

Impact Statement

Yuhan Zhou, Grade 11

***The Price of Vision*, 2025**

Acrylic on canvas, 20 x 16 inches

Independent Study, Newport High School, Bellevue, WA

Unsung Hero: Eugene Wilson Caldwell

“Never back down, never what... never give up!!”

That is a line from a social media trend that has been shouted, reused, and turned into every possible meme format. I used to laugh at all those videos, like most people, because it was seen as an entertaining joke in my feed. But the more I learned about Dr. Eugene Wilson Caldwell, the more I started to think: wait... this is him. That viral line is completely unserious online, but now it feels like it was made to describe a real person from history who never backed down and never gave up. Caldwell fully lived that phrase. He did not just embody dedication – he redefined it.

I chose Caldwell because his story immediately pulled me in. It was like reading the most underrated superhero book, except all the events are actual. His achievements in pioneering X-rays read like chapters in a book that I could not put down: first X-ray clinic in New York City, invented a portable X-ray machine, developed stereoscopic imaging so doctors could see depth inside the body, and he even invented a special sinus-viewing technique that is named after him. On top of all that, he helped build one of the first X-ray curricula in the country as a professor at Columbia University. All of this before radiology was even considered its own medical field.

But what truly makes him my role model is not just the inventions. It is that he stood up for the truth of his work and radiology. At a time when people misunderstood X-rays and thought of them as just photographs of bones, Caldwell exposed the truth. He insisted and shared with the public that this was a science while taking the risk of being targeted. He put radiology into professional hands instead of leaving it to amateur photographers and untrained physicians. That kind of courage, choosing moral responsibility over straightforward popularity, is what makes him a true hero to me.

There is also his dedication. Caldwell developed severe health issues from continuous radiation exposure. As he contributed more to radiology, he suffered more: from cancer, he had to have his two fingers and then his entire arm amputated. Even then, he didn't stop. He kept working and innovating. He never took a break. That kind of persistence, not letting anything break him away from his studies, is what makes him an unforgettable role model to me.

In my painting, I wanted to present the magnitude of Caldwell's contributions while honoring his sacrifices. I arranged the composition to lead the viewer through his journey. It begins with Bellevue Hospital, the place where he first explored X-rays. Adjacent, a depiction of his lecture to his students is to represent how he passed on his passion and knowledge, in addition to making discoveries. One of the centerpieces of my painting is Caldwell holding a stereoscopic X-ray viewer like a name badge over his chest. Near him, he holds up an X-ray screen to the American flag: a metaphor for how he looked through the surface of the country and saw what needed to be fixed.

The central moment is Caldwell looking at an X-ray of his own hand. That is where the viewer's eye is drawn after tracing his gaze. It is a visual juxtaposition of his incredible innovations and the devastating personal cost. Then, the eye follows the device, to the flag, then to his hospital, and finally to his classroom. Each moment tells a part of his superhero story.

Creating this piece came with challenges. There are very few photos of Caldwell and no color photos from his time. That gave me the opportunity to reimagine his presence through my own lens. I studied old black-and-white portraits, researched early X-ray equipment (which looked nothing like X-rays today), and dug into medical archives to figure out how his machines worked. Since lighting is a huge part of radiology, I focused on how shadows and highlights would move through the scene. I used saturated blues and yellows to symbolize his aura. I chose acrylic paint so I could blend smoothly for subtle gradients while still capturing sharp details.

Beyond this competition, I will share Caldwell's story with my community. Just like I joke with my friends about internet trends, I will start the conversation with something they will relate to and then introduce them to Caldwell. I hope to share my piece at school and online, with a caption that grabs attention, like: "Never back down, never what? Never give up. The story of a real one." Caldwell deserves to be remembered, and in the 21st century, I believe it can take place in a format that people my age will engage with.

The truth is:

He never backed down. He never gave up.
He invented. He taught.
He endured. He changed medicine. He saved lives. He mattered.

And now it is time the world knows.