Worlds of If: Analyses of the Composed and Improvised Works of Robert Dick

Melissa Keeling
The Graduate Center, City University of New York

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WORLDS OF IF: ANALYSES OF THE COMPOSED AND IMPROVISED WORKS OF ROBERT DICK

by

MELISSA KEELING

A dissertation submitted to the Graduate Faculty in Music in partial fulfillment of the requirements for the degree of Doctor of Musical Arts, The City University of New York

2017
WORLDS OF IF: ANALYSES OF THE COMPOSED AND IMPROVISED WORKS OF ROBERT DICK

by

Melissa Keeling

This manuscript has been read and accepted for the Graduate Faculty in Music to satisfy the dissertation requirement for the degree of Doctor of Musical Arts.

Date                Janette Tilley
Chair of Examining Committee

Date                Norman Carey
Executive Officer

Supervisory Committee:

Sylvia Kahan
David Schober
Tara Helen O’Connor

THE CITY UNIVERSITY OF NEW YORK
ABSTRACT

WORLDS OF IF: ANALYSES OF THE COMPOSED AND IMPROVISED WORKS OF ROBERT DICK

by

Melissa Keeling

Advisor: Sylvia Kahan

Considered one of the most important publications in twentieth-century flute pedagogy, Robert Dick’s seminal method book, *The Other Flute* (1975), is an extensive catalogue of multiphonic fingerings, microtonal fingerings, glissandi, circular breathing, and other extended techniques. *The Other Flute* and a handful of his published solos are widely studied, but these works only represent a fraction of Dick’s creative energies.

Equally comfortable in classical, jazz, rock, electronic, and world music, Dick’s oeuvre demonstrates a sophisticated, musical use of contemporary techniques and his pieces have become standard repertoire. Though Dick was not the first flutist to use or notate these techniques, he proved how to use them extensively, and convincingly, in a musical way. Robert Dick’s over two hundred works illustrate a global perspective, demonstrating how one instrument can fill any musical role in any genre. His musical philosophy, which he describes in the liner notes to his album *Worlds of If*, is that anything is possible and anything can happen.

The aims of this dissertation are threefold: first, to publish a complete biography of Robert Dick; second, to identify the primary characteristics of Dick’s musical style; and third, to

---

analyze both his composed and improvised works. At present, no complete biography of Dick has been published, nor has any in-depth study dedicated solely to his music been carried out. No substantial transcriptions of his improvisations have ever been published, although over 90% of his works are improvised. This dissertation illustrates how Robert Dick has taken his place in a centuries-old tradition of innovation by flutists such as Jacques Hotteterre, Joachim Quantz, Charles Nicholson, Theobald Boehm, Severino Gazzelloni, and many others.

Chapter 1 contains a biography of Robert Dick. Chapter 2 explores three primary characteristics of Dick’s style: the use of extended techniques, the influence of American popular music, and improvisation. Chapter 3 examines three of Dick’s works, both composed and improvised, in order to analyze the primary characteristics of his musical style and how he formulates improvisations. The appendix lists Dick’s complete discography, pedagogical materials, biographical events, and compositions.

By defining the emblematic characteristics of Robert Dick’s style, performers can craft more informed interpretations of his music, improvisers can expand their toolbox, and composers can gain a deeper understanding of the musical applications of extended techniques.
ACKNOWLEDGMENTS

I was a fourteen-year-old high school freshman on Saturday, February 1, 2003 when Robert Dick visited my small Kentucky hometown. Walking into his recital, I had no idea who he was or what his music sounded like. I remember watching him play *Flames Must Not Encircle Sides*, which features circular breathing, and I was enthralled from the first note to the last. I walked out of that recital with the conviction that I would become a musician and this is the type of music I would play. Fifteen years later, I am grateful for having had the opportunity to study with Robert and to write this dissertation dedicated to his work.

I would like to express my sincere gratitude to all those who have been part of my musical development and the completion of this dissertation. Especially to –

the dissertation committee, and particularly my advisor Sylvia: for your support and guidance on this journey;

Heidi: for bringing Robert to my hometown and assigning *Lookout* as my jury piece freshman year – you started it;

Deanna: for encouraging me to play the music I want to play;

my mom, dad, sister, and family: without you, I would never have had the courage to pursue this path;

my husband: who has become a Robert Dick expert himself and cooked many dinners while I worked on this project – I love you.

Robert: this is for you. Thank you for showing me – and many others – the worlds of if.
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“The sense that anything– truly anything– can happen is what I treasure above all in science fiction and I try to have that sense permeate my music.”³

“Whatever level we may be at as musicians – student or professional – we all should take the time to dream of where we would like to go in our playing, changes in sounds, development of technique, pieces to learn and/or ambitions to realize. Thinking about the next days and weeks or the next decade, the important thing is to release the imagination, visualize goals, and harness the discipline, self-belief, and drive needed to pursue our dreams.

If I have been effective in getting one point across… that point is:

_the farthest flights of imagination can be accomplished!_”⁴

³ Robert Dick, liner notes to _Worlds of If_, Leo 224, CD, 1995.
CHAPTER 1

BIOGRAPHY OF ROBERT DICK

To me, 21st-century music means we’re not against anything. Our challenge is to truly find out what we’re for and to express it… The reality is to understand that the music comes from inside us all.
—Robert Dick⁵

Robert Dick (b. 1950) is an American composer who has written over two hundred works, primarily for the flute and instruments in the flute family. His music illustrates a global perspective, showing how one instrument can fill any musical role in any genre. He straddles multiple worlds – the classical, the jazz, and “the worlds of if” – with the philosophy of imagining and actualizing what can be.

Born and raised in New York City, Robert Dick earned his bachelor’s and master’s degrees in composition from Yale University. He published his first composition, Afterlight for solo flute in 1973,⁶ and has since published over a dozen works for flute. His 1975 pedagogical manual The Other Flute: A Performance Manual of Contemporary Techniques⁷ is regarded today as the definitive manual on multiphonics and other extended techniques for the flute. His 58-album discography ranges from the Western Classical Baroque to avant-garde to jazz to rock.

The table below (table 1.1) outlines major events in Robert Dick’s career that are discussed in this chapter.

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<tbody>
<tr>
<td>1950</td>
<td>Born in Brooklyn, NY (January 4)</td>
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<tr>
<td>1957</td>
<td>Bobby Day’s <em>Rockin’ Robin</em> is released, inspiring Dick to play the flute</td>
</tr>
<tr>
<td>1958–60</td>
<td>Studies flute with Nathan Kapell</td>
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<tr>
<td>1959</td>
<td>Attends Jean-Pierre Rampal concert performance at Carnegie Hall</td>
</tr>
<tr>
<td>1960–64</td>
<td>Studies flute with Henry Zlotnik</td>
</tr>
<tr>
<td>1964–8</td>
<td>Attends LaGuardia High School for Music and Art, NYC</td>
</tr>
<tr>
<td>1965</td>
<td>Attends Tanglewood; realizes path as composer and improviser; studies with Pappoutsakis</td>
</tr>
<tr>
<td>1967</td>
<td>Jimi Hendrix releases <em>Are You Experienced</em></td>
</tr>
<tr>
<td>1968-70</td>
<td>Studies flute with Julius Baker; begins studies at CUNY Graduate Center Freshman Program</td>
</tr>
<tr>
<td>1970</td>
<td>Continues undergraduate studies at Yale; studies composition with Robert Morris</td>
</tr>
<tr>
<td>early 1970s</td>
<td>Performs at the Ice Capades in New Haven, CT with Cat Anderson</td>
</tr>
<tr>
<td>1974</td>
<td>Graduates from Yale (M.M., composition); publishes <em>Afterlight</em></td>
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<tr>
<td>1975</td>
<td>Presents at National Flute Association convention (extended techniques); publishes <em>The Other Flute</em></td>
</tr>
<tr>
<td>1978</td>
<td>Works in the morgue at Yale-New Haven Hospital (last non-music job)</td>
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<tr>
<td>1978</td>
<td>Learns circular breathing from Aurèle Nicolet in Freiburg, Germany</td>
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<tr>
<td>1980</td>
<td>Studies acoustics with Arthur Benade; works at IRCAM in Paris, France</td>
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<tr>
<td>1981</td>
<td>Publishes <em>Flames Must Not Encircle Sides</em></td>
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<tr>
<td>1983</td>
<td>Receives National Endowment for the Arts Solo Recitalist Grant</td>
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<td>1984</td>
<td>Publishes <em>Flying Lessons: Vol. I</em></td>
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<td>1984–90</td>
<td>Elected chair of the National Flute Association New Music Committee</td>
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<tr>
<td>1986</td>
<td>Publishes <em>Tone Development Through Extended Techniques</em></td>
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<tr>
<td>1987</td>
<td>Publishes <em>Circular Breathing for the Flutist</em></td>
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<tr>
<td>1988</td>
<td>Receives N.E.A. Composer’s Fellowship</td>
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<tr>
<td>Year</td>
<td>Event</td>
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<tr>
<td>1989</td>
<td><em>Lookout</em> is commissioned by the National Flute Association</td>
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<tr>
<td></td>
<td>forms New Winds trio</td>
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<tr>
<td>1992</td>
<td>receives N.E.A. Composer’s Fellowship</td>
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<tr>
<td>1992–2002</td>
<td>lives in Lucerne, Switzerland</td>
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<tr>
<td>1993</td>
<td>releases <em>Third Stone from the Sun</em></td>
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<tr>
<td>1994</td>
<td>receives Guggenheim Fellowship for Composition</td>
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<tr>
<td>1995</td>
<td>releases <em>Worlds of If</em></td>
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<tr>
<td>1996</td>
<td>adopts Kingma System flute as primary instrument</td>
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<td></td>
<td>forms A.D.D. Trio</td>
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<tr>
<td>1997</td>
<td>first functional Glissando Headjoint prototype is created</td>
</tr>
<tr>
<td>1998</td>
<td>releases <em>Jazz Standards on Mars</em></td>
</tr>
<tr>
<td></td>
<td>releases <em>Gudira</em>, the first recording using the Glissando Headjoint</td>
</tr>
<tr>
<td>1999</td>
<td>publishes <em>Fish Are Jumping</em></td>
</tr>
<tr>
<td></td>
<td>premieres his concerto at the National Flute Association convention</td>
</tr>
<tr>
<td>2000</td>
<td>releases <em>King Chubby: Other Times</em></td>
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<tr>
<td>2001</td>
<td>Koussevitsky Foundation commission to compose sextet</td>
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<tr>
<td>2002</td>
<td>moves to United States</td>
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<tr>
<td>2002–2003</td>
<td>accepts position as visiting professor of flute at University of Iowa</td>
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<tr>
<td>2003</td>
<td>moves to New York City</td>
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<tr>
<td></td>
<td>accepts position as professor of flute at New York University</td>
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<tr>
<td></td>
<td>National Flute Association commissions <em><a href="mailto:everyone@universe.existence">everyone@universe.existence</a></em></td>
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<td></td>
<td>National Flute Association commissions <em>Gravity’s Ghost</em></td>
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<tr>
<td>2004</td>
<td>Glissando Headjoint becomes commercially available</td>
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<tr>
<td>2005</td>
<td>releases <em>Photosphere</em></td>
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<tr>
<td>2006</td>
<td>birth of son (Sebastian)</td>
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<tr>
<td>2008</td>
<td>birth of daughter (Leonie)</td>
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<tr>
<td>2014</td>
<td>publishes <em>Air is the Heaviest Metal</em></td>
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<tr>
<td></td>
<td>receives National Flute Association Lifetime Achievement Award</td>
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<tr>
<td>2015</td>
<td>founding of the Robert Dick Residential Studio in New York City</td>
</tr>
<tr>
<td>2016</td>
<td>releases <em>Our Cells Know</em></td>
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Table 1.1: Biographical timeline of Robert Dick’s career
I. Early Life and Career (1950–1973)

Robert Dick was born in New York City on January 4, 1950. The younger of two brothers, he was raised in Stuyvesant Town, a sprawling series of housing complexes located on the east side of Manhattan. His mother was a pianist and piano teacher, and his father worked as a salesman of industrial plastics. From his apartment, which housed 15,000 people, Robert Dick remembers: “From my window, I could see a slice of the East River between two other buildings. It was big enough to see one entire tugboat. I spent countless hours watching for ships, wondering how large the big ones were going to be since they could only be seen a bit at a time.”

Dick first became interested in learning how to play flute after hearing Bobby Day’s Rockin’ Robin (1958) on the radio when he was eight years old. The song included a brief but striking piccolo solo, which Dick says “sent me straight to heaven, and still does, when I hear it today.” On November 4, 1958, he came home from school and “there was a flute and a teacher.”

That teacher was Nathan Kapell, a woodwind multi-instrumentalist (commonly known as a “doubler”) who was recommended by flutist Samuel Baron (1925–1997). At the time, Baron was performing with the New York City Opera Orchestra and the New York Woodwind Quintet; Baron would later teach flute at Yale and Juilliard. Dick studied with Kapell for two years, learning the basics of instrumental technique. It was with Kapell that he first realized that the flute is a monophonic instrument. Having watched his mother play chords on the piano and his

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brother play double-stops on the cello, he expected the flute could do the same. The ten-year-old Dick felt “ripped off,” and decided “that is going to change.”\textsuperscript{12}

The flute’s limitation to one note at a time rankled me then, and although it was ten years before I got to do anything about it, I believe that that afternoon, after a day in fourth grade, it all began. The idea of transcending the flute’s sonic and musical boundaries has continued to hold my attention and passion.\textsuperscript{13}

From the ages of 10 to 18, Dick studied with classical flutist Henry Zlotnik (1905–1992), who introduced Dick to standard technical exercises and etudes. Zlotnik was a Russian immigrant and a freelance musician who performed with the John Philip Sousa Band,\textsuperscript{14} the NBC Symphony, and in silent movie theatres. Zlotnik was a student of Georges Barrère,\textsuperscript{15} a French flutist who was a key figure in establishing the Paris Conservatoire woodwind tradition in the United States. Robert Dick’s early musical goal was to become principal flutist of the New York Philharmonic. Throughout his youth, his parents took him to a variety of concerts around New York City, including a concert by Jean-Pierre Rampal at Carnegie Hall in 1959.

Dick attended public schools in Manhattan for elementary and middle school and was enrolled at P.S. 40 and Junior High School 104. He continued his music studies at LaGuardia High School for Music and Art in Manhattan. The school, founded in 1936 by Mayor Fiorello LaGuardia, had a dual mission of academics and conservatory-style preparation for a career in

\textsuperscript{12} Jicha, “Robert Dick,” 10.
\textsuperscript{14} The Sousa Band, under the leadership of conductor and composer John Philip Sousa (1854–1932), performed over 15,000 concerts around the world over a span of thirty-nine years.
\textsuperscript{15} Georges Barrère (1876–1944) was a student of Henry Altès and Paul Taffanel at the Paris Conservatoire. Barrère premiered Claude Debussy’s \textit{Prélude à l’Après-midi d’un faune} (1894) and Edgard Varèse’s \textit{Density 21.5} (1936); the latter piece was written for him. Barrère performed with groups such as Société Moderne des Instruments à Vent (a woodwind chamber music society), Paris Opéra, and the New York Symphony.
the arts, a mission that continues to this day. During his four years at the school, Dick performed as principal flutist of the school’s orchestras, chamber groups, and bands.

Robert Dick’s earliest experience improvising occurred in the summer of 1963 at Merrywood Music Camp in Lenox, Massachusetts. On one particularly clear night, Dick felt inspired to practice under the stars. After collecting his sheet music, he took his flute outside. It was too dark to read the sheet music, so he decided to improvise, imagining that “the sounds from my flute were traveling at the speed of light and being heard by mysterious beings on far-away planets.”

In the fall of 1966, Dick had his first encounter with multiphonics. His music teacher at LaGuardia High School, Ben Lindeman, showed him an article by John Heiss that explained how to play multiphonics on the flute. Henry Zlotnik recommended to Dick the recordings of Severino Gazzelloni (1919–1992), a flutist known for pioneering multiphonics and for playing works by contemporary composers such as Edgard Varèse, Bruno Maderna, and Luciano Berio. In an interview, Dick recounted, “I went to the Lincoln Center Library after school one day and got Gazzelloni’s record on the Time label with a gold cover, put it on the turntable, and it blew my mind. I didn’t know quite what to make of it, but I took it in.” Though it was too early for Dick to explore multiphonics himself, the seed was planted.

Robert Dick studied flute with James Pappoutsakis for several summers, beginning in 1965, while at the Boston University Tanglewood Institute (BUTI). Pappoutsakis, whom Dick

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16 Robert Dick, interview by author, New York City, October 18, 2016.
18 The album to which Robert Dick refers is Severino Gazzelloni and Aloys Kontarsky, Music for Solo Flute and Piano, Time Records 58008 (1962). It included recordings of Berio’s Sequenza, Messaien’s Merle Noir, Matsudaira’s Somaksah, and Maderna’s Honeyrêves.
Robert Dick graduated from LaGuardia High School and enrolled in the City University of New York (CUNY) Freshman Program. He studied with Julius Baker from 1968 to 1970; lessons were oriented towards an orchestral career. From Baker, Robert Dick learned about music “from the inside – particularly the idea that music is generated from hearing within and recognizing what you are hearing.”

Robert Dick remembers studying with Baker as an eighteen-year-old: “I needed to know how he [Julius Baker] could make such an extraordinarily beautiful sound!” Baker was known for his pure tone and stylistic sensitivity, and his recordings of the six Bach flute sonatas are highly respected among flutists. After spending months studying every detail of Baker’s recording of J. S. Bach’s Flute Sonata in E-flat Major (BWV 1031), he played it for Baker at the end of a lesson. Dick thought Baker would beam with pride, but instead, Baker told him: “Let me tell you two things… First, when people want to hear me, they call me. … And this is what's important – I like to think that I’ve gone beyond my teachers, and I want to be sure that my students surpass me. I never want to hear another note from you again that doesn’t sound like

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21 Ibid.
22 Ibid.
23 Julius Baker (1915–2003) was flute professor at Juilliard and, for eighteen years, served as principal flute with the New York Philharmonic under Leonard Bernstein. Baker founded the Bach Aria Group in 1946 and played a major part in reviving Bach’s music in the United States.
24 Bacchus, “Music from Within,” 18.
yourself.” The lesson that Dick learned from Baker was of utmost importance: “he told me to be
myself.”  

In the summer of 1969, Dick was accepted into the prestigious Tanglewood Fellowship Program, a summer-long festival that included a good deal of orchestral playing. Before attending Tanglewood, his ambition was still to become the principal flutist of the New York Philharmonic, but, by summer’s end, “I knew I would not be an orchestral player . . . when it hit me that I would be playing the same music over and over for the rest of my life.” Even though he recognized that orchestral playing was not a natural fit for him, he nonetheless briefly joined the Brooklyn Philharmonic Orchestra in the mid-1980s.

On July 5, 1970, Robert Dick performed a solo recital of his own works as part of the Schaffer Music Festival at the Cathedral of St. John the Divine, an event that won him his first mention in The New York Times (fig. 1.1).

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The “electric flute” portions of the July 5, 1970 recital were original pieces\textsuperscript{30} performed using a silver Boehm flute playing into a microphone attached to various electronic effects such as a talkbox, which distorts the tone. Though these originals have never been recorded or published, they illustrate Dick’s early exploration of improvisation, composition, and electronics.\textsuperscript{31}

From 1970–1973, Dick attended Yale University, where he earned B.A. and M.M. degrees in composition. His primary composition teacher was Robert Morris (b. 1943), who, years later, would mentor Dick as he wrote \textit{The Other Flute}. Morris would later compose works inspired by Dick, such as \textit{Amid Flock and Flume} (1986),\textsuperscript{32} \textit{Streams and Willows} (1972),\textsuperscript{33} and

\begin{footnotesize}
\begin{enumerate}
\item One of the pieces Robert Dick performed at the July 5, 1970 concert was \textit{Come With Me for a Walk} for flute and tape.
\item Robert Dick, interview by author, New York City, October 18, 2016.
\item Robert Morris, \textit{Amid Flock and Flume} for flute and computer-generated tape (Rochester, NY: Robert Morris, 1986).
\end{enumerate}
\end{footnotesize}
Throughout (Anyway) (1975).\(^{34}\) Morris introduced Dick to world music and electronic music, which later became important components of his compositions. Dick also studied electronic music with Yale professors Bülent Arel\(^{35}\) and Jacob Druckman.\(^{36}\)

In this cultural climate of experimentation, Dick found his musical explorations influenced by the popular music of the late 1960s and early 1970s:

Yale in those days was alive with the vibrancy of the Sixties. Openness and a feeling of possibility were the order of the day. Revolution – social, political…, and spiritual – was in the air.

I got into the Beatles, Cream and, somewhat later, Jimi Hendrix. And I found myself starting to experiment with the flute sound. My thoughts in those days were along these lines: The difference between Eric Clapton, George Harrison, and Jimi Hendrix is much greater than the difference between Julius Baker and Jean-Pierre Rampal. The guitar players are endlessly inventing new sounds and new tone qualities. Why can't the flute have this much range?\(^{37}\)

During this same period, Dick attended live music concerts by bands and musicians at venues such as the Fillmore East in New York City. He saw groups including the Grateful Dead, Rod Stewart, The Staples Singers, Quicksilver Messenger Service, Janis Joplin, Iron Butterfly, and Traffic. He regretted never being able to hear Jimi Hendrix perform live.\(^{38}\)

While at Yale, Dick began performing improvised duo concerts with vibraphonist Bobby Naughton, who was one of Dick’s improvisation teachers. He studied classical flute with Thomas Nyfenger (1936-1990), who demonstrated the value of improvisation and playing by

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\(^{34}\) Robert Morris, *Throughout Anyway* for four flutes (Rochester, NY: Morris Music, 1986.)


\(^{36}\) Jacob Druckman (1928–1996) studied with Vincent Persichetti and Aaron Copland. His orchestral work *Windows* (1972) was awarded a Pulitzer Prize.


\(^{38}\) Robert Dick, interview by author, New York City, October 18, 2016.
ear. During these years at Yale, Dick was “in the process of waking up my interior musician, and it was great to see that a classical musician didn’t have to be restricted to only reading notes.”

In his final year at Yale, Robert Dick began working on a bold senior project: compiling all the possible non-traditional sounds and multiphonics on the flute. This endeavor, under the mentorship of Robert Morris, resulted in Dick’s first major publication: *The Other Flute: A Performance Manual of Contemporary Techniques*. Gunther Schuller recommended the study to Oxford University Press, where it was first published in 1975 when Robert Dick was 25 years old. In the liner notes to an eponymous recording, which featured his original techniques, Dick wrote:

In the mid-to-late 1960s, when multiphonics and other extended techniques were still new, their practitioners received much criticism for the general unpleasantness and lack of control that seemed to predominate in performance. It was clear to me that these sounds had never been practiced in the way traditional techniques had, or given the years of full effort that any serious classical or jazz artist would consider absolutely necessary to reach freedom of expression.

At the time of writing *The Other Flute*, I envisioned myself as the co-creator of new languages with composers, dreaming of the day when many new types of music could be created in collaboration with my sounds and their structure. But as time went on, I began to metamorphose into a composer myself. I have indeed shared many collaborations, and will continue to do so, but I think of myself as a creator of music first, then a performer…

The first period of this work had a special excitement. Since so many fingerings had never been tried, it was possible to discover forty or fifty new sounds daily. As the amount of material grew, it became clear that writing a book about my discoveries would make sense; the result, *The Other Flute: A Performance Manual of Contemporary Techniques* (2nd Ed., Multiple Breath Music, 1989). I owe much to Robert Morris, my composition teacher at Yale, for his help as mentor of that book and his support of my fledgling vision.

Robert Morris remembers Dick’s process of researching these sounds and writing about them:

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39 Bacchus, “Music from Within,” 19.
41 Robert Dick, liner notes to *The Other Flute*, GM Recordings #2013, LP, 1986.
I suggested that Robert ought to spend some time systematically working to find all the latent possibilities of the flute, piccolo, alto and bass flutes, but he told me he had already begun. I kept up with Robert’s research and we often met to discuss his findings. I remember Robert calling me at home late at night to enthusiastically play over the phone some new sound he had just discovered, sometimes to find that he couldn’t produce it the next morning. It soon became apparent that he would end up writing a monograph on the subject, and so I became an unofficial advisor and editor of the first draft. The work continued for perhaps a year. Robert painstakingly copied each page of his book in ink on transparent paper since fingering diagrams, music staffs and texts had to be coordinated on each page. When we had a draft, I suggested he send it to Gunther Schuller, who had published a book on horn playing at Oxford Press. Schuller was immediately captivated, and the book was published as *The Other Flute: A Performance Manual of Contemporary Technique* in 1975. In this way and forever afterward, Robert has established his reputation as a pioneer in expanded techniques for woodwind instruments, instrumental design, and advances in classical and jazz composition and improvisation.42

Dick explains that *The Other Flute* was written “as a social act, a gift to composers and flutists everywhere to enable everyone to use the new aspects of the flutist in realizing their own musical visions.”43 *The Other Flute* included Robert Dick’s first published composition, *Afterlight*, which was awarded a B.M.I. Oliver Daniel prize for composition in 1973.

