

Performance Guide: Henry Cowell's *Three Irish Legends*
and *Six Ings*, and John Cage's *The Perilous Night*

by

Xuan Liu

A Research Paper Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Musical Arts

Approved April 2020 by the
Graduate Supervisory Committee:

Robert Hamilton, Chair
Andrew Campbell
Jody Rockmaker

ARIZONA STATE UNIVERSITY

August 2020

ABSTRACT

This research will explore the compositional approaches of Henry Cowell and John Cage to reveal piano techniques for the practice and performance of selected works. The discussion will focus on Henry Cowell's *Three Irish Legends* and *Six Ings*, as well as John Cage's *The Perilous Night*. An important contribution of Cowell was to further the use of tone clusters, applied in his *Three Irish Legends* by playing directly with the forearm, fists, and palm. Cowell's *Six Ings* employ rhythmic experimentation, particularly in the first, second, and sixth pieces. He also uses tone color to portray specific programmatic features. John Cage greatly advanced the prepared piano from its earliest beginnings, as evidenced significantly in *The Perilous Night*. The present study will include advice on piano preparation, along with performance challenges and solutions.

TABLE OF CONTENTS

CHAPTER	Page
BRIEF BIOGRAPHIES OF HENRY COWELL AND JOHN CAGE, AND	
DESCRIPTIONS OF THEIR NEW COMPOSITIONAL TECHNIQUES	1
Henry Cowell	1
John Cage	3
HENRY COWELL’S THREE IRISH LEGENDS	7
The Tides of Manaunaun	9
Practice and Performance Suggestions	13
The Hero Sun	17
Practice and Performance Suggestions	21
The Voice of Lir	25
Practice and Performance Suggestions	29
HENRY COWELL’S SIX INGS	32
<i>Floating</i>	32
Practice and Performance Suggestions	34
<i>Frisking</i>	35
Practice and Performance Suggestions	36
<i>Fleeting</i>	38
Practice and Performance Suggestions	41
<i>Scooting</i>	42

Practice and Performance Suggestions	45
<i>Wafting</i>	46
Practice and Performance Suggestions	48
<i>Seething</i>	48
Practice and Performance Suggestions	50
JOHN CAGE'S THE PERILOUS NIGHT	53
The First Movement	56
Preparation Suggestions	57
Practice and Performance Suggestions	58
The Second Movement	61
Preparation Suggestions	62
Practice and Performance Suggestions	62
The Third Movement	64
Practice and Performance Suggestions	64
The Fourth Movement	67
Practice and Performance Suggestions	68
The Fifth Movement	69
Practice and Performance Suggestions	71
The Sixth Movement	73
Preparation Suggestions	75
Practice and Performance Suggestions	75

THE SIGNIFICANCE OF HENRY COWELL AND JOHN CAGE FOR TWENTIETH	
CENTURY MUSIC	82
REFERENCE.....	86
APPENDIX.....	89
DESCRIPTION AND HISTORY OF DISSONANT COUNTERPOINT	90

CHAPTER ONE
BRIEF BIOGRAPHIES OF HENRY COWELL AND JOHN CAGE, AND
DESCRIPTIONS OF THEIR NEW COMPOSITIONAL TECHNIQUES

Henry Cowell

Henry Cowell was born in Menlo Park, California on March 11, 1897, where he grew up surrounded by Asian musical traditions found in the San Francisco area. His father, Harry Cowell, a writer and printer, was an Irish immigrant; his mother, Clarissa Dixon, was a bohemian author and poet who had relocated from Iowa.¹ From an early age Henry Cowell studied the violin, mastered the piano, and read extensively in many fields. He was only eight years old when his health required that he abandon hopes for a strenuous career as a violinist to become a composer. His attention was directed to the sounds around him: the noise of the wind, the sea, and trains; dissonant speech intonations; neighborhood singers and pianists; the singing games of Chinese children; his mother's Iowa folk tunes; his father's Irish songs and dances; and Chinese opera.² After his parents' divorce in 1903, he was raised by his mother. However, he maintained contact with his father, who introduced him to the Irish music that would be a touchstone for Cowell throughout his career.

¹ Nicholls, David, and Joel Sachs. "Cowell, Henry." *Grove Music Online*. 16 Oct. 2013; Accessed 15 Apr. 2020.
<https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-1002249182>.

² Weisgall, Hugo. "The Music of Henry Cowell." *The Musical Quarterly*, vol. 45, no. 4, 1959, pp. 485. *JSTOR*, JSTOR, www.jstor.org/stable/740598.

Cowell began composing in 1908, but began formal training in 1913 with Charles Seeger, head of the Department of Music at the University of California in Berkeley. Cowell has been called a self-taught composer because he had already written more than one hundred pieces before studying under Seeger. Cowell could not be admitted to the University of California because he never graduated from elementary or high school. Seeger gave Cowell a special status at the University so that he could study theory under E.G. Strickland and counterpoint with Wallace Sabin. Cowell had weekly meetings with Seeger to discuss new ideas in music.³ Seeger introduced Cowell to the latest modernist compositional techniques of Europe and the United States.

Before commencing composition lessons with Charles Seeger, Cowell had written *The Tides of Manaunaun* in 1911. It uses large tone clusters to accompany a pentatonic melodic line. He used the technique of bitonality and polyrhythm in his *Six Ings*.⁴ Another of Cowell's compositional techniques was called string piano, in which the pianist strokes and plucks directly on the strings inside the piano. During the early 1920s, Cowell began performing his own experimental music widely in North America and Europe as a pianist. From 1919 to early 1931 Cowell focused on rhythm and chromatic textures. He studied Eastern music cultures such as China, Japan and Indian with teachers in Berlin, New York and California in 1931 and 1932. From the mid-1930s to the late 1940s Cowell concentrated on reworking Eastern and Western musical materials. He had a Guggenheim Fellowship for studying under von Hornbostel at the University of Berlin from 1956 to 1957. Cowell spent a year in Asia to hear Asian Music like Chinese and

³ Weisgall, Hugo. "The Music of Henry Cowell." *The Musical Quarterly*, vol. 45, no. 4, 1959, pp. 486-487. *JSTOR*, JSTOR, www.jstor.org/stable/740598 .

⁴ Dickinson, Peter. "Henry Cowell." *The Musical Times*, Vol.107, No.1476, 145. Music Time Publications Ltd. 1966.

Japanese folk tune and opera, for the purpose of gaining more understanding of Asian culture.⁵ After those years of study on Eastern musical culture, he combined complex rhythm with chromatic texture and Eastern musical culture more often in his composition.⁶

Henry Cowell was active on behalf of contemporary music in general. He founded the *New Music Quarterly*, which recorded and published works of North and South American composers. He was president of the American Composers Alliance from 1951 through 1955, and was active in the League of Composers. Cowell published three books: *New Musical Resources* in 1929, *American Composers on American Music* in 1933, and *Charles Ives and His Music* in 1955.⁷ He died in 1965 in New York, at the age of 68.

John Cage

John Cage was one of the most influential American composers of the 20th century. Cage was born in Los Angeles, California, on September 5, 1912, and studied piano there and in Paris. Before dedicating himself fully to performing and composing, Cage taught in the United States at the Cornish School in Seattle, Washington, Mills College in Oakland, California, the School of Design in Chicago, Illinois, and the New School for Social Research in Manhattan.

Cage first met Henry Cowell in 1933 after sending his *Sonata for Clarinet* for possible publication in his *New Music* (a project for publishing recordings for composers

⁵ Weisgall, Hugo. "The Music of Henry Cowell." *The Musical Quarterly*, vol. 45, no. 4, 1959, pp. 484–507. JSTOR, JSTOR, www.jstor.org/stable/740598 .

⁶ Ibid

⁷ "Henry Cowell 1897-1965. *Music Educators Journal*, vol. 52, no. 4, 1966, pp. 205–205. JSTOR, JSTOR, www.jstor.org/stable/3390702 .

which Cowell led until it became New Music Edition in 1936). Cowell rejected the piece for publication, but suggested that it might be played at a New Music Society Workshop in San Francisco. When Cage arrived in San Francisco, he discovered that the instrumentalists had not looked at his music and found it too difficult to sight-read. Nonetheless Cage was able to play his pieces on the piano for Cowell, who suggested that he study with Adolph Weiss, a pupil of Arnold Schoenberg. In 1934 Cage studied harmony with Weiss and rhythm with Cowell. The following year he had the opportunity to study counterpoint with Schoenberg in California. After his studies with Schoenberg, Cage developed another tone row technique in which the row was split into short motives. Those motives could then be repeated and transposed according to a set of rules. This approach was first used in *Two Pieces for Piano*.

By the late 1930s, Cage was intensely interested in rhythms. He also heard many music recordings of Cowell from Eastern culture. Therefore, percussion music and instruments of Asia and India greatly influenced Cage's early work.⁸ In 1940, John Cage sent Cowell a program from a July 18 percussion concert at Mills College in Oakland, California, in which Cage and his colleagues had performed Cowell's *Pulse*. In the program, Cage inserted a quotation by Cowell predicting the future of music: "I honestly believe and formally predict that the immediate future of music lies in the bringing of percussion on one hand, and sliding tones on the other, to as great a state of perfection in construction of composition and flexibility of handling on instruments as older elements

⁸ "John Cage: 1912-1992." *Computer Music Journal*, vol. 16, no. 4, 1992, pp. 11. *JSTOR*, www.jstor.org/stable/3680463 .

are now.”⁹ The quotation came from a letter which Cowell sent to Cage. Soon after, Cage started to write percussion music and music for modern dance. He wrote numerous dance-related works and a few concert pieces. Cage’s music in the late 1930s and 1940s focused on new sounds. His experimentation with timbre was realized in his development of the prepared piano, in which various objects are inserted between the strings, resulting in complex percussive sounds when the piano is played from the keyboard.

Cage’s best known and most influential works for prepared piano are the *Sonatas and Interludes*, which contain content and style from Indian aesthetics. The rhythmic structures of this work are more complex than any Cage had used before. It includes 20 short pieces: 16 Sonatas and 4 Interludes. A complete performance takes 70 minutes. The objects used include screws, bolts, erasers, and rubber bands that are attached to or inserted between the strings at specific distances from the bridge, in accordance with instructions that are included with the score. The music is notated, and the keyboard is played in the normal way, but the sound of the instrument has been radically modified.

From his earlier experimentation with percussion music and the prepared piano, he turned to radical re-conceptions of music in the 1950s and 1960s. He argued for music that focused the listener’s attention on the present moment. He did not seek to write works that expressed emotion and image, developed material, or showed a logical series of events. Instead, he created opportunities for experiencing sounds in themselves. His resulting accomplishment is chance, indeterminacy, and the blurring of boundaries between music, art, and life.

⁹ Miller, Leta E. “Henry Cowell and John Cage: Intersections and Influences, 1933–1941.” *Journal of the American Musicological Society*, vol. 59, no. 1, 2006, pp. 47. *JSTOR*, JSTOR, www.jstor.org/stable/10.1525/jams.2006.59.1.47 .

Cage's health deteriorated during the 1980s, and he died on August 12, 1992 at the age of 79. Cage's body was cremated at his will, and his ashes were scattered in the Ramapo Mountains near Stony Point, New York (where he had earlier scattered his parents' ashes).

CHAPTER TWO

HENRY COWELL'S THREE IRISH LEGENDS

Henry Cowell was involved with Halcyon, a theosophical community in California, led by John Osborne Varian. As an Irish-American poet and amateur musician born in Ireland, John Varian encouraged Cowell's interest in Irish folk culture and mythology. He was one of the early members of the Temple of the People, for which Halcyon, located near Pismo Beach in California, served as administrative center. Cowell met Varian when he lived with his mother in Menlo Park, while Varian lived nearby in Palo Alto. He met Varian's two sons, Russell and Sigurd, first. To create a reason to meet the father, Cowell wrote a sonata for Russell. Soon after meeting with John Varian, he began to attend meetings of the Temple. Cowell's father, Harry, had grown up in Ireland, and taught his son a number of Irish tunes. Varian also grew up in Ireland. After moving to America, he kept in touch with his Irish friends and taught old Irish songs to his two sons—just as Cowell's father had done. Varian's poetry and plays are full of Irish elements, drawing on Celtic mythology and Theosophical philosophy. Cowell and Varian were close friends from 1913 to 1931, working together on many artistic projects. Cowell also associated with Varian's theosophical friends, both at Halcyon and in the San Francisco area. He composed a great deal of innovative music during these years, exploring Irish topics and influences similar to those used by Varian. Figures from Irish and Celtic mythology appear often in the text and titles of Cowell's early music, such as *The Building of Bamba*, *The Tides of Manaunaun*, and *The Voice of Lir*, for which Varian provided the texts.¹⁰

¹⁰ Johnson, Steven. "Henry Cowell, John Varian, and Halcyon." *American Music*, vol. 11, no. 1, 1993, pp. 1–27. *JSTOR*, JSTOR, www.jstor.org/stable/3052445.

Cowell's experiments in composition were more or less inspired by Varian.¹¹ Varian spent many years constructing a large harp to create greater volume and resonance that would be suitable for cosmic dramas. In his play, *The Harp of Life*, he wanted the instrument to represent the harp's significance in Irish myth. He mentioned the instrument to Cowell many times, hoping that Cowell would compose for it. He told him that "if the harp has as much sound as I expect and you learn to master it, you can easily get known all over the world and make as much noise over it as the war."¹² In his 1916 poem *Hero Souls*, Varian listed several ideas for new instruments including drum piano, bell piano, gong piano, and rotary piano.¹³ He also suggested certain rhyme patterns to reflect off beats in music. These and other fresh ideas influenced Cowell.

Three Irish Legends consists of *The Tides of Manaunaun*, *The Hero Sun* and *The Voice of Lir*. In Irish myth, Manaunaun was one of the most powerful gods and a member of the group called Tuatha Dé Danann, or Irish divine race, from a time and religion that precedes Christianity. He was known as the god of oceans and storms. Lir is also a member of this group, often cited as Manaunaun's father. The name Manaunaun is sometimes written as "Manaunaun mac Lir," which represents this lineage.¹⁴

Three Irish Legends incorporates many of Cowell's innovations such as the tone cluster, "a highly dissonant, closely spaced collection of pitches sounded simultaneously at the piano, usually by striking a large number of keys with the hand or arm."¹⁵ As

¹¹ Ibid

¹² Ibid.

