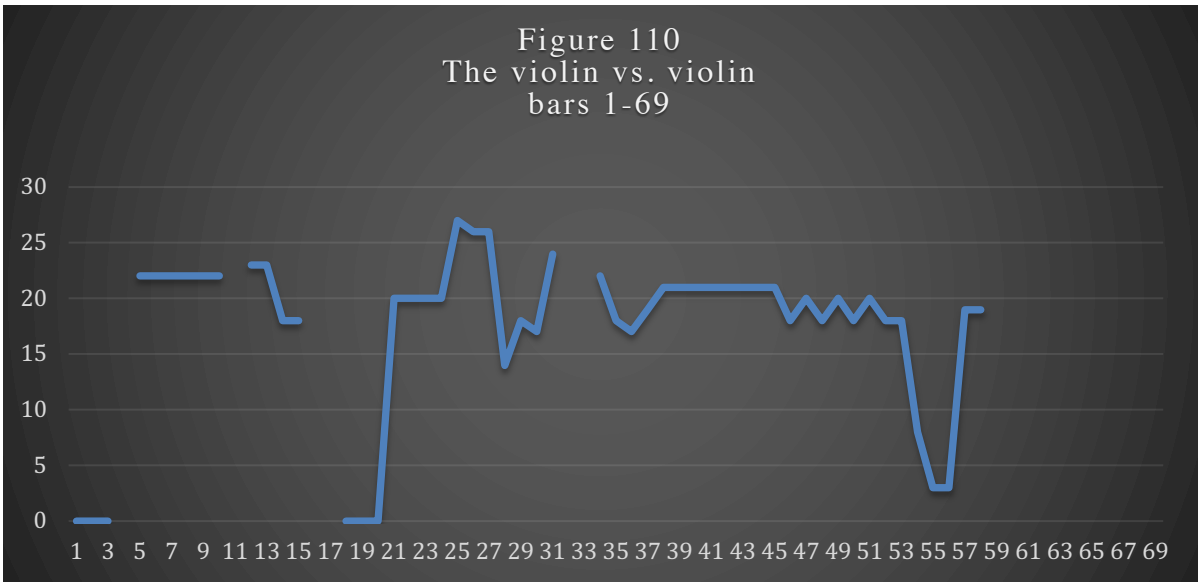
Chapter 12: Violin Compared to Other Instruments: Unpredictable Appearance of Timbral Space



