

JOAN LA BARBARA'S EARLY EXPLORATIONS OF THE VOICE

by

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Abstract

Experimental composer and performer Joan La Barbara treats the voice as a musical instrument. Through improvisation, she has developed an array of signature sounds, or extended vocal techniques, that extend the voice beyond traditional conceptions of Western classical singing. At times, her signature sounds are primal and unfamiliar, drawing upon extreme vocal registers and multiple simultaneous pitches.

In 2003, La Barbara released *Voice is the Original Instrument*, a two-part album that comprises a selection of her earliest works from 1974 – 1980. The compositions on this album reveal La Barbara's experimental approach to using the voice. *Voice Piece: One-Note Internal Resonance Investigation* explores the timbral palette within a single pitch. *Circular Song* plays with the necessity of a singer's breath by vocalizing, and therefore removing, all audible inhalations and exhalations. *Hear What I Feel* brings the sense of touch into an improvisatory composition and performance experience. In *October Music: Star Showers and Extraterrestrials*, La Barbara moves past experimentation and layers her different sounds into a cohesive piece of music.

This thesis is a study of La Barbara's treatment of the voice in these four early works. I will frame my discussion with theories of the acousmatic by Mladen Dolar and Brian Kane and will also draw comparisons with Helmut Lachnemann's *musique concrète instrumentale* works. In doing so, I will chart La Barbara's experimentation and use of the voice in its original function. Specifically, the voice as the first means expression, not requiring text or traditionally musical elements, but as an communicative wordless instrument.

Preface

This thesis is original, unpublished, and independent work by the author, Samara Ripley.

Table of Contents

Abstract.....	ii
Preface.....	iii
Table of Contents.....	iv
List of Figures.....	vi
Acknowledgements.....	vii
Dedication.....	viii
Chapter 1: Introduction.....	1
Background and Training.....	3
Improvisation, Collaboration, and Performance.....	5
John Cage.....	8
Cathy Berberian.....	12
Chapter 2: Theoretical Approaches.....	14
Signature Sounds.....	15
Compositional Process.....	16
<i>Voice is the Original Instrument</i>	18
The Acousmatic.....	20
The Model Voice.....	32
<i>Musique Concrète Instrumentale</i>	34
Chapter 3: <i>Voice Piece: One-Note Internal Resonance Investigation</i>	38
<i>Topos, Logos, and Echos</i>	39
Multiphonic Split.....	46
Chapter 4: Circular Song.....	53
Score and Form.....	53
Interior Sound.....	56
(Dis)embodiment.....	59
Chapter 5: <i>Hear What I Feel</i>	66
Aleatoric Music.....	67
Preverbal Communication.....	71
Body-Based Composition.....	76

Chapter 6: <i>October Music: Star Showers and Extraterrestrials</i>.....	84
Technology.....	85
Conversations.....	88
Sonic Continuum.....	95
 Chapter 7: Conclusion.....	 103
 Bibliography.....	 105
 Appendix I: Compositions Written for Joan La Barbara.....	 110
 Appendix II: Joan La Barbara's Compositions.....	 112

List of Figures

Figure 1.1: Cage’s “Solo for Voice 45” from <i>Song Books</i>	10
Figure 2.1: La Barbara’s signature sounds.....	15
Figure 3.1: <i>Voice Piece</i> score sample.....	41
Figure 3.2: Scott McCoy’s descriptions of vocal resonance.....	43
Figure 3.3: <i>Voice Piece</i> listening analysis 0’00” – 0’10”	44
Figure 3.4: <i>Voice Piece</i> listening analysis 0’11” – 0’37”	44
Figure 3.5: Standard voice types and ranges.....	46
Figure 3.6: Harmonics in the final two minutes of <i>Voice Piece</i>	50
Figure 4.1: <i>Circular Song</i> graphic score.....	54
Figure 4.2: Descending glissando.....	54
Figure 4.3: Placement of breath change.....	54
Figure 4.4: Brief slip in circular singing.....	64
Figure 5.1: <i>Hear What I Feel</i> sounds.....	70
Figure 6.1: Chronological analysis of <i>October Music</i>	89
Figure 6.2: Sound continuum.....	97
Figure 6.3: Familiar – Unfamiliar trajectory.....	100

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To Helen, who showed me that singing is an experiment and all sounds can be beautiful.

As I think of my life as an experiment, I shall continue to explore new situations and hopefully be surprised and delighted by unpredictable results.

– Joan La Barbara, 2015.

Chapter 1: Introduction

American composer and performer Joan La Barbara (b. 1948) has dedicated her career to expanding the possibilities of using the voice in musical performance. She was a pioneer in experimental vocal music, cultivating a wealth of new vocal techniques. These innovations have changed the ways in which composers write for the voice as well as the ways in which audiences experience the voice. *Voice is the Original Instrument* (2003) is an album that documents La Barbara's earliest explorations of experimental vocal sound production. It encompasses a selection of works from the early 1970s through 1980s, at which time La Barbara was developing her array of now signature sounds. Some of these pieces, such as *Hear What I Feel* and *Voice Piece: One Note Internal Resonance Exploration* comprise La Barbara's initial, improvisatory discoveries of a technique or sound. Many, if not all, of these works stray from, or even entirely challenge, conceptions of traditional singing; at times they can be difficult to understand, place, and even listen to.

This thesis is a study of La Barbara's treatment of the voice in four contrasting works from *Voice is the Original Instrument*. Indeed, the title of this album makes a statement, with two related implications: the voice is an instrument and the voice is the most basic instrument. La Barbara has a clear interest in engaging with the voice at its most fundamental level. In the album's liner notes she writes:

Voice is the Original Instrument was both a statement of purpose and a manifesto as, through various experiments and explorations, I tried to rediscover the basic function of the voice as the first means of expression as well as to release untapped sonic material.¹

In addition to emphasizing La Barbara's intent to push the boundaries of the voice, this quote calls to mind Jean Jacques Rousseau's theories of musical and linguistic origins.² La Barbara articulates her desire to return to an "original" use of the voice, specifically as means of communication or expression through wordless vocal sound. In *Essai sur l'origine des langues*, Rousseau emphasizes these exact concepts. He suggests that language developed from a need to communicate sentiments. There are two ways in which this communication originally occurred – through gesture and through voice.³ Of the two methods of pre-linguistic communication, Rousseau argues the voice is more effective than gesticulation for arousing emotions; the voice expresses matters of the heart:

Pantomime alone, without discourse, will leave you almost unperturbed; discourse without gesture will wrestle tears from you. The passions have their gestures, but they also have their accents, which make us tremble, these accents, from which we cannot shield our organs, penetrate by it to the bottom of the heart, and in spite of us carry to it the movements that wrest them, and make us feel what we hear. Let us conclude that visible signs convey a more precise imitation, but that interest is aroused more effectively by sounds.⁴

¹ Joan La Barbara, *Voice is the Original Instrument*, recorded 1975–1980, Lovely Music LCD 3003, 2003, compact disc, album notes.

² See Downing A. Thomas, *Music and the Origins of Language: Theories from the French Enlightenment* (Cambridge: Cambridge University Press, 1995), 83. Thomas highlights the significance of Rousseau's *Essai*, explaining that it "remains one of the most developed, if the most difficult (and no doubt the most commented upon) of all eighteenth-century essays concerning the origin of language and music."

³ Jean Jaques Rousseau, "Essay on the Origin of Languages," in *Essay on the Origins of Language and Writings Related to Music*, trans. John T. Scott (Hanover: Dartmouth College Press, 2000), 289 – 290.

⁴ Rousseau, "Essay on the Origin of Languages," 292.

Furthermore, the title *Voice is the Original Instrument* touches on the importance of the vocal instrument within the history and origins of music. La Barbara explains that she chose the title in part because she feels singers are often thought of as inferior to instrumentalists:

It [the title] comes I suppose from having studied as a classical singer and from being regarded by musicians as not being a musician... You know musicians refer to each other as musicians, and singers are referred to as singers.⁵

La Barbara challenges this treatment of singers by expanding the possibilities for using the voice, exploring its capacities as an instrument that may have predated other musical instruments.⁶ As La Barbara explains: “I believe that the voice is an instrument, and that actually many if not all instruments were created in imitation of the voice.”⁷

This chapter will provide context for my discussion of La Barbara’s treatment of the voice. I will give an overview of her training and early improvisatory explorations of vocal techniques. Following, I will discuss La Barbara’s collaboration with other composers and her performances of their works. In addition, I will talk about the influence of John Cage and Cathy Berberian, whose experimental aesthetics paved the way for La Barbara’s dedication to uncovering new ways of using the voice.

Background and Training

⁵ Walter Zimmerman, *Desert Plants: Conversations with 23 American Musicians* (Vancouver: Walter Zimmerman and A.R.C. Publications, 1976), 151.

⁶ See Bruno Nettl, “In the Beginning: On the Origins of Music,” in *The Study of Ethnomusicology: Thirty-One Issues and Concepts* (Chicago: University of Illinois Press, 2005): 259 – 271. The origins of vocal and instrumental music has been a topic of debate, particularly in the field of ethnomusicology. S

⁷ Zimmerman, *Desert Plants*, 151.

In a recent radio interview, La Barbara explains that singing has been an important part of her life from a very young age. She states: “I always sang; I never remember a time when I wasn’t singing.”⁸ Throughout her childhood, La Barbara performed in children’s choirs and church choirs as well as studied piano.⁹ She entered Syracuse University in 1965 as a double major, studying creative writing as well as voice with soprano Helen Boatwright. During her early post-secondary education, La Barbara learned and performed standard works from the art song and opera repertoire. In the summers, she attended the Tanglewood Berkshire Music Center and studied with soprano Phyllis Curtin, who introduced La Barbara to contemporary vocal music. At the time, this meant works by Aaron Copland, Samuel Barber, Benjamin Britten, Gian Carlo Menotti, and Igor Stravinsky, a far cry from the avant-garde sound world La Barbara would soon devote herself to.

In 1968, La Barbara transferred to NYU to complete her junior and senior years of study. She took lessons with Hungarian contralto Marion Szekely Freschl, who encouraged La Barbara’s increasing desire to sing new music. In particular, Freschl believed it was important for singers to befriend composers and teach them how to write for the voice; Freschl herself had been close friends with Béla Bartók. By the time La Barbara graduated in 1970, she describes herself as “disenchanted with the opera world,” disliking the tradition of repeatedly learning and

⁸ Joan La Barbara, “Fireside Chats: Joan La Barbara Interview,” *Red Bull Music Academy Radio*, 1:10, April 2016, accessed with permission of the composer, <https://rbmaradio.wetransfer.com/downloads/9215d25f931f4d419461a88825f3f3f20160622021223/cb7be6>

⁹ Linda Ann Brown, “The Beautiful in Strangeness: The Extended Vocal Techniques of Joan La Barbara (PhD Diss., University of Florida, 2002), 22.

performing the same roles. She writes, “I walked away from the traditional singing world at that moment and never turned back.”¹⁰

Improvisation, Collaboration, and Performance

Free of the classical tradition and eager to kickstart her career, La Barbara began her lifelong exploration of the potentials of vocal sound. She lived in New York City and immersed herself in the growing new music scene. Improvisation and imitation, both individual and collaborative, were key to her process of sound discovery. While improvising, La Barbara strives to let the voice be completely unmediated by thought and self-direction. As she explains, “I try to learn things from my voice. You know, instead of trying to direct the voice I try to let the voice direct me.”¹¹ La Barbara discovered how to create a multiphonic split, for example, by freely vocalizing while listening to a poem. She discovered her voice could create this sound through improvisation and then later taught herself how to produce it on demand.¹²

Once a week, La Barbara would meet with a group of jazz musicians, performers, and composers of new music for improvisation sessions. The post-improv analysis of the music created during these sessions became an imperative part of La Barbara’s process of sound exploration. As she explains:

Anthony Braxton, Frederic Rzewski, Garret List, Steve Lacy, I, and various others would play for hours. On the evenings Rzewski was there, he would insist on having a

¹⁰ Joan La Barbara, “Voice is the Original Instrument,” *Contemporary Music Review* 21, no.1 (2002): 36.

¹¹ Zimmerman, *Desert Plants*, 153.

¹² Ibid., 152 – 153.

discussion afterwards, analyzing what we had done and why. Although I found it annoying at the time, it became as much a part of improvising as the making of sound.¹³

The addition of analysis to La Barbara's improvisations extends the process of improvising. The entry on improvisation in Grove Music Online focuses on its extemporaneous nature as well as the challenge of researching improvisatory works. In fact, Bruno Nettl refers to improvisation as "one of the subjects least amenable to historical research."¹⁴ The evanescent nature of improvisation, in which each performance is different, challenges the notion of the concrete musical work, which can be notated, preserved in a score, and repeated in future performances. Interestingly, by adding an analysis component to her improvisatory exploration of the voice, La Barbara engages in a research-like process. She makes her improvisatory vocalizations more concrete and available for future use.

Much of La Barbara's improvisation-analysis method focused on imitating instruments. Instrumentalists at this time were expanding the sonic boundaries of their instruments,¹⁵ something La Barbara aimed to do with the voice. She worked to imitate specific timbres of individual instruments and over time, crafted the ability to mimic bongo drums, the marimba, a Japanese koto and arumba, the harp, and the trumpet, to name a few. In addition, La Barbara worked to vocally produce natural and mechanical-sounding noises from real-world contexts. For example, her *Les Oiseaux qui chantent dans ma tête* (1976) is a nineteen-minute long piece

¹³ La Barbara, "Voice is the Original Instrument," 37.

¹⁴ Bruno Nettl, et al, "Improvisation." *Grove Music Online, Oxford Music Online*, Oxford University Press, accessed July 10, 2016.

¹⁵ A few examples of composers and works with extended instrumental techniques are: Henry Cowell's string (plucked) piano in *Aeolian Harp* (1923) John Cage's prepared piano in *Bacchanale* (1938) and Luciano Berio's *Sequenza I – XIV* (1958 –2004).

for solo voice comprising vocal ululations that sound like bird calls. Similarly, *Urban Tropics* (1988) a work that La Barbara refers to as a “sound painting,” was inspired by Miami’s landscape and uses voice, percussion, and tape to depict the Latin culture and tropical animals.¹⁶

Taking Freschl’s advice, La Barbara began to collaborate with young composers, teaching them about the possibilities, and limitations, of vocal sound. She worked closely with Steve Reich between 1971 and 1974, singing percussion parts for recordings and tours of *Drumming* (1970). La Barbara also improvised and performed with the Philip Glass Ensemble from 1971 to 1976, performing works such as *Music in 12 Parts* (1971–1974), *Another Look at Harmony* (1975), and *North Star* (1977). She was in the French premiere of Glass’ acclaimed opera *Einstein on the Beach* in July of 1976, but left the group almost immediately afterwards to pursue solo performance and composition.¹⁷ La Barbara taught Glass about vocal tessitura, range, and how to write in ways that help singers avoid fatigue. Moreover, she introduced both Glass and Reich to the technique of vocal timbral adjustment, in which singers adjust their resonance to match the timbre of any instrument, allowing composers to write for the voice in a new way – as an instrument.¹⁸

The combination of La Barbara’s dedication to new music and her interest in teaching others how to idiomatically write for the voice led many composers to create works for her.¹⁹

¹⁶ La Barbara, “Fireside Chats: Interview with Joan La Barbara,” 26:20.

¹⁷ David Allen Chapman, “Collaboration, Presence, and Community: The Philip Glass Ensemble in Downtown New York 1966–1976,” (PhD Diss., Washington University in St. Louis, 2013), 215–216.

¹⁸ Carmen Caruso, “Roots: A Study of the Female Voice,” (MA Thesis, Dartmouth College, 2008), 61; and Chapman, “Collaboration, Presence, and Community,” 211–215.

¹⁹ See Appendix I for a list the pieces written for La Barbara.

Many, if not all, of these works have made use of La Barbara's unique abilities or her experimental attitude towards the voice and sound. Alvin Lucier's *Still and Moving Lines of Silence in Families of Hyperbolas* (1974), for example, experiments with the acoustics of beating using the voice and electronics. Lucier played four different sine tones from pure oscillators and La Barbara would at first sing closely in tune with each pitch and then gradually beat against the pitches by slightly lowering or raising her sung tone.²⁰

Even after she started to write her own music, La Barbara remained committed to performing works by other composers, particularly in times when she was lacking in compositional inspiration. As she explains, "during a period of my life when I've been in a dry spell compositionally, I have gone to a composer and said, 'why don't you write me a piece?'"²¹ Morton Feldman's *Three Voices* (1982), a ninety-minute long work for two recorded voices and one live singer, and John Cage's *Eight Whiskus* (1984), a mesostic setting of a text by Chriss Mann for solo voice, resulted from such instances.

John Cage

The composer whom La Barbara perhaps worked most closely with was Cage. They met in 1972 at a Berlin Philharmonie concert where Cage's *HPSCHD* (1969) was being performed. Their first exchange was not exactly amicable; La Barbara recalls expressing her outrage to Cage over the "cacophony" of his work, which she felt was only adding noise to an already chaotic world. Cage's response to her frustration was, in typical fashion, calm and philosophical. La Barbara describes the encounter as follows:

²⁰ Zimmerman, *Desert Plants*, 152–3, and La Barbara, "Voice is the Original Instrument," 39.

²¹ Caruso, "Roots: A Study of the Female Voice," 66.

I felt a tap on my shoulder and turned to see John smiling beatifically. [He said] ‘Perhaps when you go back out into the world, it won’t seem so chaotic.’ I was charmed and astonished that he had sought me out in the melee and produced a reasoned, thoughtful answer to my question. It changed my mind about him and about music.²²

Cage and La Barbara grew to be close friends, and he regarded her as an exceptional performer. On the back cover of her 1977 album *Tapesongs*, La Barbara includes one of Cage’s acrostic poems (the capitalized letters spell “Joan La Barbara”) in which he praises her voice and musicianship:

Just astOnished (thAt’s what you are to begiN with): then you reaLize she’s A great musician: singer, But singer who chAnGes (who’s that?) and changes you (youR mind aBout music) And she does it in many diffeRent ways (plurabelle).²³

The first of Cage’s works that La Barbara performed was “Solo for Voice 45” from *Song Books* (1970), a collection of eighty-nine pieces for solo voice, published in three volumes. Many of the pieces in *Song Books* employ nontraditional forms of notation, such as graphic or instruction scores. Moreover, they are most often aleatoric, requiring the performer to make compositional choices. In the case of “Solo for Voice 45,” the singer is asked to sing the pitches of the given aggregates in any order and as rapidly as possible (see Figure 1.1).²⁴

It took La Barbara more than six months to learn the piece, selecting her desired pitches and clefs, notating them, and learning to sing them as quickly as possible. When La Barbara phoned Cage to tell him she was ready to perform the piece, he responded, “It was beautiful, but it wasn’t fast enough.” Disappointed, La Barbara approached Cage’s right-hand man David

²² La Barbara, “Voice is the Original Instrument, 38.”

²³ John Cage, quoted in Joan La Barbara, *Tapesongs*, recorded November 1977, Chiaroscuro Records CR 196, LP, 1977, album notes.

²⁴ John Cage, “Solo for Voice 45,” *Song Books* (New York: Henmar Press, 1970), 144.

Tudor for advice. After hearing La Barbara's complaints about Cage's lack of clarity, Tudor showed her that the directions were clearly in the score and she needed to take them more literally. She refers to the experience of learning "Solo for Voice 45" as a lesson in interpreting a composer's score, explaining that Cage always returned to the printed instructions and made sure the answers were there.²⁵ With aleatoric works like "Solo for Voice 45," La Barbara feels it is particularly important to be faithful to the composer's intentions, as the composer's openness is still be very specific. Each time she performs a Cage piece, La Barbara returns to his instructions to ensure her interpretation is as true to Cage's written intention as possible.²⁶

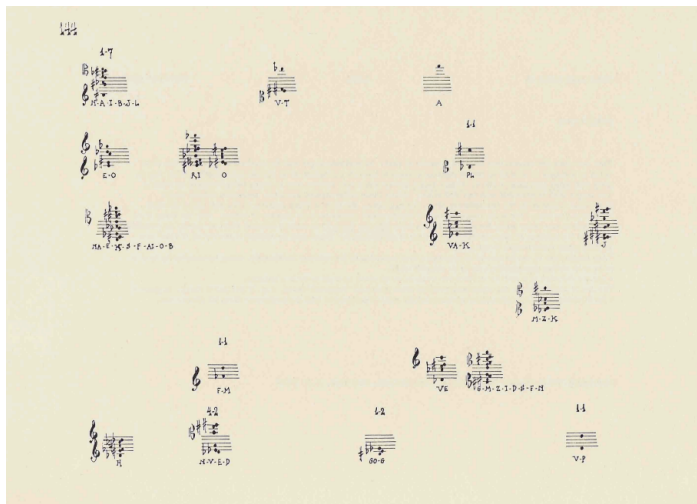


Figure 1.1: Cage's "Solo for Voice 45" from *Song Books*

Cage's philosophy towards sound has been a significant compositional influence for La Barbara; she adopted his open-mindedness to treating all sounds (even silence) musically. As Cage states:

²⁵ La Barbara, "Voice is the Original Instrument," 39.

²⁶ Caruso, "Roots: A Study of the Female Voice," 67.

I imagine that as contemporary music goes on changing in the way that I am changing it what will be done is to more and more completely liberate sounds from abstract ideas about them and more and more exactly to let them be physically uniquely themselves. This means for me: knowing more and more not what I think a sound is but what it actually is in all of its acoustical details and letting this sound exist, itself, changing in a changing sonorous environment.²⁷

In addition, La Barbara speaks of what she refers to as Cage's "element of surprise" as a tactic she embraces in her own works. La Barbara explains this as, "the idea that you try to say *yes* because you never know when you're going to discover something incredible... I put elements [layers of sound] together to see if something magical happens."²⁸ As this quote reveals, Cage's experimental aesthetic encouraged La Barbara's commitment to discovering new sounds as well as new combinations of sounds.