¹³ Ibid

¹⁴ Green, Miranda. *The Gods of the Celts*. pp.73. Gloucester, England: Alan Sutton Publishing Limited, 1986.

¹⁵ The Harvard Dictionary of Music 4th ed. "Tone clusters". Cambridge, Mass.: Belknap Press of Harvard University Press, 2003.

hypothesized previously, Cowell's invention of the tone cluster may have been mainly prompted by Varian's work, but likely was also derived from other sources. For example, when Cowell was young he had a zither, a Chinese instrument (also called guqin) created in ancient times and difficult to tune precisely. Striking a single string sounded something like a cluster of pitches. Another possible influence was when Cowell and his mother spent time living in San Francisco's Chinatown. The Chinese immigrants often played their native music and instruments, making sounds that appear to have ties with Cowell's music.¹⁶ As he once mentioned, "the Chinese found out many centuries ago that ... banging noises have musical value and enjoyment-giving possibilities."¹⁷ Cowell's appreciation for such sounds is evident in many of his works.

The Tides of Manaunaun

Most of Cowell's music from 1914 to 1926 connected with Varian's work, as settings of his poems and plays. *The Tides of Manaunaun* was published in 1917, serving as a prelude to Varian's play, *The Building of Bamba*. This play was produced by Varian at Halcyon's Summer Convention in 1917, and Cowell wrote approximately fourteen pieces for it. The play's content included various stories of Irish mythology, four of them associated with the ocean god Manaunaun.¹⁸ *The Tides of Manaunaun* is the only piece that was published from *The Building of Bamba*. In 1922, *The Tides* become part of *Three*

¹⁶ Hicks, Michael. "Cowell's Clusters". Oxford University Press, 1993.

¹⁷ Ibid, 429.

¹⁸ Johnson, Steven. "Henry Cowell, John Varian, and Halcyon." *American Music*, vol. 11, no. 1, 1993, pp. 1-27. *JSTOR*, JSTOR, www.jstor.org/stable/3052445.

Irish Legends.¹⁹ In 1940, Cowell arranged *The Tides of Manaunaun* for piano and orchestra as part of a set called *Four Irish Tales*. It was renamed *Deep Tides*, while the title of the set was changed to *Tales of Our Countryside*.²⁰

According to John Varian's text, *The Tides of Manaunaun* is based on a story about the Irish sea god, Manaunaun, who "was the god of motion, and long before the creation, he sent forth tremendous tides, which swept to and fro through the universe, and rhythmically moved the particles and materials of which the gods were later to make the suns and worlds."²¹ In Steven Johnson's book *Henry Cowell, John Varian, and Halcyon*, Cowell's journey to discovering the tone cluster is mentioned:

In order to present the mood of the sea, he first tried a couple of low octaves, which sounded too definite, then tried some chords, which were also unsatisfactory. Finally, he hit upon the idea of playing the thirteen lowest tones of the piano at the same time, thus inventing a new musical sound.²²

The tempo is marked "Largo, with rhythm". According to Michael Hicks, "Cowell needed to depict Manaunaun, the god of waters, with, in Varian's words, 'calm, ponderous, leisurely thundering waves, and rumbling drumming accompaniment.'"²³ Varian's words "calm" and "leisurely" would account for Cowell's tempo of Largo, while his added performance direction of "with rhythm" likely reflects the regularity of the tides that "rhythmically moved the particles and materials....to make the suns and

¹⁹ Williams, Mark. *Ireland's Immortals: A History of the Gods of Irish Myth*. United Kingdom: Princeton University Press, 2018.

²⁰ Ibid, 181.

²¹ Cowell, Henry. *Three Irish Legends: The Tides of Manaunaun*.

²² Johnson, Steven. "Henry Cowell, John Varian, and Halcyon." *American Music* 11, no. 1 (1993): 1-27. Accessed April 20, 2020. doi:10.2307/3052445.

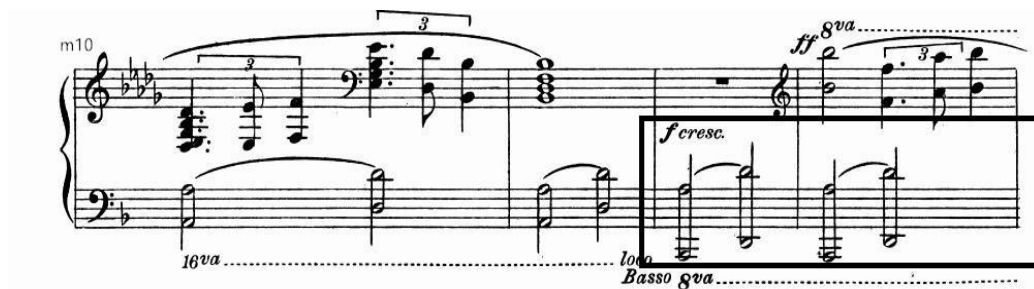
²³ Hicks, Michael. "Cowell's Clusters". Pp.441. Oxford University Press, 1993.

worlds.”²⁴ Cowell uses a very wide dynamic range from *pp* to *ffff* to indicate the “tremendous tides, which swept to and fro through the universe...”

Throughout the composition, Cowell used clusters to represent the tides. The piece begins with the left hand alone, playing soft, one-octave chromatic clusters that seem to suggest small wavelets (Example 2-1).



Beginning with measure 12, the left arm plays chromatic two octave clusters in *forte*, with a *crescendo* to demonstrate the growing size of the waves and tides (Example 2-2).



Beginning with measure 22, the left arm plays two-octave clusters that alternate between the black and white keys (Example 2-3).

²⁴ Cowell, Henry. *Three Irish Legends: The Tides of Manaunaun*.

It is noteworthy that along with these alternating black and white clusters, the rhythm has also changed. Previously in half notes, the rhythm adopts quicker quarter note triplets in measures 22 and 23. Then at measure 24, the left arm plays chromatic clusters that are greater than two octaves (Example 2-4).

These large clusters require arpeggiation, with the left arm moving from the bottom of the keyboard upwards. The dramatic cluster changes at measures 22 and 24, in combination with the relentless dynamic expansion to *ffff*, signal that Cowell wants to unveil huge waves as the music reaches its climax. Our imaginations are sufficiently stimulated to see this wave movement from perspectives of both speed and height.

Soon the clusters return to their earlier one-octave range at measure 26, as the tides gradually restore calm. (Example 2-5)



As the piece nears its end with the tides receding, there is a feeling that Varian’s text is fulfilled: “....tremendous tides....rhythmically moved the particles and materials of which the gods were later to make the suns and worlds.” In the final five measures a detailed sequence suggests small waves, as the tides finally disappear (Example 2-6).²⁵



Practice and Performance Suggestions

At the beginning, the performer presses down the octave with the left-hand palm and curved fingers, playing eight white keys and six black simultaneously. Achieving the requested “pianissimo” is a challenge because of the large number of notes played, so one needs to comfortably prepare the hand close to the keys, and press down with a slow and smooth action (Example 2-7).

²⁵ Cowell, Henry. “Three Irish Legends”. New York: Breitkopf Publications, 1922

m1

Largo, with rhythm

mmp

p

Piano

pp smooth, full tone

Basso 16va with pedal.....

Starting from measure 7, the right-hand melodic line is in octaves that must be played with a good singing legato. Performers should relax the hand and project with good legato connection, using the fourth finger when possible. With a smaller hand, the lower notes played by the thumb may need to be lightened. While the meter is 4/4, it should be felt in 2/2, especially with its triplet subdivisions. This emphasis on the first and third beats with dotted rhythm is typical of Irish folk music, with its strong dance feeling (Example 2-8).

m6

m7

mf

mp poco a poco cresc.

Basso 16va.....

After repeating continuously for the first 11 measures, the clusters expand to two octaves at measure 12. Playing these clusters requires the entire left forearm plus the palm and curved fingers, in order to cover both the black and white keys (Example 2-9).

musical score for measures 12 and 13. Measure 12 features a right-hand melody with a triplet of eighth notes and a left-hand accompaniment with a triplet of eighth notes. Measure 13 shows the right-hand melody moving to a higher octave (8va) with a triplet of eighth notes, and the left hand moving to a lower octave (Basso 8va) with a triplet of eighth notes. Dynamics include 'f' and 'f cresc.'

As the length of the forearm is different with each player, careful angling of the arm is required to ensure even sound and note accuracy. The challenge increases at measure 13, when the right-hand melody moves farther away from the left-hand clusters to a higher octave position (Example 2-9). This extended distance between the left and right hands makes projection of the top melodic line difficult, and the thumb tends to dominate. Adjustment of the right elbow position can be helpful, along with possible doubling of the fourth and fifth fingers to strengthen the top melodic line. The first chord of measure 18 is especially difficult to reach simultaneously with the left-hand cluster in the bass (Example 2-10).

musical score for measure 18. The right hand has a melody with a triplet of eighth notes and a left hand has a cluster of notes. Dynamics include 'ff' and 'loco'. The right hand is marked '8va' and the left hand is marked 'Basso 8va'.

If the performer cannot negotiate this stretch, a reasonable choice is to lighten some bottom cluster notes while carrying over the pedal.

The excitement is heightened in measures 22 and 23 by an abrupt replacement of the half-note clusters with quarter-note triplet clusters, along with rapid switches between the black and white keys (Example 2-11).

The performer will use the outer side of the left arm, with individual fingers assigned to the singing top notes (*Top notes emphasized melodically*). It is challenging to play everything together at this faster pace. As the climax builds, it is beneficial both musically and technically to gradually broaden the tempo. Performers need to avoid doing the opposite, rushing ahead—often caused unintentionally by the combination of uncontrolled inner excitement and nervousness. The climax of the piece occurs at measure 24, where the arpeggiated clusters are to be played more broadly (*slow arpeggios*) and the dynamic reaches its peak of *ffff*. When the pianist plays the arpeggiated clusters at measures 24 and 25, an attempt should be made to hold some of the top notes with the palm and fingers to connect well with the elbow as it initiates each following cluster (Example 2-12).



Beginning with the elbow, the arm should move like a wave, increasing dynamics from bottom to top while employing a smooth legato and powerful sweep.

In order to express Cowell's very wide and changing dynamic range in this short piece, the performer will need to devote time to the mastering of incremental, step-by-step crescendos and diminuendos. The design offered in the score should be precisely followed.

The Hero Sun

The Hero Sun was finished in 1922. All three works in *Three Irish Legends* were composed separately, and "...each of the three component pieces had a brief preface explaining its mythological inspiration in precisely the Russellian vein. All three were free associations in response to the absence in Irish mythology of a creation myth."²⁶ In the end, given their similar origins and use of the tone cluster, they were published together.

Cowell composed *The Hero Sun* based on John Varian's text, which appeared on the music score:

²⁶ WILLIAMS, MARK. *Ireland's Immortals: A History of the Gods of Irish Myth*. Princeton University Press, 2016. *JSTOR*, www.jstor.org/stable/j.ctvc775gk. Accessed 20 Apr. 2020.

The gods created all the suns and sent them out into space. But these suns, instead of lighting the universe, congregated closely together, enjoying each other's society, and the universe was in darkness. Then one of the gods told the suns of a place where people were living in misery on account of the lack of light, and a strong young sun rose and hurled himself out into the darkness, until he came to this place, which was our earth; and the Hero Sun who sacrificed the companionship of the other suns to light the earth is our Sun.²⁷

The text tells the story of a hero sun who has a long arm and “hurled himself out into the darkness”. People often call this hero long arm Lug.²⁸ He is Manaunaun’s foster son, considered to be a sun god and member of Tuatha Dé Danann, importantly representative of Celtic mythology.²⁹

The tempo marks include *Largo--Allegro con brio--Largo--Allegro con brio--Largo--Allegro con brio*. The music starts with a very slow tempo in a high register of the piano. The opening three chords of the left hand are a disappearing chord (Example 2-13),

²⁷ Cowell, Henry. *Three Irish Legends: The Hero Sun*. New York: Breitkopf Publications, 1922.

²⁸ Wright, Gregory. “Lugh.” Mythopedia. Accessed on April 20, 2020. <https://mythopedia.com/celtic-mythology/gods/lugh/>.

²⁹ Nagy, Joseph Falaky, and Josephy Falaky Nagy. “‘Talking Myth’ in Medieval Irish Literature.” *Eolas: The Journal of the American Society of Irish Medieval Studies*, vol. 5, 2011, pp. 80–88. JSTOR, JSTOR, www.jstor.org/stable/41585267.

which means playing the whole chord together, and then releasing the notes of the chord one by one. As the sound gradually diminishes more slowly than if the chord was released all at once, the effect is that of a chord disappearing. Cowell is not the first composer to use the technique of a disappearing chord. He might have taken the idea from earlier composers like Robert Schumann in his *Papillions* (Example 2-14).³⁰



Starting from measure four, the *Allegro con brio* is in a high register, energetic, bright and brilliant. There are two eight-bar phrases, measures 4 to 11 and 12 to 19, very clearly defined by disappearing chord effects. A repeated cluster in the upper part is played with the right forearm. Cowell writes a sharp sign over every cluster, indicating all of the black keys for the prescribed length in accordance with his instructions: “A sharp or flat above or below such a symbol indicates that only the black keys between the outer limits are to be played....”³¹ (Example 2-15).



³⁰ Robert Schumanns Werke, Serie VII: Für Pianoforte zu zwei Händen Leipzig: Breitkopf & Härtel, 1887. Plate R.S. 40.

³¹ Cowell, Henry. *Three Irish Legends: The Hero Sun*.

The high register of the Sun section next shifts to the low register, in a *Largo* tempo expressing darkness. Along with the tempo change, the time signature changes from 3/4 to 5/4 and the phrases are longer. There is also an abrupt change of dynamic, which remains *pp* in both hands throughout the section. Here in measures 21-22 and 24-25 Cowell uses another compositional technique called “released clusters” (Example 2-16).