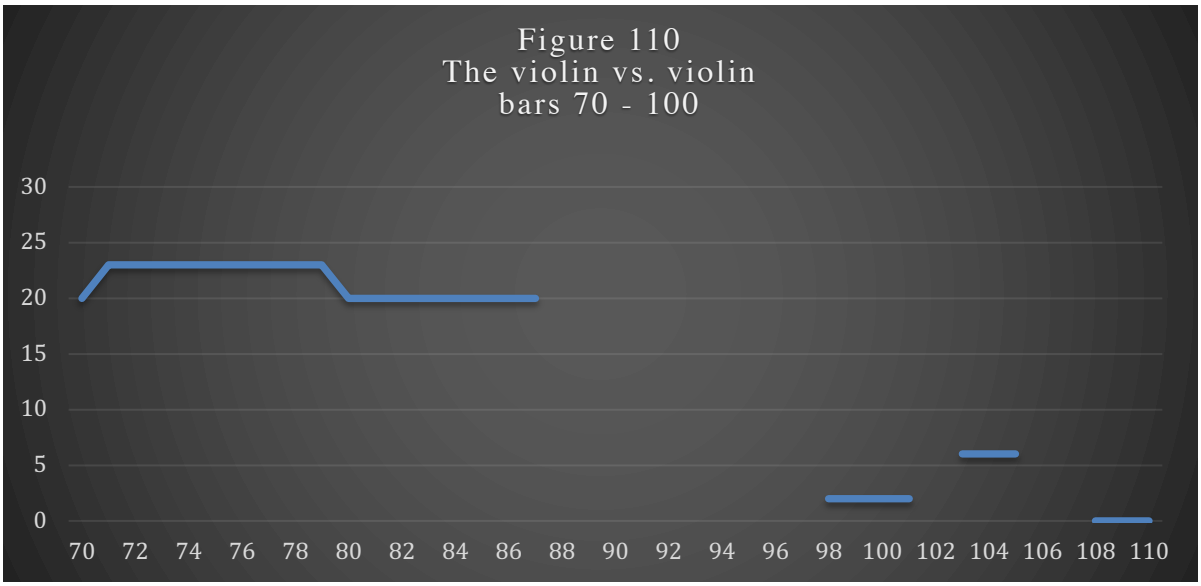