La Barbara's dedication to Cage is evident in her performance and promotion of his music. In 1990, for example, she released *Singing Through*, a collection of his vocal works. The album includes three pieces from *Song Books*, *Eight Whiskus*, as well as *The Wonderful Window of Eighteen-Springs*, a hauntingly beautiful work for solo voice and closed-lid piano. The power of the *Wonderful Widow* lies in its simplicity; the vocal part comprises only three pitches, creating a meditative sound and the piano part is tapped on the closed lid, sounding like gentle drumming. La Barbara also created and directed a Carnegie Hall radio series titled *When Morty Met John*, inspired by the initial meeting of Morton Feldman and John Cage, which occurred at a 1950 Anton Webern concert at Carnegie Hall. The series not only celebrated the music of Feldman and Cage, but also works by their colleagues, such as Tudor, Earle Brown, and

²⁷ Quoted in Michael Nyman, *Experimental Music: Cage and Beyond* (Cambridge: Cambridge University Press, 1999), 60.

²⁸ Caruso, "Roots: A Study of the Female Voice," 68.

Christian Wolff, all of whom played critical roles in the development of experimental music as members of the New York School.

Cathy Berberian

When La Barbara entered the world of new music in the 1970s, she was one of the earliest of explorers of new vocal sounds. Music critic Kenneth Goldsmith's review of *Voice is the Original Instrument* highlights the novelty of her treatment of the voice at this time:

The first CD, *Explorations*, is astonishing in the amount of new vocabulary that La Barbara adds to the field of vocalization. The disc makes one realize that by 1974, innovative vocal work was still an emerging field, with La Barbara as its lead practitioner. What distinguishes her from her precedents – Cathy Berberian comes to mind – is La Barbara's hands-on exploration of sound.²⁹

Mezzo-soprano Cathy Berberian was an active performer and proponent of new vocal music. She premiered Cage's *Aria with Fontana Mix* (1958) as well as works written specifically for her by Luciano Berio, her husband from 1950 until 1964. These works include *Thema (Omaggio a Joyce)* (1958), *Circles* (1960), *Visage* (1961), and *Sequenza III* (1965). La Barbara praises the artistic collaboration between Berio and Berberian, specifically highlighting Berberian's "courage" to incorporate unconventional sounds in vocal composition. She states: "you had Berio's composerly attitude and then you had Berberian's expertise as a singer, but also her courage to use natural sounds: laughing, gasping, coughing, baby talk, sort of things."³⁰

Berberian was also a composer and used vocal extensions in her pieces. *Stripsody* (1966), for example, is a work for solo voice that plays with the onomatopoeic nature of comic book sounds;

²⁹ La Barbara, *Voice is the Original Instrument*, album notes.

³⁰ La Barbara, "Fireside Chats," 7:40.

the graphic score contains cartoon images of characters such as Tarzan and words often spoken by comic book characters, such as “grr” or “meow, which the singer freely vocalizes.”³¹

As Goldsmith notes, Berberian’s commitment to performing and creating new vocal music in many ways aligns her with La Barbara. Both women dedicated their lives to discovering, codifying, and sharing new ways of using the voice. La Barbara recognizes Berberian’s influence, explaining that she “opened up the territory to considering sounds that we would have thought were too private to make – to say, ok, these can also be considered music. They can be part of the fabric we draw on.”³² La Barbara certainly continued Berberian’s efforts to bring new sounds to vocal composition, developing over time her own array of signature sounds and techniques such as multiphonic singing, overtone singing, vocal fry, and ululation, to name a few. In the following chapter, I will give an overview of these sounds and techniques and will also discuss the ways in which they are used in La Barbara’s compositions.

³¹ Rebecca Y. Kim, “Biography,” *Cathy Berberian Website*, www.cathyberberian.com/biography

³² Pamela Karatonis, et al. *Cathy Berberian: Pioneer of Contemporary Vocality* (Surrey: Ashgate Publishing, Ltd., 2014), 196-197.

Chapter 2: Theoretical Approaches

La Barbara's approach to writing for the voice is experimental; very few of the works from *Voice is the Original Instrument* resemble what is thought of as traditional singing. La Barbara values rawness over beauty and the use of new sounds, and new combinations of sounds, over classical-style singing. Through improvisation, imitation, and analysis, she has developed an entire repertory of signature vocal sounds. Kenneth Goldsmith likens La Barbara's process of discovery to research. She brought ground-breaking innovations to the realm of vocal writing, something that is important to remember today, when extended vocal techniques are more commonplace.³³

There are a few different ways in which La Barbara categorizes or thinks of her sounds. At times, she classifies them by what instruments they might resemble and the function of those instruments. For example, she has vocal techniques that emulate brass, wood-wind, or percussion instruments.³⁴ A second way in which La Barbara arranges her sounds and techniques is along a continuum, with "pure" and "raw," standing at opposite poles. The term "pure" denotes the cleanest expression of a sound, while "raw" denotes the most visceral expression of a sound. As La Barbara explains, a single vocal utterance can travel along the continuum, encompassing a range of possible expressions and connotations:

You can start an inhaled tone with pure pitch, and then, by increasing the degree of breath, it can become like a sound on the wind. Then you can make the inhalation more

³³ Kenneth Goldsmith, *Voice is the Original Instrument*, recorded 1975–1980, Lovely Music LCD 3003, 2003, compact disc, album notes.

³⁴ Caruso, "Roots: A Study of the Female Voice," 59–60.

extreme, so that there's a sense of struggle, anxiety, or gasping – all the way to a death rattle.³⁵

Before moving to discussions of La Barbara's compositional process and works from *Voice is the Original Instrument*, I will give a concise overview of the vocal sounds and techniques that she has developed (see Figure 2.1). The overview will be a point of reference for my analyses of her works in later chapters.³⁶

Signature Sounds

Pure Tone	Singing without any vibrato, reminiscent of a sine tone
Ululation	Rapid and rhythmically consistent interruption of a basic vocal sound, created through aspiration of glottal stops.
Two-Pitch Ululation	Rapid alternation between two different pitches, typically within the intervallic range of a third to a fifth. The speed required to make the two pitches sound nearly simultaneous is vocally taxing and the singer has limited control over the volume of the sound, which is typically quite loud.
Tongue Snap	Non-pitched clicks created by the tongue compressing air in different areas of the mouth.
Multiphonic Singing	The technique of singing two or more pitches at the same time.
Simple Multiphonics	A form of multiphonic singing in which the octave below the fundamental tone is sounded. It is reminiscent of Tibetan throat singing.
Complex Multiphonics	A cluster of multiple pitches sounding simultaneously, often encompassing vocal fry in addition to sung tones.

³⁵ Caruso, "Roots: A Study of the Female Voice," 60.

³⁶ The terms and explanations of the sounds are adapted from the following sources: a written guide accompanying an audio lexicon of extended vocal techniques. Deborah Kavasch, "An Introduction to Extended Vocal Techniques: Some Compositional Aspects and Performance Problems," *Reports from the Center, Center for Music Experiment at the University of California, San Diego* 1/2 (1980), <http://www.ex-tempore.org/kavash/kavash.htm#1>; and Brown, "The Beautiful in Strangeness," 22–51.

Vocal Fry	Dry, click-like utterances produced with inhalation or exhalation. Depending on the frequency of the utterances, vocal fry can be pitched or non-pitched.
Harmonics	The amplification of overtones created by singing without vibrato and changing the tongue and lip placement to filter out the fundamental pitch and bring attention to one or more of the harmonic overtones.
Circular Breathing	Pitched or sung inhalations and exhalations, creating a constant sound, free of breath interruptions.

Figure 2.1: Vocal sounds and techniques used by Joan La Barbara

Compositional Process

Each of La Barbara's works begins with a concept, often inspired by improvisation or engagement with texts, images, or movement. For example, the creation of *Erin* (1980), written for live voice and multi-track tape, was prompted by a newspaper photograph of a man carrying his son who died during a hunger strike in Ireland. This powerful image is sonically depicted through short vocal blips similar to cries and a sustained multiphonic dirge at the close of the piece. She considers this work to be a "sound painting" and describes her compositional process in terms of visually shaping the sound. As La Barbara explains, "I think of myself as a painter I really feel like I'm *painting* with the voice – whether I need a thick *line*, a sharp *color*, or a denseness in texture."³⁷ Engaging both the visual and auditory senses is important to her creative process.

In addition, La Barbara discusses the importance of using words and writing in the early stages of composing. Texts are "the genesis" of many of her works.³⁸ La Barbara often uses

³⁷ Caruso, "Roots: A Study of the Female Voice," 63.

³⁸ Ibid., 58–59.

stream-of-consciousness style writing to gather all of her thoughts on an initial subject or idea for a piece of music. Following the free-form writing period, she chooses the words that stand out to her and that inspire musical ideas. Interestingly, the majority of La Barbara's works are textless or intentionally obfuscate text by phonetically breaking apart words or masking them with electronic manipulations or layering. She explains:

In a lot of my work, especially in the early years, I stayed away from text because I wanted to explore the meaningfulness of the vocal sound itself. When I did use words, I think I was influenced somewhat by my work with John Cage, who used words, but was not interested in the meaning of the words.³⁹

While the use of text is a pertinent aspect of La Barbara's compositional process, many of her earliest works achieve musical expression through sound alone.

In particular, La Barbara has an affinity for what she refers to as "impossible sounds," or vocalizations that play with the listener's expectations of human ability to produce sound.⁴⁰ She speaks of the impossible nature of *Shimmer* (2008) for voice and chamber ensemble, in which the voice is electronically manipulated to remove the exhalation of breath, a sort of electronic circular breathing. Therefore, the audience hears consistent inhalations, but no exhalations, creating an effect designed to get a nervous reaction from the audience.⁴¹ This technique may cause unease because it breaks apart a familiar, life-sustaining process (see Chapter Four for a more in-depth discussion of this phenomenon). La Barbara's "impossible sounds" appear throughout the works that I will discuss in the remainder of this thesis. The next section will

³⁹ Joan La Barbara, "Fireside Chats," 45:35.

⁴⁰ Caruso, "Roots: A Study of the Female Voice," 61–62.

⁴¹ Ibid.

briefly introduce the *Voice is the Original Instrument* album as well as provide a short overview of each of the four works.

Voice is the Original Instrument

La Barbara's 2003 album *Voice is the Original Instrument* comprises many of her earliest compositions. *Voice Piece: One-Note Internal Resonance Investigation* (1974), for example, was the first piece that La Barbara wrote. My study of La Barbara's treatment of the voice focuses on early works composed between 1974 and 1980. The pieces I will discuss – *Voice Piece*, *Circular Song* (1976), *Hear What I Feel* (1976), and *October Music: Star Showers and Extraterrestrials* (1980) – reveal La Barbara's experimental approach to creating sound. As noted, there is little use of traditional modes of vocal production or traditional performance situations. La Barbara instead pushes the voice to the extreme of its capacities.

The album is divided into two sections, titled "Explorations" and "The Music." La Barbara considers the former to be a series of études of her signature sounds, developed in the 1970s through improvisations. In contrast, she thinks of the works in the latter section as complete compositions, in which these vocal techniques are incorporated into what she calls sound paintings or sound dances. Three of the pieces I will discuss, namely, *Voice Piece*, *Circular Song*, and *Hear What I Feel*, are from the "Explorations" section and one piece, *October Music*, is from the "The Music."

Each of the four works I am studying has a different concept, all of which are rooted in bodily manipulations of, and physical relationships with, the voice. *Voice Piece*, for example, is an exploration of the sonic potential of a single pitch. La Barbara sings the pitch for various

durations, changing the resonance placement with nearly every iteration. The resonance placements range from forward in the nasal passages or the front of the mouth, to further back into the soft palette, throat, and chest as well as in the forehead and bridge of nose. The piece explores the results of altering the physical placement of a sound, revealing the multitude of timbres within a single pitch.

Circular Song, on the other hand, plays with the potential to change sound through breath. It was inspired by the circular breathing technique of horn players, in which inhalation through the nose occurs while playing, creating the effect of a continuous phrase. La Barbara mimics this technique with her voice, by simultaneously lengthening and vocalizing her inhalations and exhalations. She sings a series of ascending and descending glissandos, changing the direction of the vocal slide according to the placement of each inhale and exhale. In doing so, La Barbara creates one of her “impossible effects,” removing the breath which, in traditional singing, typically marks a break between phrases.

Perhaps the most experimental and untraditional of the four works in this study is *Hear What I Feel*. This piece is an improvisatory exploration of the connections between vocal sound and the body producing the sound. Referred to as a “sensory deprivation piece,” La Barbara experiments with letting the sense of touch be at the forefront of making compositional decisions.⁴² Prior to performance, she isolates herself in a silent room for one hour, blindfolded and touching as few surfaces as possible. Through this process, the auditory, visual, and to a certain extent, tactile, senses are as fully removed as possible. Following the isolation period, La Barbara is immediately led onstage, and remaining blindfolded, proceeds to touch six different

⁴² La Barbara, *Voice is the Original Instrument*, album notes.

substances in petri dishes. The object of the process is for La Barbara to give a vocal response, as immediately and with as little thought as possible. Her sense of touch, therefore, inspires a vocal result, producing the sonic content for *Hear What I Feel*.

October Music: Star Showers and Extraterrestrials, one of La Barbara's sound paintings, is inspired by the night sky above the California coastline. The work juxtaposes the natural and unnatural, specifically, the starry sky with otherworldly elements such as aliens and spaceships. It differs from the previous three pieces in that La Barbara incorporates electronic alterations of her voice, as well as her technique of electronically layering different vocal sounds. It is also considered to be a more complete composition than the other three pieces, combining the sounds and vocal techniques that La Barbara discovered during her explorations in the 1970s into a structured work. Indeed, there is a clear progression from beginning to end, perhaps best described as an overall movement from familiar, natural sounds to layers of unfamiliar sounds.

The Acousmatic

Voice studies is an active field in music scholarship today. Many universities across the United States currently have research groups devoted to interdisciplinary studies of the voice, bringing together fields such as musicology, ethnomusicology, linguistics, and engineering. These research groups include: UC Berkeley's VoxTAP (Voice in Theory, Art, and Practice); UCLA's Vocal Matters: Technologies of Self and the Materiality of Voice; the University of California's Multicampus Research Group's Keys to Voice Studies: Terminology, Methodology,

and Questions across Disciplines; NYU's Voice Consortium; and the University of Chicago's The Voice Project.⁴³

The research of the University of Chicago's The Voice Project has particular relevance to my examination of Joan La Barbara's treatment of the voice. Formed in 2014 by musicologists Martha Feldman and David Levin, The Voice Project explores the voice across various disciplines.⁴⁴ In November 2015, The Voice Project held a colloquy titled "Why Voice Now?" in which five scholars addressed the importance of voice studies today. Their contributions approach the voice from different angles. The voice is discussed as a singing voice, as something that belongs to composers and performers, as something that can push boundaries, and as something inextricably connected with the body. My discussion of La Barbara's treatment of the voice will engage with many of these topics, particularly, the notion of the voice as tied to the body.

The innovative nature of La Barbara's works call upon theoretical approaches to help understand her use of the voice. My analysis will be informed by theories of the acousmatic voice as discussed by Mladen Dolar and Brian Kane as well as Kane's notion of the model voice. In addition, I will draw connections between La Barbara's approach to creating new vocal sounds with that of other composers, particularly Helmut Lachenmann and his technique of *musique concrète instrumentale*. The remainder of this chapter provides an overview and explanation of my applications of these theories and approaches.

⁴³ Martha Feldman, "The Interstitial Voice: An Opening," in *Why Voice Now?*, *Journal of the American Musicological Society* 68/ 3 (2015): 657.

⁴⁴ "Project Goals," The Voice Project, Neubauer Collegium for Culture and Society, The University of Chicago, http://neubauercollegium.uchicago.edu/faculty/the_voice_project/project_goals/

One of the most intriguing aspects of the four works I am studying is the way in which La Barbara at times calls attention to voice as tied to the body and at other times emphasizes a separation of voice and body. Discussions of the acousmatic voice, specifically those of cultural theorist Mladen Dolar, place focus on tensions between voice and body.⁴⁵ More broadly, however, the acousmatic phenomenon deals with relationship between sounds and their sources – the body, or otherwise.

French electroacoustic composer Pierre Schaeffer developed the concept of the acousmatic. In 1966, he published his *Traité des objets musicaux*, in which he defines acousmatic as, “the noise we hear without seeing what causes it.”⁴⁶ The origin of the term is often explained with reference to Greek philosophy, drawing on the example of Pythagoras and his disciples, the *mathematikoi*, who could only hear their master’s voice from behind a curtain. This veiling of Pythagoras’ voice endowed it with a sense of mystery and power; there was, as Dolar puts it, a separation of “body from spirit,” or source from sound.⁴⁷ Another example of the acousmatic voice occurs in the film *The Wizard of Oz*. Upon arriving in the Emerald City, Dorothy and her friends are in awe of the almighty Wizard, who comes across as a booming voice, granting wishes from behind a curtain. The mystery created by the veiling of the Wizard is critical to his air of omnipotence. Upon removing the curtain, the Wizard is revealed to be an ordinary man, using technology to add grandeur to his voice and reputation. Dolar notes that

⁴⁵ Mladen Dolar, “The Physics of the Voice,” in *A Voice and Nothing More* (Cambridge: MIT Press, 2006), 58–81.

⁴⁶ Dolar, *A Voice and Nothing More*, 61.

⁴⁷ Ibid.

similar occasions of authoritative voices without bodies appear in religious rituals, associating a divine quality with the acousmatic voice.⁴⁸

Schaeffer's definition of the acousmatic aligns with his compositional technique of *musique concrète*, in which recorded sounds are taken from real-world contexts, such as car horns or train whistles, and electronically transformed into musical material. The original context of the sounds, therefore, is replaced by a musical context. In Schaeffer's mind, he was contributing to a broader move from the purely sonorous to the purely musical, or a "musicalizing" of sound.⁴⁹ As David Metzger writes,

Composers [such as Schaeffer] drew a new line, that between sound and 'musical sound.'... Sound remains isolated, set apart not only from music, but also from new versions of itself, the transformed noise. The realm of music, on the other hand, expands, taking in and controlling new materials.⁵⁰

Schaeffer's musical application of the acousmatic occurs through an intentional obfuscation of sounds from their original sources. In a similar vein, his experience of acousmatic listening can be articulated as hearing a sound that is distinct from its production and transmission, or, listening without the influence of seeing.⁵¹

Dolar applies Schaeffer's concept of the acousmatic specifically to the relationship between the voice and the body. He takes a Lacanian approach to identifying and defining what he refers to as the "object" voice, or, the slippery, ineffable voice that is unique from the voice's

⁴⁸ Dolar, *A Voice and Nothing More*, 62.

⁴⁹ David Metzger, *Musical Modernism at the Turn of the Twenty-First Century* (Cambridge: Cambridge University Press, 2009): 176.

⁵⁰ Metzger, *Musical Modernism*, 177.

⁵¹ Brian Kane, *Sound Unseen: Acousmatic Sound in Theory and Practice* (New York: Oxford University Press, 2014): 49.

typical roles as a communicator of meaning and as an aesthetic object.⁵² As Kane explains, Dolar approaches his search for the object voice through a series of separations and reductions, or, “by showing what it is not.” He separates the object voice from meaningful statements, from the sound it makes, and also from its source.⁵³ This separation of voice from source (body) sheds light on Dolar’s understanding of the acousmatic.

It is important to recognize the inextricable connections between voice, body, and language in Dolar’s understanding of the acousmatic. As noted, the voice is typically recognized as tied to the human body. For some, the voice is considered as the pinnacle of subjectivity; Jacques Derrida’s concept of phonocentrism, for example, argues that *s’entendre-parler* [hearing oneself speak] ultimately affirms the speaker’s presence.⁵⁴ Furthermore, because of its ability to carry out communication, the voice becomes a crucial link between the subject to which it is tied and the outside world. Dolar also describes the absolute necessity of the voice in bringing together body and language:

It is precisely the voice that holds bodies and languages together. It is like their missing link, what they have in common. Language is attached to the body through the voice, as if the voice were to fulfill the function of the pineal gland in a new Cartesian division of substances.⁵⁵

The voice, therefore, is something familiar to everyone because it is intimately tied to body and self and also fulfills the human need for communication. Because of this familiarity, feelings of unease may arise when a listener experiences a voice that appears to be disembodied.

⁵² Dolar, *A Voice and Nothing More*, 4.

⁵³ Kane, *Sound Unseen*, 208.

⁵⁴ Jacques Derrida, quoted in Kane, *Sound Unseen*, 206–208.

⁵⁵ Dolar, *A Voice and Nothing More*, 60.

Indeed, there is something uncanny about hearing voices that do not seem to match or belong to the place from which they emanate. According to Dolar, these experiences reveal the pitfalls of the assumed union of voice with body. Often times, he explains, “the voice pertains to the wrong body or does not fit the body at all, or disjoins the body from which it emanates.”⁵⁶

Dolar’s definition of the acousmatic, therefore, can be summarized as follows: a voice without a visible or identifiable source, or, a voice in search of a body or that does not appear to fit its body. This notion of the acousmatic voice informs my discussion of La Barbara’s sounds and her application of these sounds in *Circular Song* and *October Music*. In these works, the listener experiences a disconnect between what is seen and what is heard. Therefore, I will specifically focus on Dolar’s concept of the acousmatic as a voice that does not appear to fit its body. Many of La Barbara’s sounds are not recognizably vocal. In fact, as noted, some of her sounds signify noises outside of traditional music making, such as birdcalls, sirens, or mechanical-sounding rumbles. Through these seemingly disembodied, impossible vocal sounds, La Barbara plays with the listener’s expectations of the voice, giving rise to questions of how they are produced.

Dolar notes that hearing the acousmatic voice forces the listener to mentally “step to the other side of the curtain” to imagine what the source of the voice is. His notion of the acousmatic relies on curiosity, or, the listener’s drive to locate the source of the disembodied voice. He offers the formula, “I know very well, but nevertheless...”, suggesting that the listener engages in a sort of indulgence, or self-sustained belief in the acousmatic experience:

⁵⁶ Dolar, *A Voice and Nothing More*, 60.

I know very well the voice must have some natural and explicable cause, but nevertheless I believe it is endowed with mystery and secret power... It presents a puzzling causality, an effect without a proper cause.⁵⁷

Similarly, the listener encounters the “I know very well, but nevertheless,” experience when listening to many of La Barbara’s compositions. There is recognition that the sounds she produces are natural, but nevertheless, their unfamiliar nature invokes curiosity; the listener may contemplate how La Barbara’s human voice produces such unique, seemingly non-human-sounding noises. Perhaps the formula could be applied to La Barbara’s works as follows: I know very well she is using her voice to make these sounds, but nevertheless, they seem to be coming from another, perhaps unnatural, source.

