

**GLORIA
TWINE
CHISUM**
1930-



**MUSKOGEE'S
OWN
HIDDEN
FIGURE**

In 1984, eight Oklahomans were selected for induction into the Oklahoma Hall of Fame. Some of their names were familiar – Cincinnati Reds catcher Johnny Bench, McGee Eye Institute founder Tullos Coston, Phillips Petroleum CEO William Douce, and Tulsa Mayor James Hewgley. One of the women honored that evening was Dr. Gloria Twine Chisum of Muskogee. Chisum is an African American Oklahoma hidden figure whose story has gone unsung as a valuable pioneer of STEM work. She has made a lasting impact on our society with her development of protective goggles. She is a true woman of vision.

Dr. Chisum's grandfather moved to Muskogee County when Indian Territory was opened for settlement. They first lived in the town of Twine, which her grandfather founded southwest of Muskogee. Chisum was born in Muskogee in 1930. She took an interest in science at a very early age. She was curious on how things worked. She once took apart her very first watch and was able to put it completely back together in working condition.

She left Oklahoma to attend college at Howard University where she earned a Bachelor's degree in psychology in 1951. She continued on to the University of Pennsylvania where she earned her Master's degree in 1953. While there, she became interested in vision and visual performance and perception, which is an area of behavioral psychology. In 1960 she earned a Ph.D. in experimental psychology from the University of Pennsylvania.

"I found my graduate student experience to be wonderful preparation for my career as a researcher and laboratory manager." In 1965, she became director of the Vision Research Laboratory at the U.S. Naval Air Development Center in Warminster, Pennsylvania. As a research psychologist, she worked on methods for flash blindness protection, in which she became an expert. She also worked on methods of protecting jet pilots against vision loss during sharp turns.

During the mid-1970's, Dr. Chisum developed specialized, protective goggles for pilots who operate high-performing aircraft, significantly decreasing their exposure to bright light and to losing consciousness. During her development, she did not want to design a poor device that would case a pilot to suffer fatigue or interfere with their performance.

Dr. Chisum is an internationally recognized expert in the area of visual performance enhancement and protection. She has published more than 90 scientific papers and reports and holds two patents. She has coordinated conferences all over the world for the NATO Advisory Group for Aerospace Research and Development. She is the first African American woman to serve as a member of the Board of Trustees of the University of Pennsylvania.

Margot Lee Shatterly, author of "Hidden Figures", explained the importance of showcasing women whose work has always been present but unknown. "Reviewing them and pulling them out of the shadows creates a more complete and nuanced view of history," she said. "It's one thing to read something and then to see it come to life."