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Some Reflections on A.I.R

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Abstract

The work of the performer, the aesthetic re-creation of the listener, and the creation of the composer all share equal importance—successful and mutual understanding is the completion of the circle of the compositional process. The author reflects on her work A.I.R. from the composer's perspective through exploration and analysis of its genesis and inspiration, its utilization of percussion instruments, and its title, all with the goal of furthering understanding for the piece's performers and listeners.

Keywords: percussion, rhythmic pattern, sound-color texture, melodic line, 'white space' in music

I. Inspiration

A.I.R. was inspired by classical Chinese dance and contemporary Western architecture. One of the features of classical Chinese dance is the meter-long water sleeve, which amazes me. It is as if each throw is a toss of emotion, and each subsequent retrieval of the water sleeve is an equally complex reflection of the events and emotions of human life. The movements of the water sleeve showcase the beauty of tenderness and big-heartedness, passing through the voice of the inner world, transmitting endless energy, and delivering endless spirit. The movements of the water sleeve in a drum dance include shaking, throwing, swaying, and swinging.

In my composer's imagination, each moment of the water sleeve provokes equivalent body language (and therefore sound) made by the percussionists. For example, I arranged the formation of major instruments for player one in such a way as to encourage (s)he to play the instruments with dance-like movements.

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Therefore, I placed a larger Chinese Tom-tom in the middle, accompanied by a smaller Chinese Tom-tom suspended on each side of the larger one, hence forming an inverted triangle. When the player beats the suspended drums, (s)he speaks with the same body language as the water-sleeve dancer. Another example: the six percussionists play in different ways at the same time, as if depicting the multidimensional personality of a dancer, who wanders amongst the six players. In this manner, I display different forms in a single parallel space and time.

Another inspiration derives from contemporary Western architecture. The Aronoff Center for Design and Art (1996) is a masterpiece by the eminent American architect Peter Eisenman (b.1932). Located on the campus of the University of Cincinnati, it serves as a teaching and administrative building for the College of Design, Architecture, Art, and Planning (DAAP). Its asymmetrical concept reflects on the meaning of disorder and uncertainty of certain movements. The whole building appears as a random, curving piling of cubes, large and small. Everything here seems to be uncertain in relation to gravity; the deflecting central axis stretches away and the irregular indoor pattern creates the visual impact of moving static forms. In this way, I was greatly inspired by the interaction of stasis and kinesis for the structure of *A.I.R.*, and thus I generated an analogous musical progression of 'stasis—kinesis—stasis'. Further, I was deeply impressed by the remarkable quality of perspective in the building, which led to parallel musical concepts of foreground, middle ground, and background.

II. Instrumentation

A. Selection and Classification [2]

Twenty-one percussion instruments are used in *A.I.R.* (see Table 1). According to their pitch, timbre, and material, five percussion instruments are categorized as 'definite pitch' and sixteen percussion instruments as 'indefinite pitch'; thirteen are idiophones and eight are membranophones; four are metal and five are wood. There is one more part that can be played either on an ocarina or a xun. The Arabic numerals in the brackets of the Table 1 indicate the number of percussion instruments.

[2] Samuel Adler , "Chapter 12: The Percussion Ensemble," in *The Study of Orchestration*(3rd ed.) (W.W. Norton & Company, Inc., 2002), 435-467

Table 1

Indefinite Pitch			**Definite Pitch**		**Others**
Idiophones		**Membranophones**	**Idiophones**	**Membra-nophones**	
Metal	**Wooden**				
Suspended cymbals (3) Cow-bells (4) Gliss gongs (2) Tam-tam (1)	Wood blocks (3) Temple blocks (3) Maracas (2) Guiro (1) Water drums (3)	Chinese Tom-tom (1) Suspended drums (2) Djembe (1) Tambourine (1) Bass drum (1) Kick drum (1) Tom-toms (2)	Vibraphone (1) Marimba (1) Crotales (5) Tubular bells (1)	Timpano (1)	Ocarina/Xun (3)

B. **Layout**

The percussion instruments are set up on stage according to practical considerations (see Table 2). Each percussionist plays two to six instruments, consisting of one or two primary and several secondary instruments. Further, the instrument—types are generally grouped together. For example, players one, two and three primarily play indefinite-pitched wooden instruments (membranophones and idiophones), as well as ocarina or xun. Players four, five and six are in charge of definite-pitched instruments (idiophones and sustaining instruments).