In the final chapter of *Sound Unseen*, Kane discusses Dolar’s account of the acousmatic experience as tied to the psychoanalytical voice. Specifically, Kane is critical of the fact that Dolar eschews *technê* (technique or technology) in his application of the acousmatic because, for Kane, *technê* is implicit in the acousmatic and must be recognized.⁵⁸ He argues that the acousmatic experience cannot be sustained without the use of *technê*, namely, some form of technology or effect that conceals the sound source, or alters the sound to give the illusion of detachment from its source. Interestingly, Kane steers the history of the acousmatic phenomenon away from its traditional Pythagorean roots and instead draws connections with musical phantasmagoria:

I would like to suggest that the practice of acousmatic sound is not tied to the Pythagorean legend or the baptism of the term acousmate, but to a tradition of musical phantasmagoria. This tradition is sutured to the birth of Romanticism, the aesthetics of

⁵⁷ Dolar, *A Voice and Nothing More*, 66–67.

⁵⁸ Kane, *Sound Unseen*, 220.

absolute music, and the intercalation of the production of music, the commodity, and technology.⁵⁹

The term “phantasmagoria” was coined in the nineteenth-century in reference to theatrical performances that intentionally masked the mechanical efforts of sound and visual production from the viewer.⁶⁰ As Kane points out, the concept of phantasmagorical masking has been a salient value of many composers throughout the history of western art music; composers have often worked to maintain the illusion of effortless, transcendental musical performances. Perhaps the best example is Richard Wagner’s *Gesamtkunstwerk*, in which visual effects played a crucial role in building the experience of his aesthetic. His famous invisible orchestra at Bayreuth intentionally hides the performers, so that the audience can readily be transformed by and absorbed into the sounds of the music without the distraction of watching them play.⁶¹ Indeed, this practice of removing the visual aspect of performance is not limited to large-scale works of the nineteenth-century. Kane also cites the post-Council of Trent practice of *clausura*, which kept singing nuns hidden from the congregation to create the effect of “angelic voices” emanating from the heavens.⁶²

Both Wagner’s hidden orchestra and the practice of *clausura* are examples of performances that create experiences of acousmatic listening, of hearing without seeing. The

⁵⁹ Kane, *Sound Unseen*, 99.

⁶⁰ Theodor Adorno, *In Search of Wagner*, trans. Rodney Livingstone (London: NLB: 1981), 63–87; Alistair Williams, “Technology of the Archaic: Wish Image and Phantasmagoria in Wagner,” *Cambridge Opera Journal* 9 (1997), 73–87; and Sherry Lee, “A Minstrel in a World Without Minstrels: Adorno and the Case of Schreker,” *Journal of the American Musicological Society* 58 (2005), 33–58.

⁶¹ Kane, *Sound Unseen*, 102.

⁶² *Ibid.*, 109.

intentional divorce of sound from sight allows for the mundane aspects of sound production to be obscured to heighten the sonic result. In the case of Wagner, the use of *technê* was indispensable for creating these phantasmagoric experiences. His strong sentiment about the hinderance of visual distractions led him to use architectural *technê* to create an acousmatic performance. The Bayreuth Festspielhaus comprises a double proscenium to add to the illusion of separating the audience from the performers. The most interesting architectural feature of the performance space, however, is the hidden orchestra. The orchestra pit is placed beneath the stage and covered by a wooden hood, invisible to the audience. As Wagner writes, “fine performances of ideal works of music may make this evil [visibility of orchestra] imperceptible at last, through our eyesight being neutralized, as it were, by the rapt subversion of the whole sensorium.”⁶³

Pointing specifically to composers such as Wagner, Kane articulates a “kinship” between the acousmatic and musical phantasmagoria as well as the *technê* involved in achieving these situations. He writes, “to separate the eye and the ear, one requires *technê*, whether in the form of bodily techniques or architectural constraints.”⁶⁴ Indeed, the reliance on *technê* extends beyond Wagner and applies to any acousmatic situation. La Barbara, for example, achieves a separation of sound from source through extended vocal techniques such as circular breathing and multiphonics, or similar to Schaeffer, through electronic manipulation of vocal sound to disguise its original context.

Returning to Dolar, Kane finds fault in his negation of “disacousmatization,” which refers to the process of revealing the sound source. Michel Chion discusses the process in *La*

⁶³ Kane, *Sound Unseen*, 115.

⁶⁴ Ibid., 116.

voix au cinema, a study of the acousmatic in film. For Chion, disacousmatization is a gradual process akin to a striptease, in which the source of the voice is slowly revealed, culminating in the unveiling of the mouth, the ultimate gateway to the sound.⁶⁵ For Dolar, on the other hand, the ultimate acousmatic voice is one that can never be revealed. He writes:

‘The mother of all acousmatic voices’ is precisely the mother’s voice, by definition the acousmatic voice *par excellence*, the voice whose source the infant cannot see – his tie with the world, his umbilical cord, his prison, his light.⁶⁶

Dolar champions the voice that can never be seen because of the disappointment he perceives when discovering the sound source:

When the voice gets attached to the body, it loses its omnipotent charismatic character – it turns out to be banal, as in *The Wizard of Oz*. The aura crumbles, the voice, once located, loses its fascination and power, it has something like castrating effects on its bearer, who could wield and brandish his or her phonic phallus as long as its attachment to a body remain hidden.⁶⁷

He believes that the trauma caused by the unveiling of the voice is the driving force behind the listener’s desire to maintain the illusion. As noted, he suggests that the listener chooses to buy into the acousmatic experience, asserting the “I know very well, but nevertheless” formula.

Dolar argues that disacousmatization is ultimately impossible because the acousmatic source can never be explicitly revealed since the mouth is not the source of the voice; the voice always remains structurally hidden inside the body. Every vocal emission, according to Dolar, is an act of ventriloquism. The voice arises from the mouth, but the listener cannot see the exact place from which it originates. Thus, each vocal utterance is automatically acousmatic:

⁶⁵ Discussed in Dolar, *A Voice and Nothing More*, 68–69.

⁶⁶ Ibid., 66.

⁶⁷ Ibid., 67.

The voice comes from inside the body, the belly, the stomach – something incompatible with and irreducible to the activity of the mouth. The fact that we see the aperture does not demystify the voice; on the contrary, it enhances the enigma.⁶⁸

Though Dolar's reasoning is straightforward, Kane highlights what he considers to be the flaws within his argument. Dolar's notion of the impossibility of disacousmatization contradicts the trauma that he suggests to occur when discovering the source of the voice. Kane specifically points to the example of Pythagoras's disciples, the *mathematikoi*. As noted, in Dolar's account of Pythagoras, the *mathematikoi* are distraught when uncovering of the source of their master's voice. They choose to maintain a false belief in the omnipotence of their master. However, as Kane points out, by making the acousmatic voice an a priori effect (in that the voice is permanently hidden and therefore acousmatic), there would be no reason for the *mathematikoi* to experience any trauma when learning the source of the voice. In fact, they would have no desire to uncover the voice source at all, making Dolar's curiosity-factor of the acousmatic experience irrelevant.

Furthermore, Kane questions, "if 'there is no such thing as disacousmatization,' then why would one ever need to employ the technology of the Pythagorean veil in the first place?"⁶⁹ It seems that his issue with Dolar's conception of the acousmatic lies in Dolar's tacit acceptance of the importance of *technê* to uphold the experience. In all of Dolar's discussions of the acousmatic, he fails, according to Kane, to acknowledge the fundamental role of technique and technology. Kane illustrates Dolar's implicit acceptance and explicit rejection of *technê* by returning once again to the "I know very well, but nevertheless," formula. He writes, "fidelity to

⁶⁸ Dolar, *A Voice and Nothing More*, 70.

⁶⁹ Kane, *Sound Unseen*, 221.

the acousmatic voice only operates when *technê* is bracketed” and gives the following examples to illustrate the imperative nature of technology and techniques, often times forgotten, or in the case of Dolar, completely ignored, in discussing the acousmatic. The bracketed text that Kane adds to the following “I know very well” statements highlight the important role of *technê* as implied, but not specifically acknowledged, in the acousmatic experience:

I know very well that the voice has a source, but nevertheless [when I close my eyes], I believe that it doesn’t... I, Richard Wagner, know very well that the orchestra is a machine, but nevertheless [when I construct a theatre to hide the machinery of musical production], I believe that I enter a state akin to hypnotic clairvoyance... I, Pierre Schaeffer, know very well the sources of the sounds I recorded, but nevertheless [when I remove their attack or lock them into a groove], I believe they are only intentional objects and that I myself have constituted them.⁷⁰

The presence of *technê* in the acousmatic experience will be considered in my discussion of La Barbara’s works, many of which rely on the exploration of a vocal technique. I will address, for example, the various ways in which La Barbara’s vocal extensions (*technê*) contribute to the perceived separation between sound and source, or voice and body. I will also discuss the ways in which La Barbara intentionally draws on techniques and technology to create an aura of surprise and unfamiliarity for the listener, or, to achieve her “impossible sounds.” Furthermore, I hope to articulate the ways in which the listener’s experience of La Barbara’s works might change with the process of disacousmatization. Does the listener’s understanding of La Barbara’s sounds and the ways in which she produces them change with the knowledge of how they are created? I will return to these questions throughout the ensuing chapters, particularly when discussing works such as *Circular Song* and *October Music*, where achieving unfamiliarity through *technê* is key to La Barbara’s aesthetic.

⁷⁰ Kane, *Sound Unseen*, 221.

The Model Voice

The important role of *technê* also appears in Kane's contribution to The Voice Project's "Why Voice Now" colloquy. In this article, he offers a model for studying and writing about the voice, aptly named, "the model voice." Kane clearly emphasizes that this is not a *theory* of voice, but rather, a "provisional model" that highlights the fluidity of voice. "Instead of reducing the voice to a single term," Kane explains, "the model highlights the circulation of the voice among its constitutive terms."⁷¹ The terms he proposes can be defined as follows. *Echos* refers to the purely sonorous qualities of the voice, free of any meaning or language. *Logos* is the semantic content of the vocal utterance, and *topos* refers to the site of the vocal emission.⁷² Kane notes that he chooses the term *topos* rather than *soma*, meaning "body," because the site of emission is not necessarily the body; disembodied voices have *topos* but no *soma*. Distinct from all three of these terms is *phoné*, which is defined as the voice. Kane notes that it is impossible for *phoné* to be reduced singularly to *echos*, *logos*, or *topos*. Rather, *phoné* moves freely between and displaces these terms.⁷³

Kane's model voice is particularly applicable to my discussion of La Barbara's works, which invite us to pair the terms and cross between them. Bringing together *echos* and *logos* gives rise to questions of how sound becomes meaningful. Kane asks, for example, how the

⁷¹ Brian Kane, "The Model Voice," in *Why Voice Now?*, ed. Martha Feldman, *Journal of the American Musicological Society* 68/ 3 (2015): 673.

⁷² It should be noted that Kane's use of "*topos*" differs from the initial Oxford English Dictionary entry of the term: "a traditional motif or theme (in a literary composition); a rhetorical commonplace, a literary convention or formula. See "topos, n.", *OED Online*, June 2016, Oxford University Press. <http://www.oed.com.ezproxy.library.ubc.ca/view/Entry/203433?redirectedFrom=topos>

⁷³ Kane, "The Model Voice," 672–674.

listener can simultaneously experience both the sonic qualities and semantic meaning of a vocal utterance? At what point does this transition from purely sonic to semantically meaningful occur? The combination of *echos* and *topos* provides a model for discussing the ways in which bodily (or other sites of vocal emission) changes impact sonic results of the voice. It also leads to questions of social associations with the purely sonorous voice; for example, are ascriptions such as the race or gender of the speaker or singer evident in their vocal timbre? Similarly, crossings of *topos* and *logos* bring together meaningful sound and the body. This pairing leads to questions of what the semantic content of sounds can reveal about the body or site of emission.⁷⁴

Kane adds a fourth term to his model of the voice, namely, *technê*, which, as noted, can refer to technological modifications of the voice as well as extended techniques, such as La Barbara's multiphonics or ululation. Kane emphasizes that *technê* is imperative to his model voice, as something that disturbs the circulation between *echos*, *logos*, and *topos* or that obscures the origins of the voice through technological means. The technique of removing the sense of sight, for example, illustrates the effect of *technê* on the pairing of *logos* and *topos*. As Kane describes, the listener's aural focus is heightened when their ability to see the speaker is removed. Again, the example of Pythagoras illustrates this nicely. By veiling (*technê*) his body (*topos*), the meaning of his words (*logos*) became endowed with more weight and significance.⁷⁵

In the context of this thesis, I will use Kane's model voice to examine the crossings of *echos*, *logos*, *topos*, and *technê* in the four works from *Voice is the Original Instrument*. Specifically, I will focus on the pairing of *echos* and *topos*, asking the following questions. First,

⁷⁴ Kane, "The Model Voice," 674.

⁷⁵ Ibid.

how does La Barbara bring sound and body together and in what ways is the listener made aware of these crossings? How does she at times draw attention to the source of the sound and at times obscure the source of the sound? Second, in what ways is *logos* attached to the textless works that are perhaps thought of as purely *echos*? What do these non-semantic sounds seem to signify? I will also focus on La Barbara's use of different vocal extensions, signature sounds, and electronics as a means of heightening or breaking apart these pairings. In discussing her technique of circular breathing in *Circular Song*, for example, I will explore the ways in which her use of *technê* calls attention to the body (*topos* or *soma*) and also create a separation from the body. In *October Music*, I will focus on the ways in which the layering of individual sounds (*technê* on *echos*) fractures *topos* by implying an unfamiliar use of voice. Furthermore, I will discuss the ways in which *technê* creates new meanings or extra-musical associations (*logos*).

Musique Concrète Instrumentale

Kane's model voice is useful for discussing the different theoretical components of the voice, the interaction between these components, and their relationship to technology. Composer Helmut Lachenmann has explored similar issues with the aesthetic of defamiliarization in his *musique concrète instrumentale*. Lachenmann aims to change the ways in which sounds are produced, from the inside out, so to speak. The name of his technique plays with Schaeffer's *musique concrète*; Lachenmann essentially inverts Schaeffer's method. While Schaeffer records real-life sounds and alters them to become musical, Lachenmann starts with musical sounds and alters them to sound unfamiliar. This alteration process is achieved by concentrating on the basics of instrumental or vocal sound production, such as bowing strings or expelling breath, and

also calls attention to the physical efforts and energy used to produce instrumental sounds.⁷⁶

Ultimately, familiar instrumental sounds become unfamiliar, as the listener is exposed to newly produced sounds or those typically masked by skilled performers, such as the breath between sung phrases. Through this process of defamiliarization, Lachenmann strives to reshape what he terms the “aura” and “aesthetic apparatus” of instrumental and vocal sonorities. Aura refers to the extramusical meanings attached to sound, perhaps a form of *logos*, if returning to Kane’s model voice. The aesthetic apparatus comprises the dominant aesthetic attached to a sound, extending beyond purely sonic qualities to encompass the cultural and social conventions that accompany a sound:

From the window display of a music shop to the complimentary tickets given to the town council’s charlady [sic?] for the concert of the visiting fisherman’s choir, from the Hohner mouth-organ to the pensionable officialdom of the Radio Symphony Orchestra with its many fiddles tuned to the same open fifths as its solitary bass clarinet, this ‘aesthetic apparatus’ embodies the ruling aesthetic needs and norms.⁷⁷

Lachenmann’s *musique concrète instrumentale* works are compelling counterparts to La Barbara’s vocal pieces. Both composers remain committed to changing the established norms of playing and listening as well as developing new means of producing musical sound.

Lachenmann’s first *musique concrète instrumentale* work is titled *Pression* (1969) and was written only a few years before La Barbara began her intensive exploration of new vocal sound. Written for solo cello, *Pression* creates a sort of acousmatic experience in that there is a clear divide between what is seen and what is heard. The listener watches the cellist move the bow across the strings of the instrument in unconventional ways. The acoustic result is continuously

⁷⁶ Metzger, *Musical Modernism*, 197.

⁷⁷ Helmut Lachenmann, “The Beautiful in Music Today,” *Tempo* New Series, no. 135 (1980): 22.

surprising. Instead of hearing traditional pitches and the expected resonance and timbre of the cello, the listener encounters faint, squeaky glissandos, non-pitched noises resembling fingers on a washboard, and scratching sounds.

Similarly, in *Got Lost* (2008), a work for soprano and piano, Lachenmann plays with the established conventions of art song performance. This three-movement work comprises text by Friderich Nietzsche, but phonetically breaks apart the words so they are largely incomprehensible. The vocal part incorporates many extended techniques such as whistling, rhythmic breathing, and singing into the open piano, all of which contribute to the unique nature of the work and the obfuscation of the words. Interestingly, the physical set-up of the performance establishes certain expectations that are never fulfilled. The singer stands at the crook of the piano, while the pianist sits at the bench; this is a typical performance arrangement in the art song tradition. The sounds produced, however, are a far cry from those usually heard in an art song performance. The audience's expectations of classical singing are never met.

In three of the four works I am discussing in this paper, La Barbara achieves a similar process of defamiliarization akin to Lachenmann's methods from his *musique concrète instrumentale* works. The sensory deprivation piece *Hear What I Feel* for example, removes the performer's sight and creates music through the sense of touch, an unusual compositional method. *Voice Piece* encompasses Lachenmann's technique of composing by altering the interior qualities of an instrument. In this work, La Barbara explores the ways in which vocal sound changes with each possible physical resonance placement inside the singer's head and chest. Similarly, in *Circular Song*, the listener is both exposed to the performer's breath and is made aware of the physical feat of singing. This counters the aesthetic apparatus of traditional vocal

performance, in which the singer aims to achieve an apparently effortless sound. Lachenmann's *Tema* (1968) for flute, voice, and cello, exposes the presence of breath by having the singer inhale and exhale loudly and the flautist overblow and hum through the instrument. In essence, both La Barbara and Lachenmann draw attention to the *techné* required to produce and sustain vocal and instrumental sound.

I will now move to detailed discussions of *Voice Piece*, *Circular Song*, *Hear What I Feel*, and *October Music*, applying the theoretical principles outlined in this chapter.

Chapter 3: *Voice Piece: One-Note Internal Resonance Investigation*

Voice Piece: One Note Internal Resonance Investigation is La Barbara's earliest composition and was premiered at St. Mark's Church in New York City in December 1974. As the opening piece on the *Voice is the Original Instrument* recording, the approximately fifteen-minute long work sets the stage for the remainder of the "Explorations" pieces, all of which are devoted to expanding the possibilities for using the voice. In *Voice Piece*, this expansion occurs through reduction. Specifically, La Barbara reduces "musical material" to the bare minimum and in doing so, reveals the many timbral nuances within a single vocal sound.

The piece is written for amplified solo voice and is an exhaustive study of the sound-colour spectrum within a single pitch. Indeed, over the span of fifteen minutes, La Barbara sings no pitch other than A³. It should be noted, however, that multiphonic and overtone singing are also used and at times the listener also hears A², A⁴, B², and D². While the pitch content may be repetitive to the extreme, the overall sonic experience is anything but monotonous. La Barbara unleashes a spectrum of timbral colours within the single pitch by engaging a series of different resonance placements.

The score for *Voice Piece* comprises three sections, allowing the performer to explore the range of timbres within a single pitch in three different ways. In Part I, La Barbara explores the sound colours within a single vocal iteration. The term "iteration" refers to each of La Barbara's individual vocalizations, divided by exhalations and inhalations. In Part II, she creates a variety of "series" in which the movement from one vocal iteration to the next is elided. Here, the overtone series and multiphonic series is introduced, resulting in "over-" and "undertones," or harmonics

sounding above and below the fundamental pitch (A³). Finally, in Part III, La Barbara focuses almost exclusively on the multiphonic split, exploring the possibility for sounding as many simultaneous pitches as she possibly can.

In this chapter, I will build upon concepts introduced by Kane in his study of Schaeffer's acousmatic music. In particular, I will discuss the relationship between *topos*, the site of vocal emission, *echos*, non-semantic sonic material, and *logos*, the semantic meaning of a sound. These three terms cross throughout *Voice Piece*. La Barbara explores the relationship between wordless vocal sound and the spaces within the physical body from which the sound emanates. I will consider the ways in which mental and physical changes to the site of vocal emission impact the sonic result. Furthermore, I will demonstrate that the vocalizations become meaningful by pointing to specific places within the body, or site of emission.

Topos, Echos, and Logos

In the score and performance notes for *Voice Piece*, La Barbara gives few, if any, traditionally “musical” indications. She asks the singer to achieve a “clear, clean and specific” sound by vocalizing without vibrato.⁷⁸ In the performance notes, La Barbara explains that rhythm is used only in the “pure sense of duration.”⁷⁹ There are no notated rhythmic motives or patterns but only sustained vocal iterations, the lengths of which are determined by the length of the performer's breaths. Furthermore, the only mention of pitch content appears in an open-ended instruction. La Barbara gives the performer the freedom to select any pitch that feels

⁷⁸ Joan La Barbara, *Voice Piece: One-Note Internal Resonance Investigation* (copyright Joan La Barbara, 1975), 1.

⁷⁹ Joan La Barbara, “Program Notes 1974 – 1976,” (copyright Joan La Barbara, 1975), accessed with the permission of the composer.

comfortable, emphasizing the importance of choosing a pitch that best supports the physical state and energy level of the performer:

A comfortable pitch may be chosen to begin the piece (the pitch may be different each time the piece is performed since the instrument, being part of a person, reacts to weather, humidity, state of health, fatigue or energy and emotion).⁸⁰

This focus on the body as the source of vocal sound is also apparent in the drawings in the graphic portion of the score. La Barbara uses silhouettes of a human profile to indicate the exact place within the body that she would like the sound to be focused. Each silhouette contains a small circle placed in a different resonance spot: the centre of mouth, front of mouth, lower front of nose, centre of nose, bridge of nose, upper throat, high cheek bones, third eye (the space between the two eyes on the forehead), chest bones, lower back of throat, back of skull, eyebrow region, top of skull, and back of mouth (see Figure 3.1).⁸¹ The instruction portion of the score directs the performer to imagine the circle as a small, hard ball that can freely move to each resonance area. The image of the ball is used to focus the performer's attention on specific locations in the head or the throat.

