

# SACRED GEOMETRY AND ARCHITECTURE



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# 4

## BIOFRACTAL DESIGN PROCESS

### *4.6- Primary unit of measure: Planck length by the exponent of the golden ratio or by duplication*

From the conceptualization to the construction of a project, biofractal design, like all design, is a creative process that demands the synthesis and analysis of the project in its entirety as in each stage. The difference between the biofractal design and any other design method is that it takes into account the mathematics of Nature and incorporates them in proportions and final sizes. This generates fractality or embodying with the rest of the microcosmic and macrocosmic constructions. Materializing them in the mesocosmos: our cellular world. We take as a starting point the Planck unit or Planck length which is the minimum unit (hitherto known) of vibration of the electromagnetic field. This length or oscillation has a very small value of the order of  $1,616 \times 10^{-34}$  meters. At some point in the evolution of scientific thinking on our planet with more sophisticated devices we can surely scan into smaller limits. However, for now this is the parameter from which we start with the design and see the embodying of it.

As the physicist Dan Winter points out, if we multiply the Planck oscillation by the golden number in different powers we will obtain the list of horizon events that coincide with the cosmic macro and micro world. What we are doing is multiplying the Planck length by so many times the power of Phi and we obtain how the Universe in which we live fits. If this same logic is extrapolated to the size and proportion of architectural constructions, what we are doing is reverberating with the architecture of the Universe.

In the graph we can observe the Planck time in years (the turn) with respect to the high power. To understand the graph better we must understand

that the Planck length ( $1.61619926 \times 10^{-35}$  m), is the Planck time ( $1.35125 \times 10^{-43}$  sec) multiplied by the speed of light. In such a way that for effects of the electromagnetic emission there is a relation where it is established that the Planck length by the golden ratio raised to a given integral for the wavelength is equal to the time of Planck for the golden ratio raised to a given integral for the frequency.

In the vertical axis we have the time while in the horizontal axis the exact value of the integral being an equation that calculates the Planck time by the golden ratio raised to an integral. An example would be to calculate the solar year where we have the following values: Planck time ( $1.35125 \times 10^{-43}$ ) x golden ratio to N ( $1.618^{241.01}$ ) = 31538925.97 seconds that is equal to one year of solar revolution. Winter also calculates the Venus revolution: Planck time x golden ratio  $^{240}$  (224.701 Earth days / solar year 365.242 = 0.6152 (~ golden ratio), and with this the frequency of the Hydrogen could be calculated,  $((1 / 1.35125 \times 10^{-43}) / 1.618033989^{171}) = 13.563688$  Mhz.

The three values of the radius of the Hydrogen (0.282537 Angstrom, 0.457154 Angstrom, 0.739691 Angstrom) are in the length of Planck x  $\Phi^{116}$ , 117, 118. At the cellular level the ADP has a size of 1.93 Angstrom that is obtained from the same equation: Planck length x  $\Phi^{120}$ . And more incredible still the photosynthesis that occurs in the frequency range of 427 nm and 691 nm corresponds to Planck length x  $\Phi^{136}$  and 137. An important value for the architectural calculation is that of the foot whose value is 0.3084 meters and we obtain it by length Planck x  $\Phi^{164}$ . We also find significant values in the electromagnetic waves emitted by the human brain, which correspond to the Schumann resonance in primordial and harmonic tones: 2.78 Hz, 4.5 Hz, 7.29 Hz, 11.8 Hz, 19.09 Hz. In the heart, the range of cardiac variability, which are the harmonics emitted by the healthy heart correspond to the value 0.0959 Hz and we obtain it by Planck length x  $\Phi^{210}$ . Solar revolution of the Earth and Venus corresponds to Planck length x  $\Phi^{240}$  and 241, respectively.

The English unit of measure, the foot, (length of Planck x  $\Phi^{164}$ ) fits better in this cascade of micro, meso and cosmic macro harmonics than the meter, since as intuitively John Michell (1977) says it from the stroke of diagonal, golden and harmonic squares we have the sacred measures of antiquity: 1.2165 feet = 1 remen; 1.2165 x root of 2 = 1.72 feet = 1 real elbow; 1.2165 x root of 3 = 2,107 feet = 1 Palestinian elbow; 1.2165 x root of 4 = 2.433 feet = 1 Roman foot; 1.2165 x root of 5 = 2.72 feet = 1 megalithic yard; 1.2165 x root of 6 = 2.98 feet = 1 yard.