom (see Figures 3.15 and 3.16).

[27] Partch, *Bitter Music*, 252

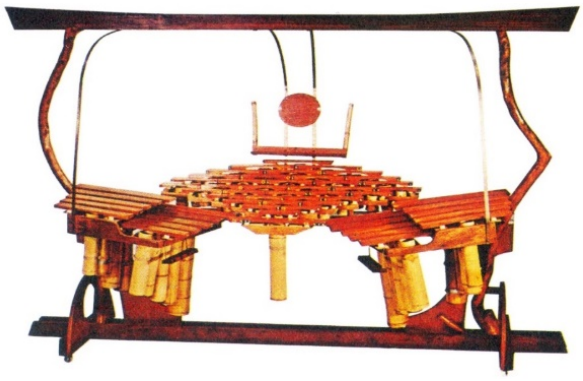


Figure 3-15. *Quadrangularis Reversum;* Partch uses this instrument in *Delusion of the Fury*, for the first time.[28]

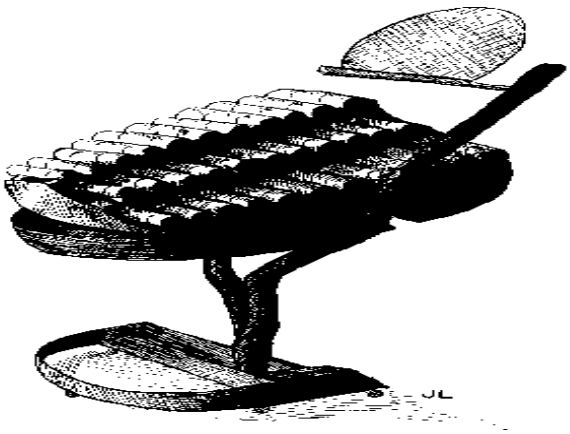


Figure 3-16. *Eucal Blossom;* Partch uses this instrument in *Delusion of the Fury*, for the first time.[29]

Partch's own explanation reveals how deeply his just-tuned instruments, the instrumentation, and the instrumentalists are integrated into the corporeality of this ritual music drama:

> The Instrumentalists *are* the Chorus. […] the choral voice sounds do not come from a separate body of persons appearing just occasionally, but from among the instruments, from the musicians who are deeply involved throughout. In the *Delusion of the Fury,* I wanted to progress even beyond this concept. There are many musicians on stage, but almost never do all of them play simultaneously. In fairly long periods only a small ensemble

[28] source: https://undergoers.wordpress.com/2011/02/18/partch/harry-partch-quadrangularis-reversum-1965/, accessed 04.19.2017.

[29] source: http://www.microtonal-synthesis.com/instruments.html, accessed 04.19.2017.

> is employed, and the tacit musicians may thus become actors and dancers, moving from instruments to acting areas as the impetus of drama requires. This must be a move toward a sealing of the bond between the theater arts.[30]

This remark reveals the extent of the dependency of Partch's aesthetic on his instruments conceived by means of his microtonal system. As in his previous theatrical pieces, in *Delusion*, Partch felt the necessity of a detailed legend at the beginning of the score, articulating the realization of his intonational system in his instruments, for the musicians largely unfamiliar with the intricacies of his theories, notational system, and sound structures (see Figures 3.17 and 3.18, as well as Examples 3.5 and 3.6).

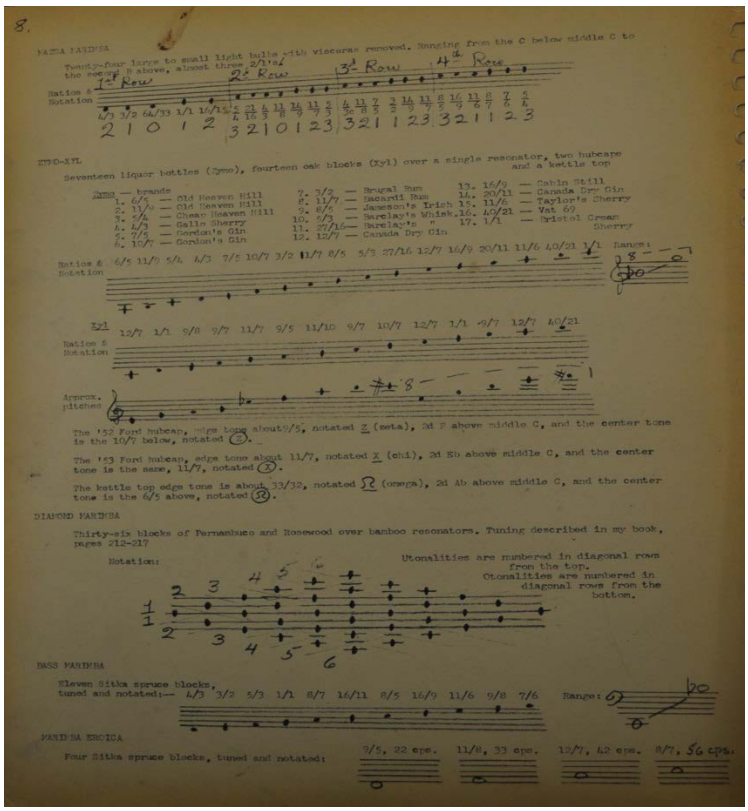


Figure 3-17. Manuscript of *Delusion of the Fury*; legend, p. 8. Located at Harry Partch Estate Archive and Harry Partch Collection, Sousa Archives and Center for American Music of the University of Illinois.

[30] Partch, *Genesis,* 351.

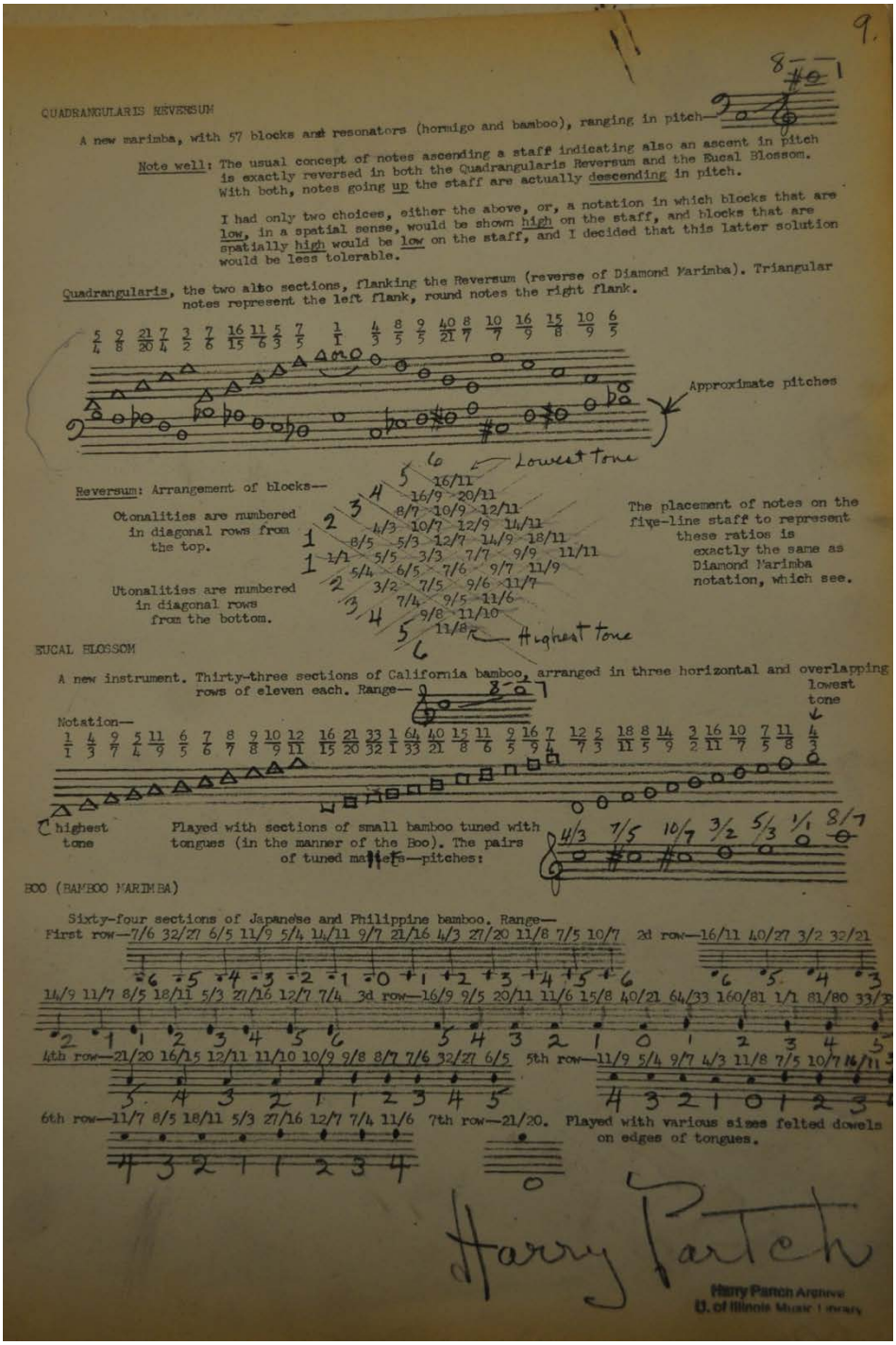
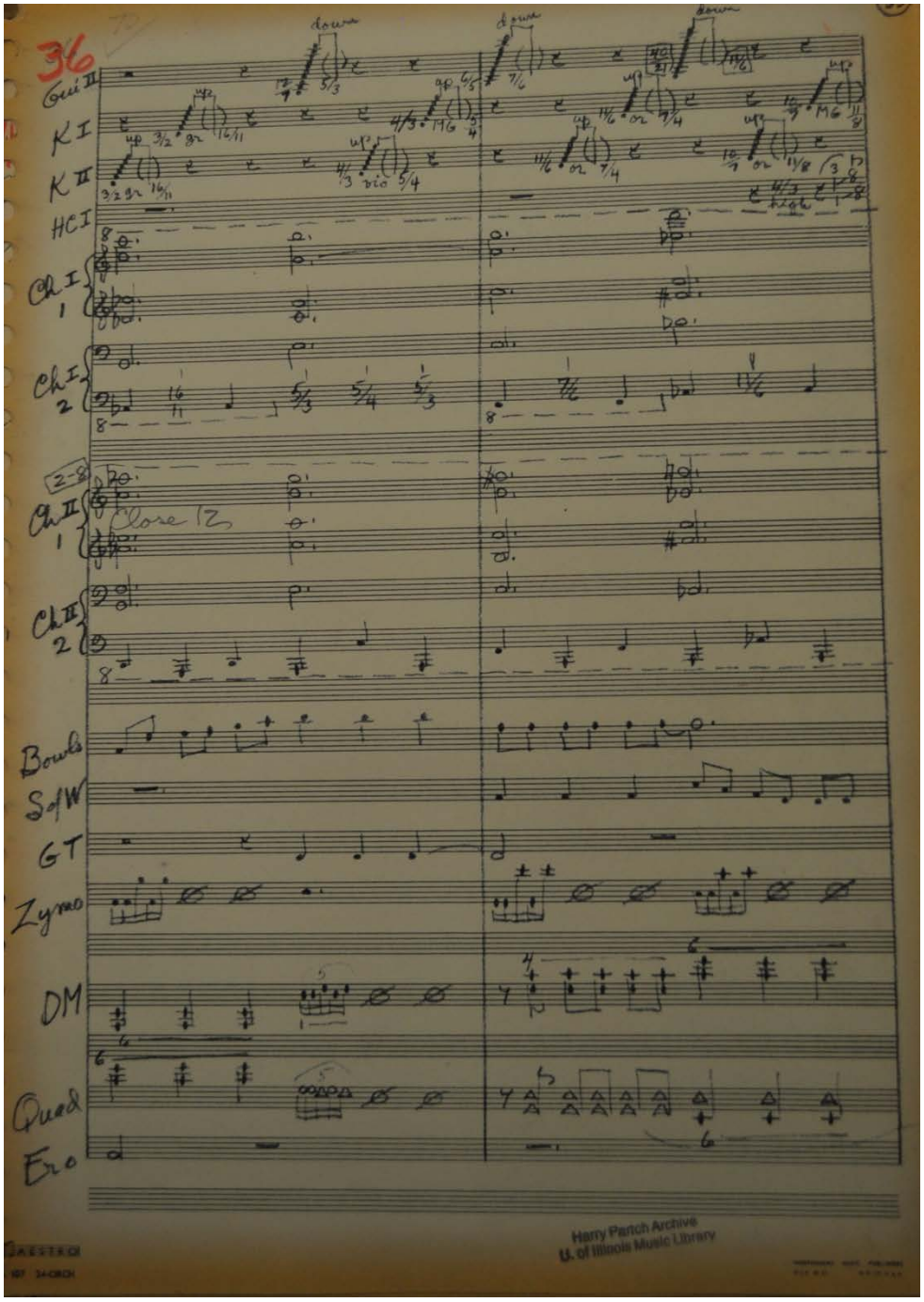
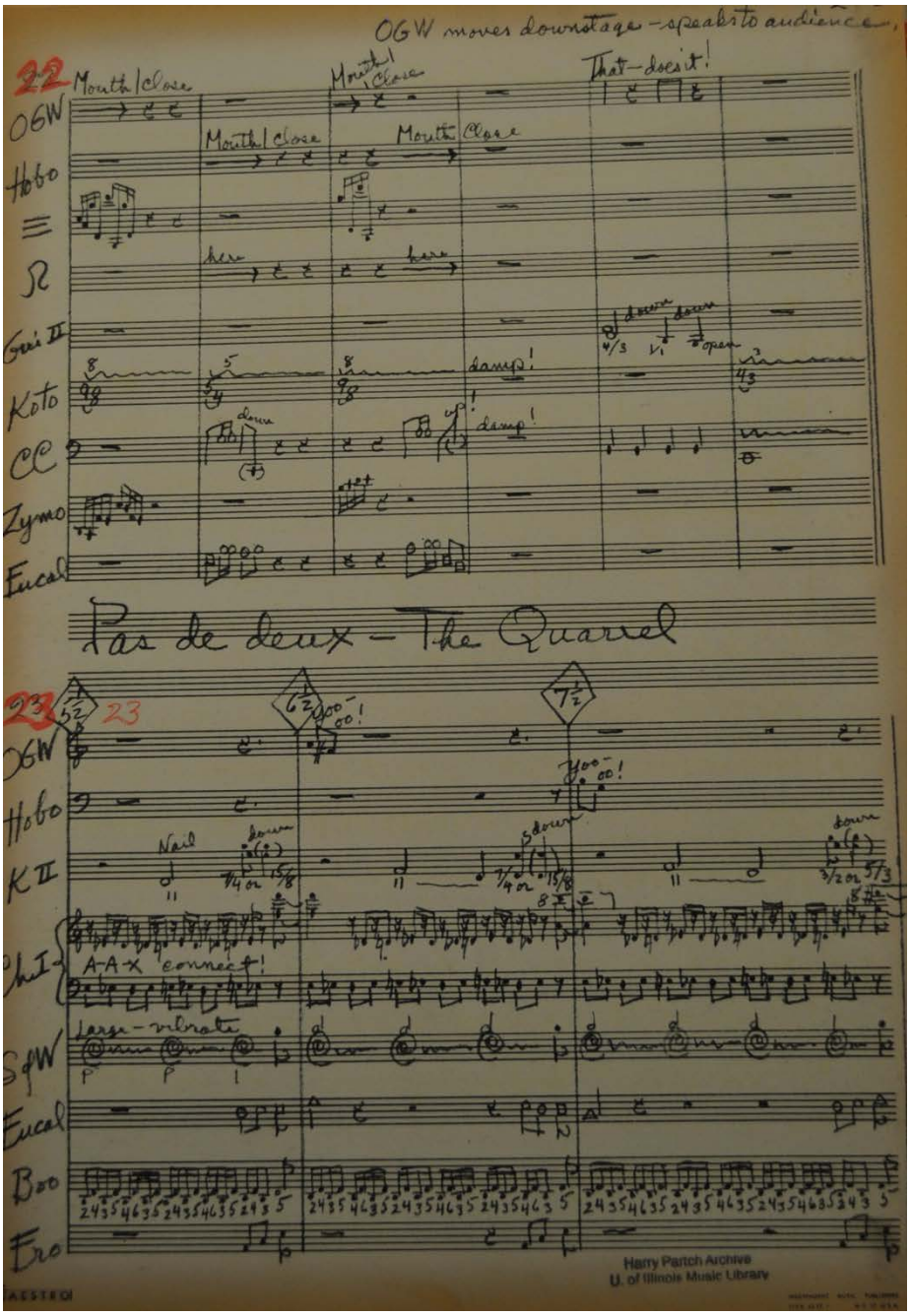


Figure 3-18. Manuscript of *Delusion of the Fury*; legend, p. 9. Located at Harry Partch Estate Archive and Harry Partch Collection, Sousa Archives and Center for American Music of the University of Illinois.



Example 3-5. Manuscript of *Delusion of the Fury*; Act 1 (Exordium), p. 36. Located at Harry Partch Estate Archive and Harry Partch Collection, Sousa Archives and Center for American Music of the University of Illinois.



Example 3-6. Manuscript of *Delusion of the Fury*; Act 2 (Sanctus), p. 22–23. Located at Harry Partch Estate Archive and Harry Partch Collection, Sousa Archives and Center for American Music of the University of Illinois.

Although the preparation and performance of *Delusion*, the most complicated of Partch's works, proved to be an immense burden for the aged Partch and his assistant Danlee Mitchell, the audience and also the critics received it sensationally; a

magnificent and final exposition of Partch's unique conceptual and intonational oeuvre. Ending the discussion of microtonality, tuning, intonation, tone system, and compositional procedures in Partch's works with his grand music drama, the next section begins with Stahnke's last opera, *Orpheus Kristall*, moving, then, back in time to analyze the microtonal configurations in his earlier theatrical works.

Stahnke's Microtonality and Compositional Techniques in His Theatrical Music

In *Orpheus Kristall*, Stahnke's multimedia opera for stage and remote musicians (2001), he constructs an intricate microtonal fabric consisting of three main layers: he uses a finely-tuned system of fifty-three tones per octave, his own concept of *Differenztonharmonik* (difference-tone harmony), and extensive micro-glissandi to characterize Orpheus' inner battle within his extended technological world.

Stahnke borrowed the term *Kristall*—a metaphor for the notion of nature—from Erwin Schrödinger's concept of "aperiodic crystal" in his influential book *What Is Life?*.[31] In this seminal text, in an era before the biological structure of the human-DNA was fully exposed, Schrödinger proposes the concept of "aperiodic crystal" as the molecular material-carrier of life. He juxtaposes this concept, which stands for the rather complicated and non-repetitive structure of a gene, and the rigid and plain structure of the natural "periodic crystals," as it was already understood in the physics.[32] In his words:

> An Organism's astonishing gift of concentrating a 'stream of order' on itself and thus escaping the decay into atomic chaos—of 'drinking orderliness' from a suitable environment—seems to be connected with the presence of

[31] Schrödinger was a Nobel-prize-winning Austrian Physicist (1887–1961). In *What is Life?* (Cambridge, 1944), he investigates issues related to genetics from the standpoint of the physics.

[32] Erwin Schrödinger, *What Is Life? The Physical Aspects of the Living Cell*, (Cambridge: Cambridge University Press, 1944, 60–61.

> the “aperiodic solids,” the chromosome molecules, which doubtless represent the highest degree of well-ordered atomic association we know of—much higher than the ordinary periodic crystal—in virtue of the individual role every atom and every radical is playing here.[33]

Inspired by Schrödinger’s thesis, the complicated and rigorous structure of “periodic crystals” (natural crystals) metaphorically represents Stahnke’s intricate microtonal system, comprising fifty-three tones to octave.[34] Regarding this scale, which he employs for the improvisation of the remote-musicians exclusively, Stahnke mentions: “How are we able to deal with an Internet opera which includes building crystals (tone systems) and Internet? Tone systems are analogous to crystals. But in this omnivorous Europe, the crystal is already very old (our great-grandfather: the twelve-tone equal temperament).”[35] Stahnke’s scale facilitates the inclusion of partials up to the twenty-first harmonic in the harmonic series. His system consists of fifty-three equal intervals, which linearly would build a scale of one-eighth tones.[36]

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[33] Schrödinger, *What Is Life?*, 77.

[34] As opposed to his metaphorical use of the concept of “aperiodic crystal,” informing his system of difference-tone harmony, which I will explain in the next pages.

[35] “Wie ist so ein Ding „Internetoper“ zwischen Kristallbauen und Internet-Laufenlassen zu planen? ‘Tonsysteme gehören zu Kristallen, aber in diesem allesfressenden Europa sind die Kristalle gealtert (unser Urgroßvater ‘Zwölfton-Temperierung).” In Manfred Stahnke, “Ein Tonsystem für eine Internetoper,” in Positionen: Beiträge zur neuen Musik 48, ed. Gisela Nauck (Mühlenbeck: Verlag Positionen, 2001), 27.

[36] A scale of one-eight-tones does not give exactly fifty-three-tones per octave; 1200 cents (octave) / 53 = 22.6 cents, whereas 25 cents (eight tones) x 53 = 1325 cents. In other words, we have a difference of about 2.4 cents per tone, or 125 cents (halftone + a quarter-tone) per octave. The steps in the fifty-three-tone equal-tempered scale (22.6 cents) are, hence, not exactly one-eighth-tones (25 cents), but something between one-eight- and one-seventh-tone (28.5 cents). However, the ca. three c. of difference between the steps in the fifty-three-tone equal-tempered scale (22.6 cents) and one-eight-tones (25 cents) are so small that the steps can be approximated to one-eight-tones. We can, hence, say that in the fifty-three-tone equal-tempered scale, we have a scale of approximately one-eight-tones. On the other hand, in the ancient China, and later, theorists observed that the succession of fifty-three just-fifths on top of each other would get very close to thirty-one octaves. Besides, we know that tempered fifths in the fifty-three-tone equal-tempered scale are very close to the just-fifths (701.8 cents vs. 701.9 cents), and the major thirds in fifty-three-tone equal-tempered scale are very close to just major-thirds (384 cents vs. 386 cents). The fifty-three-tone equal-tempered scale, with very small approximation, can, hence, accommodate the intervals in the five-limit just intonation. Stahnke’s use of fifty-three-tone equal-tempered scale can, therefore, accommodate the harmonics. But why up to twenty-first harmonic? That is, in fact, just one instance of the just-intervals that this scale can accommodate. The twenty-first

Using intervals embedded in the harmonic series, Stahnke creates an approximate elaboration of equal temperament, extending the realm of twelve tones to fifty-three tones to octave. About the relationship of this scale to the ancient musical cultures and their characteristics, Stahnke states:

> That is an old Bosanquet and Baroque system. Even the ancient Chinese people knew that building up a scale of fifty-three natural fifths, practically results in the octave. Fifty-three tempered steps in an octave approximately results in one-eight-tone steps. Using fifty-three tones to octave opens the door to a lexicon of perverse and useful intervals. There, we are suspiciously close to world of 'noises'.[37]

Here, we observe that Stahnke's tonal concept has its roots in the ancient world as well as in the nature, representing the world of Orpheus and the world of the natural, un-tempered tones; questioning our dominating, equal-tempered tonal world.[38]

The slow and long micro-glissandi, where we can experience a diverse and constantly-morphing microtonal world, informs the second significant microtonal element in the opera (see Examples 3.7 through 3.9).[39] While Stahnke often applies micro-glissandi in his compositions, in *Orpheus Kristall*, the extensive use of micro-glissandi refers to the continually-mutating thoughts of the autistic Orpheus

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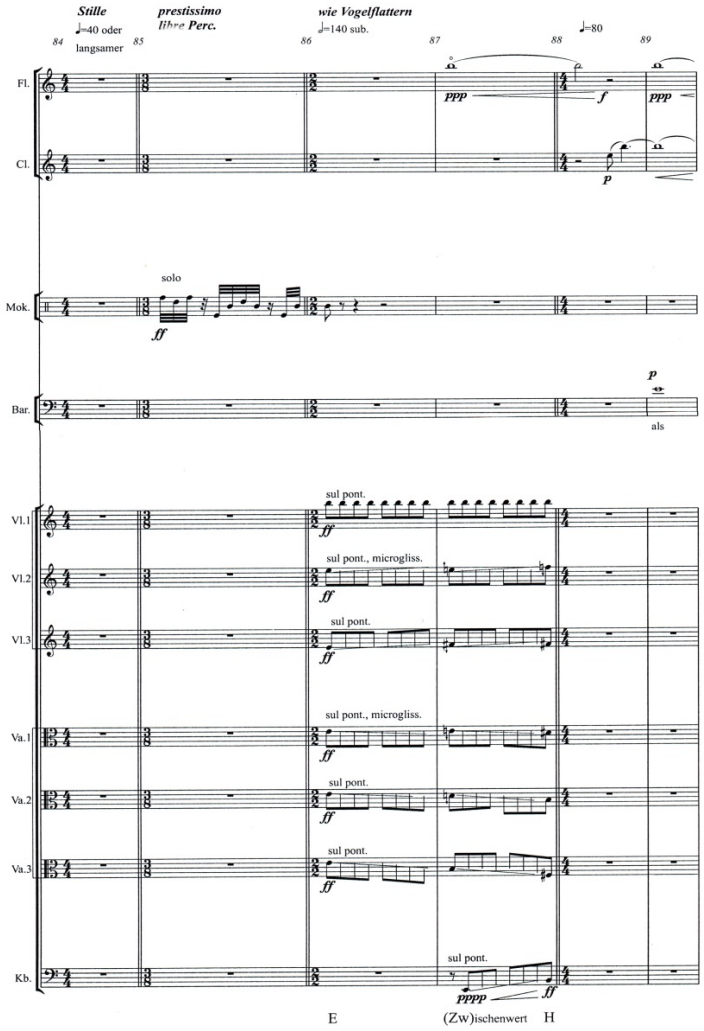
harmonic (ratio 21/16) is an equal-tempered major-fourth minus twenty-nine cents, about one-seventh-tone lower than the equal-tempered major-fourth. Having a scale of one-eight-tone can accommodate, for instance, this interval. Fifty-three-tone equal-tempered scale can, therefore, become a way to approach just intervals, e.g. up to the twenty-first harmonic.

[37] "Das ist ein altes System. Bosanquet, Barock. Sogar die alten Chinesen wussten, dass nach 53 reinen Quinten übereinander praktisch die Oktave erreicht ist. 53 temperierte Schritte pro Oktave ergeben linear zirka Achteltönen. Mit 53 Tönen öffnet sich ein Lexikon des Perversen und Nützlichen, wir sind dem rauschen verdächtig nah." In Stahnke, "Ein Tonsystem," 27. Robert Holford Macdowell Bosanquet (1841-1912) was a British music theorists and an expert in tuning and intonation. *An Elementary Treatise on Musical Intervals and Temperament* (London: MacMillan and Co, 1876) is his seminal text.

[38] Navid Bargrizan, "Technology, Microtones, and Mediation in Manfred Stahnke's *Orpheus Kristall*." *Müzik-Bilim Dergisi, The Journal of Musicology* 6 (1**),** 16–17.

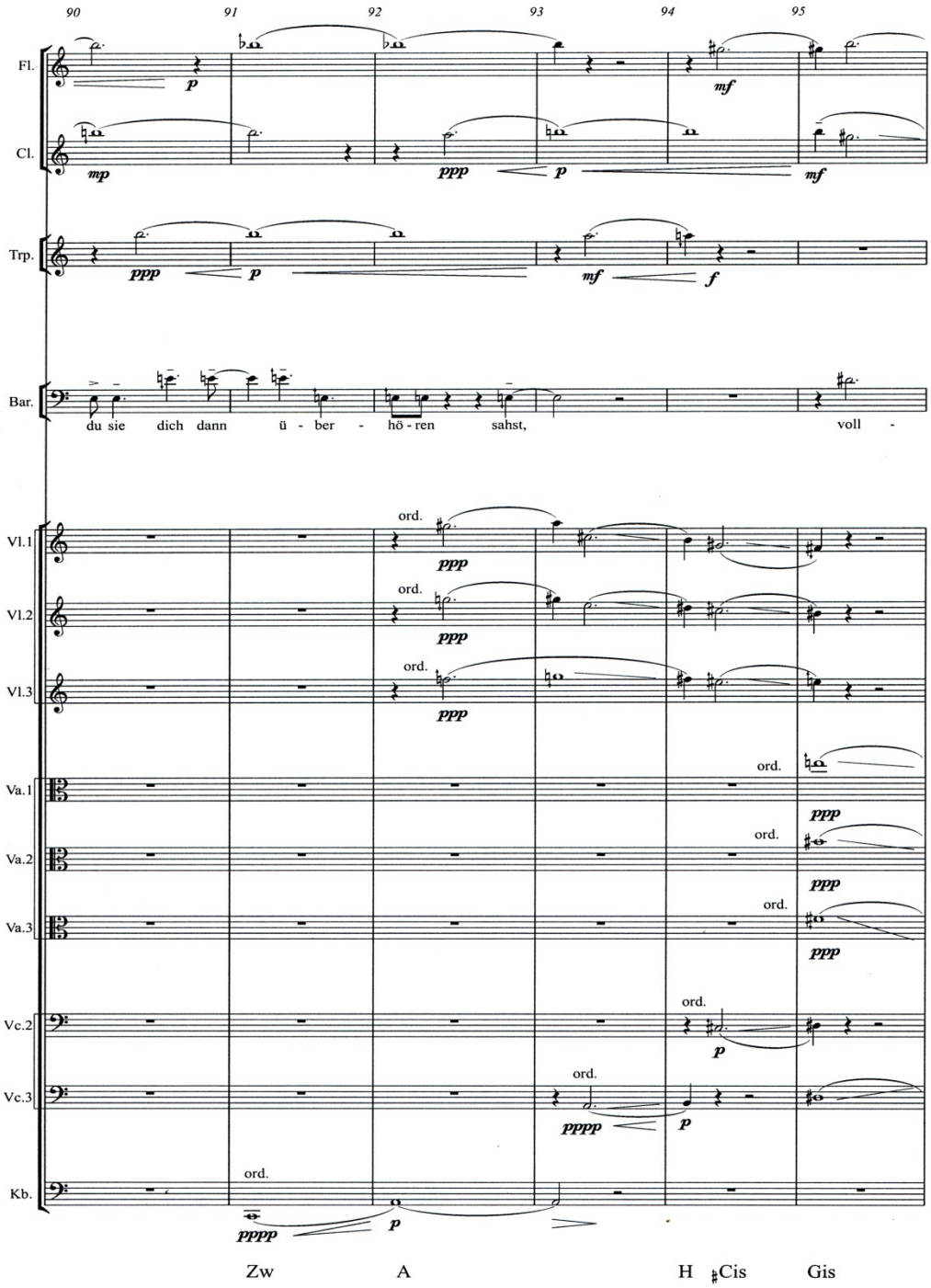
[39] In this dissertation, all the figures and examples from Manfred Stahnke's scores are reproduced with the permission of the Stahnke-Verlag.

The scale consisting of fifty-three tones to octave used by the remote-musicians and the micro-glissandi used by the stage-orchestra are therefore the most essential elements in the tonal construction of this opera. [40]

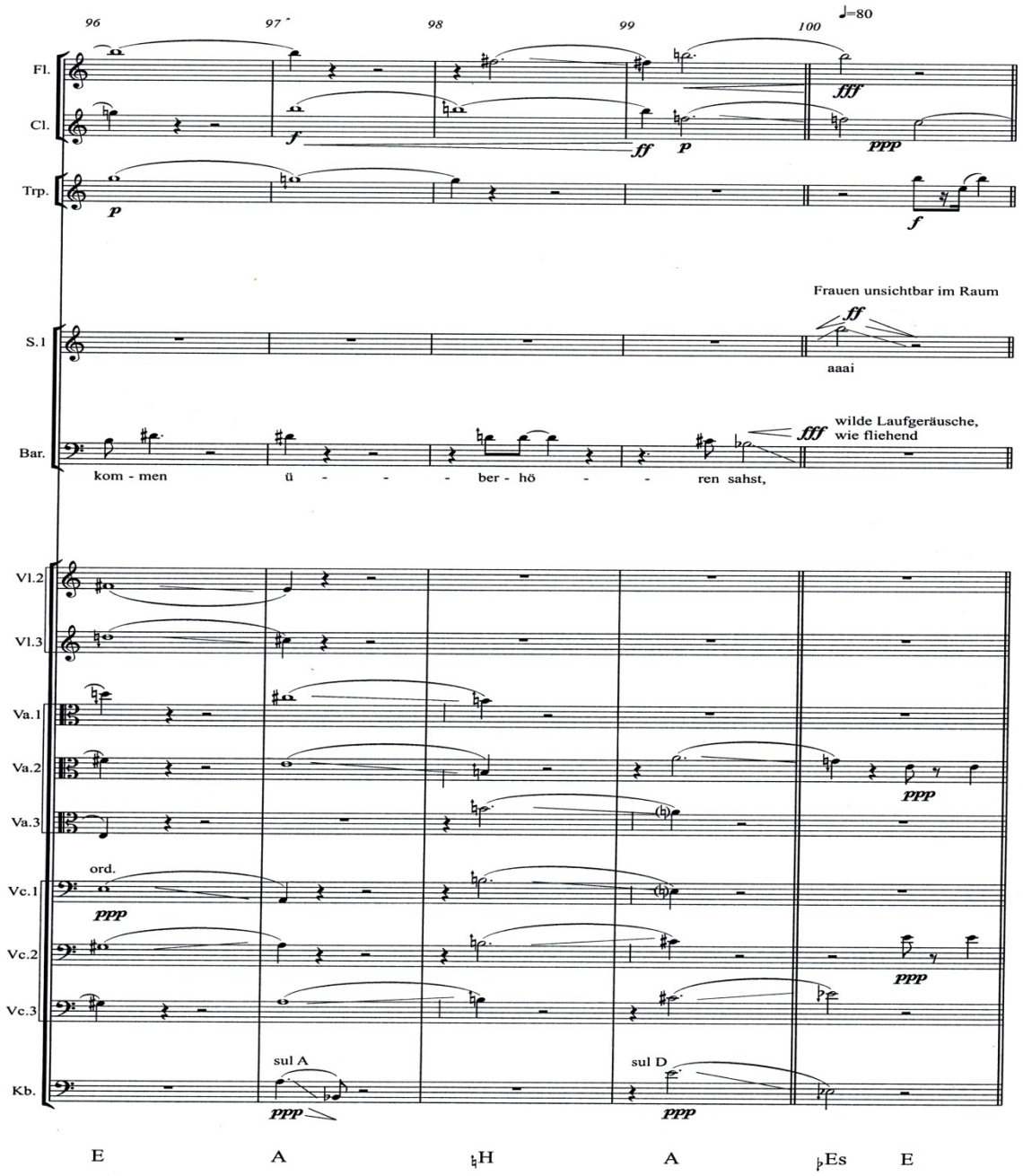


Example 3-7. *Orpheus Kristall*, scene I, measures 84–89; micro-glissandi in the strings, microtonal deviations, and the difference-tone chords; the fundamental tones are stated below the staff.

[40] Bargrizan, “Technology, Microtones, and Mediation,” 16.



Example 3-8. *Orpheus Kristall*, scene I, measures 90–95; micro-glissandi in the strings, microtonal deviations, and the difference-tone chords; the fundamental tones are stated below the staff.



Example 3-9. *Orpheus Kristall*, scene I, measures 96–100; micro-glissandi in the strings, microtonal deviations, and the difference-tone chords; the fundamental tones are stated below the staff.

Stahnke relates the extensive use of micro-glissandi to the story-line—if there is such thing as a clear story-line in this opera—as follows: “There is the threshold of form-recognition in the constantly-mutating meloharmonic image as a consequence of micro-

glissandi and pulse-fluctuations—as if Hades is the world of 'formlessness,' and as if 'form' comes from an inaccessible, different world."[41] In other words, the vague microtones located between the fixed half and whole tones—as opposed to the familiar tones of the equal-tempered twelve-tone-scale—underlines the juxtaposition of the notions of formlessness and form. Explaining the reasons for his interest in micro-glissandi, a technique he employs in several of his pieces, Stahnke elaborates:

> It is the idea of a gradual shifting of intervals, which slowly produce new harmonies. I find this interesting, because, as many voices slide simultaneously, sometimes, they generate simple pure chords. Imagine that I take a major third, then I slowly slide to a narrow fourth; then, I gradually arrive in an equal-tempered fourth, where all the tones fall in a simple chord: I come from a familiar sound structure to a vibrating and strange one, and then again fall in a new simple chord. This morphing fourth produce various difference- and sum-tones. These transitions interest me.[42]

Alongside juxtaposition of the stage- and Internet-music, the aforementioned tonal elements reinforce the contrast between the notions of formlessness and form, already integrated in the Orpheus story. Orpheus desperately desires to reach his now-dead, formless Eurydice. He, therefore, travels to Hades, where the distinction between form and formlessness is vague. He nearly regains his Eurydice, but he loses her again, and

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[41] For explanation of the concept of meloharmony, see page 34. "Es gibt die Schwelle des Gestalterkennens in einem stets mutierenden meloharmonischen Bild infolge von Mikroglissandi, Pulsschwankungen -als wäre der ‚Hades' der Ort der Gestaltlosigkeit und als käme Gestalthaftes aus einer anderen -unerreichbaren- Welt." In Manfred Stahnke "Orpheus unter den ganzen Zahlen-ein Essay über Schwellen," in *Melodie und Harmonie: Festschrift für Christoph Hohfeld zum 80. Geburtstag*, ed. R. Bahr (Berlin: Weidler, 2001), 196.

[42] "Das ist diese Idee vom ganz langsamen Verändern der Intervalle, die dann ganz langsam neue Harmonien erzeugen. Das interessiert mich, weil man manchmal im Glissando vieler Stimmen in einfache "Natur"-Klänge fällt. Also stellen Sie sich vor, ich nehme eine große Terz, komme langsam in die zu enge Quarte; dann komme ich allmählich in die richtige Quarte und plötzlich fallen hier alle Töne in einen einfachen Akkord: Ich komme von einer Welt, wo alles stimmt, in einer merkwürdigen Welt, wo alles vibriert und schillert; und plötzlich komme ich wieder in einen neuen einfachen Akkord. Eben mit dieser Quarte baut sich ihr Summations- und Differenztonschatten. Diese Übergänge, diese Transitionen interessieren mich." In Navid Bargrizan, "Aspekte mikrotonaler Komposition."

therefore, loses himself as well. Stahnke conceives the dichotomy between form and formlessness by the means of a contrast between the realm of half and whole tones and the domain of microtones, all of which is amplified by the improvisatory world of Internet-sounds, in contrast to the stage-produced sounds. To realize the dichotomy of form and formlessness in the music, Stahnke expands the world of fixed half and whole tones to a world of endless tones, where the tone is an unfixed phenomenon. By allegorical adoption of a multi-layered microtonal structure, Stahnke breaks the barrier of the equal temperament that had characterized our somewhat limited world of the tempered fixed tones.[43]

As an allegory to Schrödinger's concept of "aperiodic crystals," Stahnke's concept of "difference-tone harmony" (*Differenztonharmonik*) underpins the opera's harmonic structure. About his system of difference-tone harmony and its significance in the conception of *Orpheus Kristall*, Stahnke states:

> If this enormous apparatus, the Internet, with its uncontrollable character has to be integrated on the stage, as a counterbalance, a precisely-built "crystal" should also be present on the stage. My difference-tone harmony could become a comprehensive meloharmonic concept for the entire opera.[44]

In pieces such as his fourth string quartet, titled *Schrödingers Kristall*, inspired by Schrödinger's concept, Stahnke applies his system of difference-tone harmony extensively. In *Orpheus Kristall*, Stahnke's meloharmonic construction also rests upon difference-tone harmony. This concept refers to the psychoacoustical phenomenon that

[43] Bargrizan, "Technology, Microtones, and Mediation," 16.

[44] "Wenn schon dieser riesige Apparat des Internet mit seinem unsteuerbaren Spielcharakter in die Oper einbrechen soll, müsste als starkes Gegengewicht ein sehr präzise gebautes ‚Kristall' auf die reale Opernbühne gestellt werden. Meine Differenztonharmonik könnte zu einem umfassenden meloharmonischen Konzept für die Oper werden." In Stahnke, "Ein Tonsystem für eine Internetoper," 27.

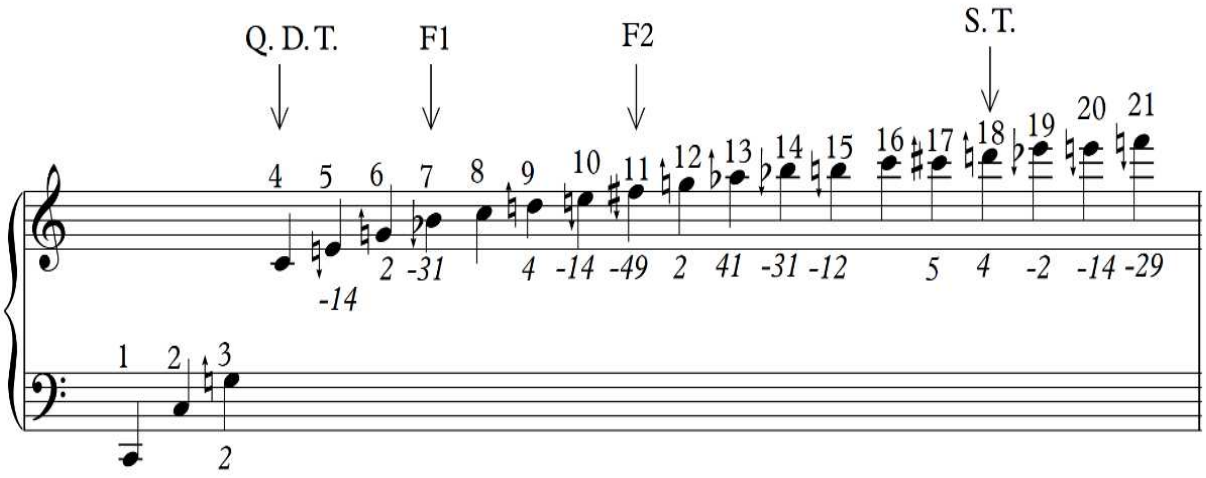
happens naturally in our ears when we hear any interval, especially a very narrow interval, e.g. A 440 HZ and A 440 HZ + ¼-tone. As soon as we hear such an interval, its sum-tone (*Summationston*) emerges as overtone, and its quadratic as well as its cubic difference-tones (*Differenztöne*) emerge as undertones.[45] We, however, only perceive this naturally-occurring phenomena in specific acoustic conditions accompanied by enough amplification, correct intonation, and the lack of vibrato. [46]

Taking any ratio (f2/f1) from the overtone-series (f2 has a higher frequency than f1), the quadratic difference-tone of this ratio is f2 minus f1 (f2-f1). For example, as illustrated in Figure 3.19, based on C2 as fundamental, its eleventh overtone (f2) is F#5 -49 cents, or the natural tritone (11/8), which is about a quarter-tone (50 cents) smaller than equal-tempered tritone. On the other hand, its seventh overtone (f1) is Bb4 -31 cents, or the natural minor seventh (7/4), which is about one-sixth tone (33 cents) smaller than the equal tempered minor seventh. According to the formula f2-f1, the quadratic difference-tone of these two frequencies sounding harmonically is 11-7=4, the fourth partial which is C4. The sum-tone of these two frequencies (f1+f2) is 7+11=18, in this case the eighteenth partial, which is D6.[47]

[45] See, for example, James O. Pickles, *An Introduction to the Physiology of Hearing* (Bingley: Emerald, 2010), or, Stanley A. Gelfland, *Hearing: An Introduction to Psychological and Physiological Acoustics* (New York: Marcel Dekker, 2004).

[46] Bargrizan, "Technology, Microtones, and Mediation," 20.

[47] Bargrizan, "Technology, Microtones, and Mediation," 20.



-The numbers above the notes indicate the numbers of the partials.

-The numbers below the notes combined with the accidentals indicate the cent-deviations form the equal temperament.

- Q. D. T. stands for quadratic diffrence-tone.

- S. T. stands for summation-tone.

Figure 3-19. Overtone series of the fundamental tone C2, up to the twenty-first overtone. This figure indicates the quadratic difference-tone and the summation-tone of the ratio f2/f1.

