

Performing J. S. Bach's D minor Chaconne on Vibraphone

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Abstract: *The purpose of this study is to highlight the technical aspects and details in performing Bach's Chaconne from the second Partita for solo violin on vibraphone. Many transcriptions of this work have been made, but so far none for the vibraphone. Topics related to producing the baroque sound on vibraphone, means of expression on this instrument and specific aspects of performance are analyzed and presented. An analysis of this monumental work depicts the structure and the development of the variation set. The performance semantic in Bach creation is revealed in order to help the artist to understand the means of expression for this work.*

Key-words: *vibraphone, Bach, Chaconne, percussion*

1. Introduction

The scientific proposal of this paper is a unique one by approaching the creation of Johann Sebastian Bach on vibraphone, knowing that the work of the great composer was created for violin, piano, organ or vocal ensemble. Undoubtedly, J.S. Bach's music is a landmark in the repertoire of any musician, whether it is violin, piano, organ or other instruments for which transcriptions were made according to the original scores. So far, the vibraphone has not been included in the category of transcription instruments, despite the fact that it has a huge potential for means of expression.

Bach creation has been frequently transcribed for marimba. The sound of J.S. Bach's music on this instrument is unique through the warm timbre of the marimba conferred by the vibration of the wooden keys (Blades 1975, 51).

On one hand, unlike the marimba, the vibraphone presents a wider range of expression means (*legato, staccato*) due to the possibility of sustaining for a long time the vibrato in the metal keys supported by the pedal.

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On the other hand, the vibraphone can be both a melodic and a polyphonic instrument. Unlike the violin (or any other string instrument), where the instrumental technique does not allow the approach of a chord of four sounds simultaneously, the vibraphone has the possibility of approaching all four sounds of the chord vertically.

Dinu Ciocan considers that J.S. Bach's music reflects the composer's concern for tonality and in this sense it should be noted the presence of a tonal system whose components are tonic, subdominant and dominant, organized around a tonal-functional centre (tonic) (Ciocan 2000).

2. Vibraphone techniques applied in performing Bach's transcriptions

2.1. The sound in Bach's transcriptions for vibraphone

Similar to any other instrument, in order to achieve the diversity of musical characters, the vibraphone requires a wide range of expression means. The musical phrasing is carried out by sequencing the musical thinking which implies the sound attack manner and the use of pedal to stop or extend the resonance.

The most representative musicians have established the grips that allow the performer to achieve the Bach sonorities, a sound that requires wide resonance, rich in harmonics, wide and round, rarely using the staccato manner (Burton 1995, Delecluse 2000, Stevens 1981).

The "reference sound" is to be considered as the natural way of producing resonance, with a minimum effort in a moderate dynamic. Taking into account the reference sound in using the three grips mentioned above, concrete actions of the performer are necessary in achieving the Bach sound: a higher lifting of the forearms before attacking the keys of the vibraphone and a reduced rotational movement of the wrists (in the case of the second and third inside mallets).

2.2. Specific expression means of the Bach sound on vibraphone

It is important in the interpretation of any kind of music, especially on Bach's works, the appropriate use of means of expression such as *legato*, *staccato* or *legatissimo*. Comparing the technical possibilities of marimba and vibraphone, one can say that the sound of the marimba is warm (consequence of the wooden keys), however it lacks the achievement of *legato* that can be supplemented by the manner of interpretation. According to Sadlo, *legato* on marimba is carried out by lifting the mallets immediately after the keys struck (Sadlo 1997).

The aluminium keys of the vibraphone lead to the formation of sound in a different way from the marimba. The stationary sound period is longer when the pedal is depressed. In conclusion, on the vibraphone *legato* and *staccato* can be easier performed (related to the pedal use).

The *staccato* is achieved using the pressure exerted by the fingers inside the palm, similar to the marimba technique. Unlike the marimba, *staccato* on vibraphone can be naturally played by leaving the pedal in its initial position which allows the felt material located on the entire mechanism to withhold the sound resonance.

2.3. Technical means for interrupting conjoining or out of harmony sounds

Starting from the natural way in which these means of expression can be obtained on the vibraphone, it would be necessary to specify certain details related to aspects that must be avoided in order to have an effective phrasing.

One of the possible limitations of this instrument might occur when the pedal is depressed, namely all the percussive sounds vibrate, which can create a cluster effect (not desirable in playing Bach). Another limitation of the vibraphone is that it resonates evenly in all registers, unlike wind or string instruments where the sound is naturally different in low, medium or high range (Samuels, 1992). This inconvenience can be overcome by a skilful use of instrumental technique.