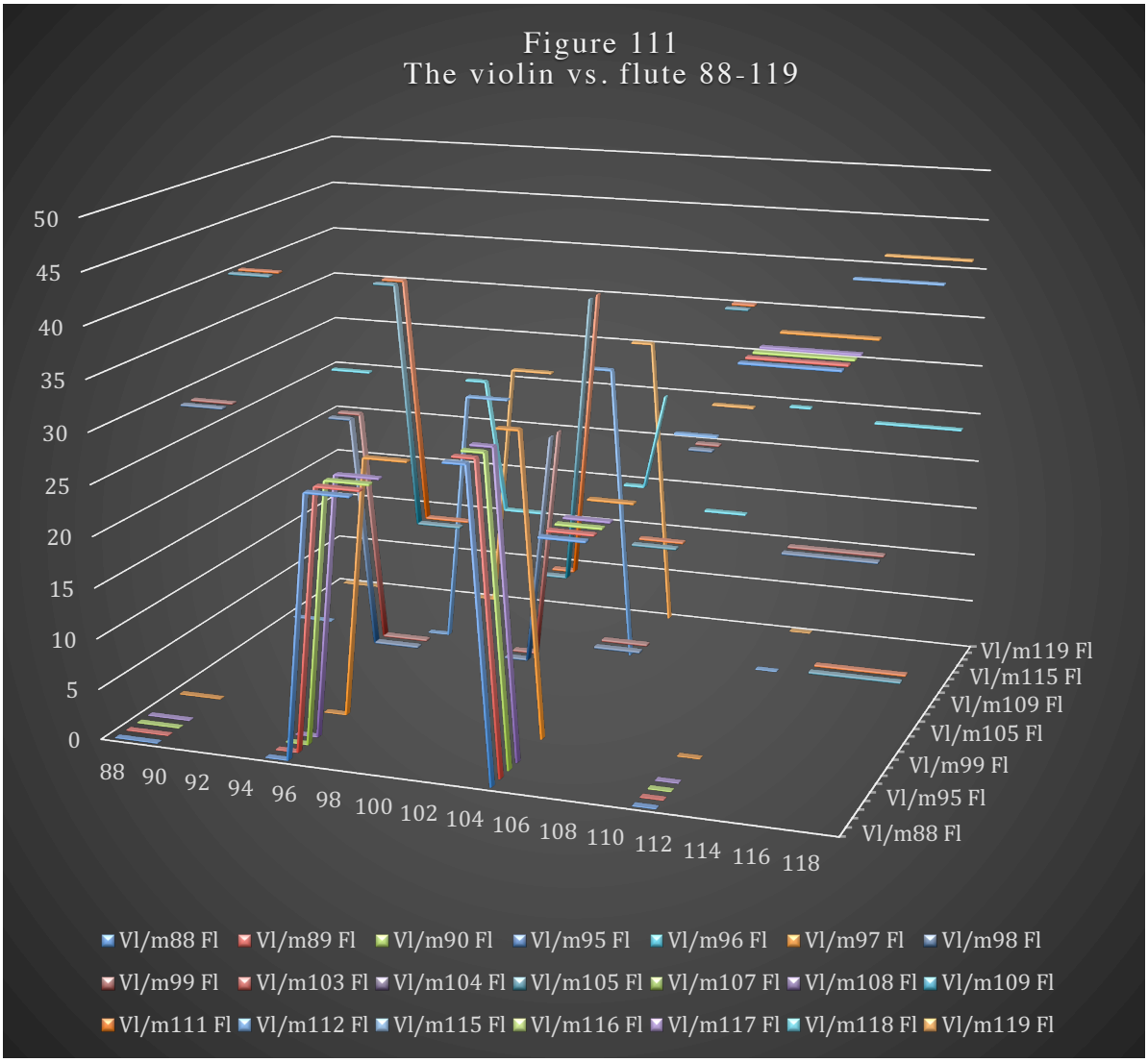