More complicated and not as well-known is the phenomenon of cubic difference-tone (2*f1-f2), which actually is not just one tone, but usually a cascade of difference-tones consisting of the undertones of any ratio based on a specific fundamental. Take, for example, the ratio 11/10 (tenth partial is E5 based on the fundamental C2), the first cubic difference-tone is 2*10-11=9, which is D5 -4 cents. Then if we take D5 as f2, the next cubic difference-tone in the cascade will be 2*9-10=8, which is C5. If we keep on calculating according to the same formula, the rest of the cubic difference-tone will be: 2*8-9=**7**, 2*7-8=**6**, 2*6-7=**5**, 2*5-6=**4**, 2*4-5=**3**, 2*3-4=**2**, 2*2-3=**1**., We observe (see

Figure 3.20) that all the undertones of the ratio 11/10 build a cascade of cubic difference-tones (the ninth, eighth, seventh, sixth, fifth, fourth, third, and the second partials, as well as the fundamental tone itself).[48]

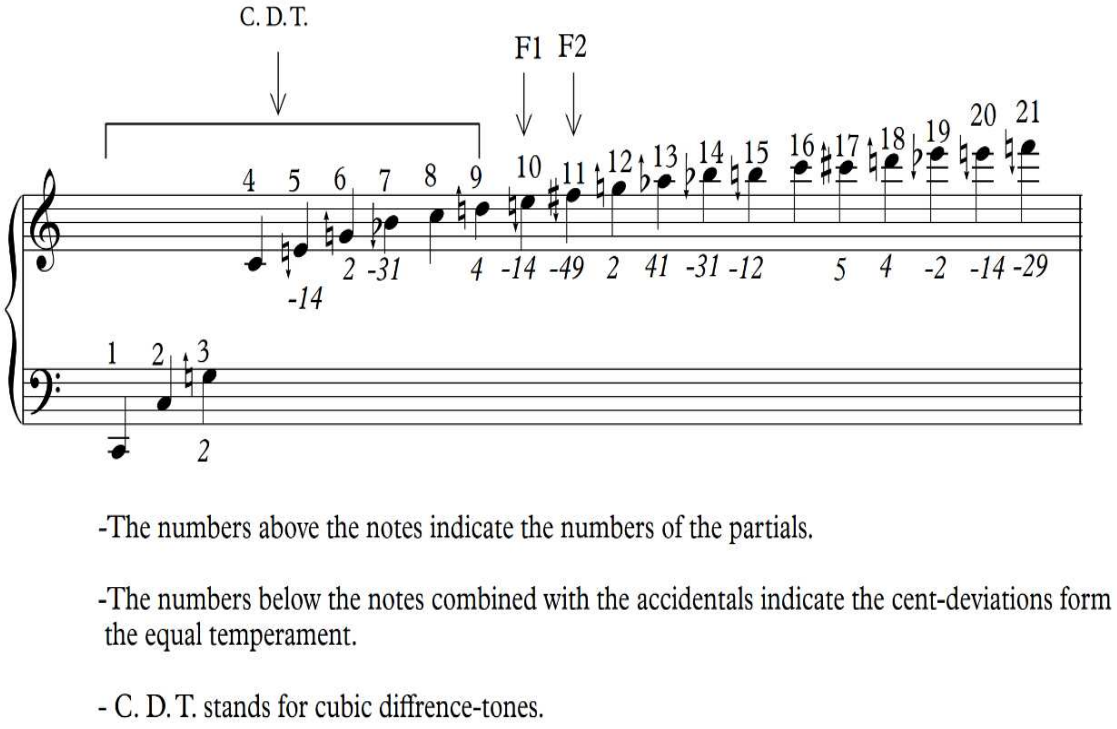
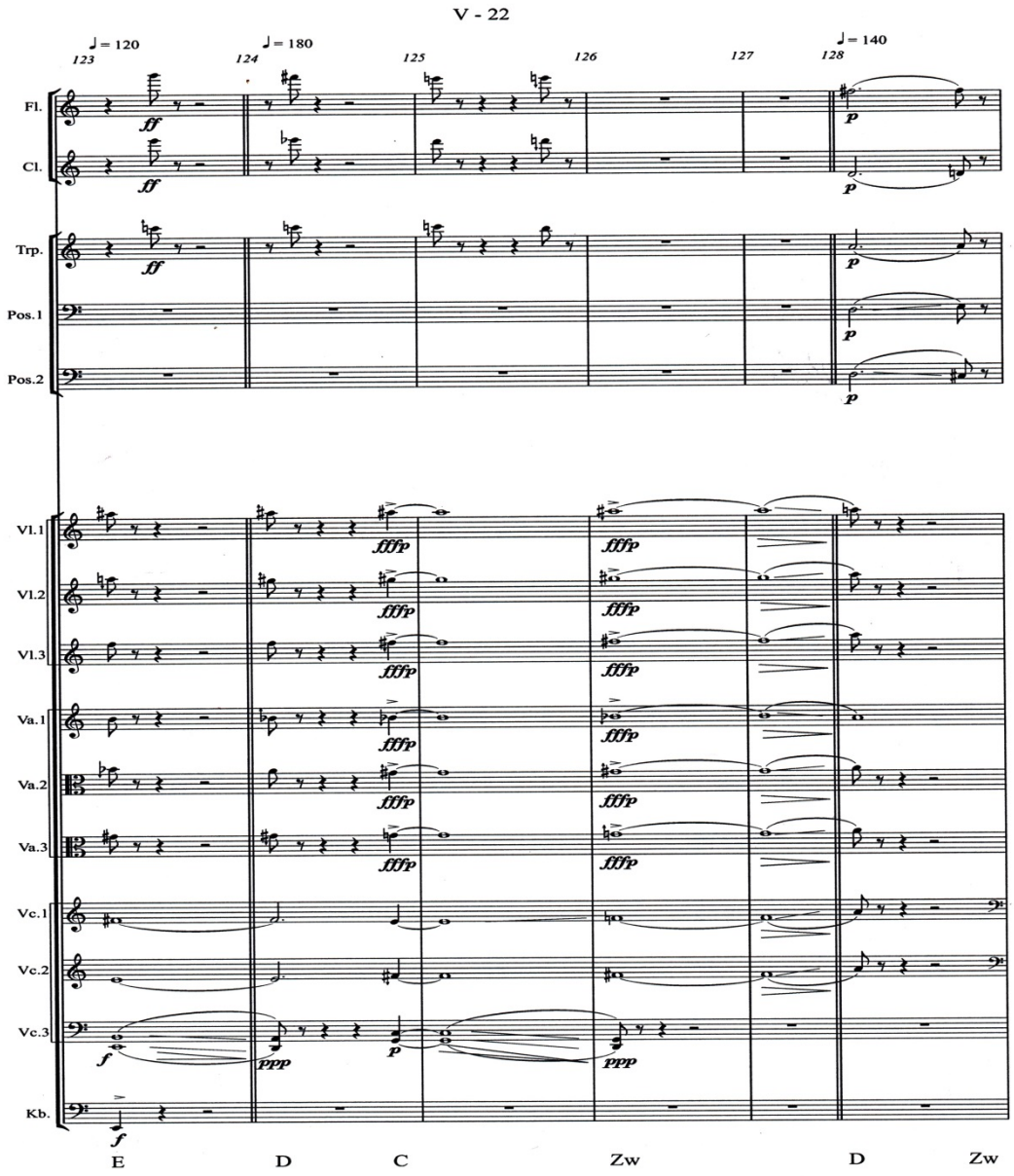


Figure 3-20. Overtone series of the fundamental tone C2, up to the twenty-first overtone. This figure indicates the cubic difference-tones of the ratio f2/f1.

Extending the scope of his microtonal system throughout *Orpheus Kristall,* Stahnke uses this natural phenomenon and builds just-intoned chords based on both sorts of difference-tones, constructing the harmonic structure of the opera. In other words, his harmonic system makes us perceive consciously what we most often, unconsciously hear (see Example 3.10).

[48] Bargrizan, "Technology, Microtones, and Mediation," 21.



Example 3-10. *Orpheus Kristall*, scene V, measures 123–128; difference-tone chords; the fundamental tones are stated below the staff.

Throughout the opera, Stahnke deliberately uses various meloharmonic possibilities, which his microtonal conceptions grant him. He relates the microtonal world of difference-tones to the Orpheus story, using a triple Eurydice character, which could be interpreted as both Eurydice and the tree-headed dog, Cerberus, as follows:

> A triple Eurydice is generated as the composed difference-tone-shadows of Orpheus's voice. The woman, from the world of shadows, pulls the man (escaping love) underneath. Orpheus appears as a double of the triple Eurydice; as her projection. The sung tones are actually the projection of a modified sound space: each sung tone is instrumentally projected in a difference-tone space, which unfolds in a strict and obsessive tone-system.[49]

In *Orpheus Kristall*, the low-sounding musical instruments often realize the difference-tones of the vocal or higher instrumental parts to build complex, microtonally-tuned chords. [50]

In addition to the natural intervals, the complex, unordinary intervals also play a significant role in Stahnke's opera. What happens if we move from the natural fourth (4/3) to a slightly-distorted fourth of 4.1/3? Then, some extremely exotic difference-tones emerge. Using the technique of micro-glissandi, we, in fact, experience a diverse world of these strange tones between the just-intoned tones. The natural intervals, the distorted intervals, and their complicated difference-tones build the harmonic structure of *Orpheus Kristall*, all of which, in turn, draw upon meticulous mathematical calculations. [51]

Stahnke has also written microtones for the singers. In order to intone these intervals as precisely as possible, Stahnke and the conductor practiced for a long time with the singers, using the exact computer versions of the microtones, while the microtonal voice parts are also frequently accompanied by instrumental background as

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[49] "Eine dreifache Eurydice erzeugt sich als komponierten Differenztonschatten der Orpheusstimme. Die Frau, hier durchaus kein Wesen aus der Schattenwelt, zieht den (vor der Liebe Fliehenden) Mann herab. Orpheus erscheint wie ein Doppel der Dreifach-Eurydice, wie Ihre Projektion. Überhaupt sind die gesungenen Töne Projektionen eines vorgeformten Klangraums: Jeder gesungene Ton wird instrumental in ein differenztongeschehen eingebettet, ergibt sich so aus einer strengen Ordnung, aus einer Obsession." In Stahnke, "Ein Tonsystem für eine Internetoper," 27.

[50] Bargrizan, "Technology, Microtones, and Mediation," 21.

[51] Bargrizan, "Technology, Microtones, and Mediation," 23.

reference frequency. According to Stahnke: “without the instruments as references for the vocalists, it would be very hypothetical to realize these micro-intervals in the voice.”[52] One of the important reasons for the persistence of the composer to revive the predominance of the “natural” tones in *Orpheus Kristall*, which sound to our ears ironically “unnatural,” and to base his whole meloharmonic construction upon just intonation, is the centrality of the element of nature in the whole Orpheus myth, which, as the following chapters reveal, is of a particular relevance in the conception of the opera.[53]

In *Orpheus Kristall*, a duality arises from the conflict of the indefinite, improvisatory world of the Internet sounds, and the definite, intricately-built microtonal system of the opera. The notion of duality, in fact, overshadows the opera: duality of the ancient myth and the modern, technological world; duality of our solid universe (or multiverse) and the underworld (Hades); duality of the world of fixed-tones and the realm of non-fixed, finely-tuned tones, all of which the amalgamation of Stahnke’s multi-layered microtonality allegorically realize.[54]

Prior to *Orpheus Kristall*, Stahnke had employed microtonal structures and technology as integral parts of the (post)dramatic fabric in his three other theatrical works. He based his chamber opera *Der Untergang des Hauses Usher* (*The Fall of the House of Usher*)—commissioned by Kiel Opera and premiered in 1981—on Edgar Allen

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[52] “Wir sind immer von den Gesangstönen, die von Instrumental-Tönen getragen sind, ausgegangen. Also es gibt niemals den reinen Gesang ohne den Hintergrund der Instrumente. So haben wir auch mit Computer geübt, damit die Sänger hören, wie die Mikrotöne klingen und sich anpassen können. Sonst wäre das sehr hypothetisch.” In Bargrizan, “Aspekte mikrotonaler Komposition,” 110.

[53] Bargrizan, “Technology, Microtones, and Mediation,” 23.

[54] Bargrizan, “Technology, Microtones, and Mediation,” 23.

Poe's novel of the same name (published 1839), as well as an assortment of Poe's other poems, which Stahnke himself selected and arranged. In this opera, Stahnke employs microtonal structures based on just intonation to evoke an intricate web of psychological issues implied in Poe's plot, such as hypochondriasis, hysteria, and melancholy as well as its grotesque aspects, for example, incest, vampirism, and horror. Stahnke's pedantically-laid out microtonality in *Usher* projects Poe's style of story-telling, where every element and all details are meticulously-interwoven and relevant. The microtonal configurations, hence, are of a great importance in the dramatic narrative of the opera.

Stahnke's peculiar harp tuning—a tuning which he developed during his studies with Ben Johnston at University of Illinois in 1979 with the cooperation of the harpist and computer composer Carla Scalleti—stands at the center of his multifarious microtonal fabric in *Usher*.[55] In this opera, the harp's special tuning based on just intonation illustrates an image of the old and pleasant days of the House of Usher in Poe's infamous novel. Its microtonal tuning—the dissolution of the twelve-tone equal temperament—symbolizes the relentless decay of the house of Usher, which, throughout the plot, is collapsing. As much as the concept of difference-tone harmony interwoven in the narrative of *Orpheus Kristall*, Stahnke's intertwines harp's metaphorical tuning in the narrative of both *Usher* and *Heinrich IV*.

The reference to the old days—nostalgia for the past embedded not only in Poe's *Usher* but also in Pirandello's *Enrico IV* as well as in the Orpheus story—has

[55] Scalleti (born 1956) received her DMA at the University of Illinois in 1984. She designed, among others, Kyma, a pioneering sound design workstation, see www.carlascaletti.com, accessed 04.12.2017.

underpinned Stahnke's theatrical conceptions in all of his operas to the extent that he exploited microtonal elements as a musical means to associate with the nostalgia inherent in these story-lines. Although I will analyze the function of the concept of nostalgia in Partch's and Stahnke's dramatic designs in the following chapters, here, I shed light on the function of the related microtonal elements emulated in the opera's dramatic design.

Through hours of experiments and with Scalleti's help, Stahnke conceptualized his innovate harp tuning, which rests upon just major-thirds and just minor-sevenths based on a B-fundamental (see Figure 3.21).

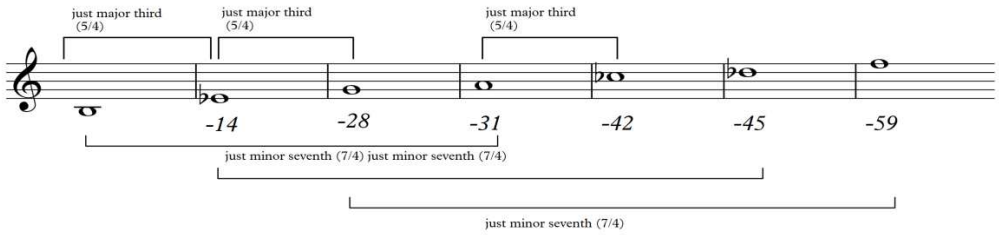


Figure 3-21. Harp's tuning in *Der Untergang des Hauses Usher*; cent-deviation from equal temperament are shown below the notes.

In this tuning system, harp's first string is tuned B (the fundamental-tone), the second string is tuned a just major- third (14 cents, or about one-eight-tone, lower than the equal tempered major-third used in the twelve-tone equal temperament) above B, a just Eb. This Eb itself generates the just G (just major-third above Eb) of the third string, which, in turn, generates the just Cb of the fifth string (just major-third above G). These leave out the fourth, sixth, and the seventh strings, which are tuned a just minor seventh (31 cents, or about one-sixth-tone, lower than the equal tempered minor-seventh used in the twelve-tone equal temperament) above B, Eb, and G, respectively a just C, just Db, and just F (see Figure 3.22).

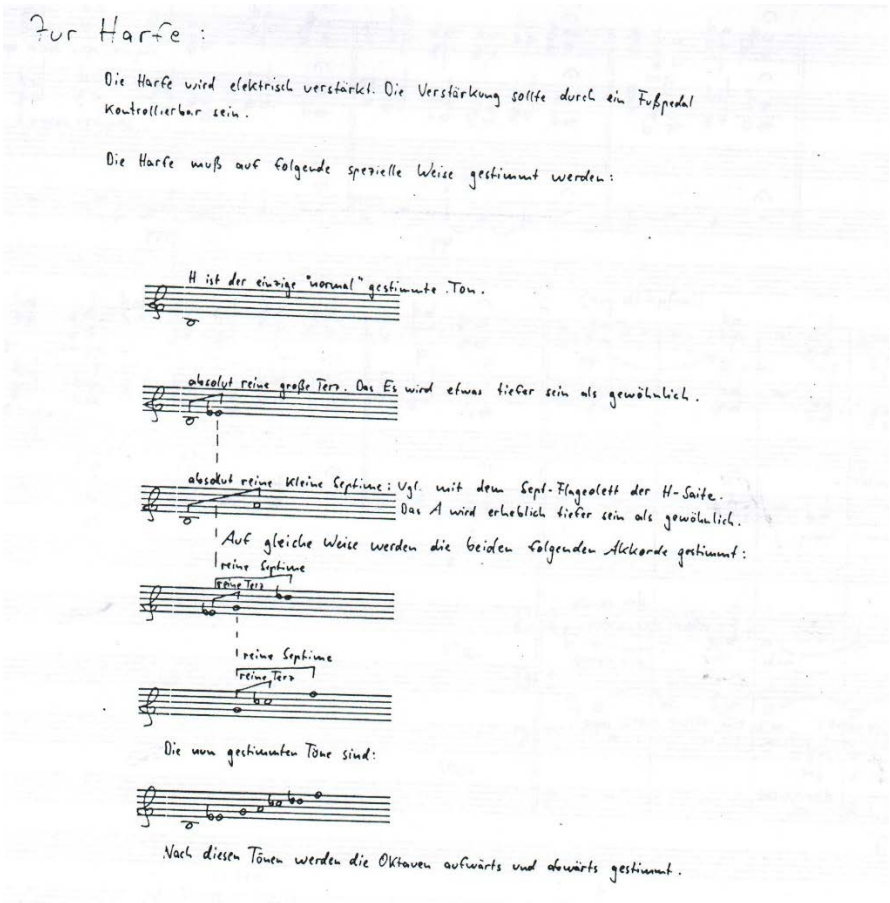
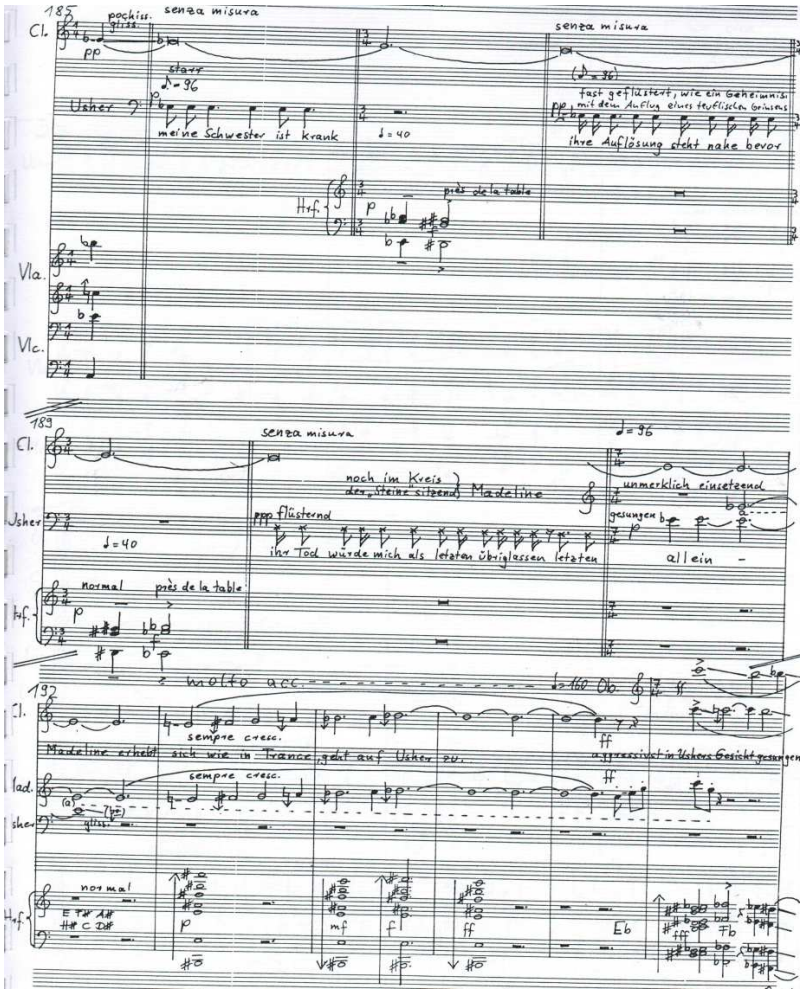


Figure 3-22. Stahnke's autograph score, with notes, for *Der Untergang des Hauses Usher*; legend; about the tuning of the harp.

All the other octaves of the harp follow this just tuning of the first octave, expanding its capability to upper ranges. This system gives birth not only to the possibility of arranging horizontal and vertical just-intervals producing a very different sound effect than the harp's usual tuning, but also to a variety of idiosyncratic and complex proportions generated through use of the harp's pedals capable of sharpening and flattening each single note in all the octaves. These extraordinary proportions would fall under the category of "strange intonation," a term—as mentioned earlier—coined by Stahnke to refer to Partch's intonational practice, which, although based on just intonation, most often does not sound just. In *Usher*, the harp's sound-world plays an

essential role in the narrative, signifying Roderick Usher's constant feverish yearning for the beautiful, old days of the mansion. Roderick Usher's character is, hence, associated with the harp, throughout the opera (see Example 3.11).



Example 3-11. *Der Untergang des Hauses Usher*, score; measures 185–197; harp interchanges with and accompanies Usher.

Stahnke, however, seeks the tonal contradictions imbedded in his harp tuning as much as the just-intervals on which it rests. He relates these contradictions to Partch's aforementioned "strange-intonation," as follows:

> In several of my pieces, the harp's tuning demonstrates a contradiction imposed by a sort of tonal falseness. In this tuning, the tones are only in a specific context just-intoned; all of a sudden the intervals are not just any more, because [using pedals] I work with twenty-one tones per octave.

> There I build a "strange-intonation," which I actually learned from Partch. Partch's music is rarely just-intoned; it largely projects a sort of strange intonation. Most of his instruments, e.g. cloud chamber bowls, or marimba eroica, do not really sound just. They, however, make for a wonderful sound. He could not tune them according to just intonation precisely. But where he uses chromelodeon, he builds exact just-intervals. Such complicated strange-intonation appears in my harp tuning as well. [56]

As Stahnke implies, he embraces the unexplainable tonal proportions emerging from the harp's microtonal tuning, as Partch does in his own pieces.

Influenced by the nineteenth-century theoretical works of Arthur von Oettingen and Helmholz as well as Partch's explanation of harmonic and subharmonic series, Stahnke appoints a significant role for the concepts of otonality and utonality in the microtonal structure of the opera. He in fact intertwines otonality and utonality in the dramatic narrative of the opera, as much as he links the harp and its peculiar tuning to evoke nostalgia.[57] Highlighting the ways in which the theoretical works of von Oettingen,

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[56] "Wie die Harfe in vielen von meinen Stücken gestimmt ist, ist durch eine Art Falschheit voll von Widersprüchen. Die Töne sind in einem bestimmten Zusammenhang Just Intonation, aber die Intervalle stimmen plötzlich nicht wirklich. Ich spiele mit 21 Töne pro Oktave in meiner Harfenstimmung. Eine „Strange Intonation" habe ich dann gebaut und das habe ich eigentlich von Partch gelernt, weil Partchs Musik nur zum einen kleinen Teil Just Intonation ist. Zum einen großen Teil ist er einfach „Strange" und er suchte das auch. Partchs Instrumente sind nicht genau Just Intonation. Das ist einfach ein wunderbarer Sound, den er von Cloud Chamber Bowls nimmt oder das wunderbare Marimba Eroica; ein wunderbarer Holzklang. Die kann er nicht so genau stimmen. Das hat nichts Direktes mit Just Intonation zu tun. Dort wo er sein Chromelodeon nimmt, geht er aber sehr präzis auf Just Intonation. Solche komplizierte ‚Strange Intonation' taucht bei meiner Harfenstimmung auch auf." (Bargrizan, Interviews with Manfred Stahnke.)

[57] Arthur von Oettingen (1836–1920), a German scientist, musical theorist, and a proponent of just intonation, coined the dualism of major and minor triads, the latter being the inversion of the former. He proposed this concept in his book *Harmoniesystem in dualer Entwicklung: Studiens zur Theorie der Musik* (1866), which, allegedly, influenced Rieman's theories. According to Mark Hoffman and Bernd Wiechert in *New Grove Dictionary*: "Oettingen designed his dual system as the antithesis to Helmholz's *Lehre von den Tonempfindungen* (1863) [Translated to English by Alexander J. Ellis, under the title *On the Sensation of Tone,* 1875]. He believed that Helmholtz was wrong in his concept of consonance and dissonance. Because even a single tone has beats caused by the higher harmonics approaching each other in pitch, he believed that Helmholtz was measuring merely a greater or lesser dissonance. He thought that Helmholtz's approach was negative, and he advocated simply considering dissonance as a positive meeting of two or more different chords, major and minor chords thus being of equal value." Partch's concepts of otonality and utonality, which Stahnke adopted in his *Usher*, rest upon Oettingen's theories. (See *New Grove* and *MGG* entries for Arthur von Oettingen).

Helmholz, and Partch, on top of his own experiments with computer in the USA have contributed to his integration of otonality and utonality as a musical means in the dramatic narrative, Stahnke explains:

> Working with John Chowning [at Stanford], I tried to build computer versions of choir-sound-structures singing otonality and its mirrored spectrum, utonality. I took one central [fundamental] tone and built its harmonic and subharmonic series, which sounds in the computer, interestingly, marimba-like. I, then, used this structures in *Usher*, which is directly associated with Partch. I took a chain of upward and downward, just-major-thirds intervals [14 cents narrower than the equal-tempered major-third], up to the eleventh harmonic. These major thirds become narrower as they ascend and descend. In *Usher*, I have plenty of such otonality and utonality structures. Von Oettingen discussed this duality of the overtone and undertone series, in the nineteenth century. He stated that minor (utonality) is the inversion of major (otonality). Reading Helmholz's text [*On the Sensation of Tone*], who speculated on this theory, led me to this idea. In *Usher*, otonality manifests the image of clarity, beauty, simplicity, and brightness, whereas utonality manifests the image of darkness. [58]

In other words, otonality and utonality stand, respectively, for the old days and the present days of the house of *Usher*, metaphorically relating these acoustical structures to the elements in the Poe's story-line. Stahnke's use of otonality and utonality goes even beyond this metaphorical function; it also demonstrates Partch's influence on his compositional process, emphasizing a central theme of this dissertation: the philosophical, theoretical, and compositional lineage from Partch to Stahnke.

[58]"Ich hatte bei Chowning in Amerika bestimme Chorklänge ausprobiert; also mit menschlichen Stimmen am Computer in Otonality und gespiegelt in Utonality. Ich habe sozusagen einen Zentralton genommen nach oben und ganz gespiegelt nach unten, der sehr merkwürdig klingt. Dieses Utonality klingt am Computer interessanteweise marimba-artig. Dieser klang, den ich im Usher im Chor habe, ist direkt auf Partch gezogen. Otonality: große Terz-Intervalle gehen nach oben. Die verkleinern sich nach oben und sie verkleinern sich, wenn ich sie wieder nach unten nehme. Ich gehe hoch und tief zum elften Teilton. In Usher habe ich ganz viel die Mischung von Oberton- und Untertonstrukturen. In 19. Jh. hatte von Oettingen diesen Dualismus vom Oberton und Unterton gebaut und behauptet, dass Moll ist die Umkehrung von Dur. Das kam zu mir über Helmholz. Er hat über diesen Dualismus spekuliert. In Usher habe ich das Bild der Klarheit und Schönheit und Einfachheit und des Strahlendes als Otonality; und die Dunkelheit manifestiert sich dann durch Utonality." (Bargrizan, Interviews with Manfred Stahnke.).

The just tuning of the harp and the use of otonality and utonality inform merely the first and second layers of Stahnke's microtonal construction in *Usher*; he applies, in fact, various sorts of microtonal accidentals to integrate four other layers of microtonality.

1. accidentals with plus and minus signs (#-, #+, etc.) demonstrate just major-thirds (ratio 5/4; about fourteen cents lower than the equal-tempered major-third); and just major-sixths (ratio 5/3; about twelve cents lower than the equal-tempered major-sixth) for choir. The choir is supposed to intone these two intervals throughout the opera.

2. Accidentals with plus and minus signs (#-, #+, etc.) in the solo voices and instrumental part signify deviations of circa less than one-eight-tones, almost always used in conjunction with just major thirds and just minor-sixth.

3. Accidentals with plus and minus signs (#-, #+, etc.) in the solo voices and instrumental parts, within measures 7-14, 131-133, and 209-215, indicate an approximate, equidistant pentatonic scale, which includes five equal intervals of 240 cents (whole-tone plus one-sixth-tone) per octave. Indonesian Slendro music, or Baganda music in Uganda, for example, make use of this scale, which Stahnke has adopted in *Usher* (see Figures 3.23 and Example 3.12).[59]

4. Accidentals with arrow-head signify deviations of quarter-tones. Stahnke employs quarter-tones in the both vocal and instrumental sections to expand his intonational inventory of twelve-tone equal temperament to the possible twenty-four-tone equal temperament.

[59] By using an equidistant pentatonic scale, Stahnke refers to Claude Debussy and his opera *Le chute de la maison Usher*, on which he worked 1908-1917, but never completed. Debussy based his opera on Charles Baudelaire's translation of Poe's works, through which also Stahnke found a gateway to Poe. There have been three attempts to reconstruct the opera: 1- By Carolyn Abbate, performed at Yale University in 1977; 2- By Juan Allende-Blin, performed at Berlin State Opera 1979; 3-By Robert Orledge, performed several times since 2004. The last two versions are recorded on CD and DVD. Debussy's sound world in his *Usher* reminds us of his *Pelléas et Mélisande*, composed in 1902. Stahnke's use of equidistant pentatonic scale implies Debussy's favorite pentatonic scales, as apparent in his *Le chute de la maison Usher* as well as several of his other pieces. See Jean-François Thibault, "Debussy's Unfinished American Opera" in *Opera and the Golden West* ed. John Louis DiGaetani and Josef P. Sirefman (Rutherford: Fairleigh Dickinson University Press, 1994).

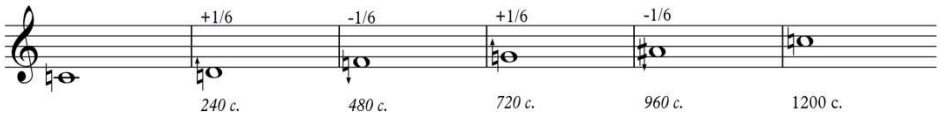
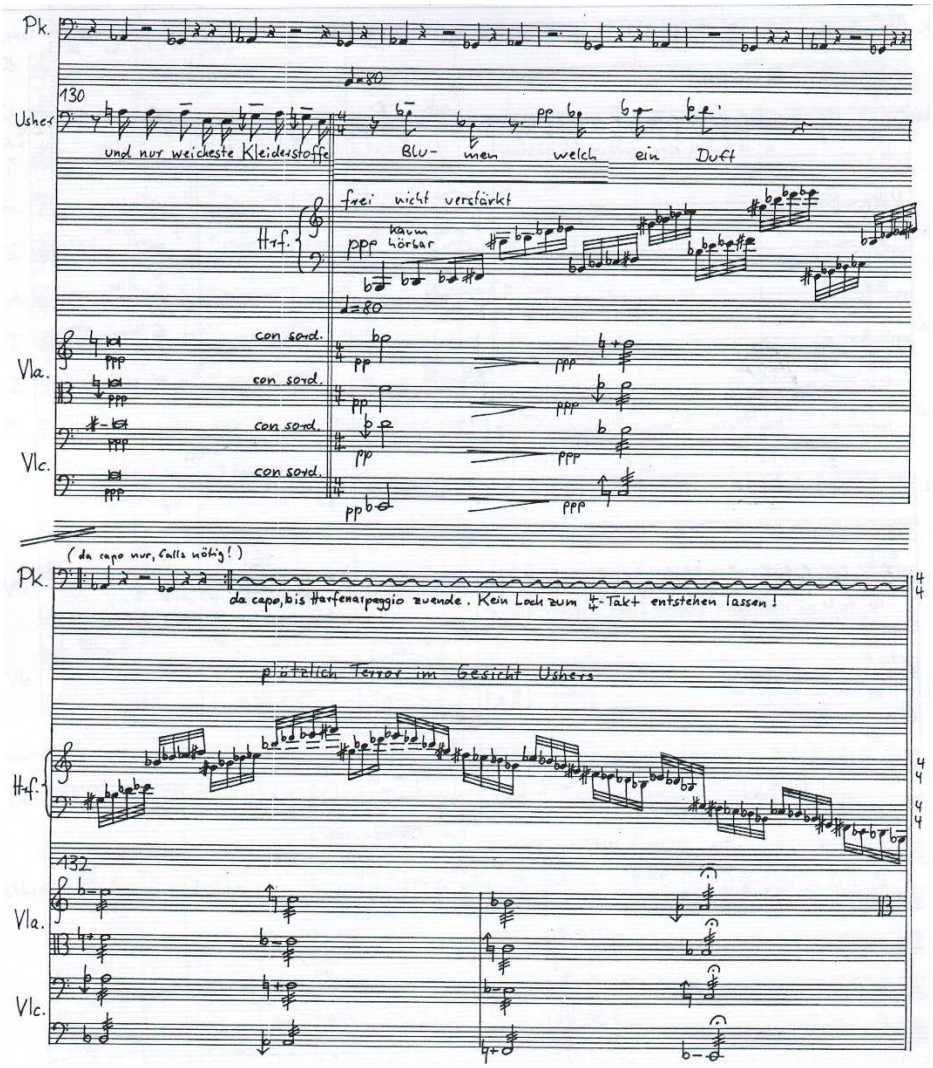


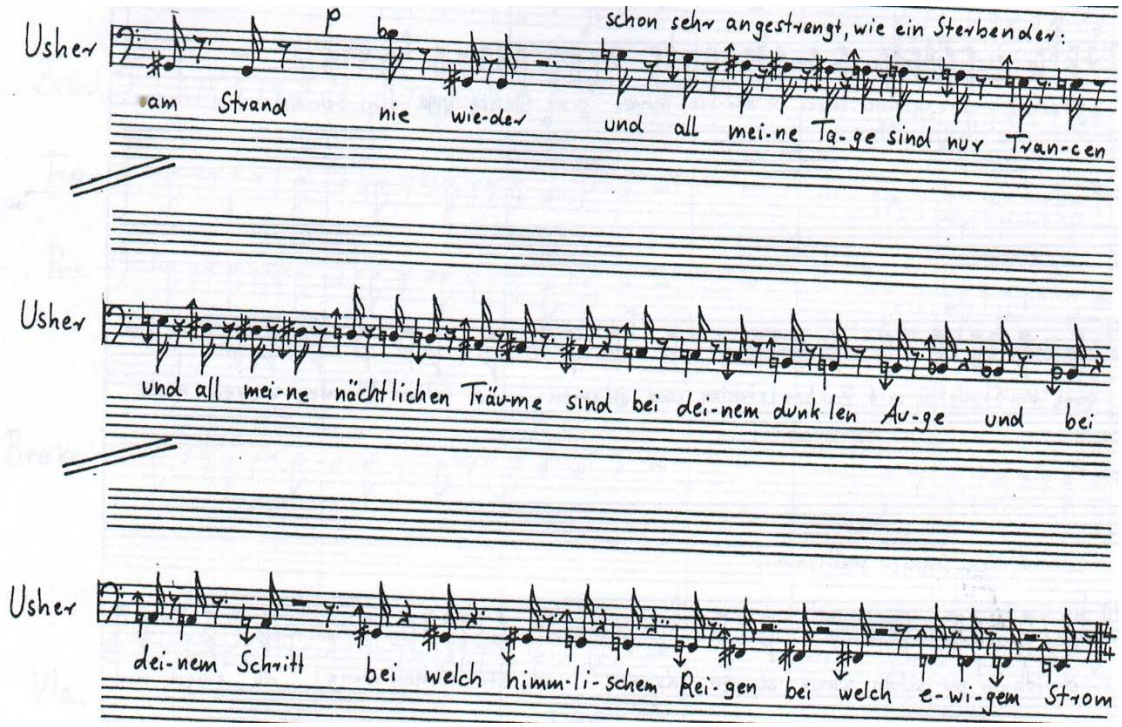
Figure 3-23. Equidistant pentatonic scale. Cent-numbers are shown below the staff. By means of approximately one-sixth-tone deviations, we can reconstruct such a scale.



Example 3-12. *Der Untergang des Hauses Usher*; measures 130-133; equidistant pentatonic scale in the strings.

The way Stahnke handles the solo voices, inspired by Partch's recitative-like speech-music pieces, necessitates the use of broader intonational possibilities to

capture all sorts of inflections of the voice, as we have seen in the case of Partch's music (see Example 3.13).



Example 3-13. *Der Untergang des Hauses Usher*; measure 423; the character of Roderick Usher; the microtonal accidentals demonstrate all the inflections of the reciting voice.

All of the aforementioned microtonal elements on top of the harp in scordatura—the central instrument in this opera—as well as the concepts of otonality and utonality, work to depict *Usher's* dense psychological and grotesque story-line. Stahnke expands the intonational prospect of the voices and the instruments, realized through his use of a chamber ensemble consisting of four solo voices, choir, oboe (also English horn), clarinet (also bass-clarinet), trumpet (also piccolo-trumpet), trombone, harp, percussion, two violas, two celli, and tape. Regarding his unconventional orchestration in Usher Stahnke says:

> I wanted to employ solo instruments characterizing a strong, "anonymous" sound: bass clarinet; trombone with microtones; trumpet with a slider, which enables it to perform microtones quite easily. This way of orchestrating interests me in all of my operas. A post-Richard-Strauss or post-Alban-Berg orchestra-sound has never appealed to me. But I was interested to get the individual strengths of the instruments; a way to get the pure and bare sound-world, in which the solo instruments communicate. [60]

In *Usher*, the clarity of the timbres conceived through the sparse chamber-ensemble and Stahnke's interwoven and multi-layered microtonal fabric, hand in hand, capture the phantasmagoric, uneasy, and anxious mood imbedded in the plot.

Stahnke's 1982 music theater piece *Wahnsinn das ist die Seele der Handlung (Madness is the Spirit of the Plot)*—last produced at the Berlin State Opera in 2012—is a collage of Edgar Allan Poe's poems for string quartet, female voice, and electronics, chosen and arranged by the composer himself.[61] *Wahnsinn,* as a surreal psychogram, articulates the inner psychological challenges of the main female character, a way for the composer to reflect on the dichotomy of the notions of terror and beauty intrinsic to

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[60] "Ich wollte einzelne Instrumente. Ich suchte Instrumente, die einen sehr starken anonymen Klang charakterisieren können: Bassklarinette, Posaune mit Mikrotönen, Trompete, die auch durch eine kleine „Slider" recht einfach mikrotonal arbeiten kann. Das interessiert mich für alle meine Opern. Ein Post-Richard-Strauß- oder post-Alban-Berg-Orchesterklang hat mich eigentlich nie interessiert. Sondern war ich interessiert sozusagen die Originalkraft eines Instrumentes zu bekommen: den Weg zu unverfälschten nackten Einzelklang; vor allem im Kalt-, Nackt-, und Klarklang die Instrumente immer wieder sprechen zu lassen." (Bargrizan, Interviews with Manfred Stahnke.)

[61] *Wahnsinn das ist die Seele der Handlung* was premiered at Staatstheater Braunschweig in 1983 and re-produced during the same year at the Kammeroper Gelsenkirchen. The composer revised the work for its 2012 production at Staatsoper Berlin. Since the vocal part in *Wahnsinn* rather demonstrate the characteristics of declamation than singing, either a singer, or an actress, can perform the main female role. Stahnke arranged the voice rather as in a theater piece (play) than in an opera. In a way, the declamation becomes, therefore, like singing, similar to Schoenberg's *Sprechstimme* in *Pierrot Lunaire*; a middle-ground between singing and speaking. According to Stahnke, "I sought a simple way of singing/declamation. It is indeed difficult to train the singers to realize this effect, because it is not opera singing. Reducing vibrato is taxing for the opera singers. They do what they have learned, automatically; especially vibrato and resonance to fill the big halls." ("Ich suchte eine einfache Gesangsweise. Da muss man die SängerInnen trainieren und das ist sehr schwer. Das ist keinen Operngesang. Das Vibrato zu reduzieren ist sehr schwer für die SängerInnen. Sie machen automatisch was sie gelernt haben: Resonanz und Vibrato über allen, um die große Säle zu füllen.") (Bargrizan, Interviews with Manfred Stahnke.)

human life.[62] Although the prevalent just intonation, live electronics, and the literary sources that Stahnke builds upon in *Wahnsinn* are of a very different nature compared to *Orpheus Kristall*, they are somewhat similar to *Usher*; Whereas Stahnke undertakes philosophical issues in *Orpheus Kristall*, in *Wahnsinn* he concentrates on constructing a narrative dealing with physiological matters, to which his microtonal and technological structure as well the assortment of Poe's poem contribute.

Stahnke's music depicts the duality of the concepts of beauty and terror inherent in Poe's poems in various layers. The three sections titled "*Sphärenmusik*" (Sphere's Music)—in which the sound-structures emerge from the simple rations of the prime-numbered harmonics—rest upon the ancient philosophical idea of *musica mundana*, or *musica universalis*, as a metaphor of the concept of beauty.[63]

In these sections, the intonational possibilities of the string instruments make the construction of the pure just-intoned chords—all based on numbers and mathematical proportions—possible. As in *Usher*, throughout *Wahnsinn* Stahnke demands the realization of just major-thirds (5/4) and just major-sixths (5/3). In addition to these two intervals, the just minor-seventh (ratio 7/4; thirty-one cents lower than the equal-

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[62] Paraphrased from the program notes of the 2012 production at the State Opera Belrin. The sentence "*Wahnsinn, das ist die Seele der Handlung"* is actually a verse written by Poe, which Stahnke uses not only as the title, but also in the section *Sphärenmusik I*.

[63] This theory regards the proportional movements of the stars and planets as a form of music, which gives birth to the mathematical and harmonic relationships, as underlying principles of the world of sounds. Several thinkers, ranging from ancient Greek theorists such as Pythagoras, to the Renaissance humanists, have expounded upon this concept. According to the Oxford Music Online entry for "Sphere, music of the" written by Bryan Rumbold, "Music thought by many medieval philosophers to be produced by the movements of the planets, either inaudible to the human ear or not involving sound at all, but nevertheless an all-pervading force in the universe. It was considered the highest form of music, itself interpreted in terms of mathematical proportion. Boethius (*c.*480–*c.*524) in *De institutione musica* contrasted this *musica mundana* with *musica humana*, the harmonious relationships of the human body and soul, and *musica instrumentalis*, the lowest form of music (produced by voices and instruments), which was also based on numerical proportions."

tempered minor-seventh), the just tritone (ratio 11/8; forty-nine cents lower than the equal-tempered tritone), and the just minor-sixth (ratio 13/8; forty-one cents higher than the equal-tempered minor-sixth) also feature the other three fundamental intervals in *Wahnsinn*'s harmonic structure (see Figure 3.24).

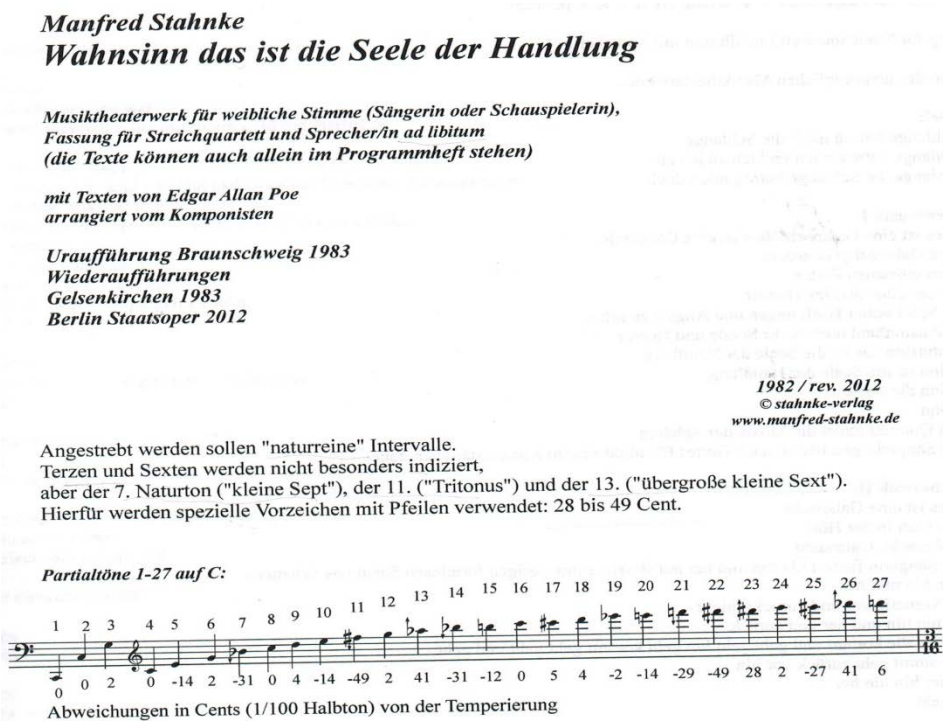
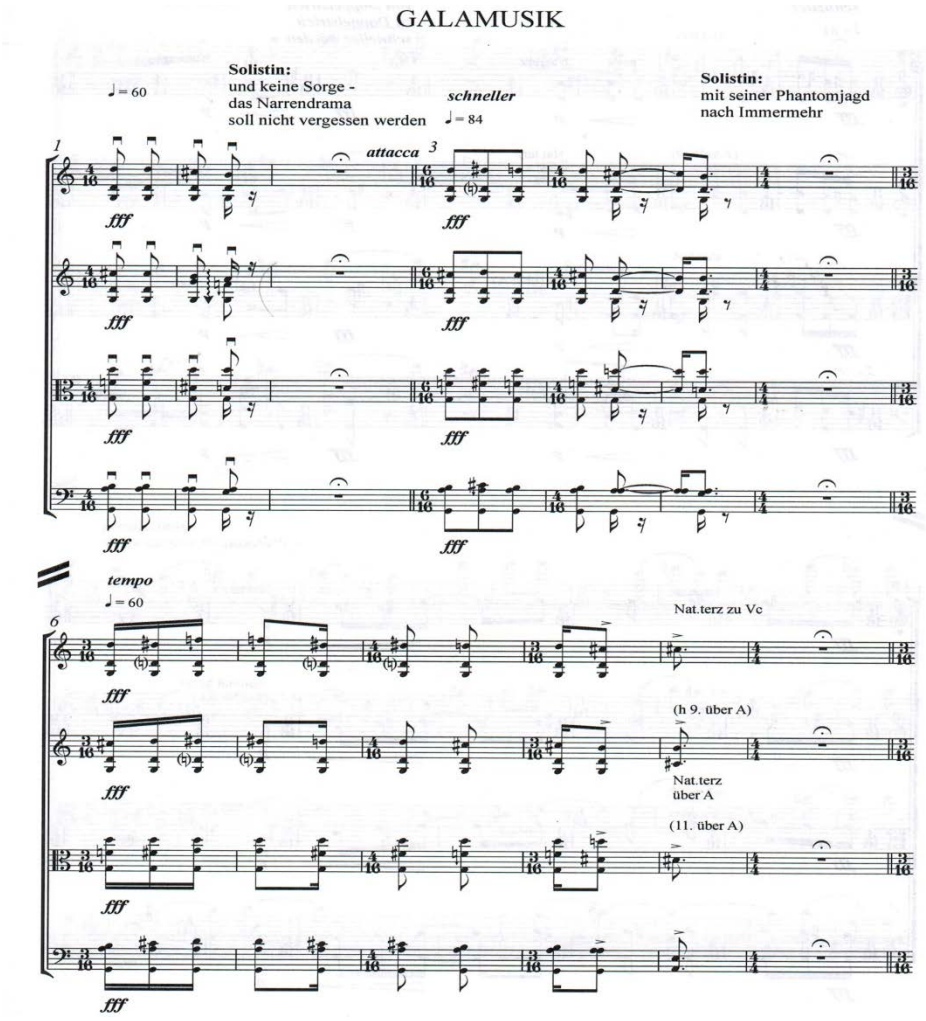


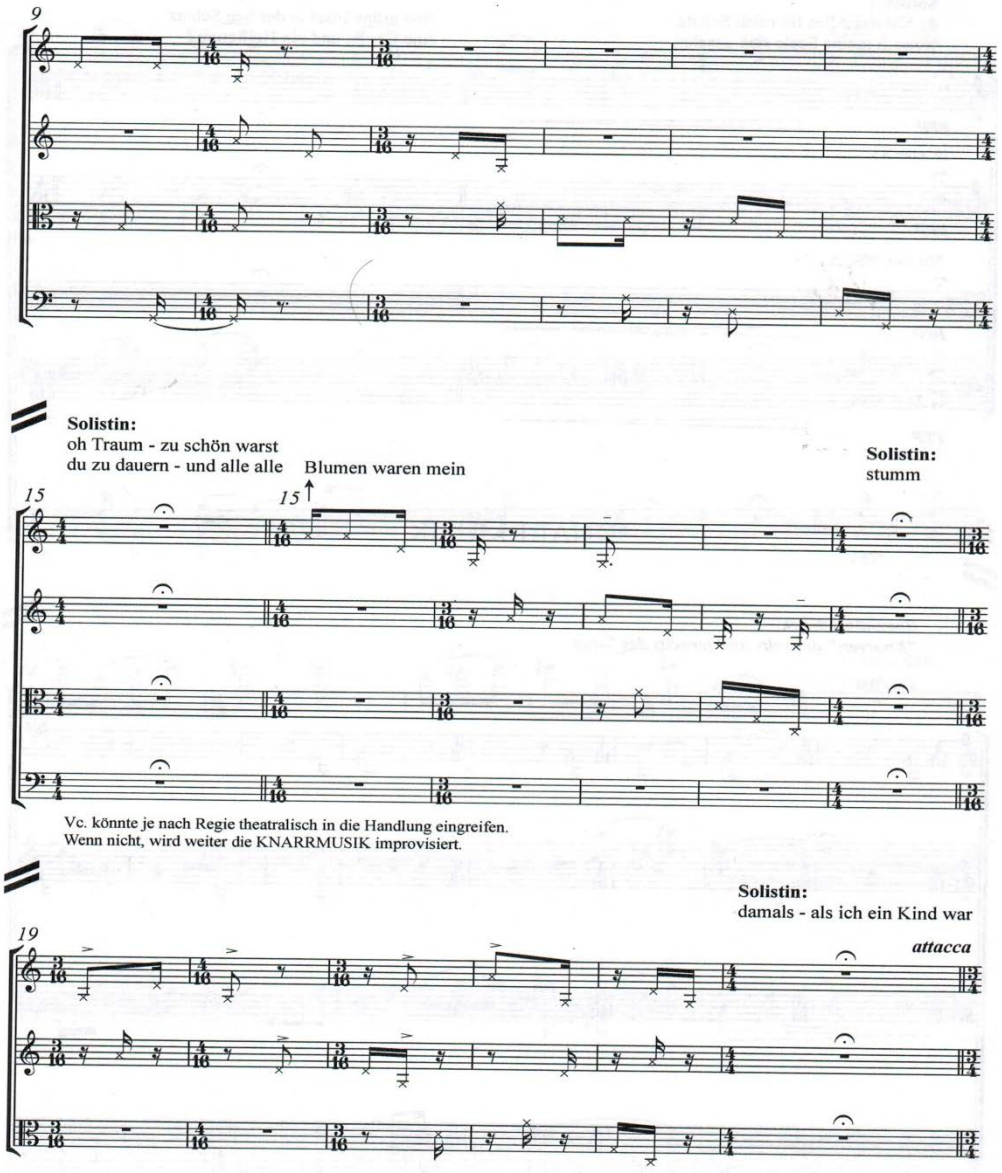
Figure 3-24. *Wahnsinn das ist die Seele der Handlung*; v. 2012; legend.