In drawing attention to each of these resonating places, La Barbara makes changes to *topos* to create new or unusual *echos*. Specifically, she taps into resonance areas that are not typically used in a classical vocal sound. For example, singers frequently utilize forward resonance placements, such as the centre of the nose and front of mouth to focus close vowels such as [i], [e], and [y], particularly in low registers. Similarly, resonance placements such as the centre of mouth or upper throat (yawn) are often used to achieve a free, open sound, especially

⁸⁰ La Barbara, "Program Notes."

⁸¹ La Barbara, *Voice Piece*, 1.

when singing in high registers on [a], [I], [o], and [u] vowels. In *Voice Piece*, however, La Barbara places the sound in areas of the body that are used less frequently in classical singing. Focusing resonance in the back of the throat (see Figure 3.1), for example, yields a muffled or swallowed sound that counters the spinning, forward-moving sound desired by classical singers.



Figure 3.1: Score sample indicating resonance placement

Interestingly, the changes to *topos* that La Barbara indicates with each drawing are as mental as they are physical. As she explains: “by thinking different resonance areas within my head and neck and chest, I can make the tones sound very different.”⁸² She does not ask the performer to change their vocal sound by adding weight, tension, or expansion to the resonance areas. In fact, the only physical manipulations that would occur are small movements such as opening and closing the lips or dropping the jaw. The performer instead expands the capabilities of *topos* by bringing intense mental awareness to each resonance area. La Barbara clearly indicates the importance of visualization in the performance instructions:

⁸² Zimmerman, *Desert Plants*, 153.

I recommend closing the eyes during performance and when initially locating specific resonance areas since one is able to focus sound more accurately when not visually distracted and fine tuning of pitch and placement is more precise... Always think of the sound in a specific place before starting each sound... Silent spaces in between sounds allow time for the vocalist to concentrate mentally on the next area while replenishing air supply.⁸³

Careful mental focus is a crucial factor in achieving different vocal timbres through various resonance placements. The variety of timbres in *Voice Piece* demonstrates the multitude of sounds that can result from subtle changes to *topos*. In addition, many of La Barbara's vocal iterations point to places within the body. In this sense, *echos* embodies *topos*, allowing the listener to at times connect the sounds with specific spots within La Barbara's head and throat. In doing so, the nature of the sounds as purely *echos*, or non-semantic, begins to change. The sounds become meaningful; they are representative of La Barbara's body. *Logos*, therefore, is added to the crossing of *echos* and *topos*. When the listener begins to hear the shifts in resonance placements and connects the resultant sounds to physical spaces within the body, the wordless-sounds are endowed with signifying power.

To illustrate the ways in which the vocal sounds signify specific sites of emission, I have drawn upon the terminology used by vocal pedagogue Scott McCoy for the analysis of vocal sound, specifically those that deal with resonance. McCoy pairs descriptors of vocal sound and places them on opposite ends of a continuum (see Figure 3.2).⁸⁴

⁸³ La Barbara, *Voice Piece*, 1.

⁸⁴ Resonance terminology is summarized from Scott McCoy, "Listening to Singers," in *Your Voice: An Inside View: Multimedia Voice Science and Pedagogy* (Ohio: Inside View Press, 2004), 2–4.

Bright ————— Dark	The amplitude of overtones distinguishes a vocal sound as bright or dark. Bright sounds have strong high-pitched overtones and tend to be characterized as brilliant or carrying, while dark sounds have strong low-pitched overtones and tend to be characterized as warm or full.
Twang ————— Loft	Twang resonance has a brassy timbre and is created by narrowing the vocal tract. It is typically used in musical theatre style belting. Loft resonance is typically used in classical singing and occurs with a relaxed pharynx and lifted soft palette.
Forward ————— Back	Forward and back refer to perceived tone placement. Forward tones sound brighter and are often perceived as placed in the cheekbones or front of face. Back tones sound darker and are often perceived as placed further back in the mouth or throat.
Nasal ————— Non-nasal	Tones that resonate in the nasal cavity and are produced with a low, relaxed soft-palette are described as nasal. Non-nasality resonance occurs with a lifted soft-palette.

Figure 3.2: Scott McCoy’s descriptions of vocal resonance

McCoy notes that many of these terms are interrelated and often occur simultaneously in a single vocal sound: “Dark sounds will often have elements of loft resonance and back placement.

Bright sounds will often have elements of twang resonance and forward placement... Nasality can coexist with various other vocal timbres, particularly twang and loft.”⁸⁵

In *Voice Piece*, each of the first three vocal iterations moves increasingly towards the “twang” and “nasal” ends of McCoy’s continuums. The listener can recognize the resonance placement of each iteration as moving further forward into La Barbara’s nose as the sound becomes less open and lofty and increasingly bright, twangy, and nasalized (see Figure 3.3). In the third vocalization, which is placed the furthest forward in the nose, the buzzing, nasalized

⁸⁵ McCoy, *Your Voice: An Inside View*, 3–4.

resonance is clearly audible and reverberates in the performance space even after La Barbara finishes phonating.

Time	Vowel or Consonant	Loft – Twang	Bright – Dark	Nasal – Non-nasal	Front – Back
0’00’’ – 0’03’’	[m]	L —*—— T	B——*—D	N——*—Non	F——*——B
0’04’’ – 0’06’’	[n]	L——*—T	B—*——D	N—*——Non	F—*——B
0’08’’ – 0’10’’	[n]	L——*—T	B—*——D	N-*——Non	F-*——B

Figure 3.3: Listening analysis: *Voice Piece* 0’00 – 0’10’’ resonance placements. The asterisks indicate the placement of the sound along the four different resonance continuums.

In the ensuing four iterations, the progression of resonance placements moves from forward in the nose to back in the throat and chest. The sound becomes increasingly swallowed, with an overall motion towards the “back” end of McCoy’s front-back continuum (see Figure 3.4).

Time	Vowel or Consonant	Loft – Twang	Bright – Dark	Nasal – Non-nasal	Front – Back
0’11’’ – 0’13’’	[m]	L —*——T	B——*——D	N——*——Non	F——*——B
0’14’’ – 0’17’’	[m]	L—*——T	B——*——D	N——*——Non	F——*——B
0’20’’ – 0’23’’	[n]/[a]	L——*——T	B—*——D	N—*——Non	F——*——B
0’23–0’37’’	[n]/[m]	L——*——T	B——*——D	N——*——Non	F——*——B

Figure 3.4: Listening analysis: *Voice Piece* 0’11’’ – 0’37’’ resonance placements.

The first seven vocalizations progress from an open sound (placed in the centre of the mouth), to a nasalized sound (created through a focus on the nose), to a swallowed sound (placed in the throat), to a rumbling, multiphonic sound (placed in the chest). The final of these seven

iterations, lasting for fourteen seconds, introduces one of La Barbara's signature sounds, namely, the multiphonic "split," which will be discussed in detail in the following section. The term split refers to the simultaneous vocalization of more than one pitch.

The middle of *Voice Piece* consists of a combination of La Barbara's single resonance placements, the overtone series, and the multiphonic split. Emphasis is given to the latter two sonorities, which often occur in alternation. La Barbara's repetitive exploration of these two different techniques reveals the contrasts between the two sounds. The former produces strong upper partials and the latter rumbling lower partials.

La Barbara describes the procedure for singing overtones as "a matter of mouth placement," explaining that "different vowels and placement in a particular area create different overtones."⁸⁶ In the resultant sound, the listener hears the upper octave of the A^3 fundamental (A^4) in addition to the sung tone. Certain vowels are more effective for activating the upper partial. La Barbara uses vowels formed in the front of the mouth, such as [i], [y], and [e]. Of these, [i] and [e] produce the most vibrant A^4 , perhaps because they are more easily nasalized than [y], which requires rounded lips and a lower-placement of the tongue than the other two vowel sounds.

Drawing on McCoy's continuum, La Barbara's overtone vocalizations can be characterized as bright, forward, nasalized, and twangy. Resonance placements that are in the front of the face, such as the nose, bridge of nose, front of lips, and front of mouth are necessary to produce the upper partial. Many of the sonic characteristics of the multiphonic split, on the other hand would fall on the opposite end of McCoy's continuum. This technique resonates in

⁸⁶ Zimmerman, *Desert Plants*, 156.

the lower back of the throat and the chest. It is dark, non-nasalized, and even lofty, in that plenty of space and relaxation within mouth and throat is required for effective execution. The uniqueness of the multiphonic split and the frequency with which it appears in *Voice is the Original Instrument* calls for further discussion. I will now turn to an exploration of the role and nature of this technique.

Multiphonic Split

In 1974 when La Barbara first performed *Voice Piece*, the multiphonic split would likely have been an unfamiliar technique for many listeners. Its creaky characteristics strongly contrast with the free, forward spinning quality of most classical singing. Moreover, many listeners would be unaccustomed to hearing multiple pitches sung simultaneously. In *Voice Piece*, La Barbara uses an “octave split,” in which she sounds the lower octave (A²) while singing the pitch A³. The fact that La Barbara is able to vocally produce a pitch that falls outside of the female vocal register also contributes to the unusual nature of the multiphonic split (see Figure 3.5).⁸⁷

Voice Type	Range *
Soprano	C ⁴ – A ⁵
Contralto	G ³ – E ⁵
Tenor	C ³ – G ⁴
Bass	F ² – E ⁴

Figure 3.5: Standard female and male voice types and ranges

* *Grove Music Online* notes that these standard vocal ranges can be extended on either end, particularly in solo writing.

⁸⁷ Owen Jander, et al., “Soprano;” “Contralto;” and “Bass” *Grove Music Online*, *Oxford Music Online*, Oxford University Press.; David Fallows, et al, “Tenor,” *Grove Music Online*, *Oxford Music Online*, Oxford University Press.

La Barbara recalls the surprised audience reactions when she first started using signature sounds like the multiphonic split in performance:

When I first began doing my solo concerts, I would sometimes get an audience that was unaccustomed to unusual sounds coming from the singer... Some of the sounds that I make are, well, natural sounds and I think that part of the problem with early audiences was since they weren't accustomed to these kinds of sounds being used in the context of music and related them more to other activities, I would sometimes get giggles...⁸⁸

While extended vocal techniques such as multiphonic singing are used more often today than in the 1970s, they are still rather uncommon in classical singing. As La Barbara notes:

[W]hispering seems to have entered the somewhat 'standard' vocabulary of contemporary composition for voice but *multiphonics*, *ululation*, *glottal clicks*, *fry* and *inhaled singing* are still only rarely heard today in the 'classical' context.⁸⁹

Because the multiphonic technique is not frequently used in Western classical music, listeners may associate the sound with non-Western traditions. Tuvan or Mongolian throat singing, for example, is similar to La Barbara's multiphonic split in that multiple pitches sound simultaneously.⁹⁰ Tuvan throat singing, also known as *khoomii*, is a form of overtone singing in which a fundamental tone is sustained and harmonics are also sounded one or two octaves higher. It is considered the most virtuosic of throat singing because some singers create

⁸⁸ Joan La Barbara, "Fireside Chats," 17:55.

⁸⁹ Joan La Barbara, email correspondence with the author, July 20, 2016.

⁹⁰ See Brown, "The Beautiful In Strangeness," 31–31; and Zimmerman, *Desert Plants*, 152–154 for discussions of about the similarities of La Barbara's multiphonic split and Tuvan throat singing or the singing of Tibetan monks. For discussions of overtone and throat singing, see Carole Pegg, "Overtone-singing," *Grove Music Online*, *Oxford Music Online*, Oxford University Press.

pentatonic melodies with the upper partials.⁹¹ Multiphonic singing is also found in the Urals in Uzbekistan, in Tibetan Buddhist Chant as well as in isolated pockets outside of Asia.⁹²

La Barbara's multiphonic split produces one or more lower partials. She explains that her multiphonic singing was not inspired by throat singing, or any other non-Western tradition or music; rather, it was a result of improvisation:

Another of the things that I have done is worked with poets, where they will read their works and I will try to create a fabric of sound behind them that is my reaction to their words... A poet named Armand Schwerner was reading some Tibetan scriptures. And as he read, one of the vocal reactions that were made was an octave split. That I learned later, but haven't heard it yet. But I learned it's done by the Tibetan monks.⁹³

Furthermore, in the program notes for *Voice Piece*, La Barbara is careful to explain that she does not intend the multiphonic split to signify anything spiritual: "the piece is based on a technical procedure I am investigating and has nothing to do with religion, meditation, or yoga."⁹⁴

The multiphonic split stretches the limits of verbal explanation of vocal production. Although she notates the technique in the score, La Barbara also cautions that "it [the multiphonic split] is not something you can actually describe how to do..."⁹⁵ In the score for *Voice Piece*, the split is indicated with a capital "I" placed in the throat of the human silhouette. The score directs the singer to "relax the throat and allow tones to fluctuate... holding particularly beautiful ones when possible... allowing tones to cut in and out in an intermittent

⁹¹ Robert C. Provine, Yosihiko Tokumaru, and Lawrence J. Witzleben, eds., "Snapshot: The Tyvan Throat Singers Huun-Huur-Tu," *Garland Encyclopedia of World Music* Volume 7 - East Asia: China, Japan, and Korea. Taylor & Francis Group, Routledge, Array, 1057-060.

⁹² Provine, Tokumaru, and Witzleben, "Snapshot: the Tyvan Throat Singers Huun-Huur-Tu."

⁹³ Zimmerman, *Desert Plants*, 153.

⁹⁴ La Barbara, "Program Notes."

⁹⁵ Zimmerman, *Desert Plants*, 156.

signal.”⁹⁶ Furthermore, La Barbara describes the difficulty of teaching this technique to other singers, precisely because it requires an acute awareness of physical sensation that not every singer is accustomed to. She recalls a remarkable experience of working with a singer who was so in tune with her voice and body that she could produce the split with very little direction:

I met a singer, a wonderful commercial singer in New York a few days ago, and was talking to her about this [the difficulty of teaching singers to use the multiphonic split]. And I sang it for her. And she could do it. She just listened. But she was so in tune with her own physical voice, you know, that she could hear it and she could do it.⁹⁷

La Barbara’s description for how to produce the sound certainly draws attention to the physical awareness required to properly execute it. The body, and specifically the throat, must be very relaxed. To achieve a split, she makes her false vocal folds (also known as the vestibular vocal folds) vibrate at the same time as her true vocal folds. These vibrations cause an octave, or an octave and a fifth split, which La Barbara compares to a double- or triple-stop on a string instrument.⁹⁸ Because of the relaxation that is required to create these splits, the singer cannot add any extra volume; the sound will not emit if forced.⁹⁹ For this reason, *Voice-Piece* is performed with amplification and is most successful when the performer can maintain concentration and relaxation.

The final two minutes of the performance of *Voice Piece* on the *Voice is the Original Instrument* recording consists almost entirely of the multiphonic split. There are variations

⁹⁶ La Barbara, “Program Notes.”

⁹⁷ Zimmerman, *Desert Plants*, 155–156.

⁹⁸ Joan La Barbara, email correspondence with the author, July 20, 2016.

⁹⁹ Brown, “The Beautiful in Strangeness,” 32.

between some iterations, in that La Barbara is able to isolate and project different harmonics and different combinations of harmonics (see Figure 3.6).

Time	Fundamental	Additional Tones
13'26'' – 13'34''	A ³	A ²
13'36'' – 13'47''	A ³	A ²
13'50 – 14'05''	A ³	A ⁴
14'06'' – 14'16''	A ³	A ⁴ , B ²
14'19'' – 14'29''	A ³	A ²
14'31'' – 14'41''	A ³	A ² , D ²
14'44'' – 14'55''	A ³	A ² , D ²
14'58'' – 15'07''	A ³	A ² , D ²
15'10'' – 15'19''	A ³	A ² , D ²

Figure 3.6: Harmonics in the final two minutes of *Voice Piece*

During the final few minutes of the piece, La Barbara explores the potential for sounding multiple pitches, expanding from a single pitch (A³), to a dyad (A³, A²) to a three-pitch collection (A³, A², D²). Her intention is for the fundamental pitch to eventually be washed away by the under- and overtones.¹⁰⁰

This extended passage of multiphonic singing is also a meditation on unfamiliar sound. Listening to the multiphonic split can be understood as an acousmatic experience, or an uncanny experience of hearing a sound that seems separate from the place from which it originates. Although the listener knows that La Barbara produces the vocal sound, the unusual nature of her vocalizations creates a separation of sound from source (body) in which the latter does not

¹⁰⁰ La Barbara, *Voice Piece*, 10.

appear to match the former.¹⁰¹ As noted, in my discussion of standard vocal ranges, the extremely low register of some of the pitches that La Barbara produces seems to fall outside the natural capabilities of the sound source (see Figure 3.5). In this sense, the source (La Barbara's body) does not coincide with the sounds (multiple, simultaneous pitches, some of which are too low for a female voice). In addition, the sound bears notable resemblance to non-human noises, such as the rumbling of a machine. If one were to listen to a recording of *Voice Piece* without the knowledge of La Barbara as the source, they might not assume that a human voice is producing the sounds.

The contrast between familiar and unfamiliar sounds appears as a large-scale trajectory in this work. At the opening of the piece, the unfamiliar multiphonic split is used throughout the short "series" of resonance placements and held for no longer than ten to fifteen seconds. As the piece progresses into Part II, the exploration of different resonance series, La Barbara gradually features the split more prominently. For the final two minutes of the piece, the multiphonic split is basically the only sound used. There is a progression, therefore, from a familiar use of the voice, exploring various resonance placements, but still sounding relatively similar to traditional singing, to a sustained split of the voice, which for many listeners is a completely unfamiliar sound.

As discussed earlier, La Barbara's opening few vocal iterations allows the listener to link the voice to specific places within the body, such as the nose, centre of the mouth, and throat. However, as the piece progresses and the multiphonic split takes on a more prominent role, the sound-body connections drawn by the listener begins to diminish. The vocalizations becomes

¹⁰¹ Dolar, *A Voice and Nothing More*, 60.

increasingly unfamiliar and their specific physical placements are more difficult to identify. In other words, *echos* begins to return. As the multiphonic split moves to the forefront, we begin to hear the sound as simply a sound, without reference to a specific place in the body. The middle section alternates between overtone series, in which La Barbara plays with various vowel shapes in different forward resonance placements, and multiphonic singing, in which the placement of sound is challenging to recognize. La Barbara's treatment of *topos* is paradoxical; the more that she changes *topos*, the less obvious *topos* becomes. More specifically, as La Barbara plays with different resonance placements that result in overtones and multiphonic splits (the front of the mouth and the back of throat), the specific site of sound emission becomes less clear because of the unfamiliarity of the resultant sounds.

Throughout the final two minutes of the piece, the multiphonic split is essentially the only sound remaining, leaving the listener entirely in this realm of the unfamiliar (see Figure 3.6). In my discussion of *October Music*, I will also explore this trajectory of moving from the familiar to the unfamiliar. For now, it is interesting to note that this sonic progression also appears in La Barbara's earliest work.

Chapter 4: *Circular Song*

Circular Song, which La Barbara refers to as a “rigorous etude,” explores the technique of vocalized inhalations and exhalations.¹⁰² She developed the technique in March of 1975 and first performed the piece in December of that year. The work draws on La Barbara’s concept of “the voice as an instrument” by vocally emulating a uniquely instrumental technique. She develops her own version of circular breathing, the process in which horn players “force air held in the mouth out through the horn by means of cheek muscled [sic] while inhaling though the nose.”¹⁰³ La Barbara adapts the technique by phonating,¹⁰⁴ or vocalizing, each inhalation and exhalation. This creates a constant wash of sound, similar to circular breathing in that there are no audible breaks between phrases for breaths.

Score and Form

The score for *Circular Song* combines graphic notation and detailed written instructions. The graphic portion of the score is a circle comprising smaller circles of curved arrows (see Figure 4.1). La Barbara explains that she chose to use curved instead of straight arrows to convey the “rounded” nature of the circular singing technique: “I wanted to give the feeling that I have

¹⁰² La Barbara, “Voice is the Original Instrument,” 42.

¹⁰³ Joan La Barbara, *Circular Song* (copyright Joan La Barbara, 1975), score notes.

¹⁰⁴ See “phonate, v.”, *Oxford English Dictionary Online*, Oxford University Press, June 2016, <http://www.oed.com.ezproxy.library.ubc.ca/view/Entry/142615?redirectedFrom=phonate>; The definition of “phonating” is: to make (sounds or specific sounds) vocally.” I use this term and “vocalizing” interchangeably throughout the chapter to refer to La Barbara’s exploration of the voice as sound in *Circular Song*. This treatment of the voice contrasts with notions of traditional “singing,” which typically denotes a musical use of the voice with melodic and rhythmic material.

when I sing this gesture, this vocal gesture, which is to me, a rounded kind of gesture.”¹⁰⁵ Each arrow indicates a single vocal iteration. The direction of the arrows denotes the direction of the phonated breath. The piece begins, for example, at the top of the circular score with a sung exhaled *glissando* descending from the top of the vocal register to the bottom (see Figure 4.2). The placement of the arrow head within the small circles indicates the place within the vocal register in which the breath direction changes. In Figure 4.3, for example, the change from inhale to exhale occurs at the midway point in the vocal register. In essence, all sonic changes in this piece occur through changes of breath direction and placement.

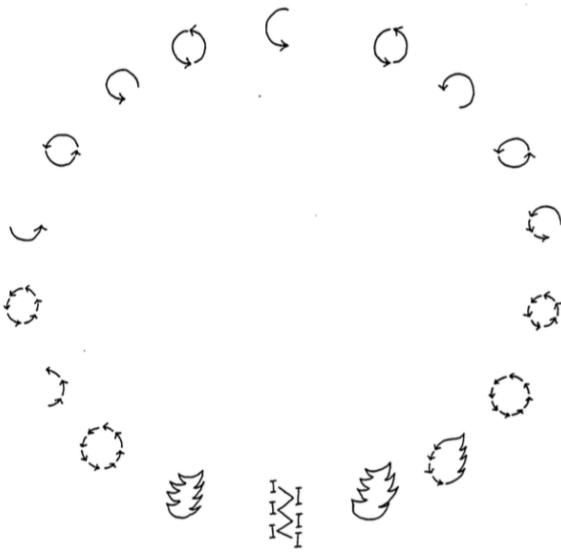


Figure 4.1: *Circular Song*, graphic score.



