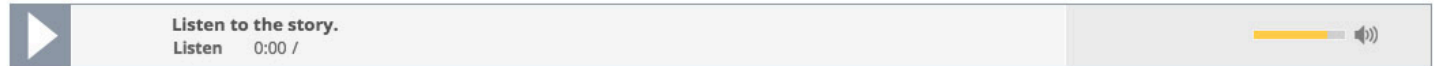




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Philadelphia artist finds inspiration on ocean floor



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A Philadelphia artist has joined a team of scientists mapping the ocean floor off the coast of Baja, Mexico.

Rebecca Rutstein, an abstract painter, is using topography 4,000 feet below to inspire her onboard paintings.

"My work has shifted from being more landscape based, moving into abstract realms," said Rutstein last week, via satellite phone link aboard the [Nautilus](#). "I'm responding to these incredible maps we're collecting right now."

The E/V Nautilus is a 64-meter exploration vessel equipped with two robotic deep-sea divers and an 864-beam sonar system fixed to the hull, taking readings from the bottom of the ocean.

"It's a \$3 million, 9-ton digital sonar system that used to be classified by the U.S. Navy," said Dr. Robert Ballard, founder of the Ocean Exploration Trust, which owns the Nautilus. "At full speed, it can paint a swath of the ocean floor 7 kilometers wide."

The ship is currently mapping the ocean floor from the Galapagos Islands to San Diego, simultaneously dodging remnants of Hurricane Dolores.

It's a high-traffic commercial nautical corridor fed by the Panama Canal, but little is known about its depths.

"It's a fascinating neck of the woods. Galapagos is a hot spot," said Ballard. "You have a giant welder's torch blasting through the lithosphere from deep within the Earth. A plate moves over the top of it, punching out islands.

"In the case of Hawaii, where you have active volcanoes, the torch is burning brightly. It's been going on for tens of millions of years making numerous islands which eventually subside and become underwater sea mounts," he said.

Ballard likes to say that mankind knows more about the surface of Mars than Earth's ocean floor. Armed with his Kongsberg EM 302 multibeam echo-sounder and onboard artists, he wants to change that.

"We uncovered a canyon with what looks like a former riverbed. We uncovered sea mounts and underwater volcanoes," said Rutstein. "It's amazing to get this visualization continuously -- the live feed of data -- that shows what's beneath us."

Rutstein has been given a small room aboard the ship to use as a makeshift studio where she paints canvases inspired by those underwater maps. When the Nautilus is on a diving expedition, that room is used as a wet lab for collected specimens. Hanging near her impromptu easel is a large tubeworm case that had been scraped off the bottom of the ocean.

