In A Bind

Step One: What do you notice?

Ask your students to digest the photograph by trusting their instincts of observation and inference. In doing so, the image o ers possibilities and interpretations beyond a typical reading where the reader glances at a photograph to reinforce its title. Do not introduce any facts, captions, or other written words. In response to the question, "What do you notice?" you may hear: swan, bark, bones, cells, islands, and some honest confusion.

Step Two: What are you wondering?

After you've heard the rst observations, you may hear a peppering of questions: Is this a creature? Is this an animal carved from wood? Is this a group of cells from a microscope? Was this created by Photoshop? This is a good time to reveal the photo's caption and other information about the photo. Watch how the conversation shifts from what students believe to be true to discerning the facts about the photo.

Photo caption:

"A close-up of a nished work by Kazuaki Tanahashi, an accomplished Japanese calligrapher. Born and trained in Japan, Tanahashi is an active calligraphy and Zen teacher as well as an environmentalist and peace worker. His paintings have been displayed in exhibitions internationally." Photo by Unnikrishnan Raveendranathan (Unni), an award-winning photographer and multimedia artist originally from India, for the Global Oneness Project.

Photo facts:

Kazuaki Tanahashi creates images with brush calligraphy, an ancient Eastern writing system. Tanahashi uses animal-hair brushes sized as small as pencils to as large as kitchen mops that he dips in richly colored paints. The artist's mastery of di erent brush pressures results in a dynamic, pixilated image when seen up close.

Calligraphy artists vary the types of hair in their brushes to achieve di erent textures in their nal paintings. Monks made their rst calligraphy brushes from wolf, squirrel, badger and even tiger hair; today, brushes are more commonly made from the hair of sheep, dog, cat, rabbit, deer, goat, and horse.

In the past, Zen Buddhist monks and nuns learned calligraphy as part of their monastic training and search for enlightenment. Now also practiced by professional artists, modern Zen calligraphy still requires the artist to "be one" with his or her creation. Today's Zen calligraphers strive to work in a "no-mind" state, and to paint slowly without interruption. The best calligraphy, they believe, is neither rushed nor intentionally practiced so as to embody the highest meaning.

Challenging this Zen philosophy, new robots are able to produce a master's work en masse. The robots record original brush strokes as a calligrapher paints across a glass screen. The robots then use their own paintbrushes to produce images echoing the exact line and pressure the artist used. These robots also digitize and store data on the work, preserving the art of calligraphy forever.

Step Three: What next?

- 1. Some complicated Japanese letters or characters (kanji) take up to 15 brush or pen strokes to complete. As the ease of typing lessens the need to practice penmanship in Japan, fewer people know how to write correctly by hand. Are robots the answer? What is the value in a handwritten letter or original painting? Which do you nd more beautiful or meaningful? Think of some examples from personal experience.
- 2. Common Core Standards, a set of national education standards adopted by 46 states and the District of Columbia, no longer requires students to learn cursive writing. Instead, students must be keyboard procient by the fourth grade. As most American students see writing in cursive as more of a nuisance than an art formpenmanship in Jap 0 10