The cluster effect could be avoided and a coherent phrasing can be carried out by dampening the conjoining and out of harmony sounds in *legato*. There are three methods to be taken into consideration in order to achieve this technique: using the mallets, dampening the sound with the "free" fingers (the ones that do not pressure the mallet in the moment of playing) or changing the use of the pedal (which will be pressed according to the harmony or melody).

In this sense, there are situations that requires the pedal depressed for a longer time to support a harmony in the left hand, while the right hand uses the gradual movement in one or two voices within the same harmony: first, when the gradual melody is performed by both hands (the dampening has to occur exactly in the moment when the other hand attacks the next sound), and second is the gradual melody performed by one hand (either one or two voices). In this case, the dampening can be performed in three ways: with the mallet in the hand that does not play at that moment, with one of the free fingers (that does not exert any pressure on the mallet), or with the mallets used to play, immediately after the following sound was produced.

The first and also the easiest method (out of the three mentioned above) is the one when the sound stop is achieved by the free hand. This technique is used in

performing all music genres. In the second case, the dampening is performed with one of the "free" fingers (middle finger or little finger) at the same time as attacking the next sound. This requires a very precise coordination between the mallet that strikes the sound and the finger that performs the stop. The third method is carried out when the hand that does not perform the gradual melody is "occupied" with the execution of another harmony. In this case, the dampening is made almost instantaneously, immediately after attacking the next sound, with the same mallet that performed the second sound. This way of dampening the sounds out of harmony becomes more difficult to execute when it comes to two voices as the attack and the dampening is performed with two mallets at the same time.

3. Vibraphone techniques applied in Bach's Chaconne in d minor

3.2. Bach's Chaconne, a masterpiece

Chaconne, a baroque dance with origins in Latin America and later found in Spain, has its roots in the traditional music, being considered at that time an obscene dance due to the indecent costumes and body language. At the beginning of the 17th century, the chaconne was often accompanied by the guitar, percussion instruments such as castanets and tambourine, and a text sung with a chorus. The music meter was always a ternary one in the major mode. Later, in France, the chaconne turned into an instrumental musical dance.

According to Silbiger, the structure of a chaconne consists of small fragments (from two to sixteen measures), each of which ends with a cadence leading to the next fragment. In Chaconne from the Second Partita for solo violin, J.S. Bach changed the character of folk dance into a religious, spiritual one with a contribution that has finalized the fantastic evolution of the chaconne (Silbiger 2000).

Although initially composed for solo violin, the Chaconne was later transcribed for many other instruments, including the marimba. It is known that there are no transcriptions for vibraphone, thus the present approach brings innovation by transcribing the chaconne for this percussion instrument.

3.3. Chaconne, a brief analysis

Eiche considers that the Baroque is the era of continuous bass with harmonies built over by upper voice (Eiche 1985). In the absence of continuous bass as a separate instrument, the Chaconne for solo violin becomes a kind of kaleidoscope in which Bach outlined shapes, colours and mirrors (Raley 2017).

The monumental movement that concludes the Second Partita for solo violin can be defined as a tripartite structure where Bach alternates the minor with the major, so the first section is written in D minor, the second in D major to end with the third also in D minor. This tonal alternation is one of the theme and variation procedures used to contrast the whole part.

Kyung stated that Chaconne is made up of a well-defined harmonic progression, composed in slow ternary measure, the whole movement following the harmonic line D-D-C sharp-D-B-G-A-C sharp-D (Kyung, 1999). Each four measures phrase ends with a cadence that returns to the tonic. This structure is preserved throughout the length of the movement. Chaconne's four-measure phrase is developed rhythmically and melodically, while the harmonic structure remains unchanged throughout the 64 variations. Bach uses counterpoint techniques to outline this monumental creation (Deney 2016).

Taken as a whole, it can be said that the variations appear in pairs, where the second is similar to the first but more intense. For instance, the eight opening measures synthesize two phrases of the theme, the second similar to the first, except for the cadence that introduces the punctuated rhythm, predominant in the following four variations.

It is interesting to observe the technique that introduces new elements, taking care to gradually give up those already used, as it can be seen in the first 32 measures that show a reduction of the texture from four voices to the melody on one voice. This relaxation of the texture occurs with the intensification of chromatics. This process, which compensates for the reduction of some compositional techniques with the introduction of new ones, can be observed throughout the whole movement.