The image shows a musical score for Example 2-16, consisting of three staves. The top staff is the right hand, the middle staff is the left hand, and the bottom staff is the bass line. The score is in G major and features a tempo change to *Largo* and a time signature change from 3/4 to 5/4. The right hand plays clusters, and the left hand plays accented quarter notes. The dynamic is *pp*. The score includes markings for 'm20', 'm21', and 'm24'. The left hand part is labeled 'Basso gva.....!'.

This technique directs the performer to release clusters while continuing to hold other sounding tones.

When the Sun section returns in the high register, the right-hand cluster is still in 3/4, but the left hand switches to 4/4 in accented quarter notes which lead by preceding the clusters, thus establishing a second identity. This section seems to suggest that, while the other suns are still “congregated closely together, enjoying each other’s society”, there is now “a strong young sun” that stands out.³² The accented melody of the left hand adds fluency and firmness. The two phrases in this second Sun section contain a total of 12 measures rather than the earlier 16, each phrase being six measures in length.

³² Cowell, Henry. *Three Irish Legends: The Hero Sun*.

The second dark section is again *Largo*, low register in 5/4-time with released clusters. Three additional released clusters with a ritard and fermata extend the length of the second phrase. Leading into the final Sun section there is a two-measure bridge in 4/4 time which quickly accelerates and grows from *pp* to *ff*, as the hero sun begins to lighten our planet in yet a more glorious way.

The final Sun section strikes in even more brilliant form than previously, *ff* to *fff* with relentless accenting in all registers. Clusters are now played by both right and left forearms, and there are no fadeouts. This section is more complicated than the first two Sun sections, including texture, tempo, and rhythm. The tempo develops, over a relatively brief time, from *Allegro con brio--rit.--a tempo--molto rall.* The time signatures in the right and left hands are not paced together, beginning with right hand 4/4 and left hand 3/4, then left hand 4/4, then right hand 3/4, 2/4, 3/4, and finally both hands 2/4. In this highly complex ending, Cowell perhaps wished to express that all things recover from the darkness, and our earth is in the light with a vibrant life. “The Hero Sun who sacrificed the companionship of the other suns to light the earth is our Sun.”³³

Practice and Performance Suggestions

When playing the disappearing chords in measure 1-3 (see Example 2-13), the performer needs to play each note of the chord deeply before deliberately taking them away one by one, ensuring that each is heard as resonantly as possible so that the effect is clear. Beginning with measure 4, the right-arm clusters cover two octaves, and it is difficult for the elbow to consistently bring forth the top line (Example 2-17).

³³ Cowell, Henry. *Three Irish Legends: The Hero Sun*.

Allegro con brio
8va.....

However, it is necessary to hear each of Cowell's three unison melodic lines, which includes the bottom notes of the left-hand chords. Observing the sharp sign over each cluster, one must be careful to avoid playing any white keys as the elbow works to bring out the top line.

In measures 10 and 18 (Example 2-18),

m10

m18

there are disappearing chords in the left hand with an expression mark of *ff*, which need to be struck with the appropriate weight to create the desired effect. Note that the top cluster chord at this precise moment is abruptly *mf*.

When the music turns to the dark section in measure 20 (Example 2-19),

The image shows a musical score for Example 2-19, spanning measures 20 to 25. The tempo is marked 'Largo' and the time signature is 5/4. The score is written for piano, with a right-hand melody and left-hand clusters. Measures 21 and 24 are highlighted with boxes. The score includes dynamic markings such as 'pp' and 'Basso gva.....!'. The right-hand melody consists of quarter notes, and the left-hand clusters are formed by the top right-hand quarter notes and the outer lines of the left-hand clusters. The score is in a key signature of three sharps (F#, C#, G#).

it is challenging to project the melody while playing pianissimo in the piano's lower registers. The melody is again in three octaves, formed by the top right-hand quarter notes and the outer lines of the left-hand clusters. It is also important for the performer to create well connected legato lines.

When executing the released clusters in measures 21-22 and 24-25, the thumb and little finger need to be curved as the palm is lifted away, in order to release all middle notes and retain the octave.

At measure 26, the hands play in two different time signatures, with the right-hand legato against a pronounced left-hand non-legato line (Example 2-20).

Allegro con brio

8va.....

m26

ff

This musical score shows measures 26 through 31. The right hand part consists of a series of octaves, with a dynamic marking of *ff* (fortissimo) and a hairpin crescendo. The left hand part consists of chords, with a dynamic marking of *ff* and a hairpin crescendo. The tempo is marked 'Allegro con brio'.

While it is not difficult to play the two parts simultaneously, the challenge is to convey two hands going in opposite ways to express two different meanings. The left hand must lead independently, but without the right hand losing its 3/4 metric pattern. Sufficient practice of each hand separately is required to avoid one or the other becoming subservient. Another challenge is to keep the right-hand clusters legato at the same time they are *ff*. For this, the movements of the right arm should not be too large, staying close to the keys to enable good connection.

In measures 45 and 46, the three slurs heard in both parts simultaneously give a hemiola effect to enhance the feeling of forward motion. The left-hand clusters again should be played close to the keys for the designated legato (Example 2-21).

m45

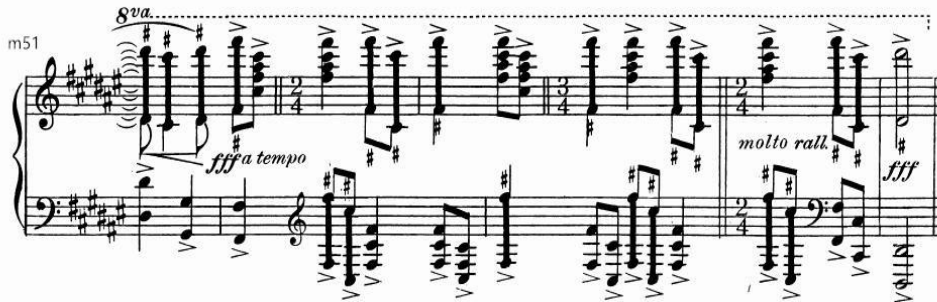
16va.....

pp rit.

pp poco a poco cresc. e accel

This musical score shows measures 45 and 46. The right hand part consists of octaves, with a dynamic marking of *pp* (pianissimo) and a hairpin crescendo, followed by a tempo change to 3/4 time. The left hand part consists of chords, with a dynamic marking of *pp* and a hairpin crescendo. The tempo is marked 'Allegro con brio'.

Following measure 51, the highly brilliant final section contains rapid clusters in both hands, requiring quick recovery and good coordination. Due to the wide range and distance on the keyboard, it is helpful to encourage a side-to-side movement of the body, led by the elbows, which will aid in propelling the rhythmic thrust as well (Example 2-22).



When performing *The Hero Sun*, the pianist needs to pay close attention throughout to the dramatic changes and contrasts of emotions and dynamics, especially between the dark and sun sections.

The Voice of Lir

The Voice of Lir was written in 1920. Lir was a member of the Tuatha Dé Danann and the father of Manaunaun. Lir was mentioned in the genealogical tract of the Tuatha Dé Danann in the Book of Lecan, and there is a poem that was quoted in this tract:³⁴

Manaunaun, son of Lir, from the Lake,
sought many battles; Oirbsen was his name;
after hundreds of victories, of death he died.

³⁴ Cox, Edward Godfrey. "King Lear in Celtic Tradition." *Modern Language Notes*, vol. 24, no. 1, 1909, pp. 1-6. JSTOR, JSTOR, www.jstor.org/stable/2916623 .

Varian here focuses on the creation of Lir's image in the history of Ireland, through a complete storyline and specific environmental description, to make the characters in the story more vivid, more authentic, and to make the entire story more thoughtful. The text of the story is on the music score:

Lir of the half tongue was the father of the gods, and of the universe. When he gave the orders for creation, the gods who executed his commands understood but half of what he said, owing to his having only half a tongue; with the result that for everything that has been created there is an unexpressed and concealed counterpart, which is the other half of Lir's plan of creation."³⁵

The Voice of Lir draws a circle through use of tempo, dynamics, texture, and emotion. The greatest feature of Chinese traditional culture can be expressed in a circle, and even in a certain sense, we can call Chinese culture the Round-Tao culture. During his time living in San Francisco's Chinatown, Cowell reached out to Chinese people and heard their music often. According to Hicks, "in place of traditional repertoire in which he had been immersed, Henry began to appreciate the strange scales of Asian melodies, the boom of ceremonial drums, and the resonance of gongs."³⁶

As a set, *Three Irish Legends* ends in *Largo* tempo, just as it began. The final piece starts *pp* with three left-hand clusters that serve as an ostinato figure. The right hand joins in, and at measure seven breaks into a haunting D-minor chant in octaves (Example 2-23).

³⁵ Cowell, Henry. *Three Irish Legends: The Voice Of Lir*.

³⁶ Hicks, Michael. *Henry Cowell: Bohemian*. pp.102. University of Illinois Press, 2002.

m1 Largo

Piano *pp smoothly*

Basso gva sempre

m3

m7

p

Piu mosso

m11

p

Piu mosso

Following a repeat of the theme in full chords (measures 11-14), there is an abridged statement at measure 15 beginning in the tonic major with full *forte* force. Here, as with *The Hero Sun*, the left hand plays an octave line with released clusters (Example 2-24).

m15

f

loco

Basso gva

loco

Basso gva

ff

At measure 19 the right hand jumps up an octave for eight accented chords, leading to the *Meno mosso* in *fff* at measure 21 (2-25).

The image shows a musical score for measures 19 through 25. Measure 19 is marked 'm19' and features the right hand playing accented chords and the left hand playing a three-note ostinato. Measure 21 is marked 'm21' and 'Meno mosso', with a dynamic marking of 'fff'. The score includes various performance instructions such as 'rit.', 'Basso', and 'Arm'. The notation is complex, with many notes and accidentals, and includes a 'Basso' section at the bottom.

From measure 21 the heavy clusters are played by both left and right forearms in low registers, rhythmically placed between the chorded theme in high register. Following this climactic peak the piece calms down with a gradual *diminuendo* (*p-pp-ppp*) to a ritard and eventual fermata. The clusters are reduced in size, until only the left palm plays one-octave clusters in a return to the three-note ostinato at measure 31. The piece dies away into the quietness from which it began, reminiscent of the first piece of the set.

For the overall tempo plan, we see that *The Voice of Lir* starts slowly, pushes forward to the climax, and returns to the slow tempo at the end. Dynamically the music is soft at the beginning, gradually grows to loud fortissimos, and closes with a diminuendo and disappearance. In similar fashion the ostinato starts with a three-note figure, grows to four notes and returns to three notes. The texture as well starts very simply with a left hand one-octave cluster and right-hand single note melody, developing until both hands play chords and two octave clusters simultaneously, and finally returning to left-hand one

octave clusters and right-hand simplicity. All of these factors imply that the end point is the starting point, which is the way of circularity. Round-Tao is a Chinese philosophy found in *Lu's Spring and Autumn*, based on the *Tao* of Laozi but developed by Lu Buwei, the prime minister of Qin. In *Lu's Spring and Autumn*, the meaning of “circle” is combined with “Taoism”, which is called Round-Tao. Simply put, the change from day to night is a cycle; this is Round-Tao. All motion will germinate, germination will breed, breeding will develop, development will grow, growing will mature, maturity will decline, declining leads to death, death will disappear, and that is Round-Tao.³⁷

The function of clusters in this movement is different from *The Tides of Manaunaun*. In *The Tides of Manaunaun*, the cluster is obviously a manifestation of tides, but here it represents the unknown. Although the right-hand melodies and harmonies offer the understood, clusters are the inscrutable mystery,³⁸ or as Varian wrote in his text “understood, but half” and “an unexpressed and concealed counterpart”. There are various elements, each with its own division of labor and duties, and one cannot substitute for another. Although only half of Lir's commands are clear while the other half are not understood, this is also Lir's plan. When we listen to the music, we feel a sense of uncertainty and unknowing. But, at the same time, the listener will perceive all of this disorder in an orderly manner.

Practice and Performance Suggestions

To properly represent Cowell's overall plan, all of the score markings need to be carefully observed in performance. There can be no carelessness or unwanted surges in

³⁷ Lu, Buwei. *Lu's Spring and Autumn*. “Round Tao”.

³⁸ Hicks, Michael. “Cowell's Clusters”. pp.442. Oxford University Press, 1993.

executing the graduated rises and falls. The short ritard leading into measure 21 must be precisely planned so that the *Meno mosso* holds back in just the right amount to convey a feeling of triumph. This can prove difficult, when both arms must move back and forth over the keyboard to accommodate the clusters while simultaneously maintaining a singing legato (as well as accuracy!) in the treble chords. It helps to lean heavily into the legato chords to make them well connected, while limiting the forcefulness of attack for the clusters. This not only maintains the needed balance of sound and texture, but makes things much easier. One needs to respect the ability of the piano to produce excessive noise with the application of full black and white forearm clusters in the lower registers!

In measures 15-20 (see Example 2-24), the left hand plays the bottom two staves with released clusters, articulated as legato quarter notes with staccato eighths that are played with the palm. Executing the clusters of the third staff makes it challenging to maintain the legato line. It is helpful to practice this passage at times with only the legato notes of both hands, while at other times working the left hand separately to improve the legato-release combination.

The player's body position and movements should be observed and planned in preparation for performance. It is always best to work for a straight, relaxed back, to enable quick movement of the arms and hands as well as ease in applying weight to the keyboard. With much of Cowell's output, posture is especially crucial due to the keyboard distances covered, which are greater than we find in much of the piano repertoire.

Finally, clusters can sound crude and unnecessarily chaotic when there is an absence of neatness in their execution. All tones need to be played with the customary key

accuracy, and precisely together! While they are a critical part of Cowell's music, clusters must always be kept in their proper place so as to not overwhelm. Clusters provide drama, atmosphere, power, and a sense of the unknown.