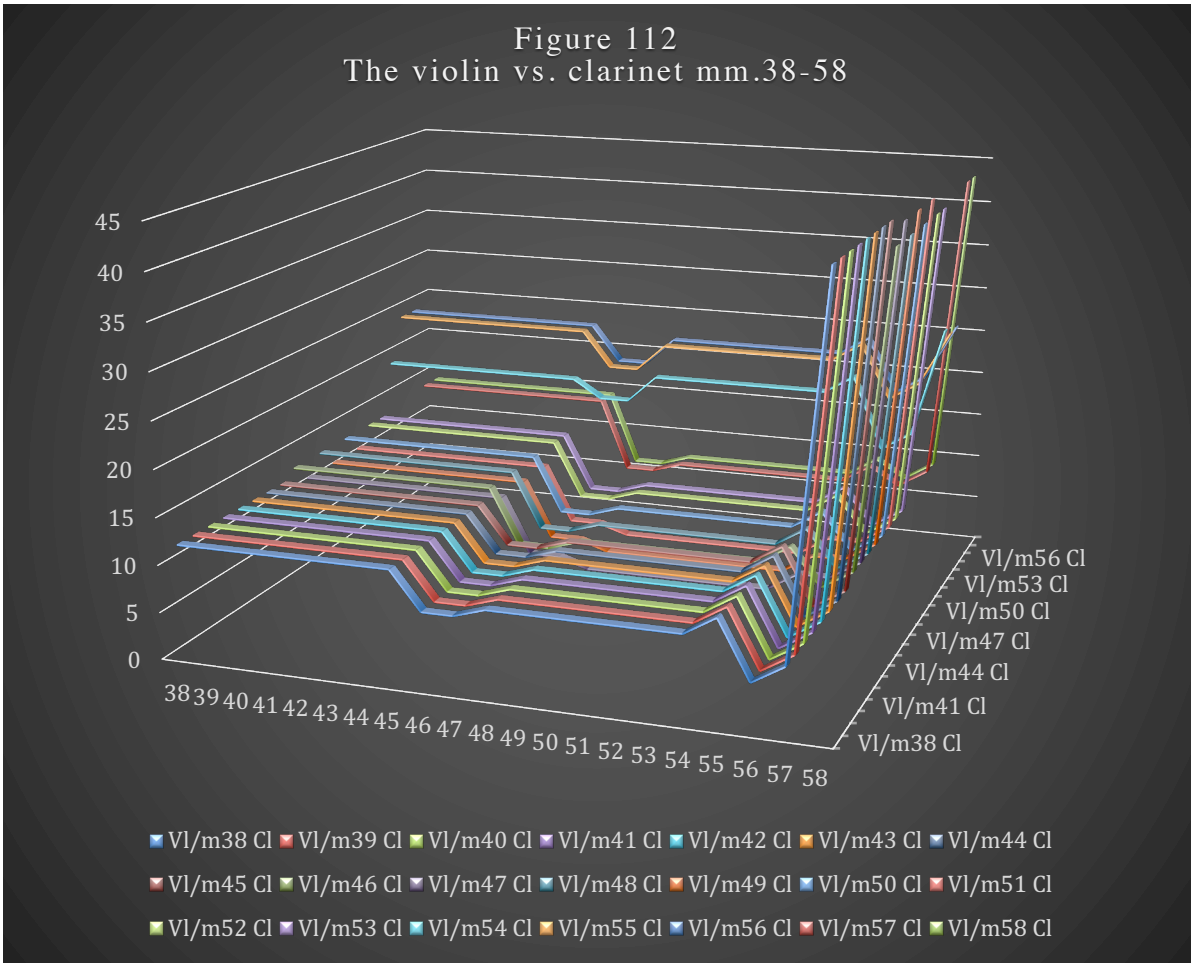
Figure 110 exhibits the timbral progression when the absolute timbral value of the violin is compared to measure one of itself. The minimum and maximum values are zero and twenty-six. Zero appears in bars 1, 2, 3, 18, 19, 20, 108, 109, and 110, which is in contrast to the progression of timbre in the flute vs. flute and clarinet vs. clarinet figures. In the flute's timbral progression,

