

The Adventures of Meg A. Mole, Future Chemist

Dr. Olivia Kuzio



In honor of this year’s National Chemistry Week theme, “Picture Perfect Chemistry,” I traveled to Los Angeles, California to meet Dr. Olivia Kuzio. Dr. Kuzio is an Assistant Scientist at the Getty Conservation Institute, where she and other scientists “advance conservation practice in the visual arts.”

What does this mean? Dr. Kuzio explained, “I am a scientist who works in an art museum. I use special cameras that create images of the works of art that I study. They also help me identify the materials the artist used and how they applied them, and also how the materials have changed over time.”

How exciting! I wanted to learn more. Dr. Kuzio continued, “I am interested in learning what kinds and colors of paints certain artists preferred, and I study how and why some of those paints have faded over time. Sometimes, when I perform imaging that uses X-rays, I wear a special instrument called a **dosimeter** to make sure I am not exposed to the rays, which can be harmful.”

If you work in a museum, I asked, how can you do this type of work? “I do much of my work in an imaging studio. It looks like a behind-the-scenes movie set, because it is full of cameras and lighting equipment,” she said. Dr. Kuzio showed me her imaging studio, which was amazing.

I asked Dr. Kuzio which part of her job she likes the most. “It is an amazing privilege to see and work with beautiful, well-known works of art, up close and unframed, every day,” she shared. “For instance, one of my current projects is a painting by Vincent van Gogh.”

I asked Dr. Kuzio if she was interested in science when she was growing up. “Yes!” she answered. “I really liked that science ‘made sense,’ and that you could always find the correct answer — *if* you understood the steps to get to it.” She always enjoyed being

surprised by scientific discoveries. “In one experiment, I remember crushing up cereal, mixing it in water, and using a magnet to extract the iron from it. I knew that iron was a mineral essential to a healthy diet. But I could hardly believe what I saw — that there was actual metal in the food that I was eating!” Dr. Kuzio recalled the encouragement she’d received from her family. “My parents are an engineer and a teacher and always encouraged me to follow my curiosities about the ways the world works,” she explained.

I really enjoyed my visit to Los Angeles with Dr. Kuzio. It is neat to know that in the same city where movies are made, there is also great art chemistry!



Personal Profile

Favorite color? Green

Favorite pastime/hobby? I like to read, hike, and travel to explore new cities and museums.

Very interesting project you were part of? Studying the paints that van Gogh liked to use the most, and how those paints have faded over time. I helped conservators and curators understand what his paintings may have looked like when the paint was fresh and unfaded. This helps us understand van Gogh’s art as he wanted it to look.

Accomplishment you are most proud of? I recently ran (and finished) a 50-mile-long trail race!