After graduating from Yale in 1973, Dick accepted his last non-music-related job working in the Yale-New Haven Hospital basement morgue. After a summer working there, he learned “valuable lessons about time, and most of all about wasting time,” promising himself to “never [do] anything again for money which doesn’t involve music in some way.”44 Writing about the significance of his time working at the morgue:

That was a signal moment for me, and even though I knew how tough it was going to be [as a musician], I was determined… Courage is being frightened going forward, while cowardice is being frightened going backward. Either way you’re frightened, so you might as well go forward.

And it sure has been tough the whole way, but it’s definitely been worth it. I was not put on the planet this time around to be a follower. I used to absolutely hate putting

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42 Robert Morris, “Thoughts on Robert Dick” (paper presented at the National Flute Association Convention in Chicago, Illinois during the NFA Gala Awards Dinner, August 9, 2014).
on those servant’s clothes and going to the gig, and I never really liked following a conductor. I’ve worked toward the goal of being able to play the music I want to play, and only the music I want to play… The important thing is that we do the things that are true to us.\textsuperscript{45}

II. Early Professional Life (1974–1990)

During the next period of his career, between 1974 and 1990, Robert Dick published pedagogical books for flute on tone and circular breathing, composed his most often-performed flute solo, \textit{Lookout}, and released his first solo and chamber music recordings.

In 1974, Dick made his first professional presentation at the National Flute Association Annual Convention. He presented a lecture-demonstration on extended techniques, then a relatively new area of contemporary flute performance practice.

There was quite a bit of skepticism about new music and new sonorities and techniques back in the 1970s. Making my first presentation, I had no idea what to expect. Would anyone show up? Would they laugh at me? Walk out? It was no understatement to say I was nervous from head to toe. I quickly learned something very important about flutists and musicians in general. If you have something to say, and say it in a respectful way, they will listen.

After my presentation, there were many compliments on my playing and speaking. I had not attacked traditional music or playing, but rather had shown a new path for growth, and most of the hundred-plus flutists at the presentation understood the message.\textsuperscript{46}

Dick moved to Buffalo, New York and joined a new music group, Creative Associates, based at the Center of the Creative and Performing Arts at the University at Buffalo SUNY. The Creative Associates, with whom Dick performed between 1977 and 1980, presented the work of contemporary composers such as John Cage and Daniel Asia. For Dick, this was an opportunity to perform with high-caliber musicians.

The Center came at the perfect time in my life. I was just out of Yale, single, and in my twenties. I was able to concentrate on putting my playing together in Buffalo and didn’t

\textsuperscript{45} Ibid., 71-72.

have to take every little gig that came along like the Ice Capades or part-time piccolo with the New Haven Symphony. I met and worked with composers such as Earle Brown, Morton Feldman, and Toru Takemitsu. I learned how they thought about their music, what they wanted. I created an improvisation trio with colleagues Joelle Leandre and Greg Ketchum. We did outreach concerts, WBFO radio broadcasts, improvisation performances.47

![Figure 1.2: Robert Dick (center) with Creative Associates members Nora Prost, oboe (right) and Gregory Ketchum, percussion (left), c. 1978. Image by an unknown photographer, “Lejaren Arthur Hiller, composer conducting Creative Associates (contact sheet),” Digital Collections, University at Buffalo SUNY Libraries, http://digital.lib.buffalo.edu/items/show/18091.](image)

As part of the Creative Associates’ recital series, Robert Dick had the opportunity to perform his original compositions, including *Smoker* (1977), *Force* (1976), *Time Line* (1977), *Golden Rain* (1979), *Bugs in Branches* (1979), *39*S (1979), *The Idealist* (1979), and *It’s Just the Everfalling Dust* (1980). Of these early compositions, only *Force*48 was later recorded on an album; none were published as sheet music. Dick dropped these works from his repertory after 1980.


During the latter half of the 1970s, Robert Dick traveled abroad. He had “become frustrated with a new level of limitations that manifested themselves as the demands of the music came up against the construction of the flute’s mechanism,” leading to a period of research in instrumental design. In 1978, he was invited to work at IRCAM (Institut de Recherche et Coordination Acoustique/Musique) in Paris, France to work on a new mechanical design for the flute (later named the “Robert Dick Flute”). The Robert Dick Flute featured a redesigned mechanism that would allow the player to more easily play multiphonics.

As multiphonic music developed, the obvious material that the flute presented got used. Of course there is more to do with these sonorities – there are, after all, several thousand of them. However, deeper levels of composition and improvisation call. The creative ear wants the freedom to place sonorities at the pitch level the music asks for, not just the spots that are largely accidental consequence of a mechanism introduced in 1847.

Though the design of the Robert Dick Flute was ultimately unsuccessful, the concept of redesigning the flute’s mechanism was eventually realized in 1995 by Eva Kingma with the development of the Kingma System Flute.

In 1978, while at IRCAM, Dick conceived the idea of the Glissando Headjoint: “One of my longstanding dreams for evolving the flute has been to give the flute a musical equivalent of the electric guitar’s tremolo bar, usually called the ‘whammy bar.’” At the time, he was experimenting with a Fajardo Wedgehead, a type of cylindrical flute headjoint. However, the first functional prototype of the Glissando Headjoint was not produced until 1997 due to financial constraints.

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50 Ibid., 16.
52 Ibid., 5.
In 1978, Robert Dick mastered “circular breathing,” a technique that would later become an important component of his compositional and improvisational style. He was invited by contemporary flutist Aurèle Nicolet to lecture in Freiburg, Germany. After the class, Dick asked Nicolet about circular breathing. It was rare at the time for flutists to circular breathe, and Nicolet was known for circular breathing while performing the Bach Cantatas and other classical repertoire. Though Dick was not the first flutist to circular breathe, his contribution has been to “develop the step-by-step learning process.” He published this learning process nine years later in a book titled Circular Breathing for the Flutist, which is considered by flutists today the primary source for learning the technique. In 1980, he published his second solo, Flames Must Not Encircle Sides, which requires circular breathing and includes multiple improvised segments.

At the conclusion of his residency at IRCAM in the spring of 1979, Robert Dick returned to the United States and resumed his position with the Creative Associates in Buffalo, although the future of the program was in doubt: “There was a palpable sense that the Center was dying, that the energy was bleeding out of it. One felt that the Center was going nowhere.” Dick’s last performance as part of the Creative Associates was April 10, 1980. The Center closed later that year.

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54 Ibid.
55 Packer, “This Life of Sounds,” 172.
Dick left the Creative Associates in 1980: “[I] decided I would quit playing other people’s music in order to establish my own identity. I wanted to concentrate on writing and improvising, and it was the best decision I have ever made.”56 This decision led to Robert Dick’s extensive recording career. At present, Robert Dick’s discography includes 59 albums (fig. 1.8). His first recording, of *Afterlight*, was released on *Flute Possibilities*57 in 1979.

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In 1981, Robert Dick released his debut solo album, titled *Whispers and Landings* (fig. 1.7a and 1.7b). It contained seven original works for unaccompanied flute, piccolo, and bass flute; *Flames Must Not Encircle Sides* was the opening track. Dick notes that “all [pieces] are played acoustically without overdubbing or electronic effects.” *Or* (1981) was the only other piece from this album to be published as sheet music. Apart from one piece, the album was recorded at Sorcerer Sound Studio in New York City on June 23 and June 26, 1981.

![Figure 1.7a: Robert Dick, Whispers and Landings, LP cover (front)](image)

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59 Robert Dick, liner notes to *Whispers and Landings*.
61 *Glimpse From the Blimpse* was recorded November 1980 at Noise NY Studio.
Figure 1.7b: Robert Dick, *Whispers and Landings*, LP cover (back)
Figure 1.8: Timeline of Robert Dick’s discography (red flags indicate solo albums; blue indicates chamber music albums; gray indicates an album with at least one track recorded by Robert Dick). Refer to Appendix for full discography.
Robert Dick has recorded works by other contemporary composers throughout his career. In 1981, he played flute for Lukas Foss’ *Thirteen ways of looking at a blackbird*[^62] and John Zorn’s *Archery.*[^63] In 1982 he played flute for a recording of Martin Bresnick’s *Conspiracies* (1979)[^64] and recorded Neil Rolnick’s flute solo *Blowing* (1979)[^65] the following year.

In 1983, Dick was awarded a National Endowment for the Arts Solo Recitalist Grant, which sponsored a recital tour. The next year, he published his first set of six etudes for contemporary flute techniques, *Flying Lessons:* Volume I (1984).[^66] To help performers understand how to play these solos, he also released an instructional cassette for *Flying Lessons:* Volume I.[^67] He would later release other instructional cassettes to accompany his published sheet music, including one for *Afterlight* in 1985.[^68] *Flying Lessons:* Volume II[^69] was published in 1987, along with an instructional cassette.

Dick was elected chairperson of the National Flute Association New Music Committee in 1984, a position he held until 1990. In this role, he oversaw activities such as “soliciting unpublished manuscripts, recommending outstanding manuscripts for convention performances,

[^64]: Martin Bresnick’s *Conspiracies* for flute solo and tape (New York: Carl Fischer, 1979) is included in the recording *Chamber Music by Bresnick and Mumford*, CRI SD 468, LP, 1982.
and assisting in the publication of worthy compositions.” The New Music Committee also commissions new works from composers.

Dick’s second solo album was released in 1986, titled *The Other Flute*. Unlike *Whispers and Landings*, this album contains arrangements and works by twentieth-century composers, including Eric Dolphy’s jazz tune, *Gazzelloni* (1964), Edgard Varèse’s *Density 21.5* (1936), and Niccolò Paganini’s *Caprice in E*, op. 1, No. 15 (1819). Three original compositions by Robert Dick are included (*Flying Lessons Vol. I*, *News?*, and *Afterlight*).

Between 1986 and 1987, Robert Dick published two more pedagogical manuals for flute, *Circular Breathing for the Flutist* and *Tone Development Through Extended Techniques*. *Tone Development Through Extended Techniques* would become his best-selling publication with over 10,000 copies in print by 2010.

The year 1989 was significant in Dick’s career in two ways. First, it was the year that he formed New Winds, a trio with Ned Rothenberg (alto saxophone, bass clarinet, flute, and ocarina) and J.D. Parran (clarinet, soprano saxophone, flute). New Winds’ first album, *New Winds: The Cliff*, was released in 1989, and featured eight original works by the trio’s members. New Winds would release three more albums over the following decade, and would be the chamber ensemble with which Dick had the longest association.

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70 Kimberlee Goodman, “The Commissioned Works of the National Flute Association for the Young Artist and High School Soloist Competitions” (DMA diss., Ohio State University, 2007), 15-16.
In 1989, the National Flute Association commissioned Dick to compose a piece for its High School Soloist Composition. The resulting composition, *Lookout* (1989),\(^{75}\) is Dick’s most often programmed work and has become standard flute repertoire. It is the first of his three published solos influenced by American popular music genres. *Lookout* has roots in rock (it was originally inspired by Cream’s *Sunshine of Your Love*\(^{76}\)), and features tonal, driving rhythms and grooving syncopation. *Lookout* represents a compositional shift from Dick’s earlier works, which are generally more abstract. Its success comes from a careful selection of techniques which are not too difficult to execute, but are extremely rewarding for both the player and audience. For many flute students, *Lookout* is their first encounter with extended techniques.

Dick published his first and only concerto in 1990\(^{77}\) upon commission by the National Endowment for the Arts (NEA). The work, for solo flute with strings and percussion, is in standard concerto form and includes improvisation, multiphonics, and whisper tones.


While teaching a masterclass in Switzerland in 1991, Robert Dick met Regula Mueller. The next year, they married and moved to Lucerne, Switzerland, where they lived until 2002. During this period of his career, Robert Dick produced twenty-three solo and chamber music recordings, developed the Glissando Headjoint, and adopted the Kingma System flute as his primary instrument. He continued to publish flute solos, such as *Fish Are Jumping*, and became an established flute masterclass clinician and recitalist. His compositions received increasing

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\(^{76}\) Cream, *Disraeli Gears*, ATCO Records ATX 5232, LP, 1967.

recognition, as he won the NEA Composer’s Fellowship in 1988 and 1992, and the Guggenheim Foundation Fellowship Award in 1994.

After moving to Switzerland in the summer of 1992, Dick formed a quintet called Oscura Luminosa with Petia Kaufmann (harpichord), Dorothea Schürch (voice, musical saw), Conrad Steinmann (recorder), and Alfred Zimmerlin (cello). Their goal was to “tap the experimental spirit of Baroque music and demonstrate its relevancy to contemporary improvised music.”78 The group’s album, Oscura Luminosa – In Full Armour,79 features radical recompositions of Claudio Monteverdi’s Combattimento di Tancredi e Clorinda (1638)80 and heavy metal band Metallica’s Leper Messiah (1986).81

The New Winds trio recorded New Winds: Traction in 1991,82 followed by New Winds: Digging it Harder from Afar83 and New Winds: Potion.84 Robert Dick’s other chamber music collaborations during the 1990s and early 2000s include Steel & Bamboo85 with Steve Gorn (bansuri), Living Tone86 with Korean composer Jin Hi Kim, Aurealis87 with Daniele Patumi (bass) and John Brennan (piano), and Irrefragable Dreams88 with Mari Kimura (violin). Robert Dick joined New York-based ambient-overdrive group King Chubby to release two albums,

79 Ibid.
80 Claudio Monteverdi, Combattimento di Tancredi e Clorinda, SV 153 (Venice: Alessandro Vincenti, 1638).
81 Metallica, Master of Puppets, Elektra 60439-1, LP, 1986.
85 Robert Dick and Steve Gorn, Steel and Bamboo, O.O. Discs #12, CD, 1993.
86 Robert Dick, Jin Hi Kim, et al., Living Tone, O.O. Discs 24, CD, 1995
King Chubby: Other Times\textsuperscript{89} and King Chubby: Is.\textsuperscript{90} Though most of Dick’s recordings are made without electronic effects of any kind, his recordings with King Chubby feature heavy use of electronic effects such as delay and distortion.

In 1993, Dick collaborated with Dave Soldier and the Soldier String Quartet to release Third Stone from the Sun,\textsuperscript{91} a tribute album to Jimi Hendrix that would become one of Dick’s most well-known recordings. The album contains arrangements of four Hendrix tunes, two originals by Dick, and a work written jointly by Dick and Soldier. Dick and Soldier released another album together in 1998 titled Jazz Standards on Mars,\textsuperscript{92} featuring arrangements of jazz standards. Dick’s solo flute arrangement of Hendrix’s Machine Gun (1970)\textsuperscript{93} for solo flute also appears on the latter recording.

Dick formed the A.D.D. Trio in 1996, comprised of European-based members Christy Doran (electric bass) and Steven Argüelles (percussion). This group released A.D.D. Trio: Instinct\textsuperscript{94} and A.D.D. Trio: Sic Bisquitus Disintegrat (That’s the Way the Cookie Crumbles).\textsuperscript{95}

Robert Dick continued to release solo albums, including Ladder of Escape 5\textsuperscript{96} and Worlds of If.\textsuperscript{97} Ladder of Escape 5 contains a mixture of originals by Dick and solo flute works by twentieth-century composers. Worlds of If, inspired by science fiction, contains exclusively

\textsuperscript{89} King Chubby, King Chubby: Other Times, King Chubby, CD, 2000.
\textsuperscript{90} King Chubby, King Chubby: Is, Caliento Records/Universal Music Latino 360624, CD, 2004.
\textsuperscript{91} Robert Dick and the Soldier String Quartet, Third Stone from the Sun, New World/CounterCurrents 80435-2, CD, 1993.
\textsuperscript{93} Machine Gun was originally released by Jimi Hendrix on Band of Gypsys, Capitol Records STAO-472, LP, 1970.
\textsuperscript{97} Robert Dick, Worlds of If, Leo Records 224, CD, 1995.
flute solos written and performed by Dick. This would be his last original solo album until *Our Cells Know* in 2016. He also recorded Georg Philipp Telemann’s *Twelve Fantasias* (TWV 40:2-13) (1727/8) on flute, bass flute, and piccolo on *Telemann: Twelve Fantasias for Flute Solo*.99


In the 1990s, Robert Dick made two major changes to his instruments. The first involved the Kingma System flute, which was developed in 1995 and adopted by Dick in 1996. He later had his Kingma System flute customized to expand its multiphonic capabilities. This flute would be called the Robert Dick Modified Kingma System flute and became Dick’s primary instrument beginning in 1996.

The second major change was the development of the Glissando Headjoint. After years of prototypes and experimentation, Robert Dick acquired the first functional Glissando Headjoint in 1997. The first recording he made using the Glissando Headjoint was *Guidira* with Barry Guy (double bass) and Randy Raine-Reusch (Asian zithers, Asian winds, percussion).100 Dick frequently used the Glissando Headjoint thereafter, especially in live performance and improvised contexts. The headjoint became commercially available to the public in 2004.

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IV. Return to United States (2002–Present)

In 2002, Robert Dick divorced Regula Mueller and moved back to the United States. By this time, many of the grants and fellowships which had previously financed his career had evaporated, so he shifted his focus to teaching. He continued to record and release albums and publish sheet music, though at a slower pace than during the 1990s.

His first university teaching position was an appointment as visiting professor of flute at the University of Iowa from 2002–2003. Fellow University of Iowa professor and poet Marvin Bell provided the text for Dick’s work for flute and pre-recorded soundtrack, *everyone@universe.existence* (2003).\(^{101}\)

In 2003, Robert Dick returned to New York City, accepting a position as Professor of Flute at New York University, a position that he still holds today. His teaching duties include graduate and undergraduate flute lessons, and directing the student contemporary music ensemble. In 2007, he joined the faculty at the Graduate Center, City University of New York, where he teaches doctoral-level flute lessons and coaches chamber ensembles.

Robert Dick met and married Ursel Schlicht, an improvising avant-garde pianist, in 2004. They presented many concerts in New York City and collaborated to produce several albums, including *Photosphere* (2005)\(^ {102}\) and *Galilean Moons* (2016).\(^ {103}\) Though Robert Dick and Ursel Schlicht divorced in 2014, they have two children together, Sebastian (b. 2006) and Leonie (b. 2008). In an interview, Robert Dick discusses the effect of parenthood on his music: “As a parent, I learn about life in the most real and intense fashion from my son Sebastian and daughter

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\(^{101}\) Robert Dick and Marvin Bell, *everyone@universe.existence* for flute and tape (New York: Multiple Breath Music, 2003).


Leonie. Sharing life with my children has taught me so very much. I feel truer as a person, and that somehow comes through in my music, in composition and performance.”

Robert Dick’s post-2002 recordings are primarily chamber music collaborations. *Columns of Air*, with Jaron Lanier (keyboards, percussion, woodwinds) and Alan Kushan (vocals, santur), was inspired by the fall of the World Trade Center on September 11, 2001. Other chamber music albums released after 2002 include *Vindonissa* with Paul Giger (violin) and Satoshi Takeishi (percussion), *Doh Tala* with Steve Baczkowski (reeds) and Ravi Padmanabha (tabla, percussion), and *Flutes & Voices* with Thomas Buckner (voice). Another group, Dog or God, was formed in 2010 and in conjunction with Joshue Ott (computer-generated visuals) and Billy Gomberg (electronics). Though Dog or God has not produced any studio recordings, they have presented improvised multimedia performances at venues such as Roulette in New York City.

Robert Dick has published several pieces of sheet music since 2003. *Time is a Two-Way Street* (2004) for two flutes was inspired by Japanese folk music and the shakuhachi. *Gravity’s Ghost* (2007), for solo piccolo, was written in 2003 as a result of a commission by the National Flute Association for its 2004 Piccolo Soloist Competition. Continuing to write works influenced by popular music, *Air is the Heaviest Metal* (2008/2014) for solo flute was inspired by Metallica and the speed-metal genre. This piece is among the Dick’s most sophisticated, technically demanding published compositions.

To expand the scope of his teaching, Dick inaugurated the annual Robert Dick Residential Studio in the fall of 2015. The Residential Studio is a one-semester intensive course, not associated with any school or university, open to graduate level and professional flutists. The focus of the course is to develop contemporary technique, unlock creativity through improvisation, and learn how to build a career in music in the twenty-first century.


In June 2016, Robert Dick released the CD *Our Cells Know*,[^111] containing improvisations for solo contrabass flute, and artwork painted by his eight-year-old daughter, Leonie Schlicht (fig. 1.9). This was his first original solo album since the release of *Worlds of If* in 1995. Dick claims that “*Our Cells Know* is the best, most original solo improvising I have ever done.” In the liner notes, he writes:

> Improvisation has been central to my musical life since childhood. Rather than write pieces for this CD, I just practiced on my low flutes and allowed myself to go where the music wanted. I’m unconcerned with expectations of what a flute should sound like and what a flutist should play. To me, all instruments can be treated as human-powered synthesizers, embracing their traditions but not enslaved to them.

> In this music, I have striven to be my most essential self. I thought of myself very little while playing, letting the music speak as unselfconsciously as possible.^[112^]

[^112]: Ibid., liner notes to *Our Cells Know*. 
In 2014, Robert Dick was granted the National Flute Association Lifetime Achievement Award in recognition of his contributions to music as a composer, inventor, improviser, performer, and teacher. Robert Morris, his former mentor from Yale University, describes Dick’s legacy:

It has been an amazing experience to witness and sometimes enable Robert Dick’s emergence as the musician who changed, redefined, and reinvented the flute and its music. It takes my breath away when I consider what he has accomplished. His legacy is obvious in all forms of music today. Robert showed the way for other performers to initiate similar studies of the latent technical and expressive possibilities of their instruments. The result is on every page of new scores by progressive composers everywhere.113

Commenting on Robert Dick’s award, composer Daniel Asia wrote: “In a time of musical superficiality, triviality, hype, and the omnipresent marketing and purveyance of that which is

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113 Robert Morris, “Thoughts on Robert Dick” (paper presented at the National Flute Association Convention in Chicago, Illinois, during the NFA Gala Awards Dinner, August 9, 2014).
mostly empty of meaning, Robert Dick – virtuoso flutist, revolutionary pioneer, superb composer, and genius/seer – is the real deal. His efforts will be felt for a very, very long time.\textsuperscript{114} As of this writing in 2017, Robert Dick lives in New York City where he is professor of flute at The Graduate Center, CUNY and New York University. He continues an active performing and teaching career in New York, across the United States, and around the world.

CHAPTER 2

ASPECTS OF ROBERT DICK’S MUSICAL STYLE
AND THEIR HISTORICAL ORIGINS

The idea is to really know the past but not be trapped by it. We need to have courage to act on our informed ideas about the past, so we know what we want to preserve and develop and what we want to change and add… I see flutists as members of a worldwide family of flutes and musicians, and players from every culture have much to say and to teach each other—if their ears and hearts are open. Beyond the flute, openness to music in many genres and to the arts, sciences, and life itself, is critical… We live in a complex, multifaceted society, connected worldwide—my music is a reflection of life in this era.

—Robert Dick 115

Flutists throughout history have pushed the limits of the instrument through composition, invention, and improvisation. This chapter illustrates how Robert Dick is a contemporary example of this long-standing tradition.

Among Robert Dick’s most fundamental musical beliefs is the notion that any instrument can perform any musical role, and that the flute can produce any sound imaginable, like a human-powered synthesizer.

In my life as a musician, which began with my first flute lesson in 1958, I have evolved a sort of “unified field” approach that embraces composing, improvising and concepts of the flute itself. The touchstone of this philosophy is that any musical vision I might have can be realized through the medium of the flute – and I have invented countless sounds in pursuit of this. As a late 20th century creative artist who developed in the United States, it is not surprising that my music has many taproots: world musics, electric and electronic musics, natural sonic phenomena, other creative musicians. The ethos of transformation is in my bones. 116

Extended flute techniques (multiphonics, harmonics, residual tones, whisper tones, circular breathing, and other techniques) form a central part of this narrative; they play a significant role in Dick’s actualization of these fundamental musical beliefs.

