
In 2017, Tim Makepeace was one of several artists selected by NASA to create artwork inspired by the construction of the JWST. Makepeace was captivated by the telescope itself, which is an orbital infrared observatory. The most powerful space telescope ever built, it will succeed the Hubble Telescope when it launches later this year. Seeing the instrument in the terrestrial environment where it was being constructed set up a dichotomy with its exquisite engineering, as well as with the transcendent knowledge of the universe that it will eventually help us gain. This contrast of the mundane and sublime is a theme that guides Makepeace’s resulting work.

“I have continued working on a series of drawings based on the photographs I took during my visits, trying to convey some of the awe evoked by this engineering marvel,” he writes. “I have been thinking about the telescope’s intended purpose, once it reaches its location orbiting the sun, as a breakthrough tool for imaging objects which we have never seen, or knew existed, and events that happened at the beginning of time.”

The drawings, rather surprisingly, are rendered in charcoal and pastel. “One thing I have come to enjoy about this process is the counterintuitive idea, and the technique, of using a very imprecise medium, like soft charcoal, to render the image of one of the most technically advanced and precise objects ever devised and constructed by mankind,” Makepeace explains. “Charcoal is also one of the most primitive and ancient tools for drawing, and I’m using it to describe an extremely advanced tool for science that will be shot a million miles into space to help unlock some of the mysteries of our galaxy and the universe. It’s an interesting juxtaposition.”

Makepeace explores the interaction of engineering, science, architecture, and nature in his work. His subjects range from decaying industrial structures in the natural landscape to the newest NASA space telescope bound for solar orbit.

“Reflections on a Tool of Observation: Artwork Inspired by the James Webb Space Telescope” will be on exhibit at the National Academy of Sciences building, 2101 Constitution Ave., N.W., Washington, D.C. Although the building is closed due to the ongoing pandemic, members of the public can make reservations to visit the building to see the special exhibitions on view. Masks and proof of full COVID-19 vaccination are required (we regret that children under age 12 cannot be admitted). For more information and to register, visit www.cpnas.org.

Cultural Programs of the National Academy of Sciences sponsors exhibitions, the D.C. Art Science Evening Rendezvous salon, theatrical readings, and other events that explore relationships among the arts and sciences. The National Academy of Sciences is a private, nonprofit institution that recognizes achievement in science by election to membership, and — with the National Academy of Engineering and the National Academy of Medicine — provides science, technology, and health policy advice to the federal government and other organizations. (Continues on page 2)
Clockwise from upper left: *Primary Mirror Reflecting Secondary Mirror Reflecting Primary Mirror*, 2019, charcoal and pastel on paper, 49 x 49 inches; *JWST Vertical Primary Mirror*, 2017, charcoal and pastel on paper, 49 x 49 inches; *JWST Cryo Testing*, 2019, charcoal, ink, and graphite on paper, 49 x 49 inches; *JWST vs. QED v.1*, 2021, charcoal on digital print, 30 x 30 inches.

For print-quality images, contact Alana Quinn, 202-334-2415, aquinn@nas.edu