Since our ears are used to the complicated proportions of the twelve-tone equal temperament imposed by the tyranny of the piano, we, in specific contexts, perceive the pure harmonies as impure—especially if multiple just-intervals are layered on top of each other. This layering of just-intervals, which creates extreme and bizarre microtonal proportions unfamiliar to our ears, demonstrate the concept of terror—a contrast to the beautiful, pure just-harmonies of the *Sphärenmusik* sections (see Example 3.14).



Example 3-14. *Wahnsinn das ist die Seele der Handlung*; v. 2012: Galamusik; overlaid just-chords.

Using extended techniques for string instruments, such as scratch-bowing, Stahnke also integrates noises in parts of the work to reinforce the duality of the terror vs. beauty—for example in the section: *Knarrmusik* (Creaking Music), (see Example 3.15).



Example 3-15. *Wahnsinn das ist die Seele der Handlung*; v. 2012; *Knarrmusik*; measures 9–24; scratch-tone by the means of the overpressure of the bow.

Referring to his integration of strings' extended techniques in the opera and their dramatic function, Stahnke states:

> Everything in *Wahnsinn* is linked with the idea of the music of the spheres. At the margin of the just sounds, there is also the scratch-tones, where the overpressure of the bow does not make a conventional musical sound. The scratch-tones demonstrate the hybrid form of the noise vs. the

> beautiful sound of the pure intervals. The string player should, in fact, realize different shades of scratch-tones in *Wahnsinn*. [64]

Even though just intonation remains the underpinning source of microtonal construction in *Wahnsinn*, the aforementioned dichotomy of the two poles of pure-intervals emerging from ratios of the prime-numbered harmonics and a sounding body close to the world of noises created by layering of the just-intervals—or the use of the extended instrumental techniques—informs the juxtaposition of the notions of terror and beauty conceived by the composer's arrangement of Poe's poems.

A third element in the opera articulates the aforementioned dichotomy: The freedom given to the vocal and formal structure of the work. Stahnke himself relates this element to the notion of "open form" and the ways in which he himself came to this notion, as follows:

> In *Wahnsinn*, the singer, or the actress, intones high or low pitches, without having to target concrete, fixed tones. Giving freedom to the musicians interested me since the 1950s. This subject was discussed in the 1950's quite a lot, and there were several articles written about it. I, in fact, wrote my dissertation on Boulez's third piano sonata and his idea of open work [1979]. I also studied Umberto Eco's discussion of this concept [*The Open Work*, Harvard University Press, 1989; originally published as *Opera Aperta*, 1962]. Among the students in Ligeti's class, we often talked about improvisation; about freedom given to the aspect of time organization, or restrictions imposed on this aspect. Ligeti himself insisted on students writing traditional pieces, although he, before he became an instructor, had explored the notion of open work in his installation piece *Poème Symphonique for 100 Metronomes* [1962]. Along the same lines, he had also given a talk about "nothing"; actually about the future of music, which became about "nothing"; he wrote nonsensical, quasi-mathematical formulas on the whole blackboard without saying anything! I, as a child, improvised on piano, which now I do often on my viola. On the other hand, I have an active improvisation ensemble: TonArt Hamburg. I

[64] "Alles in *Wahnsinn* ist verbunden mit der Musik der Sphäre. In der Spanne zum reinen Klang, gibt es auch die Krätze, wo man mit Überdruck keinen schönen Klang macht. Das ist für mich in dem Sinne wichtig gewesen, weil das die hybride Form vom Geräusch und der Schönheit der reinen Klänge darstellt. Im *Wahnsinn* müssen die Streicher eigentlich verschiedene Farben der Krätzen erreichen." (Bargrizan, Interviews with Manfred Stahnke.)

> love the concept of open form and improvisation. That is, again, a contradiction, or a sort of schizophrenia, thinking about my very precise just-intonation structures. In the voice in *Wahnsinn*, I draw the upward and downward curve of singer's voice based on the intonation of the text; a sort of written-improvisation. I constantly feel that I sometimes need to leave my meticulously-built, microtonal harmonic structures. I am not only interested in the fine-differences of the strict microtonal configurations, but also in floating freely in sound. [65]

Throughout the piece, the non-fixed, almost-free declamations of the singer/actress on top of the idea of the "open work" integrated in the dramatic configuration of the opera reinforce the dichotomy of the beauty vs. terror, and purity vs. impurity. Stahnke realizes this dichotomy by juxtaposing the mathematically just proportions and the freedom given to the formal and vocal aspects of the piece.[66] Example 3.16 shows the juxtaposition of the approximate declamations of the singer/actress and the just-chords in the strings.

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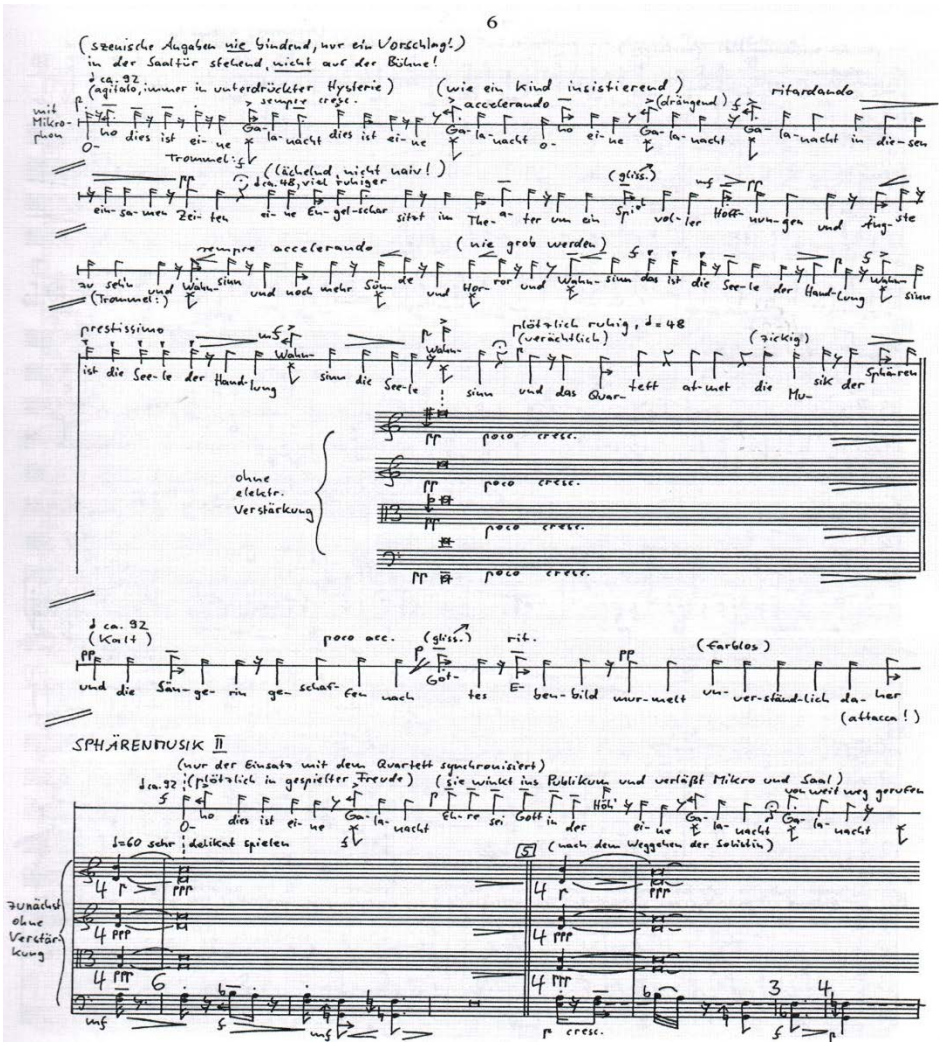
[65] "In *Wahnsinn* kann die Schauspielerin oder Sängerin hoch oder tief sprechen ohne konkrete Noten überhaupt bauen zu müssen. Das hat mich damals ab den 50er Jahren sehr interessiert. Das wurde Ende der 50er Jahren sehr diskutiert. Du denkst vielleicht auch an meiner Dissertation über Boulez und sein offenes Werk. Ich habe dann Umberto Ecos *The Open Work* durchgearbeitet. Wir haben in der Gruppe um Ligeti herum über Improvisation sehr diskutiert; offenlassen des sozusagen Zeitpfeils, fixieren vom Zeitpfeil. Ligeti ging sehr darauf sehr konkret ein Werk noch im alten Sinne zu schreiben, obwohl er, bevor er ein Lehrer war, diese Installationswelt, das offene Werk, in seinem Poem Symphonie für 100 Metronomen gemacht hat; oder denken wir mal über seinen Vortrag über „Nichts"; über die Zukunft der Musik, der ein Vortrag über ‚Nichts' geworden ist, weil die Zukunft ist einfach unfassbar. Derselbe Vortrag, wo er quasi-mathematische Formel auf der Tafel schreibt; einfach Blödsinn. Ich habe als Kind sehr viel am Klavier improvisiert, was ich jetzt oft auf Bratsche mache. Oder habe ich eine Gruppe, wo wir sehr intensive improvisieren; es heißt TonArt Hamburg. Also ich liebe die Idee von offener Form und Improvisation als Konzept. Das ist wieder wie einen kleinen Widerspruch oder eine Schizophrenie zu meinen Just-Intonation-Strukturen. In der Stimme in *Wahnsinn* male ich Tonhöhen als hoch oder tief basiert auf die Intonation des Textes; eine sozusagen geschriebene Improvisation. Ich habe immer wieder das Gefühl, dass ich aus dieser sehr spezifisch-gebauten mikrotonalen harmonischen Welt rausgehen muss. Mich interessieret diese ganz feine Unterschiede; aber auch die Großunterschiede der beiden Welten von sehr strenger Komposition und sehr frei Schweben im Klang." (Bargrizan, Interviews with Manfred Stahnke.)

[66] In regard to the freedom given to the formal structure of the piece, the composer has arranged different sections of the work in a way that, in the production, they can be repeated as many times as necessary, or totally omitted, according to the dramaturgical conception. A sort of formal flexibility, or an open formal structure hence emerges.



Example 3-16. *Wahnsinn das ist die Seele der Handlung*; v. 1982; Sphärenmusik I; the approximate inflections of the voice.

Stahnke's 1986 chamber opera, *Heinrich IV* (*Henry IV*), after Luigi Pirandello's 1921 play of the same name, was commissioned by Kiel Opera in 1983 and produced in 1987.[67] As much as in the previously discussed works, in *Heinrich*, Stahnke's use of various microtonal elements as well as electronics is related to the storyline. Of particular significance is his use of the same innovative harp tuning—as in *Usher*—based on just major-thirds and just minor-sevenths, which delineates Heinrich's self-

[67] In 2015, Stahnke revised the opera and prepared a new version to be staged in the future.

imposed madness, his narrative of the old mediaeval times, as well as the comic and tragic features of the play (see Figure 3.25).

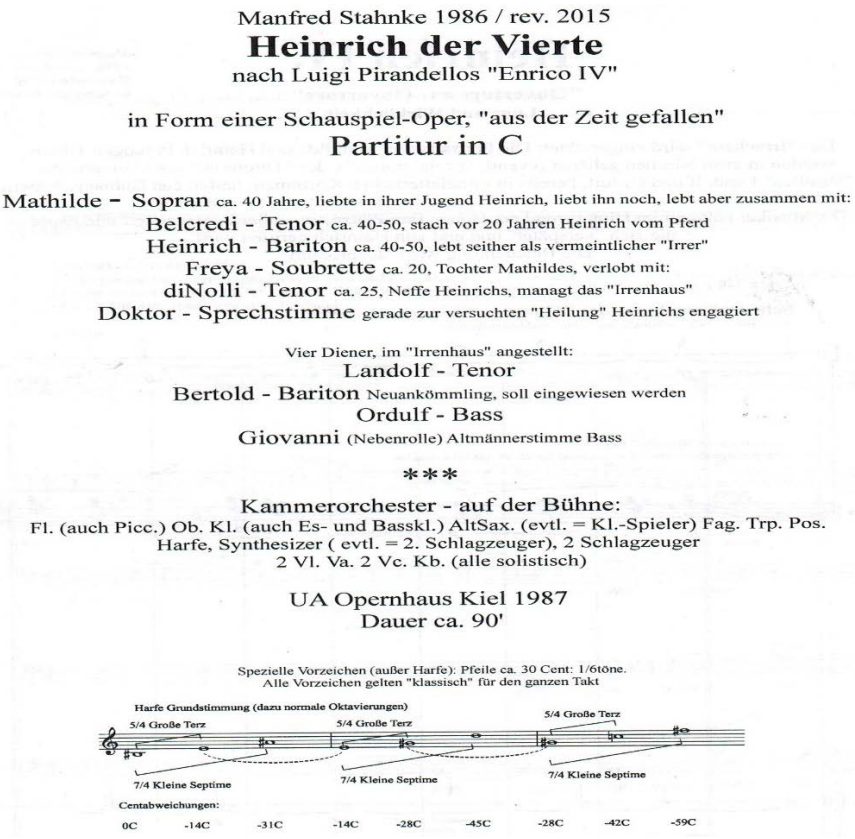


Figure 3-25. *Heinrich IV*; v. 2015; cover-page; harp's tuning at the bottom of the page.

The harp—the instrument of the main character who pretends to be the German medieval emperor Heinrich—stands in the center of Stahnke's microtonal construction in this opera.[68] Similar to the character of Roderick Usher in *Der Untergang des Hauses Usher*, where the harp often accompanies Usher's voice, in *Heinrich IV* it often accompanies the character of Heinrich as he speaks of his inner-life. On the other hand, while the microtonally-tuned harp becomes the instrument of the supposedly-delirious main character—who pretends to be the notorious twelfth-century German Kaiser

[68] In my interviews with Stahnke in summer 2015, he mentioned that, in the process of conceptualizing harp as the Kaiser Heinrich's instrument, he thought of the biblical story of King David and his harp.

Heinrich—it also delineates the mediaeval narratives embedded in the plot, in the time in which Heinrich lives.[69] The voices in Heinrich, often a form of *Sprechgesang*, also reference the old vocal arts of monody and prosody, intensifying the allegorical representation of the Middle Ages in the music (see Example 3.17).[70] The harp's just-tuning, the pure as well as strange intervals emerging from this tuning, and the harmonic and subharmonic vertical and horizontal lines inspired by Partch's concepts of otonality and utonality, grant a strong medieval ethos to the character of Heinrich, and in turn, to the whole opera.

In *Heinrich*, perhaps more than his other theatrical works, Stahnke seeks to confront his hermetic microtonal fabrics, by means of constructing a sort of intelligibility, avoiding sheer structuralism. In this regard, he states: "*Heinrich* seeks to distance itself from hermeticism, even though the hermeticism of the microtonal structures is a key element; almost a dual compositional approach. Intelligibility is an important element in the opera; intelligibility, while deep structuralism remains integral. Both of them are interwoven in *Heinrich*."[71]

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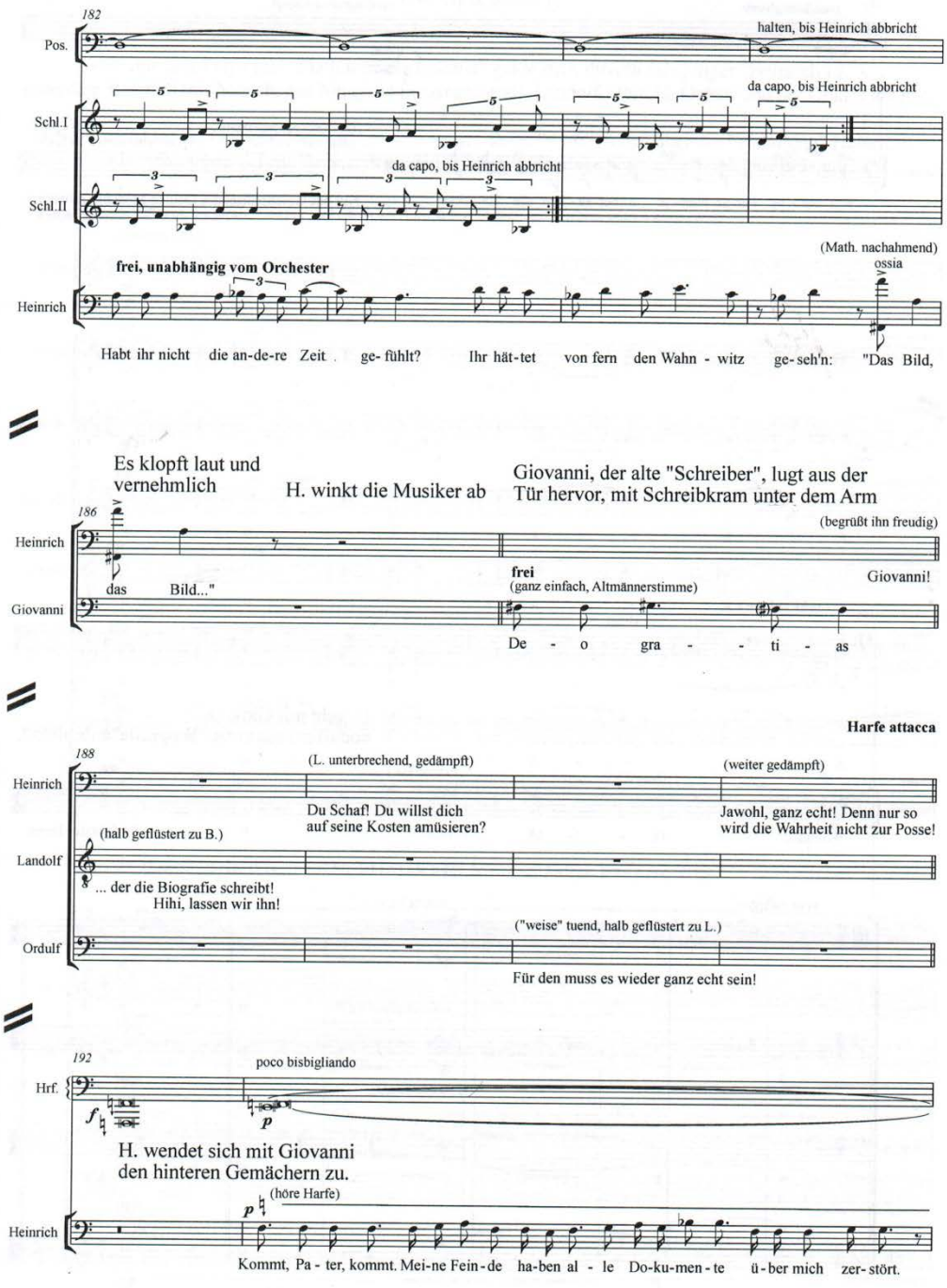
[69] In Pirandello's play (1921), the main character falls from a horse, while playing the role of the medieval emperor Heinrich (Henry IV). Because of a severe concussion, he goes mad and delves into a phantasmagoric world, where he is the emperor Heinrich. His caring and wealthy nephew rents a castle and hires actors to simulate Heinrich's eleventh-century court in the German city of Goslar. But after some years, although Heinrich secretly recovers from his insanity, he keeps on acting as the insane Heinrich. Pirandello develops this dual narrative—a sort of a play within a play that makes for the dramatic tension in the story—mainly by the essential complexity of the character of Heinrich.

[70] Similar to Partch's speech-music pieces, or even his *Oedipus*, in *Heinrich* the voices often follow the accents of the spoken words—a sort of a *Sprachmelodie* emerged from the inflections of the speaking voice. As it is the case in Partch's conception, juxtaposing this singing technique and the fixed-written just-proportions makes for a hybrid dichotomy in Stahnke's opera.

[71] "Heinrich sucht eine Position weg von Hermetik, obwohl die Hermetik der Mikrotonalität doch sehr zentral da ist. Das ist fast eine doppelte Denkweise. In Heinrich ist ‚Verständlichkeit' ein wichtiges Element; Verständlichkeit, aber tiefste Konstruktion nicht zu vermeiden. In Heinrich kommen beide zusammen." (Bargrizan, Interviews with Manfred Stahnke.)



Example 3-17. *Heinrich IV*; v. 2015; Act II, Scene 2, measures 182-193; juxtaposition of Harp's just-intervals and the *Sprachmelodie* of the voice.

As explained regarding his music-philosophical views, this reflective confrontation pertains more to Stahnke's thinking in his theatrical music, and to a lesser degree in his street music pieces, than in, for example, his String Quartet No.4 (titled

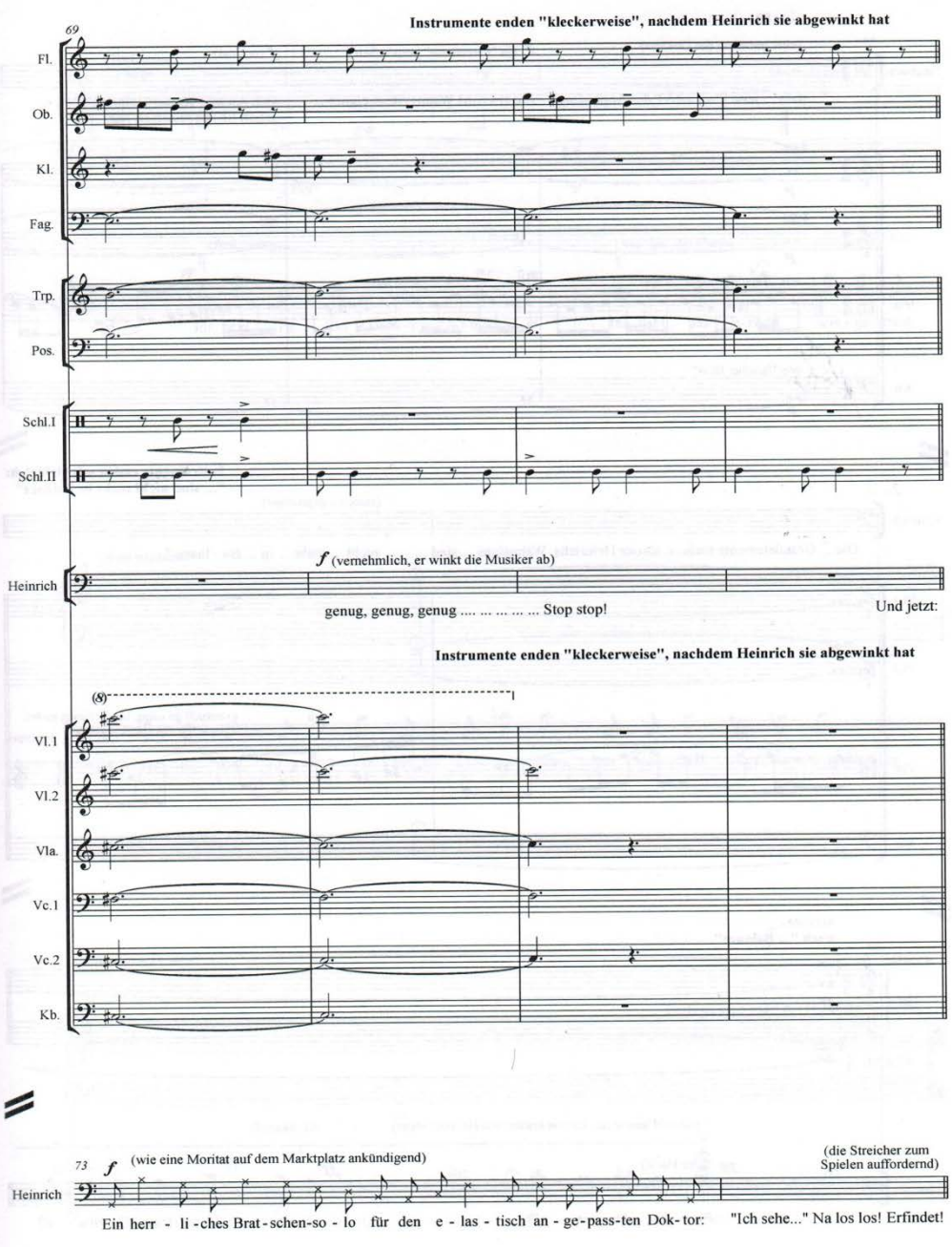
Schrödingers Kristall). In the latter, Stahnke seeks a profoundly-hermetic microtonal configuration related to Schrödinger's discussion of the intricate structure of the human DNA— the same scientific research which triggered his tonal conception in *Orpheus Kristall*.

In *Heinrich*, Stahnke's use of a chamber orchestra predominantly appearing in groups of a few instruments, and partially-simple vocal lines often in the speech-music manner, makes for the intelligibility of the dramatic narrative, all the while the microtonal elements contribute to the depiction of the subtleties imbedded in the psychological plot. Similar to Partch's music dramas, Stahnke's chamber orchestra in *Heinrich*—consisting of fifteen instruments plus synthesizer—stands not in the orchestra pit, but on the stage around the characters. The corporeal presence of the instruments and instrumentalists on the stage, hence, evolves into a part of the narrative; the actors often interact with the conductor and instrumentalists commanding them to play, or to stop playing, as opposed to merely accompanying the voices (see Example 3.18).

Explaining his own orchestrational concept intertwined in the narrative, and its relation to Partch's corporeal instrumentational concepts in his theatrical pieces, Stahnke says:

> I came to the idea of not separating the orchestra from the narrative. The orchestra should be on the stage. There is no separation of the musicians and the plot. The musicians interact [as part of the plot]. The harpist and the conductor are addressed [called by e.g. Heinrich to play or stop playing]. That is to some extent similar to Partch. He built [in *Delusion of the Fury*] an illusionary reality; a dream, a delusion, a dual story taken from Africa and Japan. [in *Heinrich*] the flute and harp, for example, not only contribute to the beautiful sound of the orchestra; but they are themselves! They are addressed in the plot.[72]

[72] "In Heinrich habe ich die Idee gehabt, dass ich die Handlung vom Orchester nicht trenne. Das Orchester muss auf der Bühne sein. Es gibt nicht die Trennung der Musiker von der Handlung. Die

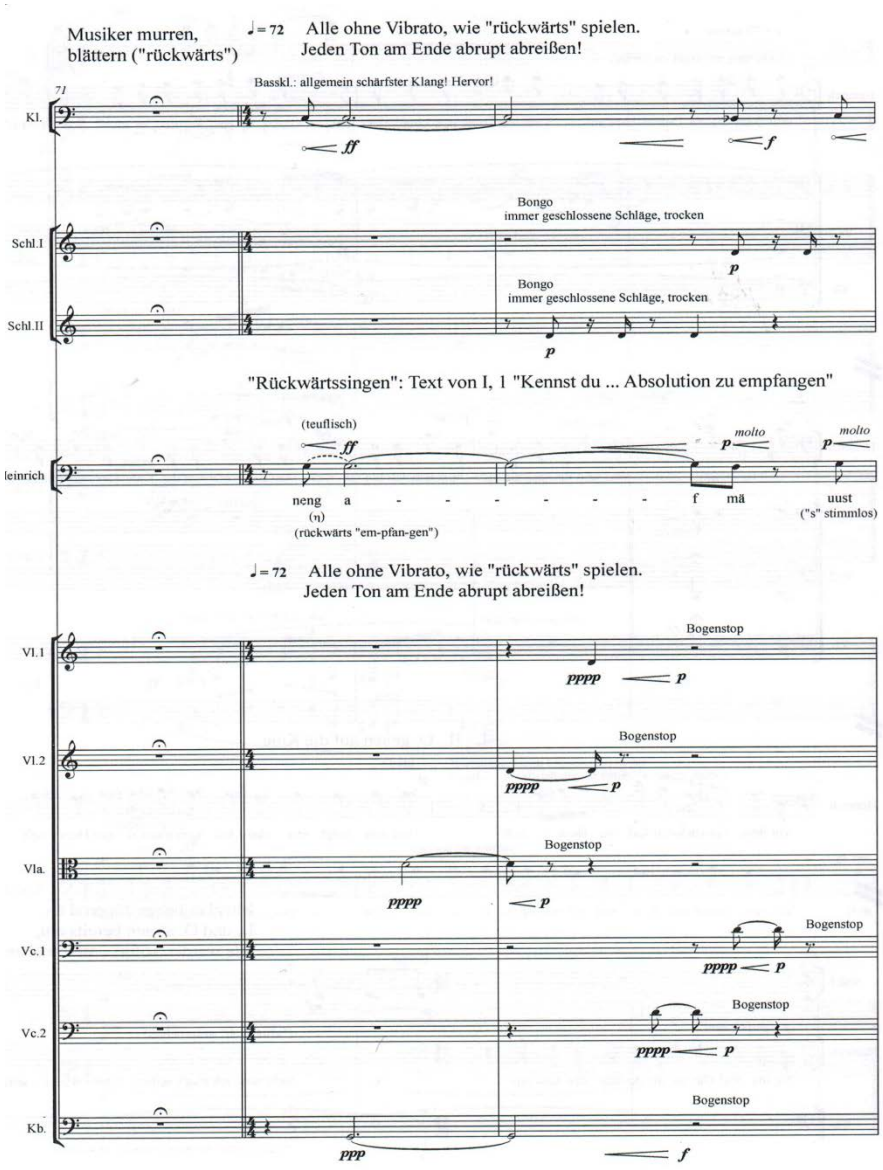


Example 3-18. *Heinrich IV*; v. 2015; Act II, Scene 1, measures 69-72; Heinrich commands the orchestra to stop playing.

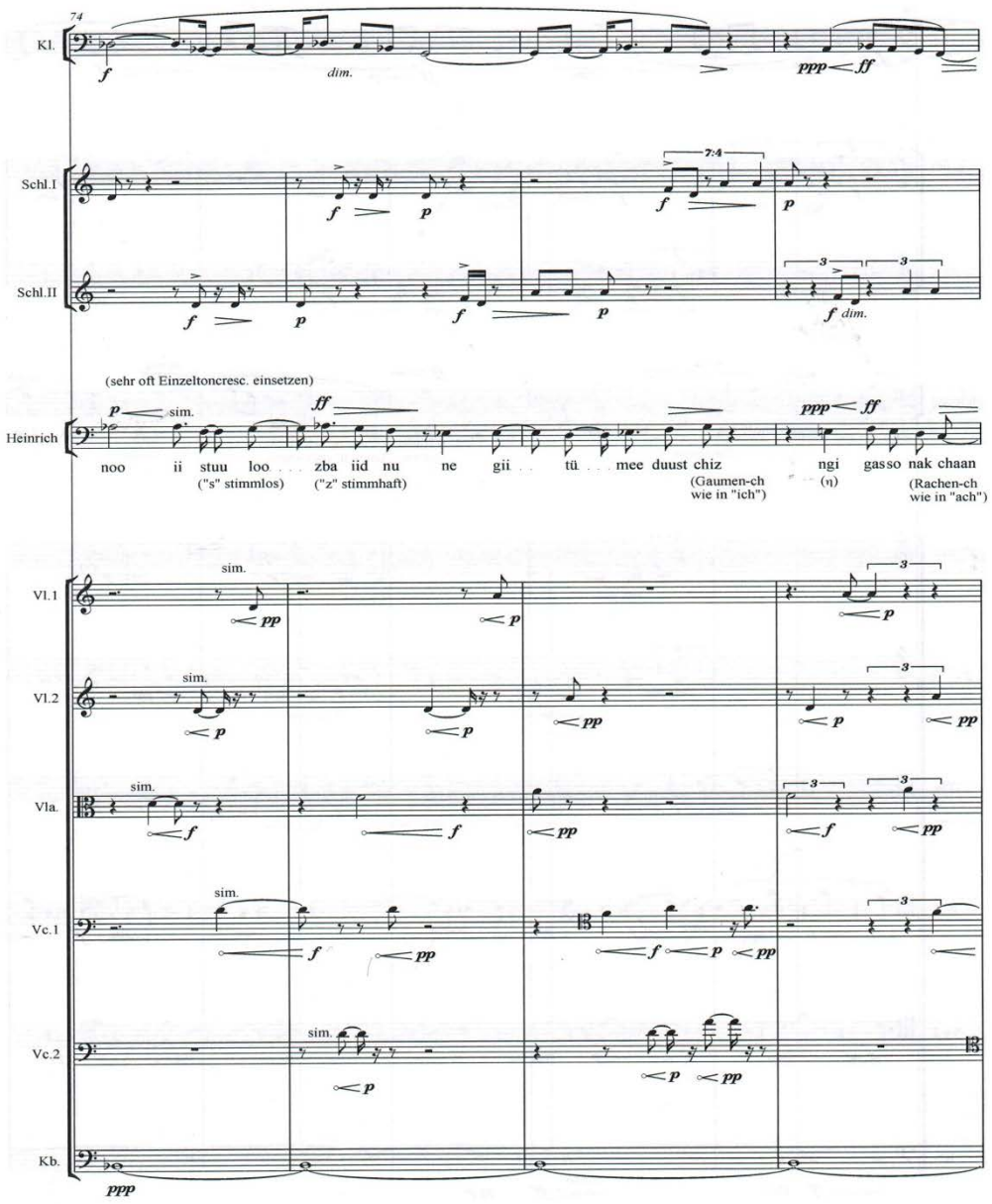
Musiker interagieren. Die Harfe wird angesprochen; den Dirigenten wird angesprochen. Einigermaßen wie Partch, der die illusionierte Realität baute; der Traum, ‚Delusion', doppelte Geschichte aus Afrika und Japan. Die Flöte und Harfe z.B. dienen nicht nur des schönen Gesamtklangs des Orchesters, sondern sie sind selbst; sie werden angesprochen." (Bargrizan, Interviews with Manfred Stahnke.)

In *Heinrich* every tonal and compositional element, in fact, informs a constructed medial reflection of the intricacies in the plot, depicting the dual theater of Pirandello; a play within a play. Among others, the harp illustrates the soul of Heinrich; the percussion instruments the amusing and humorous world of Heinrich's servants; or the woodwind instruments an image of the medieval, entertainment court music.[73] In my interviews with Stahnke, he articulated that he has chosen Renaissance dance music for the eleventh-century Heinrich consciously, although it is historically incorrect; in the eleventh century, music in Germany was actually monophonic and under-developed. An interesting case is in Act II, scene 1, where the music moves backward. Heinrich asks the orchestra to play their notes from the end to the beginning, and he sings his texts also backward. Pirandello's plot depicts a dual world constantly moving back and forth between the present world and Heinrich's medieval world, about nine-hundred years back. The above-mentioned scene, therefore, allegorically suggests this abyss in the centuries, moving backward in time; it is a sort of intellectual jest constructed by the composer (see Examples 3.19 and 3.20).

[73] Where, for the first time in the story, Heinrich's arrival is announced, Stahnke uses trumpet and trombone in a fourth-interval to construct a medieval dance (Act I, scene 3). Another example is the use of synthesizer tuned in twelve-tone equal temperament, improvising jazz and pop music (e.g. Act I, Scene 2), again, building a contrast to harp's and chamber-orchestra's microtonal configuration.



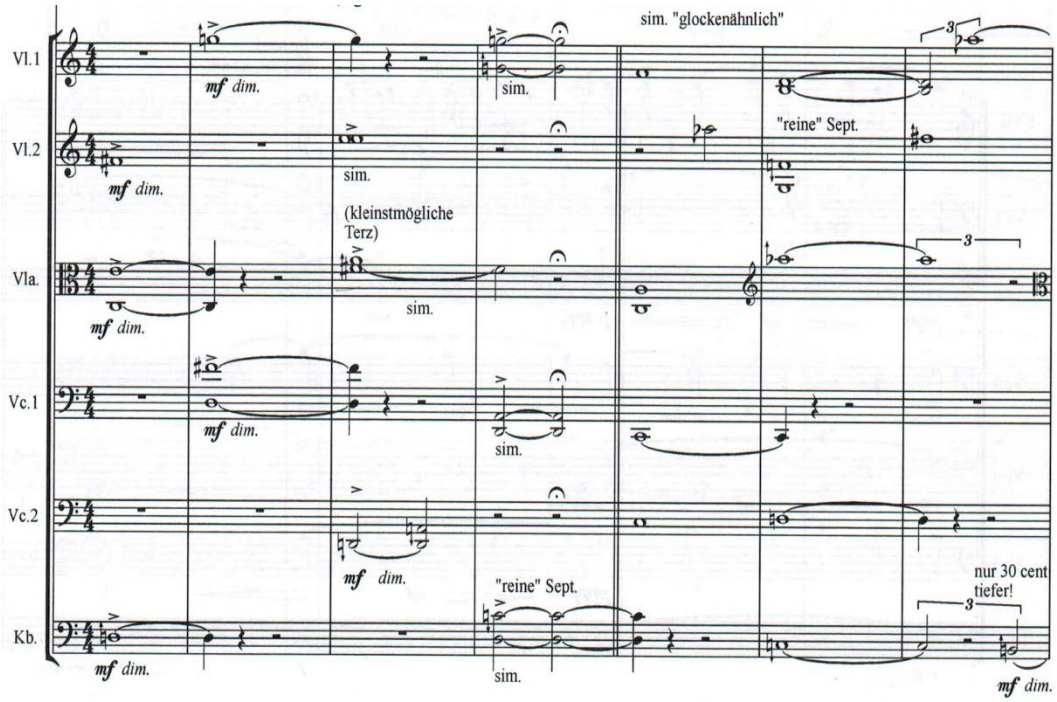
Example 3-19. *Heinrich IV*; v. 2015; Act II, Scene 1, measures 71–73; Heinrich sings, and the orchestra plays, the previous sections of the music backward.



Example 3-20. *Heinrich IV*; v. 2015; Act II, Scene 1, measures 74–77; Heinrich sings and the orchestra plays the previous sections of the music backward.

The opera's microtonal fabric demonstrates a distinction between the vertical just-intonation harmonies and the linear one-sixth-tone deviations, which are mainly responsible to distort the just-intoned chords. The strings, for example, often take a just major-third reference-interval from the harp and expand it, or they take a fundamental tone and build an overtone chord. The linearity of one-sixth-tone deviations, however,

distort the just-proportions, delving into a contorted microtonal world. The contorted intonations reinforce not only the predominantly-erratic psychological conditions of the characters, but also the unsteady time-line of the opera, floating between the present time and Heinrich's imaginary medieval life (see Example 3.21).



Example 3-21. *Heinrich IV*; v. 2015; Act I, Overture, measures 1–7; just major-thirds and just minor-seventh in the overtone-chords.

Returning to the character of Heinrich, although he often sings to the accompaniment of the harp, at times he follows not the harp's just-intoned chords, but a mode extracted from the harp's string: an equidistant heptatonic mode with intervals of ca.171 cents; in other words, a narrower whole tone—about twenty-nine cents narrower than the equal-tempered whole tone (see Figure 3.26).

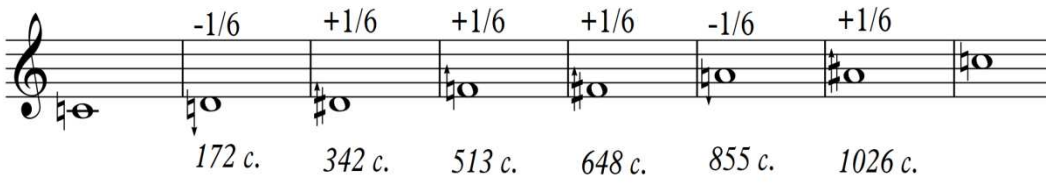
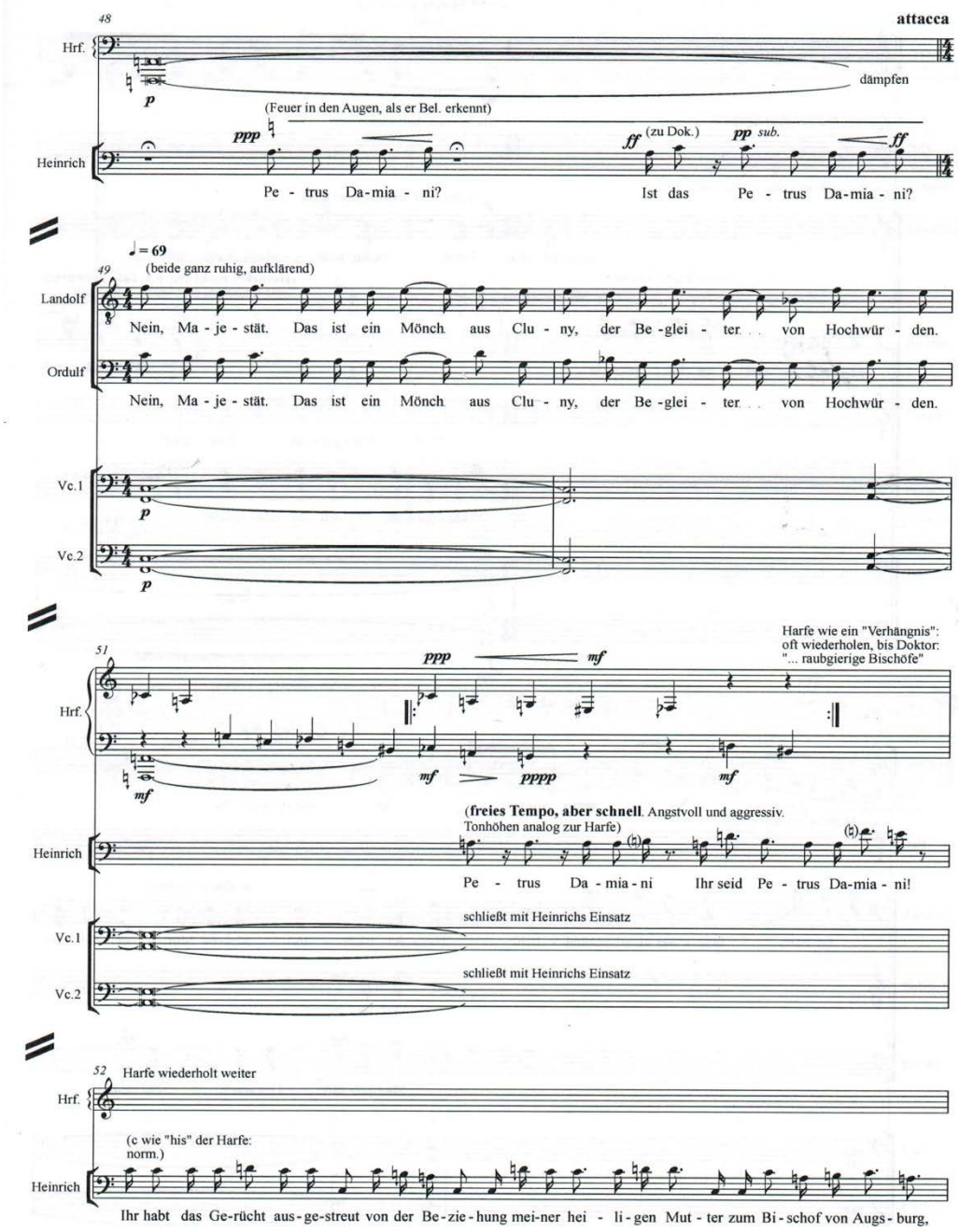


Figure 3-26. Equidistant heptatonic scale, approximated with the use of 1/6-tones; cent-numbers are shown below the staff.

Heinrich sings these parts of his vocal line based on the equidistant heptatonic scale imbedded in harp's tuning—a fundamental mode in African musical culture, such as in Malawi (see Example 3.22). Stahnke's remarkable harp tuning, has, in fact enabled him to develop hybrid and intricate intonational structures, not only in his *Usher* and *Heinrich*, but also in his other works for solo harp, and for solo harp and synthesizer, *Partch Harp* (1987) and *Diamantenpracht* (2005).



Example 3-22. *Heinrich IV*; v. 2015; Act I, Scene 3, measures 48–52; Heinrich sings based on an equidistant heptatonic scale taken from harp's tones.

The analysis of the microtonal concepts and the related instrumentational, orchestrational, vocal, and formal elements in Partch's and Stahnke's theatrical pieces aim not only to illuminate the scope of the correlation of these concepts with the storylines, but also the lineage from Partch to Stahnke—the extent to which Stahnke's

aesthetic relates to his avid interest in and research into Partch's world. We observe that the microtonal concepts designed by both composers rest upon their music-philosophical standpoints as much as their reflection upon the common forms and conceptions of the old and new theatrical music. Whereas Partch's holistic aesthetic and intonational system underpins all of his dramatic works—whether based on non-Western cultures, old Greek myths, or conceptualized in a contemporary context of his own invention—Stahnke has developed a flexible approach to microtonality, instrumentation, orchestration, and form, albeit being vividly influenced by Partch's ideas. The discussion of the technological and theatrical facets of these works in the following chapters will further shed light on the interrelationships of the musical structures and extra-musical implications of these theatrical piece, articulating the influence of Partch's theories on Stahnke's mindset.