I no longer think of the flute as a single voice, relatively predictable in range and timbre. Instead, while freely drawing on the flute’s worldwide traditions, I also use a self-developed vocabulary with references in many spheres: acoustic and animal sounds, and sounds that, whatever their associations, are unique to the flute.\(^{117}\)

The second aspect of Dick’s style is the influence of American popular music, especially rock music of the 1960s and 1970s. Hallmarks of American popular music, and particularly rock, include the use of certain modalities, scales, harmonic progressions, improvisation, a sense of ease and power, a range of timbres, and prevalence of bends. For Dick, popular music has the same artistic power as classical music:

> My family went to classical concerts in New York, and as a boy I heard the great pianists and violinists, and [flutist Jean-Pierre] Rampal. I grew up yearning to be like those great artists. When I became aware of pop music, I felt the same way, never differentiating between “high” and “low” art. The Beatles were as great an example of telling musical truth as Mozart.\(^{118}\)

The third aspect of Robert Dick’s style considered in this chapter is improvisation. He believes that “the sensibility of the complete musician who is a composer and performer got lost [in the eighteenth century]. I think that is an aberration and needs healing.”\(^{119}\) Extensive passages from his recorded works and many his published compositions include improvisation. Dick explains his idea of improvisation: “Most classically oriented people think that improvisation means jazz… It might, but it certainly doesn’t have to be. I improvise in the context of the piece itself.”\(^{120}\)

This chapter explores three primary aspects of Robert Dick’s musical style: extended flute techniques, American popular music (particularly rock music from the 1960s–1970s), and

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\(^{120}\) Ibid.
improvisation. The historical precedents of each these three aspects are discussed, followed by examples of Robert Dick’s use of them.

I. EXTENDED TECHNIQUES

Owing partly to Dick’s use of extended techniques and his pedagogical emphasis on them, a new generation of flute players has begun to integrate these techniques into their daily studies. By the 1990s, extended techniques had established a permanent place in flute repertoire. Owing to the proliferation of extended techniques and the development of the flute’s polyphonic capabilities through multiphonics, the sounds available to composers of flute music have expanded dramatically.

Extended techniques – singing and playing, microtones, circular breathing, multiphonics, among other techniques – play an important role in this study, as they are a defining aspect of Robert Dick’s style: “The traditional limitations of the flute—playing only single, chromatic notes with a more or less “sweet” quality—had become unbearable. The founding principle of a new sound-world is the concept of continuous transformation.”121 These instrumental techniques, often referred to as “extended techniques,” have been part of the global flute-playing tradition for centuries, and part of Western flute repertoire for the past fifty years.122

Though Robert Dick was not the first flutist to use or notate these techniques, he demonstrated how to use them extensively in a musical way. The ten extended techniques

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described in Dick’s *The Other Flute: A Performance Manual of Contemporary Techniques*\(^{123}\)

are listed below. This section details the history of each technique and provides examples of Dick’s applications of each.

1. Tone Coloration: Natural Harmonics, Alternate Fingerings, and Physical Instrument Alterations that Affect Timbre

2. Microtones

3. Pitch Bending and Glissandi

4. Multiple Sonorities (Multiphonics)

5. Flutter-Tonguing

6. Percussive Sounds

7. Whisper Tones and Residual Tones

8. Jet Whistles

9. Singing and Playing Simultaneously

10. Circular Breathing

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1. **Tone Coloration: Natural Harmonics, Alternate Fingerings, and Physical Instrument Alterations that Affect Timbre**

   Timbral modification can be achieved on the flute through natural harmonics, alternate fingerings, or physical alterations to the instrument. Flute players around the world have been using these techniques for centuries. *Shakuhachi* performance technique often includes alternate fingerings to create timbral variations of the same pitch. In Australia, *didjeridu* players alter the

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timbre by changing the position of their throat and tongue. The Slovakian fujara is usually played in overtones by overblowing. Flutes such as the Chinese dizi flute, Korean taegūm, flutes from the Pames Amerindian culture in Mexico, and flutes played by the Cakchiquel Maya people in Guatemala feature a membrane-covered tone hole that produces a buzzing sound.\textsuperscript{124}

In the Western-Classical flute tradition, the use of alternate fingerings is common, particularly for the performance of trills and tremolos, for color, and for the improvement of intonation. This practice can be traced back to the performance history of the recorder and simple system flutes, which relied on natural harmonics, half-holing, and alternate fingerings to produce chromatic and upper register pitches. Vibrato was often produced using the flattement (or key vibrato) technique, in which the player partially covers the finger-hole to create slight changes in timbre and pitch. Many composers, including J. S. Bach, viewed these timbral differences as one of the flute’s strengths.

Baroque musicians, who used mean-tone temperament, considered enharmonic pairs of pitches to have different intonation (for example, G-sharp is slightly different in pitch than A-flat in mean-tone temperament). Jacques Hotteterre’s (1673–1763) Principes de la Flûte Traversière, op. 1 (1707),\textsuperscript{125} the earliest method book ever published for transverse flute, covers posture, embouchure, fingering of notes and trills, tonguing, and ornamentation. The fingering chart in Principes (fig. 2.1) lists different fingerings for F-sharp/G-flat and C-sharp/D-flat, with each enharmonic pair sounding at slightly different pitches. The player could then choose which fingering would be more in tune, based on the key (for example, C-sharp would be used when playing in D major).


Joachim Quantz’s (1697–1773) definitive baroque performance manual, *Versuch einer Anweisung die Flöte traversiere zu spielen (Essay On Playing the Flute)* (1752),\(^{126}\) discusses a range of musical topics, including articulation, stage presence, ornamentation, rhythm, and accompanying. Like in Hotteterre’s *Principes*, and since mean-tone temperament was still being used, Quantz’s fingering chart lists different fingerings for enharmonic notes. Taking it a step further than Hotteterre, Quantz lists different fingerings for every enharmonic pair of notes (fig. 2.2).

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\(^{126}\) Johann Joachim Quantz, *Versuch einer Anweisung die Flöte traversiere zu spielen (Essay on Playing the Flute)* (Berlin: V.F. Foss, 1752).
Johann Tromlitz published *Ausführlicher und gründlicher Unterricht die Flöte zu spielen* (*The Virtuoso Flute-Player*)\(^{127}\) in 1791, reflecting flute performance practices of late-seventeenth century Germany. Like Hotteterre and Quantz, Tromlitz includes a fingering chart with different fingering for every enharmonic note. Chapter Three, “Fingering,” provides note-by-note guidance on intonation in every scale, considering not only the pitch’s intonation within a key, but also technical facility and slight differences between instruments. The following excerpt

\(^{127}\) Johann Tromlitz, *Ausführlicher und gründlicher Unterricht die Flöte zu spielen* (*The Virtuoso Flute-Player*) (Leipzig: A.F. Böhme, 1791).
from Tromlitz’s The Virtuoso Flute-Player illustrates how flutists in the 1700s used alternate fingerings to affect the pitch’s tone color, just as Robert Dick did nearly 200 years later.

C² is a dull note… But since it is always cropping up, and the notes next to it are clear and strong, so it contrasts very poorly with them, and makes a bad effect, especially with long notes. It can be made brighter by finger ing it like C³ with 24567; in this way it becomes much clearer, but also higher; therefore it is necessary to try to make it lower and consequently in tune by turning the flute inwards. It can also be taken this way: 23567, though it too is higher, and only a little brighter… Of the [fingerings] shown here, the one with 13467 is my favorite; and with it the passage by Quantz [F² to C³] is made much easier and clearer than with the 246 he suggests. ¹²⁸

Charles Nicholson’s highly ornamented arrangement of the Scottish air Roslin Castle (1836) includes indications for alternate fingerings, harmonics, and other techniques (fig. 2.3). Nicholson developed a notation system for these techniques, which he outlined in his Preceptive Lessons for the Flute (1821). The placement of an asterisk (*), coda-like symbol, or “x” symbol above a note indicates specific alternate fingerings.

Due to the preeminence of the Modern French flute school,129 late-nineteenth-century flutists strove for a homogeneous tone throughout the instrument’s range. Though this became easier with the invention of the Boehm flute in 1847, which eliminated the need for half-holing and using cross fingerings, harmonics and alternate fingerings are still used to perform trills, tremolos, and to improve intonation. In the Romantic era, composers used harmonics for special

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129 The Modern French flute school refers to a style of teaching and playing that originated with flutist Paul Taffanel at the Paris Conservatory in 1893. Students of the French Flute School, including Phillipe Gaubert, Marcel Moyse, Georges Barrère, traveled widely and had an enormous impact on flute-playing around the world (especially the United States).
effects in works such as Franz Doppler’s *Fantaisie Pastorale Hongroise*, op. 26 (1870).\textsuperscript{130} The overblown harmonics in mm. 45-46 directly imitate Hungarian folk music.

In the twentieth century, the mass production of the Boehm flute led to the standardization of intonation (A=440 Hz), instrumental construction, and fingerings. Harmonic and alternate fingerings became more common as composers sought to expand the timbral palette. Albert Roussel’s *Joueurs de Flûte*, op. 27 (1925)\textsuperscript{131} contains a harmonic on the last note of the fourth movement (fig. 2.4).

![Figure 2.4: Albert Roussel, *Joueurs de Flûte*, mvt. IV: *Mr. de la Péjaudie* (mm. 37-41); use of harmonics. © With kind authorization of Editions Durand.](image)

Harmonics appear in the fourth movement cadenza of Jacques Ibert’s *Concerto pour flûte et orchestre* (1934),\textsuperscript{132} André Jolivet’s *Cinq Incantations* (1936) (fig. 2.5),\textsuperscript{133} Pierre Boulez’s *Sonatine* (1946),\textsuperscript{134} and Kazuo Fukushima’s *Mei* (1962),\textsuperscript{135} among others.

\begin{itemize}
\item \textsuperscript{130} Franz Doppler, *Fantaisie Pastorale Hongroise* for flute and piano, op. 26 (New York: Schirmer, 1970).
\item \textsuperscript{131} Albert Roussel, *Joueurs de Flûte*, op. 27 (Paris: Durand, 1925).
\item \textsuperscript{132} Jacques Ibert, *Concerto pour flûte et orchestre* (Paris: Alphonse-Leduc, 1934).
\item \textsuperscript{133} André Jolivet, *Cinq Incantations* for solo flute (London: Boosey & Hawkes, 1938).
\item \textsuperscript{135} Kazuo Fukushima, *Mei per flauto solo* (Milan: Suvini Zerboni, 1962).
\end{itemize}
James Pellerite’s *Modern Guide to Fingerings for the Flute* (1964)\(^{136}\) has become the most definitive fingering chart publication. The first edition of *A Modern Guide to Fingerings for the Flute* catalogs basic fingerings, trills, harmonics, tremolos, and alternate fingerings.

In *Tone Development Through Extended Techniques*, Dick posits that extended techniques “greatly benefit traditional playing,” since they “develop the strength, flexibility and sensitivity of the embouchure and breath support, increasing the player’s range of color, dynamics and projection.”\(^{137}\) The book illustrates this theory by providing exercises that use extended techniques, and explaining how that technique improves a flutist’s overall sound. For example, an exercise of overblowing a low octave fingering through its natural harmonic series improves lip stability and embouchure sensitivity.

Beyond altering timbre, the practice of natural harmonics can be beneficial to the flutist’s overall tone and technique. Dick writes:

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Practice of natural harmonics is valuable for increasing the strength of the lips and developing knowledge of the best embouchure position required to produce a full centered sound on each pitch... As sonorities themselves, natural harmonics form a distinct timbral system, with each set of partials at a given interval above a fundamental having similar tone color and clear relation in playing characteristics and intonation.138

Dick’s concept that extended techniques benefit the flutist’s overall tone production has led to the wider acceptance and practice of these techniques among flutists.

Harmonics permeate many of Dick’s composed and improvised works. Lookout (1989)139 opens with a D⁴ which is gradually overblown to simultaneously include the first three partials (fig. 2.6). The multiphonic, paired with singing on a sustained D⁴, produces a powerful and dynamic gesture. This gesture is also used in Flying Lessons, Vol. I, No. 3 (1984),140 Concerto (1990),141 Gossip Cats are Dancing (2011),142 and Techno Yaman (2001).143

Figure 2.6: Robert Dick, Lookout (opening, line 1); overblown harmonics paired with singing and playing

138 Ibid., 14.
Robert Dick uses a combination of tone coloration techniques to enhance his arrangements and transcriptions of standard repertoire, such as in his transcription of Niccolò Paganini’s 24 Caprices, op. 1 for violin (1820).\(^{144}\) Paganini’s Caprices, a set of virtuosic etudes for violin, was transcribed for flute by Jules Herman in 1902\(^{145}\) and have become standard flute etudes. Each of the Caprices focuses on a specific technique, such as trills, rapid arpeggiation, large interval leaps, and grace notes.

Dick’s transcription of Paganini’s Caprices, titled *Paganini/Dick* (1989),\(^{146}\) includes two of the twenty-four caprices from Paganini’s opus 1, Caprice no. 2 and Caprice no. 15. Robert Dick strives to create a version of Paganini’s Caprices that is closer to the original for violin. *Paganini/Dick* stays as true to Paganini’s notated pitches as possible, though some octaves and intervals are inverted to make it playable on flute. Unlike Herman’s transcription, *Paganini/Dick* includes many double-stops (played as multiphonics) from Paganini’s original.

Caprice no. 2 in B Minor in *Paganini/Dick* (ex. 2.1) uses natural harmonics to create multiple timbral shades of each pitch, imitating how the same pitch sounds slightly different when played on different strings of the violin. In the introduction to *Paganini/Dick*, Dick writes, “This use of [constantly shifting strings and bow positions in Paganini’s original score for violin] gives each line a different timbre, allowing the harmonies and voice-leading to stand out in high relief. To do this on flute, natural harmonics alternating with regular fingerings are used.”\(^{147}\)

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\(^{144}\) Niccolò Paganini, *24 Caprices*, op. 1 (Milan: Ricordi, 1820).


Example 2.1: Robert Dick, *Paganini/Dick*, Caprice no. 2 (mm. 6-10); use of harmonic fingerings to create timbral shading. Letter names indicate the fingering to be used to produce the notated pitch; “reg” indicates regular fingering.

Alternate fingerings for timbral alternation appear throughout Robert Dick’s published and improvised works. Chapter Two of *Tone Development Through Extended Techniques*, “Extended Timbres,” is a compendium of 127 fingerings that yield different tone colors. These fingerings are divided into three main types: “diffuse tones” (hollow tones lacking upper partials), “bright tones” (piercing tones with added higher partials), and “bamboo scales” (similar to diffuse tones, but require that the flute be turned far outwards). Also included are ninety-four timbral trill fingerings.

In *Afterlight* (1973), alternate fingerings create pitches with a veiled sound to contrast with *fortissimo* multiphonics (ex. 2.2). The use of the alternate fingering in this instance, especially for C-sharp, facilitates the fingerings required for the C quarter-sharp and the B-flat/D

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multiphonic. Doing this allows Robert Dick to combine multiple techniques (in this case, multiphonics, quarter-tones, and alternate fingerings).

Example 2.2: Robert Dick, *Afterlight* (opening); use of alternate fingerings

*Flames Must Not Encircle Sides* (1980)\(^{149}\) for solo flute is almost entirely comprised of harmonics, multiphonics, and tremolos produced by alternate fingerings to achieve alternate timbres (fig. 2.7). Above and below the notated pitches (the “primary pitches”), other pitches faintly sound (the “shadow resonances”). These shadow resonances, a product of the alternate fingerings and multiphonics, add more timbral depth and give the illusion of a magnified sound. This quality, in addition to the required circular breathing, helps create the illusion of many performers playing at once.

Like in the example from *Afterlight* (ex. 2.2), the alternate fingerings in *Flames Must Not Encircle Sides* (fig. 2.7) not only have a timbral effect, but also allow the multiphonics to be fingered more easily. Once again, Robert Dick simultaneously layers multiple techniques (or presents them in quick succession): circular breathing while performing multiphonics, alternate fingerings, microtones, and harmonics.

Figure 2.7: Robert Dick, *Flames Must Not Encircle Sides* (p. 2, lines 2-3), a characteristic sample of the piece. The horizontal lines in represent multiphonic overlapping. Note the number of alternate fingerings, which occur in conjunction with multiphonics and microtones.

Robert Dick makes physical alterations to his instrument to create different timbres, particularly in his improvised works. For his improvised solo in *Magmas* (1996), Robert Dick inserts a piece of cigarette paper underneath the A key, which partially seals the tone-hole and generates a buzzing sound. *Aramaic All Night Blues* (2003) includes the use of a flute

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headjoint with a buzzing membrane, as found in the Chinese *dizi*. Robert Dick plays “prepared flute” on the chamber music album *New Winds: Potion*\(^\text{152}\) and in *Times* (1991).\(^\text{153}\)

2. Microtones

“Microtones” refer to intervals smaller than a semitone; for example, C quarter-sharp lies halfway between C and C-sharp. In equal temperament, the octave is equally divided into twelve pitches, though many intonation systems throughout history and around the world (such as in ancient Greece, India, and other Near-Eastern musical traditions) divide the octave into more than twelve pitches. Many flutes around the world produce microtonal scales: for example, the fingerholes on the traditional Chinese *dizi* are equidistant, resulting in whole-tone and three-quarter-tone intervals in an equal temperament system. The Perisan *ney* flute is an oblique rim-blown flute used often in traditional Middle Eastern music, which is based on Persian scales that contain microtones (the octave is divided into twenty-four quarter tones).\(^\text{154}\) The Indian *bansuri* is a common instrument used in Hindustani classical music, a style in which microtones are used ornamentally (such as the *andolan*, a type of ornamentation in which a note oscillates between upper and lower microtones).

Microtones play a role in the history of the Western-Classical flute music. Around 1760, French flutist Charles de Lusse published *L’Art de la Flûte Traversière*,\(^\text{155}\) which included a fingering chart of quarter tones for the entire range of the one-keyed flute (fig. 2.8a) and a

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\(^\text{154}\) In Persian music theory, the 24 quarter-tone scale is conceived of as equal-tempered, though the intonation of certain melodic intervals may vary based on the modal context, regional custom, and individual preference.
composition entitled *Air à la Grecque* (c. 1760) (fig. 2.8b).\(^{156}\) This piece is the earliest Western composition known to utilize quarter tones as an important melodic characteristic (as opposed to quarter tones which appear as the slight variances between enharmonic pitches in non-equal temperaments).\(^{157}\)

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\(^{157}\) Ibid., 102.
Microtonal music gained popularity in the twentieth century, as composers such Charles Ives,\textsuperscript{158} Harry Partch,\textsuperscript{159} and Alois Hába\textsuperscript{160} began using microtones. Brian Ferneyhough’s flute solo, \textit{Cassandra’s Dream Song} (1970),\textsuperscript{161} is notoriously difficult to perform due to its many microtones played at a feverish speed (fig. 2.9).

\begin{figure}
\centering
\includegraphics[width=\textwidth]{air_la_grecque.png}
\caption{Charles De Lusse, \textit{Air à la Grecque} (from Charles de Lusse, \textit{L’Art de la Flûte Traversière}). The notes enclosed in boxes are raised one quarter tone.}
\end{figure}

\textsuperscript{158} See Charles Ives, \textit{Three Quarter-Tone Piano Pieces} (1923–24) and Symphony No. 4 (1910–24).
\textsuperscript{160} See Alois Hába, \textit{Third String Quartet} (1922) and \textit{Matka (Mother)}, op. 35 (1929).
Mexican composer Julián Carrillo devised one of the earliest systems of microtonal music in the Western-Classical tradition, which he called “sonido 13” ("thirteenth sound"). As early as 1895, Carrillo was experimenting with an equally-tempered 1/16-tone octave, breaking with the traditional musical classification of dividing the octave into twelve tones (hence the name, “the thirteenth sound”). The chamber octet Preludio a Colón (1922)\textsuperscript{162} was Carrillo’s first piece written using the theory of sonido 13; it includes quarter tones for flute (ex. 2.3).

Example 2.3: Julián Carrillo, *Preludio a Colón* (mm. 21-24); an early example of quarter-tone music for flute. The diagonal line (such as between the second and third notes in the flute part) denotes a quarter-tone. For example, the flute part begins m. 21 with a quarter-tone-stepwise descent: B-flat, B-three-quarters-flat, A.

The flute itself underwent some significant mechanical changes in the latter half of the twentieth century. Most notable is the development of the Kingma System flute by Dutch flutemaker Eva Kingma\textsuperscript{163} in the 1980s and 1990s, which is designed to improve the tone and playability of quarter-tones. By serendipity, the Kingma system flute is also capable of

producing sequential sets of multiphonics that do not exist on the Boehm flute. One of the drawbacks of the Boehm flute is that some keys do not operate independently; horizontal rod-axles along the sides of the instrument make it possible to place the tone holes in the acoustically correct position. The Kingma flute greatly increases the number of possible combinations of open and closed holes by allowing keys to operate independently, creating additional sonorities. The Kingma flute has the standard design of an open-hole Boehm flute, but with six extra keys added using Eva Kingma’s patented key-on-key system. The development of this instrument reflects the demand by contemporary flutists for an instrument that produces microtones more easily and with homogenous tone, and an overall broader timbral palette as well.

In *The Other Flute*, on the subject of microtones, Robert Dick writes, “The flute has long been known to be capable of producing some microtones, but its full range of microtonal possibilities has been left largely unexplored and unexploited.” He includes fingerings for quarter-tone scales (for both open-hole and closed-hole flutes), microtonal scales, microtonal segments, and multiple sonorities based on microtonal segments, noting that the segments are “the most interesting of all microtonal possibilities.” Robert Dick describes a microtonal segment as short scales which were “built by leaving one hole open and fingering downwards as if a regular chromatic scale were being played. Intervals as small as the thirty-second-tone are often produced.” Microtonal segments appear in Robert Dick’s improvised and composed works (fig. 2.10).

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165 Robert Dick, *The Other Flute*, 56.
166 Ibid., 62.
167 Ibid.
Quarter-tones and microtones are an inherent part of Robert Dick’s compositional style, particularly due to the number of pitch bends and multiphonics he plays. Of the 645 double-stops based on alternative fingerings that Dick lists in *The Other Flute*, 573 (88.9%) contain at least one microtone. Of the triple-stops based on alternative fingerings of the chromatic scale, 93% contain at least one microtone.

Robert Dick uses microtones in several ways: to achieve an alternative timbre, as a rapid succession of microtonal segments, or as a scale. An example of a melody comprised almost entirely of microtones can be heard in *Piece in Gamelan Style* (1978), which purposefully imitates gamelan intonation. In the liner notes for *Photosphere*, Dick writes, “I’m holding low notes and playing scales above them at the same time... Through pure serendipity, the notes that can be held while such scales are played are all members of a Javanese scale.”

In *Afterlight*, microtones are used as quarter-tone passing tones and microtonal segments (ex. 2.4).

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168 Ibid., 107-115.
169 These figures were obtained by counting the total number of multiphonics listed by Robert Dick in *The Other Flute*. The 645 double stops based on alternate fingerings are listed on pp. 107-115. The 15 triple stops are listed on p. 125. The percentages were calculated by counting the number of multiphonics which contain at least one microtone.
Example 2.4: Robert Dick, *Afterlight* (p. 4, line 3); microtonal segment

*Flames Must Not Encircle Sides* contains many rapid multiphonic microtonal segments similar to the one shown in example 2.5:

Example 2.5: Robert Dick, *Flames Must Not Encircle Sides* (p. 7, line 3), use of microtones with multiphonics

*Or* \(^{172}\) (ex. 2.6) is based on small-interval multiphonics, sometimes a quarter tone or less.

Example 2.6: Robert Dick, *Or* (p. 1, line 1), use of quarter-tones

Robert Dick has used a modified Kingma System flute as his primary instrument since 1996. The Robert Dick Modified Kingma flute includes several extra tone holes and keys, which increase the flute’s multiphonic capabilities. For example, his addition of an elongated F-sharp

up bar makes it easier to slowly open and close the F-sharp up key, which is beneficial in

glissando production.\textsuperscript{173}

Though the Kingma flute is mainly played by contemporary music specialists, Dick
views the Kingma flute as a natural part of the development of flute-playing:

Boehm’s flute is an absolute work of genius – if you want to play one note at a time and
only the notes in the chromatic scale. That’s why we are still using it! But if you want to
play chords, glissandi, microtones, expand the color palette, etc., then Boehm’s flute
presents very many problems. Boehm developed his flute because music had changed
and the 8-key flute simply was not adequate to the needs of Romantic music. Music has
changed again, and the Boehm flute needs evolution to meet the demands of the music of
the present and future.\textsuperscript{174}

Dick plays the Modified Kingma flute extensively in recordings, improvisations, and while
teaching (post-1995). The use of this instrument allows him to play the greatest number of
multiphonics, glissandi, and microtones possible, many of which are difficult or impossible for a
flutist playing a Boehm flute. Since the Kingma System flute is relatively new and few flutists
have adopted it, Robert Dick is able to create a distinctive sound.

