

Law of Ratios

Ramsay

The [Art of Music](#), which is [music](#) on its [spiritual](#) and [inspirational](#) side, has been carried to a wonderful perfection of development; while the [Science of Music](#), which is [music](#) on its [intellectual](#) and [logical](#) side, has been left far behind. Works on the [Science of Music](#) have been a failure, not because music has not a scientific basis, but, and for the most part, because Mathematicians have dealt only with the **law of Ratios**, ignorant of other laws which play an important part in music's scientific basis and build. They have carried the **law of ratios** beyond its legitimate sphere, and so their conclusions do not represent the method of [Nature](#) truthfully. [[Scientific Basis and Build of Music](#), page 33]

she is found to have produced the [Chromatic scale](#) of twelve [semitones](#), derived from her own vital operations; so that there are no anomalies. It is a degradation of the mathematical primes to apply them to the getting of the [semitones](#) of the [chromatic scale](#), as even [Euler](#) himself mistakenly does. The mathematical [ratios](#) lead the way in getting the [notes](#) of the [diatonic scale](#), and that is all that is required of them. The true praise to the ratios is that they have constituted an [organic](#) structure with **form** and [life-powers](#) adapted for self-development. It would be little credit to the mother if the child required to be all its life-long pinned to her apron-strings. As the bird when developed so far leaves the shell, and is afterwards fully developed in new conditions; so the [System of music](#) when developed so far leaves the **law of ratios**, its mathematical shell, and is afterwards fully developed by other [laws](#). [Music](#) has an [inspirational](#) as well as a mathematical basis, and when mathematicians do not recognize this they reckon without their host. [[Scientific Basis and Build of Music](#), page 35]

When the [major scale](#) has been generated, with its three chords, the [subdominant](#), [tonic](#), and [dominant](#), by the primary mathematical [ratios](#), it consists of [forms](#) and [orders](#) which in themselves are adapted to give outgrowth to other forms and orders by the [law of duality](#) and other [laws](#). All the elements, orders, combinations, and [progressions](#) in [music](#) are the products of natural [laws](#). The **law of Ratio** gives [quantities](#), [form](#), and [organic structure](#). The [law of Duality](#) gives [symmetry](#), producing the [minor mode](#) in response to the [major](#) in all that belongs to it. The [laws of Permutations and Combinations](#) give orders and [rhythms](#) to the elements. The [law of Affinity](#) gives [continuity](#); continuity gives [unity](#); and unity gives the [sweetness](#) of [harmony](#). The [law of Position](#) gives the [notes](#) and [chords](#) their [specific levities](#) and [gravities](#); and these two tendencies, the one upward and the other downward, constitute the [vital principle](#) of [music](#). This is the [spiritual](#) constitution of music which the [Peter Bell](#) mathematicians have failed to discern: [[Scientific Basis and Build of Music](#), page 37]

The [sympathy](#) of one thing with another, and of one part of a thing with another part of it, arises from the [principle](#) of [unity](#). For example, a [string](#) requires to be uniform and [homogenous](#) to have [harmonics](#) producing a fine quality of [tone](#) by the sweet blendings of [sympathy](#); if it be not so, the [tone](#) may be miserable ... You say you wish I were in touch with Mr. [Keely](#); so do I myself ... I look upon [numbers](#) very much as being the [language](#) which tells out the doings of [Nature](#). Mr. [Keely](#) begins with [sounds](#), whose [vibrations](#) can be known and registered. I presume that the [laws](#) of **ratio**, [position](#), [duality](#), and [continuity](#), all the [laws](#) which go to mould the plastic [air](#) by elastic bodies into the [sweetness](#) of [music](#), as we find them operative in the low [silence](#) of oscillating [pendulums](#), will also be found ruling and determining all in the high [silence](#) of interior [vibrations](#) which hold together or shake asunder the combinations which we call [atoms](#) and ultimate [elements](#), but which may really be buildings of wondrous complexity occupying different [ranges](#) of place and [purpose](#) between the [visible cosmos](#) and [Him](#) who built and evermore buildeth all things. The same [laws](#), though operating in different [spheres](#), make the [likenesses](#) of things in [motion](#) greater than the [differences](#). [[Scientific Basis and Build of Music](#), page 87]

See Also