zero appears in bars 1 and 109. In the clarinet, zero does not appear at all. Since zero appears in bar 109 of the flute and violin, one might claim there is a timbral recapitulation in the flute and violin but not the clarinet. The return of zero in bar 109 in violin and the flute, as a recapitulation, might suggest a sense of form and overall timbral architecture in Crama, which will be discovered in the course of this analysis.



The minimum and maximum values in Figure 111 fluctuate between zero and forty-one. Zero appears in bars 88 – 90, 95 – 96, 105, 111 – 112. Figure 111 mostly consists of parallel or

imitative parallel motion between timbral values. Since parallel motion between all comparisons occupies the majority of Figure 111, the imitative parallel motion (in mm. 95 – 99 and 103 – 105) acts as a contrast to parallel motion. As a result, parallel motion, as well as imitative parallel motion, are the main components of Figure 111.



The minimum and maximum values are zero and forty-six in Figure 112. Stagnant parallelism plays the primary role as opposed to spikes and drops. In bars 38 – 58, repetition, transition to a new idea, and then repetition of that new idea, are the main components of the structure. Notice the long-stagnant parallel motions in bars 38 – 45. Then, the imitative parallel motions in bars 45 – 46. Also, notice the appearance of new stagnant parallelism in bars 47 – 54, and imitative