CHAPTER 4
TECHNOLOGY, MEDIATION, AND INTERMEDIALITY

Art and Technology

This chapter expounds upon the technological constituents of Stahnke's *Orpheus Kristall*, demonstrating the essence of this multimedia opera.[1] At the same time, the chapter delves into the identity, substance, and function of such technological features. My analysis of the technological features in *Orpheus Kristall* is largely based on Martin Heidegger's argument on the relationship between art and technology in the art-technology world. In his 1954 essay "The Question Concerning Technology," he asserts:

> Because the essence of technology is nothing technological, essential reflection upon technology and decisive confrontation with it must happen in a realm that is, on the one hand, akin to the essence of technology, on the other, fundamentally different from it. Such a realm is art. […] Yet the more we ponder about the essence of technology, the more mysterious the essence of art becomes. The closer we come to the danger, the more brightly do the ways into the saving power begin to shine and the more questioning we become, for questioning is the piety of thought.[2]

Heidegger proposes the medium of technology as a means to question the essence of art, and at the same time, the medium of art as a means to question the essence of technology. In other words, he asserts that art and technology demonstrate a symbiotic

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[1] Throughout this dissertation, I have used the adjective "multimedia" to refer to *Orpheus Kristall*, because this opera incorporates "a variety of artistic or communicative media" (see the entry for "multimedia" in *Oxford English Dictionary*). The *Oxford English Dictionary* defines "multimedia" also as "with reference to computers or Internet: that uses or combines various forms of digital content such as text, audio, video, and animation; of or relating to multimedia." The fact that *Orpheus Kristall* integrates the Internet as a performance medium shows that it is indeed a multimedia artwork. However, Multimediality differs from "Intermediality," a concept that I use to analyze the integration of digital media in *Orpheus Kristall*. Intermediality refers to the interaction of various artistic media on a performance space (hypermedium), in this case the stage. In other words, I use the concept of Intermediality to analyzes the function of digital media in *Orpheus Kristall*, a multimedia opera.

[2] Martin Heidegger, "The Question Concerning Technology," in *Readings in the Philosophy of Technology*, ed. D. M. Kaplan (Lanham: Rowan and Littlefield, 2009), 23. This essay was published in 1954, as "*Die Frage nach der Technik*," and was translated to English in 1977.

interaction, where reflecting on the nature of one can reveal the nature of the other, illuminating their interrelationship. To address such interrelationships in *Orpheus Kristall*, the key concept of intermediality, proposed by various theater scholars, such as Freda Chappel and Chiel Kattenbelt, substantiates the following analysis.

Explaining the intermedial aspects of the theatrical performance, media theorist Chiel Kattenbelt argues that theater—the long-lasting paradigm of all arts—can incorporate other media in one performance space. While the other integrated media function as parts of the theater, conceiving "signs of the theatrical signs," theater becomes, hence, a hypermedium, realizing the interaction of all incorporated media.[3] Juxtaposing film as the medium of absence which has partially taken over the role of the theater as a dramatic hypermedium, and theater as the corporeal art of the presence, Kattenbelt further argues for theater, not as a composite, nor as dramatic art, but as a stage for intermediality.[4]

Reiterating Kattenbelt's point, drama and theater scholar Peter M. Boenisch states:

> Intermediality as a concept is no longer reduced to being the mere use of various media technologies in live performance; nor as being confined to the computerized media-cultural economy in the early years of the twenty-first century. Rather, it is an effect performed in-between mediality, supplying multiple perspectives, and foregrounding the making of meaning rather obediently transmitting meaning.[5]

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[3] Chiel Kattenbelt, "Theatre as the Art of the Performer and the Stage of Intermediality," in *Intermediality in Theatre and Performance*, ed. Freda Chapple and Chiel Kattenbelt (Amsterdam: Rodopi, 2006), 29–38.

[4] Kattenbelt, "Theatre as the Art of the Performer," 29–38.

[5] Peter M. Boenisch, "Aesthetic Art to Aisthetic Act: Theater, Media, Intermedial Performance," in *Intermediality in Theater and Performance*, eds. Freda Chapple and Chiel Kattenbelt (Amsterdam: Rodopi, 2006), 103.

Both Kattenbelt and Boenisch assert that the notion of intermediality is indispensable to the analysis and comprehension of the modern digital theater. In order to analyze the multimedia components of *Orpheus Kristall* and their extra-musical implications, the notion of intermediality assumes a central role in this chapter.

Integrating digital media, in fact, elicits a deeper, multi-layered intermediality in terms of the structural and representational theatrical possibilities that it triggers. According to theater scholars Freda Chapple and Kattenbelt:

> Incorporation of digital technology into theater practice, and the presence of other media within the theatrical and performance space is creating new modes of representation; new dramaturgical strategies; new ways of structuring and staging words, images, and sounds; new ways of positioning bodies in time and space; new ways of creating temporal and spatial interrelationships. These new modes of representation are leading to new perceptions about theater and performance and to generating new cultural, social, and psychological meanings in performance.[6]

In *Orpheus Kristall*, Stahnke, in fact, grapples with psychological, cultural, and existential issues by means of the conceptual and dramaturgical possibilities that intertwining Orpheus myth, the medium of Internet (Internet performers), and microtonality granted him, creating a hybrid and pioneering mode of representation crossing the boundaries of the theatrical music.

Although this chapter examines the technological aspects of theatrical music based on the notions of intermediality, it also explains the historical context in which the relationship between digital media and the performing arts has emerged and thrived. Articulating the importance of the historical circumstances in which the technological media evolves, Walter Benjamin wrote, “during long periods of history, the mode of

[6] Freda Chapple and Chile Kattenbelt, “Key Issues in Intermediality in Theatre and Performance,” in *Intermediality in Theatre and Performance*, eds. Freda Chapple and Chiel Kattenbelt (Amsterdam: Rodopi, 2006), 11.

human sense perception changes with humanity's entire mode of existence. The manner in which human sense-perception is organized and the medium in which it is accomplished is determined not only by nature but by historical circumstances as well."[7] Building on Benjamin's diachronic conception of the technological media advancing in historical circumstances, this chapter analyzes the role of the digital media in Stahnke's *Orpheus Kristall* not only from conceptual and technical perspectives, but also historical and philosophical ones.

The following sections, therefore, articulate the function and evolution of the integration of digital media in the theatrical music. A historical overview of the pioneering concepts and methods used in digital theatrical performance precedes the scrutiny of the role of the digital media—the Internet and the Internet performance interface Quintet.net—in *Orpheus Kristall*. As an overarching framework, the key concept of Intermediality, which refers to the interactive artistic media interwoven on the theater stage—in this case by the means of the Internet as a meta-medium—sheds light on various technological facets of this work.

From Digital Theater to Digital Theatrical Music

Throughout the history of digital theatrical performance, computer-based technologies, especially the Internet, have played a germane role in implementing intermediality and maintaining the function of the theater stage as a hypermedium. Among all sorts of possibilities they have facilitated, the networked performance over a distance stands out as an important function of such technologies. Relating the roots of

[7] Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction," in *Illuminations: Essays and Reflections*, ed. Hannah Arendt (New York: Schocken, 1968), 222.

the networked performance to human primal communicational methods, performing arts scholar Steve Dixon explains, “networked art and creative collaboration over a distance has an ancestry that can be traced back to the earliest hand-delivered messenger correspondence of antiquity, through the literary relationships and collaborations which blossomed via postal system, to the postcard, telex, fax, email, and telematics arts of the twentieth century.”[8] Reinforcing the bond between the performing and musical arts, the artists involved in contemporary theatrical music have increasingly incorporated experimental computer-based technologies in the performance, giving birth to genres such as interactive theatrical music, or participatory installations. Regarding the roots of the technological integration into theater, the drama scholar Michael J. Arndt states:

> Theater has always used the cutting edge technology of the time to enhance the “spectacle” of productions. From early Deus ex machina, to the guild-produced Medieval pageant wagons, to the innovation of perspective painting and mechanical devices on Italian sixteenth-century stage sets, to the introduction of gas, and later electric, lighting effects, to the modern use of computer to control lighting, sound and set changes, technology has been used in ways that have created incredible visual and auditory effects.[9]

Not only the visual technological enhancements but also the auditory ones which Arndt highlights, substantiate several modern operatic projects, including *Orpheus Kristall*.

In comparison to other arts, music has been, in fact, a forerunner in consolidating digital technologies, both in the theatrical and non-theatrical performances. As Dixon states, “music was one of the first artistic fields to experiment significantly with and embrace computer technologies, and in terms of both creative production and

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[8] Steve Dixon, *Digital Performance: A History of New Media in Theater, Dance, Performance Art, and Installation* (Cambridge, M: The MIT Press, 2007), 419.

[9] Michael J. Arndt, “Theater at the Center of the Core: Technology as a Lever in Theater,” in *Theater in Cyberspace*, ed. Stephen A. Schrum (New York: Peter Lang, 1999), 66.

commercial (as well as illegal) distribution, music has arguably been more radically revolutionized by the 'digital revolution' than the other performance arts we explore." [10] The existence of numerous scholarly publications devoted to the analysis of the technological auditory innovations in the last one-hundred years implies the outstanding and pioneering rank of digital media in the world of non-theatrical music.

Music and theater scholars have, however, mostly left the discussion of the role of digital media in the theatrical music untouched, as we, for instance, observe in the case of Dixon, who modestly mentions his lack of "sufficient knowledge and expertise to approach a worthy analysis," as the reason for excluding digital theatrical music in his monumental text *Digital Performance: A History of New Media in Theater, Dance, Performance Art, and Installation.*[11] His invaluable book, nevertheless, comprehensively examines the contemporary technological trends in the non-musical digital performance-—broadly all non-musical performances where computer technologies play a key role—from a non-postmodernist perspective.[12]

In the world of theatrical performance, artists such as The Gertrude Stein Repertory and Kunstwerk-Blend incorporated Internet video-conferencing software to bring performers from remote locations together, live on the stage.[13] On the other hand,

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[10] Dixon, *Digital Performance,* x.

[11] Dixon, *Digital Performance*, 3.

[12] Throughout the book Dixon challenges the deconstructive and critical postmodernists' view of technology, in favor of the optimistic potentialities of the digital media. In Dixon's words: "Despite the popular proclamation that new technologies and the internet are quintessentially postmodern since they utilize nonlinear, nonhierarchical systems, we suggest an opposite argument, but an equally strong thesis. New digital technologies are *by definition* modern. Computer systems are logical, progressive, existentialist, and rational, pushing technological progress to the fore" (Dixon, *Digital Performance*, 660).

[13] Intending to use digital media and focusing on emulating new technologies in the theater, Gertrude Stein Repertory, an award-winning theater company, was established in the 1990s in New York (see http://www.gertstein.org/, accessed 05.26.2017). Kunstwerk-Blend was founded in 1977 by Sophia Lycouris in London, committing to interdisciplinary, hybrid, and collaborative art-projects, such as live

performance artists such as Stelarc wired their body up to the Internet, and, by the means of touch-screen computers, was manipulated by audiences in other countries, realizing the amalgamation of digital media and corporeal performance.[14] Articulating this amalgamation, and to avoid the danger of non-corporeal digital media, members of the New York Dance group Troika Ranch explain that they create live, interactive, digital systems in Max/MSP to bring life to the "dead" electronic media, to imbue it with the same sense of liveness as the corporeal performance:

> We are drawn to do this because most electronic media are dead, in the sense that it is precisely the same each time it is presented—quite different from what happens when a dancer or actor performs the same material twice. We want the media elements in our performances to have the same sense of liveness as the human performers it accompanies. We impose the chaos of the human body on the media in the hope of bringing it to life.[15]

As Partch aspired to revive the corporeal interrelationships of arts in a non-digital context, a plethora of artists, such as the Troika Ranch group, have endeavored to infuse art with corporeality in highly-digital spheres.

Similar to the function of the Internet as a performance medium in Stahnke's *Orpheus Kristall* but in the realm of theater, The Builders Association—a digital theater company in the United States—produced *Opera* in 2000: a music and video production, performed by the onstage and offstage performers using MIDI and real-time loop.[16] Highlighting the role of the Internet as a performance medium in such projects, Dixon

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performance, video-installations, and Internet-based projects (see http://www.kunstwerk-blend.co.uk/, accessed 05.26.2017).

[14] Dixon, *Digital Performance*, 1-2. See also http://stelarc.org/?catID=20239, accessed 05.26.2017.

[15] Dixon, *Digital Performance*, 197. See also http://troikaranch.org/, accessed 05.26.2017.

[16] Dixon, *Digital Performance*, 74. The New York-based performance and media company The Builders Association, founded by Marianne Weems in 1994, attempts to overcome the boundaries of theater using new and old multimedia devices (see http://www.thebuildersassociation.org/, accessed 05.26.2017).

states: “the Internet has proved particularly significant in its development, not only as an immense interactive database, but also as a performance collaborations and distribution medium.”[17] The relevance of the Internet as a medium, has, however, exceeded the scope of the non-musical performing arts, facilitating audio-visual, collaborative, music-theatrical conceptions.

The incorporation of the digital media in the theater, a growing trend in the twentieth and twenty-first centuries, did not appear out of nowhere; it, in fact, continues a long history of integrating technologies in the theatrical spectacle, for aesthetic, semiotic, and allegorical goals. In this regard, some dominating artistic movements in the last two centuries have influenced the emergence and development of the digital technologies in the theatrical performance. For instance, as Dixon argues, Wagner’s concept of *Gesamtkunstwerk*—in Wagner’s words: “the artwork of the future”—is central to the lineage of the digital performance both in its advocacy for grand theatrical spectacle and in the paradigm of “convergence” that unites the notion of *Gesamtkunstwerk* with contemporary understanding of the Internet as a meta-medium—a medium that unifies all media (text, image, sound, etc.) within a single interface.[18] Theater historians, therefore, consider Wagner’s musico-dramatic concepts as seminal influences on the modern experimental theater.[19] An essential text about the history of digital multimedia, *Multimedia from Wagner to Virtual Reality*, edited by

[17] Dixon, *Digital Performance*, 3.

[18] See, for example, three essays written by Wagner: “Das Kunstwerk der Zukunft,” “Oper und Drama,” and “Die Kunst und die Revolution,” all in Richard Wagner, *Gesammelte Schriften und Dichtungen von Richard Wagner,* 3rd ed. (Leipzig: E.W. Fritzsch, 1897).

[19] See e.g. Dixon, *Digital Performance*, 41–42.

Randal Packer and Ken Jordan, builds upon the lineage of the digital theatrical performance to Wagner's operatic conceptions.[20]

Considering Partch's theatrical music, if we ignore the "device paradigm" and the role of the digital media in the performance, Partch's concept of corporeality is akin to Kattenbelt's notion of intermediality.[21] Partch idealized a kind of theatrical music, where the interaction of various artistic media, including the storyline, music, acting, lighting, costumes, and even the sculptural beauty of his musical instruments, contribute to delineating the essence of the ritual drama. In other words, in the hands of Partch, the stage becomes a hypermedium that facilitates the intermediality of all other artistic aspects in the service of Partch's ideal of corporeal and ritual theatrical music. On the other hand, Partch's numerous, visually-spectacular and acoustically-astonishing, just-tuned music instruments work as technologies, which become fundamental elements of Partch's aesthetic of corporeality. Although obvious similarities between Wagner's concept of *Gesamtkuntswerk*, as the "Artwork of the Future," and Partch's concept of corporeality exist, Partch's emphasis on the ritual and theatrical dimensions of the artwork prioritizes the significance of his theatrical music as a stage for intermediality. As the core of his *Gesamtkunstwerk*, Wagner argued for the unification of music, acting, and staging to depict the essence of his philosophical dramas, while he assigned a superior role for music to his total artwork. In Wagner's conception, however, the

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[20] *Multimedia from Wagner to Virtual Reality*, eds. Randal Packer and Ken Jordan (New York: W. W. Norton & Company, 2001).

[21] "Device paradigm"-—a term coined by the technology philosopher Albert Borgmann in his 1984 book *Technology and the Character of Contemporary Life: A Philosophical Inquiry* (Chicago: University of Chicago Press, 1984)-—refers to the function and perception of the technological apparatus in modern societies. Kattenbelt builds upon this concept in his "Theater as the Art of the Performer and the Stage of Intermediality."

orchestra, separated from the stage, only accompanies the plot-based actions. Partch, on the other hand, sought the corporeal, onstage presence of his instruments as sculptural contributions to the stage-set and musicians who are also dancers and singers in costumes, performing the ritualistic theatrical music. He sought to amalgamate all artistic media equally, while he emphasized the corporeal, ritual performance, rather than a performance, where the music merely accompanies the actions. Partch's corporeality, hence, demonstrates an extension of Wagner's *Gesamtkunstwerk*, pushing it toward an even more integrated musico-dramatic experience.

In addition to Wagner's *Gesamtkunstwerk*, some artistic movements in the first half of the twentieth century influenced the emergence and evolution of the digital theater significantly. The *Bauhaus* artists, who questioned the notion of space in their exhibitions and architectural projects, were predecessors for the common spatial conceptions in the digital theater. As Oscar Schlemmer stated, he and the other *Bauhaus* artists endeavored to "break the narrow confines of the stage and extend the drama to include the building itself, not only the interior but the building as an architectural whole […] to demonstrate a hitherto unknown extent of the validity of the space-stage as a spectacle."[22] Critical approaches to the notion of performance space, or attempts to broaden the scope of the immediate stage, have, in fact, become constant endeavors in the digital theater, for instance in Stahnke's *Orpheus Kristall*, the main case under investigation in this chapter.

[22] Quoted in *Bauhaus 1919–1928*, eds. Herbert Bayer, Ise Gropius, and Walter Gropius (Boston: Charles T. Branford, 1959), 162.

Pointing to the artists' attempts to break the barrier between the physical and virtual performance spaces, or to intertwine both, media scholar Christian Paul states:

> In one way or another, all [digital artworks and environments] are concerned with possible relationships between the physical space and the virtual, and what distinguishes them are the balance between these two realms and the methods employed to translate one space into the other. Some artworks try to translate qualities of the virtual world into the physical environment, other strive to map the physical into the virtual; and yet others are aimed at fusing the two spaces.[23]

Problematizing the issue of the performance space in interactive, multimedia art projects, hence, appears after *Bauhaus* artists' confrontation with the notion of space in general, and the subject of extending the constrained breadth of the traditional performance space in particular.

But perhaps most important, the emphasis of the early-twentieth-century futurist artists on the technological advancements and apparatus-—implemented in various artistic media ranging from painting and sculpture to music and literature-—happens to be the most pivotal historical precedent to the digital theater. As several scholars, including Dixon, have argued, there is no doubt that "digital performance's ancestry is precisely and inextricably linked to the philosophies, aesthetic, and practices of the futurist movement."[24] As one of the most significant consequences of, among others, the *Bauhaus* and futurist archetypes—their critical approach to the traditional notions of performance space and technologies—the networked, or telematic, performance projects have exponentially grown in the last fifty years.[25]

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[23] Christiane Paul, *Digital Art* (London: Thames and Hudson, 2003), 71–72.

[24] Dixon, *Digital Performance*, 47.

[25] Telematic performance refers to the performances which utilize telecommunication devices, sending and receiving information via networks. According to the *Oxford English Dictionary*, telematics is "The use of computing, information technology, and telecommunications for the long-distance transmission of information, especially (in later use) for the purpose of monitoring, automating, or controlling certain

As one of the most influential early discussions of the capacities of telematic arts, in 1984 the pioneering artist Nam June Paik published a manifesto titled "Art and Satellite," contemplating the potentialities of the integration of remote performers in performances.[26] Billy Klüver, an electrical engineer who conducted innovative experiments at the intersections of art and technology, implemented some early, seminal, networked experimentations, such as *Telex: Q and A* (1971).[27] In the words of Randal Packer and Ken Jordan, "in the 1960s, Klüver, more than anyone, saw the potential for the integration of art and technology. Inspired by Aristotle's notion of *Techne*—in which there was no differentiation between the practice of art and science—Klüver proposed the active and equal participation of the artists and engineers."[28]

In another celebrated instance of pre-Internet telematic performances, in *Hole-in-Space* (1980), Kit Galloway and Sherrie Rabinovitz used a live video satellite link to connect the Broadway department store in Los Angeles and the Lincoln Center for the Performing Arts in New York City, realizing the cooperation of remote performers.[29] Later on, the Canadian performance company Le Corps Indice has also telemetrically linked remote performers in their hybrid projects, such as *Le Sang Des Reseaux* (1998),

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processes in motor vehicles; the field of study concerned with this." See the entry for Telematics at http://www.oed.com/view/Entry/198700?redirectedFrom=telematic#eid18836439, accessed 06.06.2017.

[26] Nam June Paik, "Art and Satellite," in *Multimedia from Wagner to Virtual Reality*, eds. Randal Packer and Ken Jordan (New York: W. W. Norton & Company, 2001), 41–43.

[27] *Telex: Q and A* (1971), which linked different places in the world by telex allowing people to converse about the future, was one of the several projects at the intersections of art and technology realized by E.A.T (Experiments in Arts and Technology). This organization was founded in 1966 by the engineers Klüver and Fred Waldhauer and artists Robert Rauschenberg and Robert Whitman. See Billy Klüver: E.A.T. – Archive of Published Documents, in http://www.fondation-langlois.org/html/e/page.php?NumPage=306, accessed 05.26.2017.

[28] Introduction to: Billy Klüver "The Great Northeastern Power Failure (1966)," in Packer et al. *Multimedia from Wagner to Virtual Reality*, 34.

[29] See Dixon, *Digital Performance*, 420.

Sojourn in Alexandria (1999), and Q*uarry* (2000), tackling issues related to the notions of, among others, identity, reality, territory, spirituality, and corporeality.[30] All of the above-mentioned projects illuminate the growing incorporation of remote performers and performance spaces through the use of digital networked technologies, leading to multimedia artworks such as *Orpheus Kristall* in the early age of the Internet.

Analogous to *Orpheus Kristall*, a networked music-theatrical project which re-invents the Orpheus myth, during the Net Congestion International Festival of Streaming Media in 2000, WAAG Society (Amsterdam) and Audioroom (London) created *0 + E (2000)* based on the Orpheus story. Their performance project ran in parallel in London, Amsterdam, and the Internet, respectively representing the underworld, the natural world, and the transitory world, all inherent in the myth. Whereas Stahnke's opera confronts the audience with three Eurydice characters representing Cerberus, the three-headed dog, in *0 + E (2000)* Orpheus dealt with several simultaneous Eurydice characters. In this production the public could manipulate the performance the means of the computer application "Keystroke." As Dixon articulates, "the Orpheus and Eurydice narrative has proved a potent and seductive myth for digital adaption, with examples ranging from a live hypertext version by the Playtext Players to Opera North's multimedia opera *04E* (2000), an update of Monteverdi's *L'Orfeo (*1607) that incorporates beautiful, multilayered projections on a hanging sphere and back screen, designed by Rowan May."[31] I shall add Stahnke's

[30] See Dixon, *Digital Performance*, 425; and http://www.isabellechoiniere.com/CorpsIndice.htm, accessed 05.25.2017.

[31] Dixon, *Digital Performance*, 432.

monumental opera *Orpheus Kristall* to Dixon's list—a pioneering, telematic, musical-theatrical artwork.

The multimedia concept in *Orpheus Kristall*, and its structure, engage with various cultural and existential discourses. From the perspective of a theater scholar, Chapple explains the reasons that the importance of the intermedial, digital [opera] performances goes beyond mere structural values:

> In the age of the intermedial, the *digital technology* that is the *language of the new media* is the new medium appropriate to engage with interculturalism and globalization. Digital technology creates 'worlds' that cultivate capacities of judgment and sensitivity as well as facilitating almost instant interactive communication with global communities. Opera in performance that utilizes the structure of the digital also creates worlds that cultivate capacities of judgment and sensitivity, as well as facilitation of interactive readings of the represented global communities on the intermedial opera stage.[32]

Building upon Chapple's argument, the next section presents an analysis of the ways in which *Orpheus Kristall* cultivates cultural and existential discourses, while conceptually and technologically challenging the operatic conventions.

The Multimedia Concept in *Orpheus Kristall*

In the context of the digital theater, the concept of intermediality gains particular significance in relation to Stahnke's utilization of the Internet as a performance medium in *Orpheus Kristall*. In this opera, the composer presents an autistic Orpheus bewildered by the complexity of his multimedia environment. Extending the borders of the immediate, live music on stage, Stahnke integrates an external world by means of the Internet, effectively creating the tension between Orpheus' inner-self and external influences. Orpheus reacts to the incoming sounds that emerge from the Internet in an

[32] Freda Chapple, "Digital Opera: Intermediality, Remediation and Education," in *Intermediality in Theatre and Performance*, eds. Freda Chapple and Chiel Kattenbelt (Amsterdam: Rodopi, 2006), 89.

attempt to get to know and locate himself in this media-world. He is trapped within his thoughts until three imaginary Eurydice characters appear on the stage, confronting him and his hallucinations of the most traumatic event in his life: the loss of Eurydice. As he attempts to face his memories, express his thoughts, and confront his loss, he constantly endeavors to remember what happened to his Eurydice throughout the course of the opera.[33]

Orpheus Kristall, Stahnke's opera in two media for stage and remote musicians, resulted from a cooperative project initiated by the Munich Biennale for Contemporary Opera 2002 and the Siemens Art Program, see Figure 4.1. This collaboration intended to explore the subject of *Oper als virtuelle Realität* (opera as virtual reality), the central theme of the 2002 Biennale.[34] In this pioneering work, the composer extends the boundaries of the onstage live music through integration of a vast external world via the Internet as an integral part of the performance medium. In addition to his multifaceted microtonal construction, Stahnke's innovative approach to integrating digital media in the performance, in fact, underpins *Orpheus Kristall*.

[33] Bargrizan, "Technology, Microtones, and Mediation," 11–12.

[34] See http://archive.muenchener-biennale.de/archiv/2002/startseite/, accessed 05.30.2017.

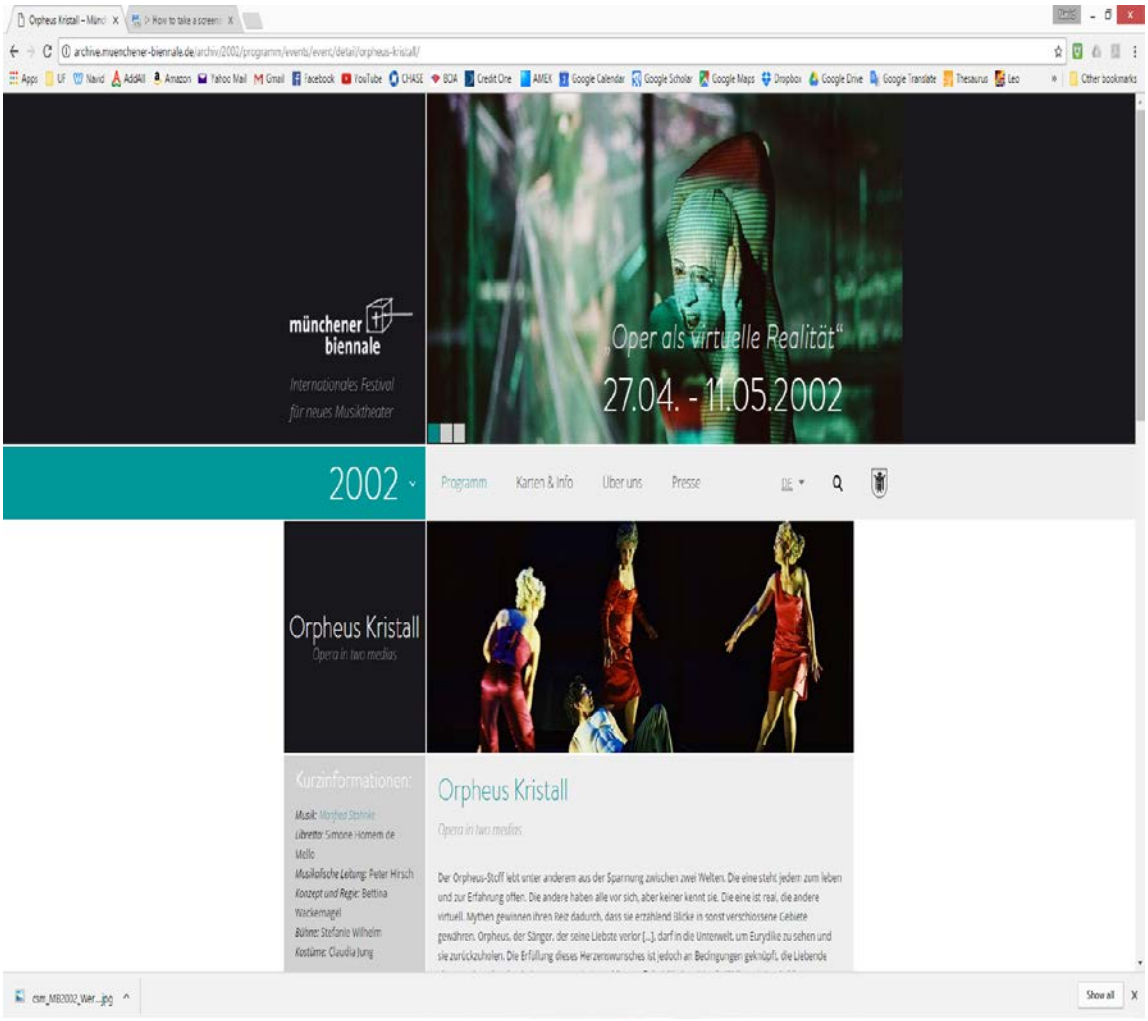

Figure 4-1. *Orpheus Kristall* in 2002 Munich Biennale for Contemporary Opera.[35]

In this opera, Orpheus uses the Internet as a tool to relate to the large, confusing world. As the technology-philosopher Peter-Paul Verbeek expounded upon the notion of "mediation," using objects as a mediator between an individual and the external world is, in fact, not new to humans:

> I articulate an approach to technological artifacts in human existence. The key concept of this approach is "mediation." […] When technological artifacts are looked at in terms of mediation-—how they mediate the relation between humans and their world, amongst human beings, and

[35] Source: http://archive.muenchener-biennale.de/archiv/2002/startseite/, accessed 05.30.2017.

> between humans and technology itself-—technologies can no longer be pigeonholed simply as either neutral or determining.[36]

In other words, technology is able to shape the nature of the human-world relationship; it becomes a possible form of mediation for human beings to be confronted with reality. In *Orpheus Kristall*, the allegorical relation of Orpheus to his extended world symbolizes the reflections of Orpheus's memories of Eurydice and her catastrophic death. Orpheus's external world is realized in the performance by the remote musicians' sounds coming to the stage through the medium of Internet, filtered by control boards and amplified by speakers.[37]

With *Orpheus Kristall* Stahnke comments on the foundation of our existence in an enormous exterior nature, which is itself a fundamental element in the Orpheus myth. In the present time, using various possibilities of the digital media, our existence is strictly-tied to the outer-world—other countries and continents and even space. Stahnke's *Orpheus Kristall* conceives of a world where Orpheus's existence is represented not merely by the small stage where the performance takes place, but also by an external world made available through the Internet-musicians' sounds. The incoming sounds, reflected in the hall, leave Orpheus to deal with his memories, as they leave us to question our existence through the opera's content. The opera seeks to break the barrier between interior and exteriors realms—to overcome the old *Kristall* of the equal temperament and the boundary of the immediate stage.[38]

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[36] Peter Paul Verbeek, *What Things Do* (Pennsylvania: Pennsylvania State University press, 2005), 11.

[37] Bargrizan, "Technology, Microtones, and Mediation," 12–13.

[38] Bargrizan, 23–26.

Breaking the barrier between the exteriors is the Internet's role in this production—an allegorical mediation between technology, the opera, and its message. From one standpoint, *Orpheus Kristall* could be interpreted as the aesthetic product of the artists involved in the production and the technological possibilities that the use of the Internet granted the project; in other words, a specific mythological and microtonal structure conceptualized by the composer, librettist, director, and the dramaturge on one side, and the technological structure of the Internet on the other. In *Orpheus Kristall*, Stahnke placed Orpheus as the central figure on the stage, who communicates with multiple locations around the globe, while the Internet mediates the projection of the autistic Orpheus's thoughts (voice), attempting to come to terms with his memories. The remote musicians react to his thoughts and improvise. Their reflections flow back to the stage through the medium of Internet, and Orpheus, now confronted with the reflections, keeps trying; and that is how this interaction begins to exist. [39]

Emphasizing the aesthetic significance of incorporating the digital media in a contemporary artwork, Stahnke's use of the Internet as a medium in his opera gives credence to the importance of collective creativity and digital participation.[40] According to media artist and fashion designer Andrea Zapp: "[The Internet] should be understood not only as an instrument for transfer and distribution of information, but rather as an "open resource" of a participatory order. The net is a comparatively unique cosmos of invented identities, partakers, and accomplices in joint forces, hidden in the endless

[39] Bargrizan, "Technology, Microtones, and Mediation," 23–26.

[40] See Bargrizan, "Technology, Microtones, and Mediation," 24.

labyrinth of home pages, chatrooms and communities."[41] Using the Internet as a participatory platform to integrate the collective creative imagination has been a recurring subject in the twenty-first century. In the context of Internet art projects such as crowdsourced art, Iona Literat highlights the importance of collective creativity and digital participation as follows: "With the rise of the Internet, artists interested in collaborative or participatory art found an ideal platform to reach an infinitely wider and more diverse pool of potential contributors."[42] There is, however, a simple difference between Stahnke's concept of Internet-opera and digital, participatory projects such as Crowdsourced art: Stahnke's concept is participatory in the sense that it involves remote musicians, participating in shaping Orpheus's musical world. Although it does not integrate the creativity of audiences in the hall or in remote locations, it makes an intermedial exchange between the stage and the remote musicians possible. Furthermore, through its innovative, pioneering approach to tonal systems, digital media, and myth, it successfully mediates its existential message to the audience.[43]

In *Orpheus Kristall,* although the dramatic actions happen on the live stage, by employing digital media, the composer extends the live music to the offstage realm, which, in a sense, adds more layers to the intermediality of the onstage theatrical music. Moreover, Orpheus is supposed to constantly react to the incoming sounds flowing to the stage from the offstage spaces. In short, in *Orpheus Kristall*, the multivalent structure of the music is analogous to the multivalent structure of the plot; the vague plot

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[41] Andrea Zapp, "net.drama://myth/mimesis/mind_mapping" In *New Screen Media: Cinema/Art/Narrative*, eds. Martin Rieser and Andrea Zapp, 77–89 (London: British Film Institute, 2002), 68.

[42] Iona Literat, "The Work of Art in the Age of Meditated Participation: Crowdsourced Art and Collective Creativity," *International Journal of Communication* 6 (2012), 2972.

[43] Bargrizan, "Technology, Microtones, and Mediation," 24.

hinges upon the incoming improvisatory music which impacts the stage music.[44] In *Orpheus Kristall* not only does the stage become a hypermedium, but the Internet also functions as a hypermedium that facilitates the intermediality of all the artistic media, including multiple plots, live stage music, and the external music from around the world, all of which shape a hyperreal plot which contains various philosophical connotations.

As Marshall McLuhan formulated that "the medium is the message," in a multimedia opera such as *Orpheus Kristall*, the hypermedium, in this case the Internet becomes the essence of the opera: its "message." [45] As an essential message of the opera, the Internet symbolizes the disarray of the information transferred to us from the outer-spaces through digital technologies. By integrating the Internet, we suddenly delve into a chaotic world of signs—the chaos of multiple incoming data streams processed in the real-time, expanding the scope of the live music in Munich. Stahnke has, in fact, expressed his passion for such a productive chaos where the whole conception is a rhizome consisting of various possibilities.[46] The Internet granted him the possibility to create such a medial chaos as a reflection upon the complexity of our multimedia world on the verge of amalgamating physical and virtual realities. In *Orpheus Kristall*, as much as the difference-tone harmonies mirror the subtleties of our existence rooted in the natural world, the Internet symbolizes our virtual(ly) boundless locations and limitless times, upon which nowadays our lives hinge. The allegorical

[44] I will elaborate on the characteristic of the plot in the next chapters.

[45] See the first chapter in Marshall McLuhan, *Understanding Media: The Extensions of Man* (Cambridge: MIT Press, 1964).

[46] Bargrizan, "Interviews with Manfred Stahnke."

incorporation of the medium of the Internet manifests a primary concern of the opera: the possibility of borderlessness.

Orpheus Kristall synthesizes the objective, onstage live music with the subjective, offstage improvisations of the remote musicians reacting to the stage music, all of which rely on the virtual interaction that the hypermedium of the Internet enables. In the opera, we explore the inner-world of the composer's visions, reconciled with the actuality of the immediate stage extended to the outer stages, in an intermedial and interactive collaboration.

The Role of the Interactive Interface Quintet.net in *Orpheus Kristall*

Orpheus Kristall features Quintet.net, a real-time Internet performance environment which allows remote musicians to participate in the performance. To realize the interactive conception of the opera Stanhke applies Quintet.net, which the multimedia composer Georg Hajdu has developed in MAX/MSP, see Figure 4.2.[47]

[47] In 2002 Hajdu was appointed professor of multimedia composition at Hamburg University for Music and Theater, where in 2004 he established Germany's first Master's program in multimedia composition as well as in 2012 the center for microtonal music and multi-media. Hajdu often integrates diverse electronic and multimedia concepts in his creative works. He has composed several pieces for electronic ensembles, tape, laptop quartet, live electronic, MIDI-fied carillon, and other interactive media, individually or in combination with acoustic instruments, e.g. his multimedia opera *Der Sprung – Beschreibung einer Oper* (1998), and two installations: *Drei Allegorien Von C.D. Friedrich* (2006), and *Flying Cities* (2003). He is also the author of several articles, essays, and book chapters, explaining his ideas on the intersection of art and science, see http://georghajdu.de/, accessed 05.15.2015.

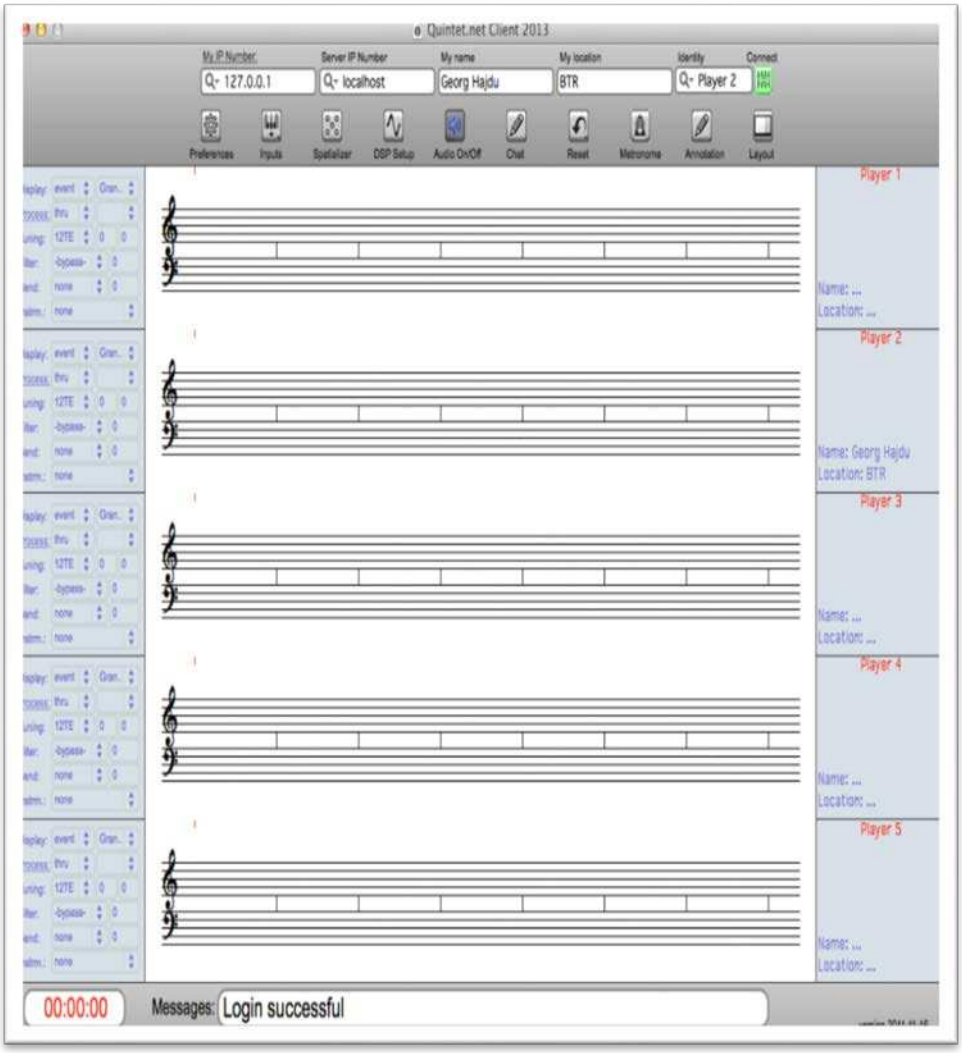

Figure 4-2. Dialogue box of Quintet.net, designed by George Hajdu in MAX/MSP

Hajdu's initial impulse to design this interactive interface was the idea of connecting networked, electronic sound-generators with real-time notation. Predecessors of Hajdu's work go back to the 1960s, for instance Max Neuhaus's interactive project *Public Supply*, or Henri Pousseur's opera *Votre Faust*, and later the computer network music ensemble The Hub, or Tod Machover's *Brain Opera*.[48]

[48] In *Public Supply* (1966), the percussionist and sound artist Max Neuhaus (1939–2009) used telephone lines installed in the WBAI radio studio in New York. Using the technical system he himself had designed, he manipulated, mixed, and bundled the incoming feedback from the radios of multiple callers, see http://www.max-neuhaus.info/, accessed 05.27.2017. In Henri Pousseur's opera *Votre Faust* (1968), the

Quintet.net enables up to five musicians to perform over the Internet under the control of a conductor. The environment consists of four components: the Server, Client, Conductor, and the Listener. In addition, there is a Viewer add-on for the Client and Listener components, see Figure 4.3.[49] According to Hajdu:

> The players interact over the Internet or local networks by exchanging musical streams (control messages) via the Quintet.net server. For this, various inputs ranging from the computer keyboard, MIDI controllers, sensor input and/or the built-in pitch tracker can be used. On the server, the streams get multiplied, processed by algorithms, and sent back to the clients as well as to the listeners. In addition, a sixth performer, the conductor, can control the musical outcome by changing settings remotely and sending streams of parameter values either manually or by utilizing a timeline. The environment uses two network protocols for exchanging data: OpenSoundControl/UDP for time-dependent events, as well as TCP for safe data transmission. It also uses a mechanism to compensate for network jitter. Quintet.net's open architecture accommodates various outputs such as the built-in sampler, MIDI as well as VSTi instruments and custom designed software patches for instrumental playback. It also features granular synthesis controllable by the players and the conductor.[50]

Because of the small bandwidth and slow speed of the Internet in 2002, during the performance in the Munich Biennale, the engineers recorded the live, onstage percussion and baritone sounds, first transformed them to MIDI-data, and then transported them to the remote locations, all in real-time. The musicians in Amsterdam,

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audience determines the course of the music and the plot, based on an intricate set of rules, see, for example, *MGG Online*'s entry for Henri Pousseur, written by Mark Delaere. According to the *Grove Music Online*'s entry for Hub, written by Anne Beetem Acker, The Hub is an experimental computer network founded in 1985 by Tim Perkis and John Bischoff. The concept of Hub is to create transformable live music by the means of unpredictable interactions of interconnected computer systems. About Tod Machover's *Brain Opera*, Stephen Mantagues write in *Grove Music Online*: "In *Brain Opera* (1998) the audience moves first through a room which he calls an interactive 'Mind Forest' where they play a variety of one hundred or so 'hyperinstruments'. They next occupy an adjacent space for a performance of their musical input mixed with his own music plus numerous devices like the 'sensor chair' and 'digital baton'. The final part is in the 'Net Music' space, a website that provides the audience with an online introduction to the system and facility for those wishing to participate from home where they may also visit previously recorded performances."

[49] http://georghajdu.de/, accessed 05.17.2015.

[50] http://georghajdu.de/, accessed 05.27.2017.

New York, and Berkeley reacted to the stage music accordingly, and improvised upon it. The sound engineers received the improvisational MIDI-responses of the remote musicians. Using mix consoles, they could take one or more of these new incoming MIDI-data streams, modify them through a pitch-tracker device, and by means of sample-players transform them back to audio sounds. The audio sounds were, then, filtered through specific overtone chords, as written in the score, and played as electronic samples in the hall, see Figure 4.4, which demonstrates a schema of the interactive process explained above, and Examples 4.4 and 4.5 from the score.

The video of the performance in Munich was also transmitted to Amsterdam, Berkeley, and New York, where, besides the involved musicians, both large and small audiences attended the slightly-delayed performances. As illustrated in Example 4.5, at some points, the incoming internet-sounds were intriguingly filtered up to their thirty-third overtone, filling the hall with chords consisting of a wide range of natural tones. Sometimes they even filtered the Orpheus voice through the incoming Internet-sounds. Therefore, the audience heard his voice in a kind of strange, blurred, and deformed manner.

Aligned with the constant confrontation of the improvisational freedom of the incoming music and strict structuralism of the microtonal fabric of the stage music, Quintet.net underpinned Stahnke's interactive conception in *Orpheus Kristall*, enabling him to extend the breadth of the immediate stage to the improvisations of the remote musicians, all based on the philosophical implication of the whole project.