CHAPTER THREE

HENRY COWELL'S SIX INGS

Henry Cowell's *Six Ings* include *Floating*, *Frisking*, *Fleeting*, *Scooting*, *Wafting*, and *Seething*. They are called character pieces, which is defined as "music, usually for piano solo, expressing either a single mood (e.g. martial, dream-like, pastoral) or a programmatic idea defined by its title. The term is usually applied to pieces written since the early 19th century."³⁹ This collection was composed separately at different times, but issued first as a copyrighted set in 1922. Did Cowell have any special meaning in mind for *Ing*, other than a suffix? From English grammar, "ing" can be part of a noun or verb. The usage is mainly to indicate something that is ongoing; an action is to continue for some time, and "ing" immediately expresses this idea. Cowell included "ing" in every piece's name to make it come alive. Otherwise, only a static picture is offered. It's like a comic book turned into animation. *Six Ings* is abstract rather than figurative, expressing moments, emotions, or some invisible thing you can feel, while deciphering no specific object.

Floating

Floating means to move or hover slowly and lightly on a liquid or in the air, not settled in a definite place. Cowell represents floating through his choice of tempo, dynamics, rhythm, harmony, key, and articulation. The score indication is *Placido*, indicating a calm speed. There is no key signature, but many accidentals. The right hand plays only major

³⁹ Brown, Maurice J.E. "Characteristic [character-]piece." Grove Music Online. 2001. Oxford University Press. Date of access 9 Mar. 2018, <http://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000005443>

thirds, lending an aimless feeling without leading tones. The texture is whole-tone in chromatic motion (Example 3-1).



Rhythm is an important element of this piece. Floating implies instability. Cowell used the compositional technique of polymeter to make the movement unstable and unbalanced. With polymeter there are three possibilities: same time signatures, but displaced; different time signatures, with bar lines coinciding; and different signatures, with bar lines not coinciding.⁴⁰ In this case, the right hand is in 3/4 time against a left hand in 4/4 when it appears in the fourth measure (Example 3-2).⁴¹



Although the left hand begins with an irregular rhythm, it plays four even quarter notes in measure five as the right hand breaks into septuplets. It is interesting to note that when the right hand is a smooth six-note figure, the left hand is unsteady with the rhythm of dotted

⁴⁰ Kostka, Stefan. *Materials and Techniques of Twentieth Century Music*. "Developments in Rhythm". pp.120. Pearson Education, Inc.2006.

⁴¹ Cowell, Henry. "Six Ings for Piano". New York: Breitkopf & Härtel, 1922. Reprinted: New York: Associated Music Publishers, 1950.

notes, but when the right hand is in unsteady septuplets, the left hand is simple quarter notes. Cowell juxtaposes his rhythms to express a feeling that is both balanced and unbalanced. It could suggest a boat floating on the lake, with a mixture of smoothness and shaking, unstable waves.

The piece remains at low volume throughout, with five short *crescendo/diminuendo* moments to break the dynamic monotony. The final three measures sustain a diminuendo and ritard, as the right hand finally rests on an augmented triad against the left's perfect fifth.

Practice and Performance Suggestions

To create the image of floating it is important to play the right hand with an even rhythm, somewhat disguising the changes from sextuplets to septuplets. It is also important to avoid pulse on the downbeats, as indicated by the slurs which cross over the bar lines. However, the phrase groupings of the hands are staggered, which must be carefully observed. A slight rise of the wrists at appropriate times can be enough, along with a very slight stress on the notes. The dynamic level must be very even and eventless, taking care to not make too much of the small *crescendos* and *diminuendos*.

Developing a fingering for the right-hand thirds is also important. A good practice is to project the top notes and make them as smooth as possible; the bottom notes should fall in line with this leadership.

In places like measure four, it is a bit challenging to play the left-hand rhythm accurately without upsetting the calm flow (see Example 3-2). While one needs to practice with hands together to position their notes properly, it is equally important to

practice the hands separately in order to hear each part flow independently. One must particularly avoid thinking of bar lines in this piece.

Frisking

Frisking means to skip, leap, or move playfully. To match the character of his title Cowell's writes *Vivo e leggiro*, accompanied by a metronome mark of 144 to the eighth note and an opening dynamic of *pp*. Although the time signature is 3/8 for both hands, there is again a polymeter effect: the left hand starts alone with the right hand entering two beats later, so the bar lines don't coincide. And with two different simultaneous key signatures, five flats vs. one flat, the piece is bitonal (Example 3-3).

Vivo e leggiro M.M. ♩ : 144

Piano *pp*

The form of this piece is ABA with Coda. In the A section the left hand moves quicker than the right, providing the feeling of frisking through repetitive groups of staccato 32nd notes which stop abruptly on quarters or tied eighths. The right hand, however, is completely different from the left: lyrical, legato, slow moving, with long lines of quarter and eighth-note chords. At measure 17, the right hand takes on a secondary voice for the second half of the A section.

Beginning with the B section at measure 33, the left hand drops its 32nd notes and the rhythm is more leisurely (Example 3-4).



With an articulation in both hands that is the same— a slur plus two staccatos, with accents now staggered only one beat apart— the hands no longer oppose each other but interact in the manner of an easy waltz. There is an inner voice in the right hand that is nearly the same as the second phrase of A. The B section is *mf*, 12 bars repeated, after which the entire A section is repeated following a brief four bar bridge (Example 3-5).



The piece concludes with a one-measure Coda, simply a chord in the right hand's key of d minor.

Practice and Performance Suggestions

While the bar lines for the two hands are staggered, this piece has such flow that without separate phrasing in performance, the two parts could appear to be completely in sync. It is important to observe the composer's separated accents, and once again helpful to practice hands separately to more easily hear each as a different voice in a conversation.

It's a bit like drawing a square with the left hand while the right makes a circle. To speed up the process, try playing one hand loud and the other extremely soft, then switch. Exaggerating the difference between staccato and legato in practice helps as well. Eventually the two entities should have good independence, while flowing together as one.

From measures 13 to 32, the right hand has two voices, with the alto line containing arrangements of slurs and staccatos (Example 3-6).



Now the pianist must juggle three parts between the hands. If the top melodic line continues to project, the new alto line should fold comfortably into the music. Practicing the new line very softly helps the brain to combine the voices better.

In the B section the hands seem to cooperate even more in a sort of easy dance style. However, the accents, slurs and staccatos of the parts are again carefully offset from each other, adding great interest. The difficulty for the performer lies in keeping the staggered accents, slurs and staccatos in order, as the hands move up and down in opposition. The pianist must strive to execute both elements simultaneously: smoothness and angularity. When properly achieved, an attractive quirkiness emerges.

Fleeting

Fleeting implies moving or passing quickly, remaining for only a very short time. The piece is marked *Allegretto placido*, reflecting the placidness of the first piece, *Floating*, but with added quickness in tempo. Compared with the first two pieces, this one is more traditional in its use of rhythm, harmony, and texture. Except for a brief change to 2/4 in measure 32, both hands are in 3/4 time with the bar lines coinciding. The form is ternary, and the piece is entirely in A minor. The rhythm consists of just sixteenth notes (initially in the right hand but switching to the left for the B section), with eighth-note chords for accompaniment. The A section is 16 measures long, in three phases of increasing length punctuated by brief rests in the right hand. The chord function is basically I to V, each phrase ending on V before repeating the cycle again. The right-hand legato sixteenths include many accidentals, and the dynamic is *pp*. The left-hand chords are also legato (Example 3-7).

Allegretto placido
pp
Piano
m1
qua sempre

Cowell wrote *Piu mosso* at the beginning of the B section in measure 17, where the right and left hands are reversed. The B section is much less chromatic (Example 3-8).



Each of its many sixteenth note slurs covers only four notes, contrasting with the A section, where one slur reaches as many as 55 sixteenth notes in length. The examples below show four measures connected in a single legato line for the first phrase of the A section (Example 3-9), and a portion of the B section where most of the sixteenth notes are divided into three small groups per measure (Example 3-10).

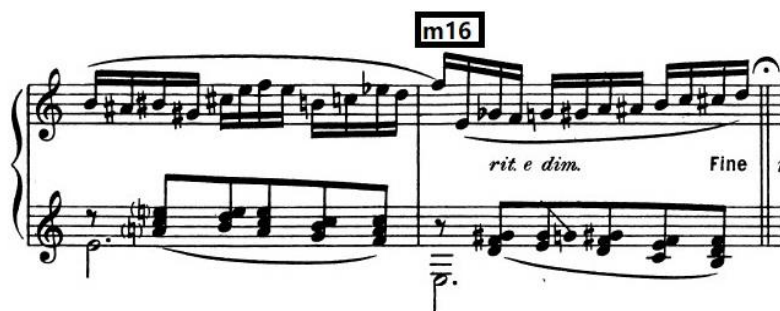
Example 3-9:



Example 3-10:

Such smaller groups add urgency to the *Piu mosso*. For variety the B section also contains five measures with 11-note slurs, plus one with only two-note slurs. The B section is in three phrases as well, but unlike the A section, they are even: measures 17 to 21, 22 to 26, and 27 to 31 in a 5+5+5 structure. The dynamic is *mp* in the B section, which is somewhat louder than A. Overall the B section represents a growth and development of A. Before the final recapitulation of the A section, there is a short 2/4 interlude at measures 32-33 (Example 3-11).

With the left hand sixteenth notes changing here to eighths, the tempo slows to half speed in a half cadence; the real ending is, of course, at measure 16 the second time around (Example 3-10). The ending is inconclusive, seeming to trail off into the unknown with its *rit e dim* (Example 3-12).



Practice and Performance Suggestions

At first glance this piece seems much easier to play than the previous two, since both hands share the same pulse and phrase organization with basic melody-accompaniment. But the right-hand line in the first section includes notes that can be unexpected and a bit of a challenge to learn and memorize. It is also necessary to bring out the secondary melodic line of the left hand, located at the bottom of the chords. Additionally, the left-hand slur patterns in the *Piu mosso* require delicate care as they switch between 4-note, 2-note, 11-note and 12-note groups. If one practices with wrist action to create the slurs, execution should become automatic.

Fleeting requires an execution that is evenly quiet, legato, steady and singing. The pedaling must be carefully planned, to avoid blurring and disruption of the varying slur patterns. Basically, the legato sixteenth notes can be smooth with just finger connection, while the eighth note chords sound best with pedal touches. As always, the damper pedal adds warmth, color and fullness. For control of the prevailing soft dynamic, a partial pressing of the *una corda* pedal can be rewarding in most performance circumstances.

Scooting

Scooting means to move suddenly and speedily; hurry. Sometimes it also implies sliding in a sitting position. Interestingly, the tempo is also marked *Scooting*, just like the title. The piece is written completely in bass clef. The required tense hurriedness seems better revealed in lower registers. The structure is once again ABA Ternary form (with the A section repeated after an extension of five measures), concluding with a very brief Coda. The A section extends from the beginning to measure 27, while the contrasting B section is merely eight measures repeated. This piece has only one time signature, 3/8, throughout.

The A section consists of three phrases. The first phrase is from the opening to measure 8, the second from measures 9 to 17, and the third from measures 18 to 27. All of the left hand is played in staccato articulation, mostly eighths at intervals of the fifth. The right-hand off-beat melody is legato (except for the second half of the third phase), also in eighth notes that are staggered with the left hand. As shown in the example, the right hand includes inner intervals (mostly thirds) that are to be played staccato (Example 3-13).

The image shows a musical score for the piece "Scooting" by Henry Cowell. It is written for piano in bass clef, 3/8 time, and marked "Piano" and "mf". The score is labeled "m1" and "Scooting". The right hand has a melody of eighth notes with a slur over the first phrase, and the left hand has a staccato accompaniment of eighth notes. The key signature has three sharps (F#, C#, G#).

Cowell uses many chromatic tones in both hands. In the left hand of the second phrase, the lower voice moves up and down chromatically as the top voice remains on C sharp (Example 3-14), and then the two voices switch (Example 3-15).

Example 3-14:

Musical score for Example 3-14, measures 9-12. The score is in G major (one sharp) and 3/4 time. It features a piano accompaniment with a steady eighth-note bass line in the left hand and a more complex melodic line in the right hand. A *cresc.* (crescendo) marking is present in the right hand starting at measure 10.

Example 3-15:

Musical score for Example 3-15, measures 13-16. The score continues from the previous example. It shows dynamic markings of *pp* (pianissimo) at measure 13, *mp* (mezzo-piano) at measure 14, and *mf* (mezzo-forte) at measure 15. The piano accompaniment remains consistent with the previous examples.

The A section is basically *mf* with some *crescendos* and *diminuendos*. Beginning with the second half of the second phrase, the dynamics change frequently (Example 3-16).

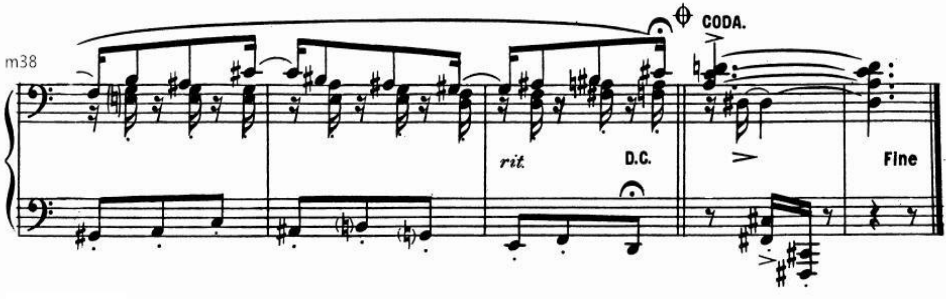
Musical score for Example 3-16, measures 13-16. This score is identical to Example 3-15, showing the same dynamic markings of *pp*, *mp*, and *mf* across measures 13-16.

Musical score for Example 3-17, measures 18-21. The score continues with dynamic markings of *p* (piano) at measure 18 and *f* (forte) at measure 20. The piano accompaniment remains consistent with the previous examples.

At the end of the third phrase beginning with measure 24, the rhythm of the inner voice changes to a four-measure strand of sixteenth notes in preparation for the B section at measure 28. The right hand now plays on the downbeat with the left hand on upbeats. The new inner voice of the right hand is rhythmical and highly energetic, consisting of continuous sixteenths in two-note slurs throughout. Looking just at the right hand, the B section appears to have only one repeated phrase. But in the score, Cowell grouped and divided the left hand into three short, similar phrases by writing brackets (Example 3-17).

