## A PUZZLING WAY TO GENERATE MUSICAL LYDIANS

An addendum to my Zepp-LaRouche Sphere of Change report of May 6, 2025

By Pierre Beaudry, 5/24/25

This little puzzle started with the question: how do you generate a quadratic Lydian spiral? This short addition to my previous report of May 6, 2025, is more of a question of musical ordering principle than a technical musical question, because the underlying question behind it is: is there such a thing as a geometrical-musical coincidence of opposites in the galactic domain of temporal eternity?

There are three different sets of double Lydian Spirals in the well-tempered musical system. They are: [E, G, Bb, C#,] [D, F, Ab, B] and [C, Eb, F#, A] generating each other in that order. If you wish to discover where the quadratic Lydian spiral of E, G, Bb, C#, comes from, you can play on the keyboard the following series of seven notes and wait for the resolution of the appropriate note to come to your mind (and not to your ear) from the future. You will discover that:

F#, Eb, F# generates E В, Eb, F#, Α, C, A, F#, F#, A generates G Eb, C, A,  $\mathbf{C}$ generates **Bb** Eb, C, **Eb** generates **C**# Ab, C, Eb, F#,

This demonstrates that **E**, **G**, **Bb**, **C**#, comes primarily from another Lydian set which is **C**, **Eb**, **F**#, **A**. This is the ordering I use in my exercise in Figure 1 below, which I devised 12 years ago. However, I had not realized, then, that by generating the quadratic Lydian spiral of **E**, **G**, **Bb**, **C**#, I was also using the material of the two other sets of quadratic Lydian Spirals at the same time; that is,

in the simultaneity of temporal eternity. This process is very elementary, but it became curiouser and curiouser.



Figure 1. Performative Lydian Cycle for generating E, G, Bb, C#,

The surprise came to me through visual sense perception when I expressed the process with letters as opposed to notes. Then, I discovered that by generating one quadratic Lydian Spiral, I was also composing the other two, at the same time, because all of the vertical ordered notes turned out to be minor thirds. This seemed to be like doubling the cube with Archytas' shadow of the proportionate perpendicular which gets you to a higher power.

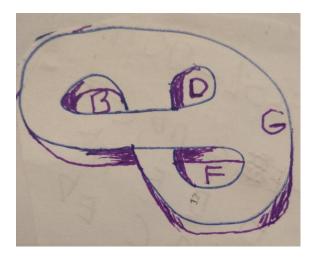


Figure 2. G, B, D, F, D, B, D generates C

This may not make sense to you, but to me, this configuration of Figure 2 was like a replica of Riemann's geometrical representation of a quadratic manifold, which illustrates how something coming from the future finds closure with many others in the present of eternal physical space-time. (Figure 3.)

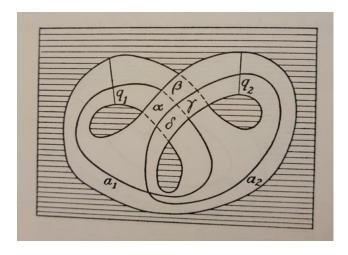


Figure 3. Riemannian quadratic manifold.

I was struck by the similarity between the Riemannian manifold and the Lydian ordering process. Here you have it in a nut shell. Try to conceptualize the following visual configuration:

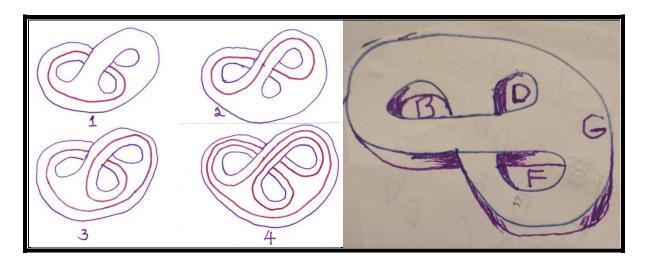


Figure 4. Four different cycles into one where G, B, D, F, D, B, D generates C

Number 4 of Figure 4 shows how I hear **G**, **B**, **D**, **F**, **D**, **B**, **D**, as the generating ordering of **C** coming from the future. In my mind, the motion is that of a knot which has a continuous cyclical torus motion of seven steps closing on themselves to generate **C**: Compare No. 4 with Figure 2, which is drawn in opposite direction with the musical notation added to it.

Put your finger on the upper right side of No 4 and move, from right to left, clockwise, around the outer contour of the red line. Do the same with Figure 2, moving in the same direction, from right to left clockwise. In both opposite cases, the first **G** cycle moves clockwise toward **B**. The second, third and fourth cycles of **B**, **D**, and **F** move counterclockwise. The fifth and sixth cycles of **D** and **B** similarly move clockwise. And finally, the seventh and last cycle of **D** goes back counterclockwise to close the motion.

For me, this torus motion is a clue which indicates that both hearing and visual perceptions work the same way. Are quadratic Lydians true expressions of the Riemannian quadratic manifold? Do they belong to the same galactic domain of thinking? What do you think? **FIN**