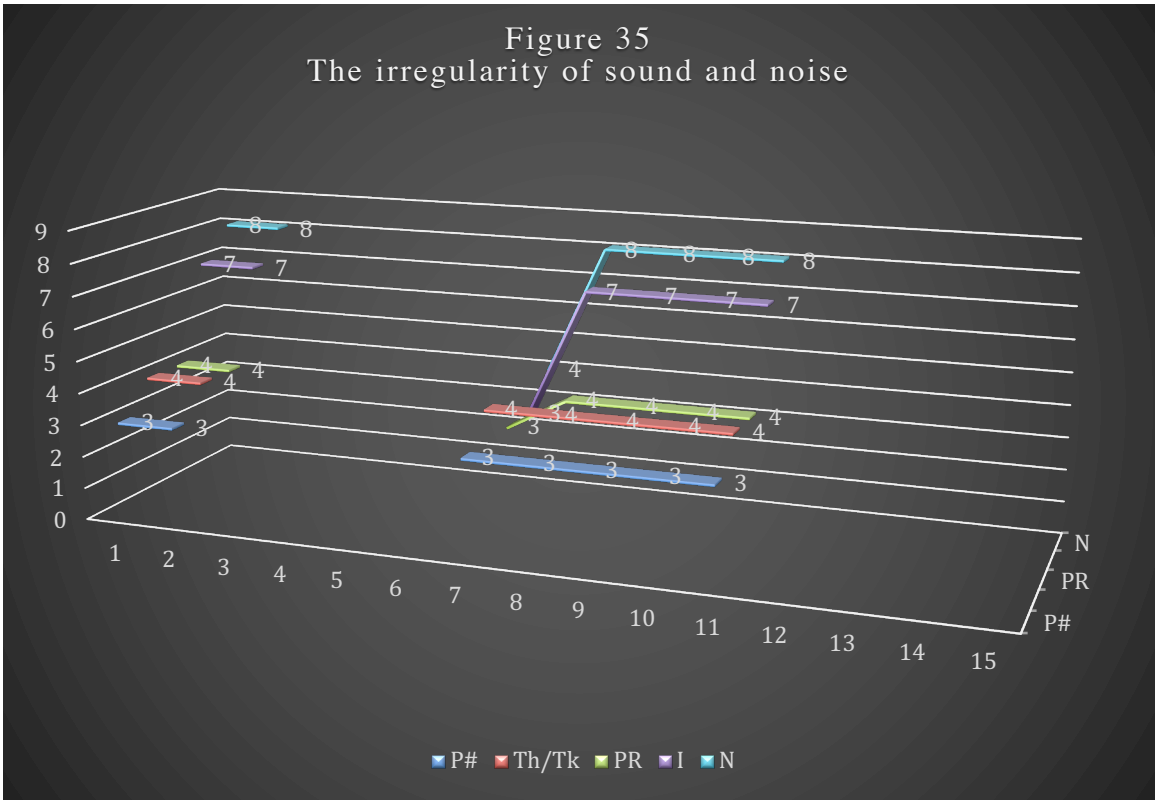
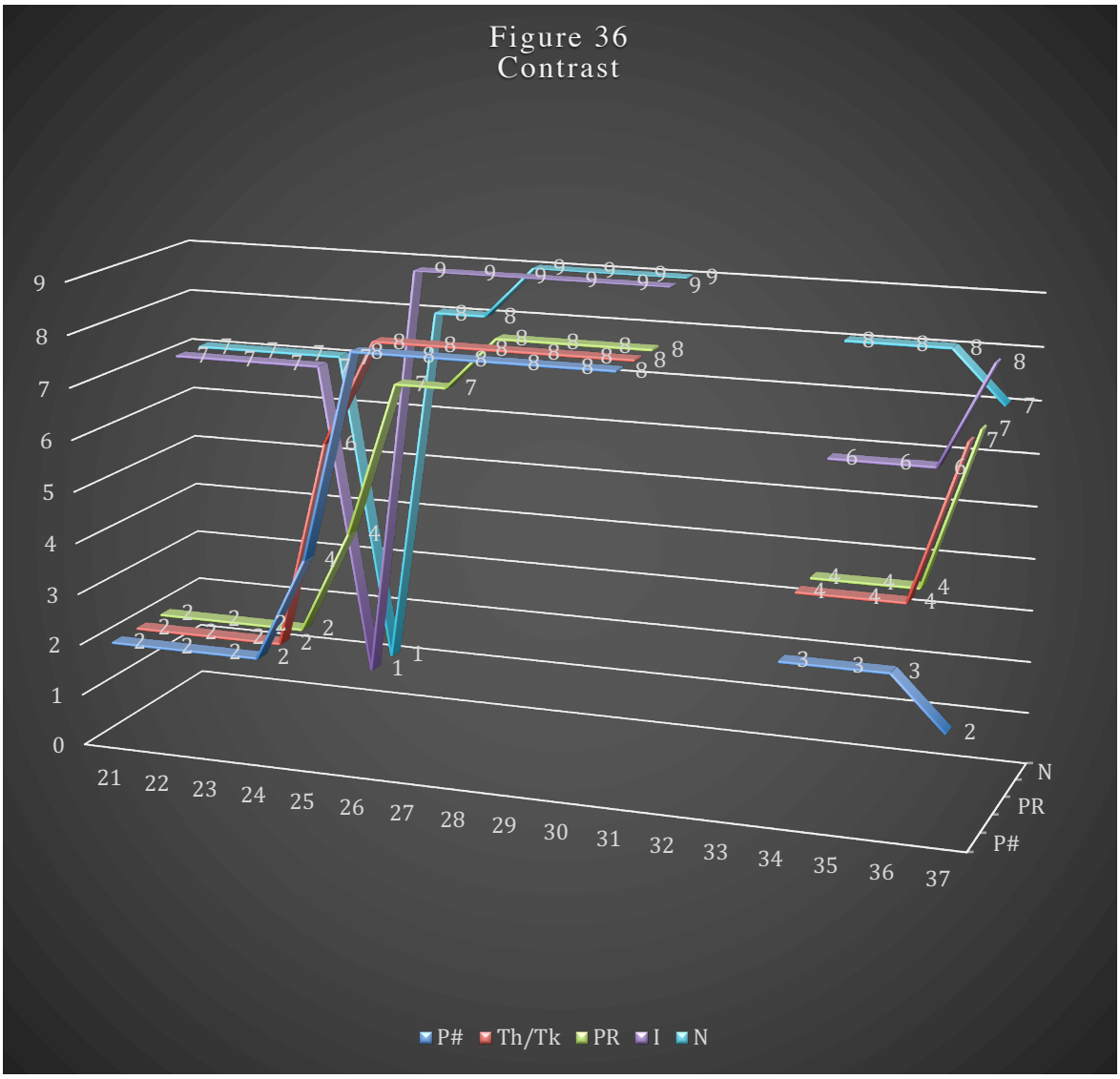
Chapter 4: The Progression of the Five Contributing Elements of Sound and Form in the Clarinet

