

Creating images that are more than good enough is what this case study is about.

This happened quite a while ago, about-- I can't believe it's 20 years ago.

In this lab, this is the image that the researchers came up with on their own.

You're seeing a surface that has etched-out hydrophobic lines.

And so when you drop water on the surface, the water stops at these hydrophobic lines.

This measures across about 4 millimeters.

So these are drops of water that are taking on the shape of the hydrophobic lines.

And this is how it was used in the article that was accepted.

I luckily came across it, because this sort of started my whole career 20 years ago in science imaging.

What I did with this image, as you've seen before, is I asked them to please make a triangle so I could start working a little bit with this.

And I dropped some water on that triangle, also etched out.

Here, as you remember, I made the picture with direct lighting.

Here I diffused the lighting.

And I was playing around a little more.

Another chip was etched out as well, and I started using fluorescing material to drop on the chip.

This gold, it's called a self-assembled monolayer.

In this image, I wanted to show a sense of scale, so I used the syringe with which I dropped the water on the surface, just to give you a sense of scale.

Finally, getting around to submitting for a cover design, I asked the researchers, could you please at least give me a grid of the etched lines so I could then drop onto the grid fluorescing green water and fluorescing blue water?

And you could actually see the etched marks creating the hydrophobic lines.

I didn't like seeing it too much.

Those lines were in the way, so just moving the camera ever so slightly gave me a cleaner image.

And again, I was imagining the journal's logo at the top.

What was really important was that the editors felt that the way I photographed it was misinformational.

That is, you're seeing two tones of green and two tones of blue, and that was miscommunication for them.

It turns out that's really the way it was.

But in the end, what we did decide to do was give them a simplified version, where I focused in tightly onto the square drops of water, as we call them. (They're colored water with fluorescing dyes.) Each square is about 4 millimeters across.

And it was a simplified image, as what we strive for.

And in the end, we were lucky, and it did get the cover.