3. Pitch Bending and Glissandi

A pitch bend is when a player gradually raises or lowers the pitch of a note, usually
within the interval of a whole step or less. Bends have long been a part of the Western-Classical
tradition, and can be produced on the flute by rolling the headjoint in (to flatten the pitch) or out
(to raise the pitch), or by sliding the fingers off the toneholes on an open-hole flute. A glissando
is a type of bend that usually extends over an interval larger than a semitone. Pitch bending has
been a commonly used technique around the world for centuries. In Japan, \textit{shakuhachi}
performance features glissandi, created by altering the angle of the head up or down (to raise or

\textsuperscript{173} Ibid., 108.
\textsuperscript{174} Cindy Ying Shiung, “The Brannen-Cooper Kingma System Flute,” 23.
lower the pitch gradually) or by sliding the fingers on or off the holes. In South America, Eastern Europe, and Southwest Asia, players of pan pipes frequently bend pitches.

Though bends have traditionally been improvised and not notated, Charles Nicholson’s arrangement of *Roslin Castle* includes multiple bends, notated by the crescent symbols (fig. 2.11).

![Figure 2.11: Nicholson, Roslin Castle (mm. 5-8); use of bends (marked by crescent symbol above the notes)](image)

In the twentieth century, Kazuo Fukushima’s interest in traditional Japanese music led him to include bends in *Mei* (1962).¹⁷⁵ This piece was dedicated to Italian flutist Severino Gazzelloni (1919–1992), principal flutist of the RAI National Symphony. Gazzelloni was a renowned interpreter of new music and played a critical role in experimenting with extended techniques. In *Mei* (fig. 2.12), Fukushima includes two bends, which occur over the interval of a half-step or less.

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Bends are a recurring element of Robert Dick’s style, from his earliest compositions to his most recent. His duet *Time is a Two-Way Street* (2004)\(^{176}\) is influenced by *shakuhachi* music\(^ {177}\) and includes several bends. The first melodic material of the piece, marked “freely, like a *shakuhachi*” (fig. 2.13a and 2.13b), contains gestures employing bends that are similar to those used by Fukushima in *Mei* (fig. 2.12). While the antecedent phrase in example 2.14a contains one whole-step bend, the consequent phrase in Flute 2 contains three bends, two of which span a third or greater. This is a much larger bend interval than is typically seen in works for the Boehm flute that pre-date Robert Dick. The consequent phrase combines these large-interval bends with an “unfocussed air sound” (residual tones), in imitation of both the performance practice and timbre of the *shakuhachi*.

\(^{176}\) Robert Dick, *Time is a Two-Way Street* for two flutes (New York: Multiple Breath Music, 2004).

\(^{177}\) Robert Dick recommends the following recording of *shakuhachi* music when studying *Time is a Two-Way Street*: Katsuya Yokoyama, *Katsuya Yokoyama Plays Shakuhachi – 1: Traditional Shakuhachi Tunes, Shika No Toone*, Ongaku no Tomo Sha, Japan, OCD-0911, CD, 1989.
Figure 2.13a: Robert Dick, *Time is a Two-Way Street* for two flutes (p. 2, line 3); *shakuhachi*-based bends

Figure 2.13b: Robert Dick, *Time is a Two-Way Street* for two flutes (p. 3, line 1); *shakuhachi*-based bends
The second movement of *Time is a Two-Way Street* opens with a bird-call-like multiphonic melody in Flute 1, while Flute 2 slowly bends a multiphonic tremolo (fig. 2.14). Robert Dick uses this signature bent-multiphonic-tremolo technique in other works.¹⁷⁸

![Figure 2.14: Robert Dick, *Time is a Two-Way Street* (opening of mvt. II); Robert Dick’s signature bent-multiphonic-tremolo in Flute 2](image)

In *Afterlight*, glissandi help to differentiate sections of the piece’s structure. The B section of the piece features a series of glissandi (fig. 2.15), setting it apart from the sustained multiphonics of the first section. These glissandi cover very wide intervals (up to a tenth), and

occur with greater frequency, than in earlier flute repertoire. Their function in delineating the form makes their musical role more substantial than simply an ornament or effect.

Figure 2.15: Dick, *Afterlight* (p. 5, line 2); glissandi that differentiate the B section. Note the long sequence of glissandi and the wide intervals they cover.

Bends are the focus of Dick’s fourth etude in *Flying Lessons*, Volume II (1987). At eleven pages and nearly four minutes in length, it is the longest of any etude by Robert Dick. The pedagogical goal of the etude is fluency of bends to and from any pitch at a variety of speeds. Most common is the half- and whole-step bend to the upper or lower neighboring tone, or a slide through a passing tone. Bends are also used to connect arpeggiated notes within a chord (fig. 2.16).

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4. Multiple Sonorities

The production of multiple sonorities (or multiphonics) is a technique in which several notes sound at once. For the flute, multiphonics usually consist of two, or sometimes three, different pitches. Multiphonics can be produced with either conventional fingerings or alternate fingerings.

Western-Classical flutists have played multiphonics as early as 1828. By the beginning of the nineteenth century, the Romantic trend towards increased virtuosity and desire for novelty
led flutist Georg Bayr (1773–1833) to advertise that he would be performing *Doppeltönen* (*double tones,* or multiphonics) as part of an 1828 concert in Vienna (fig. 2.17). On the concert poster, Bayr listed two of his own compositions that included *Doppeltönen:* the Allegro from his Flute Concerto in G Major and an Adagio with Polonaise for Flute (the word “*Doppeltönen*” following numbers 2 and 5 on the concert poster is marked with an arrow).

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Figure 2.17: Program for Bayr’s 1828 concert featuring Doppeltönen (multiphonics)
In 1824, Bayr published a method for multiphonics titled *Schule für Doppeltöne auf der Flöte* (fig. 2.18).¹⁸¹ In it, he outlined his process for playing multiphonics, noting that a looser embouchure and alternate fingerings are required. He invented a C lever, operated by the left thumb, to aid in the production of multiphonics. The book contains extensive fingering charts and exercises. Since Bayr wrote his method for the Viennese keyed flute, the multiphonic fingering charts became obsolete.

![Figure 2.18: Fingering chart for multiphonics on the Viennese keyed flute, from Bayr’s *Schule für Doppeltöne auf der Flöte* (Vienna: F.X. Ascher, 1831).]

Bayr’s method and his use of multiphonics went unnoticed by most of his contemporaries. However, in 1890, Richard Rockstro, a British flutist, wrote about Bayr in his treatise on flute construction and performance:

> Bayr seems to have been the discoverer of an ingenious artifice, now perhaps too commonly employed, namely causing one flute to produce an effect similar to that of two. This pleasing novelty so astounded the musical public of Vienna that a commission was appointed to enquire as to the means by which the deception was produced, and whether all the sounds that were heard were really obtained from a single instrument. The report left no doubt that the means employed were perfectly legitimate, and that the apparently simultaneous sounds were veritably produced from one flute.¹⁸²

Rockstro points out that multiphonics, an “ingenious artifice,” are “perhaps too commonly employed,” suggesting that others used multiphonics as well. Charles Nicholson (1795–1837), an English flutist-composer, was one such flutist. One of the foremost flutists of the early nineteenth century, Nicholson was renowned for his tone and technique. Critics noted his use of “double octaves,” a type of multiphonic in which the sound is spread between the fundamental tone and one or more overtones.

Despite evidence that concertizing flutists played multiphonics in the nineteenth century and publication of pedagogical materials for producing flute multiphonics, the technique largely disappeared from practice for nearly a century. This can likely be attributed to several factors in play in the late 1800s and early 1900s. First, this was a transitional period for many flutists, as they gradually switched from wooden simple-system flutes to the silver Boehm flute. Since multiphonics methods such as Bayr’s *Schule für Doppeltöne* were written for simple-system flutes, the fingering diagrams for multiphonics did not work on the Boehm flute. Secondly, the Modern French flute school was the world’s preeminent force in flute-playing during this period. This school of flute-playing idealized a beautiful and pure tone above all, excluding multiphonics and other extended techniques altogether.

Flute multiphonics resurfaced in the 1950s, led by Italian flutist Severino Gazzelloni. The earliest published flute multiphonic for the Boehm flute appeared in 1958 in Luciano Berio’s *Sequenza*, which he dedicated to Gazzelloni (fig. 2.19).

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The first publications devoted to extended techniques for the Boehm flute were a series of articles by John Heiss. In the first of these, “For the Flute: A List of Double-Stops, Triple-Stops, Quadruple-Stops and Shakes” (1966), Heiss writes, “While multiple-stops on the flute are not so numerous or flexible as on stringed instruments, they nonetheless represent a legitimate, and, to my knowledge, little-used extension of what the flute is presumed to be able to do.” This article provides 26 multiphonic fingerings (fig. 2.20). Heiss adds seven more multiphonics in his 1968 article, “Some Multiple-Sonorities for Flute, Oboe, Clarinet, and Bassoon.”

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186 John Heiss, “Some Multiple-Sonorities for Flute, Oboe, Clarinet, and Bassoon,” *Perspectives of New Music* 7, no. 1 (1968), 136-42.
Figure 2.20: Multiphonic fingerings from John Heiss, “For the Flute: A List of Double-Stops, Triple-Stops, Quadruple-Stops and Shakes,” Perspectives of New Music 5, no. 1 (1966): 140.

The first method book that included extended techniques for the Boehm flute was Bruno Bartolozzi’s New Sounds for Woodwind (1967). This book gained much more exposure than Heiss’s articles and made an enormous impact on the new music community. New Sounds for Woodwind illustrates how to execute various extended techniques for flute, clarinet, oboe, and bassoon. Bartolozzi includes a quarter-tone scale for flute from D⁴ to C-sharp⁵, dozens of multiphonic fingerings (fig. 2.21), and multiphonic effects such as sustaining a drone while trilling another interval. Though New Sounds for Woodwind was crucial in the development of extended techniques, it covers four instruments in 78 pages, omitting many details. And, unfortunately, some of the multiphonics are impossible or extremely difficult to execute.

Figure 2.21: Bartolozzi, New Sounds for Woodwind (p. 40); chords and associated fingerings for flute

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Included in *New Sounds for Woodwind* is a piece composed by Bartolozzi titled *Collage* (1967), a short composition intended to demonstrate the musical applications of the techniques included in the book (fig. 2.22). A recording of *Collage* accompanies the book.

Figure 2.22: Bruno Bartolozzi, *Collage*, from *New Sounds for Woodwind*, p. 69; use of multiphonics, alternate fingerings, and timbral trills

The first significant method book dedicated solely to flute techniques was published in 1974: American flutist Thomas Howell’s *The Avant-Garde Flute*. This book covers timbre, intonation, special fingerings for timbre and pitch, special effects, and amplification. Howell lists an astounding 1,826 multiphonics. Because the multiphonics fingerings in Howell’s book were generated through a computer program, some fingerings exist only abstractly, so many fingerings are impractical or physically impossible. Like Bartolozzi’s book, *The Avant-Garde Flute*

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includes a sound disc with demonstrations of the techniques recorded by Howell (though no multiphonics are present on the recording).

In *The Other Flute*, Robert Dick writes, “The most singular outgrowth from traditional flute playing in recent decades is the development of multiple sonorities, commonly called multiphonics.” The book has a clear emphasis on multiphonics, listing over one thousand unique chords, and they are at the heart of Robert Dick’s style.

This book’s strength is in its organization, accuracy, and clarity. Most importantly, unlike the other manuals, every multiphonic was tested by the author. Bartolozzi’s *New Sounds for Woodwind* and Howell’s *Avant-Garde Flute* share a basic conceptual flaw: illustrations of unattainable multiphonics. Several of the multiphons listed in *New Sound for Woodwind* are simply incorrect. Robert Dick explains that “the problem is that the pitches yielded by each fingering are treated [by Bartolozzi] as if they all can be played together in practically every case. This is simply not true, as, for the most part, these pitches are playable together in ascending pairs.”

For example, the fingering shown in measure four of the example below from Bartolozzi’s *New Sounds* (fig. 2.23) does not actually result in the pitches notated. Furthermore, it is not possible to play all four pitches simultaneously.

![Figure 2.23: Multiphonic fingering and pitches (note the fingering and pitches in m. 4) (Bartolozzi, New Sounds, p. 37)](image)

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189 Dick, *The Other Flute*, 2nd ed., 83.
190 Ibid., 84.
The fingering shown in measure four of fig. 2.23 also appears in *The Other Flute* as C⁵II (fig. 2.24a). The pitches yielded by this fingering are C⁵, D⁶, and G quarter-sharp⁶. However, these three pitches cannot be played all at once, only in sets of two (fig. 2.24b, m. 4).

Figure 2.24a: C⁵II, alternate fingering for C⁵ (Robert Dick, *The Other Flute*, p. 22)

![Diagram of C⁵II fingering]

Figure 2.24b: Multiphonics based on fingering C⁵II (m. 4) (Dick, *The Other Flute*, p. 95)

Besides their inaccuracies, the manuals by Bartolozzi and Heiss both lack detail and organization, making them unsuitable as reference texts.

Chapter 3 of *The Other Flute* deals with “Multiple Sonorities,” providing quick and easy reference for performers and composers. Descriptions and characteristics of each multiphonic appear alongside its fingering, using Dick’s abbreviation system (fig. 2.25). This system indicates each multiphonic’s ease of response and starting time, stability, dynamic range, timbre modification, noise, residual tone, degree of modulation, and class (lip opening and tension).

The multiphonics are listed in *The Other Flute* in three ways: by natural harmonics, chromatically, double-stops arranged chromatically by lowest pitch, double-stops arranged chromatically by highest pitch, triple-stops arranged chromatically by lowest pitch, and microtonal segments. Though many multiphonics are listed more than once throughout the book, the arrangement facilitates easy reference.
The first category of flute multiphonics is based on conventional fingerings and the harmonic series. Every fingering on the flute yields at least one multiphonic, more usually four or six: “The fingerings from low B^3 to D^5 yield multiple sonorities in chromatic sets of octaves, perfect fifths, perfect fourths, major thirds, minor thirds, and major seconds.”¹⁹¹ Further explaining how multiphonics are produced, Dick writes, “[Multiphonics] are produced via the embouchure and the technique is similar to overblowing low fingerings into the higher octaves except that the airstream is focused so that it reaches the proper angle for all the pitches sounding.”¹⁹²

The figure below illustrates Dick’s multiphonic classification system and the possible multiphonics based on conventional fingerings and natural harmonics using the fingering for B^3 (fig. 2.25).

¹⁹¹ Dick, The Other Flute, 2nd ed., 83.
¹⁹² Ibid., 85.
The second category of flute multiphonics are sonorities based on alternate fingerings. These sonorities form the most varied and extensive group of multiphonics: "Within the twelfth, double-stops are produced that form almost every conceivable interval, both diatonic and microtonal. Many intervals are found at several pitch levels and many intervals are produced by
several fingerings, thus making a choice of timbres available.\textsuperscript{193} The figures below illustrate the possible multiphonics (fig. 2.26a) based on an alternate fingering for D-sharp\textsuperscript{4} (fig. 2.26b). The label “D-sharp\textsuperscript{4}II” refers to Dick’s cataloguing system for alternate fingerings. D-sharp\textsuperscript{4} refers to the lowest possible D-sharp on the flute; II refers to the second fingering for that pitch listed in Chapter 1 of \textit{The Other Flute}.

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{image1.png}
\caption{Figure 2.26a: Multiphonics possible based on alternate fingering D-sharp\textsuperscript{4}II (Robert Dick, \textit{The Other Flute}, 2\textsuperscript{nd} ed., p. 90)}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{image2.png}
\caption{Figure 2.26b: Alternate fingering for D-sharp\textsuperscript{4}II (Robert Dick, \textit{The Other Flute}, 2\textsuperscript{nd} ed., p. 13)}
\end{figure}

Figure 2.26a shows the eight possible discrete pitches using the D-sharp\textsuperscript{4}II fingering. However, it is not feasible to play all these pitches simultaneously. Typically, the possible multiphonics yielded by a fingering are comprised of ascending pairs of pitches, beginning with the fundamental. In the case of D-sharp\textsuperscript{4}II, the possible multiphonic pairs are D-sharp\textsuperscript{4} and D-sharp\textsuperscript{5}, D-sharp\textsuperscript{5} and A quarter-sharp\textsuperscript{5}, A quarter-sharp\textsuperscript{5} and D\textsuperscript{6}, and E quarter-sharp\textsuperscript{6} and G quarter-sharp\textsuperscript{6}.

\textsuperscript{193} Dick, \textit{The Other Flute}, 2\textsuperscript{nd} ed., 88.
Following the model set by Bartolozzi with his inclusion of *Collage* as part of his book, *New Sounds for Woodwind*, Robert Dick includes a flute solo in *The Other Flute*. This work, *Afterlight*, is among the first flute works to use multiphonics extensively as a central structural element. It features many hallmarks of Robert Dick’s style: alternate fingerings, singing and playing, glissandi, and harmonics. Though not the first composition to include flute multiphonics, the central motif of *Afterlight* is based on the $C^2/D^3$ (major ninth) multiphonic and its transpositions (fig. 2.27). Using a series of multiphonics, tremolos, and microtones, the flute’s timbre slowly and continually changes as the piece unfolds.

Robert Dick uses multiphonics – often in octaves – to add thickness to the tone and texture. This technique is used in the opening of *Sliding Life Blues* (ex. 2.22): the opening gesture is first played monophonically, then restated with octave doubling. A similar technique is used in *Paganini/Dick*, in imitation of violin double-stops (fig. 2.28):
In *Gravity’s Ghost* (2007)\(^{194}\) for solo piccolo, the melody is harmonized using multiphonics (fig. 2.29). The interval created by the multiphonics varies between a perfect twelfth and an augmented twelfth.

Robert Dick’s adoption of the Kingma System flute in 1996 allows for many microtonal and multiphonic possibilities that are not feasible on the standard Boehm flute.

5. Flutter-Tonguing

Flutter-tonguing is a technique produced by rolling the tongue or uvula. The sound produced from flutter-tonguing on the flute ranges from slight pulsations in the tone to very loud, buzzing noises. The most intense flutter-tonguing, the roar-flutter, is made by using the tongue to apply pressure to the uvula while also pressing against the hard palate. This raspy buzz can be used to emulate onomatopoeic sounds, explosions, and animal roars.

At the end of the nineteenth century, flutter-tonguing began appearing in orchestral scores. Pyotr Tchaikovsky employed flutter-tonguing in Act II of the 1892 ballet *The Nutcracker* to depict a cascading river. Tchaikovsky labeled the technique *frullate*, writing in the score, “the *frullate* is produced by the letter *r* pronounced continuously: trrrrrr... etc.” Tchaikovsky learned about the flutter-tonguing technique from Aleksandr Khimichenko, the flute professor at Kiev State Conservatory, in early 1892. During this meeting, Khimichencko demonstrated a trilled chromatic scale “trick” for Tchaikovsky. Following the meeting, Tchaikovsky wrote to Khimichenko, “Teach me generally about this delightful effect, and write some notes with examples of it.” The flutter-tongue effect would appear later that year at the premiere of *The Nutcracker*.

Flutter-tonguing was later used by Arnold Schoenberg in *Pierrot Lunaire*, op. 21 (1912). Throughout the work, the flute is paired with imagery of moonlight, such as in the seventh movement for soprano and flute, “Der kranke Mond.” The sole instance of flutter-
tonguing in the entire work occurs in the third movement (fig. 2.30): the piccolo flutter-tongues a brief descending passage. This is another instance of composers using flutter-tonguing as word-painting. Here, it represents moonlight. The flutter-tongued section occurs between the second and third lines of lyrics below:

In the resonant bronze basin  
The fountain laughs light, metal clangs (flutter-tonguing appears here)  
With one phantastical light beam  
The moon lights the crystal flacons.

Figure 2.30: Arnold Schoenberg, Pierrot Lunaire (III. “Der Dandy,” mm. 15-17); flutter-tonguing (marked “Flutterzunge”). Arnold Schönberg “Pierrot lunaire | Dreimal 7 Gedichte | für eine Sprechstimme und 5 Instrumentalisten | op. 21” © Copyright 1914, 1941 by Universal Edition A.G., Wien/UE 33384.

Later in the twentieth century, Benjamin Britten wrote flutter-tongued flute passages in compositions such as in Curlew River – A Parable for Church Performance, op. 71 (1965). Based on a Japanese noh play titled Sumidagawa, the plot centers around the outsider, a Madwoman (a role sung by a tenor) on a quest to find her lost child. Throughout the play, the flute is used to symbolize the Madwoman; flutter-tonguing is employed to give the impression of

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200 Benjamin Britten, Curlew River – A Parable for Church Performance, op. 71 (Faber & Faber, 1965).
her “madness.” The first vocal entrance of the Madwoman (fig. 2.31) is signaled by flutter-tongued triplets played by the flute; this motif reappears throughout the movement.

Figure 2.31: Benjamin Britten, *Curlew River* (Madwoman’s entrance); flutter-tonguing. © Copyright 1965 by Faber Music Ltd, London. Reproduced by kind permission of the publishers.
Robert Dick’s use of flutter-tonguing varies widely. His piece for solo flute and pre-recorded soundtrack, *everyone@universe.existence* (2001), involves the flutist dramatically performing a poem. Words from the poem are interspersed throughout the piece. In the excerpt below (fig. 2.32), the poem references Icarus (“Icarus, say wax!”), a character from Greek mythology who attempts to fly by attaching wings to his back. Icarus’s wings, made of feathers and wax, melt as he approaches the sun, and he crashes into the sea.

The flutter-tongued passage written by Dick in *everyone@universe* is longer and more complex than previous examples of flutter-tonguing. Here, the flutter-tongued ascending octatonic scale repeats nine times while gradually slowing down and getting softer (fig. 2.32). After the spoken interjection (“Icarus, say wax!”), a fortissimo A in octaves is flutter-tongued before launching into a flutter-tongued two-octave descending octatonic scale that repeats four times.

![Figure 2.32: Robert Dick, everyone@universe.existence (p. 3, lines 2-3); flutter-tonguing](image)

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201 Robert Dick, *everyone@universe.existence* for flute and pre-recorded soundtrack (New York: Multiple Breath Music, 2001).
The idea of using flutter-tonguing as a musical word-painting is not new, as that is the way flutter-tonguing was used by Tchaikovsky in *The Nutcracker* (to represent cascading water), Schoenberg in *Pierrot Lunaire* (to represent moonlight), and by Britten in *Curlew River* (to represent the Madwoman). Here, flutter-tonguing represents Icarus’s flight and his wings made of feathers. The first line, an ascending flutter-tongued octatonic scale, represents the beginning of Icarus’s flight, as he soars high. The second line, a descending flutter-tongued octatonic scale, represents Icarus’s consequent fall.

Often, Robert Dick uses flutter-tonguing ornamentally. In *Air is the Heaviest Metal* (2014),202 flutter-tonguing appears only once in the piece (ex. 2.7), paired with a flourish of grace notes to introduce a phrase.

Example 2.7: Robert Dick, *Air is the Heaviest Metal* (p. 8, line 2); flutter-tonguing (“flz”)

Robert Dick regularly combines multiple techniques, or quickly shifts between techniques to create a variety of textures. Dick’s arrangement of Jimi Hendrix’s *Purple Haze* (Jimi Hendrix, 1967/arr. Dick, 1993)203 ends with a flutter-tongued, residual tone bend, gradually decreasing in volume and tempo, seamlessly connecting to slower double-tongued notes before ending on an explosive overblown residual tone harmonic (ex. 2.8).

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Example 2.8: Robert Dick, *Purple Haze* (4:53-5:15); flutter-tonguing which gradually slows down to normally-articulated sixteenth notes. Transcribed by author from *Third Stone from the Sun*.

6. Percussive Sounds: Key Slaps, Tongue Clicks, Tongue-Stops, and Tongue-Pizzicati

A variety of percussive sounds can be made on the flute by slapping one or more keys, clicking the tongue, or striking the embouchure hole with the tongue.

Key slaps (also called key clicks) are made by forcibly slapping the keys, which produces a faint pitched sound as the key makes contact with the tone hole. Air may or may not be blown through the flute during key slaps. Key slaps can be used to articulate a range of sonorities, including single pitches, multiphonics, whisper tones, residual tones, and jet whistles.

Tongue clicks can be performed with the embouchure hole open or covered. With the embouchure hole open, the tongue click is accompanied by extremely soft residual tones at the fingered pitch. With the embouchure hole closed, the tongue click resonates strongly through the tube of the instrument. The pitch of this resonance can be altered by changing the vowel shape of the mouth and the position of the tongue.

