

Impact Statement

Alexandra Cass, Grade 10.

Inquisitive Beauty, 2017.

Stained glass, 16.5 x 25 Inches.

Bloomington High School North, Bloomington, IN

Unsung Hero: Hedy Lamarr

The phrase 'unsung hero' is a term that many people my age fail to understand or appreciate. Throughout history, many people have contributed to world-changing projects and, sadly, their efforts are mostly forgotten. The one story that stood out and appeared especially poignant to me, was the one of Austrian-American Hedy Lamarr. Most people recognize her as an actress, one that was especially controversial for her time. It is her story that compelled me to create a work of art to honor her unsung efforts.

Hedwig Eva Maria Kiesler, more famously known as Hedy Lamarr, started her career on the big screen running across a field, naked, in the 1933 movie "Ecstasy." As she progressed and appeared in her next movie, five years later, people could not get over their first scandalous impression of her. She underwent a name change and privately vowed to never do a movie like "Ecstasy" again. However, people continued to view her as a "high class whore". She was known around the world for her beauty and seduction, but she was never recognized for her extraordinary intelligence.

Today, Ms. Lamarr would likely be characterized as a closeted nerd. What most people aren't aware of, is that their cherished wifi technology originates from the ideas of this famous actress, and her colleague, George Anthiel, a famous pianist. Radio frequency-hopping, the basis for "spread spectrum" technology was invented by none other than Hedy Lamarr, along with George Anthiel. Spread spectrum technology, officially patented in 1941 after Lamarr's emigration to the U.S.A., is officially defined as a system that keeps wireless communications secure. This technology led to the development of wifi as we know it and is also commonly used for secure phone calls and computer systems. Today, it is inconceivable, particularly to my generation, to imagine living in a world without wifi.

She had celebrity and riches, but her immense intellect was unfulfilled; she had what amounted to a calling for engineering genius. She was not frivolous in word nor thought. She satisfied and honed her inquisitive mind by creating a room in her home dedicated to studying and working on engineering projects. It was this exploration in her engineering room that eventually led to the invention of wifi. Her own son said of her, "If you talked about a problem, she had a solution." Ms. Lamarr died without public recognition, commendation, nor appreciation for her remarkable contribution to American ingenuity and its far-reaching and timeless impact.

I admire Hedy Lamarr for her intelligence and fortitude. In order to honor this beautiful and inventive woman, I created a stained glass piece that emphasizes her strength and ingenuity as well as her beauty. On the right hand side of my piece is a portrait of Hedy, dominating half of the composition to symbolize her importance. Above her is a simplified American flag that represents her contribution to the United States of America, the country blessed with her

intelligence and innovation. To the left of her head is a radio, which represents the exchange of radio signals that helped make her invention become such an invaluable success. Next to the radio is a reproduction of part of her original schematic for her invention. Radio waves are the foundation of Lamarr's ideas about signal hopping, so I have incorporated them throughout the composition- in the ocean as well as the sky. The ship at lower left rides these waves and symbolizes the intent of her original idea to develop a radio-controlled torpedo launcher that can travel undetected.

While designing my piece, I made sure to use a creative balance of colors to further represent the multi-dimensionality of Ms. Lamarr's talents. I also paid avid attention to shading to create a three-dimensional quality in the portrait of the woman I so admire. Throughout the design process, I sought to capture the most creative representation of Hedy Lamarr's technological contributions while also honoring her stunning appearance. Her life was truly a beautiful composition of many pieces.

Ms. Lamarr's life was a difficult one. She spent the last of her days living in seclusion while the majority of the population thought negatively of her. It wasn't until after she died that people realized how much of an impact this remarkable woman had on, not just the USA, but on the world as a whole. I hope that by entering this contest, I will be able to honor her and help tell the world about her story. She deserves to have her name elevated, and she deserves to be credited for the invention that has quite literally changed the world.