The image displays three systems of musical notation for a piano piece. The first system, labeled 'm26', shows the beginning of the B section at measure 28, marked 'm18 B section' and 'pp'. The second system, labeled 'm30', continues the B section. The third system, labeled 'm34', shows the end of the B section, marked 'rit.' and 'p a tempo'. The score is in G major and 2/4 time. The right hand plays a complex rhythmic pattern of sixteenth notes in two-note slurs, while the left hand plays a more rhythmic accompaniment. The B section begins at measure 28. Dynamics include *pp*, *p*, and a tempo marking *a tempo*.

The B section is *pp*, with an abrupt *ritard* and *crescendo* at the end. The interlude leading to a *da capo* of the A section returns the left hand to the downbeat and ends with a brief hold. The coda is very short, only two measures, and there are three accents in each voice to provide a conclusive ending (Example 3-18).



The image shows a musical score for a piano piece, specifically the end of the A section and the Coda. The score is written for two staves, treble and bass clef. The A section ends at measure 38, marked 'm38'. The right hand has a melodic line with staccato sixteenth notes, while the left hand has a bass line with staccato eighth notes. The A section concludes with a key change. The Coda consists of two measures, marked 'CODA.' with a double bar line and a repeat sign. The right hand has a melodic line with accents, and the left hand has a bass line. The piece ends with a 'Fine' marking.

Practice and Performance Suggestions

In the A section, the performer needs to hold the right-hand melody notes twice as long as the inner thirds, which are not only written as staccato, but also as very brief sixteenth notes (i.e., shorter than the left-hand staccato eighths) (see Example 3-13). This difference creates precision challenges for the pianist. If the left-hand intervals are practiced together with only the right-hand single melody line, the correct articulation relationship is easy to establish. Then when the very short sixteenth note thirds are added, one can simply tell the hand to play them as short as possible. In the legato line of the last four measures of the A section, it is possible to take occasional sixteenth notes with the left hand (e.g. the fifth sixteenth in the fourth measure prior to key change).

The second section is less comfortable to play, with left hand off-beats in a soft dynamic range (see Example 3-17). It helps to practice the right-hand thirds with extra strength, perhaps sometimes leaving out the right-hand sixteenths to create an easy rock

between the hands. When these sixteenths are added back, they should be very soft at first until comfortable. Attention is needed for the two-note slurs in the right hand with staccato thirds, where exaggeration of the articulation differences can again be helpful. Keeping the fingers of legato notes close to the keys while exaggerating the lift of fingers playing the short thirds is also of benefit.

Generally, the prevailing weight should be in the left hand for the A section, switching to the right in the B section. Although this may seem insignificant, it can be a big help in avoiding coordination problems. Overall, the piece should be played rapidly and with limited force.

Wafting

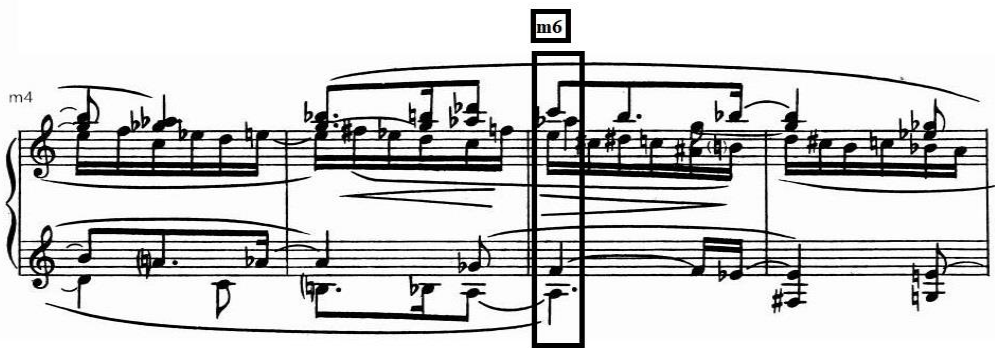
Cowell used dissonant counterpoint in several compositions from his years at Berkeley during late 1910s, such as *Polyphonics* No. 1 and 2, *String Quartet No. 1*, the *Quartet Romantic* and *Quartet Euphometric*, and *Wafting*.⁴² Wafting means easily and gently passing through the air. The tempo is *Andante*, or moderately slow in a walking speed. In this movement Cowell uses the compositional technique of Dissonant Counterpoint: "...a compositional method based on subverting the rules associated with traditional contrapuntal techniques; for example, in its strictest manifestation dissonant intervals are used primarily, and while consonant intervals are allowed, they are preceded and followed by dissonant intervals."⁴³

⁴² Spilker, John D. "Substituting a New Order": *Dissonant Counterpoint, Henry Cowell, and the Network of Ultra-Modern Composers*. Florida State University Libraries, 2010

⁴³ Spilker, John D. "Dissonant counterpoint." *Grove Music Online*. 25 Jul. 2013; Accessed 15 Apr. 2020. <https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/om-o-9781561592630-e-1002240654>.

Wafting is one of Cowell's compositions that used the technique of dissonant counterpoint. It represents an approach to dissonant counterpoint in five voices. "The melodic motion within each voice is primarily conjunct, and there are mostly dissonant intervallic relationships between the voices. Some voices in a given vertical sonority contain tones that are consonant with the bottom voice or other voices in the sonority, but there is always at least one dissonance between the other parts."⁴⁴

The downbeat of measure 6 is an example. A is the lowest voice, C is a minor third above A, the E is a perfect fifth above A, and the F is a minor sixth above A. The inner voices F and E form a major seventh, and there is an A-flat in another voice—a diminished octave above A (Example 3-19).



We can see in this piece that the consonant intervals are always preceded or followed by dissonant intervals, with melodic motion in adjacent scale steps rather than leaps.

⁴⁴ Spilker, John D. "Substituting a New Order": *Dissonant Counterpoint, Henry Cowell, and the Network of Ultra-Modern Composers*. Florida State University Libraries, 2010

Practice and Performance Suggestions

There are many voices in this work, mostly four but sometimes five. The voices in quarter and eighth notes generally move together, with sixteenths working as connectors. It is thereby not as complicated to play as a more independent four or five voice fugue. To insure clarity of counterpoint, it is helpful to lift the fingers rather high, particularly for the sixteenth notes. It is helpful that virtually everything is legato, though the finger stretches involved in negotiating the intervals add difficulty. It is very important to avoid tension in the hands and fingers, as some notes need to be held down and connected at the same time that others are moving in different ways. Touches of pedal can help some connections, but a blurring of the lines must be avoided.

Voicing decisions are critical, to make each voice heard and easily followed. One is likely to begin the piece projecting the top right-hand voice most prominently. The top voice can successfully remain dominant throughout the piece, though bringing other voices into dynamic prominence from time to time can create more interest. Regardless of the dynamic levels, all voices should be practiced separately, enough to ensure that each voice acts with logic and independence.

Seething

“Seething” is meant to express the emotion of a person filled with intense, pent up anger. To convey the appropriate mood, the tempo is fast and the piece remains loud throughout. Cowell marked *Allegro* at the beginning, with a long *poco a poco accel.* to *Presto*. The dynamic starts *f*, with the instruction *passionately* (see Example 3-22). Following brief back and forth crescendos, there is a crashing *sfz* leading to *ff* at measure 12,

Presto. The marking *sf* appears many times in the presto section. It is worth noting that when *sf* appears there are also accents written for both hands at the same time, perhaps to further emphasize the importance of sharp strength (Example 3-20).

However, in measure 16, the accents appear on upbeats four times in the left hand as the motive frequency simultaneously doubles to create more emotion and intensity (Example 21).

This movement is in binary form. The A section extends from the opening to measure 11, with the B section from measure 12 to the end. *Seething* has only nineteen measures in total, while the time signature changes very frequently, seven times in all. Within that span is 3/4 time, 4/4, 3/4, 4/4, 3/4, 2/4, and 3/8. This frequent change of meter aids in the expression of frustration and mood swings. But even within each single time signature, the rhythm sounds unstable. For example, in the opening three 3/4 measures, the septuplet appears six times.

In measure 1, seven sixteenth notes cover one beat, while the second septuplet motive is in eighths across two beats. The second measure repeats this pattern. Then in the third measure the septuplets appear to be the same but are actually two groups condensed into one measure-long triplet, each group thus covering one and a half beats while the left hand adds further complexity with four quarter-note chords (Example 3-22).

Allegro
Piano
f passionately

Allegro
sva.....!

Practice and Performance Suggestions

Playing a variety of rhythmic patterns that are in constant change is a main challenge for this piece. Along with the rhythm, there is the need to keep a steady meter. Many players, for example, may fail to play the second and third beats of the first measure with sufficient extension of time, even though the right-hand plan of the opening is simple enough to execute—seven fast sixteenth notes followed by seven slower eighths, then repeated in the second measure. The third measure is a hemiola in two beats, again altering the speed of the seven notes. (Example 3-23)



Meanwhile the left-hand accompanying chords continue to alternate patterns as well, and it is sometimes difficult to match its rhythms with the right hand.

With a fast tempo, it is useful to practice at times with a very heavy downbeat, lightening the remaining beats of each measure. By temporarily minimizing the effect of the rhythmic confusion, one can focus attention on keeping each measure identical in consumed clock time. In this manner the brain will learn more quickly as well, since groups of notes are easier to perceive and retain than individual notes. The opposite is also required, of course, practicing slowly to successfully place each note in its exact spot.

Certain measures are more complex than others, such as mm. 8 and 9 (Example 3-24).



The right hand must execute three sixteenth-note patterns of four notes in measure 8, followed by three of seven notes in measure 9. Meanwhile, the left hand plays three five-note patterns across the two bars with the middle one straddling both.

In keeping with the title, there is need for much energy and passion. This must be carefully paced in the long acceleration beginning at measure seven, as it soon encounters the pounding of repeated left-hand chords and a crescendo leading to the still faster *Presto*, where the chords are foreshortened to add additional acceleration (for engines, the turbo affect). The piece concludes abruptly with a broad *molto rit.* and a very strong *sff* chord. *Seething* goes by very quickly, and performers need to take care that their emotions don't push the tempo and volume to a point where the accuracy of notes, rhythms and articulation becomes lost in a prevailing noise.

CHAPTER FOUR

JOHN CAGE'S THE PERILOUS NIGHT

John Cage coined the term prepared piano and credited Henry Cowell. Cage was greatly inspired by Cowell's experiments with string piano. In the *Construction 1* Cage used some extended techniques pioneered by Cowell, such as having the pianist sweep the lower strings with a gong beater or play on the keys with one hand while muting the strings with the other.⁴⁵ In *Construction 2*, the pianist mutes the strings of two low notes with the fingers of the left hand. In addition, Cage asks the pianist to play trills on the keyboard while sliding a metal cylinder along the strings.⁴⁶ Cage used a technique in *Construction 2* that he employed often in later works. He instructed the player to insert a screw between the strings of the note middle C. Cage may have used Cowell's terminology and techniques in the two *Constructions*, which he then extended and developed in a new way.⁴⁷

A prepared piano uses weather stripping, bolts, screws, mutes, rubber, bamboo, rubber pencil erasers, and/or other objects inserted at particular points between or on the strings to alter its pitches, timbres and the dynamic responses of individual notes.⁴⁸ The timbres and pitches of the piano change dramatically when preparations are introduced.

The first known appearance of prepared piano in music history was Erik Satie's *Piège de Méluse* in 1913. In the piano version, the pianist slid sheets of paper between the strings for a more mechanical sound to imitate a monkey puppet which figured in the play. Percy

⁴⁵ Nicholls, David. *American Experimental Music*. New York: Cambridge University Press, 1990. pp 164

⁴⁶ Ibid

⁴⁷ Miller, Leta. "Henry Cowell and John Cage: Intersections and Influences, 1933–1941." *Journal of the American Musicological Society* 59, no. 1 (2006): 47-112. Accessed April 22, 2020. doi:10.1525/jams.2006.59.1.47.

⁴⁸ Edwin M. Ripin and Hugh Davies, "Prepared Piano," in *Grove Music Online*. Oxford, Oxford University Press, 2007-2013, <http://www.oxfordmusiconline.com.ezproxy1.lib.asu.edu/subscriber/article/grove/music/22300> .

Grainger also experimented with the strings of the piano, in his work *In a Nutshell Suite* (1916). It requires the pianist to hit strings with a beater. A mechanical device attached to the strings called the luthéal (patented 1919) could extend the possibilities of the register of a piano, creating instrumental color effects. Maurice Ravel used the luthéal for the accompaniment to *Tzigane* and *L'Enfant et les sortilèges* in 1924, “which adds two treble and two bass stops to a normal grand piano; these provide, separately and in combination, additional timbres resembling cimbalom, harpsichord and lute or harp, created by placing suspended metal bolts and additional felt dampers in contact with the strings.”⁴⁹ Cage first prepared a piano when he was commissioned to write music for *Bacchanale* in 1938, a dance by Syvilla Fort. Cage had been writing for a percussion ensemble, but the hall where Fort’s dance was to be staged had no room for a percussion group. The only instrument available was a single grand piano, so he decided to change the piano itself by altering the strings. He found that screws and weather stripping placed between the strings would completely change the sound, turning it into a percussion orchestra.⁵⁰ In *Bacchanale*, he implemented this idea by placing a small bolt between the second and third strings and weather stripping between the first and second strings for other notes. The collection of twelve preparations, which Cage termed a gamut, made the piano sound as if it was a small percussion ensemble.⁵¹ Gamut technique means that a collection of sonorities (single pitches, intervals, chords and aggregates) are prepared, each voiced in a specific way. In the

⁴⁹ Davies, Hugh. "Instrumental modifications and extended performance techniques." *Grove Music Online*. 2001; Accessed 14 Apr. 2020.
<https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/om-o-9781561592630-e-0000047629>.

⁵⁰ John Cage, “John Cage: An Autobiographical Statement,” The John Cage Trust at Bard College, Annandale-on-Hudson, New York, Last modified 1991
http://www.johncage.org/autobiographical_statement.html .