Moreover, to avoid unnecessary physical movement of the players due to instrument positioning, duplicate instruments are provided. The symbol (*) in the Table 2 indicates a primary instrument.

Table 2

	Indefinite Pitch			**Definite Pitch**		
	Idiophones		**Membranophones**	**Idiophones**	**Membrano-phones**	**Others**
	Metal	**Wooden**				
perc.1			Chinese Tom-tom* Suspended drums* Djembe Tambourine			Ocarina/ Xun
perc.2	Suspended cymbal	Temple blocks*	Bass drum*			Ocarina/ Xun
perc.3	Gliss gong	Wood blocks* Water drums* Guiro Maracas*				Ocarina/ Xun
perc.4	Suspended cymbal		Kick drum	Tubular bells Vibraphone*	Timpano	
perc.5	Suspended cymbal Tam-tam Cow-bells *		Tom-toms*	Crotales Marimba*		
perc.6	Gliss gong			Marimba*		

C. **Performance practice**

A.I.R. uses a wide variety of playing techniques, in order to produce a broad palette of musical colors. There are conventional instruments such as suspended drums, tambourine, kick drum, which are played in unconventional ways (see Table 3). This is evident from their positioning on the stage. Further, they can be played with sticks designed for other instruments. For example, the bass drum is sometimes played with timpano sticks (bars 2-13). Unconventional instruments are also used in *A.I.R.* For example, a small tam-tam is partially lifted up from a container filled with water, making a glissando-like sound. This is sometimes called a 'gliss gong'. Another example: the 'water drums' are small wooden drums placed inside containers filled with water. Amplification of this and other sound effects is sometimes necessary according to the acoustic properties of the performance space.

Table 3

Percussion Instruments	Conventional technique	Unconventional technique
Suspended drums	Horizontal	Suspended placement
Tambourine	Held by hand	Upside down on a table
Kick drum	Upright, played with pedal	Horizontal, no pedal needed

III. Conception

A. Structural Design

A.I.R. consists of eight sections grouped into six parts (see Table 4). The non-musical influences on the piece (the water-sleeve and the architectural ideas referred to above) had a primary impact on the design of the musical work, both in its structure and sound designs. The melody shifts from stasis in the first two parts to kinesis in the following three parts and ends up once again with stasis in the sixth part. In other words, stasis leads to kinesis, which leads back to stasis. During the sections of great movement, sound arises from 'near' to 'far', pushing events towards the climax of the piece. Stasis and kinesis find their expression in the breathing of music, the length of rhythm, and changes of frequency, timbre and rhythm.

Table 4

	Part 1	Part 2	Part 3		Part 4		Part 5	Part 6
section	A	B	C	D	A'	C'	E	F
bar no.	1-12	13-20	21-32	33-38	39-50	51-56	57-78	79-88
tempo	♩=69							
time signature	4/4	6/4	4/4		7/8, 9/8	4/4		Freely
duration	ca.50"	ca.50"	ca.30"	ca.20"	ca.35"	ca.20"	ca.1'	ca.2'
sound layer	Fore-ground	Back-ground	Middle ground	Fore-ground	Back-ground	Middle ground	Panorama	Back-ground
activity	Stasis		Kinesis					Stasis

The time signature is primarily 4/4 throughout, and the tempo (♩=69) is constant. All parts are around one minute in duration, except for the sixth part, which is twice that length. The time structure, therefore, is mostly uniform.