Figure 4.2: Descending glissando



Figure 4.3: Breath direction changes midway through vocal register

¹⁰⁵ La Barbara, “Fireside Chats,” 54:50.

The overall construction of the piece is also circular. Beginning at twelve-o'clock position on the score, La Barbara moves clockwise around the score and reaches the halfway point at six-o'clock. From six-o'clock back to twelve, the sound events are reversed, with a few changes (see Figure 4.1). The result is a symmetrical form, though on the *Voice is the Original Instrument* recording, the second half of the piece is approximately one minute shorter than the first half. A climactic moment occurs at the halfway point. La Barbara gradually builds to this point by increasing the frequency of phonated inhales and exhales. When she reaches the figure at the five-o'clock point (see Figure 4.1), La Barbara quickly alternates between inhales and exhales, creating a dramatic breathless or gasping effect. This is followed by her signature multiphonic split (see Chapter Three for a detailed explanation of this technique), placed halfway through the piece. She sustains the split for forty seconds before moving in reverse order back to the top of the circle.

La Barbara employs the multiphonic split differently than in *Voice Piece* or *October Music*, phonating through each breath to maintain the circular breathing effect. This specific moment is incredibly virtuosic because, as discussed in Chapter Three, the multiphonic split is challenging to produce on demand, let alone with the added difficulty of simultaneously vocalizing, inhaling, and exhaling.¹⁰⁶ La Barbara refers to the inhaled and exhaled multiphonics at this moment as “extremely difficult” and also describes the body’s desire to resist the combination of these two vocal techniques:

¹⁰⁶ See Caruso, “Roots: A Study of the Female Voice,” 63. La Barbara talks about the difficulty of having to produce the multiphonic split on demand and on a specific pitch. She notes that she always gives herself “leeway” in terms of timing and pitch when using this technique in her compositions.

The challenge is not only to make these difficult sounds [multiphonic split], but to also maintain the rigorous inhale and exhale gestures on each vocal sounding. It is extremely difficult to keep the breathing relatively stable, not to take in too much air or release too much. Physically, one is constantly trying to force the body (and voice) to do what it does not want to do.¹⁰⁷

Interior Sound

Any trained singer knows that proper breath support is the foundation of successful singing. Voice pedagogue Scott McCoy refers to the respiratory system as “the power source and actuator of the vocal instrument,” likening the lungs to bellows on a pipe organ and the air-bladder of bagpipes.¹⁰⁸ Soprano Joyce DiDonato refers to breath control as “the holy grail for singers.”¹⁰⁹ Similarly, soprano Luisa Tetrazzini identifies breath control as the most important technique for mastering “correct singing,” which should occur “naturally, easily, comfortably.”:

The lungs and diaphragm and the whole breathing apparatus must be understood, because the foundation of singing is breathing and breath control. A singer must be able to rely on his breath, just as he relies on the solidity of the ground beneath his feet.¹¹⁰

In *Circular Song*, La Barbara highlights the importance of breath by exploring the voice’s ability to sing while taking in and expelling air. In this sense, the piece calls attention to the interior of the vocal instrument and the physical energy required to sustain vocal sound. This

¹⁰⁷ La Barbara, email correspondence with the author, July 20, 2016.

¹⁰⁸ McCoy, *Your Voice: An Inside View*, 83.

¹⁰⁹ Joyce DiDonato, “5 Pro Tips from the Amazing Mezzo-Soprano Joyce DiDonato,” *Classical FM: The World’s Greatest Music*, July 1, 2016, <http://www.classicfm.com/artists/joyce-didonato/advice/#MCE2FUb5ULji6LQZ.97>

¹¹⁰ Enrico Caruso and Luiza Tetrazzini, *Caruso and Tetrazzini on the Art of Singing* (New York: Metropolitan Publishers Company, 1909): 8-9.

inward turn is reminiscent of Lachenmann's *musique concrète instrumentale* works, in which the "anatomy of a sound," is exposed by altering it "from the inside out."¹¹¹

As discussed in Chapter Two, Lachenmann's works often break apart firmly established playing techniques by drawing attention to the sounds or efforts that are disguised for the appearance of effortless playing. Classical flute players, for example, are taught to carefully control their breath flow and embouchure to maintain precise intonation. In *TemA*, on the other hand, Lachenmann asks the flautist to overblow, a technique in which the forceful expulsion of air causes the instrument to produce an unfocused sound as well as a higher pitch than the intended one. As Metzger explains, by drawing attention to the technical aspects of sound production, Lachenmann aims to expose the labour involved in instrumental playing techniques:

He isolates aspects of production that are typically blocked in appreciating the conventional tone of the instrument. A tremendous amount of physical 'energy' is needed to create that tone, particularly the labour involved in the technique and handling of an instrument.¹¹²

Similarly, in *Circular Song*, La Barbara isolates the most fundamental technical requirement for singing – breath support. As Tetrzzini explains, classical singers should breathe inaudibly to achieve a smooth and effortless sound:

The height of the vocal art is to have no apparent method, but to be able to sing with perfect facility from one end of the voice to the other, emitting all the notes clearly and yet with power and having each note of the scale sound in the same quality and tonal beauty as the one before and after.¹¹³

¹¹¹ Metzger, *Musical Modernism*, 197.

¹¹² Ibid.

¹¹³ Caruso and Tetrzzini, *The Art of Singing*, 8.

Circular Song does the exact opposite, bringing breath to the front of the listener's attention. All audible changes in this piece occur through the placement and frequency of the breaths within the *glissandi*. In this sense, La Barbara celebrates the very technical process that Tetrizzini aims to disguise. She demands that attention be given to, rather than diverted from, the efforts of singing technique.

The breaking down of classical singing conventions also occurs in the work of American composer-performer Julianna Snapper. Similar to La Barbara, Snapper is a classically trained soprano who entered the world of experimental music and never turned back. Many of her works such as *The Judas Cradle* (2005) and *You Who Will Emerge From the Flood* (2008) play with the undoing of the rigorous techniques that she developed during her training as a young singer. She does so by putting herself in drastic performance situations to force her body to find new ways to produce vocal sound.¹¹⁴ Snapper explains the process of “undoing the vocal mechanism,” or, releasing her voice from the rigid training that has formed corporeal habits:

We had a hell of a time trying to get my voice to break down under stress. We had me folding over jungle gym bars and contorting every which way before discovering that hanging upside down, with a slight arch to the back, will undo the vocal mechanism over the course of several minutes.¹¹⁵

Ultimately, Snapper's goal is to achieve new sonic results by countering the technical strictures she built throughout her vocal training. She went so far as to write “underwater operas,” teaching herself to sing while immersed in water and performing inside an Olympic sized swimming pool. Indeed, this is extreme, if not outright dangerous. An aesthetic tie remains,

¹¹⁴ See Nina Sun Eidsheim, “Sensing Voice: Materiality and the Lived Body in Singing and Listening,” *Senses and Society* 6, no. 2 (2015): 133–155.

¹¹⁵ Eidsheim, “Sensing Voice,” 136.

however, between Snapper and La Barbara, both expanding the possibilities of vocal technique to find new ways of producing sound, not only for the sake of experimentation, but also to challenge the norms of classical voice performance.¹¹⁶

(Dis)embodiment

La Barbara's circular breathing technique in *Circular Song* presents an interesting example of the acousmatic. Brian Kane notes that the experience of acousmatic sound is subjective and can vary from listener to listener:

Acousmaticity, the determination or degree of spacing between source, cause, and effect, depends on the cognitive state of the listener and the knowledge they possess about the sound heard, its environmental situation, and its means of production, among other factors.¹¹⁷

Chief among these variable factors is the listener's knowledge, or lack of knowledge, of the method of sound production. As Kane later explains: "knowing the means of production is an effective way of reducing acousmaticity."¹¹⁸ In *Circular Song*, however, knowledge of the sound source only enhances the acousmatic experience. La Barbara's unfamiliar treatment of the voice creates a contradicting experience in which the listener simultaneously understands and questions the source of the vocal sound.

¹¹⁶ Eidsheim, "Sensing the Voice," 136–138. Snapper rejects the "complete control" required for operatic singing and performance. Like La Barbara, she experiments with letting her body take the lead in creating new ways of producing vocal sound (see Chapter Five for a discussion of La Barbara's body-based composition). Eidsheim writes: "Through rigorous experimentation, Snapper located the point at which she, as a singer, lost control, allowing her voice to take over as an autonomous, driven, and determined entity... In other words, she discovered that allowing the physicality of her instrument rather than prewritten instructions or preconceived ideas, to dictate the sound of her performance led to new possibilities."

¹¹⁷ Kane, *Sound Unseen*, 225.

¹¹⁸ Ibid.

With the exception of the inhaled and exhaled multiphonics, La Barbara's vocalizations in *Circular Song* comprise familiar uses of the voice, such as *glissandi* and hums. Because of this familiarity, the listener can immediately recognize their connection to the performer. In her discussion of the circular singing technique, La Barbara speaks of the listener's ability to connect with the voice, even when used in new ways. She explains that there is a "familiarity when you hear a voice making these sounds [circular singing]. It is very different from other instruments making extreme sounds."¹¹⁹

The singer opens the piece with phonated exhalations and inhalations on an open [a] vowel. Unlike many of La Barbara's signature or improvisatory sounds, these inhalations and exhalations are instantly recognizable, sounding like *glissandi*. At 0'48", she shifts the open [a] vowel to a closed-lip inhalation that sounds similar to a hum. By 1'05", La Barbara returns again to an open vowel and continues to move between the open and closed methods of phonation throughout the remainder of the work.

It is interesting to note that La Barbara considers *Circular Song* to be a particularly embodied work, in part because of the amount of physical energy it demands. The piece has formed deep corporeal roots that allow La Barbara to continue to perform it forty years after it was written in 1975. She reflects on the differences in performing the piece today from when she first created it:

What I find is that when I start the piece, I start it in my current voice, which is lower than my younger voice. By the time I get into the piece, my voice has gone back somewhat to the clarity and simplicity of my voice from many years ago, which is not anything that I do with intention. I think it's something that is embodied in the piece

¹¹⁹ Caruso, "Roots: A Study of the Female Voice," 60.

itself and so once I get into the piece, the piece in a way directs me and takes over my body.¹²⁰

La Barbara highlights the trust she places in her body, specifically her breath and voice, to perform such a demanding feat. She taps into muscle memory to achieve the pure, clean sound of her younger voice. The reversion of her voice to the timbral qualities from forty years earlier supports La Barbara's notion of the piece "taking over" her body. As she notes, this happens unintentionally and with no clear explanation:

While I am very much engaged with controlling what my body is doing (breath-wise), I am intellectually focused on trying to make the descending and ascending vocal glissandi as "pure" and "clean" as possible. Sometimes what happens is that my current voice (I am 69 years old) reverts back to the voice of my 20's and early 30's. I cannot explain this. I only know that the sound is more pure than I could reasonably expect.¹²¹

The score instructions affirm the embodied nature of the piece. La Barbara emphasizes an awareness of the physical sensations that she experiences when experimenting with circular breathing techniques. She gives little indications for an intended sonic result, but rather, speaks to the ways in which minor physical adjustments help to successfully sustain the phonated inhales and exhales. The first instruction, for example, is to release all bodily tension: "prepare by relaxing completely with special attention to releasing stomach muscles and the tensions they hold. Breathe very deeply several times, releasing stomach-held tensions more each time."¹²² She later instructs, "each pattern should be repeated to its physical or mental limit, i.e., until it is too physically exhausting or is no longer musically interesting (a minimum of 5 repeats per

¹²⁰ La Barbara, "Fireside Chats," 56:20.

¹²¹ La Barbara, email correspondence with the author, July 20, 2016.

¹²² La Barbara, *Circular Song*, score notes.

pattern).”¹²³ The sonic result is less important than the physical comfort of, and sensations experienced by, the performer’s body.

At the same time, however, there are aspects of *Circular Song* that strongly suggest a disconnect from the body and an unnatural sound source. Specifically, the impossibility of the technique (combining singing with breathing) calls into question the human nature of the sound source. Listening to this piece is an acousmatic experience in Dolar’s understanding of the term – the vocalizations do not always match their source. As noted, the listener can immediately understand that La Barbara’s body is producing the phonated inhales and exhales because of the familiar vocal sounds such as hums, sighs, and *glissandi*. At the same time, however, the “impossible effect” of circular breathing suggests a contradiction. Singing and breathing do not typically occur at the same time; rather, singers sustain long vocal lines with breath support and inhale fresh oxygen at the end of each phrase. Therefore, listeners expect to hear short pauses between phrases for breath. By removing any audible breaks in phonation, La Barbara’s vocalizations are continuous and appear to be magically sustained without the crucial ingredient of breath.

In doing so, she not only achieves a singer’s version of circular breathing, but also suggests a separation of the voice from body, of *echos* from *topos*. The crucial factor in this separation is *technê*, or the circular singing technique. As Kane proposes, *technê* “disturbs the circulation of *phoné* [voice], by rearranging and redistributing *topos*, *logos*, and *echos*.”¹²⁴ The presence of *technê* in *Circular Song* specifically disturbs the relationship between *echos* and

¹²³ La Barbara, *Circular Song*, score notes.

¹²⁴ Kane, “The Model Voice,” 674.

topos; it creates a contradiction between the known source of the sound and the “impossible” nature of the sound. Singers need to stop and breathe and La Barbara’s use of *technê* in *Circular Song* offers few moments of respite. As a result, La Barbara’s continuous *echos* vocalizations point to a non-human source, perhaps a siren or machine that does not require breath to sustain sound.

A brief pause approximately five and a half minutes into the piece returns attention to La Barbara’s body as the source of vocal sound. The listener is snapped out of the meditative sonic atmosphere, created by the repeating *glissandi* and lack of silence, by a short moment of vocal failure. At 5’23”, La Barbara stops singing in the middle of the figure highlighted in Figure 4.4, perhaps because of fatigue from the rigorous technique, the need to clear her throat, or an unexpected cough. Regardless of the reason for the break in the *glissandi* pattern, the importance of the moment lies in the instant indication of La Barbara’s body as the source of sound. This break can be thought of as a brief instance of disacousmatization, in which *technê* – in this case, the technique of the phonated inhale – is pushed aside. When *technê* disappears, we are reminded of its importance for sustaining the acousmatic experience. As Kane states:

[*Technê*] is often deployed for the sake of producing acousmatic sounds... Bodily techniques can prepare the listener for attentive focus on the effect while bracketing the source or cause; physical barriers can obscure the source or cause; technologies can create conditions whereby a presumed source (the black box on Les Paul’s guitar) masks a real source (the playback device) in order to produce extraordinary effects that seem in excess of the source.¹²⁵

When *technê* is removed, *topos* becomes undebatable. The break in La Barbara’s circular singing draws the listener’s attention away from the extraordinary effect of singing without audible

¹²⁵ Kane, *Sound Unseen*, 226.

breaks and, as a result, undoes the disembodied nature of the work. In this instance, all attention is given to La Barbara as the source of sound. More specifically, to her human body as the source of sound, in need of breath and subject to involuntary vocal utterances such as coughing or clearing the throat from fatigue.

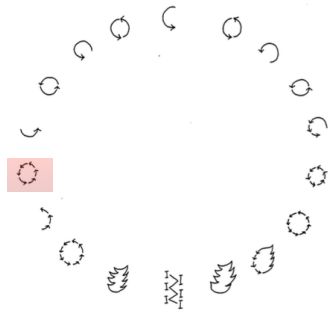


Figure 4.4: Brief slip in circular singing

Emily Wilbourne emphasizes the virtuosity that is required for an actor to convincingly portray moments of vocal failure, such as a stutter or an emotional reaction that causes a loss for words.¹²⁶ These slips are difficult to recreate because they are moments in which the body operates autonomously, without intention or control. She writes, “when the voice breaks, language suffers, but more importantly, the auditor is made aware of the body of the speaker and presumably its traumatic history.”¹²⁷ Wilbourne aptly touches on the moment of bodily recognition that occurs when the listener encounters La Barbara’s slip. It returns the listener’s attention to her human and therefore imperfect body as the source of the vocalizations. As Wilbourne suggests, listeners understand moments of “bodily betrayal” as a “guarantee of

¹²⁶ Emily Wilbourne, “Demo’s Stutter, Subjectivity, and the Virtuosity of Vocal Failure,” *Journal of the American Musicological Society* 68, no. 3 (2015): 659–663.

¹²⁷ Wilbourne, “Demo’s Stutter, Subjectivity, and the Virtuosity of Vocal Failure,” 659.

authenticity,”¹²⁸ or, in this case, an indication that regardless of how “impossible” this piece sounds, La Barbara’s voice is indeed the source.

¹²⁸ Wilbourne, “Demo’s Stutter, Subjectivity, and the Virtuosity of Vocal Failure,” 660.

Chapter 5: *Hear What I Feel*

La Barbara refers to *Hear What I Feel* an “exercise in sensory deprivation,” exploring the ways in which diminishing and heightening the senses impacts her vocalizations.¹²⁹ She first performed the work in January 1975, and the recording on *Voice is the Original Instrument* is from the premiere. The preparation process is crucial for a effective performance of *Hear What I Feel*. La Barbara isolates herself in a silent, dark room with her eyes taped shut for one hour prior to going on stage. The intent is to create a meditative state, remaining as un-influenced by external sensory stimulation as possible. By eliminating visual and auditory stimulation, she strives to heighten her tactile sensations during the actual performance.¹³⁰

Following the isolation period, La Barbara is led onstage by an assistant with her eyes still taped shut and is given six different substances in small petri dishes. Some examples of substances used in various performances of *Hear What I Feel* are sea urchins, Jello, tin foil, and pudding.¹³¹ Both the audience and La Barbara, however, remain unaware of the nature of the substances. La Barbara’s only stipulation is that nothing should be alive, crawling, or cause her pain. One by one, La Barbara touches each substance and gives an immediate vocal response to the individual sensations and textures. Her responses are best characterized as vocal sounds; they are wordless, often non-pitched, and encompass snorts, moans, choking-noises, and cries. La

¹²⁹ La Barbara, *Voice is the Original Instrument*, album notes.

¹³⁰ Brown, “The Beautiful in Strangeness,” 34–36.

¹³¹ Libby Van Cleve, “Interview With Joan La Barbara,” February 17, 1998, *Oral History of American Music*, Yale University Library, <http://www.library.yale.edu/about/departments/oham/labarbaratrans.html>

Barbara explains that she has no desire to identify the substances, but rather wants to give a vocal reaction, with the hope that she might uncover new sounds.¹³²

Aleatoric Music

Hear What I Feel can be situated within a broader movement of aleatoric music.

Beginning in the 1950s, composers such as Cage, Brown, Feldman, and Wolff created works that left many, or all, compositional elements to chance. In his first tape work, *Williams Mix* (1951–1953), for example, Cage used the *I-Ching* to determine the arrangement of various recorded sounds.

Aleatoric works, indeed many experimental works, elevate the role of the performer and the performance. As Michael Nyman states:

Experimental music thus engages the performer at many stages before, above and beyond those at which he is active in some forms of western music. It involves his intelligence, his initiative, his opinions and prejudices, his experience, his taste and his sensibility in a way that no other form of music does, and his contribution to the musical collaboration which the composer initiates is obviously indispensable.¹³³

Earle Brown's *December 1952* is an example of an early aleatoric work that has the performer play the expanded role described by Nyman. The graphic score comprises lines that vary in direction, length, and thickness. From these images alone, the performer freely interprets and determines all sonic material. During the Fluxus movement in the 1960s, experimental music performance became increasingly theatrical. The instruction score for LaMonte Young's

Compositions 1960 #6, for example, reads:

¹³² Molly Sheridan, "The Unexpected Importance of YES: Joan La Barbara," Interview with Joan La Barbara, March 1, 2006, *New Music Box, New Music USA* <http://www.newmusicbox.org/articles/the-unexpected-importance-of-yes-joan-la-barbara/3/>

¹³³ Nyman, *Experimental Music: Cage and Beyond*, 14.

The performers (any number) sit on the stage watching and listening to the audience in the same way the audience usually looks at and listens to performers. If in an auditorium, the performers should be seated in rows on chairs or benches; but if a bar, for instance, the performers might have tables on stage and be drinking as is the audience.¹³⁴

Indeed, *Hear What I Feel* encompasses characteristics of aleatoric music; specifically, improvisation-based performance, theatricality, and the expanded role of the performer. La Barbara creates a performance experience that relinquishes as much composerly control as possible. Freedom is given to the performer (granted, in this case, composer and performer are the same person) who makes as few conscious decisions or pre-performance plans as possible. In this sense, La Barbara eliminates the mediation of pre-compositional thoughts in favour of an experimental performance. As La Barbara touches each individual substance on stage, she is unsure of what vocal sounds will emit from within; she releases the mental restraints on her voice and lets her body take over and direct the performance. Furthermore, the possibly repellent nature of some of the substances contributes to the lack of control in the performance experience. La Barbara recalls a performance in which she was unknowingly given chicken livers to touch and vocally respond to. She describes the resultant sound as “wonderful, deep, and guttural” and the experience as boundary-pushing in that she would never have touched the chicken livers had she not been blindfolded.¹³⁵

The relinquishment of control is certainly atypical of traditional classical singing; singers use carefully structured techniques to produce and sustain sound. As discussed in the previous chapter, they are taught to make demanding physical feats look as effortless as possible. In a recent review of Joyce DiDonato’s portrayal of Charlotte in Jules Massenet’s *Werther*, for

¹³⁴ Mark Alburger, “La Monte Young to 1960,” *21st-Century Music* 10, no. 3 (2003): 8.

