|  | $\mathbf{C}$ | $\mathbf{D}$ | $\mathbf{E}$ | $\mathbf{F}$ | $\mathbf{G}$ | $\mathbf{A}$ | $\mathbf{B}$ | $\mathbf{C}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{( 1 / 1 )}$ | $\mathbf{( 9 / 8 )}$ | $\mathbf{( 5 / 4 )}$ | $\mathbf{( 4 / 3 )}$ | $\mathbf{( 3 / 2 )}$ | $\mathbf{( 5 / 3 )}$ | $\mathbf{( 1 5 / 8 )}$ | $\mathbf{( 2 / 1 )}$ |
| $\mathbf{C}$ |  | $9 / 8$ | $5 / 4$ | $4 / 3$ | $\mathbf{3 / 2}$ | $5 / 3$ | $15 / 8$ | $2 / 1$ |
| $\mathbf{D}$ |  |  | $10 / 9$ | $32 / 27$ | $4 / 3$ | $\mathbf{4 0 / 2 7}$ | $35 / 18$ | $16 / 9$ |
| $\mathbf{E}$ |  |  |  | $16 / 15$ | $6 / 5$ | $4 / 3$ | $\mathbf{3 / 2}$ | $8 / 5$ |
| $\mathbf{F}$ |  |  |  |  | $9 / 8$ | $5 / 4$ | $45 / 32$ | $\mathbf{3} / \mathbf{2}$ |
| $\mathbf{G}$ |  |  |  |  |  | $10 / 9$ | $5 / 4$ | $4 / 3$ |
| A |  |  |  |  |  |  | $9 / 8$ | $6 / 5$ |
| B |  |  |  |  |  |  |  | $16 / 15$ |

## ½ Matrix of Diatonic Just Intonation Scale

Every scale can be represented as a matrix of relationships between each degree of the scale and all others. This half-matrix shows those relationships in the historic Just Diatonic scale described above. Intervals are given as ratios between each interval and all others. $5^{\text {th }}$ s are in bold. The "wolf" $5^{\text {th }}$ is the interval $40 / 27$ between the $2^{\text {nd }}$ and $6^{\text {th }}$ scale degree - the only "impure" P5 $5^{\text {th }}$ in the scale. Note that all M3 ${ }^{\text {rd }}$ s (C-E, F-A, G-B) are "pure" intervals of 5/4.