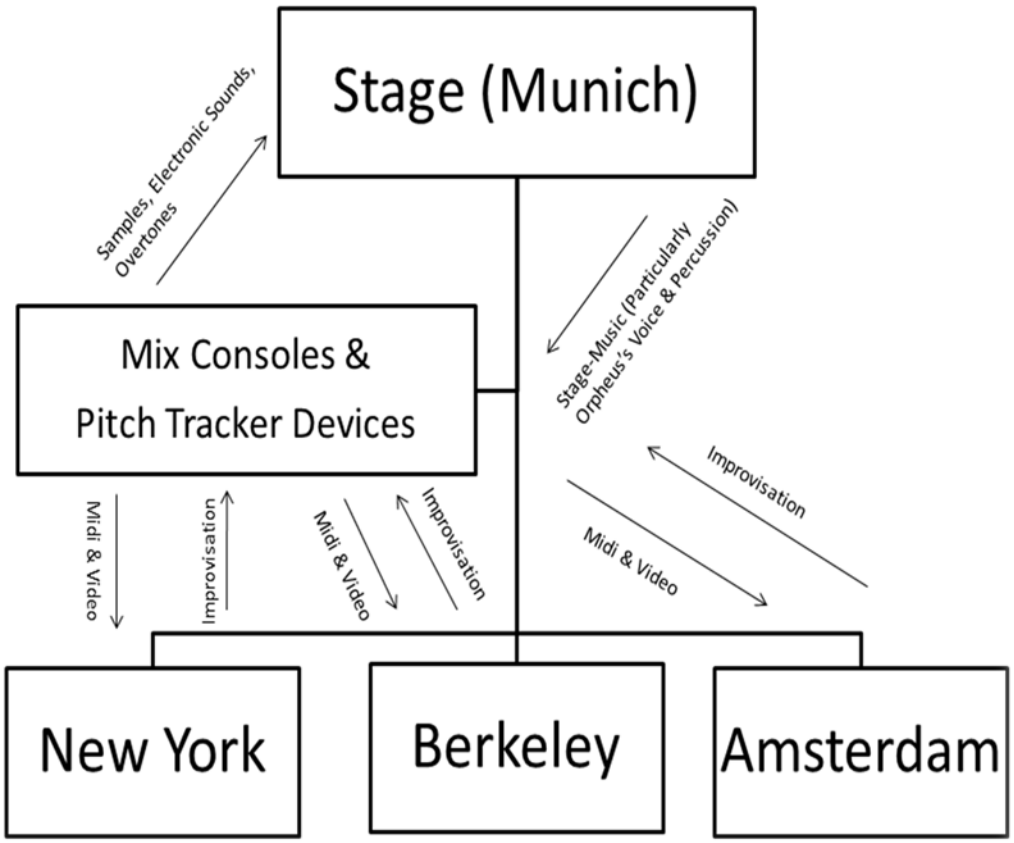
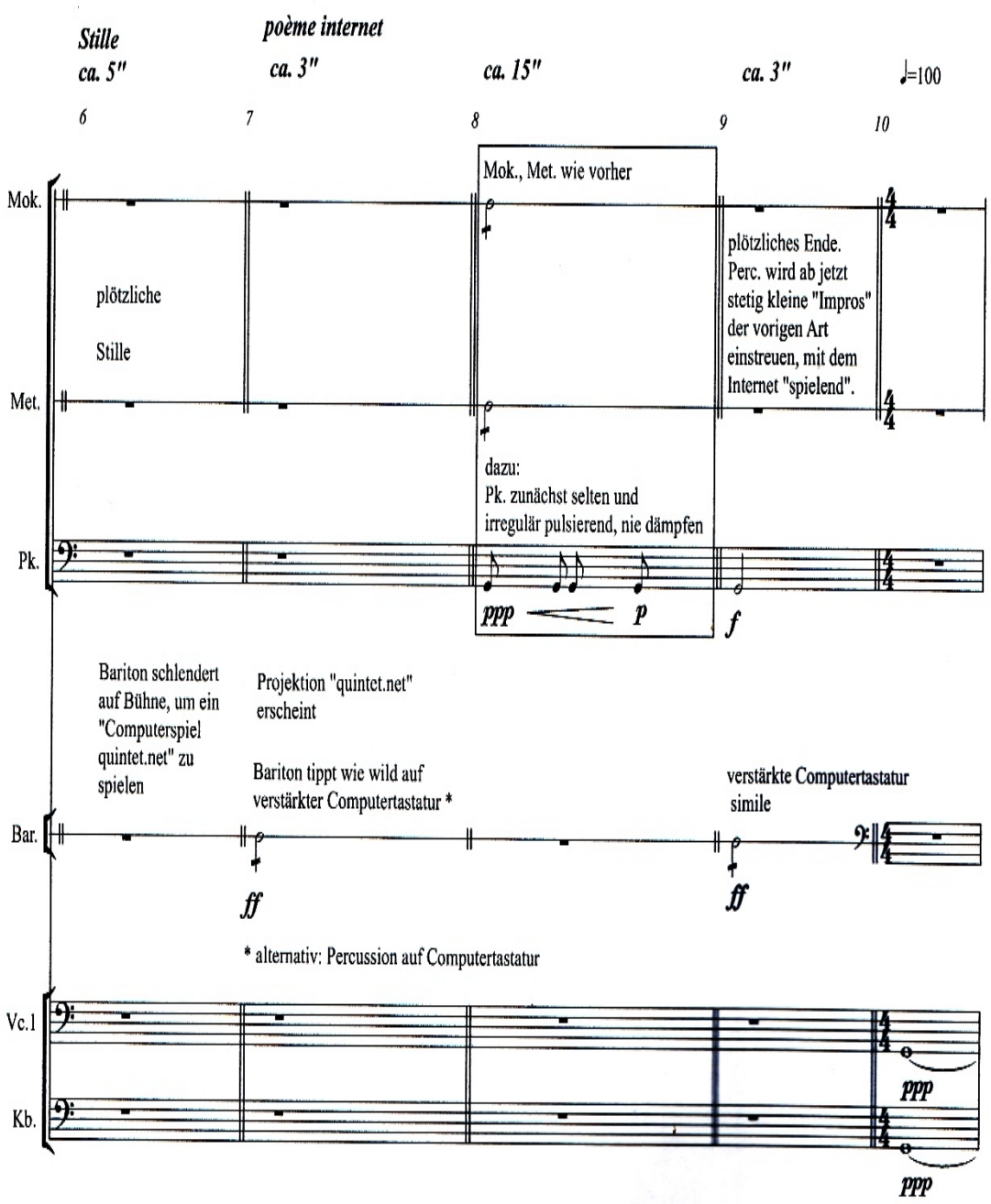
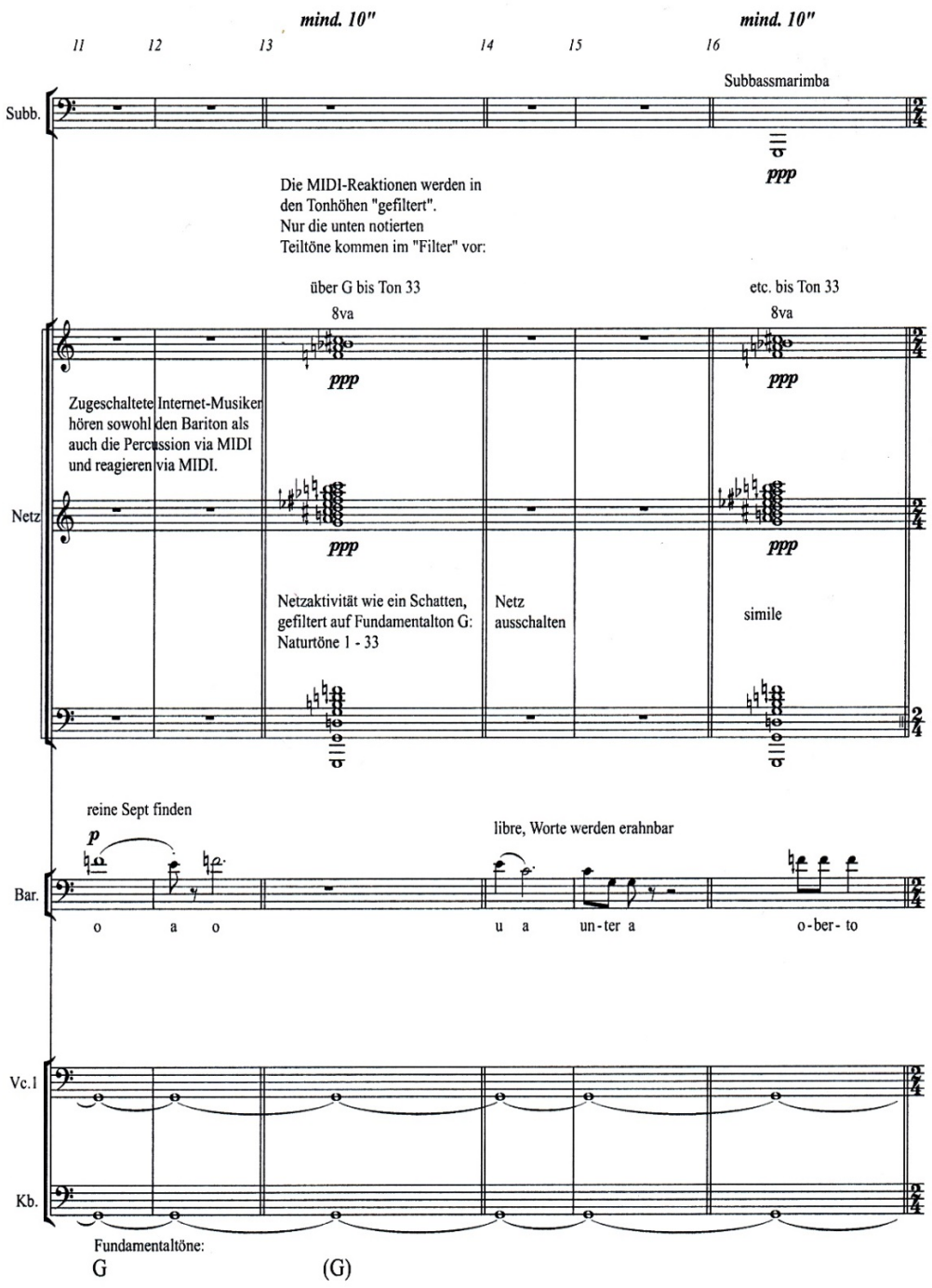


Figure 4-3. The function of the Internet in *Orpheus Kristall*.[51]

[51] Bargrizan, "Technology, Microtones, and Mediation," 27.



Example 4-1. Manfred Stahnke, *Orpheus Kristall*; incoming Internet-Sounds, in "*Poème Internet"* of the Act I, measures 6–10.



Example 4-2. Manfred Stahnke, *Orpheus Kristall*; incoming Internet-Sounds, in "*Poème Internet"* of the Act I, measures 11–16.

Various Trajectories in the Multimedia Design of *Orpheus Kristall*

Another framework to explore the structure and function of the digital media in Stahnke's *Orpheus Kristall* is the concept of "trajectories," proposed by Steve Benford in his article "Performing Musical Interaction: Lessons from the Study of Extended Theatrical Performances."[52] In his article, Benford discusses the ways in which a mixed-reality performance could emerge, through interaction of physical or live performance and virtual or digital media. Benford appropriates the plural form of the term "trajectory" as his central concept, to refer to the individual construction of each of the constituents in a multimedia performance. The path that each of these constituents take converge during the performance, realizing the artwork. Therefore, the meaning of Benford's concept of trajectories go beyond this term's literal implications in the physics.[53] It informs the underlying plot-based, virtual, or performative ideas that construct the artwork.

Elaborating on the hybrid structures generated by combining multiple physical and virtual spaces, multiple timescales, different performative roles, and diverse interfaces, Benford argues that the overarching concept of trajectories facilitates our perception of such intricate structures. According to Benford, the concept of trajectories informs the ways in which the performers construct coherent experiences, while each of them might follow their own individual path, meeting at a point to build a social construct

[52] Steve Benford, "Performing Musical Interactions: Lessons from the Study of Extended Theatrical Performances," *Computer Music Journal*, 34, 4 (2010), 49–61.

[53] *Oxford English Dictionary* defines "trajectory" as "the path of any body moving under the action of given forces" (in physics), and "A curve or surface passing through a given set of points, or intersecting each of a given series of curve or surface according to a given law, e.g. at a constant angle" (in geometry).

of mixed-reality. In other words, independent trajectories of each participant transform to a complex whole, producing an interactive performance.[54]

In the context of *Orpheus Kristall*, the concept of trajectories illuminates the interrelationship of the various existing plots, the relation of the Internet-musicians to the onstage music, and the multifarious tonal factors. I argue that not only we are able to observe singular trajectories within each of these three fundamental aspects of the opera—namely the plot, the digital media, and the microtonal system—but as overarching trajectories, they also constitute the whole artwork. This section analyzes various canonical, participant, and historic trajectories within the technological configuration of the opera, conceived by the function of the Internet as a digital hypermedium.

As one of the three fundamental kinds of trajectories, Benford explains the notion of canonical trajectories as follows: “Artists create canonical trajectories that express one or more ideal journeys through a performance.”[55] He elaborates: “canonical trajectories capture the design of the underlying narrative that guides the performance, although this is broadened to include all aspects of the experience from ticketing and admissions, framing and engaging with interfaces, to the structure of the digital media, to the ending of the performance.”[56] In Stahnke’s opera, the underlying ideas on which the whole interaction between the stage and external musicians is based illustrates its canonical trajectories. The medium of Internet made the realization of these underlying ideas—the canonical trajectories—and the resulting intricate interaction, possible.

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[54] Benford, “Performing Musical Interactions,” 57–59.

[55] Benford, “Performing Musical Interactions,” 57.

[56] Benford, “Performing Musical Interactions,” 58.

With *Orpheus Kristall*, Stahnke comments on the foundation of our existence in an enormous, complicated exterior, articulating the fact that—using various possibilities of the digital media—our existence is nowadays strictly-tied to the outer-world. In this opera, Orpheus's existence is represented not merely by the small stage where the performance takes place, but also by an external world made available through the Internet musicians' sounds. As the most significant canonical trajectory of the opera, the incoming sounds, reflected in the hall, leave Orpheus to cope with his memories of losing Eurydice, as they leave us to contemplate the ever-growing interdependence of our lives on the digital technologies, the vast external world, and the infinity of nature.

The second fundamental kind of trajectories, the participant trajectories, informs the actual journey of each participant through the work. According to Benford, these individual experiences are shaped by an interactive environment, in which participants make their own choices about how to act and how to drive their trajectories based on the underlying canonical trajectories.[57] Benford explains that "the convergence and divergence of multiple participant trajectories expresses the social dynamics of a particular performance, reflecting moments at which different participants are brought together to share aspects of an experience, as well as important moments of contemplative isolation in which they are deliberately separated."[58] In *Orpheus Kristall*, Quintet.net enables the remote musicians to shape their own improvisatory participant trajectories, as opposed to the fixed, notated music of the orchestra on the stage, which,

[57] Benford, "Performing Musical Interactions," 58.

[58] Benford, "Performing Musical Interactions," 58.

in turn, inscribes another participant trajectory. These participant trajectories converge on the stage, to construct the dramatic tension of the opera.

The very last sort of the trajectories, which grants us a conceptual framework to analyze the interactive aspects of *Orpheus Kristall*, is the notion of historic trajectories. According to Benford, "historic trajectories involves selecting and recombining segments from among different participant trajectories that have been recorded by the underlying system. In the simplest case, this may involve replaying a given participant trajectory to recreate a particular individual's experience as it took place."[59] As previously mentioned, during the 2002 production of *Orpheus Kristall* in Munich, a crew consisting of the composer and the sound engineers worked on mix consoles, computers, and pitch tracker devices, receiving the incoming MIDI-data from the Internet-musicians. While filtering the incoming data through their spectrum of partials, they could take one or multiple harmonics and play them in the hall at the particular spots marked in the score, using samples or electronic sounds. This very process of real-time selecting, recombining, and replaying one or some participant trajectories illustrates the notion of historic trajectories. It goes without saying that these historic trajectories, as much as the participant trajectories, are subjugated to the essential canonical trajectories of the opera—the latent and intrinsic philosophical narrative inscribed into the whole process.

The historic trajectories in *Orpheus Kristall* also demonstrate a "modular characteristic." Theater scholar Hadassa Shani expounds on the notion of modularity in the context of the interactive digital theater as follows:

> The concept of modularity, in its broadest sense, indicates the organization of elements according to loose or unstable connections, in

[59] Benford, "Performing Musical Interactions," 58.

> which all of the elements continue to maintain their separate identities. This type of organization enables reconstruction through shifts in direction, often by jumping or skipping over different sections of a complex structure. The main characteristics of modularity are: multiplicity of options, independent units, free associations, personal choice, continual change, the opening of unanticipated horizons, and accessibility.[60]

The interaction of all the constituent elements in *Orpheus Kristall* are modular in the sense that although the various participant trajectories follow their individual path maintaining their individual identities, they can be manipulated, re-combined, and re-synthesized based on the anticipated and unanticipated historic trajectories, all the while the canonical trajectories determine the underpinning path.

One major challenge that the composer and the sound engineers dealt with, however, was the fact that in 2002, the Internet was not fast enough to transfer sounds. Although, by utilizing MIDI, they solved the problem to some extent, in my 2015 interviews with Stahnke, he stated that they were not quite satisfied with the final result. He mentioned that the Internet's slow speed and the resulting delay that it caused to transform the incoming MIDI-data to audio-sounds mildly impaired the whole process.[61] Benford, in fact, warns against such pitfalls, stating: "Although the concept of trajectories is intended to capture a sense of a continuous journey through a performance, this ideal of continuity is in fact often threatened by various transition and significant moments in the structure of a performance that require careful design to maintain an overall sense of coherence."[62] Recognizing this issue, Stahnke has

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[60] Hadassa Shani, "Modularity as Guiding Principle of Theatrical Intermediality," in *Intermediality in Theatre and Performance*, eds. Freda Chapple and Chiel Kattenbelt (Amsterdam: Rodopi, 2006), 213.

[61] Bargrizan, *"*Aspekte mikrotonaler Komposition,*"* 134–137.

[62] Benford, "Performing Musical Interactions," 58.

expressed a wish for a re-production of *Orpheus Kristall*, which, by utilizing the present progressive technologies, would surely lead to a much better outcome.[63]

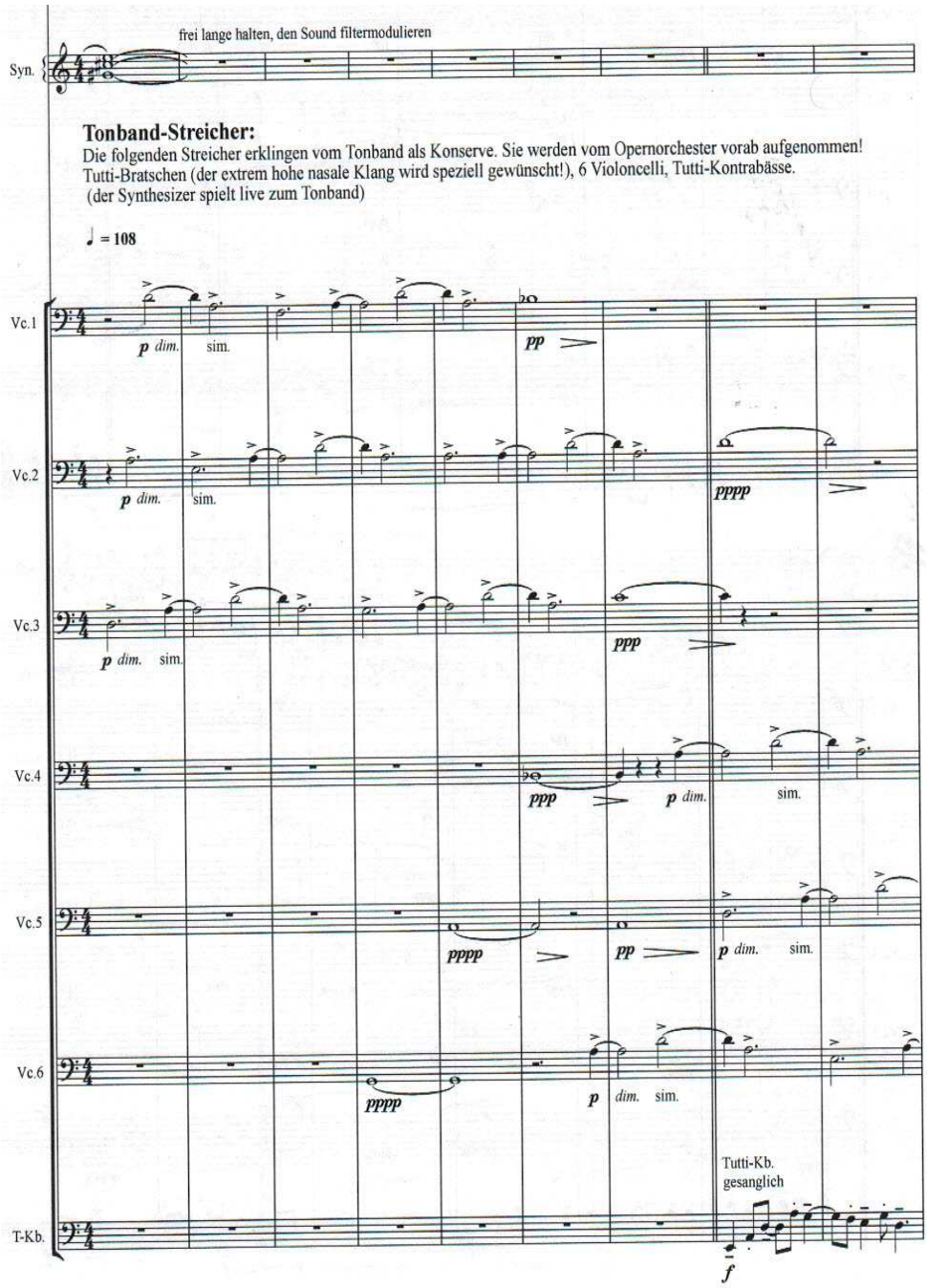
Regardless of the pitfalls, in *Orpheus Kristall*, the participant and historic trajectories cooperate to delineate the canonical trajectories—the philosophical implications of the whole artwork. These implications point to the origins of our existence in an external, enormous nature. The predominance of the just-tuned natural tones, the theme of nature imbedded in the plot, and the external sounds coming to the stage from far away, imply this existential issue. Furthermore, the use of the digital media hints to another existential issue, namely how nowadays our lives depend on the virtual world of the Internet and other forms of digital media. Lastly, Stahnke's search toward new sound-structures, which break through the limited scope of the prevailing equal-temperament as well as the immediate stage, illustrates a personal tendency of the composer to not confine himself within the already-established and old idioms, and his constant longing for new paradigms.

Orpheus Kristall is not Stahnke's only opera to utilize electronic devices; his use of the technological tools in his three earlier operas were, however, rather minimal in comparison to *Orpheus Kristall*. Confronting the predominantly just-intoned microtonal structures, in *Heinrich IV* the synthesizer presents jazz and pop chords, symbolizing the superficiality of characters such as Matilde, while the previously-recorded strings and synthesizer sections, play-backed in the hall, accompany the live synthesizer at the beginning of the piece, see Example 4.1 and 4.2. In the 1983 version of *Wahnsinn, das ist die Seele der Handlung*, on the other hand, electronic tapes record the whole live

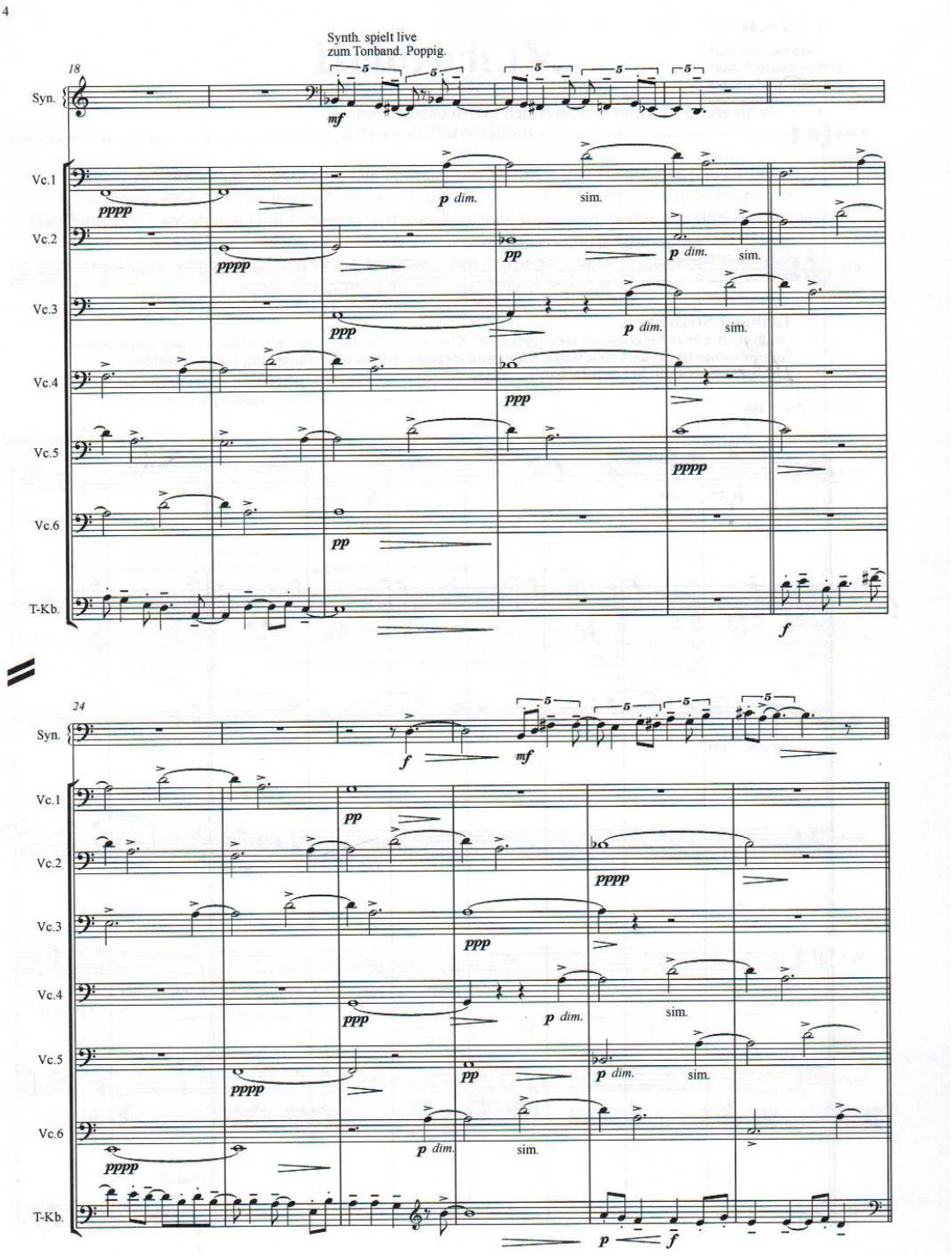
[63] Bargrizan, "Aspekte mikrotonaler Komposition," 138.

performance and play it back in the hall with eight seconds of delay, creating a reminiscence of the already declaimed poems, see the legend from the score in Figure 4.1.[64] In *Der Untergang des Hauses Usher*, white noise played by the electronic tape appears at the end of the opera, as the sum-information of all over- and undertones, symbolizing the dichotomy of nothing vs. everything, or, analogous to the events in the plot, as death vs. life, see Example 4.4. Furthermore, both in *Usher* and *Heinrich*, microphone amplification techniques made the central instrument of the harp more audible amidst all the instruments and voices.

[64] In the 2012 production in Berlin, the real-time recording techniques replaced the analogue tapes employed in the original 1983 version.



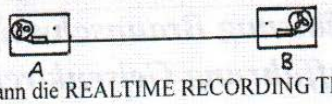
Example 4-3. *Heinrich IV*, "Overture zur Overture," measures 9–17; the pre-recorded string sections and synthesizer accompany the live synthesizer.



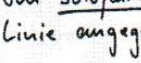
Example 4-4. *Heinrich IV*, “Overture zur Overture,” measures 18–29; the pre-recorded string sections and synthesizer accompany the live synthesizer.

Allgemeines: (szenische Angaben wie hindrad, nur ein Vorschlag!)
Die Solistin agiert zeitweise an einem vom Zuschauerraum ziemlich entfernten Ort, wo sie eine Pauke in tief G anschlägt. Ferner agiert sie von einem feststehenden Mikrophon am Saaleingang aus, sie hat dort eine kleine Handtrommel. Außerdem spielt sie auf der Bühne ohne Mikro.

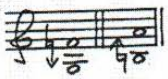
Das Quartett wird oft durch Mikrophone verstärkt (hierfür muß ein Regler des Mischpults vorgesehen sein) und durch Tonbandgeräte zeitversetzt wiedergegeben (hierfür ein anderer Regler): Gerät A nimmt den Klang auf, Gerät B gibt ihn ca. 8" später wieder. Bei Bandgeschwindigkeit 19 cm/sec würde das einen Abstand von Tonkopf (Gerät A) zu Tonkopf (Gerät B) von ca. 1152 cm bedeuten:



Anmerkung 2010: Natürlich kann die REALTIME RECORDING TECHNIK hierfür eingesetzt werden

Zeichenerklärung:
Im Sopran wird eine ungefähre Tonhöhenverteilung unterhalb einer durchgezogenen Linie angegeben: 

Diese Linie stellt einen "höchsten Sprechton" dar und wird bei gekreischten oder hoch gesungenen Tönen überschritten.
Im Allgemeinen ist der Sopran zu sprechen, er enthält aber auch Andeutungen (Vorschläge) zum Tonhöhensingen.

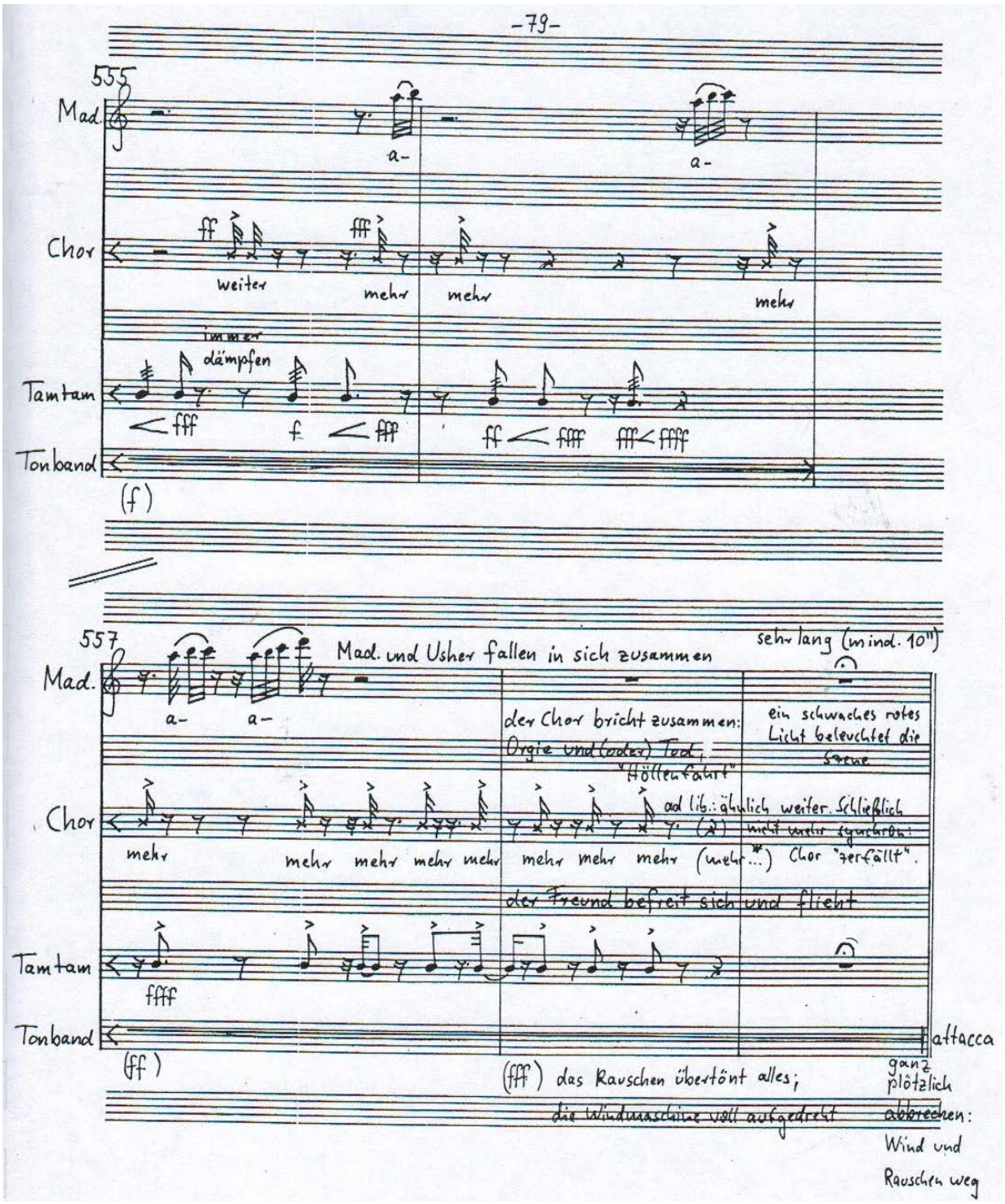
Quartett: Um ein spezielles Klangbild zu erzielen, müssen überall möglichst reine, nicht-temperierte Intervalle gespielt werden. Dies betrifft besonders Terzen und Septen, deren reine Intonation mehr oder weniger von der Temperierung abweicht.
Die Vorzeichen ♭↓ ♯↓ ♮↑ ♭↑ ♯↑ zeigen Beinahe-Vierteltonveränderungen an. Mit diesen Vorzeichen werden vor allem "naturreine" Septen notiert, z.B.: 

In einigen Sätzen wird auch der 11. Naturton gefordert, z. B.: 
ebenso der 13. Naturton (wohlgemerkt: kein Flageolett!),
z. B.: 

Gestrichelte Linien  bezeichnen gleichbleibende Töne (kein Fingerwechsel).

Rhythmische Notation im Sopran und Quartett: Die Pfeile ♪↱ oder ♩↰ am Notenhals zeigen minimale rhythmische Verschiebungen an. Z.B. ist  ca.  .

Figure 4-4. *Wahnsinn das ist die Seele der Handlung* (1983 version), legend; the explanation of the function of the electronic tapes on top of the page.



Example 4-5. *Der Untergang des Hauses Usher*, closing scene, measures 555–559; *Tonband* (electronic tape) plays white noise.

Although the concept of trajectories contributed to analyzing the function of the internet in *Orpheus Kristall*, this concept could also inform the construction of the musical and dramatic aspect of this work. Benford uses this concept as a way to examine the digital performances. However, it could be as well applied to analyzing other aspects of such works as *Orpheus Kristall*, which incorporate improvisation and participatory approaches.

As we have observed in the case of *Orpheus Kristall*, which integrates digital media as an essential performance interface, in their theatrical music both Partch and Stahnke have combined technological structures—Partch's unique instruments and Stahnke's use of electronic devices—with microtonal fabrics as fundamental elements in shaping the (post)dramatic structures of their music. While the three last chapters expounded upon the subtleties of the microtonal systems, the digital media, their interaction, and their inextricable link to both composer's music philosophical ideas, the next two chapters deal with the components of the pieces related to the ritual and corporeal aspects as well the conformation of the dramatic and postdramatic structures.

CHAPTER 5
CORPOREALITY AS THE FOUNDATION OF PARTCH'S OEUVRE

Partch beyond Intonation and Tuning

While scholars have largely focused on aspects of Partch's creative output, such as his tuning-system, his music instruments, or his solitary and partially transient lifestyle, the philosophical underpinnings of his music have yet to be adequately analyzed in the scholarly literature.[1] Partch's new musical aesthetic owes much to his revolutionary concept of "corporeality" that not only fundamentally informs his music dramas but is also central to his compositional and theoretical achievements. Pointing to the existential pertinence of Partch's concept of corporeality and its centrality in his aesthetic, Michael Broyles states: "Partch spoke of corporeality throughout his life, and like life itself, the term evolved. But neither its core meaning nor its importance ever changed dramatically."[2] While Broyles' work articulates the significance of the concept of corporeality in Partch's oeuvre, it does not analyze this concept as such. The present chapter, however, grapples with the core meaning, and the importance, of Partch's notion of corporeality.

Corporeality is a particularly ambiguous notion. Numerous discourses within the disciplines of humanities and the social sciences have employed it in the context of

[1] For studies of Partch's tuning and intonational system see, for example, Manfred Stahnke, "Gedanken zu Harry Partch," *Neuland: Ansätze zur Musik d. Gegenwart: Jahrbuch* 2, ed. Herbert Henck (Bergisch Gladbach: Neuland Musikverlag, 1982), 243–51; Manfred Stahnke, "Zwei Blumen der reinen Stimmung im 20. Jahrhundert: Harry Partch und Gerard Grisey," *Hamburger Jahrbuch für Musikwissenschaft* 17, ed. Constantin Floros, Friedrich Geiger, and Thomas Schäfer (Frankfurt/M.: Peter Lang, 2000), 369–88; Manfred Stahnke, "Partch Harp:(Er)findung einer nicht-oktavierenden Musik," in *Musikkulturgeschichte: Festschrift für Constantin Floros zum 60. Geburtstag*, ed. Peter Peterson (Wiesbaden: Breitkopf & Härtel, 1990), 11–26. For studies of Partch's biographical aspects see, for example, Bob Gilmore, *Harry Partch: a biography* (New Haven & London: Yale University, 1998); and S. Andrew Granade, *Harry Partch, Hobo Composer* (Rochester: University of Rochester, 2014).

[2] Broyles, *Mavericks*, 224.

diverse, and often disparate, discourses, for instance in linguistic, gender studies, disability studies, kinesiology, media studies, psychology, and arts. The *Oxford English Dictionary* defines corporeality as "the quality or state of being corporeal; bodily form or nature; materiality," and traces its roots back to *Matæotechnia Medicinæ Praxeωs*—the mid-seventeenth-century text authored by medical practitioner and social reformer Noah Biggs.[3] Although this chapter mainly expounds upon Partch's idiosyncratic use of the term "corporeality" to address the underpinning concept which informs his aesthetic, an introduction to the most significant adoptions of this term in distinct disciplines precedes the analysis of Partch's notion.

Language scholar Horst Ruthrof uses this term in his book *Semantics and the Body: Meaning from Frege to the Postmodern* to suggest "a conception of meaning as the activation of linguistic expression by way of haptic, olfactory, tactile, aural, visual, and other signs"—a corporeal description of the semantics.[4] Ruthrof criticizes, among others, Frege, Kripke, Saussure, Lacan, and Baudrillard, for "their blindness to the importance of non-verbal signs both within and without the linguistic."[5] His study intends to fill the gap between various disciplines, by means of offering an interdisciplinary and corporeal revision to the question of semantics.

As another significant use of the term "corporeality," distinguished British philosopher and psychologist Rom Harré studies the importance of the concept of body in discursive practices, such as "giving of reasons, anticipating the future, and the

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[3] Noah Biggs, *Matæotechnia Medicinæ Praxeωs*: *The Vanity of the Craft of Physick* (London: Edward Blackmore, 1651). See the entry for "corporeality" in *Oxford English Dictionary*.

[4] Horst Ruthrof, *Semantics and the Body: Meaning from Frege to the Postmodern* (Toronto: University of Toronto Press, 1997), xii.

[5] Ruthrof, *Semantics and the Body*, xi–xiii.

making of judgements according to criteria and norms."[6] In *Physical Being: A Theory of a Corporeal Psychology*, he coins "the theory of corporeal psychology" as the conceptual foundation of his pioneering study. Diane L. Prosser MacDonald's *Transgressive Corporeality: The Body, Poststructuralism, and the Theological Imagination*, on the other hand, attempts to deconstruct the binary modes of thinking and analysis with regard to the notions of body and embodiment, predominant in the post-Enlightenment Western culture, especially in the works of Nietzsche, Eco, Merleau-Ponty, Foucault, and Kristeva.[7]

In the social theory and feminist studies, philosopher Moira Gatens draws upon Spinoza's theory of imagination to suggest the shortcoming of the dichotomy of sex/gender argument to account for the "psychoanalytic notion of imaginary body." In her *Imaginary Bodies: Ethics, Power, and Corporeality*, Gatens argues for body image as a "double"; an "other"; or a "complement" for the corporeal body, which refers to the physical and actual body.[8] Another outstanding study at the intersection of gender studies and literature is Anna M. Klobucka's and Mark Sabine's edited volume on the various dramatic *personae*, under which the Portuguese poet, Fernando Pessoa (1888-1935), wrote his poetry. *Embodying Pessoa: Corporeality, Gender, Sexuality* explores the relationship of the corporeal physicality, gender, and sexuality to Pessoa's

[6] Rom Harré, *Physical Being: A Theory of a Corporeal Psychology* (Oxford: Blackwell, 1991), 1–7.

[7] Diane L. Prosser MacDonald's, *Transgressive Corporeality: The Body, Poststructuralism, and the Theological Imagination* (Albany: State University of New York Press, 1995), xi–xiii.

[8] Moira Gatens, Preface to *Imaginary Bodies: Ethics, Power, and Corporeality* (New York: Routledge, 1996), vii–xvi.

constructed personae, which went beyond mere pseudonyms—in Pessoa's words: "heteronyms," meaning fully developed dramatic characters.[9]

In her *Body Image: Embodiment as Intercorporeality*, philosopher Gail Weiss builds upon Merleau-Ponty's and Schilder's theory that proposes: "body image is itself an expression of an ongoing exchange between bodies and body image."[10] Weiss argues for embodiment as "intercorporeality," which depends on interactions with other humans and nonhuman bodies as continuing, daily, corporeal exchanges, leading to construction and reconstruction of the body image.[11] Finally, in her polemical study *Telling Flesh: The Substance of the Corporeal*, social scientist Vicky Kirby criticizes the postmodern notions of corporeality with regard to nature/culture and body/mind dichotomies, and in relation to, among others, the concepts of feminism and cyberspace.[12]

Within current discourses in the field of music technology, sound artist Bob Ostertag has problematized the corporeal absence of the artist's body in electroacoustic music. By reviewing the historical evolution of electroacoustic music—from *Musique concrete* (Schaeffer) and *Elektronische Musik* (Stockhausen and Koenig) to turntable music—Ostertag argues that the increasing control over the compositional process and electronic sound structures has sacrificed the corporeal involvement of the performers in the performance, leading to a sort of disembodying tension between body and

[9] Anna M Klobucka and Mark Sabine, Introduction to *Embodying Pessoa: Corporeality, Gender, Sexuality* (Toronto: University of Toronto Press, 2007), 3–35.

[10] Gain Weiss, *Body Image: Embodiment as Intercorporeality* (New York: Routledge, 1996), 1.

[11] Weiss, *Body Image*, 1–6.

[12] Vicky Kirby, *Telling Flesh: The Substance of the Corporeal* (New York: Routledge, 1996).

technology.[13] In the field of cognitive musicology, on the other hand, systematic musicologist Marc Lehman seeks a way to fill in the gap between music as "encoded physical energy" in modern digital media and the corporeal human way of handling music. He intends to demonstrate that "an embodied music cognition approach, based on corporeal articulations and semantic descriptions, can contribute to the development of a mediation technology."[14] Lehman's systematic study targets music not only from the standpoint of music philosophy, but also from the perspectives of neuroscience, psychology, physics, and engineering.

Though the examples discussed above represent different points of view, they emphasize the materiality of the physical body intrinsic to the notion of corporeality, in relation to the mind, or in relation to the abstract and virtual crystallization of body image and the meaning of body in mind. Yet Partch's peculiar notion of corporeality also highlights the relationship of the mind and the body, as Broyles states: "'Corporeality' was Partch's term for his belief in the oneness of mind and body. It was his revolution stripped to its essence, and he worked on it as a man obsessed."[15] Although Partch's concept of corporeality also articulates the actuality of body in relation to mind—not only in the creative process but also in the performance—his autonomous use of this term as his key aesthetic takes on a key role in his discourse, his aesthetic, his creative process, and his performances. The following sections of this chapter differentiate and

[13] Bob Ostertag, "Human Bodies, Computer Music," *Leonardo Music Journal* 12 (2002), 11–14.

[14] Marc Lehman, *Embodied Music Cognition and Mediation Technology* (Cambridge: the MIT Press, 2008), xi–xv.

[15] Broyles, *Mavericks*, 219.

analyze various aspects of Partch's concept of corporeality, while articulating the synthesis of all of these aspects in his integrated music dramas.

Partch's Corporeality and the Concept of *Gesamtkunstwerk*

Expressing his distaste for a non-intertwined coexistence of the art of sounds and the art of drama, a non-corporeal theatrical music, Partch says: "The age of specialization has given us an art of sound that denies sound, and a science of sound that denies art…. a music drama that denies drama, and a drama that—contrary to the practices of all other people of the world—denies music."[16] Condemning this segregation and underlining his desired holistic, corporeal human experience in his music dramas, Partch states—in his remarkable metaphorical language—that:

> If understanding is a valuable personal asset, it is desirable for each participant in such a work to be aware of the total potential of any human involvement. The musician as dancer, the dancer as ditchdigger, the ditchdigger as physicist, the physicist as hobo, the hobo as messiah, the messiah as criminal, or any other conceivable metamorphosis.[17]

Partch's idiosyncratic notion of corporeality, hence, refers to an art form where music, or musicianship, is only one component in a total artwork. It joins the synthesis of dance, acting, voice, film, gymnastics, staging, lighting, costumes, and the sculptural beauty of musical instruments as integral parts of the corporeal experience, each, in turn, depicting the essence of a drama.

Partch's performers on the stage are ideally musicians, actors, dancers, and singers, all at the same time, demonstrating a thorough corporeal fusion of the human

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[16] Harry Partch, "The University and the Creative Arts: Comment," in *Bitter Music: Collected Journals, Essays, Introductions, and Librettos*, ed. Thomas McGeary (Urbana and Chicago: University of Illinois Press, 1991), 186.

[17] Harry Partch, "No Barriers," in *Bitter Music: Collected Journals, Essays, Introductions, and Librettos*, ed. Thomas McGeary (Urbana and Chicago: University of Illinois Press, 1991), 181.

mental and physical capabilities, which targets the crux of Partch's philosophical plots. Based on my analysis, the notion of total artwork (*Gesamtkunstwerk*)—or an extension of this originally-Wagnerian notion—is one significant component of Partch's conception of corporeal music, which informs most of his music after 1950, including his larger music dramas, such as *Oedipus*, *The Bewitched*, and *Delusion of the Fury*. Prior to this study, scholars, including Bob Gilmore and Andrew S. Granade, have considered Partch's conception of total artwork as evolving out of his idea of monophony, whereas I suggest that both concepts—conjointly and simultaneously—constitute two components of Partch's overarching concept of corporeality.[18]

Demonstrating strict and clear unity of various aspects of a truly-integrated theater on stage, *Delusion of the Fury*—more than any other of Partch's pieces—displays the integration of all artistic media in a corporeal theatrical music. Regarding *Delusion of the Fury*, Partch explains his conception of total artwork, as follows: "the concept of this work inheres in the presence of the instruments onstage, the movements of musicians and chorus, the sounds they produce, the actuality of actors, of singers, of mimes, of lights; in fine, the actuality of truly integrated theater."[19] The following overview of the ways in which the elements of the corporeal theatrical music function in *Delusion of the Fury* illuminates the extent and format of the interaction of all artistic media, toward Partch's ideal of an integrated total artwork.

[18] See Granade, *Harry Partch, Hobo Composer*, 262–264.

[19] Harry Partch, "Delusion of the Fury: A Ritual of Dream and Delusion," in *Bitter Music: Collected Journals, Essays, Introductions, and Librettos*, ed. Thomas McGeary (Urbana and Chicago: University of Illinois Press, 1991), 445.