Tongue-stops (also called tongue rams) are played by completely covering the embouchure hole with the lips, blowing through the instrument, and then forcing the tongue
through the lips and into the embouchure hole. The result is a resonant thumping sound generally pitched at a major seventh below the fingered pitch.

The tongue-pizzicato is a type of articulation made by placing the tongue between the lips (or, in the traditional position against the hard palate) and allowing air pressure to build up before quickly retracting the tongue, resulting in a popping sound. The flute amplifies the noise of the pop and resonates at the fingered pitch.

The first major twentieth-century flute composition to notate extended techniques was Edgard Varèse’s *Density 21.5* (1936)\(^{204}\) for solo flute, which includes the first notated key slaps for flute (mm. 24-27).

Robert Dick also uses percussive sounds on the flute extensively, in both composed and improvised works. His applications of percussive sounds include single key clicks as part of a melody, used to form a motif, or used for long passages as a “drum solo.”

Key slaps are a motivic element in *Lookout*. After the introduction, the tempo increases and a multiphonic rhythmic beat is established. The melody is then stated three times using only key slaps (ex. 2.9):

Example 2.9: Robert Dick, *Lookout* (p. 2-3); key slaps as a motivic element

Variations of this key-click motif reappear as the piece develops, creating continuity and unity. Like Varèse did in *Density 21.5*, Dick specifies the articulation for each key slap.

In *everyone@universe.existence*, key-click trills accompany the text, “Say the world turns, say dig it, bone meal! Say kiss, say chew” (fig. 2.33). Dick indicates the speed of the key clicks with the words “fast” and “slow,” and gives the approximate duration of each section in seconds (such as ±8").
Figure 2.33: Robert Dick, *everyone@universe.existence* (p. 7-8); key clicks
Notable instances of Dick’s use of percussive sounds in his recorded work include his arrangement of Eric Dolphy’s *Gazzelloni* (1964) for solo flute,\(^{205}\) which features a one-minute-long “percussion solo” comprised solely of key slaps and tongue rams.


*A Black Lake with a Blue Boat on It* (1992)\(^{210}\) involves sampling (using only flute sources) and live processing. One of the samples in the first section of the piece is a series of rapid key clicks. The key click sample builds to the climax midway through the piece, overlapping and gradually growing in intensity, creating a magnified and distorted tone.

*If* (2005),\(^{211}\) for solo bass flute in F, features percussive effects, especially tongue stops, to imitate the sound of “the footsteps of the monster from the id” from the science-fiction film *Forbidden Planet*.\(^{212}\) The piece opens with tongue rams and key slaps (ex. 2.10) which gradually build in speed and intensity. After two minutes, the percussive sounds give way to air effects, gradually layering in singing and playing and other vocalizations to build to the climax. The

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\(^{205}\)*Robert Dick,* *The Other Flute*, GM Recordings GM2013CD, CD, 1989. Refer to 5:00-5:58 for the percussion solo.


\(^{207}\)*Robert Dick,* *Whispers and Landings*.


\(^{212}\)Ibid., liner notes.
piece returns to the key clicks and tongue rams from the beginning, eventually fading out, as if
the monster’s footsteps are retreating.

Example 2.10: Robert Dick, If (0:00-0:22); tongue-stops (T) and key slaps (x-noteheads).
Transcribed for C flute by author from the recording on Worlds of If.

Other compositions that contain similar tongue-stop passages are Further Down (1988),213
bass flute.

7. Whisper Tones and Residual Tones

Whisper tones and residual tones are two types of sounds made by blowing through the
flute, but not producing the traditional tone.

A whisper tone (also called a whistle tone or flageolet tone) is made by very gently
blowing a focused airstream into the flute. The resulting sound is a soft, pitched, whistle-like
sound. Whisper tones are flute’s equivalent to string harmonics.

213 Robert Dick, Steve Gorn, Neil Rolnick, Ned Rothenberg, Mary Kay Fink, Venturi Shadows,
215 Robert Dick, Steve Gorn, Neil Rolnick, Ned Rothenberg, Mary Kay Fink, Venturi Shadows,
Residual tones (or ghost tones) are created by blowing into the embouchure hole with a deliberately unfocused embouchure, so the tone is breathy and diffuse. Residual tones are pitched, can vary widely in dynamics, and can be played on multiphonics.

Flute players around the world produce a wide variety of airy sounds. In Japan, *shakuhachi* performance features a variety of air-effects, such as a technique called *muraiki*, which is a pitchless burst of air similar to a residual tone.

Robert Dick uses air sounds extensively, particularly in his recordings. A typical use of whisper tones occurs at the beginning of *It’s Still Like It Wouldn’t Be Yesterday* (1993). The piece opens with solo flute playing whisper tones on B, and overblowing through the harmonic series to create a “whisper tone cloud” (ex. 2.11). This introduction lasts over a minute. The whisper tone motif reappears in the middle of the piece, lasting about the same duration.

Example 2.11: Robert Dick, *It’s Still Like It Wouldn’t Be Yesterday* (0:00-1:16); whisper tones on harmonics. The marking “ws.” indicates whisper tones. Transcribed by author from the recording on *Third Stone from the Sun*.

This “whisper tone cloud” technique is heard in many other pieces. *Sea of Stories Remix* (1995) opens with whisper tone clouds, and whisper tones persist through the first section of

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218 Robert Dick, *Worlds of If*. 


![Figure 2.34: Robert Dick, Flying Lessons Vol. II, no. 3 (p. 10, line 2); whisper tones](image)

Residual tones are a common element of Robert Dick’s works. A simple use of residual tones appears in *everyone@universe.existence* (fig. 2.35).

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221 Robert Dick, *Venturi Shadows*.
Time is a Two-Way Street has multiple instances of the marking “pitched air,” such as during the solo at the end of the second movement (fig. 2.36). Robert Dick uses a similar gesture (shifting between tone and air) in Gravity’s Ghost.

Figure 2.35: Robert Dick, everyone@universe.existence (p. 1, line 4); residual tone

Figure 2.36: Robert Dick, Time is a Two-Way Street (p. 11, lines 3-4); use of residual tones (‘normal → pitched air’)
Two examples of residual tones from Robert Dick’s recorded works include *Steambird* and *Venturi Shadows*, which both use residual tones as the primary timbre of the piece. Robert Dick plays several sections of *Molecular Motion* by covering the embouchure completely and strongly breathing in and out through the flute.

8. Jet Whistles

A jet whistle is a sound produced by completely covering the embouchure hole with the mouth, and very forcefully blowing through the flute.

Heitor Villa-Lobos notated the first jet whistle in the third movement of *Assobio a Játo* (*Jet Whistle*) (1950) for flute and cello. The title of this piece comes from the name Villa-Lobos gave for this technique, which sounded to him like a jet plane. As the jet whistle was a little-known technique at the time, Villa-Lobos included directions for playing it directly in the score, writing, “The only way to achieve the effect which the composer wishes, as indicated by the words *imitando fischi in toni ascendenti*, is to blow into the embouchure *fff* as if one were warming up the instrument on a cold day.” The markings *imitando fischi in toni ascendenti* (“imitating whistles in ascending tones”) and *gliss.* are written to indicate jet whistles. This effect occurs at the climactic close of the piece (mm. 220-223).

Robert Dick often uses jet whistles when building to a climax. After a series of *fortissimo* tremolos, the climax of *Afterlight* occurs on a jet whistle (ex. 2.12). A similar use of jet whistles as the endpoint of a climactic build occurs in *Seeing the Double* (1989). Dick’s applications of

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jet whistle in these cases – at the point of greatest intensity – is similar to the way they were used by Villa-Lobos in *Assobio a Jâto*.

Example 2.12: Robert Dick, *Afterlight* (p. 4, line 1); jet whistle at climax

Jet whistles are used in the exposition of Robert Dick’s Concerto for flute with strings and percussion (fig. 2.37a and 2.37b). In contrast to how jet whistles are used in *Afterlight*, they are used here to dramatically set the tone of the piece. The jet whistles are first scored with a percussion roll on the shell and rim of the bass and snare drums (m. 3) and with a string glissando (m. 5).
Figure 2.37a: Robert Dick, Concerto (first movement, mm. 1-6); jet whistles in m. 3
Figure 2.37b: Robert Dick, Concerto (first movement, mm. 1-6); jet whistles in m. 5
9. Singing and Playing Simultaneously

Historically, flutists have been singing and playing simultaneously for centuries. Russian pan-pipe players, such as the Komi-Zyrian women, produced vocal sounds as they blew into the instrument.229 The Fula flute (tambin), an iconic wind instrument from West Africa, is a wooden, three-hole, side-blown flute. Fula flute music is traditionally performed with simultaneous singing and playing. It is also used by players of the didjeridu. Flutists in Laos often sing text mingled while playing their instrument, while Indian nahr flutists create a vocal drone while playing. Musicians from the Central African Republic are known for their complex interlocking of voice and flute sounds.

Singing and playing is a rather old technique in Western-Classical tradition, as well. As early as the seventeenth century, Marin Mersenne describes singing and playing on the flute in his 1637 publication *Harmonie Universelle*:

But it should be noted that one can play an air or a song on the flute douce [recorder], and at the same time sing the bass line, without articulating the text, because the wind that leaves the mouth while [simultaneously] singing is able to make sound on the flute in such a way that one man alone can play a duet.230

Though Marsenne’s remark regarding singing and playing leads one to assume that the technique was fairly common (or at least feasible) for recorder players, it is not clear that the same technique could be achieved on the transverse flute. Regardless, no published compositions appeared for flute requiring simultaneous singing and playing until the twentieth century.

230 “Mais il faut remarquer que l’on peut sonner un air, ou une chanson sur la Flute douce, et en meme temps chanter le chant de la Basse, sans toutesfois articuler les voix, car le vent qui sort de la bouche en chantant est capable de fair sonner la Flute, de sorte qu’on seul homme peut faire un Duo.” Marin Marsenne, *Harmonie Universelle*, Part II (Paris: Pierre Ballard, 1637), 239.
In the late 1950s, jazz flutists embraced many extended techniques, including singing and playing. Sam Most was one of the earliest jazz flutists known for his “humming technique” (singing and playing simultaneously) in the 1950s, and Herbie Mann soon adopted the technique as well. Yusef Lateef (1920–2013), known for his fusion of Eastern musical elements with jazz, incorporated voiced syllables to achieve unique articulations. Rahsaan Roland Kirk (1935–1977) can be heard singing and playing on his recording of You Did It, You Did It (1962), a piece in which singing and playing is not just used for novelty, but to strengthen the bluesy underpinnings of the song.

Though uncommon, the practice of singing text while playing the flute has historical precedent in flute literature. The most well-known is Toru Takemitsu’s Voice (1971), which instructs the player to “speak into the instrument with lips almost entirely covering the mouthpiece” (fig. 2.38). The first edition of Voice required microphones for amplification of this technique, but the following edition removed the microphones.

Figure 2.38: Toru Takemitsu, Voice (page 2, line 1); voice part indicated with open noteheads and text above the staff. © With kind authorization of Éditions Salabert.

231 Rahsaan Roland Kirk, We Free Kings, Mercury Records SR 60679, LP, 1962.
Singing and playing simultaneously appears in a large number of Robert Dick’s works. Singing in unison or in octaves with the flute is the most common use. Dick uses the technique in this way in *Techno Yaman* (ex. 2.13).


In *Lookout*, the motive is stated twice at the beginning, with singing and playing. The first time, the flute plays the melody while the voice sustains tonic; the second time, the parts are reversed (ex. 2.14). Later in the piece, the voice doubles the melody while the flute plays tremolos.

Example 2.14: Robert Dick, *Lookout* (p. 1, line 2)

In *everyone@universe.existence*, the flutist sings text (“conflagration”) while playing (fig. 2.39).
Singing and playing occurs frequently in his recorded works. Dick sings the bass line while playing a series of tremolos and circular breathing in *Greenhouse* (1993).\textsuperscript{232} For the A sections of *News?* (1986),\textsuperscript{233} in ABA form, vocal passages are sung while a drone is played on flute (ex. 2.15). The technique of speaking through the flute is present in several of Robert Dick’s improvised works, including *Babylonish Gabble* for flute (2005), *Dark Matter* for contrabass flute and piano (2005), and *Further Down* for bass flute (1992).


Example 2.15: Robert Dick, *News?* (0:00-1:50); use of singing and playing. Transcribed by author from the recording on *The Other Flute*, GM Recordings #2013, CD, 1986.

10. Circular Breathing

This ancient technique, dating to as early as 3000 BCE, is a method by which wind players produce a continuous tone without interruption. This is accomplished by quickly breathing in through the nose while simultaneously pushing air out the mouth using air stored in the cheeks.

Circular breathing has been used by large numbers of world flutists, including players of the *ney* (Arabia and North Africa), the *kaval* (Bulgaria), and the *narh* (India). For the *didjeridu*, a wooden drone pipe developed by Australian Aborigines, circular breathing has been integral aspect of performance for at least a thousand years. Other flute traditions in which circular breathing is an integral technique include the *dizi* (China), *daduk* (Armenia), *khlui* (Thailand), *suling* (southeast Asia), and *pungi* (Pakistan). Circular breathing has been used extensively by jazz musicians such as flutist Roland Kirk and reed and brass players such as Wynton Marsalis, Anthony Braxton, Evan Parker, Clark Terry, Trombone Shorty, and John Zorn.
Reportedly, the first person to employ circular breathing on a Boehm flute was Czech flutist Antonín Mach at the 1959 International Competition of Wind Instruments. Zdenek Bruderhans (b. 1934), principal flutist of the Prague Radio Symphony Orchestra and professor at the University of Adelaide (Australia), used circular breathing in his 1977 recordings of Rimsky-Korsakov’s *Flight of the Bumble Bee* and Paganini’s *Moto Perpetuo*. Aurèle Nicolet (1926–2016) was a Swiss flutist who performed with the Berlin Philharmonic Orchestra and taught at the Academy for Music in Berlin and the Freiburg Conservatory. Nicolet was known for circular breathing in the Bach Cantatas and began teaching circular breathing in the 1970s. He published the first circular breathing etudes in his 1974 method book, *Pro Musica Nova*.235

Robert Dick learned circular breathing from Nicolet at a 1978 masterclass in Freiburg, Germany. In 1987, Robert Dick published *Circular Breathing for the Flutist*. Though not the first method book on circular breathing, it is recognized today as the authoritative manual for the technique due to its depth, clarity, wealth of exercises, and examples from repertoire where circular breathing could be useful. Dick argues that circular breathing is an important skill for flutists of the future, citing the need for projection, power, and flexibility: “In addressing these

challenges, flutists who can circular breathe will find themselves with distinct advantages over those who cannot.”238

Circular breathing permeates Dick’s improvised and recorded works; it is an integral technique to his style. It allows him the freedom to create longer phrases, or entire sections of a piece, uninterrupted by a breath. Circular breathing also allows for greater projection.

A number of Robert Dick’s compositions require circular breathing. Most notable among his published compositions is *Flames Must Not Encircle Sides* (1980),239 a seven-minute long work with only nine regular breaths. *Seeing the Double* contains similar multiphonic tremolo sections using circular breathing. Sections of *Air Is the Heaviest Metal* (2014), *Gravity’s Ghost* (2007), and *Time Is a Two-Way Street* (2004) are ideally performed using circular breathing. In *Air is the Heaviest Metal*, Dick indicates, “this section should be entirely slurred, using circular breathing. The flutist who cannot yet circular breathe may breathe as necessary.”

*News?* begins with a G-F-G drone in the flute, sustained for nearly two minutes. The piece features very long phrases throughout (ex. 2.15). The final section, performed in one breath, is a reprise of the opening G-F-G drone. In the liner notes to *The Other Flute*, Robert Dick writes:

*News?* is made from elements that are not news: pedal tones, backing vocals, and aspects of Hungarian flute style. Their melding through the medium of the flute, I believe is news. The extremely long held tones are sustained through circular breathing, a technique well-known to non-Western instrumentalists such as the Narh flutists of Rajasthan in India... This technique is just beginning to be accepted among Western flutists.240

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### II. INFLUENCE OF AMERICAN POPULAR MUSIC

The flute has been associated with popular music throughout the course of Western music. Transverse flutes came into fashion toward the end of the seventeenth century; King Louis XIV of France (1643–1715) appointed transverse flutists to the royal court, preferring the instrument over the recorder and other instruments for his private recreation and social events. King Louis XIV’s first appointed transverse flutist was Philibert Rebillé (1667–1717), known for his performances of *airs* and *brunettes*, popular music styles of the baroque era.

In the nineteenth century, English flutist Charles Nicholson became one of the flute’s earliest players to gain worldwide recognition. His fame was partly due to his frequent performance of “national airs” in the *adagio* style. These pieces (such as *Roslin Castle*, fig. 2.3) were improvised variations on folk songs or other popular songs. Nicholson’s popularity led Theobald Boehm to invent the Boehm flute in 1847, which is the instrument played by flutists today.

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246 Robert Dick and the Soldier String Quartet, *Third Stone from the Sun*.
248 Ibid.
Later in the nineteenth century, flute-playing brothers and Franz Doppler (1821–1883) and Karl Doppler (1825–1900) became an international sensation. They toured Europe extensively, known for performing their virtuoso arrangements of popular opera themes, a model established by Franz Liszt. Franz Doppler also wrote popular Hungarian operas, ballets, and folk plays. His works were known for their use of nationalistic melodies and style, and reflecting popular taste of his time; he has been credited for “the birth of National Hungarian music.” For example, his piece for flute, violin, and piano, Duettino sur les motifs Americain, op. 37 (c. 1880), quotes the songs Hail Columbia, Boatman Dance, The Star-Spangled Banner, and Yankee Doodle.

In the 1920s, the first recordings to include the flute in jazz music appeared. Due to the relatively soft volume of the flute, it was not a popular instrument in jazz ensembles until after microphones became common in the 1930s. Among the earliest jazz flute recordings was recorded in 1927: Shootin’ the Pistol, performed by Alberto Socarras with Clarence Williams’ Jazz Kings. Wayman Carver (1905–1967), originally a saxophonist, was the first jazz musician to play flute extensively. In the 1930s, Carver was a member of Chick Webb’s and Ella Fitzgerald’s orchestras. In the 1950s and 1960s, the flute became more prominent in jazz with

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250 One example of an arrangement of opera themes is Franz Doppler and Karl Doppler, Rigoletto-Fantasie for two flutes and piano (1878).
251 Franz Liszt (1811–1886), a virtuoso Hungarian pianist, made hundreds of piano transcriptions, arrangements, paraphrases, and fantasies based on popular operas and orchestral works (such as his fantasies on Bellini’s La Sonnambula and Mozart’s Don Juan). Liszt toured heavily: he gave over one thousand concerts between 1839–1847 alone.
253 Franz Doppler and Karl Doppler, Duettino über amerikanische National-Motive, für flöte und Violine mit Begleitung des Pianoforte (Offenbach, Germany: Johann André, c. 1880).
254 Clarence Williams’ Jazz Kings, When I March in April with May / Shootin’ the Pistol, Columbia 14241-D, 78 RPM, 1927.

Ian Anderson, the leader of English rock band Jethro Tull, was the first major flutist to integrate the flute playing in the rock idiom. His songs and improvisations include techniques such as percussive effects (key clicks, key slaps, etc.), singing and playing, and residual tones. Jethro Tull’s most popular album, *Aqualung*, sold millions of copies; it was released in 1971 – the same time Dick was compiling *The Other Flute* while still a student at Yale.

Of all rock musicians, Jimi Hendrix – whose seminal album *Are You Experienced?* was released in 1967, when Robert Dick was 17 years old – had had the most influence on Dick and the development of his musical aesthetic. Of Hendrix, Dick writes:

> Like many people, musicians and non-musicians alike, I've been inspired, provoked, moved, and challenged by the work of Jimi Hendrix. Thinking back over everything I have ever listened to, it is Hendrix's music that I've spent the most time with. For years, I listened to Jimi religiously every day, tuning in to his emotional outpouring and his miraculous freedom of sound. He seemed to be able to do anything, create any sound, any feeling. Jimi's sonic freedom, his personal virtuosity and complete connection to his instrument, was immeasurably inspiring…

> The existence of Hendrix’s sound-world, with its ever-fulfilled promise that every new cut would contain at least one never-before-heard sound, that every improvisation would go to at least one new place and have at least one totally new heart-stopping lick was a wellspring of affirmation for me as I slowly built my own sound-world. In the 1970s I was spending countless hours experimenting with the flute and discovered thousands of new sounds…

> It has taken quite a while for me to get to Hendrix. I had to create a sound-world extensive enough so that the flute could speak his language, and speak it spontaneously. It is truly a joy to have reached this place. It means a great deal to me to be able to express the feelings that have grown from his music, the most important taproot of my aesthetic.\(^{258}\)

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Robert Dick’s 1993 collaboration on a CD with Dave Soldier and the Soldier String Quartet, *Third Stone from the Sun*, contains arrangements of four songs by Hendrix: *Voodoo Child (Slight Return)*, *Purple Haze*, *Pali Gap*, and *Third Stone from the Sun*. Though the melodies and improvisational spirit are retained from Hendrix’s originals, these arrangements are interpretations rather than literal transcriptions. Other works on this album are directly descended from Hendrix’s style, such as *Tycho* (1993), which borrows the harmonic progression from the coda of Hendrix’s *Castles Made of Sand* (1967).

Robert Dick’s arrangement of Metallica’s *Leper Messiah* (James Hetfield/Lars Ulrich, 1986; arranged by Dick, 1996) is scored for flute, recorder, cello, harpsichord, and soprano. Apart from the Baroque orchestration, Dick’s *Leper Messiah* is more faithful to Metallica’s original than are his Jimi Hendrix arrangements.

*Afterimage, Before* (2016), an improvisation for contrabass flute, is another example of Robert Dick’s use of percussive sounds to imitate drums. The piece is dedicated to Ginger Baker, drummer and founder of the rock band Cream. *Afterimage, Before* is nearly seven minutes of almost exclusively percussive techniques. Because of the size of the contrabass flute, key clicks are much louder than on the C flute, and that technique takes a central role in the piece. The piece opens with rapid key click passage with no clear meter; gradually, residual tones are interspersed into the percussive texture. A more rhythmic tongue-stop motive enters, followed by unceasing streams of key clicks and ascending residual tone patterns. The key clicks and double-

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259 Ibid.
260 Ibid.
tongued residual tones continue relentlessly before ending suddenly in the last minute. The closing section is dominated by a series of rhythmic tongue rams.

Other references to popular music are written in the liner notes of Robert Dick’s albums. The liner note for Sea of Holes references the Beatles movie Yellow Submarine: “While in the movie Yellow Submarine, not much time was spent in the Sea of Holes (the crew was anxious to find the ‘Sea of Green’), we thought we’d linger at periscope depth before surfacing. (Thanks, Ringo).” Oogoogajoo (2003) and We Are the Walrus (2009) also reference Beatles lyrics.

Lookout (1989), Fish Are Jumping (1999), and Air is the Heaviest Metal (2014) are Robert Dick’s trio of published pieces that directly imitate the guitar and American popular music styles (rock, blues, and metal, respectively). The first of these, Lookout, was inspired by rock band Cream’s Sunshine of Your Love (1967). The main theme of Sunshine of Your Love (ex. 2.16) and the main theme of Dick’s Lookout (ex. 2.17) share several characteristics.

Example 2.16: Pete Brown, Jack Bruce, and Eric Clapton, Sunshine of Your Love; main theme. Transcribed by author from recording on Cream, Disraeli Gears, ATCO Records ATX 5232, LP, 1967.

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265 Robert Dick and Steve Gorn, Steel and Bamboo, O.O. Discs #12, CD, 1993.
266 Ibid., liner notes.
269 The lyrics to the Beatles’ I Am the Walrus (The Beatles, Magical Mystery Tour, Capitol MAL 2835, 1967) include: “I am the eggman, they are the eggmen, I am the walrus, goo goo g’ joo, goo goo goo g’ joo.”
271 Cream, Disraeli Gears, ATCO Records ATX 5232, LP, 1967.
Example 2.17: Robert Dick, *Lookout* (p. 2-3); main theme

The four-measure *Lookout* theme is in D mixolydian mode, while Cream’s 2-bar theme is in D minor. The melodic contour of Cream’s theme spans a descending octave, while the contour of *Lookout* rises and falls a fourth. They both begin with D-C-D, both contain syncopation, eighth-notes separated with eighth rests, and both end by moving from the minor third (F) to tonic (D).

*Fish Are Jumping*, which is based on 12-bar blues form, opens with a slow glissando spanning a perfect fourth (ex. 2.18). Half-step bends recur throughout the opening phrase, a gesture borrowed from the blues. The piece concludes with an improvised cadenza, following performance practice of blues music.

