**Review of Stephen Malinowski’s video on music visualization (Bach, Fugue in A minor, BWV 904)**

*Shape, Color, and Line*

The pitch or intensity of the sound is represented by the level of the shape. High pitches have high hanging shapes, instructing the player to seek a higher tone. Low hanging shapes produce and represent low bass sounds that occasionally support an ending signal as a conductor would normally signal to a choir of instrumentalists.

The actual sounds of the various instruments such as the brass quartet at the beginning are represented by different colors. Red is particularly high toned and pointed while yellow/gold provides a treble support, introduced by the playing of a low toned brass quartet. A much lower but slightly deeper quartet was introduced by a new color – green, after the first 45 seconds. Purple, representing a new instrumental sound was introduced after the first minute, providing an array of colors as the harmony of sounds creates a delightful flow of music for the ears.

The transitions are outlaid by lines that look like what we would see in an animated line graph of a data object or variable. The lines convey a direction and a connection between two different levels of pitch and tone.

The larger circles produce broad ranging sounds while the smaller circles produce much more pointed and concise sounds. But it is not uncommon to find multiple smaller circles within a large circle. The combination of two big shapes of, for instance purple and green circles produces a deeper bass sound that might be akin to the impact of two large observations plotted against each other in a size plot.

After about the first two minutes, the sounds are contrasted with different shapes as the circles give way to rectangular bars that represent woodwinds. They have slightly different sounds that enable the player or viewer to visually discern a transition between sounds.

I have learnt through this video that we can visually display music with its various components such as sound, pitch, and flow being represented by various visual elements such as shape, color, and line. This is something that will enable me to easily read music next time I see it displayed visually. This also opens my arts to the endless possibilities of data visualization.