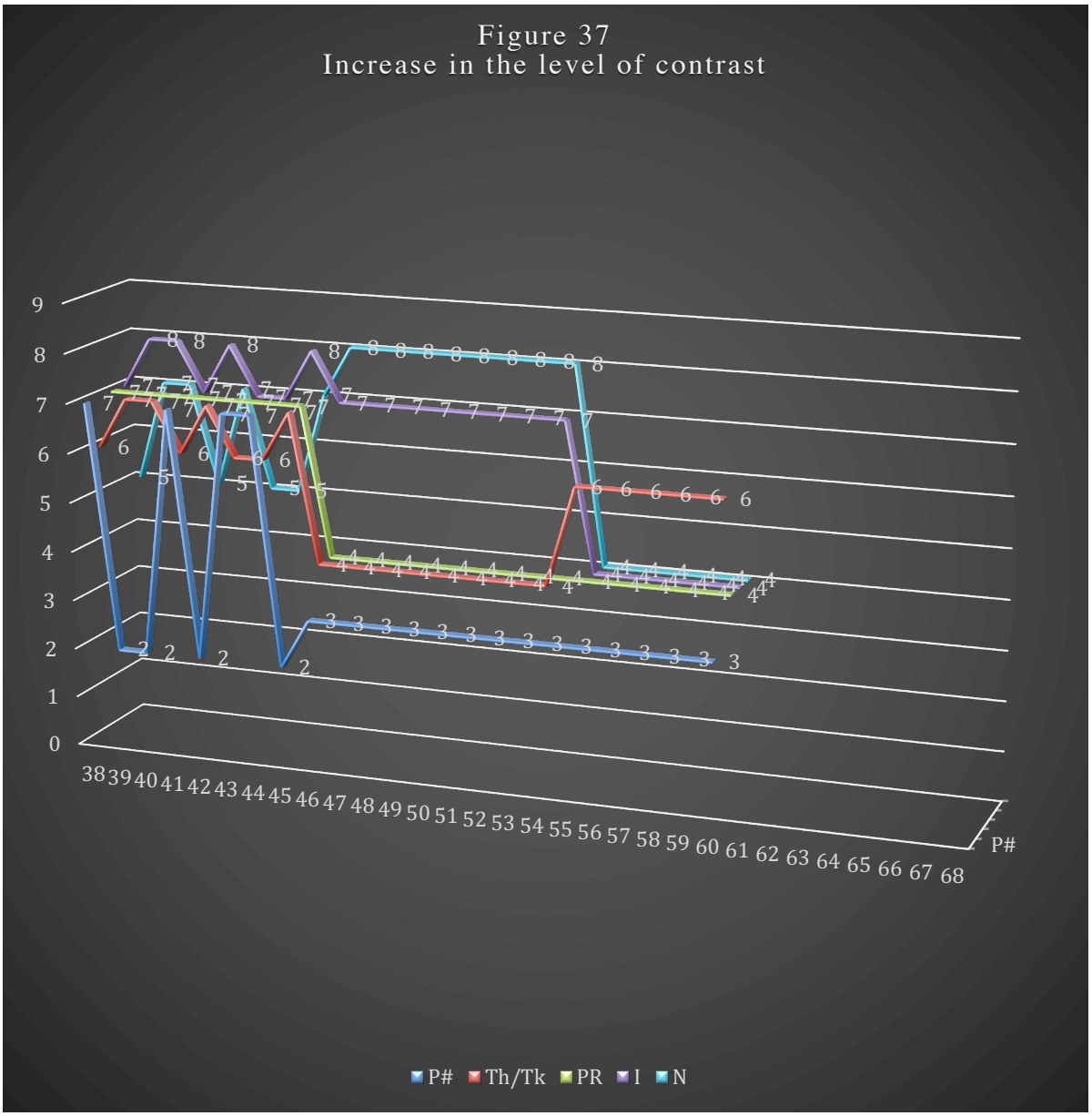
In this chapter, I compare the different combinations of five categories, including the number of harmonic partials, the thinness or thickness of sound, the range of strongest partials, the irregularity of sound, and the amount of noise.