Example 2.18: Robert Dick, *Fish Are Jumping* (mm. 1-5); blues-based bends

The concept of the long, slow glissando (used in m. 1 of *Fish Are Jumping*, ex. 2.18) is expanded in *Air is the Heaviest Metal*. Here, the glissando spans eight measures and the interval of a ninth (ex. 2.19). The glissando in example 2.19 is punctuated by multiphonic grace notes at
the beginning of measures 1-4 and measure 8. The glissando from measures 5-8 is based on the harmonic fingering, as a smooth glissando in this range is not possible using traditional fingerings. The tritone (A-flat in the key of D) and minor second (E-flat in the key of D) are each reiterated and embellished with a bend in measure 4 and measure 8, typical characteristics of heavy metal music. This glissando adds tension to the first climax of the piece.

Example 2.19: Robert Dick, *Air is the Heaviest Metal* (p. 6, line 2), use of long glissando to heighten the climax

*Air is the Heaviest Metal* contains a powerful type of residual tones (“air rush,” ex. 2.20), intended to portray the intensity of heavy metal music.

Example 2.20: Robert Dick, *Air is the Heaviest Metal* (p. 2, line 2); overdriven residual tones
Later in the piece, multiphonics are used to create metal-inspired power chords (ex. 2.21).

Example 2.21: Robert Dick, *Air is the Heaviest Metal* (p. 5-6); multiphonics to create power chords

The Glissando Headjoint for flute, invented by Dick, was originally inspired by the whammy bar of the electric guitar. With the Glissando Headjoint, glissandi up to a major third can easily be played to and from every note. The Glissando Headjoint works by using a telescoping tube to lengthen the instrument. Attached near the lip plate are two metal wings, which rest on the player’s cheeks to allow the player to change the length of the headjoint. The images below show the headjoint at “home position,” where it functions like a traditional headjoint (fig. 2.40a), and at “full extension” (fig. 2.40b). Robert Dick uses this headjoint primarily in his improvised works.

Figure 2.40a: Glissando Headjoint in “home position.” Photograph by author.
Improvised works by Robert Dick for solo flute with Glissando Headjoint include *Sliding Life Blues* (2001)\(^{272}\) and *Heat History* (2010).\(^{273}\) The opening motif of *Sliding Life Blues* (ex. 2.22) features multiple bends, of up to a third, produced by the Glissando Headjoint. The bends, which appear at phrase beginnings and endings, coupled with the prominence of arpeggios, lend a guitar-like character to this section of the piece. In measures 7, 9, and 10, quick, ornamental bends precede notes of the melody. The bent-multiphonic-tremolo (ex. 2.22, mm. 7-9) is a common gesture used by electric guitarists with a whammy bar such as Jimi Hendrix.

Example 2.22: Robert Dick, *Sliding Life Blues* (opening; theme for A section); use of bends. Transcribed by author.


\(^{273}\) Sheet music unpublished. Composed for solo flute with Glissando Headjoint in 2010.

III. IMPROVISATION

Flutists have been improvisers throughout history and around the world for centuries. The primary flutist-improviser of the Western-Classical tradition was Johann Joachim Quantz (1697–1773), author of *Versuch einer Anweisung die Flöte Traversiere zu Spielen* (1752),282 an eighteenth-century performance practice manual useful not just for flutists, but musicians in general. Known as an improviser himself, Quantz explains stylistically appropriate ways to ornament a melody and improvise based on a melodic theme. Quantz was a model for Robert Dick’s career: “In his introduction to *On Playing the Flute*, Quantz presents the concept that a musician should be a good composer, performer, and improviser. I’ve tried to live up to this central idea, pursuing these primary musical facets with lifelong passion.”283

275 King Chubby, *King Chubby: Other Times*, King Chubby, CD, 2000.  
282 Johann Joachim Quantz, *Versuch einer Anweisung die Flöte Traversiere zu Spielen (On Playing the Flute)* (Berlin: Johann Friedrich Voß, 1752).  
Flute improvisation resurged in the twentieth century, particularly with jazz players of the 1950s and 1960s such as Eric Dolphy, Rahsaan Roland Kirk, and Yusef Lateef, who were among the first to improvise using extended techniques.

Robert Dick takes his place in the lineage of composers whose music includes an improvised cadenza near the end of the piece. One such example, *Fish Are Jumping*, closes with an improvised cadenza, marked in the score as “improvised cadenza: go wild!” (fig. 2.41). As this is a blues-based work, an improvised ending is stylistically appropriate.

Robert Dick’s Concerto contains substantial improvised sections. These sections are notated two different ways. One method Dick uses to notate these sections is to notate pitches and melodic contour of the improvisation (fig. 2.42). In these cases, stemless noteheads are used.
The other notational method Dick uses in his Concerto for improvised sections is to indicate the timbre to be used along with a wavy line through the improvised measures (figs. 2.42 and 2.43). Directions are written into the score regarding the type of techniques to be used. In the example below, the written directions are “multiphonic fingerings; voice and flutter solo; short phrases.” Over the wavy line, Dick indicates “melodic improvisation.”
Improvisation plays a central role in *Flames Must Not Encircle Sides*. In the performance notes for the piece, Dick writes, “The flutist has a high degree of freedom in this work, both in improvising melodic lines using given pitch and timbral materials, and, to some extent, in shaping proportions within the work’s sections.” The work is divided into ten sections; the length of each section is indicated in seconds. For example, Section I is approximately thirty seconds long. Pitch content is indicated using noteheads only, leaving the precise rhythm to the discretion of the performer (fig. 2.44).

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Later in *Flames Must Not Encircle Sides*, larger portions of the piece are improvised. In Section X, Dick writes, “Improvise from 1’00” to 1’30”, freely and rapidly using materials from [Sections] II, V, and X” (fig. 2.45). Preceding the final cadence of the piece, the performer may include “a short improvisation based on the beginning of [Section] X,” if desired (fig. 2.45).
Paint Your Mammouth (2000), a published piece for small flute ensemble, is completely improvised. The sheet music is a single page, and contains no actual music notation. Instead, it presents a system of “five sonic areas” and a system of hand signs for the performers to use to communicate with each other while improvising.

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A substantial number of Robert Dick’s recorded works are improvised, or are improvisations based on a collection of motifs. Many of his solo recordings are improvised, beginning with his earliest album, *Whispers and Landings*, continuing with *The Other Flute* and *Ladder 5 of Escape*, and ending with his most recent release, *Our Cells Know*. Many of Dick’s most characteristic flute solos are improvisations, such as *Piece in Gamelan Style*. Like many other pieces, no notated version of *Piece in Gamelan Style* exists, even in manuscript form; this is a deliberate decision so that the piece must be learned via the oral tradition. Robert Dick encourages other flutists to develop their own interpretations and improvisations when performing works of this nature.

Much of Robert Dick’s work with groups such as the A.D.D. Trio, New Winds Trio, and King Chubby are collective free improvisations. His collaborations with other artists such as Steve Gorn (*Steel and Bamboo*), Ursel Schlicht (*Galilean Moons* and *Photosphere*), Paul Giger (*Vindonissa*), Jarion Lanier (*Columns of Air*), Thomas Buckner (*Flutes and Voices*), and Mari Kimura (*Irrefragable Dreams*) are also heavily improvised. Works recorded on other albums, such as *Third Stone from the Sun*, *Jazz Standards on Mars*, and *Oscura Luminosa – In Full Armour* are orchestrated arrangements with improvised flute solos.

**Conclusion**

This chapter explored three primary aspects of Robert Dick’s musical style: the use of extended techniques, the influence of American popular music, and the use of improvisation. By combining extended techniques with elements of classical Western music, popular music, and improvisation, Robert Dick has established a characteristic musical style rooted in both tradition and experimentation.
The following chapter analyzes three works by Robert Dick:

everyone@universe.existence, Paint Your Mammoth, and Sliding Life Blues. The first work is fully notated and published, while the latter two are improvised.
CHAPTER 3

MUSICAL ANALYSES
OF THREE WORKS BY ROBERT DICK

Many musicians of my generation . . . share a belief that any instrument can perform any musical role. Fueled by study of electronic music, world music, and John Cage’s aesthetic that anything can be heard as music (no guarantee that it will always be “good” music, though), I formed my concepts of the flute.

—Robert Dick

The creation of my pieces begins with emotional decisions, then sonic choices – and invention when necessary – are made. Musical architecture is developed and refined through improvisation and “sit-down” through composition.

—Robert Dick

This chapter takes a close look at three of Robert Dick’s works:
environment@universe.existence for flute and pre-recorded sound, Paint Your Mammouth, and Sliding Life Blues for flute with Glissando Headjoint. These analyses will explore the characteristics of Robert Dick’s compositional style by examining his applications of extended techniques, the influence of popular music, and use of improvisation. As most of Robert Dick’s compositions are improvised, two of these analyses are of improvised works (Paint Your Mammouth and Sliding Life Blues) and one is a fully-notated work (environment@universe.existence). Because these works contain elements of performance art, a discussion of performance art precedes the formal analyses.

PERFORMANCE ART

Performance art, which developed in the 1960s, refers broadly to an art form which combines elements of theatre, music, film, poetry, electronics, and the visual arts. Performance

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286 Robert Dick, liner notes to Third Stone from the Sun.
287 Robert Dick, liner notes to Venturi Shadows.
artists intend their works to be temporary and experienced in the moment. Some performance art pieces are entirely conceptual and are not meant to be performed. It is differentiated from theatre and opera in that it deliberately avoids a formal linear narrative and characters.

Sometimes called “music as theatre,” performance art has historical antecedents in the “happenings” of the 1960s. In 1952, John Cage (1912–1992) staged the premiere of his Theatre Piece No. 1 (1952) at Black Mountain College in North Carolina, considered to be the first “musical happening.” This performance of Theatre Piece No. 1, presented in the college dining hall, included David Tudor (piano), Robert Rauschenberg (visual artist), and Merce Cunningham (dancer). To perform the work, the audience was seated in four triangular sections. Other components of “the event” would include John Cage standing on a ladder in the center and delivering a lecture; others reading poetry while standing on ladders; Rauschenberg playing Edith Piaf records; Cunningham dancing amongst the audience while being chased by a barking dog; coffee served by four boys dressed in white; films or photographic slides projected on the wall; Tudor improvising on a prepared piano. This work purposefully avoided a clear narrative, incorporated multiple forms of media, and blurred the lines between art and life.

Besides staging these happenings, Cage’s idea that all sounds and actions could be used as material for composition – such as in 4’33″ (1952) – opened the door to performance art.

Fluxus, which formed in the 1960s, was an interdisciplinary performance art collective comprised of Americans and Europeans. Many Fluxus members were students of John Cage, and

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288 John Rockwell, All American Music: Composition in the Late Twentieth Century (New York: Knopf, 1983), 127.
290 Kyle Gann, No Such Thing as Silence: John Cage’s 4’33″ (New Haven, CT: Yale University Press, 2010).
most were inspired by Cage’s theories. Fluxus staged works such as La Monte Young’s *Compositions 1960 No. 2* (1960),\(^{292}\) which instructs the performer to “build a fire in front of the audience.” Yoko Ono (b. 1933) composed *Earth Piece* (1963),\(^{293}\) which instructs the performer to “listen to the sound of the Earth turning.” In *TV Cello* (1964)\(^{294}\) by Fluxus artist Nam June Paik (b. 1932), televisions are stacked on top of each other to form the shape of a cello; as the performer draws the bow across the “cello,” images of cellists appear on the screens.

In the late 1970s and 1980s, performance artists increasingly incorporated multimedia and electronics. Composer Thea Musgrave’s (b. 1928) work for solo flute with backing track *Orfeo I: An Improvisation on a Theme* (1975)\(^ {295}\) is considered performance art because of its semi-improvised nature and interdisciplinary elements. *Orfeo* is performed with a dancer and specific lighting requirements are given throughout the score. Physical movements for the flutist are provided, such as: “withdraw to centre stage,” “look, then step towards R[ight] speaker. Then decisively turn away – back towards audience,” and “turn quickly from speaker to speaker.” Large portions of the thirteen-minute work are improvised, which are marked “improvise using the pitches given,” “improvise different groups of grace notes but always returning to C,” or indicated with a wavy line. The backing track is comprised of over-dubbed and electronically processed flutes, piccolos, and bass flutes.

Many of the works of performance artist Laurie Anderson (b. 1947) are known for electronic sound manipulation, amplification, performing with a backing track, incorporating

\(^{292}\) La Monte Young, ed., *An Anthology of Chance Operations* (New York: La Monte Young and Jackson Mac Lowe, 1963).
\(^{294}\) Sheet music unpublished (1964).
\(^{295}\) Thea Musgrave, *Orfeo I: An Improvisation on a Theme* for solo flute and pre-recorded sound track (London: Novello, 1975).
elements of pop and rock, and combining speech, song, and violin playing.\textsuperscript{296} Her song “O Superman (for Massenet)” (1981)\textsuperscript{297} reached #2 on the British pop music chart in 1981. “O Superman” was written as part of \textit{United States} (1983),\textsuperscript{298} an eight-hour work which combines spoken word, synthesizers, and electronic effects such as looping, sampling, pitch shifting, auto-tuning, and auto-harmonization to create vignettes about American daily life. Videos are often projected when Anderson performs live.

In addition to the three compositions discussed in detail in this chapter, there are several other works by Robert Dick that include elements of performance art. \textit{Babylonish Gabble} (2005)\textsuperscript{299} requires a solo flutist to speak text into a microphone in a similar way as in \textit{everyone@universe.existence} (though \textit{Babylonish Gabble} does not involve a backing track). Like \textit{everyone@universe.existence}, some parts of the text of \textit{Babylonish Gabble} are spoken through the tube of the flute into a microphone. Other pieces that involve amplified flute and narration are \textit{Bedtime Stories} (1985), a commentary on the nuclear age, and \textit{The Sound} (2005), which combines poetry by Bruce Lawder with random words that Internet spammers use to get through spam filters.

\section*{I. \textit{EVERYONE@UNIVERSE.EXISTENCE} (2003)}

\textit{everyone@universe.existence} is scored for amplified flute and prerecorded sound and features poetry by Marvin Bell. In 2003, the National Flute Association commissioned the work for its annual Young Artist Competition, one of the most prestigious annual American flute

\begin{small}
\begin{itemize}
\item\textsuperscript{296} Nicholas Tawa, \textit{A Most Wondrous Babble: American Art Composers, Their Music, and the American Scene, 1950-198} (Westport, CT: Greenwood Press, 1987), 152.
\item\textsuperscript{297} Laurie Anderson, \textit{Big Science}, Warner Bros. Records BSK 3674, LP, 1982.
\item\textsuperscript{299} Sheet music unpublished (2005).
\end{itemize}
\end{small}
competitions. *everyone@universe.existence* is one of only two published works by Robert Dick that require electronics.\(^ {300}\) Electronics are featured in several ways in this work: through the backing track, the electronic manipulation used in creating the backing track, and microphones used in live performance.

*everyone@universe.existence* is a work of performance art. Robert Dick writes in the performance notes, “*everyone@universe.existence* is a poem dramatically presented through music, speech, and sound. It is as much performance art as it is a musical work… *It is vital that the performer project the emotions asked for!* *This is a dramatic work – ACT! And enjoy!*”\(^ {301}\) *everyone@universe.existence* is performance art in that it incorporates multimedia (in the form of pre-recorded electronic sound) and action poetry that is dramatically performed, sometimes spoken and sometimes sung.

This analysis considers three sonic components of *everyone@universe.existence*: the soundtrack, the poem, and the flute solo. The soundtrack was created first. Robert Dick sent the soundtrack to Marvin Bell, who then wrote the poem for the piece. Robert Dick composed the flute solo after Bell wrote the text. I will first discuss these three elements separately, and then will show how these elements, taken together, interact to create performance art.

A. SOUNDTRACK

The soundtrack, which was the first element to be created, would eventually provide a dramatic backdrop for the piece. Robert Dick recorded the soundtrack in 2002 at the Electronic Music Studio of the Musik-Akademie der Stadt in Basel, Switzerland. In the performance notes that accompany the sheet music of *everyone@universe.existence*, Robert Dick explains that the

\(^{300}\) The other piece of published sheet music by Robert Dick that incorporates electronics is *Techno Yaman* (2001), which requires a drum machine.  
\(^{301}\) Robert Dick, *everyone@universe.existence* (New York: Multiple Breath Music, 2003).
soundtrack uses a variety of overdubbed, electronically manipulated flutes to create a sonic tapestry, or an “emotional ocean” of sound. The textures are “sometimes peaceful, sometimes joyous, and sometimes stormy”\textsuperscript{302} in an ebb-and-flow that “conjures the sound of heaven and hell at the same time.”\textsuperscript{303} This oppositional imagery recurs in both the poetry and flute solo.

Minimal coordination is required between the soundtrack and the solo. Robert Dick indicates that the soundtrack should play for 30-35 seconds before the first flute entrance, and should end slightly before the flute solo ends. This flexible timing makes it relatively easy for the performer to align the solo part with the accompaniment.

In the score, Robert Dick includes a graph of the soundtrack’s dynamic contour (fig. 3.1). This graph helps illustrate the overall contour of the piece: it starts quietly, builds, suddenly drops off (twice), and grows to the climax slightly before the eight-minute mark.

![Dynamic Contour Graph](image)

Figure 3.1: everyone@universe.existence; dynamic contour of soundtrack (graph created by Robert Dick)

Following this method, I have extrapolated a dynamic contour of the solo flute part (fig. 3.2). The graph of the solo shows a patient, gradual build in intensity until c. 9:00, with several small spikes along the way (c. 2:30, c. 4:30, and c. 5:30). The last spike at 5:30 coincides with the re-entry of the electronics.

\textsuperscript{302} Robert Dick, everyone@universe.existence.

\textsuperscript{303} Robert Dick, liner notes to American Music Ensemble, Mavericks, American Modern Recordings, AMR1041, CD, 2015
Major differences between these two graphs occur at 2:00-5:00 and 6:00-7:00. In the first case (2:00-5:00), the flute plays solo while the soundtrack is virtually silent. There are two places in which the electronic voice leads the musical texture: from 0:00-2:00 and 6:00-7:00. The combined graphs highlight these differences (fig. 3.3).

B. ANALYSIS OF THE POEM

The second element of everyone@universe.existence is the poem, which is the unifying element of the piece. The flute solo supports and magnifies the text, while the soundtrack provides background to the text. The poem was written by Marvin Bell especially for this piece in 2003. Marvin Bell (b. 1937) was born in New York City and raised on the South Shore of Long Island. He has published over twenty books of poetry and prose, including A Probable Volume of Dreams (1969) and The Book of the Dead Man (1994). Marvin Bell has been awarded the Lamont Poetry Prize of the Academy of American Poets, Guggenheim and National Endowment for the Arts fellowships, and Fulbright appointments to Yugoslavia and Australia. In

305 Marvin Bell, The Book of the Dead Man (Port Townsend, WA: Copper Canyon Press, 1994).
1965, he joined the faculty of the Iowa Writers’ Workshop at the University of Iowa, where he remained for forty years. Bell currently lives in Oregon, where he serves on the Masters of Fine Arts in Writing faculty at Pacific University.

Marvin Bell told David Hamilton in an interview that “Modern American poetry begins with [William Carlos] Williams and [Walt] Whitman.”306 Walt Whitman (1819–1892), who lived in Long Island as a child as Marvin Bell did, was known for his prose-like style, use of nature imagery, and free verse. “Song of Myself,” the first poem included in Whitman’s major collection *Leaves of Grass* exemplifies these three characteristics:

I celebrate myself, and sing myself,
And what I assume you shall assume,
For every atom belonging to me as good belongs to you.

I loaf and invite my soul,
I lean and loaf at my ease observing a spear of summer grass.307

Later, Bell was inspired by Beat Generation poets such as Allen Ginsberg and Jack Kerouac.308 The Beat Generation was a group of poets and writers who gained prominence beginning in the 1950s and lasting until the mid-1970s. The Beats embodied the rebellious youth in a movement that combined the spontaneity of jazz, Buddhist mysticism, and a rejection of post-war American sterility.

They [the Beats] were strange people at a time when there were fewer strange people. At least it seemed so, certainly in colleges. I had been in and out of the Village—I was a Long Islander. I had a sense of the music world there. In those days, a person might be

308 Jack Kerouac (1922–1969) was an American novelist and poet, and a pioneer of the Beat Generation. His writing style was influenced by jazz rhythms. His works include *On the Road* (New York: Viking Press, 1957) and *Mexico City Blues* (New York: Grove Press, 1959).
called a Bohemian. The Beats were picked up by the newspapers and made famous because they were “Bohemian.” Their poetry interested me because it was defiant.309

Allen Ginsberg (1924–1997), a pioneer of the Beat movement, often wrote in free verse. In his 1959 book *Howl*, Ginsberg wrote, “I saw the best minds of my generation destroyed by madness, starving hysterical naked...”310 The Beat movement would later open the door to the broader counter-culture movement of the 1960s.

Common themes found in Marvin Bell’s works are free verse, nature-based imagery, and a recurrence of opposites. In an interview, Bell discusses his writing process using free association:

> My idea of how things are written now—I wouldn’t have put it this way ten years ago—is something like this: one writes something down, then one writes the next thing. That’s my theory of composition, I think. Now, the trick there is that the next thing that one writes must be something that interests one in sequence. It’s less a jump than an extension. I mean, you can’t put down just anything; you must put down something you’re genuinely interested in, involved in. But how can you trust it merely to be the next thing? Well, it must occur to you for some reason. Now if the poem pays attention to itself, then that means the poet is paying attention to these things and making the connections. If not now, later. It’s what Bill Stafford refers to in an essay as “the coherence of the self.”311

*everyone@universe.existence* was written using free association. The poetic analysis below will focus on visual imagery and recurring, oppositional motifs. The complete poem is reproduced below.

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311 Marvin Bell, et al., “Interview with Marvin Bell,” 12.
Owl wings, sing feather quiver and a bow
sing Icarus say wax sing upside down and flutter
say bush say fire say conflagration

say cloud nine, seventh heaven, say bliss
say the world turns say dig it, boné meal
say kiss say chew say bonfire snowmelt

excavate the sky, wing it in the earth
blow back the sea, sirens in the dirt312

Bell offers three explanations for the text of the poem: first, “the items—the catalog—
text is born of spontaneous association, allowing whatever narrative thread might emerge to
emerge from the writing itself—a narrative rather than an idea, though there could be ideas under
the surface by implication.” Secondly, Bell was aware that he was “providing a text for
extraordinary young musicians who would take it and run with it. I didn’t want to direct them or
lead them.” Lastly, “Robert Dick’s flute playing—the extraordinary sounds he creates—
characterized for me the possibilities for such a text. I knew I had to be up to his originality.”313

Bell’s original title for the poem, “Owl Wings,” refers to Bell’s concept of Robert Dick’s
sound:

I don’t know why I began with owl wings. Did Robert say something? —I don’t think so.
I bet I thought of owl wings in listening to Mr. Dick play. Maybe I also went there
because we had, and still often have, two barred owls living in our yard, calling back-
and-forth at night. In writing for avant-garde flute, I freely associated my way forward. It
looks to me, as I read the text now, that I kept in my mind (or ear?) some sense of flute
tones, including those of “extended techniques” as I had heard them employed by Mr.
Dick. As I said—other galaxies!314

312 Unpublished (2003). Reproduced here with Marvin Bell’s formatting. Reprinted with
permission of author.
313 Marvin Bell, email message to author, August 20, 2015.
314 Ibid.
Bell explains that from the image of the owl, he “very freely, spontaneously, associated [his] way from owl wings to feather to quiver (think arrows) and bow.” When asked about the imagery and use of free association used in this poem, Bell writes,

Line four plays with the idioms of “cloud nine” and “seventh heaven” and seventh heaven leads easily to bliss and our turning world (dig it!). Next?—bone meal is down-to-earth, kiss and chew and bonfire and snowmelt are all good things, no? (this world, life--dig it!). Now back up to excavate the sky (clouds again? bring the sky down? (excavate = dig), then down from the sky and the idea of Icarus, we “wing it” (another idiom), on an Earth with the sea (held at bay), and sirens in the dirt/earth (sirens of warning? sirens of a siren-call?—I think first of the former, but the latter goes with it too because the life force obeys all sorts of siren calls positive (dig it!) and destructive (Icarus falls).

Throughout the poem, two recurring, oppositional motifs are presented: the earth and flight (table 3.1). These motifs could allude to the shared aspects of human experience (and to the title, everyone@universe.existence). One reading of the poem could interpret this shared experience as a mixture of “heaven and hell.” The Icarus myth referenced in line two encapsulates the human condition of tragic failure, and neatly combines both motifs (flight and earth).