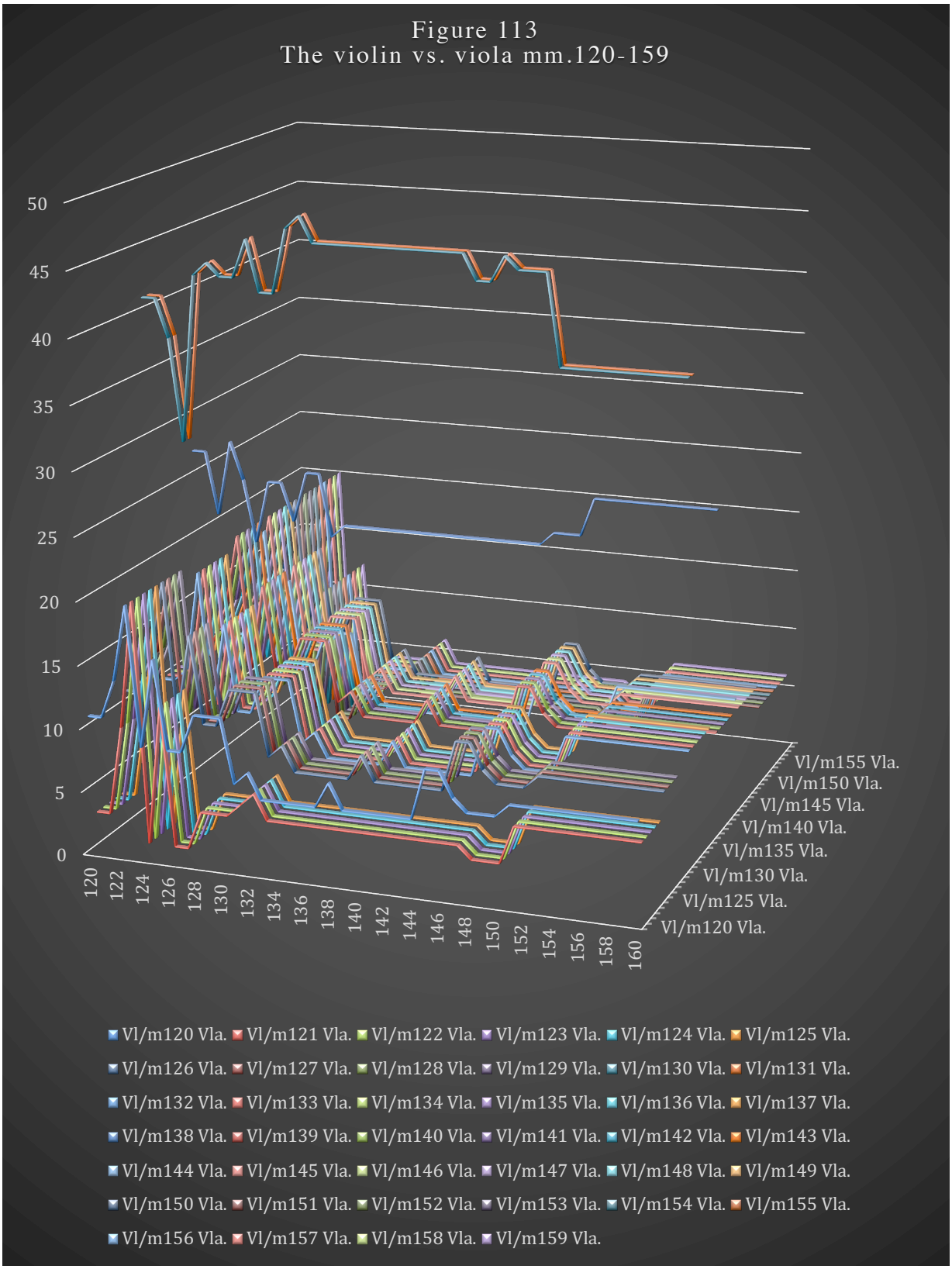
parallel and contrast in bars 54 – 58. All of the above motions justify repetition, transition, and further repetition as the primary tools in the creation of form in Figure 112.

Notice the appearance of a dramatic spike in bars 57 – 58, which is evidence of the appearance of "slow bow sound,"[44] in violin and "natural multiphonic sound,"[45] in clarinet. Although the sound of the violin is expressed via ***p*** dynamic, it can still be heard as a distinguished yet soft squeaky noise that is doubled with the viola and overpowers the sound of the clarinet. Therefore, the soft and squeaky noise in the violin contributes to the appearance of the spike in bars 57 – 58 in Crama.

[44] "SLOW BOW SOUND (Slash notehead): The left hand fingers should touch the strings but should not hold them down firmly (like natural harmonic). It is necessary to bow at slower speed than normal at sul tasto area with light bow pressure. The sound produced is dark, muffled with noisy qualities without very clear pitch intonation. ATTENTION: the written note does not always correspond to the one that is sounded. In this case the performer should follow the written note regardless of the sounding result." From page 5 of the preface in Crama.

[45] "NATURAL MULTIPHONIC SOUND: 1st Type harmonics. Play the harmonics of the fundamental as blocks. The sound is produced by greater pressure of the lips. This type of multiphonic is more effective and rich in tones in the lowest register of the instrument. It can also be effective when it is combined with trills." From page 3 of the preface in Crama.