¹³⁵ Brown, “The Beautiful in Strangeness,” 35–36.

example, she is praised for maintaining “restraint and natural ease” during a death scene in which she sings with power.¹³⁶

Singers are expected to breathe unassumingly and to hide hints of body, placing focus on the pure vocal sound. In *Hear What I Feel*, however, the vocal sounds are harsh, uncontrolled, and filled with indications of the body, and specific places within that body, producing them. Roland Barthes refers to this bodily presence as “the grain of the voice,” arguing that one can hear the physical body of a performer while they are singing:

Listen to a Russian [church] bass... something is there, manifest and stubborn (one only hears *that*), beyond (or before) the meaning of the words, their form (the litany), the melisma, and even the style of execution: something which is directly the cantor’s body, brought to your ears in one and the same moment from deep down in the cavities, the muscles, the membranes, the cartilages, and from deep down in the Slavonic language, as though a single skin lined the inner flesh of the performer and the music he sings.¹³⁷

Similarly, some of the sounds in *Hear What I Feel* reflect physical places within La Barbara’s body. The choking sounds at 5’16” (for which the specific tactile stimulus is not known), for example, draw attention to La Barbara’s throat because the listener can hear her breath catching as she forcefully expels air. Similarly, the listener can recognize that La Barbara produces the snorting sounds at 6’20” (again, the substance that La Barbara touches at this moment is not known) by inhaling audibly through her nose, also bringing focus to a specific part of her body.

This emphasis on the physical sense of touch is unusual for aleatoric music. To the best of my knowledge, improvising sounds in response to tactile sensations is a compositional process unique to La Barbara; she confirms that *Hear What I Feel* is the only piece in which uses this

¹³⁶ Joyce DiDonato, “News,” *Joyce DiDonato*, June 20, 2016, <http://joycedidonato.com/2016/06/20/critical-acclaim-for-joyce-didonatos-debut-as-charlotte-in-royal-opera-house-production-of-werther/>

¹³⁷ Roland Barthes, *Image, Music, Text* (London: Fontana Press, 1977), 181.

approach.¹³⁸ Indeed, the resultant sounds on the *Voice is the Original Instrument* recording can hardly be thought of as familiar. La Barbara describes the vocalizations as “in their raw state,” and considers the piece “a truly an experimental work with no intentional musical implications or designs.”¹³⁹ The eight and a half minute long performance includes no instances of traditional singing. Instead, it comprises twelve different sections, anywhere from twenty to ninety seconds in length. They are separated by brief, and at times relieving, moments of silence. The few identifiable vocal sounds that La Barbara emanates are vocal fry, moans, cries, snorting, and inhalations constricted by the throat (see Chapter Two for an explanation of La Barbara’s extended vocal techniques). The following table offers a breakdown and description of the individual segments. Because there is no score for this piece, some of the terms are based on my own listening analysis.

Time	Vocal Technique
0’00 – 1’27”	Whimpering
1’27” – 2’00”	Moaning; constricted crying in the throat
2’15” – 3’00”	Vocal fry
3’05” – 3’30”	Moaning
3’32” – 4’06”	Inhalations and exhalations with constricted throat
4’10” – 4’38”	Guttural moans and cries
4’41” – 5’11”	Sustained, rhythmic, higher pitched vocal fry
5’16” – 5’42”	Rhythmic choking
5’45” – 6’08”	Increasingly rhythmic vocal fry
6’12” – 6’42”	Combination of snorting and inhaling with constricted throat

¹³⁸ Joan La Barbara, email correspondence with the author, July 20, 2016.

¹³⁹ La Barbara, *Hear What I Feel, Voice is the Original Instrument*, album liner notes.

Time	Vocal Technique
6'46" – 7'10"	Exhaling with constricted back of mouth and throat
7'13" – 8'29"	Combination of quiet whimpering and vocal fry

Figure 5.1: *Hear What I Feel* sounds

As the table reveals, it is challenging to name each sound, many of which are difficult to understand, place, and describe. In Brown's study of La Barbara's extended techniques, she writes: "*Hear What I Feel* revealed many sounds that may only be described as 'primal' in nature."¹⁴⁰ Aside from finding new ways to produce sound, one might wonder what La Barbara aims to achieve with her exploration of sensory-produced vocalizations. In the remainder of this chapter, I will discuss two different outcomes of *Hear What I Feel*: preverbal or non-semantic communication and a body-focused form of musical composition and performance.

Preverbal Communication

In the performance notes for *Hear What I Feel*, La Barbara articulates a desire to "delve into the psychological aspects" of sound discovery as well as to connect with the audience on what she refers to as a "preverbal" level.¹⁴¹ Dolar's concepts of preverbal communication in his discussion of the linguistics of the voice applies to La Barbara's communicative aims in *Hear What I Feel*. Dolar identifies a "zero-point" of signification, defined as the "incidence of meaning, itself not meaning anything, the place around which other – meaningful – voices can be

¹⁴⁰ Brown, "The Beautiful in Strangeness," 34.

¹⁴¹ La Barbara, *Voice is the Original Instrument*, album notes.

ordered.”¹⁴² For Dolar, this zero-point encompasses involuntary vocal utterances, namely, coughs or hiccoughs that are beyond the control of the speaker and interrupt chains of communication.¹⁴³

The involuntary nature of these vocalizations is critical to Dolar’s concept. Because the sounds are created without intention, they belong to the body and not the mind. Therefore, they do not hold any sort of intended meaning or message. Aristotle called involuntary vocal sounds “soulless voices.” For him, the voice is inextricably bound with intentional thought:

Not every sound, as we said, made by an animal is voice... what produces the impact [vocal sound] must have soul in it and must be accompanied by an act of imagination, for voice is sound with meaning and is not merely the result of any impact of the breath as in coughing....¹⁴⁴

Soulless voices, therefore represent a break from speech, operating separately from intentional vocal utterances.

Hear What I Feel can be thought of as a “zero-point” in La Barbara’s exploration of the voice precisely because the vocal sounds are produced with as little intention as possible. During the pre-performance isolation period, La Barbara prepares her mind and body to create vocalizations that are uninhibited by mental planning. The resultant, improvisatory sounds come close to Aristotle’s “soulless voices.” They are produced without directed thought but rather through immediate reaction to tactile sensation.

La Barbara talks about *Hear What I Feel* as a way to communicate with the audience on a “preverbal level of awareness.”¹⁴⁵ Indeed, the driving concept behind many of the works on

¹⁴² Dolar, *A Voice and Nothing More*, 26.

¹⁴³ Ibid.

¹⁴⁴ Quoted in Dolar, *A Voice and Nothing More*, 23.

¹⁴⁵ La Barbara, *Voice is the Original Instrument*, album notes.

Voice is the Original Instrument is La Barbara's desire to return to an "original use of the voice," in which wordless sound expresses emotions to others.¹⁴⁶ She believes interactions between the performer and the audience can occur on an emotional level:

[W]hat's really interesting to me is the emotional impact of a particular sound. You can play different sounds with the same visual and get a very different feeling about what's going on, on the screen. So clearly, music is carrying a great deal of emotional weight, and there's a tremendous responsibility on the part of musicians, in that they are able to transport the emotions or transform the emotions of someone listening.¹⁴⁷

Michel Chion's theory of the I-Voice provides an explanation for how La Barbara might achieve preverbal communication in *Hear What I Feel*. The I-Voice theory accounts for a viewer's identification with a film subject through the sonic qualities of his or her voice. Chion outlines a few technical factors that make certain film voices "pivots of identification" for the viewer.¹⁴⁸ Close miking and a lack of reverberation, for example, remove the perceived distance between the viewer and the film subject, creating a sonic illusion of a shared space between the two. Chion explains that primal sounds make particularly effective I-Voices because of the ways in which they trick the viewer into empathetic listening, a form of listening that actively engages the body. Breathing, groaning, or sighing, for example, have specifically "corporeal implications," involving the spectators' bodies in the viewing experience:¹⁴⁹

The extreme cases of corporeal implication occurs when there is no dialogue or words, but only closely present breathing or groans or sighs. We often have as much difficulty distancing ourselves from this to the degree that the sex, age, and identity of the one who

¹⁴⁶ Zimmerman, *Desert Plants*, 151–152.

¹⁴⁷ Bruce Duffie, "Interview with Joan La Barbara," August 16, 1991, <http://www.bruceduffie.com/labarbara.html>

¹⁴⁸ Michel Chion, *The Voice in Cinema* (New York: Columbia University Press, 1999), 51.

¹⁴⁹ Chion, *The Voice in Cinema*, 53.

thus breathes, groans, and suffers aren't marked in the voice. It could be me, you, he, she.¹⁵⁰

Furthermore, the sounds that La Barbara emits in *Hear What I Feel* have corporeal implications, leading the audience to engage in Chion's empathetic listening. Because the piece is textless, the listener does not glean understanding from this piece on a verbal level. The listener instead relates to the physical sensations of the bodily sounds that La Barbara creates with her voice. Returning again to the examples of the choking and snorting, the listener not only recognizes those noises but can also identify with the physical sensations that La Barbara experiences when creating them. Therefore, listening occurs not only with the ears, but also with specific places in the body such as the throat (choking) and nose (snorting). With no text or traditional singing for the listener to grasp onto, the listener connects to the non-musical sounds that point to specific places in La Barbara body.

Simon Frith touches on a similar phenomenon in his discussion of voice-body relationships in popular music. According to his theory, the bodily engagement a listener experiences when hearing La Barbara's sounds might occur on a subconscious level. He suggests that listening to a singer is different from listening to an instrument because of the embodied, and therefore familiar, nature of the voice.¹⁵¹ Similar to Chion's I-Voice theory, Frith articulates a form of physical engagement that occurs when listening to a singer, in which a listener actively mimics the vocal sounds:

We certainly do hear voices as physically produced: we assign them qualities of throatiness or nasality, and, more specifically, we listen by performing, by reproducing (even if only silently, tentatively) those muscular movements for ourselves,

¹⁵⁰ Chion, *The Voice in Cinema*, 53.

¹⁵¹ Simon Frith, *Performing Rites* (Cambridge: Harvard University Press, 1996), 191–193.

“sympathizing” with a singer by pushing the words up against the top of our mouths when she does.¹⁵²

As noted, in *Hear What I Feel*, La Barbara achieves the desired connection with the audience not through text or music, but rather through bodily expression and engagement. La Barbara explains her desire for the audience to “in a sense, ‘feel’ what I was feeling both tactilely and emotionally.”¹⁵³ She draws upon the familiarity of the voice as something shared between performer and listener as well as the listener’s ability to empathize with the physical, guttural nature of many of the sounds. As Frith notes:

[W]ith singing, we [listeners] feel we know what to do. We have bodies too, throats and stomachs and lungs. And even if we can’t get the breathing right, the pitch, the note durations (which is why our performances only sound good to us), we still feel we understand what the singer is doing in physical principle...¹⁵⁴

Theories of empathetic listening demonstrate that communication can occur on many levels, even through physical mimicry beyond the awareness of the listener. Brown recalls her experience of listening to a recording of the piece prior to the release of the *Voice is the Original Instrument* album:

Guttural sounds, gagging sounds, and choking sounds raised a strong internal, physical response. No knowledge of what material was contained in the dishes nor any visible cues were available, yet the sound alone were able to communicate La Barbara’s response to the things she was touching.¹⁵⁵

¹⁵² Frith, *Performing Rites*, 192.

¹⁵³ La Barbara, email correspondence with the author, July 20, 2016

¹⁵⁴ Ibid.

¹⁵⁵ Brown, “The Beautiful in Strangeness,” 35.

The remainder of this chapter will focus specifically on the role of the body in *Hear What I Feel*. I will situate the piece amongst other body-based experimental works and will also discuss how the embodied nature of this piece make it particularly personal to La Barbara.

Body-Based Composition

Creating music from the sense of the touch is certainly an unusual means of composition. Many composers have brought together the visual and auditory senses, creating musical works inspired by paintings, architecture, or landscapes. Feldman's *Rothko Chapel* (1971), for example, was both inspired by and written to be performed within the Rothko Chapel, a non-denominational church in Houston, Texas that houses fourteen paintings by American artist Mark Rothko. Some composers even experience a complete blending of the two senses known as synesthesia, hearing colours while playing, composing, or listening to music. Russian composer Alexander Scriabin, for example, assigned each musical key a different colour and French composer Olivier Messiaen saw colours upon hearing specific sounds, seeing a major chord with an added sixth, for example, as bright blue.¹⁵⁶

As noted in Chapter Two, La Barbara often draws on visual influences while composing; she refers to her visual sense as both her “her strongest sense” and “strongest need” because she is nearsighted.¹⁵⁷ Likening her creative process to painting, La Barbara refers to her works as sonic versions of visual art forms – sound paintings to be specific: “Visual art often informs my

¹⁵⁶ Jonathan Powell, “Scriabin, Aleksandr Nikolayevich,” *Grove Music Online*, Oxford Music Online, Oxford University Press.; and Paul Griffiths, “Messiaen, Olivier,” *Grove Music Online*, Oxford Music Online, Oxford University Press.

¹⁵⁷ Joan La Barbara, “Program Notes.”

work as shape, color and structure trigger sonic gestures in my mind.”¹⁵⁸ More unusual, however, is La Barbara’s marriage of the auditory sense and the physical sense of touch in *Hear What I Feel*. That being said, an emphasis on the human body in musical composition has become more common in recent years with works such as Matmos’ *A Chance to Cut is a Chance to Cure* (2001).

In *Singing the Body Electric*, Miriam Young discusses the trend among current electronic music composers and performers of bringing attention to the living, breathing body.¹⁵⁹ Young explains that this fixation on the body reacts against the “plasticity” of the recording industry, which uses technology to create seamless and sometimes fake electronically altered voices.¹⁶⁰ She cites Theodor Adorno, who expressed weariness over the disembodiment of the singer that occurs when the voice is recorded:

As the recordings becomes more perfect in terms of plasticity and volume, the subtlety of color and the authenticity of vocal sound declines as if the singer were being distanced more and more from the apparatus.¹⁶¹

Further, with the presence of auto-tuning in many, if not most, recordings of popular singers today, the mechanically-perfect version of the voice is all too common-place. As Young writes:

When the illustrious voice of a pop singer such as Beyoncé glides silkily down our headphones and into the ear canal, we hear the voice, but we also hear the significant post-production tinkering, the work of highly skilled sound engineers and producers...

¹⁵⁸ Joan La Barbara, “Joan La Barbara,” *Contemporary Music Review* 25/ 5-6 (2006): 408.

¹⁵⁹ See Miriam Young, *Singing the Body Electric: The Human Voice and Sound Technology* (Surrey: Ashgate Press, 2015).

¹⁶⁰ Young, *Singing the Body Electric*, 42–44.

¹⁶¹ Quoted in *Singing the Body Electric*, 43.

Perfection renders the voice with traits no longer uniquely human, as it becomes both product and mimicry of the machine that produces it.¹⁶²

In light of the increasing prevalence of these too-perfect voices, some composers have chosen to expose, rather than mask, the bodily associations of the voice. The experimental electronic music duo Matmos, for example, has engaged with the body in a very direct way. *A Chance to Cut is a Chance to Cure* is the title of their 2001 album, which explores the concept of “playing” the living body. The idea of the body as a “playable” instrument calls to mind discussions of instrumentality, defined by Emily Dolan as “the relationship between music and those technologies that enable its production.”¹⁶³ Both Dolan and Roger Moseley have explored the instrumentality of the keyboard as an interface for technological and musical developments.¹⁶⁴

A Chance to Cut is a Chance to Cure explores the instrumentality of the body. The album consist of recorded and sampled sounds from live surgeries and medical procedures, such as fat extraction during liposuction, the hiss of lasers during eye refractive surgery, and the sounds of bones breaking. As Young points out, Matmos electronically modifies the sounds to disguise their original sources, similar to Schaeffer’s *musique concrète* works.¹⁶⁵ The grotesque sound sources are taken from their bodily contexts and processed into musical works. In the piece

¹⁶² Young, *Singing the Body Electric*, 43.

¹⁶³ Emily Dolan, “Towards a Musicology of Interfaces,” *Keyboard Perspectives* 5 (2012): 1–12.

¹⁶⁴ See Dolan, “Towards a Musicology of Interfaces,”; “The Work of the Orchestra in Haydn’s *Creation*,” *19th Century Music* 34, no. 1 (2010): 3–38.; and Roger Moseley, “Digital Analogies: The Keyboard as a Field of Musical Play,” *Journal of the American Musicological Society* 68, no.1 (2015): 151–229.

¹⁶⁵ Young, *Singing the Body Electric*, 53.

Heart Surgery, for example, Matmos samples sounds from an open heart surgery. Though they are transformed into a groovy beat, there are specific moments in the piece which point to the sounds' connections with the body. From 10'10"– 10'20", for example, the rhythmic layers of sounds disappear, leaving only the unmistakable pulse of a heart beat.

Another composer who explored voice-body relationships around the same time as La Barbara's work is Lucier. His *I am Sitting in A Room* (1969) meditates on moments of vocal failure or vocal stutters. Lucier records himself reading the following text:

I am sitting in a room, different from the one you are in now. I am recording the sounds of my speaking voice and I am going to play it back into the room again and again until the resonant frequencies of the room reinforces themselves so that any semblance of my speech, with perhaps the exception of rhythm, is destroyed. What you will hear, then, are the natural resonant frequencies of the room articulated by speech. I regard this activity not so much as a demonstration of a physical fact, but more as a way to smooth out any irregularities [stutters] my speech might have.¹⁶⁶

As the text explains, Lucier repeatedly layers the recordings of his voice until his speech is completely broken down and unintelligible, leaving only the reverberation of his voice throughout the room. Inasmuch as this piece explores the sound of a voice within a specific sonic environment, it also makes reference to the body of the voice that produces the speech. Specifically, to the "irregularities" or imperfections of the body, periodically stuttering throughout the text. Recalling Wilbourne's discussion of vocal failure, moments of stuttering bring awareness to the speaker's body.¹⁶⁷

Similar to the works of Matmos, in *I am Sitting in a Room*, there is a process of "purifying" the blemished sounds of the body – an overall motion from the bodily to the musical.

¹⁶⁶ Alvin Lucier and Douglas Simon, "*I Am Sitting in a Room*" in *Chambers: Scores by Alvin Lucier* (Middletown: Wesleyan University Press, 2012).

¹⁶⁷ Wilbourne, "Demo's Stutter, Subjectivity, and the Virtuosity of Vocal Failure," 659.

Lucier's stutter is eventually washed away by the blending of his voice into the sounds of the room. A progression also occurs from the voice carrying semantic meaning (speech) to the voice as pure sound. According to Kane's model voice, as the layers of recorded sound (*technê*) begin to obscure speech (*logos*), the wordless sounds of the voice within the room (*echos*) become more prominent. As Lucier's speech is entirely broken down to become purely *echos*, the imperfections in his speech become less noticeable. The irregularities of the stutter gradually become normalized, and eventually disappear altogether, as *echos* replaces *logos*.

Hear What I Feel aligns with these pieces in that the listener observes and hears La Barbara's bodily experience at the same time as the sonic qualities of her voice. Watching a performance of the piece is certainly a different experience from listening to a recording. As La Barbara explains: "there is no way that one can fully feel the vulnerability, the fragility other than by being there."¹⁶⁸ Watching the performance and knowing about the extensive preparation process, the audience would both observe and hear the embodied nature of the work. They would see La Barbara touch each substance and they would hear the immediacy of each ensuing sound.

While the recorded version of the piece may not fully capture the authenticity of observing the live performance, La Barbara believes it can still convey powerful emotions:

Once I heard a vocal recording of Antonin Artaud and I sensed the chill and fear of what it might have been like to be there at his performance, to be present during it. I suppose I could liken the experience of *Hear What I Feel* to that.¹⁶⁹

¹⁶⁸ La Barbara, email correspondence with the author, July 20, 2016.

¹⁶⁹ Ibid.

In Brown's discussion of the work, she echoes this notion, stating that "sound alone" could communicate to the listener La Barbara's visceral responses to each substance.¹⁷⁰

Some sounds in *Hear What I Feel* are difficult to listen to because they suggest pain or struggle. The piece opens, for example, with a faint whimper and the *piano* dynamic level and placement of the sound in a high register suggests a crying animal or small child. Beginning at 5'16," a sound immediately conjures images of choking, produced with constricted breath in the throat. The choking occurs in four different sections, repeatedly calling to mind the feelings of struggle and panic that occur when one is unable to breathe.

In this sense, *Hear What I Feel* is an emotionally-charged work as well as an experiment in vocal sound discovery. Following one of La Barbara's first performances of the piece, composer Laurie Spiegel commented that the emotional power of it made her cry.¹⁷¹ Similarly, in a recent radio interview, La Barbara recalls the first performance of the piece and specifically points to the success of the work as lying in the emotional connection with the audience:

I'm not sure that I actually made any sounds that I'd never made before, but I think it was very successful in that secondary way of communicating with the audience.¹⁷² I had people come up to me afterwards, which they do no matter what I'm doing, saying that they had some really emotional response to what I was doing.¹⁷³

Improvising in front of an audience blindfolded certainly places La Barbara in a vulnerable position. As La Barbara explains, "the fragility of and vulnerability of my still-blind

¹⁷⁰ Brown, "The Beautiful in Strangeness," 35.

¹⁷¹ Van Cleve, "Interview With Joan La Barbara."

¹⁷² La Barbara refers to the discovery of new vocal sound as the "primary way." La Barbara, "Fireside Chats," 13:20.

¹⁷³ Ibid., 13:50.

state [on stage] was palpable.”¹⁷⁴ Indeed, there is something deeply personal about *Hear What I Feel*, perhaps because of the trust La Barbara places in herself, her assistant, and her audience to create an authentic performance experience. By authentic, I mean La Barbara being true to her intention of uninhibitedly emitting sounds and communicating through the sounds. In an interview with Walter Zimmerman, La Barbara refers to her desire to achieve an introspective state during the pre-performance isolation:

[Y]our attitude when you’re by yourself is very different from your attitude when you’re in front of an audience. And I try to heighten my emotional state that way, by not really preparing myself for an audience, by preparing myself for a very solitary experience.¹⁷⁵

The introspective, solitary, emotional intent in *Hear What I Feel* makes it the most personal of the four works I am studying from *Voice is the Original Instrument*. In fact, La Barbara may regard the piece as one of the most personal of all her works. Brown writes: “this intense search for raw sound left La Barbara feeling exposed and extremely vulnerable. She discovered it was a place too personal to share with the public, and so she stopped performing the work.”¹⁷⁶ La Barbara comments that one of the primary purposes of this work was to discover new vocal sounds. When she exhausted the possibility of creating new sounds through surprising herself, she stopped performing the work:

After a number of performances in different situations and locations, I decided that I had learned as much as I could about the “surprising new sounds” out of myself and I no longer wished to put myself in the emotional and psychological state required to do the piece.¹⁷⁷

¹⁷⁴ Joan La Barbara, email correspondence with the author, July 20, 2016.