C. ANALYSIS OF THE FLUTE SOLO

This analysis divides the flute solo into twenty-five discrete “segments.” Segments range in length from a few seconds to over a minute. Poetic verse, timbre, rests or fermatas, and pitch content demarcate each segment.

Melodically, only one segment recurs, framing the beginning and end of the piece. This segment is comprised of two short phrases, “Melody X” and “Melody Y” (figs. 3.4 and 3.5).

315 Ibid.
316 Marvin Bell, email message to author, August 20, 2015.
These pitch collections, replicated exactly, reappear at the conclusion of the piece (gesture 21; p. 10, lines 2-3). Melody X makes specific reference to E minor (with the enharmonic E-flat alluding to leading-tone D-sharp). By contrast, Melody Y contains no such tonal references: it begins with a major seventh, spans an augmented fifteenth (or compound augmented octave), and includes eight different pitch classes.

Generally, each segment is short and features a different playing technique. Most of the segments include at least one type of extended technique. The most substantive flute solo (segment 20) occurs between the second and third stanzas of the poem. The table below (table 3.1) identifies the characteristics of each segment.
<table>
<thead>
<tr>
<th>SEGMENT</th>
<th>LOCATION (pg:line)</th>
<th>TIMBRE</th>
<th>TEXT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1:1-3</td>
<td>Whisper through flute</td>
<td>“owl wings, sing feather”</td>
</tr>
<tr>
<td>2</td>
<td>1:3</td>
<td>Whisper, air sounds</td>
<td>“quiver and a bow”</td>
</tr>
<tr>
<td>3</td>
<td>1:3 – 2:1</td>
<td>Normal tone</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2:1-2</td>
<td>Key clicks</td>
<td>“owl wings, sing feather quiver and a bow”</td>
</tr>
<tr>
<td>5</td>
<td>2:2</td>
<td>Normal tone</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>2:3</td>
<td>Singing and playing; tremolos</td>
<td>“Sing Icarus”</td>
</tr>
<tr>
<td>7</td>
<td>2:3 – 3:1</td>
<td>Normal tone (+ multiphonics)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>3:2-3</td>
<td>Flutter-tongue, ascending/descending scales</td>
<td>“Icarus, say wax!”</td>
</tr>
<tr>
<td>9</td>
<td>3:3 – 4:2</td>
<td>Singing and playing, overblown harmonics</td>
<td>“Sing upside down”</td>
</tr>
<tr>
<td>10</td>
<td>4:2</td>
<td>Flutter-tongue, ascending scale</td>
<td>“and flutter”</td>
</tr>
<tr>
<td>11</td>
<td>4:3</td>
<td>Whisper through flute</td>
<td>“say”</td>
</tr>
<tr>
<td>12</td>
<td>5:1</td>
<td>Key clicks, whispering</td>
<td>“bush say fire”</td>
</tr>
<tr>
<td>13</td>
<td>5:2-3</td>
<td>Singing and playing, flute melismas</td>
<td>“confflagration”</td>
</tr>
<tr>
<td>14</td>
<td>6:1</td>
<td>Key clicks, stopped embouchure hole</td>
<td>“say”</td>
</tr>
<tr>
<td>15</td>
<td>6:2-3</td>
<td>Glissandi</td>
<td>“cloud nine”</td>
</tr>
<tr>
<td>16</td>
<td>6:3</td>
<td>Multiphonics</td>
<td>“say! cloud nine”</td>
</tr>
<tr>
<td>17</td>
<td>7:1</td>
<td>Glissandi with trills</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>7:1-2</td>
<td>Multiphonics (triple stops)</td>
<td>“seventh heaven, bliss”</td>
</tr>
<tr>
<td>19</td>
<td>7:3 – 8:3</td>
<td>Key clicks</td>
<td>“say the world turns, say dig it, bone meal! say kiss, say chew, say bonfire snowmelt.”</td>
</tr>
<tr>
<td>20</td>
<td>8:3 – 10:1</td>
<td>Normal tone</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>10:2-3</td>
<td>Normal tone</td>
<td>“Excavate the sky! Wing it in the earth.”</td>
</tr>
<tr>
<td>22</td>
<td>10:3</td>
<td>Whisper, air sounds</td>
<td>“Blow back the sea”</td>
</tr>
<tr>
<td>23</td>
<td>11:1</td>
<td>Overblown harmonics</td>
<td>“Sirens in the dirt”</td>
</tr>
<tr>
<td>24</td>
<td>11:2</td>
<td>Tongue stops</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>11:2</td>
<td>Whisper through flute</td>
<td>“Owl wings”</td>
</tr>
</tbody>
</table>

Table 3.1: Characteristics of each segment of Robert Dick, *everyone@universe.existence* (flute solo)
Musically, the two opposing poetic motifs of flight/air and earth are exemplified through text-painting that permeates the piece. Each motif is linked with specific flute timbres. The flight (or air) motif lends itself well to the timbre of several flute techniques (table 3.2). For example, following the word “flutter” in the poem, there is a flutter-tongued passage (fig. 3.6a). The earth motif is paired with richer flute sounds, such as melismas and singing and playing simultaneously (fig. 3.6c).

<table>
<thead>
<tr>
<th>MOTIF</th>
<th>TEXT</th>
<th>FLUTE TIMBRE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLIGHT/ AIR</td>
<td>owl wings, feather, Icarus, flutter, wing it, blow</td>
<td>Residual (air) tone, whispers, flutter-tonguing, panning effect, tremolos</td>
</tr>
<tr>
<td>EARTH</td>
<td>bush, fire, conflagration, world turns, kiss, chew, sky, sea, dirt</td>
<td>Singing and playing, melismas, key clicks, glissandi, multiphonics</td>
</tr>
</tbody>
</table>

Table 3.2: Poetic motifs and paired timbres of Robert Dick, *everyone@universe*

The figures below (figs. 3.6a, 3.6b, and 3.6c) illustrate three novel uses of extended techniques in *everyone@universe.existence*.

Figure 3.6a: Robert Dick, *everyone@universe.existence*, segment 1 (p. 1, line 1); speaking through the flute

![Figure 3.6a: Robert Dick, *everyone@universe.existence*, segment 1 (p. 1, line 1); speaking through the flute](image)
Speaking through the flute (fig. 3.6a) rarely appears in flute literature, likely because by the time the words travel down the tube of the instrument, they are much too soft to be audible to the audience. However, microphones allow these very soft sounds to be heard in live performance. To create a mystical effect, as if an owl were flying around the concert hall, the words “owl wings” are spoken into each microphone. The microphones are panned to the left and right, so that the sound entering the left are heard through the left speaker, and the sound entering the right speaker is heard from the right speaker. When “owl wings” is spoken into each microphone, the listener hears it from each speaker separately, from each side of the stage.

![Flute Notation](image)

*Figure 3.6b: Robert Dick, everyone@universe.existence, segment 8 (page 4, line 2); flutter-tonguing*

The second technique shown here (fig. 3.6b) is flutter-tonguing. Here, it is paired with the words “and flutter,” enhancing its meaning.

![Sheet Music](image)

*Figure 3.6c: Robert Dick, everyone@universe.existence, segment 13 (page 5, line 2); singing text while playing*
Figure 3.6c is an uncommon use of singing and playing simultaneously: the articulation of the word “con-fla-gra-tion” stretches over the course of multiple flute melismas. The technique of speaking through the flute is also present in several of Robert Dick’s improvised works: Babylonish Gabble for flute, Dark Matter for contrabass flute and piano (2005), and Further Down for bass flute (1992).

Combining all these elements – the soundtrack, poem, and flute solo – into a single graph gives a comprehensive view of the piece’s structure (fig. 3.7).
Figure 3.7: Interactional graph of Robert Dick, `everyone@universe.existence`
D. PERFORMANCE CONSIDERATIONS IN EVERYONE@UNIVERSE.EXISTENCE

In the score, Robert Dick instructs the performer to emote specific emotions: happiness, excitement, tenderness, etc. He writes in the program notes, “It is vital that the performer project the emotions asked for! Indications are always given about the dramatic nature of a spoken word or phrase.” For example, an instruction to “speak happily” appears above the spoken text “wing it in the earth” (fig. 3.8).

**SPEAK happily**

**WING IT IN THE EARTH**

Figure 3.8: Instructions for delivery of the text; Robert Dick, everyone@universe.existence (p. 10, line 2)

Clear diction and emphatic articulation of consonants will help listeners understand the text more clearly. Dick recommends including the entire poem in the program notes and reading it aloud to the audience before beginning the performance.

The two microphones required to perform everyone@universe.existence serve two purposes: first, to amplify the text and bring it to the foreground of the texture; secondly, to create a left-to-right panning effect.\(^{318}\) To create the panning effect, a minimum of two speakers are required, placed on either side of the stage (the farther apart the speakers are, the more dramatic the panning effects will be). The left microphone should be connected to the left speaker, and the right microphone should be connected to the right speaker (fig. 3.9). The microphones should be placed on boom stands approximately eighteen inches apart and reaching

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\(^{318}\) In the score, Robert Dick indicates whether the flutist should play into the left or right microphone for each segment. This results in some sections of the piece being amplified on the listener’s left, and other sections amplified on the listener’s right. The soundtrack also includes left-to-right panning effects.
over the stands; windscreens on both microphones are highly recommended. According to Robert Dick, rather than adjusting the microphone levels during the performance, “it is the flutist’s responsibility to back away from the microphones when playing more loudly.”

Figure 3.9: Recommended stage setup for Robert Dick, everyone@universe.existence

During several sections the piece, the performer whispers through the flute while moving back and forth between the microphones. In these sections, the performer’s lips (or the end of the flute, during the “whisper through flute” sections) should be within one inch of the microphone.

This analysis of Robert Dick’s everyone@universe.existence illustrates the composer’s wide variety of extended techniques, incorporation of text and drama, and inclusion of electronics.

II. PAINT YOUR MAMMOUTH (2000)

This piece is a text score containing only written instructions for free improvisation using any number of players. It is completely indeterminate, as the score does not indicate expression, form, pitch content, duration, or tempo. Though the instrumentation is unspecified in the score, the composer has acknowledged that it is for any number and combination of flutes and instruments in the flute family (piccolo, alto flute, bass flute, etc.).

319 Robert Dick, everyone@universe.existence, program notes.
The score outlines a system of hand gestures to be used by the players to shape the group’s improvisation – for example, one finger raised indicates for the group to play a fermata, a fist communicates that player will take a solo, and a hand on head means “follow me, do what I do.” The score lists five sonic areas, which are used to shape the structure: fermati, melodies, percussion, solos, and open (fig. 3.10).

The title of this piece, *Paint Your Mammoth*, could be an allusion to “paint by number,” a system of painting in which areas of the paper are labeled with numbers to indicate what color to paint them, similar to how players use fingers to indicate one of five musical textures in this work. The word “mammoth” is purposefully misspelled to “mamouth,” perhaps an allusion to how the flute is played.

There is a strong precedent for text scores and indeterminate music in twentieth-century American music. In Henry Cowell’s (1897–1965) indeterminate work *Mosaic Quartet* (String

**PAINT YOUR MAMMOUTH**  
by Robert Dick (2000)

Paint Your Mammoth is an improvised piece in which the players choose what they are going to do by giving hand signals. Every player is an equal and can signal changes at will.

There are five sonic areas that the players may choose from:

1. Fermati
2. Melodies
3. Percussion
4. Solos
5. Open

When a player chooses a sonic area s/he signals s/he is making a choice with a raised hand. Once eye contact has been established between all the players, s/he indicates which area with the number of fingers raised.

Figure 3.10: Instructions for hand signals and the five sonic areas; Robert Dick, *Paint Your Mammoth*
Quartet No. 3) (1935), the five movements may be played in any order. John Cage’s *Music of Changes* (1951) was composed based on decisions made using the *I Ching*, a classic Chinese divination text. Cage’s *Variations I* (1958) and *Variations II* (1961) are both indeterminate works for any number of performers on any instrument(s). Neither work contains musical notation. The scores are comprised of multiple transparent sheets containing points and lines. The performers arrange the sheets, and the resulting perpendicular lines indicate volume, pitch, timbre, and duration.

*Paint Your Mammouth* shares similarities with event scores, works that began to be written by New York composers around 1960. Event scores are short, text-based pieces which consist of instructions proposing one or more actions. All the works which comprise La Monte Young’s *Compositions 1960* (1960) are entirely textual and contain elements of performance art. Like Cage’s *Variations* and Robert Dick’s *Paint Your Mammouth*, the number of performers, instrumentation, duration, and pitch are not indicated. In *Compositions 1960*, La Monte Young provides directions for physical actions for the performers to take. For example, the instructions for *Compositions 1960*, #3 are: “Announce to the audience when the piece is to begin and end if there is a limit on duration. It may be of any duration. Then announce that everyone may do whatever he wishes for the duration of the composition.”

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40 La Monte Young, ed., *An Anthology of Chance Operations* (New York: La Monte Young and Jackson Mac Low, 1963).
John Zorn’s *Cobra* (1984), another indeterminate work, is a game piece performed by a group of improvisers. The piece consists of a set of cue cards which contain instructions for what the players should do. The improvisers are led by a prompter who reads the cue cards and relays the directions to the performers using a system of hand signals. Despite becoming “Zorn’s most recognizable piece of music” and “the defining piece of music associated with the ‘Downtown scene’ of New York’s Lower East Side,” the composer was reluctant to “publish a complete and detailed account of the work, preferring instead a desire for *Cobra* (and his other game pieces) to exist and persist as part of an oral tradition.” In an interview with Christopher Cox, John Zorn discusses his reasons for not publishing scores for *Cobra* and his other game pieces:

Many people have wondered why I have deliberately chosen not to publish (or even write down) the rules of these pieces, preferring to explain them myself in rehearsal as part of an oral tradition. The reasons are many. There is a lot more to these pieces than just the rules. For one thing, choosing the players has always been a crucial part of the performance process and the art of choosing a band and being a good bandleader is not something you can impart on paper in a written preface to the score. . . . These pieces can go where anyone wants to take them, and since they live on in the underground as part of an oral/aural tradition, this becomes one of the dangers as well as part of the fun.

Though Zorn has not formally published the score for *Cobra*, annotated versions of the score have appeared in journals (fig. 3.11) and as artwork to accompany Zorn’s CDs.

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327 Ibid., 47.
328 Ibid., 48.
Figure 3.11: John Zorn’s *Cobra* (1984); game piece with text score. Instructions for hand signals located in lower right column.\(^{330}\) Score reproduced with permission.\(^{331}\)

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B. ANALYSIS OF PAINT YOUR MAMMOUTH

Like Cobra, Robert Dick’s Paint Your Mammouth uses a system of hand signals to communicate within the ensemble. In the latter work, these hand gestures are optional; they are not a required element of the work. Apart from a work of performance or conceptual art, Paint Your Mammouth can be viewed as a pedagogical guide for improvisation. It is geared more towards a classically trained student, with little to no improvising experience, rather than a jazz player or seasoned improviser. While the ideas in Paint Your Mammouth do not represent every improviser’s thought process, they likely represent the Robert Dick’s improvisational thought process.

The five sonic areas Robert Dick identifies in the score for Paint Your Mammouth are fermata, melodies, percussion, solos, and open. After defining these five areas, Robert Dick lists possibilities of what to play in each area. For example, possible fermati are “voice/flute mountainscapes,” whisper tones, and “multiphonics with or without repeated tonguing.” For melodies, the suggestions are “tonal, modal, or atonal.” Possible percussive techniques are key percussion, tongue stops, and tongue pizzicato, with the option to play in a free pulse or a repeating pulse.

The fourth sonic area, solos, explains that any player may choose to take a solo at any point. The soloist can indicate whether the rest of the group should accompany or not. If there is to be accompaniment, one player should initiate “a sonic texture, which the others join in on.” The suggested sonic textures – whisper tone clouds, residual tones, key clicks, jet whistles – are ones which are common to Robert Dick’s own improvising vocabulary. A “whisper tone cloud,”
a technique often used by Robert Dick in his recordings, is created by playing a whisper tone and overblowing through the harmonic series.\textsuperscript{332}

The fifth sonic area, open, “means just what it says – anything goes but, as always, the players must be listening to each other and responding musically” (fig. 3.12). Unlike the first four sonic areas, this area does not indicate a specific texture. Instead, it reminds players to listen to one another and “respond musically,” a piece of advice for someone who might have spent little time improvising or making music without musical notation.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure3.12.png}
\caption{Sonic area 5, “open;” Robert Dick, \textit{Paint Your Mammouth}}
\end{figure}

C. PERFORMANCE CONSIDERATIONS IN \textit{PAINT YOUR MAMMOUTH}

Due to the “wide open” nature of the work, knowing how to rehearse it is often the most difficult step. Inexperienced improvisers may choose to determine one or more aspects of the piece beforehand, such as the key, style, mood, overall structure, or duration of the work. For reference, players may create a color-coded reference sheet that lists the five sonic areas so that hand signals can quickly be interpreted by others.

For more experienced improvisers, \textit{Paint Your Mammouth} can be used as a vehicle for free improvisation. If the hand signals seem cumbersome or unnecessary, they can be used sparingly or omitted completely.

\textsuperscript{332} Whisper tone clouds can be heard in the opening of \textit{It’s Still Like It Wouldn’t Be Yesterday} (0:00-1:16), recorded on the CD, \textit{Third Stone from the Sun} (example 1.19).
Though the size of the ensemble is not specified in the score, the piece works best with four or more performers; it can also be performed by larger ensembles such as flute choirs. The use of diverse instrumentation such as contrabass flute, bass flute, alto flute, or piccolo (or instruments other than flute) is recommended for variety.

III. SLIDING LIFE BLUES (2003)

*Sliding Life Blues* is a largely improvised piece for solo flute with Glissando Headjoint. Robert Dick writes, “*Sliding Life Blues* celebrates two vastly different musical worlds. Only a slide away from each other are the familiar sounds of the Western flute and the sounds redolent of the flutes of Africa and the Middle East.”³³³ The piece weaves in and out of two contrasting themes (Theme A and Theme B). Theme A is based on the E blues scale. Theme B, in contrast, is marked by a distinctly non-Western melody and timbre. Theme B is created by playing many of the same fingered pitches as used in Theme A but with the Glissando Headjoint at full extension, resulting in a quarter-tone scale.

A. HISTORICAL ORIGINS OF THE GLISSANDO HEADJOINT

Robert Dick worked for decades to create the Glissando Headjoint from its conception in 1978, the first functional prototype in 1996, to the final design in 2003 and commercial release in 2004. The Glissando Headjoint is a telescoping tube that extends the overall length of the flute to create a downward glissando from every note. It also extends the low range down to A¹, allows for easy transposition of (and otherwise unobtainable) multiphonics, offers a more fluid approach to pitch, and expands the timbral palette.

The Glissando Headjoint was inspired by the whammy bar (sometimes referred to as a vibrato bar) of an electric guitar. This bar is attached to the bridge and tailpiece of an electric guitar; when the bar is depressed, it temporarily decreases the tension of the strings, which lowers the pitch (analogous to how extending the Glissando Headjoint lowers the flute’s pitch). Jimi Hendrix often used the whammy bar to create timbral and pitch-bending effects. Hendrix pioneered effects such as the “dive bomb,” a dramatic drop of pitch created by using the whammy bar. At the 1969 Woodstock Festival, Hendrix presented his arrangement of *Star-Spangled Banner* for solo electric guitar, using the whammy as a sound-painting device to represent sounds of war: bombs falling, jets and rockets flying overhead, and cries of anguish. Other songs that feature the electric guitar with whammy bar include Hendrix’s *Voodoo Chile* (1968) and Eddie Van Halen’s *Eruption* (1978).

Robert Dick has performed with a Glissando Headjoint prototype since 1997. He developed the final prototype in 2003 in collaboration with flutemaker Bickford Brannen. Robert Dick performed *Sliding Life Blues* at the National Flute Association Convention that year to formally present the Glissando Headjoint to the flute community. He writes,

> I had already put on the program that I was going to play *Sliding Life Blues*. I just felt that if the Brannen one [Glissando Headjoint prototype made in 2003] wasn’t ready, I would use Kaspar’s [Glissando Headjoint prototype made in 1996]. But this was a very high

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335 Whammy bar passages from *Voodoo Chile* can be heard at 8:56-9:00, 10:20-10:35, 13:30-13:45 on the recording *The Jimi Hendrix Experience, Electric Ladyland*, Reprise Records 2RS 6307, LP, 1968.


337 Robert Dick used a prototypical Glissando Headjoint (the “Baechi Prototype 3”) from 1996-2003 in concerts and on recordings. The first recording which includes Robert Dick playing a Glissando Headjoint was *Guidira* (1998); other notable recordings made with this headjoint are *A.D.D. Trio: Sic Bisquitus Disintegrat* (2001) and *Columns of Air* (2003).
profile evening concert at the flute convention and I thought it [was] the time to really make some noise. There was some buzz, people had heard about it but it was time to really present it and although it wasn’t totally ready for prime time I decided to go on and play the Brannen in the concert. And man, people went nuts, they really did!338

Although it has been commercially available to the public since 2004, there are very few published compositions using the Glissando Headjoint and limited pedagogical materials. Even though Robert Dick invented it and has frequently used it since 1998 (particularly in his recorded work), he has not published any sheet music339 or pedagogical materials for it.340 This analysis and the transcriptions are useful for flutists looking to develop their Glissando Headjoint technique and for composers who wish to compose for the Glissando Headjoint. They illustrate several advanced applications of the Glissando Headjoint, providing performers and composers with tools to use in their own work.

B. ANALYSIS OF SLIDING LIFE BLUES

For this analysis, transcriptions from two different performances by Robert Dick of Sliding Life Blues are examined. The first recording (“Version 1”) was made at a live performance in Kosovo in 2005.341 Although this is the earliest recording of the piece, it is incomplete; the video fades out after 3:18. The second recording (“Version 2”) was released on Mavericks;342 it was recorded on May 4, 2007 during a live performance in New York City.

339 At time of publication, Robert Dick is composing a duet for two flutes with Glissando Headjoint.
340 With the exception of Robert Dick’s “Fingering Chart for the Flute When Using the Glissando Headjoint” (fig. 3.13).
The transcriptions of *Sliding Life Blues* follow Robert Dick’s notation style for the Glissando Headjoint as described in his “Fingering Chart for the Flute When Using the Glissando Headjoint” (fig. 3.13). Sounding pitches appear as filled-in noteheads, and fingered pitches appear as open diamond noteheads. The letter “I” shows the headjoint in home position; “o” shows the headjoint extended to the notated pitch.

Notation for upwards glissando arriving at a regular fingering:

- Fingered pitch with Glissando Headjoint® extended to notated pitch
- Finger C♯ with Glissando Headjoint® extended to A♯

Play A♯ and slide headjoint inwards to “home base”

The Glissando Headjoint® is then moved to “home” position (all the way in towards the body of flute). The glissando is complete when it reaches the arrival note.

In”: Glissando Headjoint® in home position

“Out”: Glissando Headjoint® extended to produce notated pitch

Figure 3.13: Glissando Headjoint notation, from Robert Dick’s “Fingering Chart for the Flute When Using the Glissando Headjoint”

The formal analysis for *Sliding Life Blues* is shown in the tables below. Table 3.3 outlines the form for Version 1 and Table 3.4 outlines Version 2. Both versions alternate between the A and B Themes as the piece progresses, though the A sections in Version 2 are shorter than the A sections in Version 1. There is no exact duration of the piece, though the only complete recording (Version 2) is 3:52.

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In both versions, the A Theme uses the E blues scale, glissandi, and tremolos. It is performed with the Glissando Headjoint primarily in home position. In both versions, Robert Dick performs a bent-multiphonic-tremolo in the opening statement (ex. 3.1, mm. 7-9; ex. 3.3, mm. 4-6). Glissandi are used at the beginnings and endings of phrases, such as the B-G glissando to end the phrases in mm. 2-3, the G-B glissando to begin the phrase in mm. 2-3, and the B-G glissando to end the phrase in m. 6. The repeated thirds, such as B-G (mm. 7-9, 11-12), C-sharp-E (m. 10, 12, 15), and E-G (m. 8, 13-15), reinforces the blues style. The major third is the maximum range of the glissando created by the Glissando Headjoint, so glissandi spanning a third are common.

Theme A is based on the motif presented in mm. 9-10, and a similar variation appears in mm. 15-16 (ex. 3.2). This motif is the touchstone for improvisation in each A section. This motif or a variation is usually restated in each A section.
Example 3.2: Robert Dick, *Sliding Life Blues* (Version 1, m. 10); A Theme motif. Transcribed by author.