Figure 113
The violin vs. viola mm.120-159



The imitative parallel motion in bars 122 – 124 and 124 – 126, as well as other instances of imitative parallelism, indicates a transition to a new section or a return to the previous section. Conversely, the stagnant parallelism motion in bars 140 – 144 and 152 – 160 contribute to the continuity of sound that is conceived via the repetition of similar timbral values. Multiple repetitions of the same values, transitions away, and returns to the same ideas are the main components in form in Figure 113.

A closer look at the score reveals three facts which contribute to the shape and overall growth of form in bars 120 – 160: 1) repetition of the same motives between violin and viola, bars 154 – 160; 2) imitation of the same motive, bars 123, 125, and 126, between violin and viola; 3) virtually similar timbres expressed via different motivic ideas in imitative or non-imitative fashion, bars 133, 134, 141 and 142.

Note the blue, red, and green lines. These three lines fluctuate between the timbral values twenty and forty-five. The blue line appears when bar 138 of the violin, "slow bow sound,"[46] and "angled bowing sound,"[47] is compared to bars 121 – 160 of the viola. The green line appears

[46] "SLOW BOW SOUND (Slash notehead): The left-hand fingers should touch the strings but should not hold them down firmly (like natural harmonic). It is necessary to bow at slower speed than normal at sul tasto area with light bow pressure. The sound produced is dark, muffled with noisy qualities without very clear pitch intonation. ATTENTION: the written note does not always correspond to the one that is sounded. In this case the performer should follow the written note regardless of the sounding result." From page 5 of the preface in Crama.

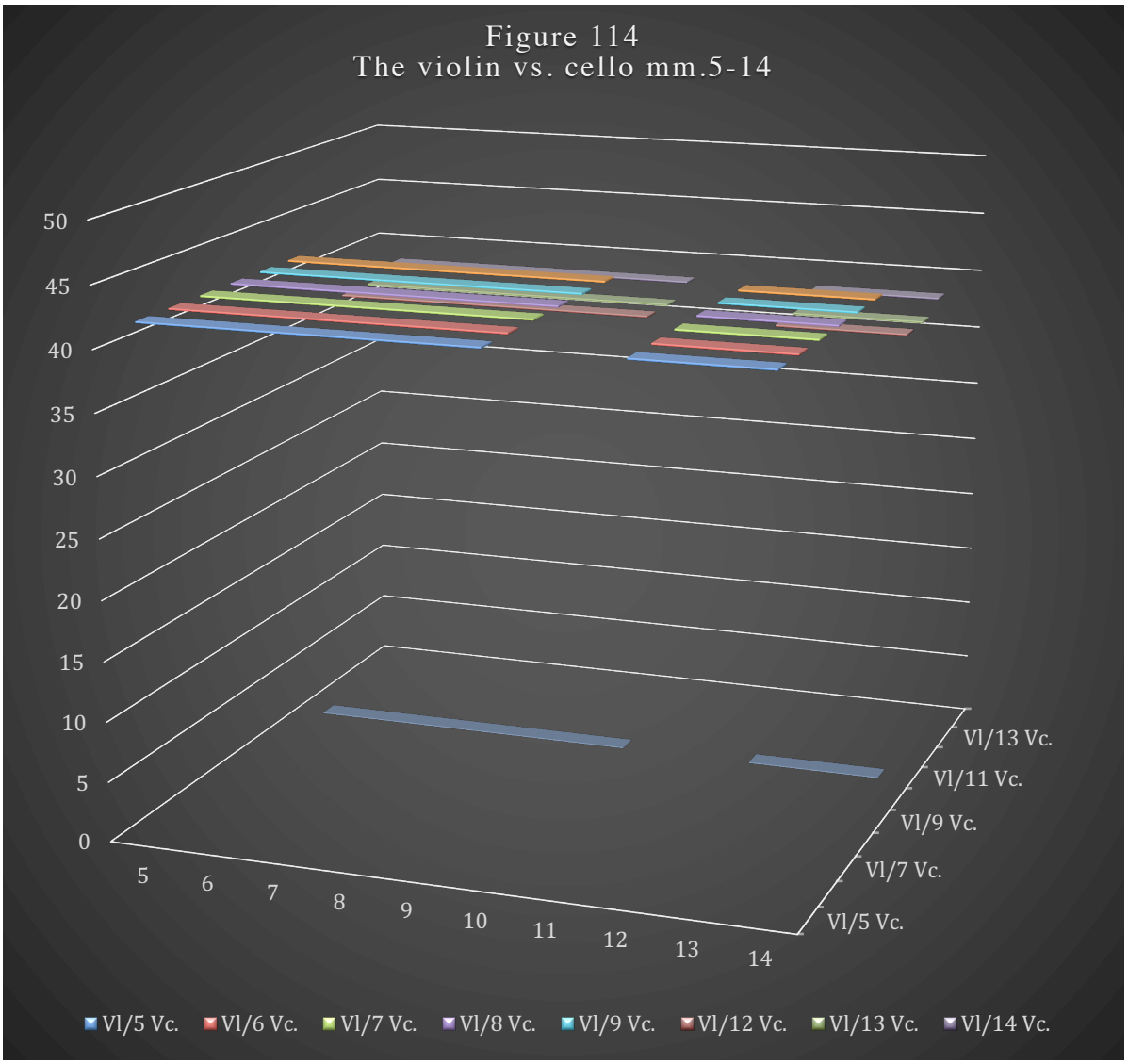
[47] "ANGLED BOWING SOUND: (triangle notehead) The bow moves horizontal to the strings and the same time with a slightly vertical (ordinary) motion. It should be played close to the frog area and in between extreme sul pont [xSP] to sul tasto [xST]. Some extra pressure in order to maintain the strong and rough sound might be required. [b.25] The line on top of the staff labeled 'bow gliss' shows approximately the horizontal movement of the bow in time from xSP to xST position. The Left Hand, with the fingers muffling the resonating strings, occasionally moves up and down across the fingerboard. The sound produced is rich granular texture." From page 6 of the preface in Crama.

