Carina Nebula

What looks much like craggy mountains on a moonlit evening is actually the edge of a nearby, young, star-forming region NGC 3324 in the Carina Nebula. Captured in infrared light by the Near-Infrared Camera (NIRCam) on NASA's James Webb Space Telescope, this image reveals previously obscured areas of star birth.

Called the Cosmic Cliffs, the region is actually the edge of a gigantic, gaseous cavity within NGC 3324, roughly 7,600 light-years away. The cavernous area has been carved from the nebula by the intense ultraviolet radiation and stellar winds from extremely massive, hot, young stars located in the center of the bubble, above the area shown in this image. The high-energy radiation from these stars is sculpting the nebula's wall by slowly eroding it away.

Credits: NASA, ESA, CSA, STScI

Tarantula Nebula

In this mosaic image stretching 340 light-years across, Webb's Near-Infrared Camera (NIRCam) displays the Tarantula Nebula star-forming region in a new light, including tens of thousands of never-before-seen young stars that were previously shrouded in cosmic dust. The most active region appears to sparkle with massive young stars, appearing pale blue.

Credits: NASA, ESA, CSA, STScI, Webb ERO Production Team

Stephan's Quintet

Stephan's Quintet, a visual grouping of five galaxies, is best known for being prominently featured in the holiday classic film, "It's a Wonderful Life." Today, NASA's James Webb Space Telescope reveals Stephan's Quintet in a new light. This enormous mosaic is Webb's largest image to date, covering about one-fifth of the Moon's diameter. It contains over 150 million pixels and is constructed from almost 1,000 separate image files. The information from Webb provides new insights into how galactic interactions may have driven galaxy evolution in the early universe.

Credits: NASA, ESA, CSA, STScI

Pillars of Creation

The Pillars of Creation are set off in a kaleidoscope of color in NASA's James Webb Space Telescope's near-infrared-light view. The pillars look like arches and spires rising out of a desert landscape, but are filled with semi-transparent gas and dust, and ever changing. This is a region where young stars are forming – or have barely burst from their dusty cocoons as they continue to form.

Credits: NASA, ESA, CSA, STScI; Joseph DePasquale (STScI), Anton M. Koekemoer (STScI), Alyssa Pagan (STScI).