FORMATION OF BATIK MOTIF PATTERNS USING THE SIERPINSKI FRACTAL METHOD

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ABSTRACT

Fractals are geometric bodies that are rough at a particular scale and can appear to be "divided" in radical ways. Fractal comes from the Latin fractus, which means "broken," "broken," or "irregular," which Benoit Mandelbrot introduced in 1975. Fractals can be found in everyday life, for example, cloud shapes, coastline contours, leaves, music. The use of fractals is extensive. Batik is a genre of art and culture whose patterns have properties such as fractals, self-similar patterns, or similarities by themselves, such as parang batik, nitik batik, truntum batik. Making batik is one of the media that can use fractals as inspiration to create motifs. Because of this, fractals can be used in the arts and culture, and the patterns produced by fractals can be applied to motifs on batik cloth. Repeating patterns will produce a beautiful image. Fractal itself has several derivative sets, such as Mandelbrot sets, sierpinski triangles, van Koch curves, cantor dust, and cantor. Generating with geometric is done on the basis of triangles and squares as a prefix. And the resulting geometric patterns are then arranged to form a sierpinski triangle pattern and square sirpinski or known as carpet sierpinski. Do several iterations to get a sierpinski triangle and square sierpinski. The more iterations, the more results you get.

Keywords: Fractals, Batik, Mandelbrot Set, Sierpinski's Triangle, Van Koch Curve.