⁵¹ David Nicholls, *The Cambridge Companion to John Cage*, pp.78. New York: Cambridge University Press, 2002.

latter work, he suggested placing sheets of paper between the hammers and the strings of an upright piano. Some Classical, Pop, and Jazz pianists used tacks in the piano. This kind of piano is called a tack piano, jangle piano, junk piano, or honky-tonk piano. Tacks or nails are placed on the hammers of the piano to give the piano a more percussive sound. Another method of achieving the percussive sound without using real tacks is through the use of lacquered hammers in the piano. Glenn Gould experimented with the tack piano on the Steinway piano, which he called a harpsipiano. He played on a harpsipiano in the cadenza of Bach's Brandenburg Concerto no.5 in 1962. Prior to that, American composer Lou Harrison experimented with the tack piano in his Symphony No. 2, Solstice and May Rain (1942). Ragtime and blues pianist Johnny Maddox recorded The Crazy Otto Medley with a tack piano in 1955.⁵²

Many of Cage's works for prepared piano were composed to accompany modern dance. He also composed several large-scale prepared piano works for dance, in addition to solo concert music containing more contrasting materials and offering a far broader range of expression.

The Perilous Night is Cage's first large-scale concert work for prepared piano. He wrote it in 1943-44 while living in New York City. The title refers to a collection of Irish folktales, more specifically an Irish myth concerning a "perilous bed" on a slippery jasper floor.⁵³ It also evokes a line from Shakespeare's *Julius Caesar* where Cassius, the instigator in the conspiracy against Caesar, says: "For my part, I have walked about the streets,

⁵³ Edward Crooks, "Perilous Nights and Shaggy Nags: The Influence of Joseph Campbell on John Cage," *Journal of Black Mountain College Studies*, 4 (Spring 2013), "3. Case Studies," para. 1, <http://www.blackmountainstudiesjournal.org/volume-iv-9-16/edward-crooks-perilous-nights-andshaggy-nags/>

submitting me unto the perilous night....” In Cage’s words, “The Perilous Night concerned the loneliness and terror that comes to one when love becomes unhappy.” *The Perilous Night* involves great timbre, dynamic and rhythmic variety, such as monochrome timbres, gently shifting colors, and complex perpetual motion rhythms through interplay of timbres.

Differing from his earlier work *Bacchanale*, Cage has specific instructions regarding articulations, precise tempo markings, and pedaling in *The Perilous Night*. Cage wrote metronome markings for each movement: 176, 92, 80, 80, 92, and 176. They are organized as a palindrome. There are 26 notes prepared with rubber, weather stripping, screws, nuts, bolts, bamboo, wood, and cloth. Altering piano tones by preparing the strings with various objects is a complicated matter. Cage did not specify the material and size of the objects, so these decisions are left to the player through experimentation with the various sounds produced.

The First Movement

The first movement is based on a story about knights: “A number of knights had to experience the perilous bed before getting access to a lady.”⁵⁴ The piece has 100 measures that are divided into eight units by double bar lines. Excepting units 6 and 7, all have the seventh measure silent. (Example 4-1)⁵⁵

⁵⁴ Joseph Campbell, *The Power of Myth* (New York: Anchor Books, 1990), quoted in Gynocentrism, “The Myth of the Perilous Bed,” WordPress, October 6, 2013, <https://gynocentrism.com/2013/10/06/the-myth-of-the-perilous-bed/>

⁵⁵ Cage, John. *The Perilous Night*. Henmar Press Inc. New York. 1960

The image shows two systems of musical notation for piano. The first system, labeled 'm1' and starting at measure 176, features a right-hand melody with a forte fortissimo (*ff*) dynamic and a left-hand bass line with a forte (*f*) dynamic and a fermata over the first two notes. The second system, labeled 'm6', shows a more complex texture with dynamics *mf*, *ff p*, and *f* in the right hand, and *p* and *pp* in the left hand.

The entire first movement is composed on six notes presented in the first three measures (Example 4-1). They are modified by wood, cloth, screw, weather stripping, bamboo slit, and rubber preparations.

Preparation Suggestions

In measure 1, the F and D in the low register are to be prepared. For F, the author experimented with various types of wood placed between the strings, finding that each type created a different sound. In the end, a hard wood, North American cherry was chosen over pine because of its brighter sound. For the cloth, wool was preferred over cotton because of a superior timbre and ease of trimming. The D pitch calls for a screw and weather stripping. After trial and error, #8x2 proved to be the best sized screw; if the screw is too thin, it can easily fall under the strings, while too thick diminishes the length of time that the strings will vibrate. Copper was chosen over steel because of its superior

warmth and purity. For the weather stripping, 3/4"x7/32"x2.25-inch rubber foam was ultimately used because it was neither too soft or hard in texture.

The bolt is also an object to be applied in this movement. Bolts come in many shapes, such as hex bolt, flange bolt, carriage bolt, shoulder bolt, eye bolt, anchor bolt. Heavier bolts will lower the pitch more than light ones. The author recommends using either a hex or flange bolt, which fit better between the strings. Copper is still recommended over steel.

Practice and Performance Suggestions

The rhythm of this movement appears uncomplicated, but the player needs to count very carefully for precision and steadiness (especially regarding the rests). Example 4-2 highlights one of the passages where mistakes of rhythm and accuracy are more likely to occur in fast tempo.

(Example 4-2)

The image shows a musical score for a piano piece, labeled 'm11' at the top left. It consists of two staves: a treble clef staff (right hand) and a bass clef staff (left hand). The right hand staff contains a sequence of eighth notes with dynamic markings: *p* (piano), *f* (forte), *p* (piano), and *f* (forte). The left hand staff contains a sequence of notes, with a box highlighting the first three measures. The dynamic markings for the left hand are *mf* (mezzo-forte), *mf* (mezzo-forte), and *p* (piano). The notes in the boxed area are: a half note G2, a quarter note A2, and a quarter note B2.

Playing the off-beat eighth notes in the right hand is particularly challenging. For small hands, it is possible to use the right hand to help with the tenths, e.g. measure 40 (Example 4-3)

m36 m40

In measures 39 and 42, the dotted quarter notes must be counted carefully (Example 4-4).

Throughout there are many missing downbeats where notes are tied over bar lines (Example 4-5).

Example 4-4:

m36

m41

Example 4-5:

Musical score for Example 4-5, measures 51-54. The score is in 4/4 time. The right hand (treble clef) starts with a dynamic of *f* and plays a melodic line with eighth and quarter notes. The left hand (bass clef) plays a steady eighth-note accompaniment with a dynamic of *mf*.

It is recommended to train oneself to feel these beats strongly inside without forming the habit of tapping the foot or grunting, thereby producing unwanted sounds. Once such bad habits are in place, they can be difficult to erase.

In measures 85 and 86, the right-hand thumb can play the upper note of the tenth interval to maintain accuracy and tempo (Example 4-6).

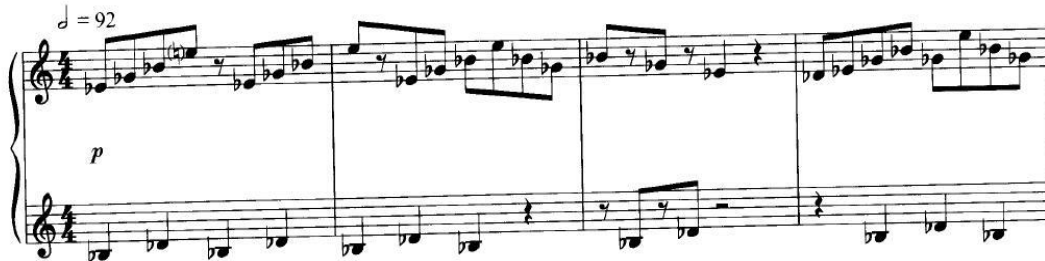
Musical score for Example 4-6, measures 81-86. The score is in 4/4 time. Measures 81-84 show the right hand (treble clef) playing a melodic line with a dynamic of *mp*, and the left hand (bass clef) playing a steady eighth-note accompaniment with a dynamic of *mf*. Measures 85-86 show the right hand playing a melodic line with a dynamic of *f*, and the left hand playing a steady eighth-note accompaniment with a dynamic of *mp*.

The dynamic range is very wide in this movement, from lightest *ppp* to strongest *fff*. Cage often requests quick dynamic changes (e.g. measures 8 to 15), and it is important

for the performer to execute all of them precisely. It is also important to note the differing dynamic levels between the hands.

The Second Movement

The story describes the polished jasper floor and the bed; as the knight tries to get on the bed, it constantly rolls away from him.⁵⁶ This movement consists of six-measure phrases, and all notes are written in the treble clef. As with the first movement, the primary six notes are presented early, this time in the first measure (Example 4-7).



Despite Cage's use of a six-note motive for both the first and second movements, the pitches are different, and the application of different objects on the strings creates totally different timbres and colors. Also, unlike the first movement which remains on the same six pitches throughout, the second movement adds four new pitches at measures 12 and 13. There are a total of 36 measures in six units, each with an equal number of six measures.

⁵⁶ Edward Crooks, "Perilous Nights and Shaggy Nags: The Influence of Joseph Campbell on John Cage," *Journal of Black Mountain College Studies*, 4 (Spring 2013), "3. Case Studies," para. 1, <http://www.blackmountainstudiesjournal.org/volume-iv-9-16/edward-crooks-perilous-nights-andshaggy-nags/>

Preparation Suggestions

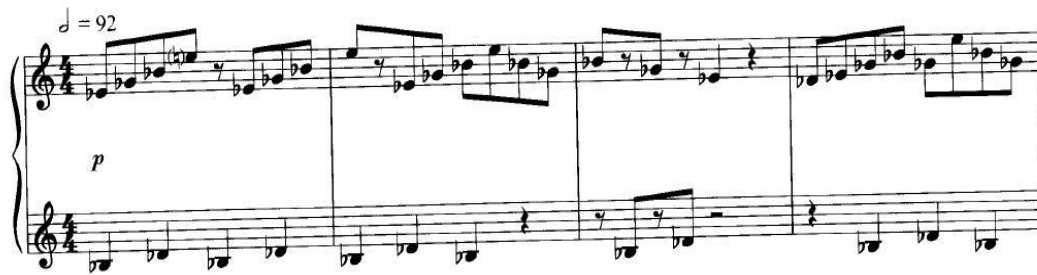
The second movement is prepared by bamboo, weather stripping, screw and nuts, bolt, double weather stripping, and rubber washer preparations. The screw, bolt, weather stripping, bamboo slit, and rubber have already been discussed with the first movement. For the second and remaining movements, the same selected objects can again be used as required. The new objects for this movement are the nuts and rubber washer.

There are many kinds of nuts, such as hex nuts, lock nuts, coupling nuts, castle nuts, machine screw nuts, jam nuts, and flange nuts. Nuts are used by passing a screw through and then applying the screw between the strings. The size has a significant impact on the timbre (i.e. larger nuts make more noise in loud playing). For the material, choices include Zinc - plated Steel, Stainless Steel, and copper. In this case the material does not seem to make much difference, though copper might be the best choice for consistency.

The rubber washer must be selected to fit the screw size. Thickness and width is something the player needs to consider. Double weather stripping can be twice the thickness or twice the width. Twice the thickness between the two strings is very tight, so that the strings barely vibrate. Twice the width will take up more area, but it will not be as tight, so the continuity of sound is better. The author prefers the double width.

Practice and Performance Suggestions

The entire second movement has one repeated motive with eighth notes and quarter notes (Example 4-8).



It is most important to maintain a steady speed throughout. Although one might assume this to be easy, machine-like regularity does not come naturally to some performers, and must be rehearsed. The time signature is 4/4, but with a metronome marking of 92 applied to the half note, it seems the composer may desire the feeling of two beats per measure.

In measures 19-24, the right hand misses the downbeat every two measures, requiring the left hand to maintain pace by providing the needed accent (Example 4-9).



It is important to follow the dynamic markings, beginning *piano* and making a carefully graded *crescendo* with the solo right hand between measures 13-19. At measure 19 the left hand joins in *forte* to create the climax of the movement. Throughout it is necessary to keep the eighth notes absolutely steady, with evenness and consistent articulation. The diminuendo from measure 25 to the end must be precise and as perfect as possible for maximum effect.

The Third Movement

The third movement contains 12 units, each with a corresponding 12 measures, doubling the numbers of the second movement. Each unit stops on long notes, creating a similar effect with the empty measures of the first movement. The movement originally introduces six new pitches, as was the case for the first and second movements. However, while the first movement remained with just six pitches throughout, and the second movement added four more pitches for the second half, the third movement quickly reaches a total of 19 pitches by the end of the first unit. From this we see an expansion from movement to movement.

Practice and Performance Suggestions

Here are some points to note with the third movement. First, the performer should pay special attention to use of the *una corda*, indicated in the score by dotted lines under the bottom staff. The left pedal must be used accurately, because as the hammers are shifted to the right they strike only the second and third strings, changing the timbre.

(Example 4-10)

For example, the E in the right hand of measure one is modified by weather stripping between strings 1-2 and screw and nuts between strings 2-3. The note has appeared in the second movement without the left pedal, enabling the full mixed sound of weather stripping, screw and nuts. But in the third movement, only the strings modified by the screw and nuts will sound when the left pedal is applied. The performer needs to release the left pedal exactly on the B in measure three to immediately change the tone color as the composer wished.

The first two movements are mostly played non-legato, but this movement contains many slurs (Example 4-11).

It's more difficult to play legato on a prepared piano because the sound is more percussive and detached, requiring greater connecting care from note to note through a deeper touch and/or a delay in releasing the previous note. The movement is primarily soft (*ppp*, *pp*, *p*, *mp*), with only a few notes in forte range. Good finger control is required so that the occasional punctuation provided by accents and sudden forte sounds are fully effective (Example 4-12).

m20

f *pp* *f (sub.)*

..... = una corda

Perhaps the greatest complexity is found in measures 30-39, where many quick changes are encountered (Example 4-13).

m30

ppp *p* *pp*

m35

ppp *p* *mp* *mp* *p* *pp*

In measure 30 the performer needs to take care to play each hand at a different level of softness. The left pedal is quickly applied for measures 31-32 and 37-38, and in measure 38 the right pedal needs to be applied as well.