Version 2 begins in a similar way as Version 1, opening with a series of multiphonic glissandi between G and B (ex. 3.3) The Theme A motif appears in mm. 7-10. Though it is slightly varied from Theme A in Version 1, both begin with an ascent to E, followed by a descent by thirds (outlining Em\(^7\)), and ending with a repeated upwards glissando before landing on E.

The first transition to the B Theme in Version 1 is a long, slow glissando from B⁴ to A⁴ (ex. 3.4). The use of A⁴ is significant because it is a whole-step lower than the lowest possible pitch on a C flute with a B footjoint. This pitch is only possible on this instrument by using the Glissando Headjoint.
Example 3.4: Robert Dick, *Sliding Life Blues* (Version 1); first transition to B Theme. Transcribed by author.

Following this transition, the headjoint remains in the fully extended position for the entire B Theme. The player continues to finger notes of the E blues scale, but with the Glissando Headjoint fully extended, the scale shown below is produced (ex. 3.5). This scale is used as the basis for improvisation for the B Theme. In addition to altering the pitch, the timbre becomes increasingly diffuse as the Glissando Headjoint is extended. This diffuse timbre is caused by fewer high partials in the overtone series.\(^{344}\) This timbral modification is a key component of the B Theme.

![Example 3.5 Robert Dick, *Sliding Life Blues*; scale used in B Theme](image)

Though the melodic content differs between the two versions of *Sliding Life Blues*, both versions of the B Theme have extended passages of singing and playing and circular breathing.

\(^{344}\) The diffuse timbre that results from the fully extended Glissando Headjoint can be compared to the “Diffuse Tones” as listed in Chapter 2 of Robert Dick’s *Tone Development Though Extended Techniques* (p. 28-30). Alternate fingerings are required to execute “Diffuse Tones” without a Glissando Headjoint.
The rhythms contrast those of the A Theme with double-tongued sixteenth notes, dotted rhythms, and grace notes.

Example 3.6: Robert Dick, *Sliding Life Blues* (Version 1); B Theme. Transcribed by author.

In the transition back to the A Theme, the performer returns the Glissando Headjoint to home position. The first return of the A Theme in Version 1 (ex. 3.7) begins with a variation on the A Theme motif. The return of each theme builds in intensity. Characteristic of Robert Dick, techniques such as key clicks, multiphonics, singing and playing, harmonics and glissandi are often combined. An example of this is the combination of singing and playing and overblown harmonics (ex. 3.7, m. 52).
Example 3.7: Robert Dick, *Sliding Life Blues* (Version 1); first return of the A Theme. Transcribed by author.

Version 2 concludes by integrating characteristics of both themes, ending on an extended variation on the A Theme motif (ex. 3.8). This example shows four measures of the B Theme, played with the Glissando Headjoint fully extended, and transitioning to E blues in measure 79.

C. PERFORMANCE CONSIDERATIONS IN *SLIDING LIFE BLUES*

*Sliding Life Blues* must be performed with a Glissando Headjoint. The AB structure and pitch content for each Theme (E blues for A Theme; quarter-tone scale created by extended headjoint for B Theme) are required components. The performer should improvise on the motif established by Robert Dick (ex. 3.2) or create his/her own.

The complete transcriptions that I have created of *Sliding Life Blues*, which appear in the Appendix that follows this chapter, are provided for analytical purposes and are not intended to be performed as notated. Two transcriptions were made in order to examine which elements (melodies, form, pitch content, etc.) are essential for a performance of the work. These transcriptions represent only two possible realizations of this work.
Conclusion

These analyses illustrate three primary hallmarks of Robert Dick’s style: the use of extended techniques, the influence of popular music, and improvisation.

Nearly all of Dick’s works are permeated with extended techniques, especially multiphonics and circular breathing. He frequently uses extended techniques such as harmonics, singing and playing, whisper tones, key clicks, and alternate fingerings; these techniques often appear in combination. One of Dick’s signature gestures is the bent-multiphonic-tremolo (which appears in Sliding Life Blues).

Improvisation is a component of nearly all Robert Dick’s works and there is a large degree of freedom in most of his music. Though most of his published sheet music is fully-notated or nearly fully-notated, these works represent about 10% of Dick’s output. Most of his other works, representing 90% of his oeuvre, are primarily improvised. For that reason, two of the three analyses in this chapter were of improvised works.

Lastly, popular music, especially rock music of the 1960s and 1970s, had a strong influence on Robert Dick’s aesthetic. Examples of the manifestation of this influence can be seen in his use of the blues 12-bar form, blues scale, his arrangements of works by Jimi Hendrix and Metallica, and the invention of the Glissando Headjoint.

Robert Dick, though he was not the inventor of extended techniques, expanded the timbral palette of the flute by demonstrating how to use them in a convincing and effective way. His “unified field” approach, which embraces composing, improvising, and performing, is a continuation of the legacy left by flutists such as Jacques Hotteterre, Joachim Quantz, Theobald Boehm, Franz Doppler, and many others. His music does not reject history, but builds on it,
challenging others to discover new “worlds of if” and create the music of the future. Robert Dick writes:

My hope is that musicians, be they composers, composer-performers, improvisers, or performers, will be inspired to transcend conceptual and technical limitations and will engage with the learning curves that increased potential requires, freeing them to create the flute music of the present and future.\textsuperscript{345}

APPENDIX I

ANNOTATED TABLE OF COMPOSITIONS BY ROBERT DICK

The table below lists works for which Robert Dick is the sole or contributing composer.

“Yr.” lists the year the piece was written and/or published.
“Collab.” lists any compositional collaborators on the piece. If this column is blank, Robert Dick is the sole composer.
“Score” indicates the instrumentation.
“Recording” lists titles of recordings of the piece. If this column is blank, the piece is unrecorded.
“Pub.” shows whether the piece has been published and is available for commercial purchase.
“Techniques, etc.” identifies the types of techniques used in that piece and any other pertinent information about the work.

<table>
<thead>
<tr>
<th>Key to Scoring abbreviations:</th>
<th>Key to Techniques abbreviations:</th>
</tr>
</thead>
<tbody>
<tr>
<td>afl – alto flute</td>
<td>multi – multiphonics</td>
</tr>
<tr>
<td>a-flat picc – a-flat piccolo</td>
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<tr>
<td>bfl – bass flute</td>
<td>micro – microtones</td>
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<tr>
<td>bass cl – bass clarinet</td>
<td>s+p – singing and playing</td>
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<tr>
<td>bsn – bassoon</td>
<td>resid – residual tones</td>
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<tr>
<td>contrabass fl – contrabass flute</td>
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<tr>
<td>cbsn – contrabassoon</td>
<td>tp – tongue pizzicato</td>
</tr>
<tr>
<td>cl – clarinet</td>
<td>tr – tongue ram</td>
</tr>
<tr>
<td>db – double bass</td>
<td>whisp – whisper tones</td>
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<tr>
<td>ebass – electric bass</td>
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<tr>
<td>elec – electronics</td>
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<tr>
<td>elec gtr – electric guitar</td>
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<tr>
<td>fl – flute</td>
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<tr>
<td>glass harm – glass harmonica</td>
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<tr>
<td>glissHJ – Glissando Headjoint</td>
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<tr>
<td>gtr – guitar</td>
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<td>hn – horn</td>
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<td>hpsd – harpsichord</td>
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<tr>
<td>ob – oboe</td>
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<tr>
<td>perc – percussion</td>
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<tr>
<td>picc – piccolo</td>
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<td>pno – piano</td>
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<td>prepared fl – prepared flute</td>
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<td>rec – recorder</td>
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<td>shaku – shakuhachi</td>
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<tr>
<td>synth – synthesizer/electric keyboard</td>
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<tr>
<td>str – strings</td>
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<td>tpt – trumpet</td>
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<tr>
<td>vln – violin</td>
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<tr>
<td>voc – vocals/voice</td>
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<tr>
<td>vc – cello</td>
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<td>TITLE</td>
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<tr>
<td><em>39</em>S</td>
<td>1979</td>
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<tr>
<td>60 Minas to a Talent</td>
<td>1996</td>
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<tr>
<td>Afterimage, Before</td>
<td>2016</td>
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<tr>
<td>Air Alight</td>
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<tr>
<td>Air is the Heaviest Metal</td>
<td>2008 / 2014</td>
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<td>All the Time, Anyway</td>
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<td>TITLE</td>
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<td>Armillary Sphere</td>
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<td>Aura Aurora</td>
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<td>Babylonish Gabble</td>
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<td><em>Bells for Diz</em></td>
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<tr>
<td><em>The Bird on the Scene</em></td>
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<tr>
<td><em>Boarding</em></td>
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<td><em>Bones of the Tongue</em></td>
<td>2009</td>
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<td><em>Book of Shadows</em></td>
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<td><em>Broadcasted Alive</em></td>
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<tr>
<td><em>Bugs in Branches</em></td>
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<td><em>Calaveras Jump</em></td>
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<td><em>Centripetal Mourn</em></td>
<td>2008</td>
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<td><em>Certain Gravities</em></td>
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<td>China Chamber</td>
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<td>Cling Wrap</td>
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<td>Five of the Ten Commandments of Modern Life and Love</td>
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<td>The Galilean Moons: Io, Europa, Callisto, Ganymede</td>
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<td>Glimpse from the Blimpse</td>
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<td>Golden Rain</td>
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<td>Hit2</td>
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<td>The Idealist</td>
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<td>Idi Om</td>
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<td>Inertia Puja</td>
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<td>In the Land of Perfect Days</td>
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<td>It’s Just the Everfalling Dust</td>
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<td>It's Still Like It Wouldn't Be Yesterday</td>
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<tr>
<td><em>Light</em></td>
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<td>Lookout</td>
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<td>Lullaby in Orbit</td>
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<td>Molecular Motion</td>
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<td>My Own Railroad</td>
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<td>News?</td>
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<td>Not Having2</td>
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<td>Not So Tiny, Not So Quiet</td>
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<td>Ogee</td>
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<td>On the Restless Seas of Time</td>
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<td>Other Times</td>
<td>2000</td>
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<td>Our Cells Know</td>
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<td>Paint Your Mammouth</td>
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<td>Parade to the Sky</td>
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<td>Photosynthesis</td>
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<td>Pounce of the Now</td>
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<td>The Psychological Sonata</td>
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<td>Quantum</td>
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<td>Re-Illuminations</td>
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<td>Recombinant Landscapes</td>
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<td>Red Handed</td>
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<td>Satan Oscillate My Metallic Sonatas</td>
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<td>Says Yes</td>
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<td>Sea of Holes</td>
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<td>Sea of Stories Remix</td>
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<td>Seeing the Double</td>
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<td>Smoker</td>
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<td>Sometimes, Perpetually</td>
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<td>The Sound</td>
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<td>Spontaneous Fiction</td>
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<td>St. Louis Thank You Notes</td>
<td>1994</td>
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<td>Startling Stories</td>
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<td>Steambird</td>
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<td>Take Out Marma</td>
<td>2009</td>
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<td>Tarradiddle</td>
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<td>Techno Yaman</td>
<td>2001</td>
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<td>Ten Of</td>
<td>1997</td>
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<tr>
<td>Times</td>
<td>1991</td>
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<tr>
<td>Time Line</td>
<td>1977</td>
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<tr>
<td><em>Time is a Two-Way Street</em></td>
<td>2004</td>
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<tr>
<td><em>Tongue and Groove</em></td>
<td>1993</td>
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<td><em>Tracking</em></td>
<td>2008</td>
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<td><em>Transdimensional Lending Library</em></td>
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<td><em>Tycho</em></td>
<td>1993</td>
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<td><em>Unsharp Mask</em></td>
<td>2000</td>
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<tr>
<td><em>Untitled Finale</em></td>
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<td>TITLE</td>
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<td>We Are the Walrus</td>
<td>2009</td>
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<tr>
<td>What Will You Ask the Serpent?</td>
<td>1979</td>
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<tr>
<td>Woody Vector</td>
<td>1992</td>
</tr>
<tr>
<td>Yeah</td>
<td>2000</td>
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</table>
APPENDIX II

COMPLETE DISCOGRAPHY OF ROBERT DICK

This is a bibliographical reference of all recordings by Robert Dick. Following each citation is a track listing; names in parentheses indicate the work’s composer. The “Notes” section includes instrumentation, collaborators, and other relevant information. **Major albums in bold.**

1979
   Contains: *Afterlight* (Dick).

1981
   Notes: Robert Dick plays piccolo, flute, and bass flute.

   Contains: *Thirteen Ways of Looking at a Blackbird* (Foss), performed by Robert Dick.
   Notes: American Composers Alliance Recording Award.


1982
   Contains: *Conspiracies* (Bresnick), performed by Robert Dick.

1983
   Contains: *Blowing* for solo flute (Rolnick), performed by Robert Dick.

1984
   Notes: Instructional cassette to accompany *Flying Lessons: Vol. I* (Dick).
1985
   Notes: Robert Dick plays flute with the Brooklyn Philharmonic Orchestra.

   Contains: Afterlight (Dick).
   Notes: Instructional cassette to accompany Afterlight (Dick).

1986
10. _____. The Other Flute. GM Recordings #2013. LP. 1986.
    Notes: Robert Dick plays C flute.

    Contains: Persiflage for flute, oboe, and percussion (Hillier), performed by Robert Dick.


1987
    Contains: Flying Lessons Vol. II (Dick).
    Notes: Instructional cassette to accompany the etudes Flying Lessons: Vol. II (Dick).

    Contains: A Breaking of Vessels, Becoming Song, concerto for flute (Goldstein), performed by Robert Dick.

1989
    Contains: Lookout (Dick).
    Notes: Instructional cassette to accompany Lookout (Dick).

    Contains: Or (Dick).
    Notes: Instructional cassette to accompany Or (Dick).
   Notes: Ned Rothenberg, ocarina/flute/bass clarinet/alto saxophone; J.D. Parran, bamboo flute/flute/soprano saxophone/clarinets. Dick plays flute, bass flute, piccolo in A-flat and C.

   Contains: *Caprices* no. 2, no. 15 (Paganini/Dick).
   Notes: Instructional cassette to accompany Dick’s transcriptions of Paganini’s *Caprices* no. 2 and no. 15 (Paganini/Dick).

1990
   Contains: *Flames Must Not Encircle Sides* (Dick).
   Notes: Instructional cassette to accompany *Flames Must Not Encircle Sides* (Dick).

1991


   Notes: Neil Rolnick, electronics/sampler; Steve Gorn, bansuri; Mary Kay Fink, flute; Ned Rothenberg, shakuhachi. Robert Dick plays piccolo, flute, bass flute, Mexican double ocarinas, prepared flute.
1992

   Notes: Denman Maroney, piano; Mark Dresser, acoustic bass; Gerry Hemingway, percussion; Robert Dick, flutes. Original works and improvisations.

1993

   Notes: Pauline Oliveros, accordion; Ned Rothenberg, bass clarinet/saxophone; Matt Sullivan, oboe/English horn/electronic wind instrument [Yamaha WX-7 Wind Controller]; Elliott Sharp, soprano saxophone; C. Bryan Rulon, synthesizer; William Kannar, bass/computer; Steve Mackey, electric guitar; Samm Bennett, percussion. Dick plays flute.

   Notes: Steve Gorn, bansuri/scruti box/ryuteki flute/Amazonas flute/Lakota flute/Balinese suling/bass bansuri. Dick plays stainless steel flute.


1994

   Notes: Robert Dick plays flute with the Klaus König Orchestra.

   Contains: *Digging It Harder From Afar* (Dick), *Dovetail* (Rothenberg), *The Rising and the Swell* (Rothenberg), *Angst in the Rangst* (Dick/Rothenberg/Parran), *Baclascalad* (Parran), *St. Louis Thank You Notes* (Dick/Rothenberg/Parran).
   Notes: Ned Rothenberg, saxophones/bass clarinet; J.D. Parran, clarinet/bass saxophone.
1995


   Contains: Korean works by Jin Hi Kim. Robert Dick performs *Tchong* for daegum and flutes, with Chong-jin Hong.

   Notes: Daniele Patumi, bass; John Brennan, piano.

   Notes: Robert Dick plays flute, alto flute, F bass flute, piccolo, overdubbed flutes.

1996

   Notes: Robert Dick, flute; Mari Kimura, violin.

   Notes: Dorothea Schürch, soprano/musical saw; Conrad Steinmann, recorders; Alfred Zimmerlin, cello; Petia Kaufman, harpsichord.

   Notes: Christy Doran, bass; Steve Argüelles, percussion. Dick plays flute with buzzing membrane, bass flutes in C and F, contrabass flute, piccolo.
1997
   Notes: Herb Robertson, trumpet; Ned Rothenberg, clarinet/bass clarinet/alto saxophone. Dick plays flute, prepared flute, piccolo, F contrabass flute.
   Collective improvisations.

1998

   Notes: Barry Guy, bass; Randy Raine-Reusch, Asian zithers/Asian winds/percussion. Dick on Glissando Headjoint.

   Notes: Anthony De Mare, piano. Dick plays piccolo, flute, alto flute, and bass.

2000

41. King Chubby. *King Chubby: Other Times*. King Chubby. CD. 2000.
Notes: Robert Dick plays with the members of the band, King Chubby (Will Ryan, percussion/birimba/reed cornet/homemade instruments; Ed Bialek, keyboards/samplers). Dick plays C flute, Glissando Headjoint, piccolo, bass flute in F and F, and open-hole alto flute.

2001

   Contains: Hopscotch (Argüelles), Sic Bisquitus Disintegrat (That’s the Way the Cookie Crumbles) (Dick), Endless None (Doran), Photosynthesis (Dick), Crinkum-Crankum (Dick), Der Grune Heinrich (Doran), Headjoint, Whammy Bar (Argüelles), Three Characters (Doran).
   Notes: Christy Doran, guitar; Steve Argüelles, percussion. Dick plays Glissando Headjoint.

   Notes: A three CD set with Robert Dick performing Telemann’s 12 Fantasias on flute, bass flute and piccolo on the first CD, Lorenzo Cavasanti playing them on traverso and recorders on the second disc, and the third disc, a multimedia CD with scores, interview, photos, etc.

   Contains: Land of the Farther Suns (David Alpher), Travelogue (Elizabeth Brown), Eyewitness (Dick), Flute Quartet No. 1 (Gary Schocker), Tantamounts (Eric Stokes).
   Notes: Dick performs with Flute Force quartet.

2002

   Notes: Robert Dick speaks about the creative process and how to identify and work with inspiration. He performs examples from his music and performances.

   Contains: Robert Dick, Molecular Motion (Dick).

2003

   Contains: Aramaic All Night Blues (Dick/Lanier/Kushan), Perelandra (Dick/Lanier), Charge of the Luminous Bridgade (Dick/Lanier/Kushan), What’s on my Mind? (Dick/Lanier), Andalusian Fog (Dick/Lanier), Sling Botticelli (Dick/Lanier), Eden Rain (Dick/Lanier), Not So Tiny, Not So Quiet (Dick/Lanier),
After the Dust (Dick/Lanier), Contrarians (Dick/Lanier), Lullaby in Glass (Dick/Lanier).


Contains: Intro (Giger), Oogoogajoo (Dick/Giger/Takeishi), Introitus (Giger), Lava Coils (Dick/Giger/Takeishi), Kyrie (Giger), Fractal Joy (Dick/Giger), Chorale (Giger), Afterlife Calypso (Dick/Giger/Takeishi), Gloria et Tarantella (Giger), An Ear on Buddha’s Belly (Dick/Giger), Vindonissa (Giger).
Notes: Paul Giger, violin/viola d’amore/bells; Satoshi Takeishi, percussion. Dick plays Glissando Headjoint.

2004

Notes: Recorded with the jam band King Chubby (Will Ryan, percussion/reeds; Ed Bialek, keyboards; Michael D’Agostino, percussion; Mark Egan, bass). Dick plays flute, Glissando Headjoint, piccolo, F and C bass flute, open-hole alto flute.

2005

Contains: Dick’s performance of Plum-DS II (Dream Sequence II) for solo flute (Asia).

Notes: Robert Dick works with the words and text of two different poets including Bruce Lawders. The Sound, premiered by Robert Dick at Dartmouth College in 2005, plays off anonymous random word texts that spammers send in an effort to get through spam filters.

Contains: Lapis Blues (Dick), Emergence for bass flute and piano (Dick/Schlicht), Faust (Schlicht), Piece in Gamelan Style (Dick), Fragments (Schlicht).
Notes: Recorded live. Ursel Schlicht, piano.

2008
   Contains: *Antecedent, Consequent*.
   Notes: Recorded live, December 2006. Dick performs with Third Eye Orchestra, an experimental improvisation group.

   Notes: Steve Baczkowski, reeds; Ravi Padmanabha, tabla/percussion.

2009
   Notes: Thomas Buckner, voice. Dick plays bass flute in C and F, piccolo, C flute, and Glissando Headjoint.

2011
   Contains: Robert Dick’s performance of *Almost New York* for 5 flutes, one player (Lucier) and *Broken Line* for flute, piano, and vibraphone (Lucier).

2013

2015
   Contains: Robert Dick’s performance of *everyone@universe.existence* (Dick), *Sliding Life Blues* (Dick).
2016

Notes: Improvisations with Ursel Schlicht, piano. Robert Dick plays flute, bass flutes in C and F, open-hole alto flute, Glissando Headjoint, piccolo.

Notes: Improvisations for contrabass flute.

2017

Contains: *Three Weeks in Cincinnati in December* (Hellermann)
APPENDIX III
TIMELINE OF ROBERT DICK'S DISCOGRAPHY

KEY
- Solo albums by Robert Dick
- Chamber music albums (Robert Dick, primary artist)
- Albums which contain recordings by Robert Dick, though he is not the primary artist
APPENDIX IV

ANNOTATED BIBLIOGRAPHY OF PEDAGOGICAL MATERIALS
BY ROBERT DICK


The first version of Robert Dick’s most influential manual appeared in 1975, published by Oxford University Press. This version differs from the later edition in that it includes a chapter entitled “The Electric Flute,” which describes best practices for playing with microphones and other electronics.


This is Robert Dick’s seminal performance manual, which includes comprehensive fingering charts for multiphonics, microtones, alternate fingerings, and explanations for executing effects such as flutter-tonguing, tongue rams, and jet whistles. It is considered the authoritative source for flutists and composers of contemporary techniques for flute. This updated edition includes improved photographs and small edits from the 1975 version.


Geared specifically for flute players, this tone development book uses techniques such as throat tuning, singing and playing, harmonics, and multiphonics. It could be argued that this book was inspired by a tone development book by Marcel Moyse, *Tone Development Through Interpretation*, in which Moyse contends that tone can be improved by practicing operatic melodies. *Tone Development Through Extended Techniques* represents Robert Dick’s philosophy that these techniques benefit traditional flute playing. In the Introduction, he states: “This work [improving tone through contemporary techniques] develops the strength, flexibility, and sensitivity of the embouchure and breath support, increasing the player’s range of color, dynamics, and projection.”


This is the most comprehensive book dedicated to the circular breathing technique, supplanting Aurèle Nicolet’s 1974 *Pro Musica Nova* (in fact, Dick learned the technique from Nicolet himself). Dick continually stresses the importance of focused, daily practice of new techniques, and a sense of adventurousness and fearlessness. After detailing the method and practice regimen, Dick points to examples in classical flute repertoire that would benefit from circular breathing.
APPENDIX V

TRANSCRIPTIONS OF SLIDING LIFE BLUES FOR FLUTE AND GLISSANDO HEADJOINT


Robert Dick
Transcribed by Melissa Keeling

(shake RH 1+2 holes)

Slightly faster
Sliding Life Blues, Version 1 (live in Kosovo, 2005), p. 3
Overblown; harmonics appear
Sing and play
Sliding Life Blues, Version 1 (live in Kosovo, 2005), p. 6

Swing ends (½ = ½)

piece continues; video fades out
Sliding Life Blues
Version 2 (Mavericks, 2007 live performance)

Transcribed by Melissa Keeling

Robert Dick

Sliding Life Blues, Version 2 (Mavericks, recorded 2007), p. 1
Sliding Life Blues, Version 2 (Mavericks, recorded 2007), p. 2

Key click on each note, using LH3

Trill RH3, while rapidly playing these notes in any order

Key click LH3 on each pitch

Sing and play

Sing and play
Sliding Life Blues, Version 2 (Mavericks, recorded 2007), p. 6

6

A

73

ff

B

Headjoint remains fully extended...

75

mp

77

77

81

83

[Trill RH1]
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Heiss, John C. “For the Flute: A List of Double-Stops, Triple-Stops, Quadruple-Stops, and Shakes.” *Perspectives of New Music* 5, no. 1 (Autumn–Winter 1966): 139-141.

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