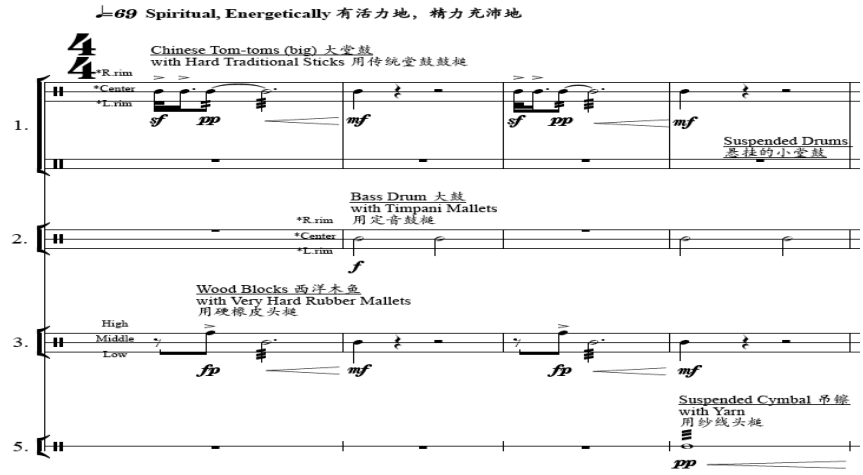
B. Basic Ideas

The basic ideas of *A.I.R.* are transmitted through rhythmic patterns, sound-color textures and melodic lines. These can be heard together in parts one, two and four. They also appear in the other parts in a variety of ways. Throughout the whole piece, they provide integration and consistency of the musical ideas.

1. Rhythmic Pattern

The essential feature of the rhythmic pattern is fully presented in the first 12 bars of Part One, which is an elastic and energetic pattern (see Example 1). It contains two contrasting materials: the first is a rhythmic pattern consisting of inverted dotted rhythms (short-long) played by players one and three; this rhythm does not establish the pulse. On the other hand, player two establishes the pulse with a repeated half-note rhythm. The rhythmic materials are slightly changed once every four bars. Obviously, the rhythmic characteristic of this part of the piece consists of slow change and long breath, which creates stasis. The rhythmic patterns are further distinguished via orchestration in terms of high, middle and low registers. Players one and three play Chinese Tom-tom, suspended drums and temple blocks, forming a middle and high register voices, while player two forms a low register voice with the bass drum. Player five works with a suspended cymbal as a sustaining instrument, transposing and combining all parts together. Part One is mostly loud, creating a foreground effect.

Example 1



In bars 39-50 of Section A', Part Four, the integrated rhythmic pattern recapitulates but with a little change — a growing dynamic sense, which can be seen in the change of basic beats: quarter notes become eighth notes, and the time signature alternates frequently between 7/8 and 9/8.

In Part Three, the long breaths become short and the music intensifies as the time signatures are unpredictable and the texture becomes more dense. For example, the new rhythmic patterns which appear between bars 33 and 38 in Section D, Part Three and bars 57 and 78 in Section E, Part Five, extend from those in Part One even though the inverted dotted rhythm (short-long) and syncopated rhythm still remain. The long breath of four bars in Part One becomes a short breath of two bars in Part Three. In addition, the steady half notes in Part One (player two) turn into two dotted quarter notes plus a quarter note. Player two's rhythm breaks from 4/4 and forms a 3:4 polyrhythm against the patterns played by players one and five. As the music becomes more active, it naturally becomes more challenging for the musicians to play, giving them an opportunity to display their virtuosity. The orchestration is similar to that in Part One — a combination of high, middle and low registers. The only difference is that this part consists of unified timbres — only indefinite membranophones — such as Chinese Tom-tom, suspended drums, bass drum, and Tom-toms — are used.

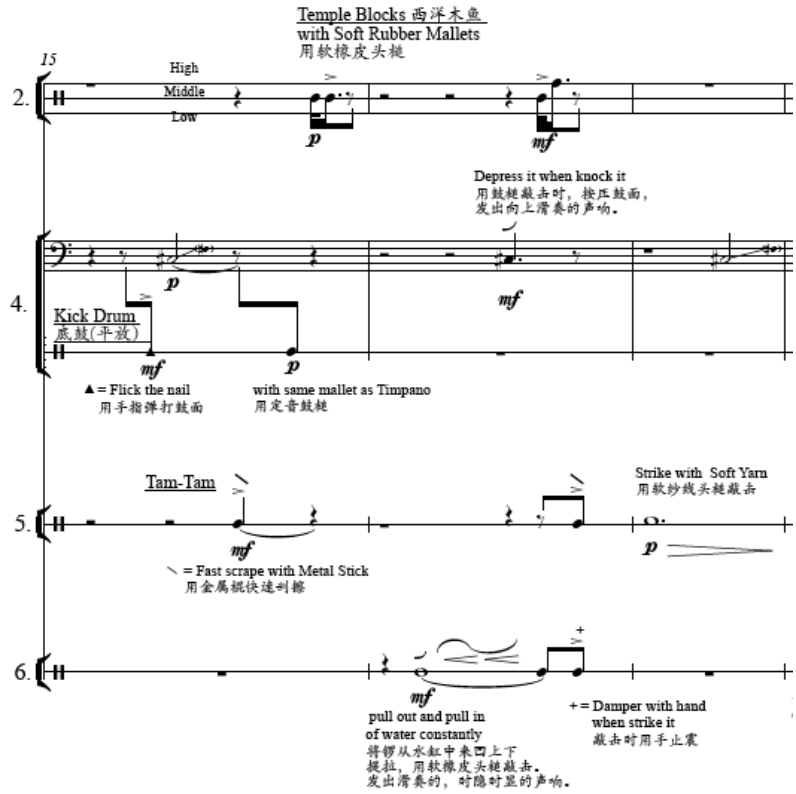
The inverted dotted rhythm (short-long) serves to unify the entire piece, since it is employed in a variety of ways: it is used to create pointillistic textures (described by the bright temple blocks); it promotes musical movement and breaks predictable beat structures (bars 13 and 20 in Section B, Part Two); and it is used to create dynamic tension (bars 21 and 32 in Section C, Part Three).

