Appendix II

The Binary Path of Tonal Movement is 3-Fold: Experimental Demonstration

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Abstract: Recently I showed theoretically that tonal movement is 3-fold on a spherical basis as the composite function of line and point. I here demonstrate the 3-fold path by counting tonal movements on commonly used instruments.

Demonstrating Fold Path of Tonal Movement

On Piano:

1. The chromatic path by note
2. The harmonic path by key
3. And on the transposing piano by mechanical lever (algebraic operator) that moves the instrument position relative to strings.

On the Music Staff

1. By Position on Staff
2. By Clef
3. By Concert Pitch

On Guitar

1. By Strings so that String Number and Pitch Value Rise Together (by tuning)
2. By Frets so that Fret Number and Pitch Value rise together
3. By String and Fret as a composite function where String Number rise or fall but pitch values do not (iso-pitch line ciphers pitch not position)

A String

1. Mass
2. Tension
3. Length

Tablature

1. By Lower Note
2. By Tuning
3. By Capo

By Transposition

1. To change position literally
2. Also to change pitch
3. Pitch-Position can move as a composite function.

This should serve to open the mine of the spherical manifold on which music is composed.

We hear music on a sound horizon so that it seems that pitch can only rise or fall.

In this sense I am introducing the idea that guitar chords and scales are higher dimensional structures, so that those who believe music is planar resemble the flatlander when the sphere came through town and tried to explain there was another dimension.

Except in this case we simply have to look to see that the binary path of tonal movement really is 3-fold.