VISUAL COMPLEXITY OF FRACTAL RHYTHM

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Abstract: In architectural and urbanistic compositions, fractal rhythm is the rhythm generated through objects of fractal geometry observed as though they were mathematical models of natural rhythm. Due to the presence of a component of randomness, fractal rhythm is classified among nonexact rhythms. This paper will attempt to prove that fractal rhythm is assessed as visually more complex than exact rhythms. In addition, it will also show how the selection of a fractal as a model of rhythm with particular mathematical properties may influence visual complexity of the generated rhythm, and presumably, aesthetic perception of such rhythm.

Keywords: fractal rhythm, random fractals, fractal dimension, visual complexity, aesthetic measure