Corporeality in *Delusion of the Fury*

Partch's 1964 magnum opus, *Delusion of the Fury*—the epitome of his concept of corporeality—informs this concept in all of its aspects, even more so than *Oedipus* and *The Bewitched*. In *Delusion of the Fury*, Partch's just-tuned instruments, the performers, and the Japanese and Ethiopian rituals (respectively in the first and second act) characterize the aesthetic of corporeality, while granting a sense of unity to the work. Partch's integration of the Japanese Noh dramas and the Ethiopian folk tales, as well as the characteristics of Partch's microtonal system and extensive instrumentation undergird this work.

Although *Delusion of the Fury* consists of two acts, there is no intermission between the acts, making it a continuous ritual drama. Partch's goal was to create seventy-five minutes of an uninterrupted, corporeal experience, controlling the work in minute detail. He arranged the instruments as an integral part of the stage, and also asked that the principal artists be equally skilled in music, dance, act, mime, including Noh and Kabuki.[20] Explaining his conception, Partch writes:

> My musical concepts are invariably involved with theater, or with dramatic ideas dramatically presented, and many years have been given to provoking musicians into becoming actors, and singers into making occasional ugly and frightening (but dramatic) sounds, appealing to them through heavy layers of Puritan inhibitions and academic intimidations. Once they are gotten out of the soul-destroying pit and the rut of *bel canto*, and shown that they are an absolutely necessary ingredient in latter-day rituals designed to castrate the machine age, their responses are positively electric.[21]

[20] Partch, *Genesis,* 351.

[21] Harry Partch, "The Ancient Magic," in *Bitter Music: Collected Journals, Essays, Introductions, and Librettos*, ed. Thomas McGeary (Urbana and Chicago: University of Illinois Press, 1991), 186.

Partch intended to challenge the norms of theatrical music and dramatic singing—a long, exhaustive process of educating the performers to embody his corporeal ideal—in order to push his theatrical music toward an interactive ritual of music, dance, act, and drama, as in the ancient Greek' dramas, or non-Western rituals. "I use the word *ritual*," Partch wrote, "and I also use the word *corporeal*, to describe music that is neither on the concert stage nor relegated to a pit. In ritual the musicians are *seen*; their meaningful movements are part of the act, and collaboration is automatic with everything else that goes on."[22] Going even further than in non-Western theatrical rituals, Partch demanded that the performers fully memorize their parts, because "the effect of stand lights on white music paper—onstage—tends to destroy almost any lighting concept."[23] He also carefully adapted costumes, curtain calls, chorus, and the different scenes within each act, to demonstrate his profound corporeal concept.

In *Delusion of the Fury*, every member of the stage-experience—musicians, actors, instruments, costumes, staging, and light—interact in a corporeal unity of music, voice, dance, and theater, to depict the essence of the drama. According to Philip Blackburn, "In Partch's world, everyone is a mover/dancer/actor; the musicians are characters visible on the stage and thus demand as much meaningful, intentional, suggestive body movement as anyone else."[24] This form of corporeal performance informs the crux of Partch's aesthetic of total artwork—certainly a step toward the unification of various arts in the realm of corporeal music drama, and an extension of

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[22] Harry Partch, "Monoliths in Music," in *Bitter Music: Collected Journals, Essays, Introductions, and Librettos*, ed. Thomas McGeary (Urbana and Chicago: University of Illinois Press, 1991),194.

[23] Harry Partch, "Delusion of the Fury," in *Bitter Music: Collected Journals, Essays, Introductions, and Librettos*, ed. Thomas McGeary (Urbana and Chicago: University of Illinois Press, 1991), 253.

[24] Philip Blackburn, "Harry Partch and the Philosopher's Tone," Hyperion III, 1 (2008), 13.

the Wagnerian ideal of *Gesamtkunstwerk*. The obsessive and detailed arrangement of the whole corporeal theater, in fact, dominates not only in *Delusion of the Fury*, but also *Oedipus* and *The Bewitched*. Figures 5.1, 5.2, and 5.3 demonstrate scenes from the premiere of *Delusion of the Fury* and a movie made by Madeline Tourtelot based on this performance. Such scenes feature Partch's corporeal integration of ritual dance, costumes, make-up, his instruments, and the musicians who are also actors, dancers, and singers.

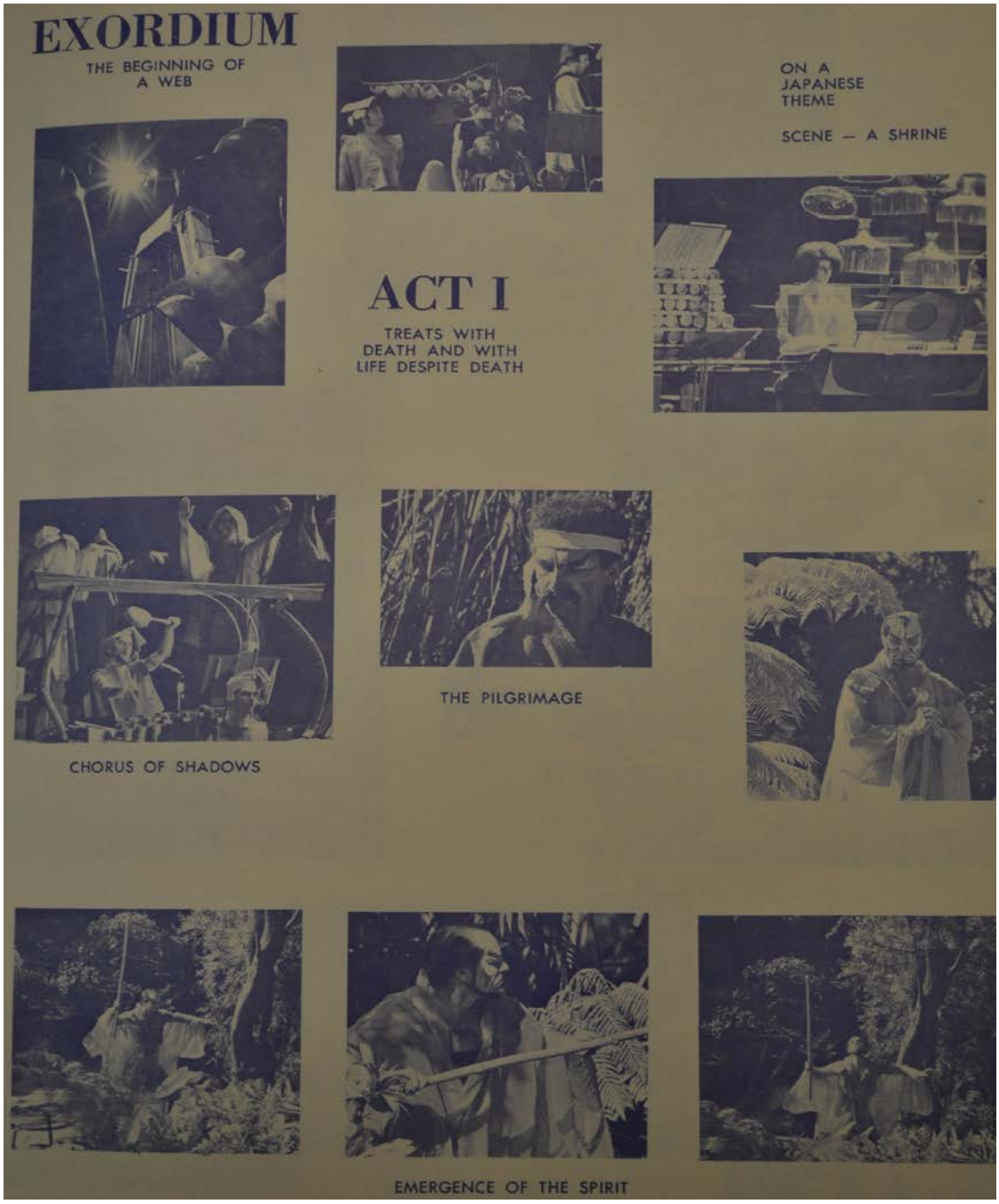

Figure 5-1. Scenes from the accompanying booklet to a film by Madeline Tourtelot, based on the 1974 premier of *Delusion of the Fury* at UCLA. Located at Harry Partch Estate Archive and Harry Partch Collection, Sousa Archives and Center for American music of the University of Illinois**.**

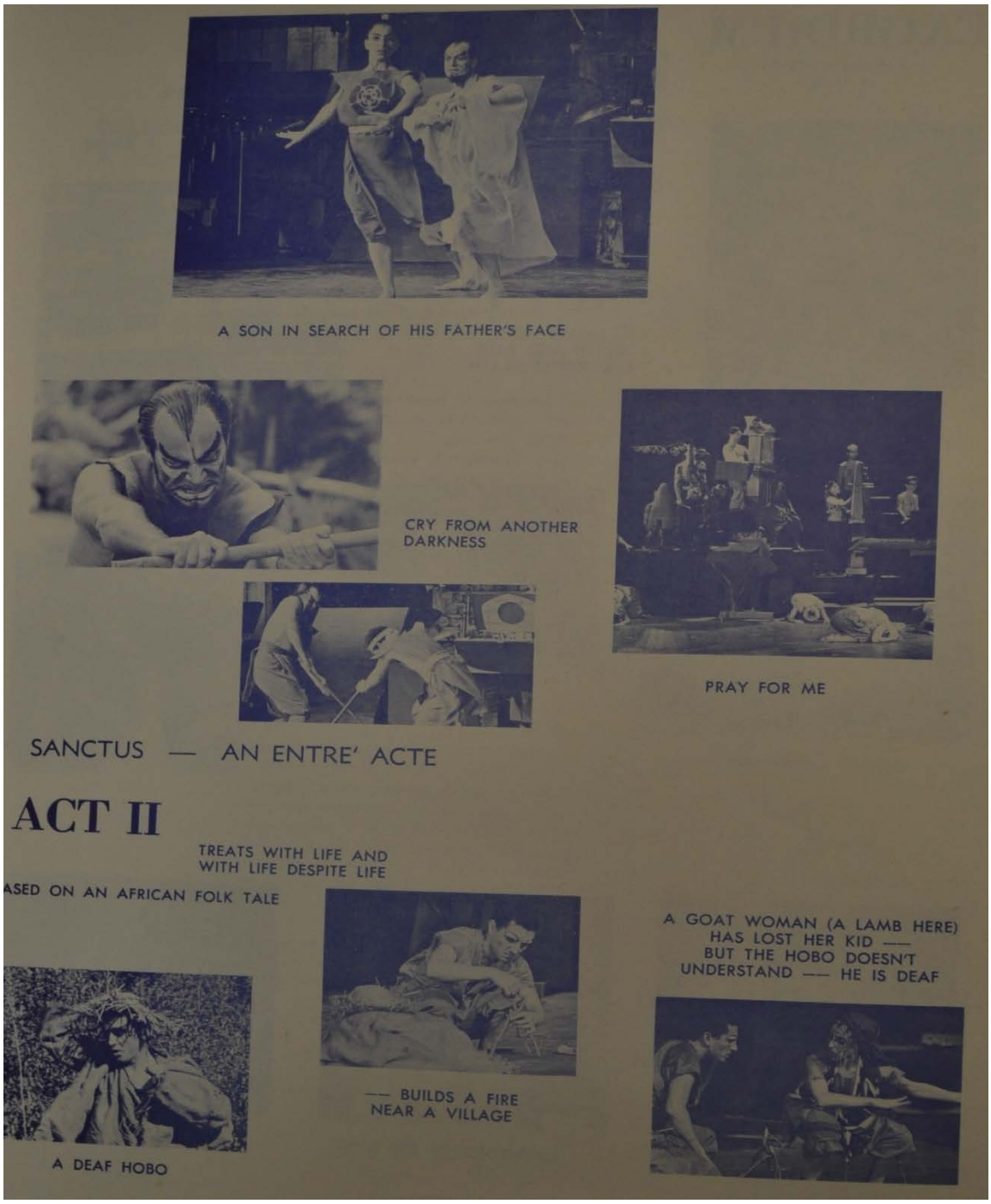

Figure 5-2. Scenes from the accompanying booklet to a film by Madeline Tourtelot, based on the 1974 premier of *Delusion of the Fury* at UCLA. Located at Harry Partch Estate Archive and Harry Partch Collection, Sousa Archives and Center for American music of the University of Illinois.

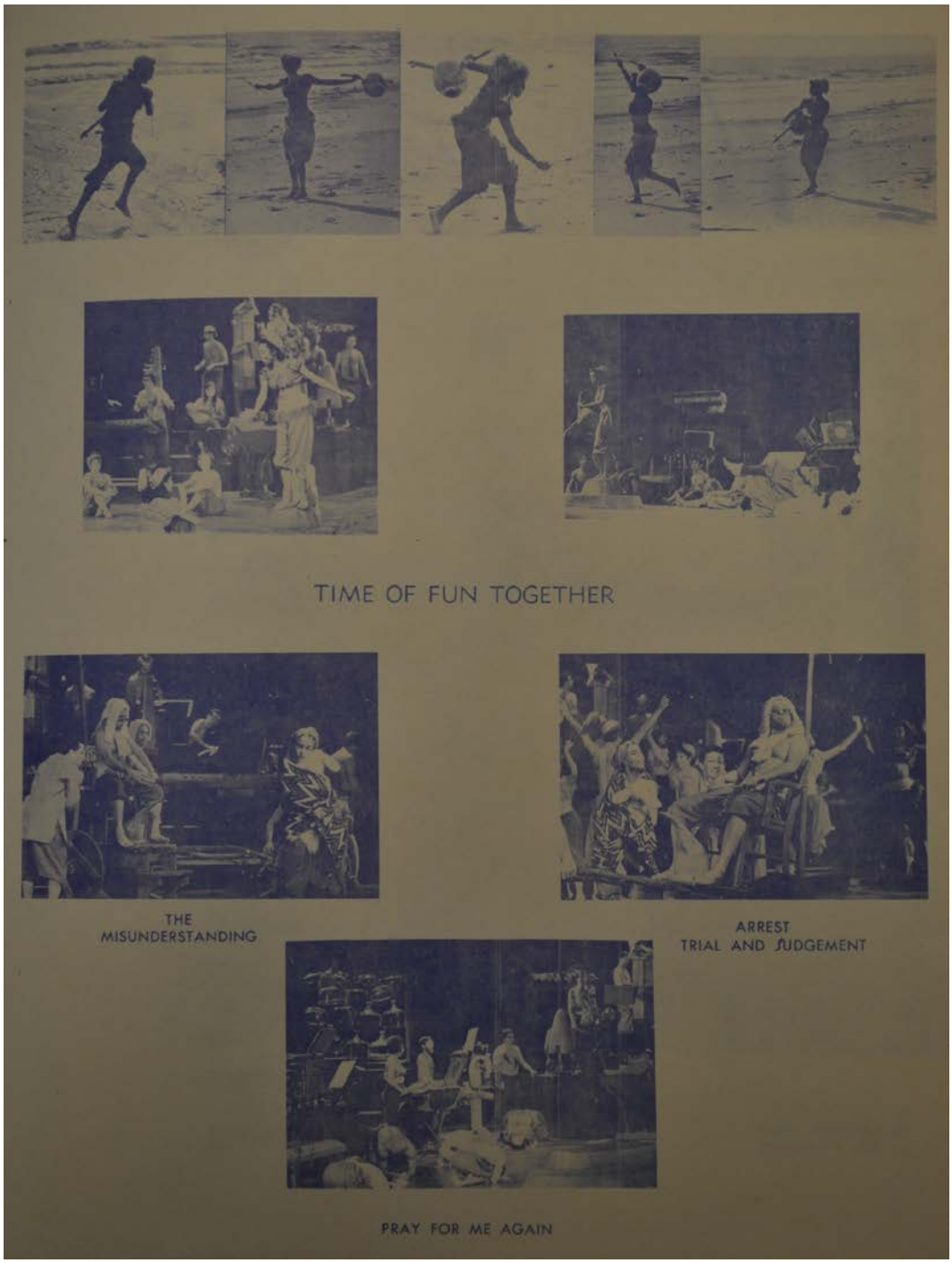

Figure 5-3. Scenes from the accompanying booklet to a film by Madeline Tourtelot, based on the 1974 premier of *Delusion of the Fury* at UCLA. Located at Harry Partch Estate Archive and Harry Partch Collection, Sousa Archives and Center for American music of the University of Illinois.

Partch, however, intended to realize all aspects of his corporeal concepts by himself. He states:

> The creator clears as he goes; he evolves his own techniques, devises his own tools, destroys where he must. If he wants a whole-experience reaction from his audience, he employs or stipulates every possible stimulus at his command, singly or simultaneously; including music of any imaginable bastardy; dance and drama in any historical or anti-historical form; noise, light, shadow, substance, or perhaps only the semblance of substance; and sounds from the mouth that communicate only as emotion.[25]

Although the autodidactic Partch was a multifaceted artist—capable of, among others, philosophizing, carpentry, writing, composing, and performing—controlling all aspects of his corporeal theater by himself was burdensome and problematic; they often caused quarrels with the other artists involved in his projects, such as the notorious confrontation with the choreographer Alwin Nikolais, hired by the University of Illinois to cooperate with Partch, during the premier of *The Bewitched* in 1957.

Perceiving Partch's self-reliant and single-handed creative process as a flaw which caused him various difficulties, Ben Johnston, who worked with Partch closely, states:

> Harry Partch had one flaw which is bad in an artist. He wanted to make his own species of *Gesamtkunstwerk* with himself as sole creator of all the artistic components, like Orson Welles. Only he was not really equipped to do that successfully. He was a very good sculptor and a remarkable writer, within limits. The texts of *U.S. Highball* are beautiful, but Partch's translation of *Oedipus,* leaning heavily on the expertise of a Bay-area Greek scholar and on Yeats's translation, leaves much to be desired.[26]

[25] Partch, "No Barriers," 182.

[26] Ben Johnston, "The Corporealism of Harry Partch," in *"Maximum Clarity" and Other Writings on Music*," ed. Bob Gilmour (Urbana and Chicago: University of Illinois Press, 2006), 224–225.

Considering that the audiences and critics often criticized the rhythmical aspects of Partch's music as being rather simplistic—in comparison to its intonational aspects—and the fact that some of Partch's instruments were not structurally perfect, thus unable to realize his intonational system, Johnston's claim seems to be precise. A Partchian archetype of a creative force—a single force who designs and conceives every element of a total artwork—nevertheless demonstrates his concept of corporeality as much as the notion of total artwork itself. The corporeal involvement of the mind and body of this archetypal figure in theorizing the philosophical, acoustical, and dramatic foundations of his music drama; in constructing the instruments; composing; training other artists; and eventually performing—an absolute and utter corporeality—was unprecedented before Partch, and most likely after him.

Partch's conception of total artwork, which embodies his underpinning aesthetic of corporeality, informs the foremost component of this concept. Although some scholars, for example Andrew Granade, have argued that Partch's total artwork grew out of his concept of monophony, in the following section I will explain Partch's monophony and its relationship to his corporeality, to illustrate that both notions of monophony and total artwork shall be considered, hand-in-hand and equally, as the two significant components of Partch's corporeality.

Partch's Monophony and Corporeality

Growing out of his early speech-music pieces, the other essential component of Partch's corporeality is his conception of "monophony," which primarily indicates the predominance of the individual's spoken or reciting voice. In his early speech-music pieces such as *Seventeen Lyrics by Li Po* (1930–1933) and *The Letter* (1943), Partch

concentrates on “individual’s vocalized words” to convey the meaning of the text.[27] This individual, being the lyricist, composer, instrument-builder, instrumentalist, and the singer, embodies Partch’s concept of monophony as a component of his corporeality. In the course of twenty years, from 1930 to 1950, Partch set lyrics by Chinese poets, Shakespeare, Biblical psalms and even hitchhikers’ inscriptions on highway railings, to recite in his speech-music manner. He accompanied these lyrics, for instance, with his adapted viola, while reciting the texts.

But Partch’s concept of monophony goes beyond highlighting the relevance of individual’s reciting voice; as explained in chapter three, his intonational system is also a monophonic one based on the simple just-ratios calculated on a monochord—hence “monophonic.” As was the case in the ancient world, for example in the Pythagorean tuning system, and still is in several folk musical cultures, Partch intended to revitalize the dominance of the pure, natural tones, rejecting the boundaries of the prevailing, acoustically-incorrect equal temperament. He then theorized a new intonational system on the basis of ancient models and constructed his own instruments designed to realize this system.

Partch’s affection for the ancient Greek instruments as much as the Greek rituals served as a model for him to build a new just-tuned intonational system, using the simple ratios of the harmonic series up to the eleventh overtone, and an array of unique just-tuned instruments. In this regard Partch states: “the experiential-ritualistic-dramatic area has constituted a very large part of my belief and work. And as for imaginative and sculptural forms of instruments, I have easily given as much time to this endeavor as to

[27] Partch, *Genesis,* 9.

intonation."[28] He, accordingly, built several, original instruments based on his extended just-intonation, which apply the possibilities of the overtone and undertone series, realized through his concepts of otonality and utonality in his eleven-limit tonality diamond.[29]

Partch's own precise explanation reveals how deep these monophonic just-tuned instruments, the instrumentation, and the instrumentalists are well-integrated in the corporeality of *Delusion of the Fury*:

> The Instrumentalists *are* the Chorus. […] the choral voice sounds do not come from a separate body of persons appearing just occasionally, but from among the instruments, from the musicians who are deeply involved throughout. In the *Delusion of the Fury,* I wanted to progress even beyond this concept. There are many musicians on stage, but almost never do all of them play simultaneously. In fairly long periods only a small ensemble is employed, and the tacit musicians may thus become actors and dancers, moving from instruments to acting areas as the impetus of drama requires. This must be a move toward a sealing of the bond between the theater arts.[30]

Partch's concepts of "total artwork" and "monophony," therefore, substantiate a holistic corporeal experience, informing all aspects of Partch's aesthetic of corporeality.

The two crucial components of Partch's corporeality are tied together as much as they are related to his utopia of ancient rituals. According to Partch:

> For the essentially vocal and verbal music of the individual—a monophonic concept—the word Corporeal may be used, since it is a music that is vital to a time and place, a here and now. The epic chant is an example, but the term could be applied with equal propriety to almost any of the important ancient and near-ancient cultures-the Chinese, Greek, Arabian, Indian, in all of which music was physically allied with poetry or the dance. Corporeal music is emotionally 'tactile.' It does not

[28] Partch, "A Quarter-Saw Section of Motivations and Intonations," 196.

[29] See explanation of Partch's microtonal system in Chapter 3, pages 66–98.

[30] Partch, *Genesis,* 351.

> grow from the root of 'pure form.' It cannot be characterized as either mental or spiritual.[31]

While Partch articulates the importance of his notion of monophony as a substantial part of his aesthetic of corporeality, drawing examples from non-Western and ancient cultures, his emphasis on the concept of music drama as a corporeal genre, and the constituents of his conception of corporeality being "monophony" and "total artwork," remind us also of the Western artists, who, prior to Partch, had based their aesthetics on ancient Greek models, pursuing the preeminence of *word* in music drama. The most significant representatives of these artists are certainly Wagner, who strongly believed in *Gesamtkunstwerk* as a means to depict the essence of the drama, and the *Florentine Camerata*, asserting—as Partch does—the primacy of *word* in their monodies, intermedi, and early operas.

Partch's revolutionary concept of corporeality and its indispensable components: "monophony" and "total art work," establish Partch's creative oeuvre in all of its facets—theorizing, carpentry, and composition—while defining an overarching aesthetic concept that makes it possible to decipher his approach to the totality of the art. Based on my analysis of implications of Partch's corporeality in the two last sections, I propose a hierarchical schema, seen in Figure 5.4, as a way to approach and comprehend this convoluted notion. All the components and sub-components of Partch's corporeality interact to conceive his ritual, musico-dramatic conceptions.

[31] Partch, *Genesis,* 6.

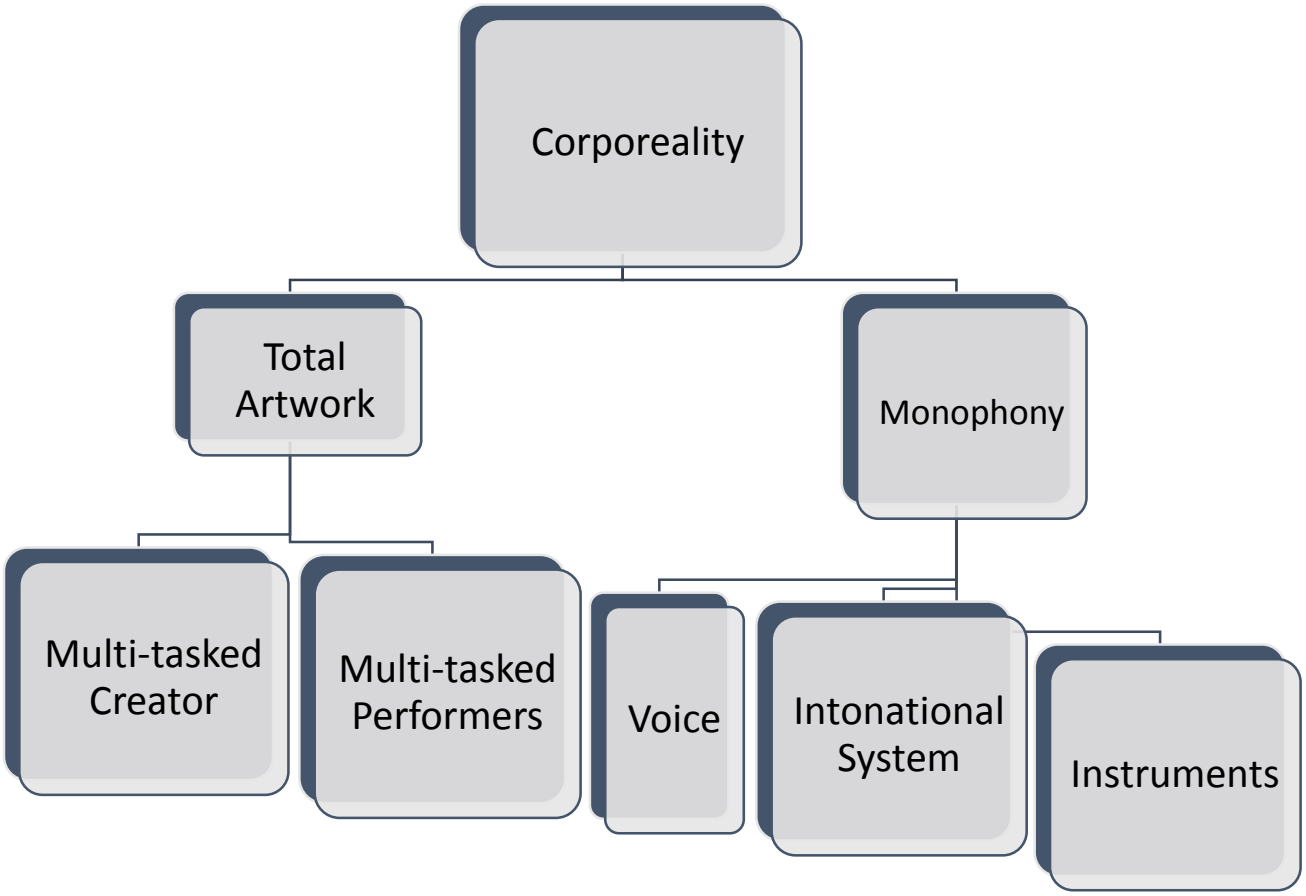

Figure 5-4. An outline of various facets of Partch's corporeality.

Although Partch's aesthetic of corporeality is reminiscent of significant historical models, ranging from ancient Greek, or Chinese, rituals to the Florentine and Wagnerian dramas, it is not a mere imitation of these models. He, however, consciously attempted to justify his original aesthetic through addressing these prototypical models in the course of the history. The next section discusses Partch's discourse of these historical models as related to his notion of corporeality.

Partch's Corporeality: a Historical and Ethnographical Discourse

As a theorist, Partch was keenly aware of the historical precedents for his musical aesthetic, which draws significant parallels with the achievements from the

Greeks to the *Florentine Camerata* and, eventually, Wagner. As Ben Johnston formulates, Partch's aesthetic and music theory were, in fact, deeply imbedded in the ancient Greek's theatrical and musical concepts:

> This procedure of reducing things to the physical, to the most obvious, to the most tangible, and the most concrete is very Greek. The whole idea of the *haptic*, the touch-oriented in art, is very much alive in Partch's work. He was quite right to be attracted to the traditions of the Greeks. He was very perceptive: he did have something in common with them, something to add to their traditions.[32]

Partch's ideal of corporeality—according to Johnston: a "tangible, concrete, haptic, touch-oriented" approach to conceptualizing, creating, and performing—shall be, in fact, considered the most significant reformulation of the concept of *Gesamtkunstwerk* since Wagner—a reformulation primarily emerging from Partch's longing for the ancient Greek ideals, and secondarily, based on distinction between corporealism vs. abstraction.

In his theatrical music, Partch's aesthetic hinges upon his conception of corporealism as opposed to his conception of abstraction. He juxtaposes his notion of monophony, a component of his corporeality, and abstraction as follows:

> An important distinction, then, as regards the Corporeal and the Abstract, is between an individual's vocalized words, intended to convey meaning, and musicalized words that convey no meaning, whether rendered by an individual or a group, because they are beyond the hearers understanding, because they have been ritualized, or because of other evolvements of rendition."[33]

Representing the importance of the spoken word, Partch's notion of monophony serves his effort to conceptualize music drama as a corporeal total artwork, where various

[32] Johnston, "The Corporealism of Harry Partch," 231.

[33] Partch, *Genesis,* 9.

artistic media cooperate to delineate the inflections of the text and the essence of the drama, by means of intoning "individual's vocalized words."

Articulating Partch's juxtaposition of the concepts of corporeal vs. abstract music, or corporealism vs. abstraction, Johnston explains:

> Corporealism was a theory that Partch lived. It is a vehement protest against what he considered the negation of the body and the bodily in our society. It resulted specifically in an attack on *abstraction*. What that meant to him was first of all that music should not be separated from words, or visible actions, whether theatrical, choreographic, or simply musically functional. He directed us to see *People doing things*. He felt that aspect to be just as much music as tones or rhythms: as any of the parameters we have abstracted from the total musical experience to serve as *elements* of music.[34]

Based on Partch's classification—which according to Johnston makes distinction between total artwork and merely abstract musical structures—stories sung or chanted and poems recited or intoned in folk music and some popular music; dramas as in early seventeenth-century Florentine music-dramas; and ancient or modern dance-music which tells story or describe a situation, exemplify corporeal music.[35] Partch, on the other hand, includes in his category of abstract music all purely instrumental music and songs, or dramas with words, that are not intended to convey meaning but simply to set the mood of the music, for instance, the most modern operas.[36]

The vernacular and folk rituals, for example, Chinese, African, and Oriental traditions actually come quite close to Partch's ideal of corporeal music, not only because of the bond between word, music, drama, and action, but also because they have remained a part of the social experience; they have not become abstracted for the

[34] Johnston, "The Corporealism of Harry Partch," 219.

[35] Partch, *Genesis,* 9.

[36] Partch, *Genesis,* 9.

sake of the artistic virtuosity and polished concert-house performance. While highlighting the desired actuality of the body and mind in the corporeal concept, Johnston also explains Partch's distaste for the abstracted Western performance tradition and his preference of the non-Western rituals as follows:

> Corporealism refers not only to the reconstitution of music and speech, music and dance, music and theater, but also a body orientation, emphasizing not only the psychological identity of the musicians, but their physical presence and appearance. Partch disliked most manners of performance because of their penchant for abstracting of the act of making art from its physical basis. Traditional European singing, for instance, he saw as too instrumental, as he saw European dance too pictorial. He preferred folk and vernacular music and their performing traditions.[37]

The element Partch valued most in the Greek, Florentine, or non-Western traditions was the preeminence of an individual voice, following the rhythm of the speech and intoning the text as clear as possible—an indispensable defining component of his notion of monophony beside his intonational system.

Partch's distaste for the Western homophonic, or polyphonic, singing manners in the art music, however, emerged from his interpretation of the church music, where he expresses:

> Antiphonal singing brought an entirely different spirit into music. It became a thing of dolorous chants in extreme *sostenuto*—without spontaneity—and ceased to be Corporeal in any sense. The hymns, a generic term that can be applied to all theistic adoration in music, was the inevitable musical vehicle to express the introspection and "faith" of the first converts, the zealots. And the hymn, like the philosophies that mother it, is a mass expression beyond the boundaries of the individual and the Corporeal, beyond this time and place (with ineludible exceptions), and it is not

[37] Ben Johnston, "Harry Partch/John Cage*"* in *"Maximum Clarity" and Other Writings on Music,"* ed. Bob Gilmour (Urbana and Chicago: University of Illinois Press, 2006), 233.

> particularly important that the words be understood; they assert a pre-known transcendent belief, and they have no story to tell.[38]

Partch viewed the way voices were handled in sacred music as devoting no, or little, relevance to intoning the text as straightforward as possible, in order to make the drama understandable. Although he asserts the "pre-known transcendent belief" that this genre of vocal music expresses, he considers it to be anything but corporeal; about a sort of abstract truth than being about the actuality and physicality of the human rituals.

Even though it is unclear to which tradition, or time, he is pointing, Partch brings old pagan rituals as an example of corporeal traditions, stating: "The ancient pagans told stories in their language, accompanied by music. They gave dramas, accompanied by music. If words were not understood, the music had no power to excite."[39] Here, again, Partch articulates the importance of music being subjugated to drama. In other words, if the corporeal music—with or without the cooperation of other artistic media—does not succeed in demonstrating the inflections of the text and delineating the essence of the drama, according to Partch, it is worthless and in vain.

The metaphorical pagans' music, the primitive humans' art, featured—in the true sense of the word—pure corporeality for Partch, because the primitives made instruments from everyday objects; they wrote dramas based on everyday experiences, and they imbedded their sound structures in their social rituals. According to Partch:

> The direction in which I have been going the last forty-four years has much in common with the activities and actions of primitive man as I imagine him. Primitive man found magical sounds in the materials around him—in a reed, a piece of bamboo, a particular piece of wood held in a certain way, or a skin stretched over a gourd or tortoise shell (some resonating body). He then proceeded to make the object, the vehicle, the

[38] Partch, *Genesis*, 14–15.

[39] Partch, *Genesis*, 16.

> instrument, as visually beautiful as he could. His last step was almost automatic: the metamorphosis of the magical sounds and visual beauty into something spiritual. They become fused with his everyday words and experiences—his ritual, drama, religion—thus lending greater meaning to his life. These acts of primitive man become the trinity of this work: magical sounds, visual form and beauty, experience-ritual.[40]

Partch intended to emulate the primitive corporeal, ritualistic, theatrical traditions in the contemporaneous concert scene, as a means to confront what he considered to be dry and rigid stage music, and in order to bring the Western musical traditions back to its corporeal foundations. As Broyles explains: "to Partch corporeal music was common to many cultures, particularly primitive ones, but uncommon to recent Western, post-Renaissance culture. In that sense it was diametrically opposed to the Western concert experience, which presented an abstract, disembodied music to passive audience. Ritual by nature demanded participation."[41] Broyles' emphasis on "disembodiment," the elimination of, or lack of attention to, the bodily aspects inherent in Western concert tradition, informs another aspect of Partch's distaste for the prevailing Western musical culture, in addition to the ways voices and drama have been abstractly implemented.

Partch indeed believed that the sacred medieval and Renaissance music stripped the ancient, corporeal, Greek music dramas off its corporeality. Harping upon his discussion of the corporeal vs. abstract music, he states regarding church music that "the ecclesiastical, whatever its Abstract musical value in today's term, had and has almost no significance as a Corporeal expression. It was a forced miscegenation of the Abstract with the Greek musical creed."[42] He elaborates to express that the corporeal

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[40] Partch, "A Quarter-Saw Section of Motivations and Intonations," 196.

[41] Broyles, *Mavericks*, 224.

[42] Partch, *Genesis*, 17.

ideals of the Greek music disappeared in the abstraction of sacred music: "the musical idea that had been cultivated into flower by the European Greeks was buried in the ashes of Rome."[43] Whether Partch's discourse regarding the medieval and Renaissance church music is influenced by his personal beliefs and his natural, and at times, fanatic opposition to the precepts of the dominating Euro-American high-culture, is obscure.[44] Yet, the fact that the abstraction of the vocal structures in favor of virtuoso musical craftsmanship replaced the corporeality intrinsic into ancient Greek music dramas, or other predecessors to the ecclesiastical music, is undeniable.

Partch, however traced a hint of hope for returning to the Greek ideals in the early vocal works of the *Florentine Camerata*. He explains:

> The first "operas" in the Florence of about 1600, which in expressed theory have so little in common with opera as currently practiced, were a reaction, a rebellion, an insurgence, written by composers who happened also to be scholars and aristocrats. In general terms the movement was the scholars' counterpart of the troubadours' reaction to the dry theology and restrictive bans of the Church, but specifically it was a reaction against word distortion in the florid secular polyphony and word distortion in the restrictive liturgical polyphony.[45]

Partch, intriguingly, takes the Florentine reaction to the Renaissance polyphony as analogous to Troubadours' reaction to the medieval church music—both rebellions toward simplification and intelligibility of the vocal line and against enriching the vocal structures for the sake of musicality. For Partch, the efforts of the sixteenth-century Florentine intellectuals occupy a superb rank in his historical discourse, to the extent

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[43] Partch, *Genesis*, 18.

[44] Partch's parents were missionaries in China. His father, however, drifted toward atheism, and spent the rest of his life challenging religion. Since Partch himself did not explicitly express tendency toward any religion, based on the implications hidden in his writings, we can assume that he either was an atheist, or, at least, was against any kind of organized religion, believing in a sort of esoteric spirituality.

[45] Partch, *Genesis*, 21.

that he mentions: “Here, at long last, was a highly conceived attempt to transfer the spirit of the Corporeal music of ancient Greece to a time and place characteristic of Western Europe; here, finally, was a musical phoenix rising from the ashes of ancient Rome!”[46] Along the same lines, Partch’s own rebellion was a reaction against the abstraction inherent in the Baroque to twentieth-century music—his own “highly-conceived” revolution against the autocracy of the predominant Western musical culture.

Partch, in fact, did not believe that he was the one and the only contemporaneous artist, who attempted to return the Western musical, theatrical, or music-theatrical, forms to their ritualistic and corporeal roots. Pointing to Bertolt Brecht as an example of a figure who also aspired a sort of corporeality in his Epic Theater, Partch notes:

> On the theater stage, with Bertolt Brecht, and occasionally with others, there is something like a ritualistic approach—a corporeal approach to music as an integrated part of the theater. But the degradation of either the actual pit or the mental pit is the fate of nearly all other music. If this ritual or corporeal approach accomplishes nothing else, it frees the beautiful rhythmic movements of musicians from the inhibitory incubus of tight coat and tight shoes.[47]

Partch does not elaborate on the ways in which Brechtian concepts might be analogous to his own conceptions. We can, however, assume that Brecht’s intention to address the contemporary existential, social, and political issues by means of interaction with the audience and infusing a sort of a documentary angle to the theater, to confront the rigidness of the traditional theatrical forms, is, in a way, analogous to Partch’s efforts.

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[46] Partch, *Genesis*, 22.

[47] Partch, “Monoliths in Music,” 195.

Moreover, similar to Partch, Brecht also attempted to unify and synthesize the older theatrical concepts as well as the vanished practices and rituals within his new theatrical forms.[48]

Although Partch's corporeality was undeniably a paradigmatic shift in his aesthetic, it is still underestimated. He is one of the few composers in the music history to conceive his own philosophy of music on the basis of an exceptional intonational system; who also invented a plethora of visually-spectacular and acoustically-astonishing music instruments represented in his compositions. As I have explained in this chapter, the overarching notion of corporeality informs Partch's achievements in the field of intonational systems and tuning, constructing instruments, and composing music dramas, all of which he attempted to justify based on his historical discourse in *Genesis of a Music* and his essays. The following chapter shifts towards the dramatic and postdramatic structures in Partch's and Stahnke's theatrical music, relating these structures to the composer's philosophical convictions and aesthetic decisions, as much as to their music-theoretical achievements.

[48] See, for example, Bertolt Brecht, *Brecht on Theater: The Development of an Aesthetic,* ed. and trans. John Willett (London: Methuen, 1964).

CHAPTER 6
(POST)DRAMATIC THEATRICAL MUSIC

Postdrama in Partch's and Stahnke's Works

The fundamental elements of the postdramatic theater—theatrical forms where the plot-based actions assume equal or lesser significance compared with the visual, aural, bodily, scenic, and ritual aspects—have also played a significant role in the production of the post-World War theatrical music. While music-theatrical conceptions with postdramatic tendencies have grown since 1970s, the scholarly literature has not yet examined the postdramatic facets of the theatrical music in the twentieth and twenty-first centuries. This chapter analyzes the characteristics of Partch's and Stahnke's stage works as case studies that demonstrate strong postdramatic characteristics. This analysis juxtaposes the respective postdramatic components with the dramatic ones, which remain faithful to the older, yet still prevailing, theatrical tenets.

The "theory of postdramatic theater," conceptualized by performing arts scholar Hans-Thies Lehmann in his seminal book, *Postdramatic Theatre*, supplies the analytical framework of this chapter.[1] Following an introductory discussion of the nuances of Lehmann's theory, I will examine the dramatic and postdramatic structures of Partch's and Stahnke's theatrical music. Approaching Partch's and Stahnke's theatrical works from the perspective of this theory not only underlines their philosophical implications, but it also illuminates the interrelationships of microtonality, technology, and the theatrical components in their multimedia conceptions.[2]

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[1] Hans-Thies Lehmann, *Postdramatic Theatre*, trans. Karen Jürs-Munby (New York: Routledge, 2006). Original title: *Postdramatisches Theater* (Frankfurt am Main: Verlag der Autoren, 1999).

[2] Although the theory of postdramatic theater draws, in many ways, on postmodernist and poststructuralist discourses, unlike the latter, it mostly remains within the threshold of the theatrical

Postdramatic vs. Dramatic Theater

According to Lehmann, postdramatic theater dissolves, more than any other theatrical element, the narrative, dramatic external actions of the characters, and the story, in favor of scenically-dynamic formations, maximum isolation of objects, quasi-ceremonial and quasi-ritual states, corporeality, simultaneous realities, and non-hierarchical use of signs.[3] "States," hence, repudiate the absolute supremacy of the plot and the dialectical dramatic actions. "The category appropriate to the new theater is not action, but states," says Lehmann. Explaining the concept of state, he elaborates: "The state is an aesthetic figuration of the theater, showing a formation rather than a story, even though living actors play in it. Postdramatic theater is a theater of states and of scenically-dynamic formation, as opposed to the traditional dramatic formation"—meaning the time-based, developing narrative, or plot.[4] He observes that innovative theater of the last fifty years drifts away from mimesis (embodied representational imitation of reality, as initially formulated by Aristotle), through diegesis (epic-narrative mode of narration, as formulated by Brecht), toward the theater of states, rejecting the dramatic-narrative mode.[5]

Lehmann, however, considers the transformation of the dramatic text to be the most relevant foundation of the paradigmatic shift from the dramatic to postdramatic theater. He also emphasizes the changed conception of the performance text, the deconstructive artistic practice of the momentary values, the simultaneity of signs, and

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concepts, rather than cultural, philosophical, and political ones. See Lehmann, *Postdramatic Theatre*, 14–15.

[3] Lehmann, *Postdramatic Theatre*, 68–71.

[4] Lehmann, *Postdramatic Theatre*, 68–69.

[5] Lehmann, *Postdramatic Theatre*, 69.

fragmentary structures, all of which imply the pertinence of the abnegation of the traditional, time-based plot in the postdramatic theater.[6]

Lehmann's theory has, in fact, become a key reference for analyzing the novel theatrical trends that have surfaced since the late 1960s, all of which—despite their disparities—no longer articulate the dramatic text, traditionally the central element of the conventional theater as the stage for reflexivity and thematization. "Theater shares with the other arts of (post)modernity the tendency for self-reflexivity and self-thematization," writes Lehmann.[7] He elaborates:

> At the mention of 'self-reflexivity' and 'auto-thematic structure' one may at first think of the dimension of the text, since it is language *par excellence* that opens up the free play of a self-reflexive use of signs. Yet in theater the text is subject to the same laws and dislocations as the visual, audible, gestic and architectonic theatrical signs.[8]

According to Lehmann, in the postdramatic theater, the visual, audible, scenic, and bodily components are equally or more essential as the dramatic text. He considers text only as one element, one layer, or "as a 'material' of the scenic creation, not as its master."[9]

Articulating the renunciation of dramatic text, Lehmann combines historical survey and scrutiny of dramatic theory, examining discourses by Aristotle, Georg Wilhelm Friedrich Hegel, Peter Szondi, Bertot Brecht, Antonin Artaud, Walter Benjamin, Theodore Adorno, Roland Barthes, Jean-François Lyotard, and Richard Schechner,

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[6] Lehmann, *Postdramatic Theatre*, 69–74.

[7] Lehmann, *Postdramatic Theatre*, 17.

[8] Lehmann, *Postdramatic Theatre*, 17.

[9] Lehmann, *Postdramatic Theatre*, 17.

among others.[10] But according to Karen Jürs-Munby, Lehmann's theory of postdramatic theater primarily reassess Szondi's Hegelian theory of drama as a historical dialectic of form and content, where Szondi considers Brecht's "epic theater of the scientific age" as the decisive break with the traditional Aristotelian drama.[11] Even Barthes venerated Brecht's concept as the one and the only absolute form of the new theatrical paradigm, which reveals the extent of Brecht—the self-named "Einstein of the new dramatic form"—having been perceived as the sole pinnacle of the new theater.[12] While challenging this notion, Lehmann views Brecht's concept merely as a part of the dramatic tradition, asserting that Szondi's Hegelian "time-bound concept" ignores all theatrical developments beyond the Aristotelian-Brechtian dialectic; beyond the "representation of a closed-off fictional cosmos and the mimetic staging of a fable," realized in, for instance, "absurdist theater, the theater of scenography, the *Sprechstück*, visual dramaturgy, the theater of situation, and concrete theater."[13]

Regarding Brecht as a transition from the older form of dramatic toward postdramatic theater, Lehmann explains:

> Postdramatic theater is a *post-Brechtian theater*. It situates itself in a space opened up by the Brechtian inquiries into the presence and consciousness of the process of representation within the represented and the inquiry into a new "art of spectating" (Brecht's *Zuschaukunst*). At the

[10] Lehmann, *Postdramatic Theatre*, 1–2. As Jürs-Munby, who translated Lehmann's text from German to English, explains, the postdramatic theater does not dismiss the relevance of the text. It, rather, explores a "turn to performance, intertextuality, and intratextuality" even in the new theatrical texts. (Lehmann, *Postdramatic Theater*, 6–8.)

[11] See Peter Szondi, *Theorie des modernen Dramas* (Frankfurt am Main: Suhrkamp, 1956). According to Lehmann, "Bertolt Brecht chose the term 'dramatic theater' to designate the tradition that his epic 'theater of the scientific age' intended to put an end to." (Lehmann, *Postdramatic Theatre*, 17.)