The irregularity of sound is in parallel motion with the other elements of sound for most of this section. A closer look shows that, when there is an increase in the level of noise, there is an increase in the irregularity of sound. Therefore, there is a consistent direct relationship between the level of noise and irregularity of sound in Figure 35. Can there be a contrast or unparallel motion between the level of noise and irregularity of sound? The answer will be discussed in the course of this chapter.



The level of parallelisms between different contributing elements of sound is similar to Figure 35. The only points of contrast between these two sections are: 1) the drop and spike in the level of noise in bars 25 – 27, and 2) the rise and fall between different elements of sounds in bars 37 – 38. The contrasting bars above define Figure 36 as a section in contrast with Figure 35, and this contrast between these two Figures contributes to the form in Crama. Notice the unparallel motion between the irregularity of sound, and the amount of noise in bars 36 – 37.



Concerning parallelism and contrast, Figure 37 can be divided into two smaller sections. Those sections are bars 38 – 46 and 46 – 60. Bars 38 – 46 indicate a significant drop and spike in the number of harmonic partials category, which is in contrast to Figures 35 and 36. Also, there are smaller spikes and drops in the vicinity of bars 38 – 46 within other contributing elements of sound. The spike and drop in bars 38 – 46 is not present in bars 1 – 69, meaning that bars 38 – 69 play a contrasting role in this section and within bars 1 – 69. Notice the slight unparallel motion

between the irregularity of sound, and the amount of noise, between bars 45 – 46.