when bar 130 of the violin, “ring sound,”[48] is compared to bars 121 – 160 of the viola. The red line appears when bar 131 of the violin, “ring sound,” is compared to bars 121 – 160 of the viola.

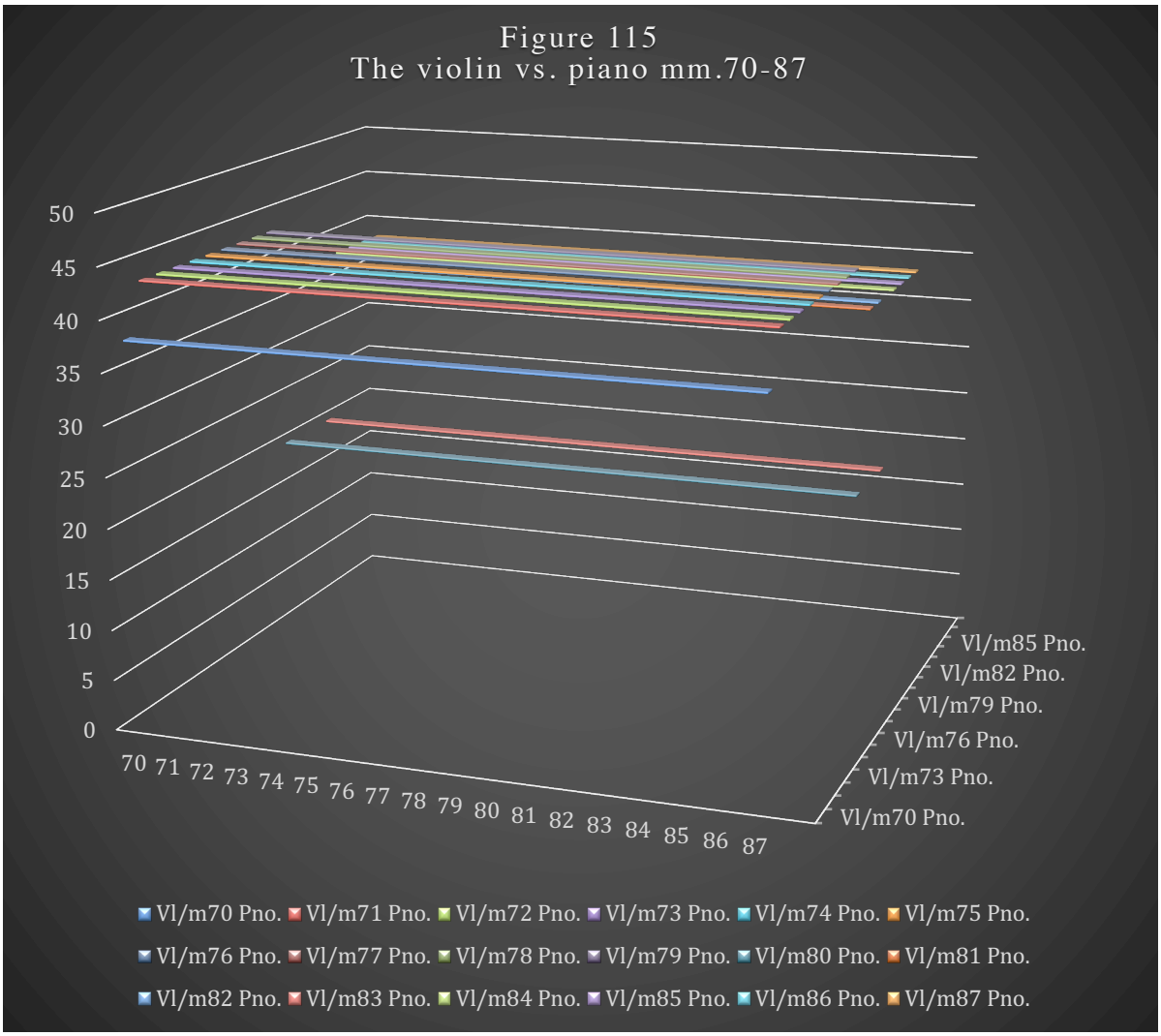
A close listen to bars 130, 131, and 138 of the violin reveals the squeaky and very noisy character, which stands out and creates a dramatic contrast to bars 121 – 160 of the viola. The primary contribution to the distinguished appearance and higher timbral values of the red, green, and blue lines is the squeaky and very noisy character in bars 130, 131, and 38 of the violin.

In this way, the appearance of conspicuous sonic events that do not blend with other sonic events contributes to the appearance of dramatically higher timbral values. As a result, the appearance of such a non-blending sonic event can create a larger timbral space.

[48] “RING SOUND: square notehead followed by triangle line. Hold firmly the note down and bow slowly with some pressure at the [xST] area. The sound obtained better on 1st open string and at the frog of the bow. The further from the frog of the bow the less bright and resonant the sound becomes. [b.45]” From page 6 of the preface in Crama.



The minimum and maximum values in Figure 114 are zero and forty-two. Following Figure 109, Figure 114 presents the second appearance of extreme parallelism. Notice the synchronized appearance of minimum and maximum values in Figure 114, which is almost similar to Figure 111. Figure 114 is also an introduction section; hence, it does not display a clear form, which makes it similar to other introductory sections lacking a clear form. As a result, the avoidance of spikes and drops via repetition of the same timbral motive can be considered a mindset in creating an opening section in a sound-based composition.



The minimum and maximum values in Figure 115 are twenty and forty-three. Notice the absence of zero and the dominant appearance of extreme parallel motion. There are no spikes and drops in Figure 115. This type of motion occurs in Figure 114, making Figure 115 the second appearance of extreme parallel motion—without any spikes and drops—between the minimum and maximum values in Crama. The second appearance of this type of motion proves that a repetition is a tool that contributes to the continuity of sound in Figure 115.