Unexpected rest delays along with some offbeat accents create an unstable feeling in measures 76-84 (Example 4-14).

The image shows two systems of musical notation for piano. The first system, labeled 'm76', consists of five measures. The right hand (treble clef) has a melodic line with accents and rests, while the left hand (bass clef) has a rhythmic accompaniment with eighth notes and rests. The second system, labeled 'm81', consists of four measures. The right hand has a melodic line with accents and rests, and the left hand has a rhythmic accompaniment with eighth notes and rests. The notation includes various musical symbols such as accents, rests, and dynamic markings.

The same occurs earlier in measures 54-60. It is important for the pianist to stay loose so that the switches between onbeat and offbeat accents come through rhythmically, and the rest stops executed precisely.

The Fourth Movement

There are seven units in the fourth movement, and each unit has seven measures. The entire movement contains only four pitches: the right hand repeats G flat and E flat through an eighth-note ostinato, while the left hand repeats D and F in half notes and whole notes (Example 4-15).

The ceaseless repeated notes which are set at an eery *ppp/pp* volume create a threatening and tense atmosphere. “It’s not finished yet. Keep your amour on and keep your shield over yourself”.⁵⁷

Practice and Performance Suggestions

Once again, performers should not underestimate the challenge of maintaining steady and uniform lines for an extended period of time, or the state of relaxed calmness that is required. Throughout the movement, all eighth notes of the right hand must be kept at *ppp* without the slightest accent or tempo change, save for a *poco crescendo* and *diminuendo* at the end. To achieve this goal, it is helpful to keep the fingers close to the keys with minimal movement. The left hand carries the embryonic melody line, which should be played a bit louder than the right hand as instructed. An alternating

⁵⁷ Campbell Joseph, *The Power of Myth* (New York: Anchor Books, 1990), quoted in Gynocentrism, “The Myth of the Perilous Bed,” WordPress, October 6, 2013, <https://gynocentrism.com/2013/10/06/the-myth-of-the-perilous-bed/>

four-note/three-note pattern is formed. Within its *pp* dynamic range, the author suggests applying a small rise and fall in the left hand to enhance the line and create some shape (see Example 4-15).

The Fifth Movement

The fifth movement is very short and includes only two units, each with 12 measures. Even though brief, we observe ideas from previous movements. For example, the beginning two measures of this movement (Example 4-16) resemble measures 31-32 of the first movement with its repeated single eighth notes and strong accents (Example 4-17).

Example 4-16: 5th movement

m1 ♩ = 92

fff

p

pp

Example 4-17: 1st movement

m31

ff

ff

mp *pp*

p

mp

The eighth notes in measures 3-4 of the fifth movement (and again in mm. 10-11) reflect the right-hand alternating eighths of the fourth movement, while taking their pitches (D and F) from the left-hand part (Example 4-18: 4th movement):

Example 4-18: 4th movement. Musical score showing piano (ppp) and *legatissimo* markings. The tempo is marked as quarter note = 80. The score shows measures 3 and 4 with eighth notes in the right hand, and rests in the left hand. Dynamics include *ppp* (legatissimo) and *pp*.

The idea of the fifth movement's silent measures (Example 4-19) comes from the first movement, measure seven, as well as measures 14, 21, etc. (Example 4-20).

Example 19: 5th movement

Example 4-19: 5th movement. Musical score showing measures 15-18. The right hand has rests in measures 15, 16, and 17, followed by a chord in measure 18. The left hand has rests in measures 15, 16, and 17, followed by a chord in measure 18. Dynamics include *mp* and *fff*. There are also markings for R. L. R. in the right hand.

Example 4-21: 1st movement

Example 4-21: 1st movement. Musical score showing measures 6-9. The right hand has a melody with dynamics *mf*, *ffz p*, and *f*. The left hand has a bass line with dynamics *p* and *pp*. There are also markings for *mf*, *ffz p*, and *f* in the right hand.

Practice and Performance Suggestions

This movement is a violent moment in *Perilous Night*. The dynamics change abruptly and dramatically, and while the movement is short, it involves the loudest sounds of the entire set. “Arrows and crossbow bolts pummel him- bang, bang, bang, bang. Then a lion appears and attacks the knight, but he cuts off the lion’s feet, and the two of them end up lying there in a pool of blood.”⁵⁸ Performers should keep the text in mind to convey the proper image.

The assault is established immediately with the beginning phrase (see Ex. 4-16), and its relentlessly accented *fff* opening is followed abruptly with *p* and *pp*. To display brutality, it is preferable here to avoid shaping the accented tones, while sensitively phrasing the legato *p* and *pp* eighths; one wants to experience maximum contrasts. The *piano* eighth notes of measures two and three are difficult for smaller hands to negotiate due to the stretch involved, as are measures six, eight, and the chords in measures 14, 16, and 18. The author recommends dividing notes between the hands for more comfortable and accurate execution.

Measures 11 to 18 offer the lightest portion of the movement, with *ppp* and *pppp* (Example 4-22).

The image shows a musical score for Example 4-22, measures 11 to 18. The score is in bass clef and shows a sequence of notes and rests. Measure 11 starts with a piano (p) dynamic. Measure 12 has a piano (p) dynamic. Measure 13 has a piano (p) dynamic. Measure 14 has a piano (p) dynamic. Measure 15 has a piano (p) dynamic. Measure 16 has a piano (p) dynamic. Measure 17 has a piano (p) dynamic. Measure 18 has a piano (p) dynamic. The score is marked with m10 at the beginning and ppp and pppp dynamics.

⁵⁸ Campbell Joseph, *The Power of Myth* (New York: Anchor Books, 1990), quoted in Gynocentrism, “The Myth of the Perilous Bed,” WordPress, October 6, 2013, <https://gynocentrism.com/2013/10/06/the-myth-of-the-perilous-bed/>

The player needs to execute these as softly as possible, being certain to count the entire lengths of the rests in order to give full meaning to the moments of silence

As it emerges from the great quietude, the *fffz* half note E must be startling, along with the four Gs that follow. At the same time, the performer must play the upper staff at a true *mp* dynamic, again to maximize contrast. Note that from measure 19 to the end, as the left hand plays *fffz* half-notes with added accent marks, the right hand plays *mp*, and this contrast needs to be extensive (Example 4-23).

The top notes should not only be light, but extremely even, with the notes of the chords played precisely together.

The Sixth Movement

The sixth and longest movement includes 9 units, each with 18 measures. There are two lines of single notes with no chords. The top line contains only four notes: D, E, B, and E counting up from the 4th line D of the treble clef. The center of activity is the lower two of these notes, and there are only eighth notes until the final two units, where the pace is slowed with interspersed half notes in unit 8, and dotted half notes followed by whole notes in unit 9. The bottom line is built on six notes throughout: E, F, Ab, Bb, D, F counting up from the fourth ledger line below the bass staff. Unlike the top line, the left hand frequently comes to rest on long tones. The two parts provide some syncopation (Example 24), reminiscent of the second movement (Example 4-25), and are of two distinct timbres: woodblock in the right hand, metallic in the left.

Example 4-24: 6th movement

♩ = 176 (or faster)
8va sempre
mp
mf mp mf mp

Example 4-25: 2nd movement

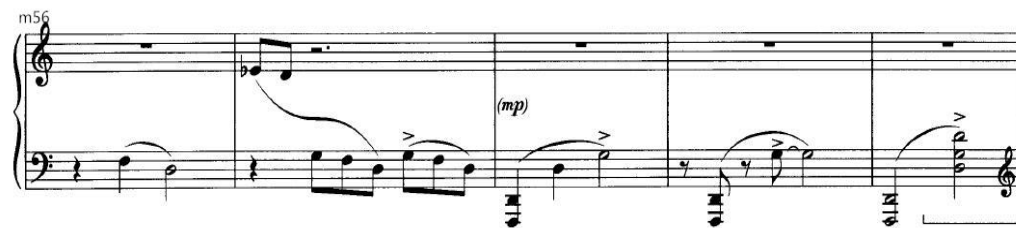
m33
pp pp

There is a lot of three-note hemiola activity in the left hand beginning with measures 5-6 (Example 4-26), which seems to extend from measure 57 of the third movement (Example 4-27).

Example 4-26: 6th movement



Example 4-27: 3rd movement



The repeated eighth notes with interspersed rests in the right hand of measures 59-60 (Example 4-28), duplicated in mm. 62-63, reveal the same offbeat feature as measures 11-12 and 15-16 of the first movement (Example 4-29).

Example 4-28: 6th movement



Example 4-29: 1st movement

m11

This movement could perhaps be seen as a reprise of previous movements, not unlike what Ravel presented in his final movement of *Valses nobles et sentimentales*. Although each movement has a distinctive sound and characteristic, we can see the motives continuing to develop. The last movement is like a conclusion, with the fragmented ideas from previous movements flowing into one another in a smooth and flawless way.

Preparation Suggestions

In this movement, there are two kinds of objects: screws and weather stripping, which are both applied between the same two strings. The distance between the two strings is relatively wide in the very low register, so objects tend to fall from the strings. Because screws have less friction than weather stripping, they fall from the strings more easily, so it is important to select stripping that is no thicker than the screw size. If the screw is placed in first, one can determine how thick the weather stripping should be.

Practice and Performance Suggestions

Compared with the first five movements, the sixth is more complex with respect to rhythm, emotion, articulation, dynamic changes, etc. From the beginning we can see the

contrasting characters of the two hands, which must simultaneously execute opposing dynamics and articulation (see Example 4-24). It is often helpful in the learning process to exaggerate differences, as one might do to master a basic body coordination exercise (e.g., tapping on the head with the right hand while rubbing the stomach with the left). This suggests pulling the right-hand *mp* down to *pp* and pushing the left-hand *mf* up to *ff*, as well as to extend the legato notes so they overlap while sharply releasing the right-hand keys to a staccato touch. It may be difficult to feel the coming together of the hands in measure two, but with the implied hemiola it is appropriate to shift the pulse to where the hands come together. In measures five and six the left-hand hemiola is in full evidence, as indicated by slurs. Cage creates a captivating rhythmic interest by juxtaposing three-note groups with slurs of both shorter and longer lengths, in a varying pattern (Example 4-30).



Beginning with measures 22-23, the use of the left-hand tie increases, while the two-note slurs are often written on off-beats starting at measures 18-19 and 23-24 (Example 31).

The image shows two systems of musical notation for piano. The first system, labeled 'm17', contains measures 17 through 20. The right hand has a melodic line with slurs and accents, while the left hand provides a rhythmic accompaniment. Dynamics are marked as *f*, *mf*, and *f*. The second system, labeled 'm21', contains measures 21 through 24. The right hand continues the melodic line with dynamics *mf*, *p*, and *f sub.*. The left hand continues the rhythmic accompaniment with dynamics *p* and *f*.

It is always crucial to avoid any tightening of the body when rhythms and accents become complicated in such spots. Providing strong down-up wrist motions for these two-note slurs will help to provide the required accents in a natural manner, while allowing the right-hand patterns to be more easily executed with their opposing pulses. The tied notes require special attention in performance so as to be counted properly, and the player must feel the pulse when holding notes over primary beats.

Measures 29-32 and 33-36 present continued challenges, with the need to count precisely to avoid “running off the rails”. Once again the left hand must be trained to use wrist motion for a more automatic execution of the off-beat pulses, as well as to anticipate the *sf* ninths. The dynamics must be carefully observed: *mf (sub)* in the right hand juxtaposed with *p* in the left (Example 4-32).

In measures 50-52, the dynamic changes frequently, requiring special attention (Example 4-33).

At measures 62-64, the composer introduces an off-beat eighth-note pattern of high E's in the right hand to further complicate execution of the left hand hemiolas (Example 4-34).

m61

mp

In measures 69-72, the left hand's alternating two and three-note patterns have accents on all F's but none on the lower D's, which may require slow preparation to combine comfortably with the right-hand part (Example 4-35).

m69

cresc. poco a poco

f

In measures 85-90 (and earlier 76-81), the rhythm appears simple, but actually has many awkward upbeat in the right hand to coordinate with the alternating left-hand patterns including ties (Example 4-36).

m85

f

It is easiest if the player lets one hand dominate, which in this case would be the left with its melodic line and lengthy legato.

Once again there is an important dynamic sequence that needs perfection in measures 90-91 (Example 4-37).

Example 4-37 shows a musical score for measures 89-91. The score is in treble and bass clefs. Measure 89 starts with a treble clef and a bass clef. The treble staff has a series of eighth notes, and the bass staff has a series of eighth notes. Dynamic markings include *(pp)*, *mf*, and *ff sub.* in both staves.

Measure 127 slows the pace due to the half-note quintuplet, but the player has to be careful that the speed of the beats doesn't change. In making this transfer it is helpful to feel only one heavy downbeat in the preceding measures, along with measure 127 itself. The different dynamic levels must be observed, and it is worth mentioning that the right-hand notes are prepared by rubber, so it is challenging to play them at *mf*. The performer needs to use the full relaxed weight of the wrist and forearm (Example 4-38).

Example 4-38 shows a musical score for measures 125-127. The score is in treble and bass clefs. Measure 125 starts with a treble clef and a bass clef. The treble staff has a series of eighth notes, and the bass staff has a series of eighth notes. Dynamic markings include *p sub.*, *mf*, and *p* in the treble staff, and *pp (sempre)* in the bass staff.

As noted, the dynamics of this movement change quite frequently. Areas of complexity needing special preparation include measures 1-4, 9-14, 22-24, 37-40, 50-52, 81-84, etc.

Cage is not always entirely clear about the size, length, and placement of the materials to be put into the strings for *Perilous Night*. This may be for the best. Each individual instrument has timbres of its own, and the materials added will create further timbres that are not easy to anticipate perfectly. Therefore, the performer's preparation work is quite important, complicated and time-consuming. Unless Cage gives instructions to do so, the materials cannot touch other strings. As for the location of materials, performers must make appropriate adjustments according to the structure of each piano, to produce the desired tone. They must rely on their own ears to decide what sound is best, and even with specific location instructions, experimentation is needed. Besides the location of materials, different piano sizes must be considered, along with the acoustic of each specific environment. It is well to have backup materials ready to go, including different sizes in case needed. Finally, since placing foreign materials into a piano is a very serious matter, the performer must be extremely careful to avoid the possibility for any potential damage!

