

# 多声音楽の視覚的表現—音楽鑑賞の指導と評価におけるその使用—

Visual Representation of Polyphony: Its Use in the Teaching and Assessment of Music Appreciation

小島千か\*

KOJIMA Chika

**要約:** Assessment in music appreciation is not a matter of ranking, but rather an interpretation of some form of expression of what students have heard. Such interpretation can be based on visual evidence. The objective of the present study is to establish a method for using visual image of students while they hear music in the teaching and assessment of music appreciation. Students listened to music and were instructed to draw what they felt using colors, lines, and shapes. Polyphonic music was most suitable for teaching and assessment. By classification and interpretation of students' drawings, it is clear that their expressions represented important elements of polyphonic music that can be expressed visually. By showing students' drawings to other students, teachers are able to guide students to a greater understanding of musical structures and styles.

**キーワード:** Music appreciation, Assessment, Polyphony, Drawings

## I Problem presentation

In music appreciation classes, teachers often tell students what to listen for. However, these instructions may not necessarily resonate with students. Furthermore, it is difficult for teachers to<sup>1</sup> ascertain what students heard and felt while listening to music. The internal aspects of students can only be assessed through some form of expression. In Japan, students often express verbally what they hear. However, many teachers believe that evaluating students based on verbal expression merely assesses students' verbal aptitudes. It also seems there are limits to how much students can verbalize about music.

The present study was conducted to see if the concept that drawing visual images related to the elements of music may be useful in the teaching and assessment of music appreciation. It seeks to establish a method to use drawings in the teaching and assessment of music appreciation, to investigate the meaning and significance of such a method, and to identify a style of music suitable for this method.

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\*Music Education Course 音楽教育講座

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## II Musical elements and forms

Techniques that have been used to express visually what students learn through music appreciation can be divided into two general types. One technique is to instruct students to paint what they experience while listening to music (Saeki, 1983); the other is to instruct students to draw figures representing melodic characteristics and rhythmic movements (Inuma, 1983, and Nakamura, 2007). The present study resembles the latter.

Three major elements of traditional western music are rhythm, melody, and harmony, while minor elements include timbre, dynamics, speed, tonality, phrase, style, and so on. These elements are greatly affected by the perspectives and viewpoints of listeners. Although timbre, dynamics, and speed may be perceived unconsciously, phrase and style require active listening. In order to listen consciously to various elements of music, students are taught to form mental images related to the elements of the music. Various elements of music can be represented with visual images of formative elements. For example, timbre can be compared with visual color, the melody with lines, or musical structures with shapes. This concept has also been proposed by many artists, such as Wassily Kandinsky and Paul Klee.

In the present study, students did not draw pictures of concrete objects, but drew colors, lines, and shapes to express what they heard through the music.

## III Method and summary of teaching

The present study primarily describes the results obtained in a general education class at a teachers college. Drawings made by students while listening to music were interpreted and classified. Classifications utilized were based on previous studies of musical cognition. Finally, students were interviewed. The procedure of teaching and assessment is as follows:

1. The students were instructed to listen to a musical selection and then express what they experienced and felt using colors, lines, and shapes, including any concrete objects if they happened to think of them. A CD of the music was played two or three times (note 1) . Later, the students discussed what they heard and drew.
2. The drawings made by the students were interpreted and classified with reference to a music recognition hierarchy (Umemoto, 1989, p.102).
3. Students' drawings were used to explain in terms of structures and styles various elements of the pieces of music played during class.

The above procedure was carried out at the beginning of class for two years. Fourteen classes were conducted in each of two semesters, and different sets of students attended each class each year. The above procedure was used in ten classes out of fourteen (note 2). Students listened to different types of music in chronological order. Music was selected on the basis of length, structure, and musical elements. Since long pieces require much concentration, relatively short pieces with a clear structure

and character were chosen. For this reason, many pieces of J.S. Bach were used. Students heard the following pieces:

1. Gregorian Chant, Ave Maria
2. J.S. Bach, 2 Part Invention No.1 in C major BWV 772a
3. J.S. Bach, A musical offering BWV 1079, Canon a 4,
4. J.S. Bach, Passacaglia in c minor BWV 582
5. J.S. Bach, Art of the Fugue BWV 1080, Contrapunctus 1
6. Mozart, Serenade in c minor K. 388, Menuetto in canone
7. Beethoven, Symphony No. 5, c minor op. 67, First movement
8. Mendelssohn, Overture, “Fingal’s Cave”, op. 26
9. Debussy, Prelude Vol. 1, “Voiles”
10. Schoenberg, Three Piano Pieces op. 11, *Mäßig*

