FASHION
Nancy Margried, Batik Fractals

THREE
ENTREPRENEURS
ARE USING
SOPHISTICATED
SOFTWARE
TO REINVENT
BATIK DESIGN.

FEW INDUSTRIES ARE more traditional than batik. Yet three entrepreneurs have found a way to create unique batik using cutting-edge software, marrying the old with the new. Their innovation is to create batik using fractals, a mathematical principle that can produce computer images of complex natural objects such as waves, flames, mountains and lava. Fractals are widely used in Hollywood films to produce realistic-looking backgrounds and in cartography to map jagged coastlines. It turns out that batik designs, with their intricate motifs, can be generated using fractal formulas.

The moment of inspiration came in March 2006 when three friends, Nancy Margried, Muhammad Lukman and Yun Hariadi, were hanging out in a café in Bandung. Lukman was researching how to use fractals in architectural design as part of his studies for a masters degree in architecture from the Bandung Institute of Technology. On a whim, he opened his laptop and used his fractal software to draw a flower on the screen. "Then I said 'hey that looks like batik'," says Nancy. His friend Yun took a look and remarked how much batik looks like a fractal design. Nancy suggested that Lukman and Yun work together to research this idea. After that conversation, they started to delve into the use of fractals to make batik designs.

The research took about a year, including scanning 300 batik samples from across the country from books and photos, analyzing the patterns and writing the software to recreate the patterns using fractal principles. After doing the research, the three decided to become entrepreneurs, forming the Pixel People Project in January 2007, later producing a software program called jBatik that can be used by batik makers to generate these high-tech designs. They are also making their own batik clothing using the fractal designs.

As with many start-ups, it was hard for the three to find financial support. However, Komarudin Kudiya, the owner of batik producer Rumah Batik Komar in Bandung, agreed to print batik using the jBatik program. "The software was in its alpha version, no one was able to operate it besides us and we were lucky to find a batik producer that was willing to try this," Nancy says. The trio also got support from Kusmayanto Kadiman, the minister of research and technology at the time, who bought the batik, and gave funding that allowed them to update the software.

Last year PT Telkom Indonesia and chipmaker Intel sponsored jBatik training for batik producers. Lenovo also bundled the software into laptops sold in batik producing areas such as Solo and Pekalongan. "The demand for the special laptops was good, and we have also received many requests to get a copy of the software from other regions of where we weren't selling the special laptops," Nancy says. She estimates there are more than 300 batik producers using the software.

Last year the People Pixel Project generated $60,000 in revenue, of which half came from the software sales and the rest from batik sales. The batik products are priced starting from Rp 2 million per sheet or Rp 300,000 for clothing. This year the People Pixel Project is targeting a huge jump on its software install base. Nancy says the company expects to sell a thousand copies of its jBatik program. To do this the software price will be discounted from $500 to only $30 but the company will stop providing training and only give a manual with each sale. The training will now be sold separately.

In terms of funding, Nancy says many investors are now approaching the company. In fact, the People Pixel Project just obtained a loan for its marketing programs. The Mekar Entrepreneurship Network helped arrange an angel investor to invest Rp 90 million into the company. The trio is also setting up a jBatik Academy Program that will reportedly generate an estimated annual Rp 2.3 billion in revenues from teaching students.

Nancy says it is easier now for creative entrepreneurs to gain support given the rising availability of seed and venture capital. She is also hoping that the government could contribute more to help such entrepreneurs. "There are lots of young creative people. The potential for creative businesses is huge," she says. 🌐

—*By Ardian Wibisono*

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