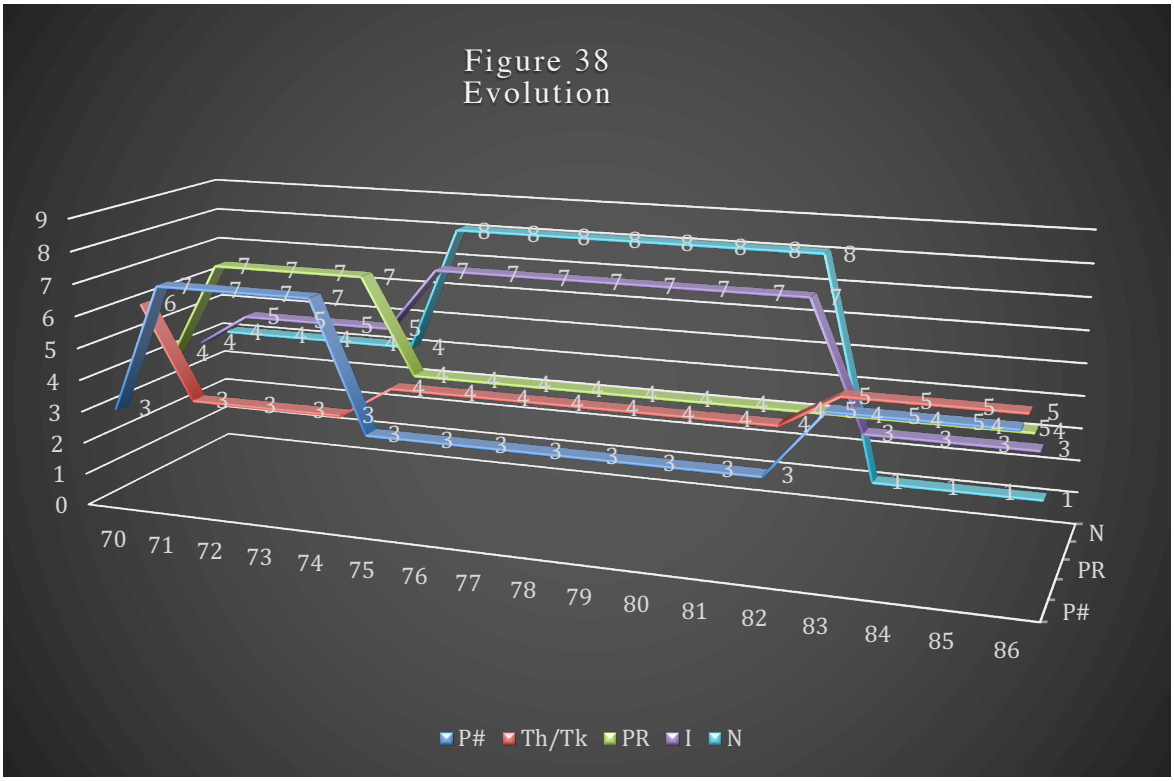
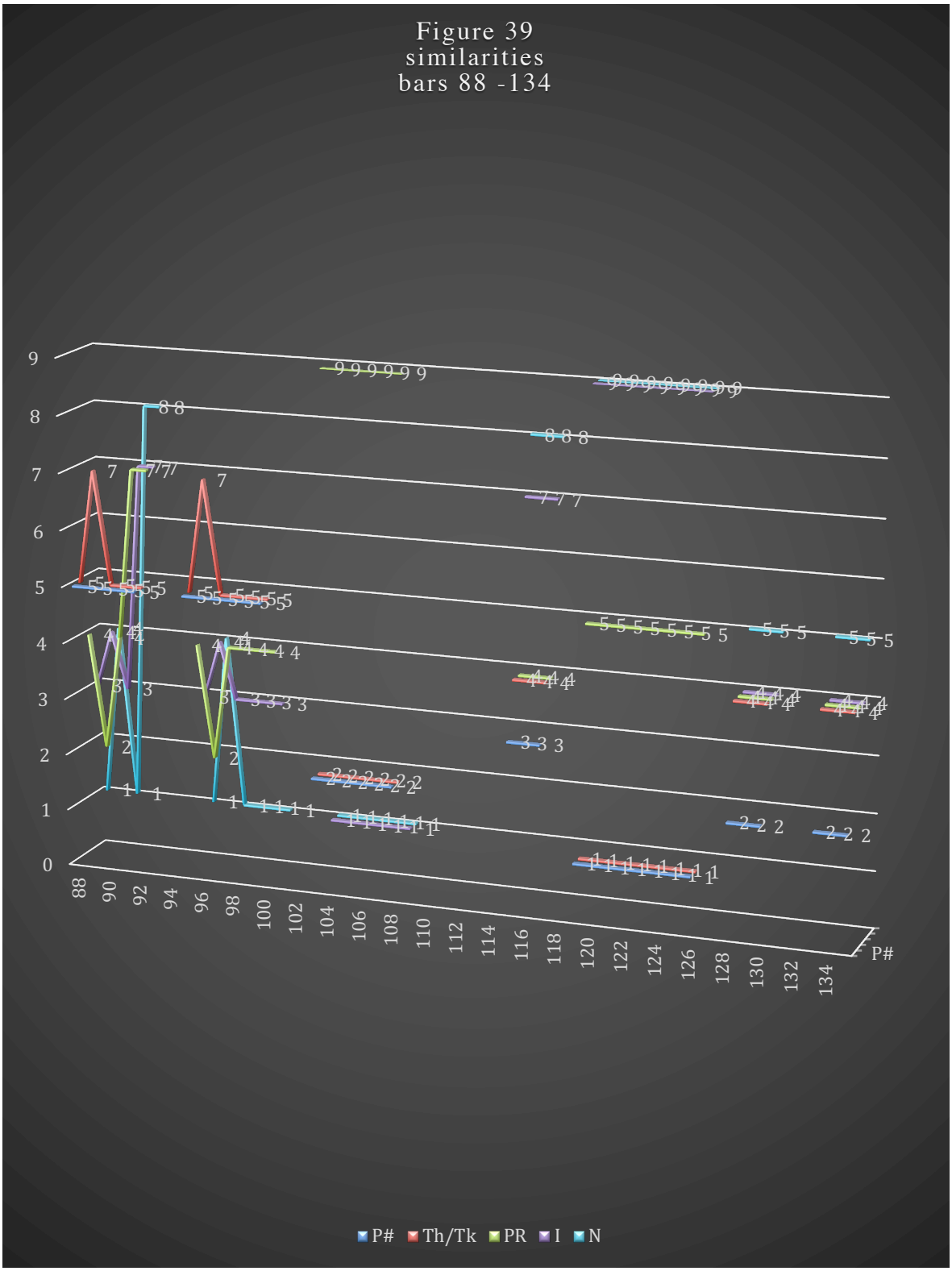