## IV Interpretation and classification of students’ drawings

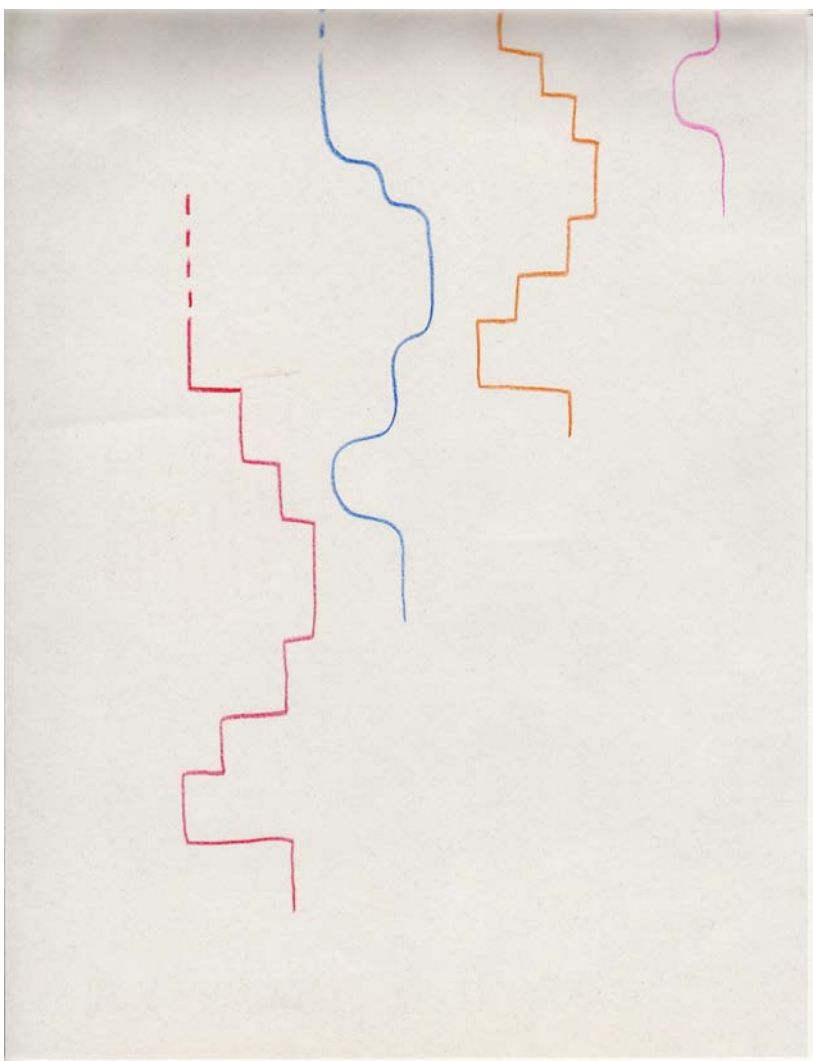
The music recognition hierarchy I have used is based on Umemoto’s classifications: “music as image and meaning,” “music as musical structures and style,” “music as elements of rhythm, melody, and harmony,” and “music as sound: tone, dynamics, timbre.” I have used an original classification of students’ drawings on the basis of Umemoto’s classification. Through interpretation and classification of students’ drawings it became clear what music was most suitable for teaching and assessment.

Musical genres most suited for teaching and assessment are polyphonic genres, such as canons, fugues, and passacaglias, because they are relatively easy for the students to hear as structures. For example, students’ drawings for works of Debussy and Schoenberg included only colors as expression for harmony and sound. For Gregorian Chant they drew concrete objects such as churches and light in addition to many colors expressing harmony and sound. But students’ drawings for polyphonic genres, such as canons, fugues, and passacaglias were drawn with various kinds of expressions. These can be classified in terms of: 1. colors corresponding to timbre, tonality, and harmony; 2. linear expressions corresponding to melodic flow; 3. structures corresponding to the intertwining melodies of polyphonic music; 4. flow of the entire music; and 5. concrete forms. Such musical elements were interpreted and classified into four types representing visual and spatial expressions for the various elements of polyphonic music and concrete forms.

I will show examples of drawings of these five types in the case of “Art of the Fugue.” This work may be played by various instruments because no instrumentation is indicated. I used a string ensemble. An example of a drawing of type 1 is an ellipse painted purple; inside this small shapes are painted yellow, green and blue. I interpret it as an image of string timbre and minor tonality.



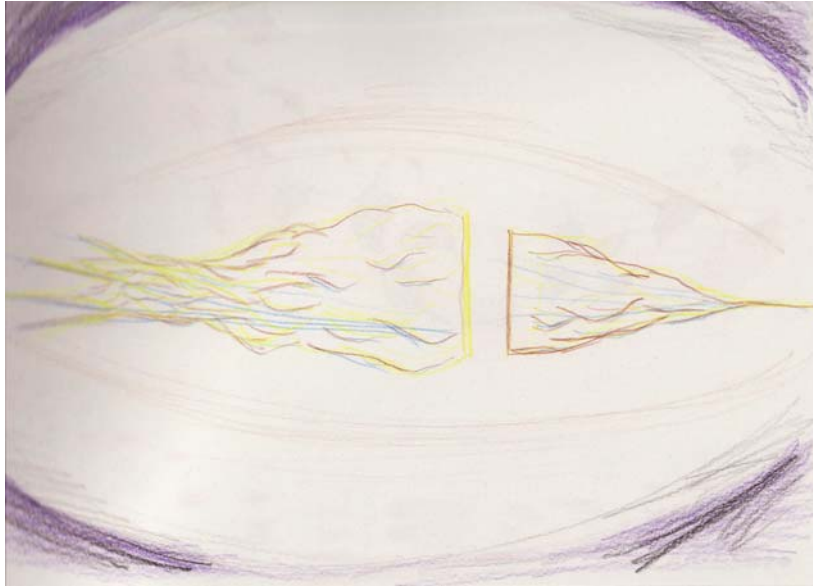
An example of a drawing of type 2 is a drawing of four short red, blue, orange, and pink curves with gaps. I interpret it to express four melodies chasing one another.



