## LETTER TO MUSICIAN-GEOMETERS by Pierre Beaudry, 7/5/2021

Things always finally come together, by anticipation of the future, and I thought that a few musician-geometers of the LaRouche movement might benefit from my more recent investigations into the relationship between the welltempered musical system and Platonic constructive geometry. The idea is also about the immediate next change coming in human history.

I have been working for some years on the hypothesis that it is possible to express the axiomatic transformation of the six register shifts of the human voices with the "spherical" geometry of the Platonic Solids and to use this method in the form of an anticipation of what is coming next in human history. In other words, this is a hypothesis which serves as a geometrical metaphor for a higher hypothesis that I have recently come to formulate following the LaRouche method of the placement of the voice in classical Bel Canto singing:

Lyn emphasized in his Music Manual that an axiomatic transformation can take place in the voice of a singer by increasing the power of his or her voice, when that voice is placed in such a way that it is able to pass, anti-entropically, from its first lower register to its second higher register; that is, as a change to a higher Riemannian manifold. This is also how the human mind must anticipate the next step that humanity must take in order to evolve into a higher domain.

However, as Lyn demonstrated, such an axiomatic transformation can only take place when the tuning of the voice is based on middle C-256, in which case, the changes of the voices take place for all of the six human voices respectively at $\mathbf{C}$ (Tenor), B b (Baritone), A b (Bass), F \# (Soprano), E (Alto), and D (Contralto), opening each voice's second register in that cyclical order. These six voice register keys are generated in a continuous ordered succession by three Lydian spiral actions of the well-tempered musical system, that is: D, F, A b, B, which generates $\mathbf{C} ; \mathbf{C}, \mathbf{E} b, \mathbf{F} \#, \mathbf{A}$, which generates $\mathbf{B} b ; \mathbf{B} b, \mathbf{C}, \mathbf{E}, \mathbf{G}$, which generates $\mathbf{A} b ; \mathbf{A} b, \mathbf{B}, \mathbf{D}, \mathbf{F}$, which generates $\mathbf{F} \# ; \mathbf{F} \#, \mathbf{A}, \mathbf{C}, \mathbf{E} b$, which generates $\mathbf{E}$; and $\mathbf{E}, \mathbf{G}, \mathbf{B} b, \mathbf{C} \#$, which generates $\mathbf{D}$. This ordering of the six voice register shifts is reflected by inversion in the change from a higher geometry to a lower geometry, as in the case of the change from the spherical domain is to the polygonal domain, or as the change from the conical-spiral domain is to the domain of simple circular action.

## THE THREE LYDIAN SPIRALS



FIGURE 22. GEOMETRIC MEAN SPIRAL OF F \#


FIGURE 23. THE HARMONIC MEAN SPIRAL OF F.


## FIGURE 24.THE ARITHMETIC MEAN SPIRAL OF G.

(Note in the above figures 23 and 24 an error of identification was made between the arithmetic and the harmonic means)

I have also found that these three Lydian quadratic spiral actions belong, respectively, to the Dominant, the Sub-Dominant, and the Tonic, as G, F, and $\mathbf{C}$ in the key of $\mathbf{C - 2 5 6}$. One of the most fascinating geometrical aspects of this Lydian quadratic spiral action is that the ordering placement of all of those six voices also corresponds to the counterclockwise ordering motion of a hexagonally partitioned circle, ten of which are required to form a sphere which generates all of the Five Platonic Solids. See below:

Note how the six voice ordering of the register shifts $\mathbf{C}, \mathbf{B} b, \mathbf{A} b, \mathbf{F}, \mathbf{E}, \mathbf{D}$ partition the circle into six equal parts. The following shows that the construction of the Five Platonic Solids requires the sphere and that the coming together of the Platonic solids can only be anticipated from such spherical action, and that such spherical action determines each and every future outcome. The multiply-
connected interaction of all of the sixty spherical voice register shifts forms the twelve polyphonic pentagonal vertices of the icosahedron (not shown).







In conclusion, depending on how the Lydian spirals are organized, only one future event will come to be and no other. The musician will hear it as a dissonant resolution coming into his mind before it comes to be played. As LaRouche's principle of forecasting demonstrates, the musical composer is able to determine in advance what the future outcome will be. Like the case of any well-ordered future event to come, all three Lydian spirals are able to generate each other in harmonic succession, as in the following case of the Arithmetic Mean Spiral: E, G, B b, C\#.


Transformative Lydian cycle exercise.

