The Artist at Sea
at the Schmidt Ocean Institute

By Ana Novak
Contributor

In 2009, Eric Schmidt, then executive chairman of Google, established the Schmidt Ocean Institute. Founded in response to a national crisis regarding the advancement of the standards of critical seagoing research infrastructure and a lack of ocean access to scientists and engineers, the Institute seeks to work with the best innovators to accelerate the pace of ocean science aboard its global research platform, R/V *Falkor*. To date, the Institute has completed over 36 research cruises resulting in numerous discoveries including the third deepest hydrothermal vent, the world's deepest dwelling fish, and several new underwater seamounts.

Unique to the Schmidt Ocean Institute is the Artist–at–Sea program, introduced by SOI's co–founder Wendy Schmidt, and launched one year ago. The goal of the program is to expose artists to ocean science so that they may use their artistic proclivities to share the significant work done at the Institute thereby reaching an audience that typically might not be exposed to this area of research.

Like scientists, artists conceptualize and amalgamate ideas in new ways. This joining of disciplines has the potential to broaden awareness of the important research being done aboard the *Falkor* and generate a better understanding of the complex ocean issues facing the world today. By providing a platform where experts from different disciplines can work together, the resulting cross–pollination of ideas provides an opportunity to transform both the scientists' and artists' work. The program also strives to bring artists of all types and backgrounds aboard. Thus far, they have hosted a photographer, a digital artist, a visual performance computer programmer, a painter, a fiber artist, a musical composer, and later this year a cartoonist will join the team.

Rebecca Rutstein, a multimedia artist whose work spans painting, installation, sculpture, and video sailed with the *Falkor* this past summer from Southern Vietnam to the island of Guam. Her work stems from a long held interest in geology, biology, topographical maps, and the fractal geometry of nature and she found the crew's use of the ship's multibeam sonar technology to collect data of the ocean floor terrain ideal inspiration. During a two–week transit, she set up a studio in the wet lab of the ship and created eight 18 by 18 inch paintings. Being at sea motivated not only the content of her work, but also the process of her creation. "I responded to the movement of the ship by pouring paint on the canvas and letting the rocking motion of the ship guide the flow and dispersion of the paint," Rutstein said. "This new technique in my creative process happened as a result of being at sea."

Ben Cosgrove, a composer and nonfiction writer, also completed a residency aboard the *Falkor*. Interested in the human experience in connection to landscape and place, Cosgrove found himself deeply affected by the basic phenomena of sea travel. "I had never been at sea before," he said, "and so I was mesmerized by all that went into keeping the ship moving forward as well as the realization that the ground had just continued below us as we sailed out to sea. I wanted to write music that would use scientific data to express these overwhelming human sensations." His residency culminated in a piece of piano music that was based on the difference between the ship's speed through water and its speed over ground. Neither speed ever quite matched up with the other, and these changing rates of movement were translated into rhythm, resulting in a piece that strives to suggest something of the profound immensity of all the water that sat between the crew and the ground.

In 1831, Charles Darwin set sail for South America aboard the H.M.S *Beagle* and spent his journey alongside two different artists. Darwin himself spent

much of the voyage drawing specimens with incredible scientific accuracy, leading him to one of the greatest theories in science—the theory of evolution by natural selection. In this sense, the Artist–at–Sea program is nothing new. There is an extensive history of artists working directly with and alongside researchers and scientists on expeditions. Samples and organisms that could not be preserved or transported were meticulously analyzed and drawn. Images of landscapes, flora, and fauna served as an important way of conveying data and inviting comparisons for intellectual advancement. Presently, photography and videography have fulfilled the need for visual reproduction and documentation, allowing for the relationship between science and art to be explored in more abstract, yet inclusive ways. As Ben Cosgrove puts it, "Art and science are weird companions. In one sense, they have fundamentally different goals: good science consists of narrowing the number of possible answers to a question down to one or two plausibly correct ones, while the best art aims to start with the specific and broaden this into something—hopefully—that speaks to the larger experience of being a person in the world." Yet, this fundamental difference also allows the two disciplines to serve as excellent complements of each other. Both are types of investigation in which something is revealed.

Resident Ben Cosgrove.

"We recognize that we study a subject that can be difficult for the public to grasp," says Mak Saito, a marine biogeochemist from Woods Hole Oceanographic Institution who led a cruise that hosted an Artist–at–Sea participant. "Yet we know that this field of microbial biogeochemistry is absolutely central to understanding climate change and human sustainability. Having an artist collaborating with us in real–time fostered a deep understanding about what we were trying to understand and study, and gave meaning to it in ways that were far beyond what scientific presentations or journalist's stories could accomplish."

After an artist has completed the online application form and submitted supplemental materials and artistic samples, an internal committee reviews the applicants. They decide on the candidates by ranking them on a number of categories such as the planned application of science, art dissemination, outreach, experience, online portfolio, and use of technology. Once selected, the artist is treated as part of the working team. They will bunk with scientists, eat with the team, and are encouraged to work with everyone on board including marine technicians, engineers and, most importantly, the science party. Artists are given a lot of creative freedom, and are asked to contribute their thoughts throughout the journey via online blogs or social media posts. Upon completion of the cruise, each participating artist is asked to donate one piece that will be left aboard the *Falkor* to be shared and enjoyed by all who visit the ship. A successful residency is considered one in which the artist fully immerses themselves with life aboard the *Falkor* and creates work that is specific, unique, and inspirational using research data in a way that connects any person with the ocean and marine science. Hence, outreach and dissemination is central to the program. One of the Schmidt Ocean Institute's guiding principles is the open sharing of information, data, and research outcomes, and the same is expected of the artwork. No doubt, many of the issues regarding our oceans are complex. The Artist–at–Sea program endeavors to attract interest and awareness concerning important marine science research to as many people as possible, via as many outlets as possible, as quickly as possible. Leighton Rolley, one of the Lead Marine Technicians aboard *Falkor* perhaps says it best: "Making everyone understand the oceans and the work we do through artists, musicians, knitters, and painters alike is an effective means of communicating humankind's responsibilities as custodians and stewards of the oceans."

Background: View from Falkor *in the South China Sea as the crew transits from Australia. Photo courtesy of Ben Cosgrove.*