An example of a drawing of type 3 is an intertwining of four ribbons. The colors are blue, purple, dark green, and yellow-green.



An example of a drawing of type 4 is a figure expressing three dimensions. The object starts with four strands at left that come together and then expand. The object contains a gap, which is three centimeters from the right. I interpret the gap as a stop in the musical flow.

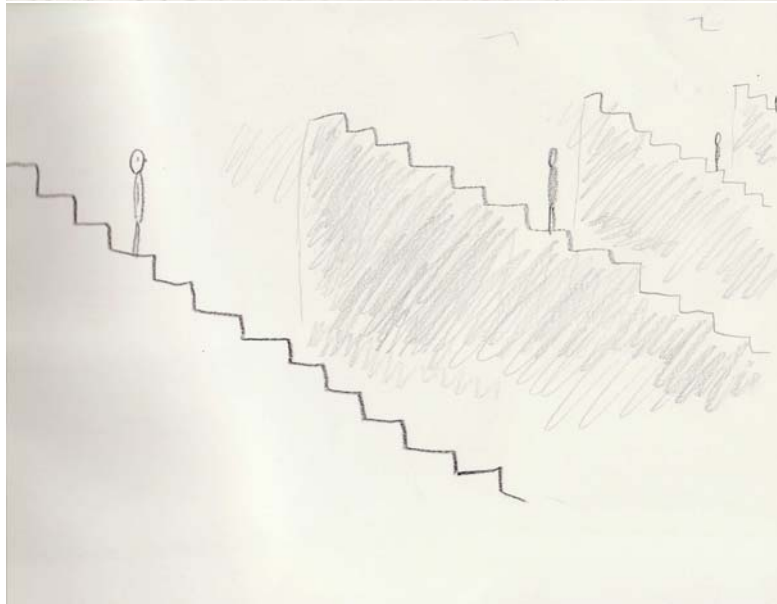


An example of a drawing of type 5 is that of fallen leaves.



Next, I examine expressions of concrete forms. I interpret fallen leaves as image of harmony from the “Art of the Fugue.” In Bach’s passacaglia, one student drew a forest at night with black trees; another students drew black stairs.





These were expressions of musical elements such as minor tonality, the solemn sound of a pipe organ, and a basso ostinato as a structural characteristic of passacaglias. This came out from interviews and students' discussion, but I could interpret it by looking at these drawings. The interviews and students' discussion clarified that the concrete objects drawn by the students could represent visual images formed by listening to various elements of music.

## **V The use of students' drawings**

The earlier mentioned four aspects of expressions are important elements of polyphonic music that can be expressed visually. For this reason, students' drawings can be utilized for teaching and assessment of music appreciation. By showing students' drawings to all students in class, teachers are able to guide students to a greater understanding of musical structures and styles. If drawings are stored by each student, teachers can utilize them later at meetings with students when the same music is heard at the end of the semester. Students can compare them while listening to the same music again. It became clear from interviews that the following two possibilities exist: Students can listen to music closely while drawing as they listen; they can also know what others heard and felt through watching other's drawings.

Teachers can assess what students heard and felt by examining drawings which simultaneously show types of musical elements heard by students and emotions experienced by students.

## **VI Conclusions and proposal to school education**

It became clear the most suitable musical genres for this method are polyphonic genres. My results indicate that drawing visual images in music appreciation classes effectively allows students to focus on musical elements and assists them to obtain a greater understanding of musical structures and styles. Although drawings were classified from the viewpoint of assessment, this was not done to judge critically how students listened to music. Drawings represented what students experienced and felt while listening to music, and teachers interpreted them for learning assessment.

In music appreciation classes, it is important for students to communicate with others about music. Visual and spatial expressions of the various elements of music make it possible to understand and compare differences in how people listen to music. This technique is thus useful in teaching and in assessing music appreciation, especially in schools.

## **VII Concluding remarks**

In music aesthetics, it is important to listen to music while understanding structures and styles. Active listening means interpreting music spatially and visually. This notion is supported by many aestheticians and musicians, such as Cook and Dahlhaus. In researching music appreciation classes it is necessary to combine musical styles with visual and spatial representation.



## Note 1.

At first almost all students only listen to the music. They start to draw after hearing it a second time. Sometimes they listened three times.

## Note 2.

This class is titled “Analysis and Expression of Music,” and students have been taught to associate visual expressions with music appreciation for five years.

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