[12] Lehmann, *Postdramatic Theatre*, 30-32. For Barthes's view on Brecht, see, for instance, Roland Barthes, *S/Z*, trans. R. Miller (New York: Hill and Wang, 1974); Roland Barthes, *The Grain of the Voice, Interviews 1962-1980* (Berkeley: University of California Press, 1992); or Roland Barthes, *Camera Lucida: Reflections of Photography* (London: Vintage, 1993).

[13] Lehmann, *Postdramatic Theatre*, 3 and 30.

> same time, it leaves behind the political style, the tendency towards dogmatization, and the emphasis on the rational we find in Brechtian theater; it exists in a time *after* the authoritative validity of Brecht's theater concept.[14]

As significant cases of the post-Brechtian, postdramatic theater, Lehmann examines some of the most influential theatrical trends in in the last fifty years, for example the practices of, among others: Robert Wilson, Tadeusz Kantor, Samuel Beckett, Heiner Müller, and Klaus-Michael Grüber. [15]

Lehmann also emphasizes the fact that other artistic disciplines—among others music—have accepted and absorbed the tenets of the postdramatic theater, more so than theater itself:

> Yet despite all the individual entertaining effects of the staging, the textual elements of plot, character (or at least dramatic personae) and a moving story predominantly told in dialogue remained the structuring components. They were associated with the keyword "drama" and informed not only its theory but also the expectations of theater. This explains why many spectators among the traditional theater audience experience difficulties with postdramatic theater, which presents itself as a meeting point of the arts and thus develops—and demands—an ability to perceive which breaks away from the dramatic paradigm (and from literature as such). It is not surprising that fans of the other arts (visual arts, dance, music) are often more at home with this kind of theater than theatergoers who subscribe to literary narrative.[16]

As Lehmann argues, several, new music-theatrical productions, and even the new productions of the older operas, for example Robert Wilson's projects, pay particular attention to cutting-edge scenic and visual conceptions by integrating the modern technologies or by questioning traditional dramatic forms—a practice that can be traced

[14] Lehmann, *Postdramatic Theatre*, 33.

[15] Lehmann, *Postdramatic Theatre*, I.

[16] Lehmann, *Postdramatic Theatre*, 31.

back to Wagner's *Gesamtkunstwerk*, or even to the early operas of the *Florentine Camerata*.

The leading American theater director Robert Wilson, for instance, has brought his groundbreaking postdramatic visions into operatic projects, ranging from *Madama Butterfly* and *Der Ring des Nibelungen* to *Einstein on the Beach.*[17] Considering that theatrical music has proved to be a prominent venue for reassessment of the musico-dramatic conventions, examining the theatrical music of the last fifty years in light of the theory of postdramatic theater, gains more importance. Although the following analysis focuses only on Partch's and Stahnke's major theatrical works, the theory of postdramatic theater can be as well applied to the scrutiny of other modern-day, music-theatrical ventures.

Postdramatic theater grows out of engrained theatrical conventions. Even though the time-based plot, the theatrical characters imitating real-life actions to create a fictional world, and dramatic dialectic of the characters predominate in the old theatrical paradigm, some of the components of the postdramatic theater might appear also in the old tradition. As Lehmann states:

> For instance, narrative fragmentation, heterogeneity of style, hypernaturalist, grotesque and neo-expressionist elements, which are all typical of postdramatic theater, can also be found in productions which nevertheless belong to the model of dramatic theater. In the end, it Is only the constellation of elements that decides whether a stylistic moment is to be read in the context of a dramatic or a postdramatic aesthetic.[18]

In other words, oftentimes, a thin line separates both paradigms. The predominance of one does not imply the lack of the other; but, sometimes, the coexistence or

[17] See http://www.robertwilson.com/, accessed 07.16.2017.

[18] Lehmann, *Postdramatic Theatre*, 24–25.

amalgamation of dramatic and postdramatic elements constitute the theatrical conception.

On the same note, Lehmann enunciates that postdramatic theater does not inform a categorical break with the dramatic theater. He expresses that it reassesses the older paradigm, intending to revolutionize its underpinnings:

> Postdramatic theater thus includes the presence or resumption or continued working of older aesthetics, including those that took leave of the dramatic idea in earlier times, be it on the level of text or theater. Art in general cannot develop without reference to earlier forms. It is only a question of the level, consciousness, explicitness and special manner of reference.[19]

The arguments explained in the two last paragraphs are particularly significant regarding Partch's and Stahnke's theatrical music. By applying Lehmann's theory to the analysis of these works, this chapter does not intend to express that they are unequivocal examples of postdramatic theatrical music; rather, it aims to shed light on the interplay and interconnections of the dramatic and postdramatic components, interwoven in their theatrical conceptions.

Partch's and Stahnke's music-theatrical works also rely on earlier forms, though Partch viewed his musico-dramatic aesthetic as a break with the predominant European tradition. Reiterating the dependency of the new paradigm on the older forms, Lehmann states:

> The adjective "postdramatic" denotes a theater that feels bound to operate beyond drama, at a time "after" the authority of the dramatic paradigm in theater. What it does not mean is an abstract negation and mere looking away from the tradition of drama. "After" drama means that it lives on as a structure—however weakened and exhausted—of the "normal" theater: as an expectation of large parts of its audience, as a foundation for many of

[19] Lehmann, *Postdramatic Theatre*, 27.

> its means of representation, as a quasi-automatically working norms of its dramaturgy.[20]

As explained in relation to their aesthetic, microtonal, and technological dimensions, Partch's and Stahnke's theatrical pieces, however, sought to incorporate unconventional components in order to revolutionize the common forms. The following sections deal with the creative theatrical elements, which, in addition to the aesthetic, microtonal, and technological dimensions, shaped both composer's music-theatrical cosmos.

Dramatic and Postdramatic Elements in Partch's Theatrical Music: *Oedipus*, *The Bewitched*, and *Delusion of the Fury*

In the program of the 1961 performance of Partch's *Oedipus* in New York City, music critic and the provost of Columbia University Jacques Barzun addresses Partch, stating: "I have long been convinced that you were making the most original and powerful contribution to dramatic music on this continent."[21] If we take Barzun at his words, then the following questions arise: What elements of Partch's theatrical music were original? Is Barzun only pointing to Partch's music instruments and intonational system, or do the theatrical aspect of Partch's work also feature original elements? And if any, how do these original elements deviate from the fundamental elements of the conventional, dramatic paradigm?

Partch's theatrical music demonstrates postdramatic constellations at various levels, while other elements of his theatrical conceptions remain within the boundaries

[20] Lehmann, *Postdramatic Theatre*, 27.

[21] Located at Harry Partch Estate Archive and Harry Partch Collection, Sousa Archives and Center for American Music of the University of Illinois.

of the conventional dramatic paradigm. His aspiration to construct theatrical music first and foremost around primitive and corporeal rituals informs Partch's postdramatic tendencies. Ceremonial and ritual (or quasi-ritual) dramaturgies substantiate various modern theatrical conceptions, which Lehmann classifies under the category of postdramatic practices.

Pointing to ceremonial and ritual trends of the late-nineteenth-century and early-twentieth-century modernists, Lehmann states: "The theme of mass, ceremony, and ritual had already surfaced repeatedly in early modernism. Mallarmé was already talking about a theater of ceremony, and T.S. Eliot's confession is well-known: 'the only satisfaction that I find now is in a High Mass well performed.'"[22] Even though he considers Brecht as a continuation of the older paradigm, Lehmann also traces quasi-ritual components in Brecht's conceptualization of acrobats within the context of his epic theater: "Here one sees the connection between tendency towards the ceremonial and the renunciation of the classical conception of a subject that represses the corporality (*Handgriffe*) of its seemingly only mental intentions."[23] He even goes further back in the history, and juxtaposes the time-based dramatic theater and ancient rituals, where the integrated physicality of the performance, dance, costume, and music were equally important, or even more important, than the dramatic text:

> […] theater existed first: arising from ritual, taking up the form of mimesis through dance, and developing into a full-fledged behavior and practice before the advent of writing. While "primitive theater" and "primitive drama" (*Ur*-theater and *Ur*-drama) are merely the object of reconstructive attempts, it seems to be an anthropological certainty that early ritual forms of theater represented affectively highly charged processes (hunting, fertility) with the help of masks, costumes and props, in such a way that

[22] Lehmann, *Postdramatic Theatre*, 70.

[23] Lehmann, *Postdramatic Theatre*, 70–71.

> dance, music, and role-play were combined. Even if this physically semiotic, motor practice already represented a kind of 'text' before the advent of writing, the difference with respect to the formation of modern literary theater is still apparent. The written text, literature, took on the rarely contested leading role of the cultural hierarchy. Thus, even the connection of text with a musicalized from of speech, dance-like gestures, and splendid optical and architectonic décor that was still present in baroque representational theater could vanish in bourgeois literary theater: the text as *an offer of meaning* reigned; all other theatrical means had to serve it and were rather suspiciously controlled by the authority of Reason.[24]

While Lehmann explains the aspects of the *Ur*-theater which have lost on significance in the shadow of the autocracy of the dramatic text, he counts "the eventful presence, the particular semiotics of bodies, the gestures and movements of the performers, the compositional and formal structure of language as a soundscape, the qualities of the visual beyond representation, and the musical and rhythmic process with its own time," among the fundamental traits of the postdramatic theater that the conceptual fabrics of the primitive rituals have influenced.[25]

Lehmann views postdramatic theater as "replacement of dramatic action with ceremony," meaning that the corporeal, visual, musical, physical, and scenic elements come to the fore, liberating themselves from the shackle of the dramatic text. [26] The equal significance, and the synthesis, of dance, music, costumes, masks, role-play, and text, predominant in the *Ur*-theater, manifest itself also in Partch's works through his notion of corporeality—a central notion which validates the postdramatic characteristic of Partch's theatrical practice inspired by the primitive theater. In terms of the analysis of the postdramatic facets of Partch's pieces, the notion of corporeality becomes handy,

[24] Lehmann, *Postdramatic Theatre*, 46–47.

[25] Lehmann, *Postdramatic Theatre*, 35.

[26] Lehmann, *Postdramatic Theatre*, 70.

not only in its inherent meaning: the actuality and physicality of the body, but also in Partch's elaborated definition of corporeality as the onstage presence and fusion of all artistic media, including the body and mind of the multifaceted performers as musicians, dancers, and actors; the actual sculptural presence of the instruments as elements of set-design; the light, costumes, the dramaturgy, and the dramatic text.

Not only Partch's theatrical works, but also postdramatic theater, embody corporeality. Articulating the shift from the outright tyranny of the dramatic text as the focal point of the old theater toward the establishment of corporeality as a quintessential factor in the postdramatic form, Lehmann explains: "The physical body, whose gestic vocabulary in the eighteenth century could still be read and interpreted virtually like a text, in postdramatic theater has become its own reality which does not 'tell' this or that emotion but through its presence *manifests* itself as the site of inscription of collective history."[27] In the postdramatic theater, in other words, the predominantly in-corporeal, old theatrical paradigm, saturated by the dialectic tensions imbedded in the plot, succumbs to a corporeal narrative, conceiving the actuality, and the equal prominence, of all artistic media on the stage. The ceremonial and ritual features of Partch's theatrical music as much as his stress on the notion of corporeality, the underpinning of his aesthetic, demonstrate its postdramatic character.

Partch intended to reform theatrical music, injecting it with corporeal, ritual elements, extracted from what he understood as primitive traditions. For him, the specialization of concert-music as much as the dramatic theater meant "purism"—music

[27] Lehmann, *Postdramatic Theatre*, 97.

for the sake of music and theater for the sake of theater, drained from any corporeal, integrated human experience:

> To me the orchestra pit is a symbol of shame, the shame of both music and the theater. Each has gone its own way: music to the specialization of the symphony, drama to the specialization of the Broadway success. I, for one, do not believe that these specializations automatically exclude the capacity to integrate. Each needs the other; and the need is historical and constant.[28]

Although, as one might observe, Broadway musicals exemplify a bond between music and theater, Partch disapproved of them. For him, they merely demonstrate simple musicalization of dramatic text accompanied by incidental music, while exalting the superficial entertainment culture.

Partch, as previously explained, also dismissed (Wagnerian) opera as a stage for the integration of artistic media:

> Music, in its cry for help from drama, has gotten opera; and music dearly loves this help from drama. In fact, it loves this help so much that it virtually loves it to death. In its grander forms, opera floods its drama in caresses—the caresses of massed strings and brasses, symphony orchestra, arias, and recitatives. I must not allow myself the liberty of elaboration that the word *opera* opens up. I want to get back to the theater, which, despite its orchestra pit, I honestly believe has the greater freedom from precise traditional limitations.[29]

The incidental symphony orchestra banished to the orchestra pit, detached from the actual onstage actions, sounded detrimental to Partch's intended corporeal and ritual theatrical music. He, instead, sought the solution in the ancient Greek and non-Western rituals, yearning for a corporeal, interwoven, music-theatrical experience. The ceremonial, quasi-ritual, and corporeal facets of Partch's own theatrical music,

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[28] Harry Partch, "A Soul Tormented by Contemporary Music Looks for a Humanizing Alchemy: *The Bewitched*," in *Bitter Music: Collected Journals, Essays, Introductions, and Librettos*, ed. Thomas McGeary (Urbana and Chicago: University of Illinois Press, 1991), 241.

[29] Harry Partch, "A Soul Tormented," 241.

therefore, illustrates its postdramatic structures, implemented, among others, in *Oedipus*, *The Bewitched,* and *Delusion of the Fury*.

All the constituents of Partch's corporeal theatrical music, including the ceremonial and ritual configurations, the equality of various artistic media, and the actuality of the instruments and performers on the stage inform *Oedipus*'s postdramatic nature. The plot-based, traditional version of Sophocles' drama adapted by Yeats, which Partch uses, defies, however, the postdramatic structure of the work. In other words, in *Oedipus*, the visual, audible, scenic, and ritual aspects are subordinated to the primacy of text, a time-based narrative, and the dialogues of the characters.

Greek mythology, its archetypal characters, and their actions containing philosophical implications to real human experience, captivated Partch as much as the Greek music theory, instruments, and ritualistic music-theatrical performances. While underlining that he did not mean to imitate the Greek concepts, Partch explains his conception in *Oedipus*, articulating its postdramatic aspects, as follows:

> The work is presented as a human value, necessarily pinned to a time and place, necessarily involving the oracular gods and Greek proper and place-names, but nevertheless, not necessarily Greek. […] Yet, from the standpoint of dramatic technique, it is a historical fact that the Greeks used some kind of "tone declamation" in their dramatic works, and that it was common practice among them to present language, music, and dance as a dramatic unity. In this conception of *King Oedipus*, I am striving such a synthesis, not because it might lead me to the "Greek spirit," but because I believe in it.[30]

[30] Harry Partch, "King Oedipus," in *Bitter Music: Collected Journals, Essays, Introductions, and Librettos*, ed. Thomas McGeary (Urbana and Chicago: University of Illinois Press, 1991), 214.

The corporeal, quasi-ritual unity of music, dance, and "tone declamation" points to the postdramatic associations of *Oedipus*, despite the plot-based, dramatic narrative and the dialogical exchanges of words between the characters.[31]

The dialogues in *Oedipus* function less as discussions than what Lehmann calls "Competition of speech" (*Wettreden*). According to Lehmann:

> Modern drama was a world of discussion, while the dialogue in ancient tragedy—despite the appearance of an antagonistic battle of words—is basically not a discussion: the protagonists each remain unreachable in their own world, the opponents talk at cross-purposes. The dialogue here is less conflict and altercation in the space of verbal exchange but appears rather as a 'competition of speech' (*Wettreden*), a race in words, reminiscent of the wordless wrestling in agon. The speeches of the antagonists do not touch one another.[32]

The dialogues, hence, become a sort of a ritualistic battle of words and sentences; a poetic stage- or performance-text, as opposed to discussions being—as an element of the dramatic text—a tool in the hands of the dialectical roles. Even though Partch's *Oedipus* closely follows Sophocles' dramatic plot and the actions of the characters—mainly Oedipus, Jocasta, Creon, Tiresias, and the Priest—by means of tone-declamation (*Sprechgesang*) based on his peculiar speech-music style, Partch grants a postdramatic aura to his piece on top of its quasi-ritualistic and corporeal structures.

[31] Refer back to Figures 6.1 and 6.2 for the list of characters and scenes in Partch's *Oedipus*.

[32] Lehmann, *Postdramatic Theatre*, 75.

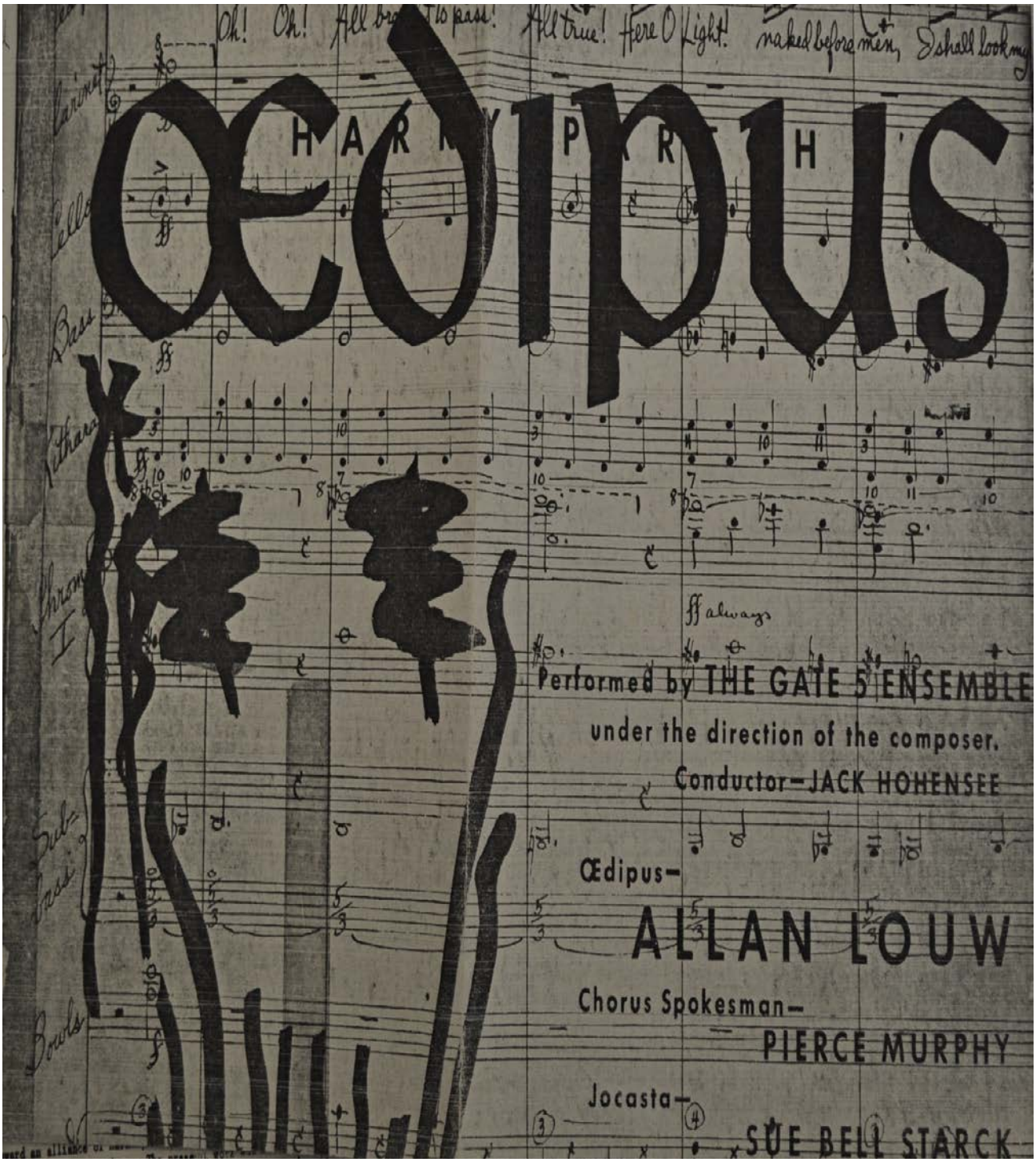
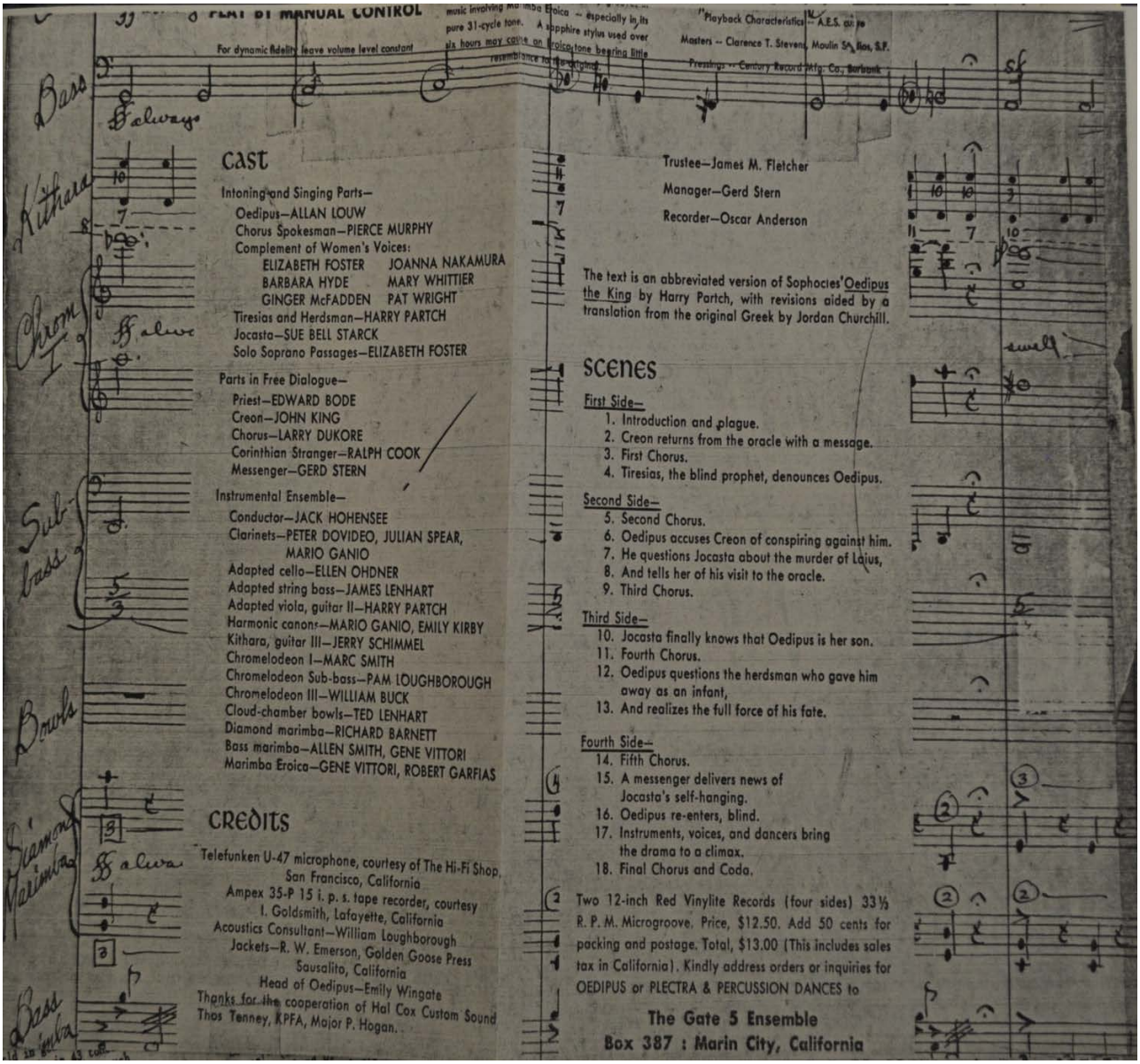


Figure 6-1. Cover of the Gate 5 (Partch's own label) recording of *Oedipus* on vinyl. Located at Harry Partch Estate Archive and Harry Partch Collection, Sousa Archives and Center for American Music of the University of Illinois.



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cast

Intoning and Singing Parts—
Oedipus—ALLAN LOUW
Chorus Spokesman—PIERCE MURPHY
Complement of Women's Voices:
ELIZABETH FOSTER JOANNA NAKAMURA
BARBARA HYDE MARY WHITTIER
GINGER McFADDEN PAT WRIGHT
Tiresias and Herdsman—HARRY PARTCH
Jocasta—SUE BELL STARCK
Solo Soprano Passages—ELIZABETH FOSTER

Parts in Free Dialogue—
Priest—EDWARD BODE
Creon—JOHN KING
Chorus—LARRY DUKORE
Corinthian Stranger—RALPH COOK
Messenger—GERD STERN

Instrumental Ensemble—
Conductor—JACK HOHENSEE
Clarinets—PETER DOVIDEO, JULIAN SPEAR, MARIO GANIO
Adapted cello—ELLEN OHDNER
Adapted string bass—JAMES LENHART
Adapted viola, guitar II—HARRY PARTCH
Harmonic canons—MARIO GANIO, EMILY KIRBY
Kithara, guitar III—JERRY SCHIMMEL
Chromelodeon I—MARC SMITH
Chromelodeon Sub-bass—PAM LOUGHBOROUGH
Chromelodeon III—WILLIAM BUCK
Cloud-chamber bowls—TED LENHART
Diamond marimba—RICHARD BARNETT
Bass marimba—ALLEN SMITH, GENE VITTORI
Marimba Eroica—GENE VITTORI, ROBERT GARFIAS

CREDITS

Telefunken U-47 microphone, courtesy of The Hi-Fi Shop, San Francisco, California
Ampex 35-P 15 i. p. s. tape recorder, courtesy I. Goldsmith, Lafayette, California
Acoustics Consultant—William Loughborough
Jackets—R. W. Emerson, Golden Goose Press Sausalito, California
Head of Oedipus—Emily Wingate
Thanks for the cooperation of Hal Cox Custom Sound Thos Tenney, KPFA, Major P. Hogan.

Trustee—James M. Fletcher
Manager—Gerd Stern
Recorder—Oscar Anderson

The text is an abbreviated version of Sophocles' Oedipus the King by Harry Partch, with revisions aided by a translation from the original Greek by Jordan Churchill.

scenes

First Side—
1. Introduction and plague.
2. Creon returns from the oracle with a message.
3. First Chorus.
4. Tiresias, the blind prophet, denounces Oedipus.

Second Side—
5. Second Chorus.
6. Oedipus accuses Creon of conspiring against him.
7. He questions Jocasta about the murder of Laius,
8. And tells her of his visit to the oracle.
9. Third Chorus.

Third Side—
10. Jocasta finally knows that Oedipus is her son.
11. Fourth Chorus.
12. Oedipus questions the herdsman who gave him away as an infant,
13. And realizes the full force of his fate.

Fourth Side—
14. Fifth Chorus.
15. A messenger delivers news of Jocasta's self-hanging.
16. Oedipus re-enters, blind.
17. Instruments, voices, and dancers bring the drama to a climax.
18. Final Chorus and Coda.

Two 12-inch Red Vinylite Records (four sides) 33⅓ R. P. M. Microgroove. Price, $12.50. Add 50 cents for packing and postage. Total, $13.00 (This includes sales tax in California). Kindly address orders or inquiries for OEDIPUS or PLECTRA & PERCUSSION DANCES to

The Gate 5 Ensemble
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Figure 6-2. First page in the booklet of the Gate 5 (Partch's own label) recording of *Oedipus* on vinyl, containing the list of the characters and scenes. Located at Harry Partch Estate Archive and Harry Partch Collection, Sousa Archives and Center for American Music of the University of Illinois.

Illustrating his conceptual shift from *Oedipus*, which governed by dialogues and conventional plot, to *The Bewitched,* a corporeal dance satire containing almost no dialogues and no traditional, time-based narrative, Partch writes:

> In my vision of Sophocles' *Oedipus the King*, I tried to rediscover some of the stature that the Western theater has lost in its long divorce from

> integrated music. More recently, in *The Bewitched*, I ventured into satire, in the feeling that a people dedicated to satirical scholarship and cause-and-effect rationality is hopeless only when it ceases to be able to laugh at itself intelligently. I wanted to prove that it could. Satire need not be heavy-handed. It can descend lightly and with love, and imbue the listener and the viewer with a shaft of momentary recognition and delight. It can bring reevaluation and self-perception, and—without seeming labor—a spontaneous feeling for humanity through art, something that lie within our bones and its precedent to all recorded history.[33]

Partch hoped that the satirical corporeality incorporated in *The Bewitched* would make the cultural and existential issues implied in the stage-text, which he wrote, more intelligible. The satirical, corporeal stage text, the non-Western dance rituals, and Partch's manner of handling the voices—which drifts from the dialogical structure of *Oedipus*—inform *The Bewitched*'s postdramatic fabric.

The postdramatic "theater of states," where, as previously explained, the dynamic onstage formations and corporeal structures replace the dramatic plot, defines *The Bewitched.* In this dance satire—"A Latter-Day Ritual Designed to De-fertilize the Machine Age for a Period of Seventy-Five Minutes"—although Partch has written ten separate scenes of metaphorical witchery to release the "Lost Musicians" (dancers) from their mental limitations and prejudices, a conventional time-based plot does not exist.[34] Instead, in each scene a different ritualistic dance predominates, transferring, according to Lehmann, "the ritual or quasi-ritual, the archaic, ceremonial, magical and mystical modes of imagination into a modern world."[35]

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[33] Partch, "The ancient Magic," 186–187.

[34]"A Latter-Day Ritual Designed to De-fertilize the Machine Age for a Period of Seventy-Five Minutes" is the subtitle to Partch's following introduction to *The Bewtiched*: Harry Partch, "Some New and Old Thoughts after and before *The Bewitched*," in *Bitter Music: Collected Journals, Essays, Introductions, and Librettos*, ed. Thomas McGeary (Urbana and Chicago: University of Illinois Press, 1991), 231. For the list of the ten scenes, see Table 3.1, on page 64 of this dissertation.

[35] Lehmann, *Postdramatic Theatre*, 138.

Articulating the emulation of corporeal magic [witchery] ceremonies in the postdramatic theater, Lehmann elaborates: “In any case, the combination of naïve or blasphemous execution of a magic ceremony, interactive performance, and production of presence is an illumination for postdramatic theater. It explains the latter’s insistence on presence, the ceremonial and ritual tendencies, and the tendency to put it on a footing with rituals prevalent in many cultures.”[36] In *The Bewitched*, Partch reconciles a phantasmagorical world of witchery with dance rituals taken from different cultures, see Table 6.1. He constructed a scenically-dynamic stage saturated by his instruments, functioning also as décor, in addition to the dancers (Lost Musicians), instrumentalists (Witch’s Chorus), and the main character of the Witch, all of which proclaims its postdramatic structure.

Table 6-1. List of types, or manners, of dancing in Harry Partch’s *The Bewitched*[37]

Scene	Title
	The Witch [in all scenes]: Kabuki—slow, dignified movements with rigid trunk, and occasional quick, furious movements.
1	Imitations of the Cantonese music hall
2	Eighteenth-century formality, with satiric twentieth-century expressionism, in part
3	East Indian, with—I hope—some tumbling
4	A formal solo, with modern dance farce at the end
5	Slightly satiric expressionism at first
6	Satiric ballet, almost throughout
7	Modern-dance comedy throughout
8	Kabuki throughout
9	Near East throughout
10	Open

[36] Lehmann, *Postdramatic Theatre*, 141.

[37] Harry Partch, “*The Bewitched*,” in *Bitter Music: Collected Journals, Essays, Introductions, and Librettos*, ed. Thomas McGeary (Urbana and Chicago: University of Illinois Press, 1991), 309.

The corporeality of the non-Western rituals as much as the integrated performances of dance, music, costumes, masks, and make-up, struck Partch as a vanished substance in the Western tradition:

> The value that we have lost—temporarily, I hope—is evident when we see a performance of the Japanese Kabuki. It is not to be explained merely as a different between widely separated cultures. The Japanese theater, which at the time of its revolutionary advent included all the skills of popular entertainment, such as juggling and tumbling, represents a quality in an integrated art, and however we may use music in conjunction with drama and dance, our value lies in "purity."[38]

He, therefore, crafted a fictional, satirical stage-text dominated by the presence of an allegorical oracle, who undoes the biases of the modern-day youngsters shaped by the machine-age technologies and entertainment industry. The oracle accomplishes her mission and, by means of witchery ceremonies, exhorts the youngsters to dance in non-Western, corporeal styles.[39]

As do several postdramatic theatrical performance, *The Bewitched* builds on magical, ancient rituals to address contemporary cultural issues. According to Partch, it, in fact, breathes in the dichotomous world, "fluctuating constantly between an ancient time in the millenniums around the dawn of history and the immediate American present—the immediate present of undergrads, basketball teams, adolescent lovers, detectives chasing culprits, and politicians—just as though all the intervening centuries never existed."[40] Among these groups of modern human-beings, Partch elevates one group: the "Lost Musicians," who, through ritualistic dancing in satirical situations, evoked by the Witch and accompanied by Witch's orchestra, come to perceive their

[38] Harry Partch, "Some New and Old Thoughts after and before *The Bewitched*," 236.

[39] See Figure 6.3 for the depiction of the Witch on the cover of the 1956 vinyl of *The Bewitched*.

[40] Harry Partch, "A Soul Tormented," 242.

musical disorientation in the age of an increasing bond between art and technology. By using dance rituals drained of a clear dramatic narrative, *The Bewitched* postdramatically tackles contemporaneous psychological and cultural discourses regarding the advantages and disadvantage of the technologies, as well as the dichotomy of entertainment and art music.

Explaining the real-life events, which prompted the notion of the "bewitched lost musicians" as the core of his dance satire, Partch states:

> To me the germination of *The Bewitched* was one of the most natural things in my life. The germ of the idea was the fact of The Lost Musicians. […] After leaving Mills College [1952], I found a studio in Sausalito, just across the Golden Gate Bridge from San Francisco. During the four years I was there, young musicians came in to see me now and then; and I would say that easily 90 percent of them fell into a certain category. They grew up, musically, in dance bands, became bored and dissatisfied, and went to music schools looking for different and broader perspectives. Here they found what they wanted, for a time, but eventually realized that their music professors, generally speaking, simply marked certain areas *terra incognita* like the ancient geographers—and the less said about them the better because they weren't worth exploring. These musicians did not feel really at home in either musical world, either the serious or not-so-serious. In my studio they generally played music I had written, although now and then they had jam sessions, one of which started at 9 P.M. and ended only at 4 A.M.; but they occasionally achieved a kind of magic perception through their music. Thus was created the Chorus of Lost Musicians, which is the basis for the dance-satire *The Bewitched*.[41]

Throughout his life, Partch struggled with the idea of the Western musical tradition, hence Western musicians being disconnected from their corporeal, ritual, primitive roots. He conceived a majority of his pieces as means of reviving these roots, because the matter was of existential importance to him, interwoven into his worldview. But perhaps, more than any of his other works, in *The Bewitched*, Partch captured the

[41] Harry Partch, "A Soul Tormented by Contemporary Music," 243.

Zeitgeist of the mid-twentieth-century, while crafting a philosophical, ritual dance satire. The "Lost Musicians" in *The Bewitched* emerged from Partch's experience with the young enthusiasts, who, even though attracted to his pioneering artistry were still children of the age of commercialization and easy-access to art as entertainment. Partch transformed an amalgamation of his observation and his philosophical grappling to a ritual dance satire, with one foot in the modern postdramatic theater and the other in the ancient, surreal magic practices.

The way Partch uses the element of voice also articulates the postdramatic tendencies of *The Bewitched*. Except for occasional sounds from the throats—made by the character of the Witch to evoke and encourage the ritual dances—there are no meaningful words, sentences, and dialogues in this work.[42] Pointing to this peculiar method of incorporating voice as a strong tool in a scenic-oriented, postdramatic dramaturgy, which replaces the text-oriented conceptions, Lehmann states: "The *Principle of exposition* applied to body, gesture and voice also seizes the language material and attacks language's function of representation. Instead of a linguistic *re*-presentation of facts, there is a 'position' of tones, words, sentences, sounds that are hardly controlled by a 'meaning' but instead by the scenic composition, by a visual, not text-oriented dramaturgy."[43] Not only in *The Bewitched*, but also in *Delusion of the Fury*, Partch distances himself from the dialogical text as in *Oedipus*; he ceases employing language as representative of dramatic action, moving toward using voice as a

[42] See Example 6.1.

[43] Lehmann, *Postdramatic Theatre*, 146.

reinforcing component within the ceremonial theater, which, as Lehmann explains, stresses the postdramatic character.

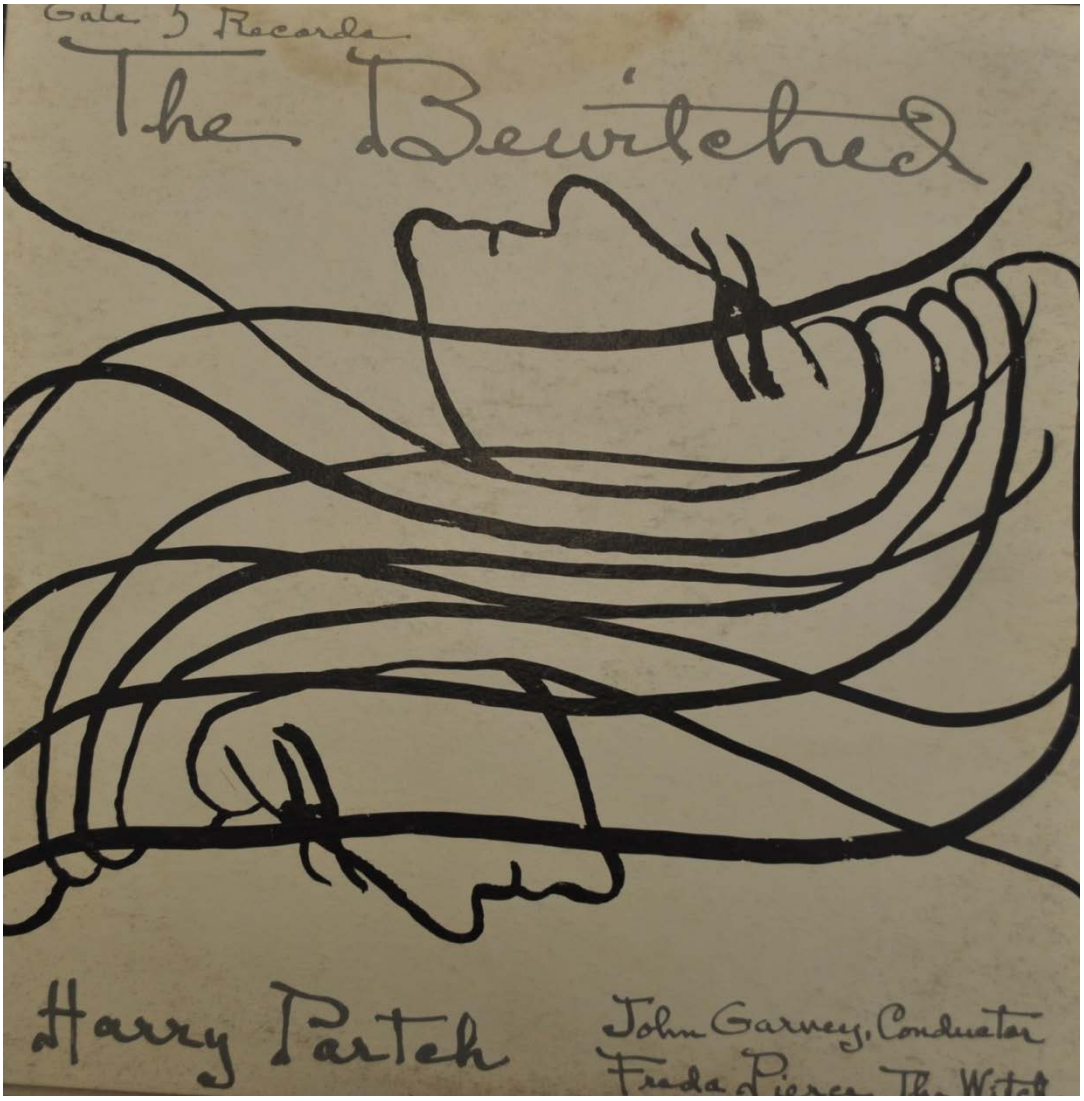
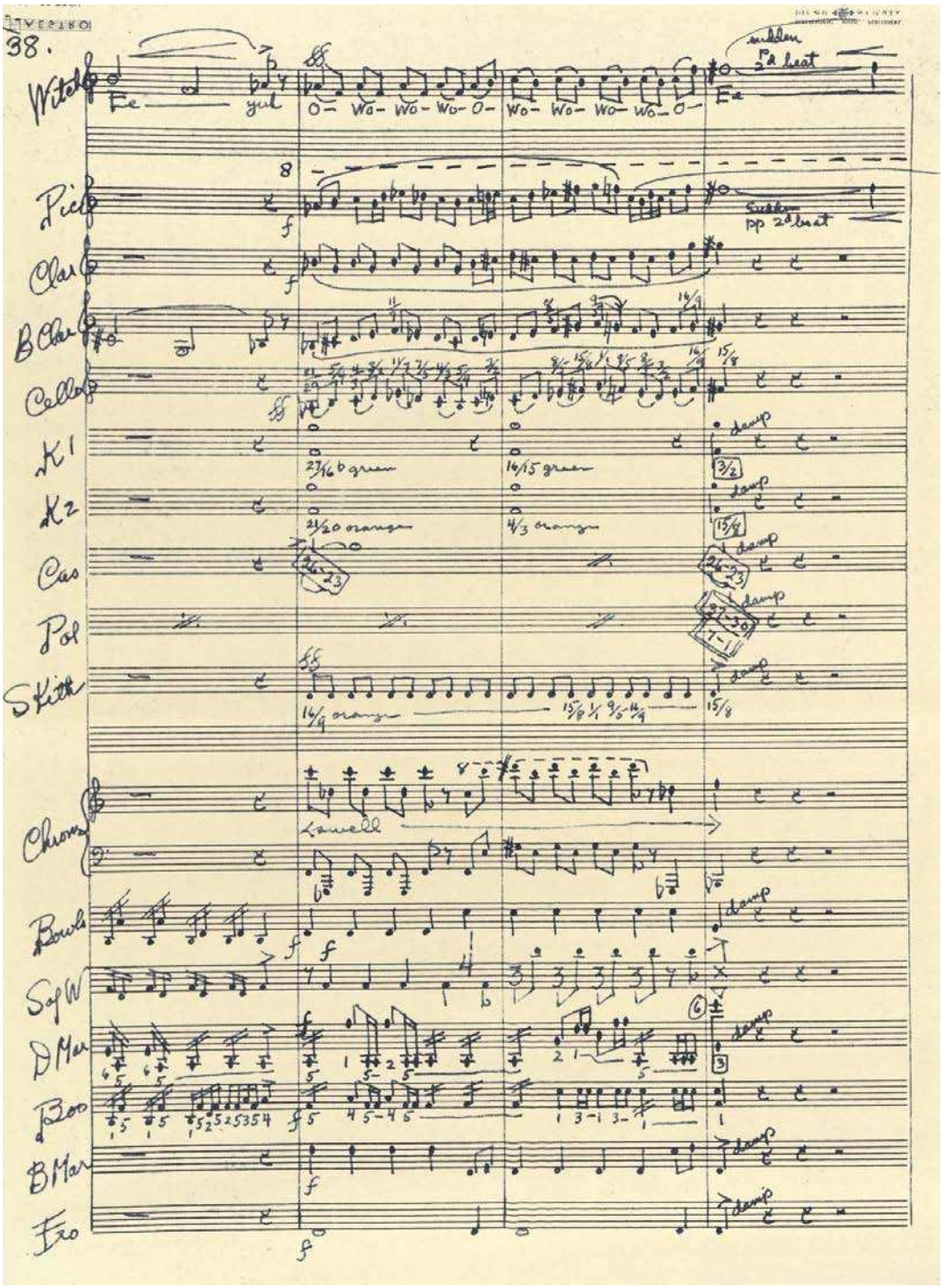


Figure 6-3. Cover of the Gate 5-vinyl (Partch's own label) of *The Bewitched*, released 1956. The face of the Witch is interwoven in the musical staff. Located at Harry Partch Estate Archive and Harry Partch Collection, Sousa Archives and Center for American Music of the University of Illinois.



Example 6-1. The Manuscript of *The Bewitched*, page 38 of the Prologue. The Witch produces meaningless, ritual sounds; see the top staff. Located at the library of University of California San Diego.

While explaining the preeminence of the ritual and corporeal elements in the postdramatic theater, Lehmann hints at the southern Indian theatrical dance Katahakali and the classical Japanese Noh theater as two traditions which embrace ritual corporeality:

> For centuries a paradigm has dominated European theater that clearly distinguishes it from non-European theater traditions. For example, Indian Kathakali or Japanese Noh theater are structured completely differently and consist essentially of dance, chorus, and music, highly stylized ceremonial procedures, narrative and lyrics texts, while theater in Europe amounted to the representation, the "making present" (*Vergegenwärtigung*) of speeches and deeds on stage through mimetic dramatic play.[44]

Lehmann's phrase, "highly stylized ceremonial procedures of dance, chorus, and music" resonates with Partch's notion of corporeality—the actuality of the body and mind of the performers and integrated artistic media in a ritual theatrical music. Partch chose to study non-Western, ritual practices, to be able to infuse the Western theatrical music with broad corporeal elements borrowed from these cultures, as obvious in the case of the dance movements in *The Bewitched*, see Table 6.1. He, subsequently, found in the Japanese Noh theater—invoked in his monumental final work *Delusion of the Fury*—a path toward recasting the conventional, Euro-American theatrical music.

Following the ancient-Greek theatrical model of a tragedy preceding a comedy, Partch constructed *Delusion of the Fury* around the central theme of "death" based on tragic Japanese Noh dramas in the first act, juxtaposed with "life" based on farcical African legends in the second. Although each of the two acts contain individual time-based, dramatic plots—which somewhat defy their postdramatic structures—the core

[44] Lehmann, *Postdramatic Theatre*, 21.

theme of death (or life vs. death), the ritualistic dance movements based on non-Western traditions, the integrated corporeality of various artistic media, and the verbally-meaningless, ritualistic vocal sounds superseding the dialogical voices, manifest *Delusion of the Fury*'s postdramatic character.

Elaborating on the relationship of the notion of death and the ritual structures in the postdramatic theater, Lehmann asserts Jean Genet's affirmation of ceremonial theater, as follows: "Genet hits upon the idea that the true site of theater was the cemetery, that theater as such was essentially a mass for dead. […] Theater is a 'dialogue with the dead.'"[45] Lehmann also refers to Heiner Müller's idea of ancient theater—for instance Noh drama which revolves around the return of ghosts—being an incantation of the dead with minimum of mimesis (imitation of the reality).[46] The first act of *Delusion of the Fury*, the ultimate representation of Partch's concept of corporeality, rests, in fact, upon a recurring ancient Japanese legend of a princely warrior who falls in battle at the hands of a young rival, taken from the mediaeval Noh plays *Atsumori* by Zeami and *Ikuta* by Zembo Motoyasu.[47] "Death" (and the return of the dead) is the main theme of this act; as Partch mentions: "A portrayal of release from the wheel of life."[48] The theme of death and the world of spirits imbedded in the Noh play, on top of the

[45] Lehmann, *Postdramatic Theatre*, 70. Jean Genet (1910–1986) was a seminal French playwright.