¹⁷⁵ Zimmerman, *Desert Plants*, 152.

¹⁷⁶ Brown, “The Beautiful in Strangeness,” 36.

¹⁷⁷ La Barbara, email correspondence with the author, July 20, 2016.

In this sense, *Hear What I Feel* should not only be recognized as a unique, boundary-pushing performance experiment but also as a work that is intimately connected to La Barbara. In the following chapter, I will discuss *October Music*, in which La Barbara incorporates the sounds from her experiments and improvisations into a structured musical composition.

Chapter 6: *October Music: Star Showers and Extraterrestrials*

La Barbara considers *October Music: Star Showers and Extraterrestrials* to be a complete work. Unlike the other three pieces I have discussed, *October Music* is on the disc titled “The Music” from *Voice is the Original Instrument*. She composed the piece in 1980 in Paris, while her husband Morton Subotnick was a composer-in-residence at IRCAM, the Institut de Recherche et Coordination Acoustique/Musique. At this time, La Barbara held funding from the National Endowment for the Arts. Interestingly, she won the grant under the “visual arts” category. As La Barbara explains: “there had been some controversy about the conservative nature of the grants in Music Composition and the Visual Arts panel decided to look at sound work as a part of the overall art scene.”¹⁷⁸

Indeed, *October Music* has connections to the visual arts; La Barbara considers the piece a “sound painting.” She explains this blending of the visual and sonic arts as follows:

I intended these works [sound paintings] to be heard much in the same way that one looks at a painting but, in the case of my compositions, directed by the artist to listen to particular elements over the duration of a time-based work.¹⁷⁹

In *October Music*, the elements that the listener is drawn to are La Barbara’s vocal extensions, all of which are created naturally, but are combined and layered to produce a variety of sonic textures. The piece comprises sighs, tongue trills, screams, ululations, gibberish speech, overtone singing, multiphonic singing, vocal fry, and the use of extreme vocal registers.

¹⁷⁸ La Barbara, “Voice is the Original Instrument,” 43.

¹⁷⁹ La Barbara, email correspondence with the author, July 20, 2016.

The image that La Barbara aims to project through these vocal sounds is the night sky over the California coastline. Specifically, she draws attention to the juxtaposition of natural and unnatural elements in the sky. The subtitle of the piece, “Star Showers and Extraterrestrials,” highlights this contrast between the natural and the unnatural. In addition, La Barbara aimed to capture the air of mystery surrounding the vast universe and outer space. She expresses wonderment for what exists in far away galaxies as well as her desire to take part in the repertory of artistic works that explore such wonderment:

We send radio signals out into the atmosphere, hoping someday to get a response of some kind. Stories, poems, novels, scripts, films have been dedicated to the imaginary worlds and beings different from ours and us. Sometimes the beings are benign sometimes nefarious. This work is my contribution to that oeuvre.¹⁸⁰

In this chapter, I will introduce La Barbara’s use of technology in this and other works. Following, I will explore the ways in which she layers different vocal sounds as well as the conversational interaction of these sounds. I will conclude by demonstrating the ways in which these sounds operate along a sonic continuum between “familiar” and “unfamiliar” sounds.

Technology

October Music differs from the previously discussed works in La Barbara’s use of technology, namely, a sixteen-track tape reorder. During her university training, La Barbara developed an interest in using technology to aid in her exploration of the voice. While at Syracuse University, her professor Franklin Morris brought a MOOG synthesizer to the school and invited students to his studio to experiment with it. At this time, there was no actual class in electronic music composition and La Barbara recalls becoming fascinated with the medium and

¹⁸⁰ La Barbara, email correspondence with the author, July 20, 2016.

its ability transform sound.¹⁸¹ She also explains that at that time, she used the technology “more out of curiosity than a real effort to ‘compose’ with these sounds.”¹⁸²

La Barbara’s use of electronics in her overall composition output is relatively limited, though it has increased in frequency over time.¹⁸³ Of the one hundred and eleven works listed under the “compositions” section of her website, only twenty-five include electronics and half of these have been composed within the past decade.¹⁸⁴ The recent increase in her use of electronics can be attributed to advancements in technology. La Barbara explains that the layering and alterations that she used to do on multi-track tape can now be done “in the digital realm.”¹⁸⁵ Today, she uses computer technology such as ProTools to record and mix sounds in more nuanced ways than would have been possible with analog equipment.¹⁸⁶

A work that demonstrates one of La Barbara’s earliest forays into the realm of electronic composition is *Vocal Extensions* (1975). This piece is also included on the “The Music” disc of *Voice is the Original Instrument* and has an experimental approach to creating new sounds, similar to *Voice Piece* and *Hear What I Feel*. In this piece, La Barbara uses a phase shifter, a pitch modulator, and an echo unit to alter vocal sounds and techniques she had recently discovered, such as tongue trills and ululations. She explains that the piece “is based on stretching the voice, using sounds I’ve discovered in earlier experiments and expanding these

¹⁸¹ La Barbara, “Voice is the Original Instrument,” 35.

¹⁸² La Barbara, email correspondence with the author, July 20, 2016.

¹⁸³ See Appendix II for a list of her compositions and the technologies used in their creation.

¹⁸⁴ La Barbara, “Compositions,” *Joan La Barbara Website*, <http://joanlabarbara.com/comp.html>

¹⁸⁵ La Barbara, email correspondence with the author, July 20, 2016.

¹⁸⁶ Ibid.

possibilities by feeding the voice signal through electronic sound altering devices.”¹⁸⁷ The specific technologies she plays with (Roland Space Echo and Elektro-Harmonix Frequency Shifter) were designed for guitar players, but La Barbara uses them to similar ends as in her improvisations, trying to “surprise” new sounds out of herself.¹⁸⁸

In *October Music*, on the other hand, La Barbara does not include any electronic alterations, with the exception of some minor use of equalization to balance the combinations of vocal sounds.¹⁸⁹ Rather, she achieves a layered sonic fabric through analog recording and splicing. As noted, the work was composed in Paris at IRCAM. La Barbara explains that at this time, computer equipment was in-vogue for many composers. Because of this, the analog equipment was not being used, so she was offered the studio to create her own works:

So he [composer David Wessell] showed me how to use the equipment board and gave me a two-inch reel of tape and I was my own recording and remix engineer as well as composer and performer. It was a bit cumbersome, but I managed.¹⁹⁰

She recorded her vocal sounds on two-inch tape using a sixteen-track tape recorder. La Barbara uses multitrack recording in many of her compositions.¹⁹¹ This allows her to achieve her desired “layered” effect. As noted in Chapter One, La Barbara is interested in the combination of different sounds, particularly vocal sounds. She was encouraged by Cage to combine unrelated sounds, or those that might not seem to be related, in hopes of discovering something new and

¹⁸⁷ La Barbara, “Program Notes.”

¹⁸⁸ La Barbara, email correspondence with the author, July 20, 2016.

¹⁸⁹ Ibid.

¹⁹⁰ Ibid.

¹⁹¹ See Appendix II.

incredible.¹⁹² In the case of *October Music*, the combined vocal sounds abound with contrasts, ranging from familiar uses of the voice like sighs, to sounds that signify animals or machinery like the ululations and the multiphonic split, to sounds that appear painful to produce like the scream. I will now turn to a discussion of the conversational interaction of these individual sounds.

Conversations

There is no score for *October Music*, only journal sketches that La Barbara created for her own purposes when recording the piece. She explains that the sketches outline the overall shape of the work as well as the duration and sonic content of smaller sections.¹⁹³ The following discussion of the work, therefore, is informed by my own listening and interpretation of La Barbara's vocal techniques.

October Music consists of the following eight sounds: sighs, overtone-singing, multiphonic split, ululation, scream, tongue trills, gibberish speech, and staccato phonemes in an extremely high register. At different moments throughout the work, these sounds are featured individually as well as in combinations. Opening with a single vocal sound, a descending sighing gesture, La Barbara gradually layers various other recorded sounds. Tension is created by thickening the texture as she adds overtone singing, ululation, a scream, and a multiphonic split to the sighing gesture (see Figure 6.1). Following passages of textural density, however, La Barbara removes the layers of sounds, creating a contrasting, thinner texture in which pairs of the sounds are often featured.

¹⁹² Caruso, "Roots: A Study of the Female Voice," 68.

¹⁹³ La Barbara, email correspondence with the author, July 20, 2016.

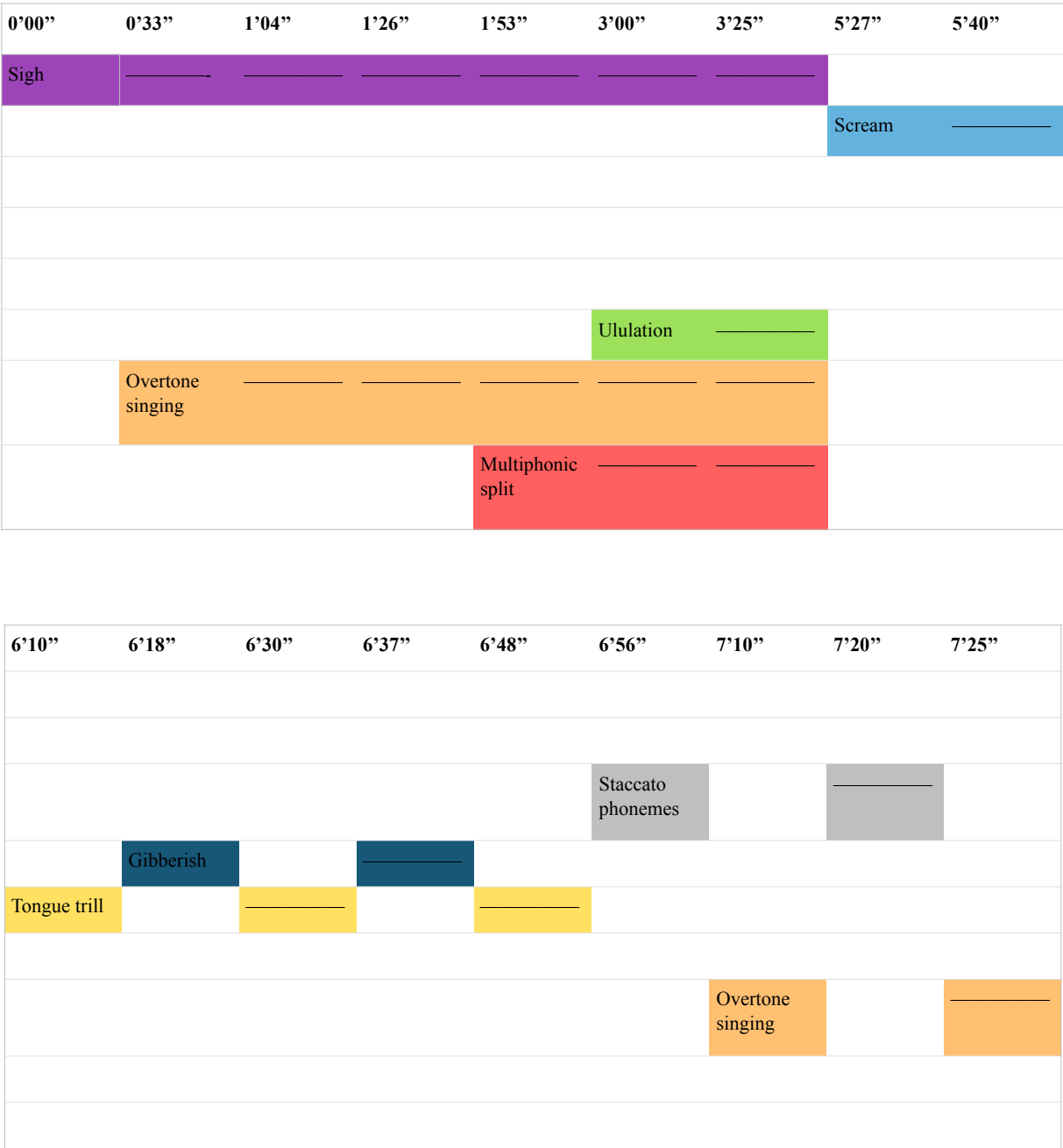


Figure 6.1: Chronological Analysis of *October Music* 0'00'' – 7'32''

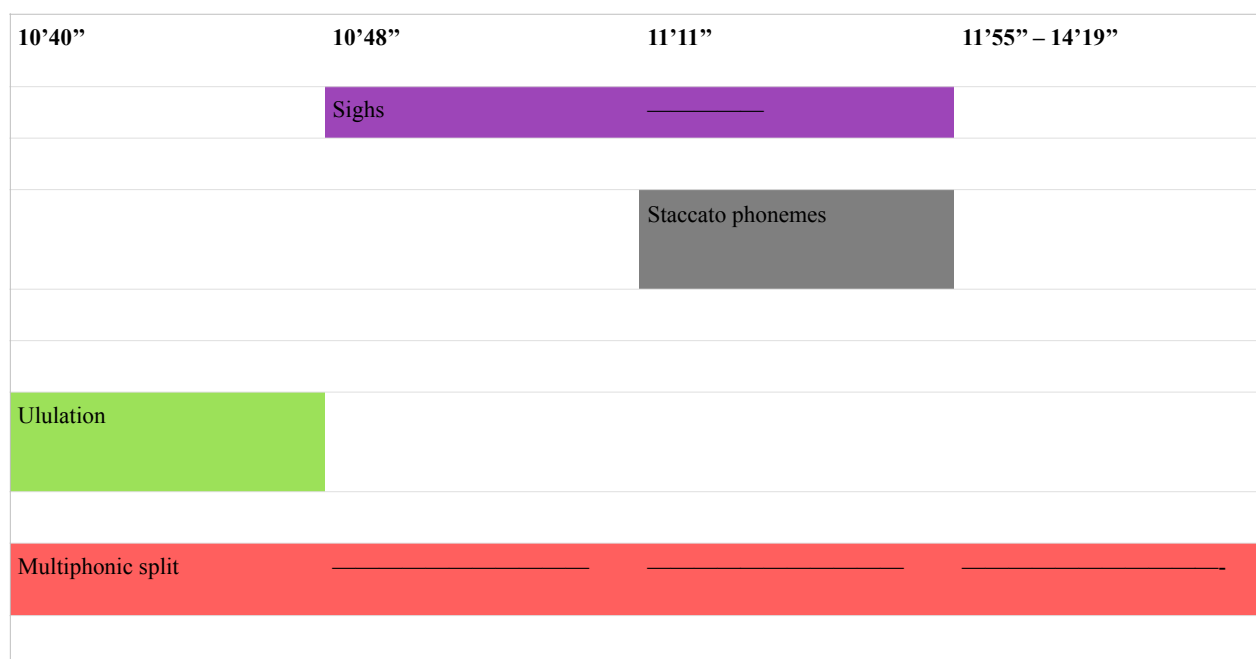


Figure 6.1: Chronological Analysis of *October Music* 7'32" – 14'19"

The conversational aspect to the work appears in the call-and-response interaction of different pairs of sounds. From 6'10" to 6'57", for example, there is a duet between the gibberish speech and tongue trill; these sounds alternate, as though conversing with one another. From 6'57" until 8'24", we hear an extensive passage of call-and-response between the high staccato phonemes and overtone singing (see Figure 6.1). A conversation even occurs within a single vocal technique – the ululation. From 8'57" to 10'40", two different ululating voices call to one another. One is loud and one is soft, creating the effect of an echo, or two voices communicating over a large distance.

Moments of conversational interaction between the sounds highlight their contrasts, particularly those in extra-musical associations. All of the sounds are wordless (*echos*) and acquire semantic meaning (*logos*) in two ways. First, through the types of mental images or associations the listener might gather upon hearing them. The ululation, for example, has a remarkable animalistic quality. The high register and quick fluttering sound is reminiscent of a birdcall. In fact, Brown notes that La Barbara discovered the sound in an attempt to imitate birds.¹⁹⁴ The gibberish speech, on the other hand, seems to point to some kind of “other”, perhaps non-human being, who speaks with a raspy, guttural voice. This sound conjures suggestions of attempted communication through an unrefined, unrecognizable language.

These wordless sounds are further endowed with meaning through the programmatic implications of the subtitle: “Star Showers and Extraterrestrials.” La Barbara’s notes on *October Music* reveal her interest in highlighting the contrast between natural and unnatural elements in the night sky. As she explains, “I vocally painted the sparkling night sky above the California

¹⁹⁴ Brown, “The Beautiful in Strangeness,” 42.

coastline, juxtaposing shooting stars with other-worldly sounds in a galactic storm.”¹⁹⁵ The knowledge of her intended juxtaposition only augments the extramusical associations of these sounds and techniques. Returning to the examples of the ululation and the gibberish speech, the former can be understood as belonging to the natural realm, representing bird calls, and the latter the supernatural realm, suggesting an other-worldly form of speech.

As noted, juxtaposition appears most clearly in moments of thinner textures, such as the call and response of individual sounds. Take, for example, the passage of conversation between the high staccato phonemes and overtone singing. The staccato phonemes closely resemble singing, a natural and familiar use of the voice. The overtone singing, on the other hand, is less familiar and counterintuitive to natural singing, in that the voice is simultaneously producing more than one pitch. By removing all other sonic material and featuring these two sounds alone and in alternation, the listener’s attention is drawn to these differences between the individual sounds.

October Music also demonstrates La Barbara’s ability to change the aesthetic quality of a single sound. As noted in Chapter One, she is interested in exploring the full sonic potential of individual sounds and techniques. Recall, for example, her discussion of inhaled and exhaled vocalizations, which can range from “pure” to “raw” depending on the “degree of breath” used:

[I]n each one of the sounds I use, there’s a range from what I consider to be pure to something more raw. There’s everything across that gamut, from “pure”, meaning the clearest, purest expression of that sound, to “raw”, meaning a visceral expression of that sound. So each sound has a range of possibilities within it.¹⁹⁶

¹⁹⁵ La Barbara, *Voice is the Original Instrument*, album notes.

¹⁹⁶ Ibid.

The scream in *October Music* captures the transformation of a single vocal sound from “pure” to “raw.” Beginning at 5’27”, La Barbara interrupts the layered sonic fabric, consisting of four other sounds (sighs, multiphonic split, overtone singing, and ululation) with a scream. The sound occurs as a solo, breaking apart the thick texture. La Barbara sustains the scream in its pure state for just a few seconds before altering it. At approximately 5’35”, she incorporates vocal fry and a multiphonic split into the scream, transforming the sound into something raw and unfamiliar. The scream begins to sound strained, even painful to produce, changing the experience for the listener as it becomes increasingly difficult to listen to.

The prevalence of call-and-response textures in *October Music* points to an extended interpretation of the scream. Beyond acting as an interruption of the thick sonic texture, the scream can be understood as participating in the broader conversation between sounds. Dolar’s discussion of prelinguistic communication provides a useful framework for considering the conversational nature of La Barbara’s scream.¹⁹⁷ He refers to the scream as the “most salient inarticulate presymbolic manifestation of the voice.”¹⁹⁸ As the first means of vocal expression, elicited by infants in their earliest living moments, Dolar argues that the scream is a form of speech, rather than meaningless noise. Specifically, it is a wordless demand for attention and response:

[T]he moment it [the scream] emerges it is immediately seized by the other... the moment one hears it, the moment it assumes the place of its addressee, the moment the other is provoked and interpellated by it, the moment it responds to it, the scream retroactively turns into appeal, it is interpreted, endowed with meaning, it is transformed

¹⁹⁷ Dolar’s discussion of prelinguistic communication is strikingly similar to Rousseau’s notion of the cry of passion. See Jean Jacques Rousseau, *Discourse on the Origin of Inequality*, trans. Franklin Philip, ed. Patrick Coleman (New York: Oxford University Press, 1994).

¹⁹⁸ Dolar, *A Voice and Nothing More* 27.

into a speech addressed to the other, it assumes the first function of speech: to address the other and elicit an answer.¹⁹⁹

Cutting through the thick sonic texture, La Barbara's scream certainly demands attention.

It interrupts the conversations of the other four sounds (see Figure 6.1) and captures the listener's focus with both its unique sonic qualities (vocal-fry and multi-pitched) and its length. The scream has the longest duration of any solo sound in the entire work;²⁰⁰ it is held for nearly forty seconds. As it becomes increasingly strained, there is a growing sense of urgency and likely a desire on the part of the listener for the sound to stop.

Drawing on Lacan's terminology, it can be argued that La Barbara's scream transforms from a *cri pur* (a pure [echos] scream) into a *cri pour*, a scream for someone or something.²⁰¹ It is a cry for attention and for a place in the larger conversation of the piece. As Dolar notes, the scream takes part in the chain of communication retroactively; once the sound is acknowledged or given a response, it automatically becomes an act of speech.²⁰² In the case of *October Music*, the scream awaits its response in a few relieving seconds of silence. Following the short period of rest, La Barbara introduces two new vocal sounds to the piece, the tongue trill and gibberish speech. These sounds, while conversing with each other, also act as a response to the scream's appeal for attention. The piece does not end following the scream; rather, the conversations between individual sounds continue and the layered sonic texture is gradually rebuilt.

¹⁹⁹ Dolar, *A Voice and Nothing More*, 27.

²⁰⁰ The two ululating voices call to one another for two minutes, but the scream is the longest sustained single sound.

²⁰¹ Dolar, *A Voice and Nothing More*, 28.

²⁰² *Ibid.*, 27–28.

Sonic Continuum

Many twentieth and twenty-first century composers, including La Barbara, draw upon an array of sounds (acoustic, electronic, noises from natural environments) in their musical works. The variety of sonic material makes a continuum a useful structure for approaching discussions of these works as well as for composers in organizing sounds. In fact, Metzger refers to the sonic continuum as an “archetype,”²⁰³ highlighting the frequency in which modernist composers use this shape. He explains that it allows for flexibility and motion:

[T]he figure [sonic continuum] builds upon both the properties of motion, the traveling back and forth along the line, and transformation, the blurring of identities that occurs while moving across the space, especially in the nebulous middle area.²⁰⁴

The sonic continuum is a particularly effective structure for works that encompass opposing sounds, such as Stockhausen’s electronic multitrack work *Gesang der Jünglinge* (1956).