2. Sound-color Texture

A.I.R.'s sound-color texture (a texture created by timbral combinations) is represented in the relationship between definite pitch and indefinite pitch instruments. Indefinite pitch instruments are found between bars 13 and 20 in Section B, Part Two (see Example 2), which forms a sharp contrast with Part One. For example, players four, five and six sketch the contours of lingering sound (sometimes called 'halo' orchestration) when they play timpano, suspended cymbals, and gliss gongs.

As far as the layout of sound-color texture is concerned, the pitch in Part Two is rich with color changes through mixtures of membranophones and metal idiophones. If Part One is mainly about varied rhythmic patterns, Part Two is about varied timbres, with more space given to the focus on the blending of timbres and fusion instead of strict rhythmic counterpoint. The intricate dialogues among players produce subtle sound effects dominated by delicate playing, depicting an evocative picture of stasis of music.

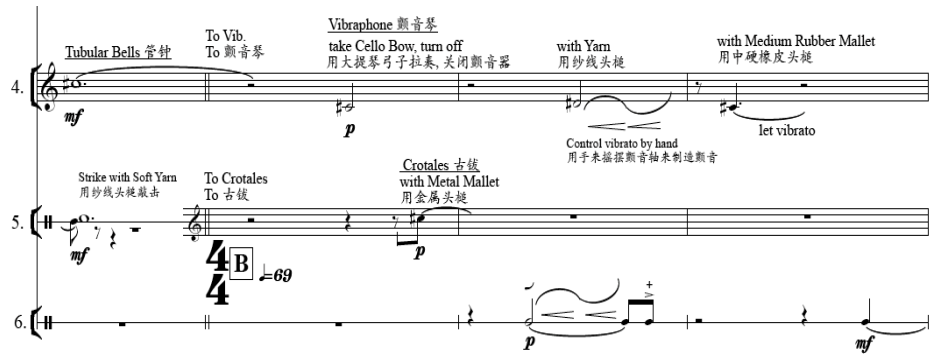
Example 2



The definite pitch instruments lead in bars 21 to 32 in Section C, Part Three, and bars 51 to 56 in Section C', Part Four (see Example 3). A sound-color-melody texture is formed by the alternation of vibraphone and crotales by player four and five over the pivot pitches of $C^{\#}$-$G^{\#}$-$D^{\#}$ or C-G-D, all organized around the interval of the perfect fifth. Variety of color is achieved through different ways of playing and changes in mallets so as to enrich the timbre, such as playing the vibraphone with either a bow or with mallets.

Here, the sound-color-melody texture works as a pedal tone, linking up and fusing musical materials from other parts through soft dynamics, which creates a subtle background effect.