CHAPTER FIVE

THE SIGNIFICANCE OF HENRY COWELL AND JOHN CAGE FOR TWENTIETH CENTURY MUSIC

The first half of the twentieth century in America was a period of much expansion and innovation in music, resulting in a number of important movements. One of these was jazz, with works by George Gershwin and others influencing more traditional composers from Maurice Ravel to Dimitri Shostakovich and beyond. Another strain was atonal music and the tone row, championed by Arnold Schoenberg and his disciples while affecting even composers who didn't follow their ideas. Cowell and Cage were leaders of yet another movement, which sought to expand and alter the basic physical sounds of traditional Western music.

From the time of the piano's invention, performing technique was a matter of producing sounds by playing on the keys with the fingers. Timbral changes were mostly determined by the player's own touch. Besides Cowell and Cage, composers like Edgard Varèse, George Antheil, Charles Ives, Erik Satie and Ravel had broader visions for piano sound, expanding techniques and even using objects to alter the instrument. Some of these objects were very simple, like placing a piece of paper on the strings (Satie and Ravel) or using a 14-inch piece of wood to play clusters (Ives). It was Cage who expanded this technique to a fully "prepared" piano. Cowell often requested that the technique of the fingers be broadened to include the palms and forearms, sometimes playing directly on the strings.

The influence of Cowell and Cage upon music of the twentieth century is substantial, incorporating not only new forms of music but also having notable effects on traditional

forms. One of those attracted to Cowell was Béla Bartók, who actually asked Cowell's permission to use tone clusters in his work. The many examples of clusters include the *Piano Sonata* (1926), 3rd movement (Example 5-1):

The image shows two staves of musical notation. The top staff is the right hand, featuring a series of chords with some notes marked with an '8' and a dotted line, indicating an octave. Dynamic markings include *f*, *mf*, *f*, and *mf*. The bottom staff is the piano part, with a *cresc.* marking and dynamic markings of *ff* and *f*. The tempo is marked 'Tempo I.' and the time signature changes from 3/4 to 2/4.

Another example from Bartók is in the second movement of his *Piano Concerto No. 1*, also composed in 1926 (Example 5-2):

The image shows two staves of musical notation. The top staff is the right hand, with a boxed measure number '11' above it. The bottom staff is the piano part, marked 'Pfc.'. Both staves feature complex chordal textures with many notes. Dynamic markings include *ff* and *f*. The notation includes various accidentals and articulation marks.

Other piano composers of the twentieth century who used the palms, fists or forearms to make clusters include Serge Prokofiev (e.g., *Concerto No. 3*, *Sonata No. 6*), Karlheinz Stockhausen (who, in *Klavierstück X*, created cluster glissandi), György Ligeti's *Atmospheres*, and Alfred Schnittke's *For Liverpool*.

The influence of Cage is likewise broad, affecting other twentieth-century movements like minimalism and reaching many composers, such as Pierre Boulez, Earle Brown, Morton Feldman, Philip Glass, Steve Reich, Karlheinz Stockhausen and Christian Wolff. In Stockhausen's *Mantra* for two pianos, the pianists play antique cymbals and wood blocks, and even operate a shortwave radio or tape recorder. British composer Cornelius Cardew worked on indeterminacy and the prepared piano in his early works during mid-twentieth century. Many of Philip Glass's early works were based on the extended reiteration of brief melodic fragments similar to *Perilous Night*, such as *Glassworks No.1: Opening*, *Metamorphosis One to Metamorphosis Five*, *Modern Love Waltz*, *Dance from Akhnaten*, etc. Steve Reich also has used repetitive figures, such as in *Music for 18 Musicians* which is based on a cycle of 11 chords. Christian Wolff worked with prepared piano, and like Cage limited his pitch classes (in *For Piano*, there are only nine pitches). More traditional piano composers also followed Cage's lead in limiting pitches, such as György Ligeti in his *Musica ricercata*.

The composers of the twentieth century spared no effort in the development of new timbres, pursuing their own unique ideas in the creative process. The development of Western Music had always focused on Europe until, in the early twentieth century, much of it moved to the United States. Henry Cowell and John Cage were two of the most compelling composers in the development of American music in the twentieth century.

Their new and innovative concepts had a considerable influence on the development of music throughout the world.

REFERENCE

- Brainard, Joan Bickford. "Henry Cowell's long arm: His innovation in twentieth century performance practice for solo piano." Stanford University, ProQuest Dissertations Publishing, 1991.
- Cage, John. "The Perilous Night". New York: Henmar Press Inc., 1960.
- Clough, Alison Rachelle. The University of Alabama, ProQuest Dissertations Publishing, 2013.
- Campbell Joseph, *The Power of Myth* (New York: Anchor Books, 1990), quoted in Gynocentrism, "The Myth of the Perilous Bed," WordPress, October 6, 2013, <https://gynocentrism.com/2013/10/06/the-myth-of-the-perilous-bed/>
- Cowell, Henry. "Three Irish Legends". New York: Breitkopf Publications, 1922.
- Cowell, Henry. "Six Ings for Piano". New York: Breitkopf & Härtel, 1922. Reprinted: New York: Associated Music Publishers, 1950.
- Cowell, Henry. *New Musical Resources*. New York: Cambridge University Press, 1996.
- Davies, Hugh. "Instrumental modifications and extended performance techniques." *Grove Music Online*. 2001; Accessed 14 Apr. 2020.
<https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000047629>.
- Dickinson, Peter. "Henry Cowell." *The Musical Times*, Vol.107, No.1476, 145. Music Time Publications Ltd. 1966
- Ferreira, Inara. "The prepared piano of John Cage: A new level of hearing the Sonatas and Interludes." ProQuest Dissertations and Theses; 2010.
- Godwin, Joscelyn Roland Jasper Chloestro. "The music of Henry Cowell." Cornell University, ProQuest Dissertations Publishing, 1969.
- Green, Miranda. *The Gods of the Celts*. Gloucester, England: Alan Sutton Publishing Limited, 1986
- Hebert, Matthew Donald. "Henry Cowell's "New Musical Resources" and rhythm: Theory and practice." University of Cincinnati, ProQuest Dissertations Publishing, 1996.
- Henry Cowell 1897-1965. *Music Educators Journal*, vol. 52, no. 4, 1966, pp. 205–205. JSTOR, JSTOR, www.jstor.org/stable/3390702

- Hicks, Michael. "Cowell's Clusters". Oxford University Press, 1993.
<http://www.jstor.org/stable/742390> "John Cage: 1912-1992."
 Computer Music Journal, vol. 16, no. 4, 1992, pp. 11. JSTOR, JSTOR,
www.jstor.org/stable/3680463.
- Johnson, Steven. "Henry Cowell, John Varian, and Halcyon." *American Music*, vol. 11, no. 1, 1993, pp. 1–27. JSTOR, JSTOR, www.jstor.org/stable/3052445
- Leta E. Miller. "Henry Cowell and John Cage: Intersections and Influences." 1933-1941.
Journal of the American Musicological Society 59, no. 1 (Spring 2006): 47-111.
- Leta E. Miller. "The Art of Noise: John Cage, Lou Harrison, and the West Coast Percussion Ensemble." *Perspectives on American Music, 1900-1950*. New York: Garland, 2000.
- Lichtenwanger, William. *The Music of Henry Cowell: A Descriptive Catalog*, pp.55
 Brooklyn, NY: Institute of Studies in American Music Monographs
- Nagy, Joseph Falaky. "Talking Myth' in Medieval Irish Literature." *Eolas: The Journal of the American Society of Irish Medieval Studies*, vol. 5, 2011, pp. 80–88. JSTOR, JSTOR, www.jstor.org/stable/41585267.
- Lu, Buwei: *Lu's Spring and Autumn*. "Round Tao"
- Nicholls, David. *American Experimental Music*. New York: Cambridge University Press, 1990.
- Nicholls, David. *The Cambridge Companion to John Cage*. New York: Cambridge University Press, 2002.
- Nicholls, David, and Joel Sachs. "Cowell, Henry." *Grove Music Online*. 16 Oct. 2013; Accessed 15 Apr. 2020.
<https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-1002249182>.
- Nyman, Michael. *Experimental Music: Cage and Beyond*. Cambridge University Press, 2nd edition, 1999
- Ó Cathasaigh, Tomás. "Between God and Man: The Herò of Irish Tradition." *The Crane Bag*, vol. 2, no. 1/2, 1978, pp. 72–79. JSTOR, JSTOR, www.jstor.org/stable/30059464.

- Pritchett, James. *The Music of John Cage*. New York: The Press Syndicate of University of Cambridge, 1993.
- Revill, David. *The Roaring Silence: John Cage – a Life*. Arcade Publishing. 1993.
- Seeger, Charles. *Reminiscences of an American Musicologist*. Pp.107. Los Angeles: University of California at Los Angeles Oral History Project, 1972.
- Spaan, David B. "The Place of Manannan Mac Lir in Irish Mythology." *Folklore*, vol. 76, no. 3, 1965, pp. 180. JSTOR, JSTOR, www.jstor.org/stable/1258585.
- Weisgall, Hugo. "The Music of Henry Cowell." Oxford University Press
<http://www.jstor.org/stable/740598>
- Saxon, Kenneth Neal. "A new kaleidoscope: Extended piano techniques, 1910-1975." The University of Alabama, ProQuest Dissertations Publishing, 2000.
- Saylor, Bruce Stuart. "Ideas of Freedom in the musical thought of Henry Cowell, as seen in selected compositions and writings." City University of New York, ProQuest Dissertations Publishing, 1978.
- Stafford, Larry Dale. "A study of innovative piano technique in published works of selected composers from 1950-1975." Ball State University. ProQuest Dissertations Publishing, 1978.
- Johnson, Steven. "Henry Cowell, John Varian, and Halcyon." *American Music* 11, no. 1 (1993): 1-27. Accessed April 19, 2020. doi:10.2307/3052445.
- Thomas, Michael Tilson. "Making the Right Choices: A John Cage Centennial Celebration." Florida: America's Orchestra Academy, 2013

APPENDIX

DATA COLLECTED APRIL-JULY 2020

DESCRIPTION AND HISTORY OF DISSONANT COUNTERPOINT

The early development of dissonant counterpoint (1914–17) involved the collaborative efforts of Henry Cowell and Charles Seeger at the University of California, Berkeley. In *Reminiscences of an American*, referring to the syllabus for his course in dissonant counterpoint, Seeger wrote:

I had a syllabus for this course, but unfortunately, all copies were burned up in the big fire in Berkeley, which burned up all my records of the Berkeley period, for I had left them in a small house down on Euclid Avenue and the flames burned everything within blocks of it. Later on, in his studies abroad, Henry Cowell swears that he saw a copy on the desks of both Schoenberg and Hindemith. I know I sent copies to them, but that they were on the piano or desk of Schoenberg or Hindemith we have to leave to Henry Cowell.⁵⁹

In 1918, Seeger was fired from his job at Berkeley due to expressions of his pacifist political beliefs, and moved back to New York where he abandoned his work with dissonant counterpoint. But Cowell continued to work on the technique during the late 1910s and throughout the 1920s, disseminating it to other composers.⁶⁰ In 1929, Seeger revisited the method with Ruth Crawford at the insistence of Cowell. “Cowell and Crawford shared the technique with composers in private lessons. Cowell also taught dissonant counterpoint in college classes during the 1930s and through the late 1950s, and

⁵⁹ Seeger, Charles. *Reminiscences of an American Musicologist*. Pp.107. Los Angeles: University of California at Los Angeles Oral History Project, 1972.

⁶⁰ Nicholls, David. *American Experimental Music*, pp.92 New York: Cambridge University Press, 1990.

wrote about the technique in numerous publications.”⁶¹ The only surviving document on the early development of dissonant counterpoint is a single loose-leaf sheet in Cowell’s personal notebook entitled “Exercises for Seeger”⁶²

In an interview with Andrea Olmstead in July 1977, Seeger stated:

I had just evolved a theory of dissonant counterpoint and Henry just jumped on that. He went ahead and developed it faster than I did. I didn’t get it fully developed until 1930 when I taught my wife Ruth. That combined with the musical logic made a composition which is since called serial composition. And I worked on that in a desultory way—I had so many other things to do—up to about 1918. Then I gave up composition. I didn’t think about it anymore until ’30 again when I gave it a rethinking and Ruth and I wrote a book which has never been published, but I still have it.⁶³

Cowell’s handwritten discussion regarding the basic principle of dissonant counterpoint was written in his note book:

Dissonance is accepted for foundation of counterpoint because it is emotionally stronger than consonance and because it is the next historical step. The first counterpoint was made in the most consonant intervals: perfect 8ths, 5ths, 4ths. Next these were used very sparingly in favor of more dissonant intervals: major and minor 3ds and 6ths.⁶⁴

⁶¹ Spilker, John D. "Dissonant counterpoint." *Grove Music Online*. 25 Jul. 2013; Accessed 15 Apr. 2020. <https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/om-o-9781561592630-e-1002240654>.

⁶² Ibid.

⁶³ Charles Seeger, interview with Andrea Olmstead, July 1977

⁶⁴ Henry Cowell, *Dissonant Counterpoint Notebook*, Henry Cowell Papers, box 31 folder 4, New York Public Library for the Performing Arts; Henry Cowell, “Exercises for Seeger,” Henry Cowell Papers, box 31 folder 5, New York Public Library for the Performing Arts.

The next logical step in carrying out the principal [sic] already indicated is to use perfect intervals practically never, 3ds and 6ths only by careful preparation and use 9ths and 7ths as the foundation of to work upon.⁶⁵

The major 7th minor 2nd and the minor 9th and their inversions are used as the foundation, as these are the strongest dissonances. The minor 7, and major 2 and 9th and the aug. 4 can be used as essential intervals when it practical to use them for good voice leading or variety.⁶⁶

In three or more parts the aim is to have all parts in dissonance to each other. Between an inner and top part may be consonance if there is somewhere a diss. preferably from the bass.⁶⁷

⁶⁵ Ibid

⁶⁶ Ibid

⁶⁷ Ibid