Figure 38 can be divided into three sections. Section 1: bars 70 – 74, showing short spikes, bars 70 – 71, bars 71 – 74, showing small-stagnant motion, and bars 74 – 75, showing short spikes and drops. Sections 2: bars 75 – 82, showing long-stagnant motions. Section 3: bars 82 – 83, showing big drops, and bars 83 – 86, which is short and stagnant.

Figure 38 suggests the first appearance of such a concise construction of spike, drops, and stagnation in Crama, and there is a clear sense of how these three elements are constructed. As Crama makes progress in the construction of its form, the relationship between constructing elements of sound and form becomes more clear. Notice there is no unparalleled motion between the irregularity of sound and noise, levels 4 and 5, in Figure 38.

Figure 39
similarities
bars 88 -134



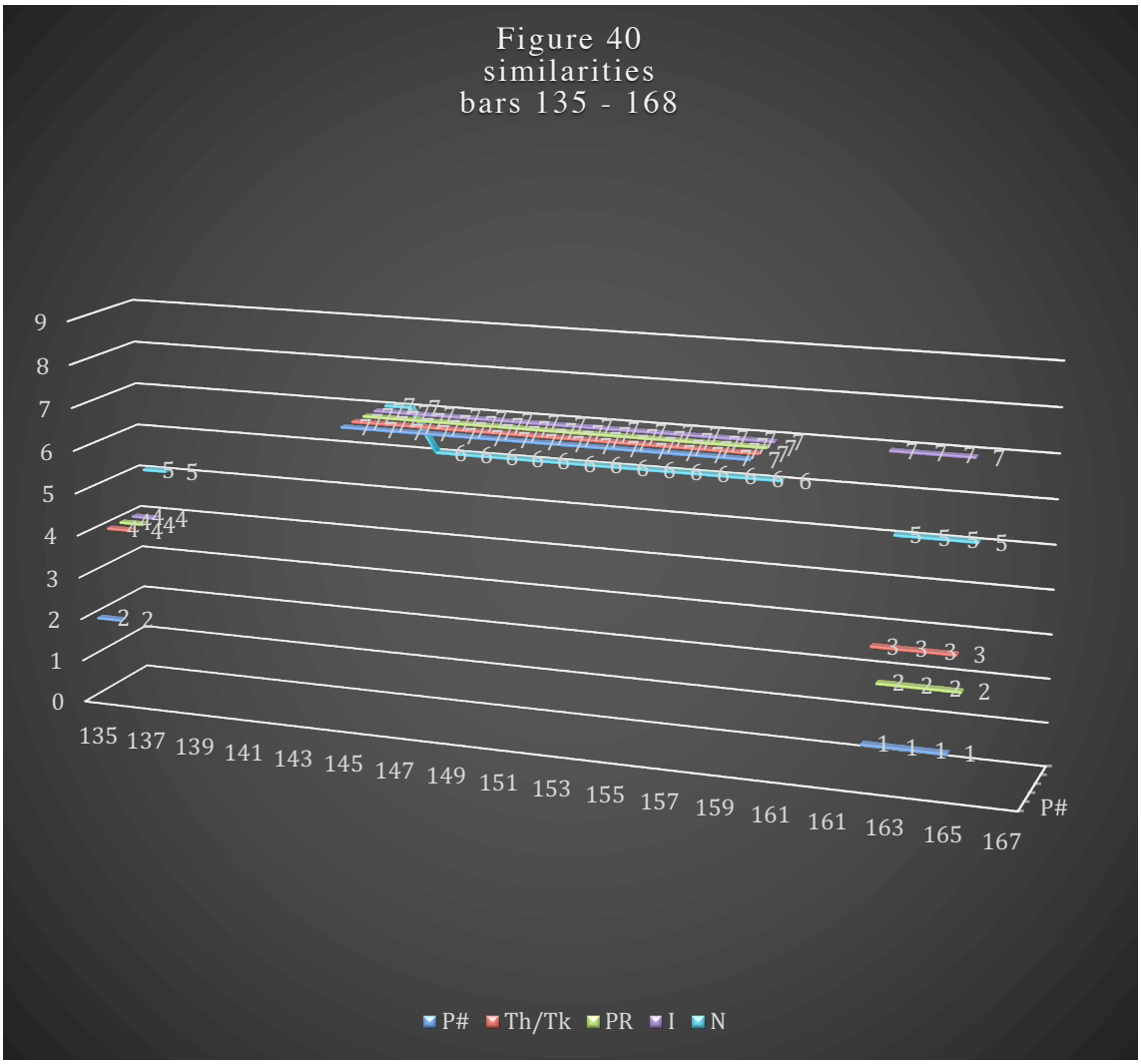
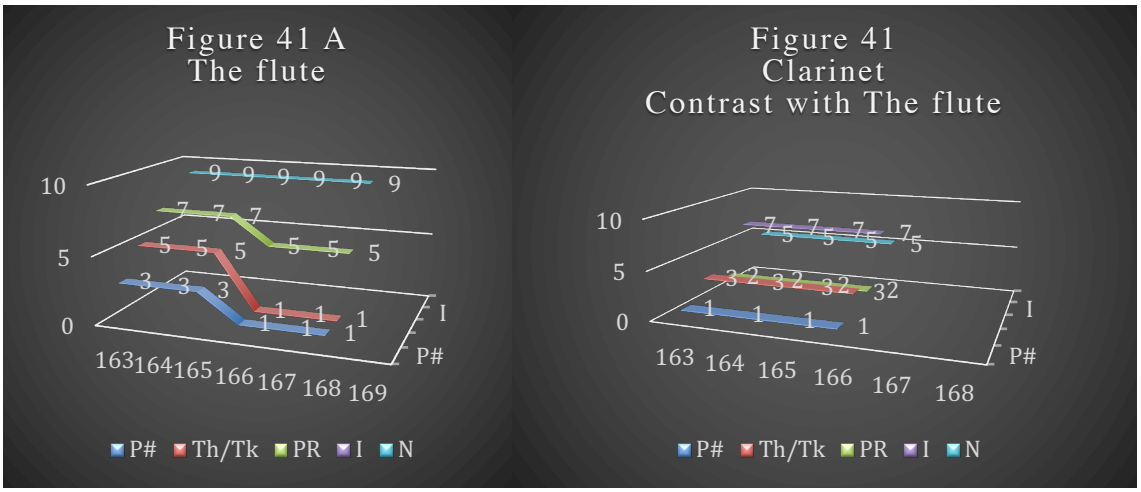
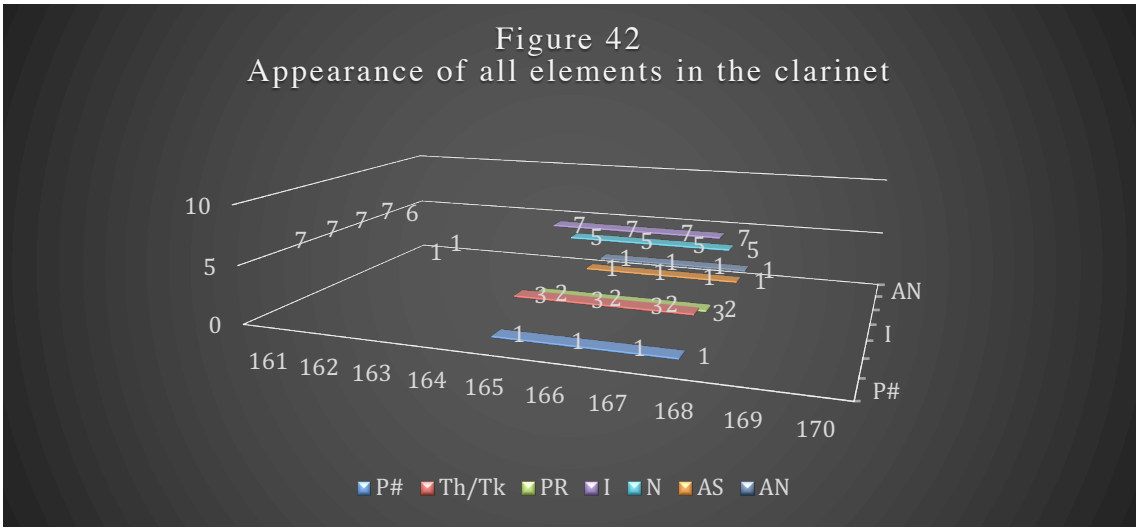


Figure 39 and 40 can be divided into two sections. Section 1: bars 88 – 99, showing large spikes and drops. Section 2: bars 98 to 162, showing long-stagnant parallelism motions. Figures 40 and 37 share the same construction in terms of the relationship between stagnant and spike sections.

Additionally, the spike in the amount of noise in bars 91 – 93, is similar to that in bars 24 – 27 in Figure 42. Thus, there is progress and return to the irregularity of sound. The progress occurred in Figures 37 and 39, and the return in Figure 40. Notice there is no unparalleled motion between the irregularity of sound and noise.





In the discourse of timbre analysis in the flute, within the five contributing elements to the sound of the flute, I noted that all the elements of sound dropped except the level of noise. However, according to Figure 41, the five contributing elements to sound in clarinet stay stagnant. This difference means that the contrast in the timbre of the flute and the clarinet contributes to the anatomy of timbre in Figure 41.

Figure 35 raised a question: Can there be a contrast or unparallel motion between the level of noise and irregularity of sound? The answer to this question is now clear: The sound analysis of

Figures 35 – 41 reveals that a small portion of the sound, under 3%, suggests a contrasting motion between the irregularity of sound and level of noise.