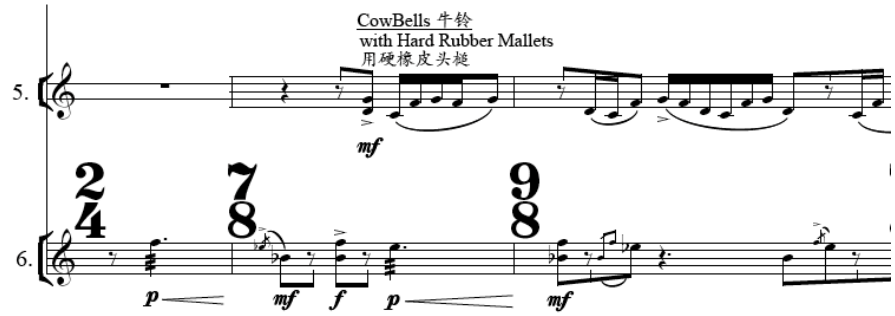
Example 3



3. Melodic Lines

The melodic line appears for the first time in Section A', Part Four, serving as a turning point in the whole structure of the piece (see Example 4). It is a polyphonic texture of three voices overlapped with dancing, pentatonic melodies played by marimba, cow-bells, and vibraphone. This creates a sense of freshness: it is so fresh yet somehow familiar. This because it derives from the sound-color-melody texture over the pivot pitches of E^b-B^b-F, all organized around the interval of the perfect fifth in Section C, Part Three. Part Four presents great contrasts to Part One, yet the two are connected in fundamental ways. The musical materials are the same, but there is a shift from the musical expression of long breath and sparse rhythm to one featuring dancing, ornamentation, and dynamic contrast. Running parallel, these create the effect of foreground.

Example 4



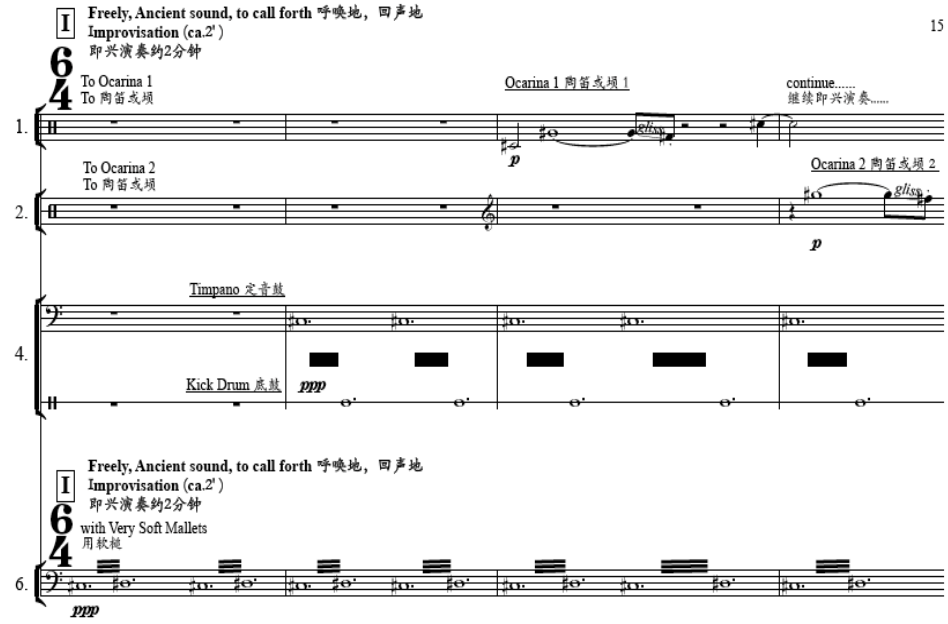
The melodic line continues in Section C', Part Four, and Part Five, but the pivot notes are transposed a major second up or down and the time signature returns to 4/4, forming the effect of middle ground and panorama.

C. 'White Space' in Music

My music has been greatly inspired by the idea of 'white space' popular in traditional Chinese ink painting and poetry. The space is not just empty or simple space. It is in fact a profound form. Over the last few years, I have focused a great deal on working with 'white space' in my music, leaving space for players and audiences to imagine and think as active partners in the creation of musical meaning along with the composer.

I have two 'white spaces' in *A.I.R.* One occurs in Part Two, in which the illusion of three-dimensional space is achieved through the layering of what sounds 'near' and what sounds 'far'. The other appears between bars 79 and 88 in Section F before the end of Part Six (see Example 5), in which notated and improvised music combine to blur the relationship between 'definite' and 'indefinite'.

Example 5



As I described in my performance note for *A.I.R.*, "From measure 78, players one, two and three should consider the notated materials as the basis for personal interpretation. In other words, they should improvise on these materials. After player three begins improvising, player five should also begin improvising, using one or more instruments of his/her choice and using material derived from any earlier parts of the piece." During the performance, players four and six create a space of tranquility through the playing of continuous low pitch by timpano, kick drum, and marimba; Players one, two, and three play intermittent, fragmented melody with ocarina or xun, presenting the vacant color of remote antiquity; Player five makes indistinct luminous points with sustaining instruments. Time is in the process of freezing: I see my "stream of consciousness" meeting with those of the players and listeners; the music is now freely beyond my reach.