Along with the 32nd variation, appear the thirteenths leading to the arpeggio section which begins at measure 89. The small values present in this section lead to an arrival point at measure 121. The whole section in D major is delicate and challenging interpretive at the same time, but as intense as the first minor section. Measure 208 marks the return to D minor, a section using only the dominant that leads to the repetition of the four introductory measures, followed by variation 64, which concludes the entire movement.

3.4. Applying vibraphone techniques on Bach's Chaconne

As previously exposed, the sound of Bach on vibraphone requires specific sound attack techniques. Thus, *legato* which is frequently used in the performance of this work will be achieved either naturally or using the pedalling and dampening technique.



Fig. 1. *Legato naturally played on vibraphone*

The first measure in figure 1 highlights the legato obtained naturally on the vibraphone by pressing the pedal during the whole measure (consisting of three groups of sixteen). Both the use of the pedal and the dampening are marked with x.



Fig. 2. *Combining legato and staccato*

In figure 2, an ingenious compositional process is outlined, the combination between *legato* (obtained on vibraphone by pressing the pedal and dampening the conjoining sounds) and *staccato* (performed on the vibraphone naturally by maintaining the pedal in the initial position, with the keys plugged).

Another example of *staccato* played in the usual way (without using the pedal) is the following:



Fig. 3. *Naturally played staccato*

In the second measure it is to observe how the pedal is used at the beginning of each thirteen group. Thus, the first of these values is reinforced by the pedal, and the next seven are staccato.

The next figure is an example of *staccato* mentioned in chapter 2.2. (Specific expression means of the Bach sound on vibraphone):



Fig. 4. *Staccato played with the pedal*

The dotted notation of the *staccato* obtained by pressing the sticks inside the palm using also the pedal is highlighted here.

The following example highlights the fluidity of the musical phrase performing *legatissimo*. This figure reveals the technique of legato played naturally on the vibraphone, while the pedal is not used.



Fig. 5. *Legato played naturally*

In subchapter 2.3. (Technical means for interrupting conjoining or out of chord sounds), the first method of dampening conjoining sounds was presented, namely dampening the sound with the “free” fingers (the ones that do not pressure the mallet in the moment of playing), presented in figure 6:



Fig. 5. *Dampening conjoining sounds*

It is observed the gradual movement that is performed with the hands in a row (marked, S-left, D-right), each sound being dampened by the same hand that attacked it.

Another situation explained in the same subchapter (2.3) is that of the gradual melody performed by one hand (either one or two voices), where there are three ways to dampen sounds out of harmony. In the first case, the stop is made by the hand that does not perform the gradual melody at that moment (Figure 6):

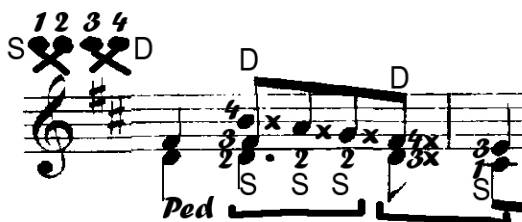


Fig. 6. *Dampening conjoining sounds with one hand*

The right hand stops the notes A and H, while the left hand plays A and G. The mallets in each percussive hand are also marked here (starting with the second beat).

The second case, when the dampening is achieved with one of the free fingers (that does not exert any pressure on the mallet) is highlighted below, in Figure 7:



Fig. 7. *Dampening conjoining sounds with one finger*

We notice here how the 4th mallet (from the right hand) attacks the sounds D and C sharp (from the second and third beats of the first measure), and the dampen is made with the little finger of the right hand, exactly when the sound from the third beat is produced.

The third method of dampening conjoining sounds in the case of gradual

melody performed by one hand is also the most difficult as it is achieved with the same hand that attacks the following sounds. It is the method performed with the mallets used to play, immediately after the following sound was produced.



Fig. 8. *Dampening conjoining sounds with the same hand*

4. Conclusions

J.S. Bach's music falls within the coordinates of tonality and tonal-functional centre, where the functional relations between tonic, subdominant and dominant are discussed. Thus, an entire tonal system revolves around the tonic, with the tonal-functional relationships between tonic-subdominant, subdominant-dominant, dominant-tonic. This semantic should be highlighted in performance on any instrument. In the vibraphone case, Bach's music requires specific techniques on achieving the means of expression that the composer intended to reveal. These techniques are generally adapted to the percussion instruments, the vibraphone presenting a natural advantage by the use of the pedal. It is also important to notice that not only the performance techniques are to be taken into consideration but also the semantic and the formal analysis of the music, while intending to achieve the best interpretation of this monumental work.

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