[46] Lehmann, Postdramatic Theatre, 70. To Lehmann, the works of the German theater director and author Heiner Müller (1929–1995) embodied postdramatic theater. He counts Müller's, Robert Wilson's and Tadeusz Kantor's theater as indispensable representatives of the postdramatic paradigm. According to Lehmann: "The postdramatic theater of a Tadeusz Kantor with its mysterious, animistically animated objects and apparatus, as much as the historical ghosts and apparitions in the postdramatic text of Heiner Müller, exist in this tradition of theatrical appearances of 'fate' and ghosts, who, as Monique Borie has shown, are crucial for understanding the most recent theater." (Lehmann, *Postdramatic Theatre*, 58.)

[47] Partch, "*Delusion of the Fury*," 250.

[48] Partch, "*Delusion of the Fury*," 250.

ceremonial dance movements depicting Samurai-battle, articulate *Delusion of Fury*'s postdramatic nature.

Delusion of the Fury's first act, titled "Pray for me," according to Partch, "deals with death, and with life despite death."[49] He has centered this act around three main characters: The son of the slain, who, while searching for his father's soul enters the shrine where the father was killed. There, he finds the slayer, whom he wishes to fight, until the ghost of the slain appears, pardoning the slayer, and facilitating the redemption of all sides.[50] By conceptualizing an allegorical, ritual plot—floating in a world where supernatural agent intrudes the natural realm—Partch pays homage to death, even though it is not quite clear if he himself believed in any metaphysical power. He nonetheless uses Noh drama to conceive a postdramatic, corporeal music-theatrical piece, dealing with existential question of death.

Partch, however, did not intend to imitate Noh theater. He was rather captivated by the subtle corporeality of this tradition, where the equally-integrated body-movements, music, costumes, make-up, and the drama, delve into the philosophical essence of the plot. Pointing to Noh theater as a source of inspiration—not imitation—for his last theatrical pieces, Partch states: "In Act I, I am not trying to write a Noh play. Noh is already a fine art, one of the most sophisticated that the world has known, and it would be senseless for me to follow a path of superficial duplication. […] Act I is actually a development of my own style in dramatic music. I am using the basic motivation of the Noh as a springboard for my style."[51] He discovered in Noh tradition, the ceremonial

[49] Partch, "*Delusion of the Fury*," 250.

[50] See Table 6.2 for the list of the scenes in *Delusion of the Fury*.

[51] Partch, "*Delusion of the Fury*," 251–252.

total artwork that he missed in the Western theatrical music. As Lehmann mentions: "Searching for a '*nouveau cérémonial théâtral*' (Mallarmé), one finds in Japanese Noh a total theater with a metaphysical horizon."[52] Taking it as an ironic coincidence or not, the elder Partch, approaching the end of his life, found in Noh drama his own "*nouveau cérémonial théâtral*," engaging with the notion of death within a postdramatic fabric.

As in *Delusion of the Fury*'s first act, for the second act titled "In the Advent of Justice," Partch has not written any meaningful words and sentences, but rather ritualistic sounds as a means to reinforce the communal dance-movements, which grants a postdramatic aura to the work. Building on the Ethiopian ancient folktale *Justice*, from the book *African voices* by an anonymous author, in the second act Partch illustrates "reconciliation with life."[53] Although the second act also follows a plot-based dramatic narrative—undermining the postdramatic character of the piece—the ceremonial use of voices, and its interwoven corporeality realized on the stage, feature extensive postdramatic traits.

In the second act, Partch does not intend to revive any kind of African rituals, even though he applies several percussion instruments—an indispensable component of various African music-theatrical traditions—of his own design. Beside percussion, the originally African farcical story, and ritualistic dance-movements, Partch incorporates no other African elements in the piece. But similar to the Noh in the first act, he perceived the embodied corporeality of the Ethiopian traditions as suitable for his own conceptual aim.

[52]Lehmann, *Postdramatic Theatre*, 58.

[53] Partch, "*Delusion of the Fury*," 250–251.

The juxtaposition of the second act's comical story representing life, and the tragedy in the first act representing the death, is quite atypical of the predominant dramatic tradition. The main characters of the second act—a young vagabond and an old shepherd-woman—begin an argument, leading to extreme tension between them. Taken by the citizens to the court of a near-sighted and deaf justice, they end up settling their problems, and celebrating their coexistence; or as Partch says: "life, and life despite life."[54] The dichotomy of the nature of both acts based on ancient Greek porotypes—in addition to the ritualistic dance-movements, peculiar vocal lines, and the interwoven corporeality—challenges the dramatic narratives in *Delusion of the Fury*, while articulating its postdramatic features.

All three of Partch's major theatrical pieces demonstrate postdramatic idiosyncrasies realized in their ritualistic conceptions, gravitating toward non-Western [music-] theatrical traditions as sources of corporeal revelation. Their largely-plot-based narratives—especially in *Oedipus*—resist, however, definitive classification of under the category of postdramatic musical theater. It is, rather, a matter of perspective; it depends on the types of the elements that the analysis examines. But Partch's theatrical works indisputably contain a variety of postdramatic components. He intended, after all, to reform Western theatrical music, and he was resolute in his mission. The following section turns toward Stahnke's theatrical works, examining their postdramatic traits.

[54] Partch, "*Delusion of the Fury*," 250. See Table 6.2 for the list of the scenes in *Delusion of the Fury*.

Table 6-2. List of scenes in Harry Partch's *Delusion of the Fury*[55]

Scene	Title
	Exordium (Prologue to Act I)
1.1	Chorus of Shadows
1.2	Emergence of the Spirit
1.3	A son in Search of his Father's Face
1.4	Resentment beyond Death
1.5	Cry from another Darkness
1.6	Cry for me Again
	Sanctus (Prologue to Act I)
2.1	Chorus of Villagers
2.2	The Quiet Hobo Meal
2.3	The Lost Kid
2.4	The Misunderstanding
2.5	Arrest by the Dervish Dancers
2.6	The Trial and the Judgement
2.7	How Did We Ever Manage without Justice?

Dramatic and Postdramatic Elements in Stahnke's Theatrical Music: *Wahnsinn das ist die Seele der Handlung* and *Orpheus Kristall*

Wahnsinn das ist die Seele der Handlung and *Orpheus Kristall*—more than Stahnke's other theatrical pieces *Der Untergang des Hauses Usher* and *Heinrich IV*—demonstrate characteristics informed by the theory of postdramatic theater. Since the latter works mainly remain within the precepts of the dramatic paradigm, the following analysis of the dramatic and postdramatic traits of Stahnke's theatrical pieces deals with *Wahnsinn das ist die Seele der Handlung* and *Orpheus Kristall*.

In *Wahnsinn*, Stahnke's use of a collage of Edgar Allan Poe's poems directly dismisses the conventional, time-based dramatic narrative, inclined to postdramatic paradigm. Stahnke, hence, conceives a new sort of stage-poetry, which, while depicting the universal dichotomy of the notions of beauty and terror intrinsic to life, defies conventional story-telling drama.[56] Explaining the ways in which Symbolist dramas at

[55] Partch, "*Delusion of the Fury*," 251.

[56] See Appendix I for the complete libretto of *Wahnsinn das ist der Seele der Handlung*.

the turn of the twentieth century, for example Maeterlinck's works, creates a new "poetry of theater," Lehmann states: "Viewed thus from the point of view of postdramatic theater, the lyrical and Symbolist drama of the *Fin de siècle* moves from the periphery to the center of historical interest. In order to reach a new poetry of theater it puts an end to the axioms of dramatic plot and story." [57] Stahnke—as previously mentioned—came to Poe's texts through Baudelaire's translations. Baudelaire is considered one of the early influences on Symbolism, who also admired Poe's detailed, figurative imagery in his works, especially his poems and *The Fall of the House of Usher*. The [proto]Symbolistic language of Poe and Baudelaire—as much as the works of the protagonists of Symbolism Mallarmé and Verlaine—influenced Stahnke's postdramatic "theatrical poetry" in *Wahnsinn*, revoking the traditional dramatic plot.

The fragmentary nature of the text, reinforced by the open formal structure of the piece where the dramaturgical concept can displace or omit the sections (see footnote 66 on page 128), also articulates *Wahnsinn's* postdramatic tendencies. As Lehmann states: "Enclosed within postdramatic theater is obviously the demand for an open and fragmentary perception in place of a unifying and closed perception."[58] Stahnke has arranged the whole work in ten distinct sections. Table 6.3 outlines the sections of the work, each containing Stahnke's own translation of a different fragment of Poe's poems. Each individual poem delineates human life as a theatrical show of madness (*Wahnsinn*) filled with terror and beauty. The fragmentary poetic libretto and the open formal structure of the work, therefore, feature postdramatic character.

[57] Lehmann, *Postdramatic Theatre*, 59.

[58] Lehmann, *Postdramatic Theatre*, 82.

In *Wahnsinn*, the main female character, the sole vocal role, declaims the scattered verses, which, by means of metaphorical, grotesque snakes, angles, devils, worms, and puppets, depict an allegorical gala night in a theater, where the audience watch the paradoxical human life as a musical play—with the notion of madness at the center. Since both the audience and the musical sections (*Sphärenmusik, Wurmmusik, Herbstmusik, Knarrmusik*) are integrated in the text, a sort of corporeality—the onstage actuality and fusion of the music, symbolistic text, and audience—informs *Wahnsinn*'s postdramatic configuration on top of the fragmentary textual and formal section.

Table 6-3. List of sections in Manfred Stahnke's *Wahnsinn das ist die Seele der Handlung*

Section	Title
1	*Vorspiel*
2	*Sphärenmusik I*
3	*Sphärenmusik II*
4	*Galamusik*
5	*Knarrmusik*
6	*Herbstmusik*
7	*Teufelssolo*
8	*Wurmmusik*
9	*Tusch*
10	*Sphärenmusik III*

The use of electronic tape, re-playing the whole live performance with eight seconds of delay in *Wahnsinn*, makes for a simultaneous, repetitive stage-text, hence—postdramatically—neglecting any time-based narrative. About simultaneity as an essential element in the postdramatic theater, Lehmann says, "in certain performances, as for example in the performances of *Oresteia* and *Giulio Cesare* by *Societas Raffaello Sanzio*, the visible events on stage are surrounded and complemented by a second reality of all manner of sounds, music, voices and noise structures, so that one has to

speak of the simultaneous existence of a second 'auditory stage' (Eleni Varopoulou)."[59] In the case of *Wahnsinn*, Stahnke applies live electronic tape as a second audible layer. The electronics—in addition the visual stage, a pre-conceived video playback (in Berlin 2012 production), and the string quartet being a part of the dramaturgical concept—create a postdramatic simultaneity, opposing the traditional dramatic paradigm. Using electronic devices as a postdramatic means to forge parallel realities, reforming the traditional dramatic plot, also substantiates *Orpheus Kristall*, on which the following section expounds.

During the collaboration leading to the creation of *Orpheus Kristall*, the composer, the librettist Simone Homem de Mello, the director Bettina Wackernagel, and the dramaturge Peter Staatsmann agreed upon a different conception of the Orpheus myth, which, by means of obscuring a clear storyline, illustrates postdramatic traits. Describing the plot in *Orpheus Kristall*, Stahnke states: "This opera does not tell a story. The story is rather pushed far behind; only an echo of the story remains to be heard."[60] He considers, however, at least two distinct, *possible* storylines: first, the classic story of Orpheus, descending to the underworld (Hades) to retrieve his beloved Eurydice, where he fails, and eventually collapses; second, a transformation of the Orpheus myth, where Orpheus tries to escape from Hades, but Eurydice seduces him back when she realizes that she would no longer be able to have contact with Orpheus.[61] Both conflicting,

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[59] Lehmann, *Postdramatic Theatre*, 88. *Societas Raffaello Sanzio* is an Italian experimental theater company founded in 1981, see http://www.arch-srs.com/, accessed 08.02.2017. Eleni Varopoulou is a renowned theater-theorist, journalist, and author, see http://greekfestival.gr/en/epidaurus_lyceum/staff_view/eleni-varopoulou, accessed 08.02.2017.

60 "Trotzdem ist diese ‚Oper' kein Ding, das eine Geschichte erzählt. Die Geschichte ist eher so tief eingesickert, dass nur ihr Echo zu hören bleibt." In Stahnke, "Orpheus unter den ganzen Zahlen," 196.

[61] Bargrizan, "Technology, Microtones, and Mediation," 13–14.

possible storylines disrupt the traditional dramatic narrative to generate simultaneous, surreal story-lines, transfiguring the opera into a postdramatic construct.[62]

In Stahnke's opera, Orpheus rules a world that he created—a world that extends beyond the borders of the stage. From New York and Berkeley to Amsterdam, the composer added some other islands across the world to Orpheus's territory of the opera hall, connected to the main stage through the Internet. Within this new, extended world, the autistic Orpheus suffers from his memories of falling in love with Eurydice, wining her, and eventually losing her. "He even may have murdered her," says Stahnke, leading to another *possible* element of the opera related to the plot: The desires "to make," "to build," but to "build in vain," according to Stahnke; Since we cannot "win," we "destroy what we have built."[63] All these *possible* plots coexist simultaneously throughout the opera. Simultaneity of signs, along their density and sparsity dependent on each individual moment, predominates *Orpheus Kristall*, reinforcing its postdramatic configuration.

The simultaneity of *possible* plots causes a sort of chaotic and, at the same time, cryptic, (post)dramatic structure in *Orpheus Kristall*, as in several modern theatrical conceptions. While discussing polyvalence and simultaneity as fundamental elements in postdramatic theater, Lehmann refers to Marianne van Kerkhoven's interpretation of the new theatrical forms based on the chaos theory:

> In her essay *The Burden of the Time*, Marianne van Kerkhoven, who has gained a reputation as a dramaturg of new theater in Belgium, related the new theater languages to chaos theory, which assumes that reality

[62] See Lehmann, *Postdramatic Theatre*, 83–87.

63 "Er hat sie vielleicht auch gemordet, das ist eine mögliche Komponente in unserer Oper. Das hat uns die Texterin nahegebracht: Das Bauen, aber das Umsonstbauen, weil ich die Welt nicht gewinnen kann, deshalb zerstöre ich sie." In Bargrizan, *"*Aspekte mikrotonaler Komposition,*"* 108.

> consists of unstable systems rather than closed circuits; the arts respond to this with ambiguity, polyvalence, and simultaneity, the theater with a dramaturgy that fixes partial structures rather than whole patterns. Synthesis is sacrificed in order to gain, in its place, the density of intensive moments. If the partial structures nevertheless develop into something like a whole, this is no longer organized according to prescribed models of dramatic coherence or comprehensive symbolic references and does not realize synthesis. This tendency applies to all arts.[64]

Orpheus Kristall, as a modern music-theatrical piece, rejects reconciliation (or synthesis) as a result of the dialectical actions intrinsic to the dramatic tradition. Based on the dialectic of plethora and deprivation (plenitude and emptiness) as a significant characteristic of the postdramatic theater, Stahnke's opera demonstrates strong postdramatic tendencies. [65]

In *Orpheus Kristall*, the concept of "nature" is even more important than in the original Orpheus story, as explained in chapter three regarding the relationship of opera's microtonal structure and the natural phenomena. In terms of the significance of the notion of nature in opera's (post)dramatic fabric, Stahnke addresses the following correlations of the original Orpheus myth, as well as his own rendered version, and notion of nature:

> Orpheus is a magician who reaches out to stones, animals, and plants, through his music. He has power over the cosmos, upon the humans. It is at once 'Animism,' considering nature as the spirit of everything and everyone, but also 'Shamanism,' an ancient culture, still partially existing in Siberia, Korea, or Japan. In other words, Orpheus is a Greek version of the old Shamans.[66]

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[64] Lehmann, *Postdramatic Theatre*, 83.

[65] Lehmann, *Postdramatic Theatre*, 89–91.

[66] "Orpheus ist ein Zauberer, er ist mit den Steinen, mit den Pflanzen, mit den Tieren verbunden. Er hat Macht über das Universum, über die Menschen. Eigentlich ist das Animismus, die Natur als die Seele des Ganzen zu betrachten, oder Schamanismus, der immer noch in Sibirien, Korea oder Japan existiert, das ist eine uralte Kultur. Orpheus ist sozusagen eine griechische Version der alten Schamanen." In Bargrizan, "Aspekte mikrotonaler Komposition," 107–108.

Lehmann articulates the merit of the element of nature, landscape, and scenery, as well as the metamorphosis of the old myth to neo-mythical constructions in Robert Wilson's seminal postdramatic theatrical conceptions. According to Lehmann, the emphasis on such aspects in the postdramatic theater results in de-hierarchizing the traditional theater, where the plot-based narratives rules over all other components. [67] While diluting a plot-based narrative to the minimum, *Orpheus Kristall* utilizes the central elements of nature, landscape, and scenery inherent in the ancient version, as means to transfigure the original myth to a neo-mythical, postdramatic, music-theatrical composition, containing various philosophical implications.

The superimposition of sound landscapes made possible by the use of digital technologies (or previously, analogue electronic devices) inform the last element of not only *Orpheus Kristall*, but also *Wahnsinn das is Seele der Handlung*, which bolsters their postdramatic tendencies. The electronic sounds, samples, and noises add extra layers to the audible design of postdramatic theatrical music, weakening the centrality of a plot-based, dramatic narrative, while maintaining the audio-visual aspect of the work. Regarding the function of electronic sounds in the postdramatic theatrical, musical, or music-theatrical conceptions, Lehmann states:

> In electronic music it has become possible to manipulate the parameters of sound as desired and thus open up whole new areas for the musicalization of voices and sounds in theater. While the individual tone is already composed of a whole array of qualities—frequency, pitch, overtones, timbre, volume—which can be manipulated with the help of synthesizers, the combinations of electronic sounds and tones (sampling) result in a whole new dimension of 'sound' in theater. Heiner Goebbels' "conceptional composing," as he calls it, combines the logic of texts and the musical and vocal material in many variations. It is becoming possible to manipulate and structure the entire sonic space of a theater in a

[67] Lehmann, *Postdramatic Theatre*, 77–84.

> targeted fashion. Just like the progression of actions, the musical level is no longer constructed in a linear fashion but rather, for instance, through simultaneous superimposition of sonic worlds, as for example in the dance piece *Roaratorio* (1979) by John Cage and Merce Cunnigham.[68]

In *Orpheus Kristall*, the incoming improvisations of the remote musicians, transfigured to electronic sounds and superimposed on the onstage orchestral music and vocal lines, conceives a non-linear, multivalent, musical trajectory, and reinforces the ambiguous postdramatic structure. The live, electronic-tape play-back in *Wahnsinn das ist die Seele der Handlung* also makes for superimposition, simultaneity, non-linearity, and de-hierarchizing, characteristic of the postdramatic paradigm. In terms of the use of electronic devices, both works, therefore, feature postdramatic structures.

On top of depreciated, coherent dramatic narratives, both *Wahnsinn das ist die Seele der Handlung* and *Orpheus Kristall* contain simultaneous, fragmentary, and multi-perspective structures, replacing a linear succession of events. They emphasize the value of juxtaposition of individual fragments—in Lehmann's words: "multi- or intermedially deconstructive artistic practice of the momentary values"—partially avoiding synthesis and producing perceptual distance.[69] On the other hand, both works contain sections saturated by the density of philosophical and psychological signs, signified by the integration of electronic media in addition to the audible and visual devices. The dense sections confront the scenes of just-intoned musical constructions, informing, as Lehmann formulates, "the dialectic of plethora vs. deprivation, or

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[68] Lehmann, *Postdramatic Theatre*, 92. About "simultaneous superimposition of sonic worlds" in *Roaratorio*, Lehmann writes: "Significantly, when this piece was performed in Avignon, Cage read text from James Joyce's *Finnegans Wake*, a text that opened up a new era of ways of dealing with language material: transgressions of the boundaries between national languages, condensations and multiplications of possible meanings, and musical-architectonic constructions. Postdramatic theatrical signs are situated in the tradition of such textures." (Lehmann, *Postdramatic Theatre*, 92.)

[69] Lehmann, *Postdramatic Theatre*, 86.

plentitude vs. emptiness."[70] Finally, in both works, inherently fragmentary stage-texts, resumes the responsibility of a traditional dramatic text. The structure of the vocal parts, distanced from conventional arias and recitatives, also articulate the postdramatic character of both works. Although composed about twenty-years apart, *Wahnsinn das ist die Seele der Handlung* and *Orpheus Kristall* shall be considered two significant music-theatrical pieces, containing vigorous postdramatic components.

[70] Lehmann, *Postdramatic Theatre*, 89-90.

CHAPTER 7
CONCLUSION

Theatrical Music in the Service of Cultural Discourse

Examining Partch's and Stahnke's theatrical music from the perspective of aesthetic ideas, intonational and tuning systems, technological aspects, and theatrical elements demonstrates that the interrelationship between all components of these works go beyond functioning merely on structural levels. Both composers created innovative theatrical music according to their respective critical discourse about the past and present state of the predominant paradigms in Western art music. All components of their works and their interaction, therefore, target the essence of their criticism.

Partch found the Western dramatic music drained from its ritual and corporeal roots. He reacted against the specialization inherent in Western music and theater, as well as in academies. He also viewed the acoustically-incorrect twelve-tone equal temperament as inferior to the acoustically-correct just intonation. His effort to theorize a novel intonational system based on just intonation and a plethora of instruments that he built on its basis inform his revolt against twelve-tone equal temperament. The analysis of Partch's intonational system and its realization in his instruments, as well as in *Oedipus*, *The Bewitched*, and *Delusion of the Fury*, reveals the close interrelationship between Partch's theories and his central concept of corporeality—an interrelationship apparent in his revolutionary works and in the service of addressing his cultural discourse. My analysis shows that all intertwined aspects of Partch's corporeal music-theatrical conceptions become means to delineate the philosophical, psychological, and mythical crux of his works, in turn facilitating his polemical stance toward Western art.

Focusing on Stahnke's aesthetic and the compositional procedures in his operas also reinforces the assumption of his theatrical music establishing instances of his critical posture toward commercialized and standardized Western art music. On the surface, the microtonal constructions, technological ideas, and dramatic innovations in Stahnke's operas merely depict their philosophical, psychological, and mythical implications. But further examination concludes that these implications—facilitated by the interplay of microtonal, technological, and theatrical elements—mediate Stahnke's polemics about the narrow reach of commercialized Western art music. To expand its tonal and dramatic scope, Stahnke has used just intonation, diverse tuning systems and scales taken from non-Western cultures, and electronic media to re-structure the musical and dramaturgical aspect of common Western operas. In sum, all musical, theatrical, and technological elements of Partch's and Stahnke's stage works convey their cultural criticism, crystallized in their aesthetic decisions.

The Lineage from Partch to Stahnke

Comparative analysis of Partch's and Stahnke's aesthetic decisions in their works articulates the link between both composers, although their stage works embody different characteristics. The ways in which a composer (Stahnke) perceived the other (Partch), as well as his urge to study, explain, and incorporate some elements of Partch's thinking, prompted this dissertation. I have concluded that even though Partch—as opposed to Stahnke—did not really land in the world of academy and scholarship, he tirelessly reached out to non-Western musical and dramatic cultures to imbue Western theatrical music with corporeality and ritualistic zest, as well as a more nuanced sound and intonation.

Similar to Partch, Stahnke explores non-Western musical cultures, extracting their fine tunings and rhythmical subtleties, while challenging the norms of Western art music by integrating them in his hybrid compositions. His intonational and dramatic innovations question conventional operatic tradition, asking us to rethink the standardized trends of Western theatrical music.

Although Stahnke did not seek an integrated, corporeal total artwork as Partch did, he did find the Western musico-dramatic tradition limiting. In addition to non-Western cultures, both Partch and Stahnke have conducted extensive research on the acoustical properties of sound and just intonation. They derived the inventive scales and tone systems realized in their theatrical music from deep understanding of the spectrum of partials, as well as its mathematical and acoustical qualities.

My analysis shows that two elements inform the link between Partch and Stahnke more than anything else; first, both of them sought to reform Western musical and dramatic conventions by looking at non-Western cultures. Second, their curiosity for microtonality, tuning, and intonation guided their research. However, Stahnke's flexible, inclusive, and hybrid aesthetic differs from Partch's rigidly-crafted world of one tuning system and a single, central aesthetic as his key principle. Their view of the academic establishment also differed. Partch's anti-establishment posture caused him to remain—for the most part of his life—outside the academy, although most of the performances of his stage works took place on University campuses. Stahnke, on the other hand, has mentored numerous pupils and maintained a career in the German university system, while pushing the boundaries of Western academic music.

Links between two thinkers, the ways one shapes or transfigures another's ideas, has always fascinated researchers. Although Ligeti influenced Stahnke's hybrid aesthetic, there is no doubt that Stahnke has cherished, emulated, and synthesized Partch's microtonal theories in his own aesthetic. The relationship between Ben Johnston and Partch as well as Lou Harrison and Partch inform other cases of such links that researchers can examine. The discussion of the lineage from Partch to Stahnke in this dissertation emphasizes the importance of investigating such lineages—for instance, between Adorno and Berg, or between Webern and Schoenberg—from the philosophical, aesthetic and theoretical standpoints. In my future research, I will expand my study to the examination of the link between Partch and other microtonalists, such as Johnston and Harrison. My future research will also expound upon the ways in which Stahnke has interacted with other European and non-European microtonal composers, and the ways in which he transferred the legacy of Partch and Johnston, as well as his own experience, to his pupils.

Theatrical Structures in Partch's and Stahnke's Stage Works

Although composed in the span of about fifty years (1950-2001), the theatrical music of Partch and Stahnke shall be considered examples of stage works that contain postdramatic elements. This is not to say that any of the seven case studies examined in this dissertation exclusively feature postdramatic structures; they in fact intertwine dramatic and postdramatic elements. Even Lehmann argues throughout his book that most instances of postdramatic theater combine a constellation of postdramatic structures with traditional, dramatic theatrical components.

Analysis of the theatrical elements in Partch's and Stahnke's stage works shows that *The Bewitched*, *Wahnsinn das ist die Seele der Handlung*, and *Orpheus Kristall*

contain postdramatic components more than *Oedipus*, *Delusion of the Fury*, *Der Untergang des Hauses Usher*, and *Heinrich IV*. However, their tendency toward ritualization and corporeality demonstrates that all of Partch's stage works to some extent contain postdramatic traits. In Stahnke's works, fragmentary structures, superimposition of the storylines or the lack thereof, and the use of electronic media inform their tendency toward postdramatic theater. Some of such characteristic extend to all of Stahnke's operas and some to the ones with predominant postdramatic components.

Because theatrical music has proved to be a suitable venue for reassessment of musico-dramatic conventions, examining the modern music-theatrical conceptions—for instance Philip Glass's *Einstein on the Beach* (1976), Morton Subotnick's *Jacob's Room* (1985) Tod Machover's *Brain Opera* (1996), or Georg Hajdu's *Der Sprung – Beschreibung einer Oper* (1998)—in light of the theory of postdramatic theater gains more pertinence. The theory of postdramatic theater can illuminate the innovative facets of other music-theatrical ventures, beyond Partch's and Stahnke's stage works.

As a dynamic analytical framework, this theory brings a fresh perspective to the scholarship of modern opera. It grants us an effective methodology to deconstruct the seemingly-disparate, but coexisting, innovative theatrical elements in the contemporary opera, juxtaposing them with traditional operatic structures. An example of how a theory borrowed from another discipline would facilitate our understanding of an inherently multimedia genre such as opera, the theory of postdramatic theater enables us to examine theatrical music from the interdisciplinary perspectives of performance, sound,

and literature.[71] Since opera breathes at the intersection of drama and music, these interdisciplinary perspectives can carry on a paradigm-shifting and lasting effect on opera scholarship.

Digital Media in Stahnke's Theatrical Music

Stahnke's critical discourse about the limited reach of the predominant Western art music substantiate his incorporation of electronic media in his stage works, especially in *Orpheus Kristall*. My analysis of the underlying electronic structures in his theatrical music informs the link between Stahnke's critical stance and his urge to question the common operatic forms. Borrowed theories from performing arts studies, along the analysis of the microtonal and dramatic aspects of Stahnke's works, articulate the need to further examine the rationales for integrating electronic devices as performance media in the modern mixed-reality opera.

While Dixon's monumental book *Digital Performance*, as well as an array of chapters in Chapple's and Kattenbelt's *Intermediality in Theater and Performance*, comprehensively discuss mixed-reality theater, the scholarship lacks an in-depth study of mixed-reality opera. The chapter "Technology, Mediation, and Intermediality" in this dissertation, which goes hand-in-hand with the analysis of postdramatic elements in Stahnke's opera, intends to open a door to an exhaustive study of digital opera and its cultural significance in my future scholarship.

[71] My use of the adjective "multimedia" in this sentence does not necessarily refer to the integration of digital media in the modern operas. It rather implies that opera is essentially a mixed genre, which combines various media, for example, music, acting, staging, and literature, as well as the digital media in the modern operas.

Influence of Partch on European Microtonal Music

The theoretical and aesthetic analysis of the microtonal scales, tuning systems, and intonational concepts in Stahnke's theatrical music shed light on the scope of the influence of Partch's theories on Stahnke's music. Encouraged by Ligeti, many of his students in Hamburg during 1970s and 1980s delved into various degrees of research and absorption of Partch's ideas. Although German composers such as Georg Hajdu and Wolfgang von Schweinitz have also dealt with Partch's theories, no other figure has been theoretically and practically immersed in Partch's achievements as much as Stahnke. The sheer number of his published texts on Partch attests to this fact.

Yet from a practical perspective, several of Stahnke's instrumental and music-theatrical pieces contain elements taken directly from Partch's theories, or are influenced by Partch's ground-breaking concepts. In solo instrumental pieces such as *Diamantenpracht* (2005) and *Partch Zither* (2007), both for harp in scordatura, Stahnke has developed new tuning systems for harp influenced by Partch's eleven-limit just intonation. These systems of harp tuning facilitate the integration of Partch's concepts of otonality and utonality as practical compositional procedures. My analysis of the functions of tuning and scales in Stahnke's operas *Der Untergang des Hauses Usher* and *Heinrich IV* demonstrates a case in which Partch's concepts underpin Stahnke's compositional ideas.

Partch's approach to just intonation has affected any composer who, since the second half of the twentieth century, has dealt with Microtonality, tuning, and intonation. However, Stahnke's works represent one of the most significant cases of the vast influence of Partch's theories on the European counterpart. Future research can shed light on the influence of Partch's aesthetic and theories on other works created by

Stahnke, or microtonal compositions by other artists. As a first step, this study hopes to begin a trend of research on the relationship between American and German experimental music in the twentieth-century and their reciprocal interaction.

APPENDIX A
LIBRETTO OF *WAHNSINN DAS IST DIE SEELE DER HANDLUNG*

Manfred Stahnke 1982
Fassung 2012
WAHNSINN, DAS IST DIE SEELE DER HANDLUNG
mit Texten von Edgar Allan Poe, arrangiert vom Komponisten
Fassung für Streichquartett (ad libitum mit Sprecher/in)
Libretto des ursprünglichen Musiktheaterwerks:

Vorspiel:
Die Schlange betrog mich die Schlange
die Schlange betrog mich und ich aß ich aß
die Schlange die Schlange betrog mich doch
Sphärenmusik I:
Oho dies ist eine Galanacht dies ist eine Galanacht
oho eine Galanacht Galanacht
in diesen einsamen Zeiten
eine Engelschar sitzt im Theater
um ein Spiel voller Hoffnungen und Ängste zu seh'n
und Wahnsinn und noch mehr Sünde und Horror
und Wahnsinn das ist die Seele der Handlung
Wahnsinn ist die Seele der Handlung
Wahnsinn die Seele
Wahnsinn
und das Quartett atmet die Musik der Sphären
und die Sängerin geschaffen nach Gottes Ebenbild murmelt unverständlich daher

Sphärenmusik II:
Oho dies ist eine Galanacht
Ehre sei Gott in der Höh'
eine Galanacht, Galanacht
und die Sängerin flattert hin hin und her auf Befehl eines riesigen formlosen Schattens Schattens
- hin hin hin und her -
der die Szenerie vor und zurückschiebt -
vor hin hin hin und her und zurück
eine Puppe die kommt und geht geht hin geht kommt geht geht und geht
Puppe kommt geht zurück vor hin
Puppe her hin hin her
Puppe geht
Puppe

Galamusik:
Ach ja dies ist eine Galanacht
und keine Sorge
das Narrendrama soll nicht vergessen werden
mit seiner Phantomjagd nach Immermehr
Immermehr
Immermehr
Immermehr
und die Narren kriegen's nicht
sie jagen im Kreis immer zum selben Punkt zurück zurück zurück rück rück
du bist das Alles für mich Schatz ja ja ja ja

du bist das Alles für mich Schatz
wonach meine Seele sich gesehnt
eine grüne Insel in der See Schatz
eine Quelle und ein Heiligtum
ganz umflochten mit Zauberfrüchten und Blumen
und alle Blumen waren mein mein mein meine Blumen meine Blumen

Knarrmusik:
oh Traum zu schön warst du zu dauern
- und alle alle Blumen waren mein meine Blumen -

stumm
meine Blumen

Herbstmusik:
Damals als ich ein Kind war
als die Sonne um mich rollte mit ihrem gold'nen Herbstton
damals
damals als ich ein Kind war
wurde aus einem Abgrund von Gut und Böse das Geheimnis herausgezogen
das mich weiter umklammert
aus der Wolke die für mich die Gestalt eines Dämons annahm
eines Dämons
oho dies ist eine Galanacht
eine Engelschar sitzt im Theater
um ein Spiel voller Hoffnungen zu sehn
bleib bleib Azrael.

Teufelssolo:
Lass deine Hand ein wenig bei mir - mehr mehr
mehr mehr

Wurmmusik:
Still psst
etwas kriecht heran
etwas
etwas schlängelt sich von draußen heran
etwas Blutrotes Azrael
etwas Kriechendes dringt ein
Fürst der dunklen Mächte
und
des Grabs
Erbarmen
lass
mich jetzt
nicht umkommen
meine Paradieshoffnung blüht

von außerhalb
etwas
Ungeziefer
von außerhalb
Beißwerkzeuge
und die Engel
heulen
Beißwerkzeuge

etwas
mich
es
mich
es frisst es
im Menschenblut
mich
auf
es
frisst frisst frisst
es frisst
Engel Engel
Az-
mich
ra-
auf
el
Beißwerkzeuge Ungeziefer frisst mich frisst mich
Engel Engel
Azrael
es frisst frisst frisst

über die zitternde Gestalt fiel der Vorhang
und die Engel im Theater nicken sich traurig zu und bestätigen
das Spiel heiße Menschenkind
aber der Held sei

Tusch:
Fresser Wurm Fresser Wurm

Sphärenmusik III:
Und das Quartett atmet die Musik der Sphäre

APPENDIX B
LIBRETTO OF *ORPHEUS KRISTALL*

Orpheus Kristall
Oper für Bühne und Peripherie
von Manfred Stahnke
Libretto: Simone Homem de Mello

Szene 1: Einbruch der Erinnerung

poème percussion
poème internet - Improvisation mit Worten (Entstehung von Worten...)

Bariton: dann übertöne ich sie
als du sie dich dann vollkommen überhören sahst...
du reichtest ihr die hand
und fandst das
was dazwischen lag
kalt
überlief es dich
während sich ihre haut wellte

Sopran 2: hol aus dem mund raus, was das auge zu verlieren droht.

Bar.: ich übertönte sie dort, wo sie sich nicht mehr blicken ließ.

Szene 2: Zerberus - zerborsten

Sopran 1 2 3 (als dreiköpfiger Zerberus): jetzt kommst du
du kommst jetzt

Bar.: so kommst du

S.3 (zartest, spaltet sich aus Zerberus): kommst du jetzt ... noch einen schritt

Bar.: scheinbar gefesselt
sahst du sie im kreis schwimmen

(Zerberus spaltet sich völlig auf):

S.2 (wie geträumt): tritt zurück

S.1 (härtest): bleib steh'n
S.2 der raum
den dein gang beschreibt
ist kaum zu beschreiten

S.3: wohin dich dein schatten führt
Bar.: wie ihre haut das wasser färbte
in wellen hörtest du sie kommen

S.3: zähl die schritte

S.1: deine schritte tragen dich nirgendwohin

S.2: der schatten nimmt deinen rückgang vorweg

S.3: zähle mit
mit diesen worten vermisst du den weg zurück

S.2: vermiss dich nicht

S.1: vermessen bist du
deine schritte selbst so träge
drücken sich ab nirgendwo

Bar.: an dieser stille fast erstickt

S.1: schau zurück: keine spur von dir

S.3: verweilt dein blick hier
verzählst du dich gleich
mach die augen zu

S.1: schau mich an

Bar.: aus dem wirbel
in dem du sie schwimmen sahst
hielt sie deinen mund fest

S.1: schau mich an
dann vergisst du gleich

Bar.: scheinbar gefesselt
als du sie dich dann vollkommen überhören sahst
und fandst das was dazwischen lag
kalt
überlief es dich

S.2: der quelle kommst du näher

Bar.: halbwegs nah
sahst du deine hände
nach ihrem halbkörper tasten

S.2: der quelle komm aber nicht näher

Bar.: eine handbreit

S.2: wagst du das

Bar.: fehlte bis dahin
wo ihr atem ausreichte
bis sie sich ausstreckte

S.2: verlierst du den faden

Bar.: scheinbar gefesselt
sahst du sie im kreis schwimmen

S.2: vergessen wirst du

Bar.: sie sog sich voll wasser

Szene 3: Verführung - Erfindung des O.

S. 1 2 3: komm gib mir deine augen
deine zunge
wie soll ich ohne sie seh'n
singen
schau mich an

S.1: du gehörst hierher
schau mich an
nicht bewegen
(als "Medusa", verführerisch:) warte doch einen augenblick

S.2 (als "Sibylle"): bleibst du steh'n
verirrst du dich
dein stillstand ist nicht zu orten

S.3 (aufgeregt): vergessen wirst du
dass ...

S.1: bloß nicht bewegen
warte doch

S.3: ...du jemals woanders warst
hast du gehört?

S.1 2 3 (wie zu Beginn: "verführerisch"): dann komm
gib mir deine augen
deine zunge

S.1: starrst du mich an
erstarrst du gleich
sobald ich dich mich sehen seh'
nicht bewegen

S.2: folgst du ihr
wird ihr weg gleich zu deinem irrweg
fünf finger hat die hand
S.3: nicht fern von dir das and're wasser
hinein sollst du tauchen
diese quelle ...
Bar.: das and're wasser
hinein sollst du tauchen
diese quelle...

S.1: tauch nicht
schau mich an

S.2: fünf finger hat deine hand

Bar. (erstmals wie selbständig seine hand betrachtend): meine hand

S.1 2 3: dann höre
spaltet sich dein blick
wird ...

Bar.: sie rufen
wieder und wieder
hatte ich sie nicht übertönt?

S.2 ... dein schritt die kluft kaum ...

Bar.: woher kommen schon wieder diese stimmen?

S.2: ... überbrücken

Bar.: hatte ich sie nicht übertönt?

S.1: bleib still
rühre keinen finger
handle nicht bevor dein augen...

S.3: zeig mir deine hand

Bar.: augenmerk

S.3: merk dir

Bar.: sie kommen immer näher
dann ...

S.3: schau dich nicht um, sonst ...

S.1: umsonst wendest du deinen blick ab

Bar.: abbild

S.3: bild' dir nicht ein, der weg wär'

S.1: während dein auge auf das zielt, was außer sicht

Bar.: sichtgrenze

S.3: grenzen siehst du keine, solange ...
S.1: so lange warte ich schon auf einen wink
Bar.: winkzeichen

S.3: zeichen von dir

Bar.: ich schrei' so laut ich kann

S.3: ich suche immer

Bar.: damit übertöne ich sie
dann ...
S.1.: wieder tasten deine ...

wieder und wieder tasten deine finger nach ...

Bar.: nachklang

S.3.: klang nur so, als hättest du vor ...

S.1: vorsicht
du könntest leicht außer atem

Bar.: atemlos

S.3: los beeil dich die zeit ist um

S.1: um ein haar verfehlt mich dein blick
so blind

Bar.: blindspiel

S.3.: spiel nicht so, als hättest du keine zunge mehr

S.1.: je mehr du dich entfernst
so still

Bar.: stillschweigt

S.1 2 3: dann

S.2: spaltet sich dein blick, wird dein schritt die kluft kaum überbrücken
dringt ihr dein blick unter die haut, klingst du bald durch ihre lippen nach

S.3: schweigend hättest du mich lieber

S.1.: lieber jetzt als später öffnest du den mund

Bar.: mundtot

S.3: tot stellst du dich

Szene 4: Zweite Erinnerung und Klage der Frauen

S.1 2 3 und Bar.: sie wuchs über deine augen hinaus
wie das, was dazwischen lag
durch ihre haut schimmerte
sahst du verschwimmen
hörtest dich
hauchen
ihr etwas ins ohr
von weitem
kommen
deine stimme reichte
an ihren lippen vorbei
bis du sie hörtest
bis du es aussprachst
während sich das wasser trübte

im halbschlaf hörtest du sie rufen

S.2: um das rauschen zu dämpfen, nicht zögern, sich blenden
denn der tod beginnt im auge
selbst aus der höhle rausgerissen, regt sich das auge, das dritte

Bar. (Textbruchstücke): ... dessen atem der andere...
... verschollen...

Trauer der S.1:

S.1: um mich von den andern zu unterscheiden, schau erstmal mein abbild an.
dann lässt du deine hand von einer andern frau führen.
um der rache zu entkommen, machst du dich möglichst unsichtbar.
dann darfst du um deinen kopf fürchten.

S.1: er sonderte sich

Bar.: ... zu vermuten: flucht ...

S.1: weder der hier, dessen atem noch im spiegel

Bar.: ... punkt alias der andre: er ...

S.1.: der andere vielleicht im spalt verscholl...

Bar.: verschollen nirgendwo ...

S.1 2 3: wo lag er

Bar.: zu vermuten ohne ...

S.1: dazwischen

Trauer der S.3:

sein fingerabdruck
überlebte ihn . über
all gestempelt: hier , spät
er und oft woanders . alles
trug seine handschrift
ich verfolgte die spur
bis ich . vergaß

w o i c h w a r
auch
im dunkeln war er immer
zu orten
seine hand
sie überlistete mich
auch
im dunkeln

***

(Bar. und S.2 ineinander verschränkt singend. Bar. liest auch einem Buch über Orpheus' und Eurydikes Schicksal vor. S.2 missversteht konstant und erzählt die Geschichte des blinden Sehers Teiresias, der durch Schlangentötung zur Frau, dann später wieder zum Mann wird:)

Bar.: es steht da

„ihr auf der spur, heimlich...“

„...schlang sich die natter um sie“

„sie übersah die schlange und...“

„trat auf sie“

„sie starb“

"später geschah..."

"als der mann zurück..."

"als der mann ihre augen an der schwelle sah ..."

"verschwand sie"

S.2: ...immer noch...

... unheimlich...

ich sehe sie noch vor mir, zwei schlangen...

... ich sehe die weibliche...

... ich schlag' sie tot ...

... und werd' zur frau...

... als „sie“ red' ich ...

... jahre später ...

... auf derselben stelle töte ich die männliche schlange und red' weiter als "er"...

***

S.1 2 3 ("Drei Göttinnen"): wenn du dich umsiehst nach dem rückweg, den ich dir einst zeigte, wirst du mich nicht mehr sehen

Trauer der S.2:

S.1 2 3 (S.2 sehr hervor): mir ist ein mann begegnet, der so war wie er. der hatte aber die stimme eines anderen, der pünktlich angekommen war. er flehte mich an, nie zu sterben. falls das trotzdem geschehen sollte, nahm er sich vor, meinen grabstein umzuschreiben. als es so weit war, war ihm mein name aber längst entfallen.

Szene 5: Scherben - Abdrücke, dritte Erinnerung

Bar.:

als ich sie übertönte
klaffte schon der riss
im boden
(losen wir um die sch
(erben? wir
weiter ziehen sich die kreise
(kreise ich immer noch
gefesselt
- seltener zufall (fall -
s sie doch noch sprechen
(rächen sie sich
an meiner stimme
(immer noch schweigen
eigenartige stille -
stillen sie mein blut?

nach der tat
mit zerschnittenem (kopf ab!)
finger ab
abdruck
(drücke ich ihr
zufällig die kehle zu?
fällig war ich schon...
war ich das mit so tauben fingern? da unter wasser hört sich das nicht mehr so an
anfällig
fällig bist du es?
es gab kein zurück
als ich sie übertönte, klaffte schon der riss im boden
bodenlos
losen wir um die scherben
erben wir weiter ziehen sich die kreise
kreise ich immer noch
gefesselt
seltener zufall
falls sie doch noch sprechen
rächen sie sich an meiner sti-
still still still
stillen sie mein blut
nach der tat
mit zerschnittenem kopf
ab
finger
ab
abdruck
abdrücke ich ihr zufällig
fällig
die kehle zu
zufällig
fällig war ich schon
war ich schon betäubt?
das schweigen die blinden nach der tat

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BIOGRAPHICAL SKETCH

In summer 2018 Navid Bargrizan received his Ph.D. in music (concentration: music history and literature, cognate area: composition, theory and technology) from the University of Florida. He received his M.A. and B.A. degrees in systematic musicology, historical musicology, art history, and composition, in 2012 and 2004, from University of Hamburg, Germany and Azad University Tehran, Iran. Bargrizan's articles, reviews, and interviews are published in *Systematische Musikwissenschaft: Popular Music Studies Today*, *Journal of the Society for American Music*, *Müzik Bilim Dergisi: Journal of Musicology*, *econtact! Online Journal for Electroacoustic Practices*, *SCI Newsletter*, and proceedings of conferences in Berlin and Istanbul. He has presented papers in several conferences, including Society for American Music, German Studies Association, Conference for Interdisciplinary Musicology, International Association of the Study of Popular Music, Canadian University Music Society, and chapter meetings of the American Musicological Society. Bargrizan's music is performed in venues such as New York City Electroacoustic Festival, Toronto Electroacoustic Symposium, Eastern Music Festival, Florida Contemporary Festival, Midwest Music Consortium, and conferences of the Society of Composers Inc. His research and music have brought him honors, including being chosen as a finalist in the 2016 American Prize for Composition Chamber Music Division, DAAD's Post-Doctoral Research Fellowship (declined), DAAD's Pre-Dissertation German Studies Scholarship, UF's Best of College of the Arts Creative Research Award, UF'a Graduate School Doctoral Dissertation Award and Doctoral Research Travel Award, as well as Tedder Family Fellowship of the Center for the Humanities and the Public Sphere at UF. During summer 2018, Bargrizan was the composer-in-residence of the Harn Museum of Art in Gainesville, Florida.