D. Title

Sometimes, I have been asked the meaning of the title *A.I.R.* by people who have not heard the piece; obviously it is a title that invites such a question. Yet when the piece is performed, I usually am not asked this question afterwards.

Maybe the title is understood through the experience of hearing the piece even though the explanation is not so easily put into words.

For listeners, it is not a definition of the content or form of the music. Rather, it suggests to them the appreciation for the whole process of musical flow. Listeners from different backgrounds perceive this in various ways. That is why I named the piece *A.I.R.*: it refers to the conception of 'white space', encouraging the perception of boundless possibility in the imagination of the listener. At the same time, the title actually records my own personal experience. It is a reflection of my stream of consciousness during its creation, posing questions to which I might never find the answers. For example, during my stay in the United States in 2008, I paid great attention to the catastrophic Wenchuan Earthquake in China through the internet and mass media such as CNN. I could hardly explain my feelings about this event from the point of view of a Chinese person studying abroad.

There must be AIR in my *A.I.R.*, and maybe the AIR is red there…

E. **Conclusion**

"Music begins with a composer; passes through the medium of an interpreter; and ends with you, the listener," [3] asserted the great composer Aaron Copland (1900-1990) during the early 20th Century, emphasizing the integral relationship among composer, performer (interpreter), and listener. His idea, "It is not so much the composer that the listener hears, as the interpreter's conception of the composer," [4] stressed the important role the performer plays. Professor Gao Weijie (b.1938), a distinguished composer and professor at the China Conservatory advanced the idea of "E = C.P.A."[5] during the late 20th Century, holding that the realized quality of the musical Esthetics is dependent on the collaboration of Composition, Performance (interpretation), and Appreciation. Here, he underlines the key part the listener plays for the completion of the aesthetic circle.

[3] Aaron Copland, "From Composer to Interpreter to Listener," in *What to Listen For in Music* (Signet Classics, Inc., 2002), 211.
[4] Aaron Copland, "From Composer to Interpreter to Listener," in *What to Listen For in Music* (Signet Classics, Inc., 2002), 213.
[5] Gao Weijie, "E=C.P.A ," People's Music 5 (1986):1.

I certainly agree with them. The work of performers, the aesthetical re-creation of listeners, and the creation of the composer all share equal importance—successful and mutual understanding is the completion of the circle of the compositional process. It is true to music creation. What about the analysis of a piece of music? What part does this play in the process? Is it helpful to explain and describe? Does the creation of analytical conclusions help communicate and animate the process among the three constituencies?

Nicholas Cook (b.1950), a well-known musicologist and professor at the University of Cambridge, addressed an issue at the International Forum on Comparative Music Theory Research in Beijing, China in 2011. "There are two fundamentally different ways in which music theory and performance were brought together in the final years of the twentieth century. The first was an outgrowth of conservatory-style performance teaching, and I call it the 'page-to-stage' approach. In essence, you analyze the score in the usual way, and from this you draw conclusions about how it should be performed…… The second way in which music theory and performance have been brought together is largely a reaction against the first. It is to make the performance—whether live or recorded—the focus of analysis: analysis of performances takes its place alongside analysis of score."[6] He insisted that the analysis of a piece should give even greater weight to the performance as compared to the score itself — and the purpose of analysis is to provide the performer the opportunity to deepen his/her understanding of the score. Such a method has already been popularized across Britain. Professor Cook's wish is to help performers better understand the music they play, so as to do the best possible job of recreating it.

Therefore, I can understand that my *A.I.R.* can and should be further dissected by performers and listeners from a variety of perspectives: instrumental timbre, performance practice, treatment of vocal timbre, ensemble dynamics when performing without a conductor, the comparison of performances by different ensembles, and even the analysis of reactions from listeners of different backgrounds.

[6] Nicholas Cook, "Between Art and Science: Analyzing Music as Performance," The 2011 International Forum on Comparative Music Theory Research and the Chinese Translation of the Cambridge History of Western Music Theory, n.p. (2011), 18.

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