Stockhausen brings together pure and artificial sound through the electronic transformation of a young boy’s voice.²⁰⁵ The voice moves along a sonic continuum with “purity” at one end (his natural voice) and “artificiality” at the other (the use of electronics).

Metzger also explores the use of the sonic continuum in works by Kaija Saariaho, namely *Du Cristal* (1989) and *...à la fumée* (1990). He notes that Saariaho actually refers to her music in terms of a continuum structure, placing “sound” and “noise” at opposite ends of the spectrum.²⁰⁶

²⁰³ The other compositional archetypes that Metzger identifies are the glissando, sonic diminishment, an open-ended crescendo, and extreme leaps in register.

²⁰⁴ Metzger, *Musical Modernism*, 197.

²⁰⁵ Richard Toop, "Stockhausen, Karlheinz," *Grove Music Online, Oxford Music Online*, Oxford University Press.

²⁰⁶ Metzger, *Musical Modernism*, 184.

For Saariaho, “sound” denotes smooth, stable sonorities like a ringing bell, while “noise” denotes unstable or rough sonorities like strings playing *sul ponticello*.²⁰⁷ La Barbara, to recall, conceives of her vocal techniques in similar ways, along a spectrum ranging from “pure” to “raw” sound.

The sonic continuum helps to illuminate the contrasting nature of the sounds in *October Music*. In spite of the fact that La Barbara produces all of the sounds naturally (acoustically), they still vary in timbral quality and placement within the vocal register. The ululation, for example, is high pitched and has a bright, piercing timbre. In contrast, the multiphonic split is low pitched and has a creaky, rumbling quality.

Perhaps the most significant variation between each of the sounds is their degree of familiarity to the listener. The sighs and the scream are instantly recognizable as they are sounds that the listener can easily emit themselves. On the other hand, the listener may not have previously encountered the multiphonic split, overtone singing, or ululation before hearing *October Music*. To highlight the different degrees of familiarity between the sounds, I have mapped them onto a continuum with “familiar” and “unfamiliar” at opposite ends of the line (see Figure 6.2).

The sonic continuum maps the ways in which individual sounds freely move and change. Metzger refers to the ever-changing nature of sound in his discussion of sonic flux as a compositional state:

Sound cannot stay in one place, nor can it stay in one form. It always changes. A sound begins as one type of entity, but its elements – color, weight, harmony, or texture – do not keep the same for long, turning the sonority into another type of sound, and then another type. Transformation can be continuous.²⁰⁸

²⁰⁷ Metzger, *Musical Modernism*, 185.

²⁰⁸ *Ibid.*, 178.



Figure 6.2: Continuum of vocal sounds

Indeed, individual sounds are more familiar at certain moments of *October Music*. The scream, as noted, is a good example of this; its natural, recognizable qualities become defamiliarized by La Barbara's addition of vocal fry and a multiphonic split. In addition, the staccato phonemes also fluctuate along the familiar–unfamiliar continuum depending on the vocal register in which they are placed. This sound consists of short blips of brief, phonated vowels. Some of the phonemes are extremely high and seemingly beyond the natural capabilities of the vocal register (see Figure 3.5 for a chart of vocal ranges). The lower-pitched phonemes, therefore, are more familiar than the high-pitched phonemes because they fit into standard notions of vocal register.

My criteria for placing the sounds along the continuum is determined by the extent to which they can be identified and reproduced by the listener. Furthermore, I consider the frequency in which the listener encounters each sound. The sighs, for example, are immediately recognizable and can be easily replicated. Furthermore, sighs occur frequently in daily conversation to express a range of emotions: frustration, fatigue, exasperation, or longing, to name a few. At the opposite end of the spectrum, the multiphonic split is not easily recognized or produced. As noted in Chapter 3, La Barbara's refers to this technique as more of a "physical sensation" than a sound and "not something you can actually describe how to do."²⁰⁹ Furthermore, the multiphonic split does not appear frequently inside of the Western classical music tradition; it is limited to a few non-Western forms of music making and spiritual traditions.²¹⁰ Familiarity, in the case of the multiphonic split, is culturally specific.

²⁰⁹ Zimmerman, *Desert Plants*, 156.

²¹⁰ See my discussion of the multiphonic split in Chapter Three.

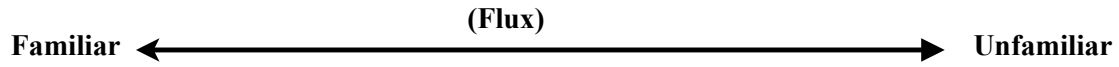
In Chapter Three, I discussed the structure of *Voice Piece* in terms of an overall motion from a “familiar” sound experience to an “unfamiliar” sound experience. This trajectory also appears in *October Music*, although explored more intensively with a greater range of sounds (see Figure 6.3). Section I of the work establishes the realm of familiarity with thirty-three seconds of gentle, sighing gestures. La Barbara uses two different sighs, the first is approximately three seconds long and the second is shorter, approximately one and a half seconds long. Both are descending *glissandi*, spanning a range of a minor third (B-flat⁴ to G⁴). La Barbara alternates between the two gestures, creating a call-and-response or echo effect. She vocalizes the sighs on an open [a] vowel and adds some vibrato to the end of the first one, reminiscent of Western classical singing. Indeed, there is nothing unfamiliar about this opening section.

Section II, which comprises smaller sub-sections (see Figure 6.3), fluctuates between moments of familiarity and unfamiliarity. In this section, the sonic continuum offers a flexible means of charting the motion of both individual sounds and combinations of sounds. The sounds standing at opposite ends of the familiarity and unfamiliarity poles (the sighs and multiphonic split, respectively), freely mix with the sounds that make up the majority of the work. Metzger calls attention to a similar structure in works by Stockhausen and Saariaho:

In a continuum, the motion of sound becomes a prominent force, sweeping up and carrying along the listener... Saariaho’s works along with Stockhausen’s *Gesang der Jünglinge* also reveal how transformation can flourish in the broad middle space, where the sounds at the endpoint mix and blur, creating new, and not entirely recognizable sonorities.²¹¹

In this large middle section, the unfamiliar and familiar sounds combine to form what I refer to as “build-ups” (layers of different sounds) and “conversations” (call-and-response

²¹¹ Metzger, *Musical Modernism*, 184.



Section I	Section II	Section III
0'00'' – 0'33'': Opening • Sighs		
	0'33'' – 5'27'': Build-Up I • Sighs • Overtone singing • Multiphonic split • Ululation	
	5'27'' – 6'10'': Interruption • Scream • Scream with vocal fry and multiphonic split	
	6'10'' – 6'57'': Conversation I • Tongue trill • Gibberish speech	
	6'57'' – 8'24'': Conversation II • Staccato phonemes • Overtone singing	
	8'32'' – 8'57'': Build-Up II • Staccato phonemes • Overtone singing • Multiphonic split	
	8'57'' – 10'40'': Conversation III • Ululation (multiple voices)	
	10'48'' – 11'55'': Transition • Sighs • Multiphonic split • Staccato phonemes	
		11'55'' – 14'19'': Closing • Multiphonic split

Figure 6.3: Familiar – Unfamiliar trajectory

between pairs of sounds) (see Figure 6.3). Just prior to Section III, a brief transition period occurs; the flexible movement of sounds in the middle of the continuum ends and all motion becomes directed towards the unfamiliar pole. Between 10'50" and 10'55" the two sounds at the outer edges of the continuum (the sighs and the multiphonic split) enter together. They interact in a brief duet, followed by the addition of the high staccato phonemes. Gradually, over the following minute, the two most familiar sounds (sighs and phonemes) fade away and the multiphonic split becomes increasingly vibrant.

The arrival at Section III at 11'55" places the work at the opposite end of the continuum – the realm of the unfamiliar. All of the other sounds have dissipated leaving only the multiphonic split, the most unfamiliar of all of the vocal sounds in this work. It is sustained for approximately two and a half minutes, from 11'55" until the close of the work at 14'19". Over this extended period of time, the sound remains fairly static. There are little changes in dynamics, pitch, or texture, creating a meditative wash of this rumbling sound.

La Barbara's use of the multiphonic split in *October Music* is even less familiar than in *Voice Piece*. Whereas *Voice Piece* concludes with a monophonic texture of single consecutive iterations of the multiphonic split, *October Music* creates a dense texture of multiple splits layered together by tape. The resultant sonority is dark, crunchy, and even less human sounding than the final two minutes of *Voice Piece*. Looking to Kane's model voice terminology, it is clear that *technê* plays a crucial role in creating this realm of unfamiliar sound in the final few minutes of *October Music*. In this section, *technê* is used in both meanings of the word: technique (multiphonic split) and technology (layers of tape). Through the uses of technology, the already

strange multiphonic split technique is further defamiliarized, leaving the listener with few recognizable hints of La Barbara's voice.

Conclusion

Each of the four works discussed in this thesis highlights La Barbara's experimental treatment of the voice. In *Voice Piece*, she unleashes the breadth of timbral colours within a single pitch by playing with different resonance placements. *Circular Song* defamiliarizes the act of vocalization by removing any audible inhales and exhales, creating a seemingly impossible effect. In *Hear What I Feel*, La Barbara experiments with both composition and performance, creating an improvisatory musical work through the physical sense of touch. She removes as much mental agency as possible and allows her body to dictate the sonic results. Finally, *October Music* brings La Barbara's experimental techniques into a structured composition. Her signature sounds interact with one another and outline an overall movement from familiar to unfamiliar sound.

La Barbara's desire to return the voice to a perceived original function is a pertinent theme in *Voice is the Original Instrument*. Specifically, *Hear What I Feel* and *October Music* play with the voice as the first means of expression.²¹² La Barbara believes that the voice "carries meaning whether we use words or not."²¹³ Neither work contains text, but each has a communicative aspect. In *Hear What I Feel*, for example, the visceral nature of La Barbara's vocal sounds leads the listener to engage in a form of emphatic listening, or listening with bodily engagement. Communication appears in *October Music* in the conversational interaction between individual vocal sounds. In addition, the subtitle of the piece communicates juxtaposing notions of the natural and unnatural or familiar and unfamiliar.

²¹² La Barbara, *Voice is the Original Instrument*, album notes.

²¹³ La Barbara, "Fireside Chats," 44:25.

All four works encompass the second driving concept of *Voice is the Original Instrument*, namely, La Barbara's desire to "release untapped sonic material."²¹⁴ *Voice Piece* explores the transformation of a vocal sound over fifteen minutes, revealing the vast timbral palette in just one pitch. *Circular Song*, on the other hand, creates new sounds by vocally emulating a distinctly instrumental technique of circular breathing. In *Hear What I Feel*, La Barbara releases untapped sonic material in the very moment of performance, emitting new sounds by vocally reacting to different physical sensations. Layers of different vocal techniques are brought together in *October Music* to form new and seemingly unrelated combinations of sounds. In this sense, La Barbara's treatment of the voice in her early works is nothing short of groundbreaking. She frees the voice from Western classical ties to text, melody, harmony, and traditional singing and reveals its broad capabilities as an instrument.

²¹⁴ La Barbara, *Voice is the Original Instrument*, album notes.

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Appendix I: Compositions Written for Joan La Barbara

Composer	Title	Date
Robert Ashley	<i>Now Eleanor's Idea</i>	1985–1994
	<i>Balseros</i>	1997
	<i>Dust</i>	1998
	<i>Celestial Excursions</i>	2003
	<i>Concrete</i>	2006–2012
Larry Austin	<i>La Barbara</i>	1993
John Cage	<i>“Solo for Voice 45” with Atlas Elipticalis and Winter Music (Festival de la Rochelle)</i>	1979
	<i>Eight Whiskus</i>	1985
Rhys Chatham	<i>The Lost World</i>	1992
Charles Dodge	<i>The Waves</i>	1984
Philip Glass	<i>Einstein on the Beach</i> (Festival D’Avignon)	1976
Morton Feldman	<i>Three Voices</i>	1982
Alvin Lucier	<i>Still and Moving Lines in Families of Hyperbolas</i>	1974
Roger Reynolds	<i>Sketchbook for the Unbearable Lightness of Being</i>	1985
Morton Subotnick	<i>The Last Dream of the Beast</i>	1979

Composer	Title	Date
	<i>The Double Life of Amphibians</i>	1984
	<i>Jacob's Room</i>	1986
	<i>Hungers</i>	1986
	<i>Intimate Immenisty</i>	1997
James Tenney	<i>Voice(s)</i>	1983–1984

Appendix II: Joan La Barbara's Compositions

** Indicates the use of electronics

Title of Composition	Date	Medium or Genre
<i>A Murmuration for Chibok</i>	2016	Treble choir
<i>A Water Window</i>	2015	Voice and sonic atmosphere
<i>The Dream of Ariadne **</i>	2014	Voice, piano, and laptop
<i>Parallel Dreams</i>	2014	Sonic atmosphere
<i>C.D. - (A Script for Synthesis)</i>	2013	Mixed chorus
<i>Storefront Diva, a Dreamscape</i>	2013	Solo pianist in a theatrical environment
<i>Persistence of Memory **</i>	2012	Chamber ensemble, two laptop computers, and sonic atmosphere
<i>Lizzie in the stars and snowfall **</i>	2011	Multiple voices, percussion, and electronics
<i>In solitude this fear is lived</i>	2011	Amplified voice, orchestra, and sonic atmosphere
<i>Storefront Diva</i>	2011	Solo pianist in a theatrical environment
<i>Angels, Demons, and other muses **</i>	2011	Voice, chamber ensemble, and computers
<i>Striations</i>	2009	Megaphone and reconstructed "itonarumori"
<i>Habité par ses rêves et les phantasms</i>	2009	Voice and handheld percussion
<i>Scatter</i>	2008	Voice, chamber ensemble, and sonic atmosphere
<i>Words on Water (Shimmer)</i>	2008	Voice, chamber ensemble, and sonic atmosphere
<i>Remains of the Day **</i>	2008	Voice, violin, glass instruments, and computer
<i>Atmos</i>	2007	Flute, alto flute, bass flute, piccolo, Native American flute, voice, and sonic atmosphere
<i>Shimmer</i>	2007	Amplified voice and sonic atmosphere
<i>Emergences **</i>	2007	Voice, violin, glass instruments, and computer
<i>An American Rendition</i>	2007	Spoken word opera for multiple voices and sonic atmosphere
<i>Angels Passing **</i>	2007	Multiple voices, 16-channel speaker array, and computer
<i>Urban Tropics revisited **</i>	2006	Amplified voice and surround-sound
<i>From the Depths **</i>	2006	Sampled sound and computer

Title of Composition	Date	Medium or Genre
<i>African Rhythms</i> **	2006	Sampled sound and computer
<i>Tales of Micronesia</i> **	2006	Sampled sound and computer
<i>Der Wassergeister</i> **	2006	Voice, violin, sampled sounds, computer, and surround-sound
<i>Desert Myths/ Isle of Dunes</i>	2006	Voice and chamber ensemble
<i>Landscape Over Zero</i>	2006	Voice, chamber ensemble, and sonic atmosphere
<i>Fleeting Thoughts</i>	2006	Dance
<i>Flash!</i>	2005	Solo violin
<i>Snowbird's Dance, Into the Light and Beyond</i>	2004	Voice, flute, and string quartet
<i>Dragons on the Wall</i> **	2001	Solo voice, instrumental ensemble, and pre-recorded dancer's voices
<i>WoolfSong</i>	2003	Experimental opera
<i>Snowbird's Dance, Into the Light</i>	2000	Voice, flute, and string quartet
<i>Tales and Mosaics</i> **	1999	Voice, saxophones, pair, and pre-recorded sounds
<i>a trail of indeterminate light</i>	1997	Solo cello with voice
<i>de profundis: out of the depths, a sign</i>	1996	4 voices, percussion, and tape
<i>Calligraphy II/ Shadows</i>	1995	Voice and Chinese instruments
<i>in the shadow and act of the haunting place</i>	1995	Voice and chamber ensemble
<i>The Misfortune of the Immortals</i> **	1994	Collaborative work with Mark Coniglio and Morton Subotnick; interdisciplinary interactive media opera for voices, dancers, actors, video projections, MIDI instruments and interactive computer systems
<i>73 Poems</i> **	1993	Multiple voices with electronic modification
<i>ShamanSong</i>	1992	Voice, percussion, and tape
<i>Awakenings II</i>	1992	Voice and chamber ensemble
<i>Face to Face</i> **	1992	Voice, electronics, and percussion
<i>to hear the wind roar</i>	1991	Multiple voices and handheld percussion
<i>Awakenings</i>	1991	Chamber ensemble

Title of Composition	Date	Medium or Genre
<i>Anima</i> **	1991	Voice, percussion, electronic keyboard synthesizers, computer, gamelan, Tar and Dumbek, cello, and Indigenous Diablo Canyon sounds
<i>Klangbild Koeln</i>	1991	Voice, percussion, and indigenous koeln sounds
<i>In the Dreamtime</i>	1990	Unspecified
<i>Events in (the) Elsewhere</i>	1990	Opera
<i>L'albero dalle foglie azzurre</i> *(the tree of blue leaves)	1989	Solo oboe and tape
<i>Urban Tropics</i>	1988	Voice, percussion, and indigenous Miami sounds
<i>Conversations</i>	1988	Solo voice
<i>Prologue to the Book of Knowing... (and) of Overthrowing</i>	1988	Solo performance aria
<i>Helga's Lied</i>	1986	Voice and chamber ensemble
<i>ROTHKO</i>	1986	Voice, 16 voices on tape, and two bowed pianos
<i>Voice Windows</i> **	1986	Voice and interactive video systems
<i>A Rothko Study</i>	1985	Voice and chamber ensemble
<i>Loose Tongues</i>	1985	Multiple voices
<i>After 'Obervogelsang'</i>	1984	Amplified voice and tape
<i>Time(d) Trials and Unscheduled Events</i>	1984	Multiple voices
<i>Berliner Träume</i>	1983	Multi-track tape
<i>The Solar Wind III</i>	1984	Amplified voice and orchestra
<i>The Solar Wind II</i>	1983	For mixed chorus and instruments
<i>The Solar Wind</i>	1982	For voice and chamber ensemble
<i>Vissingen Harbor</i>	1982	For voice and chamber ensemble
<i>Winds of the Canyon</i>	1982	For voice and tape
<i>Silent Scroll</i>	1982	Voice, cello (or double bass), flute, zoomoozophone, and cup gongs
<i>"as lightening comes, in flashes"</i> **	1981	Mixed performance media with seven singers, five dancers, stereo tape, 8-channel tape, electronics, video, and costumes
<i>October Music: Star Showers and Extraterrestrials</i>	1980	Voice and multi-track tape

Title of Composition	Date	Medium or Genre
<i>Erin</i>	1980	Voice and multi-track tape
<i>ShadowSong</i>	1979	Voice and multi-track tape
<i>Klee Alee</i>	1979	Voice and multi-track tape
<i>California Chant (Raicha Tria)</i>	1979	Amplified or un-amplified voice
<i>The Executioner's Bracelet</i>	1979	Multi-track tape
<i>Responsive Resonance with Feathers</i>	1979	Piano and tape
<i>quatre petites betes</i>	1978	Quadraphonic soundance
<i>Autumn Signal **</i>	1978	Voice and Buchla synthesizer
<i>Chandra</i>	1978	Solo voice, male chorus, and chamber orchestra
<i>Ides of March. No. 3a</i>	1978	Trombone, tuba, two voices, and percussion
<i>Ides of March No. 3</i>	1978	Trombone, tuba, voice, and percussion
<i>CYCLONE CON(S)T(R)AINED</i>	1978	Sound installation
<i>Twelvesong</i>	1977	Multi-track tape
<i>Layers (As Is) **</i>	1977	Voice, electronics, acoustic and electric percussion
<i>Ides of March, No. 7</i>	1977	Voice, french horn, trombone, and percussion
<i>Lolsalada</i>	1977	Voice, kalimba, steel drum, and hi-hat cymbal
<i>Cathing</i>	1977	Voice and tape
<i>Ides of March No. 4a</i>	1976–77	Amplified voice, tenor saxophone, trombone, voice, percussion, and tape
<i>CYCLONE **</i>	1977	Synthesized sounds, amplified and electronic percussion, electric guitar, voices, suspended cymbal, and a light panning device
<i>Ides of March No. 5a</i>	1977	English horn, voice, bowed vibraphone, and percussion
<i>Ides of March No. 5</i>	1977	English horn, voice, and percussion
<i>Chords and Gongs</i>	1976	Voice, Chinese cymbal, finger cymbals, and gongs
<i>Ides of March No. 4</i>	1976	Tenor saxophone, trombone, voice, and percussion
<i>Les Oiseaux qui chantent dans ma tête</i>	1976	Solo voice
<i>Des Accords pour Teeny</i>	1976	Solo voice

Title of Composition	Date	Medium or Genre
<i>Chords</i>	1976	Amplified voice
<i>An Exaltation of Larks **</i>	1976	Voice with electronics, MOOG drum, and synthesizer
<i>Ides of March, No. 2</i>	1976	Soprano saxophone, voice, and percussion
<i>Space Testing</i>	1976	Voice in a sonic environment
<i>Thunder</i>	1975	Tympani, voice, and electronics
<i>Hunters</i>	1975	Video performance piece for vocalist in an outdoor environment
<i>Vermont II</i>	1975	Video performance piece for vocalist in an outdoor environment
<i>WARP-32375-1</i>	1975	Voice and percussion
<i>Circular Song</i>	1975	Solo voice
<i>An Exploration in Sound and Movement</i>	1975	Voice and movement
<i>Vocal Extensions **</i>	1975	Voice with electronics
<i>Performance Piece</i>	1974	Voice
<i>Ides of March</i>	1974	String quartet, 3 voices, percussion, and contra-bass
<i>Hear What I Feel</i>	1974	Solo voice
<i>Voice Piece: One Note Internal Resonance Investigation</i>	1974	Solo voice