THE BROOKLYN RAIL

Fragility Curve

by Janet Biggs

“For the first time in my life, I saw the horizon as a curved line. … I was terrified by its fragile appearance.”
— Ulf Merbold, European Space Agency (E.S.A.) astronaut

In the process of making my work, I have witnessed the devastating effects of climate change, from the melting Arctic to expanding deserts. I have seen this planet boil and burn. I’ve seen it tear itself apart at the seams, shake itself to its core, and erupt in clouds of noxious gasses. I’ve traveled and filmed in the High Arctic of Svalbard, where glaciers retreat and my footsteps linger, destroying the landscape of ice and snow that I love. I filmed inside active volcanos in Indonesia and the Horn of Africa, where humans extract minerals, from salt to sulfur, as their bodies succumb to toxic fumes and piercing particles. I’ve filmed people picking up guns to defend a land that most think is unlivable, due to scant resources being exploited by a few and governments using access to water as a tool of control. I’ve seen bodies unearthed as the ground shriveled and shrunk around them and sands erase all evidence of past populations as deserts expand and shift.

But through all these events and changes that I’ve witnessed and filmed, I’ve always been able to feel the wind blow across my face and the rain as it landed on my skin… until I went to Mars. The earth will remake itself and survive the legacy of its human inhabitants, but will we?

In 2018, while filming in Djibouti, I witnessed Yemeni refugees fleeing the bombing and devastation in Yemen. They risked everything to cross the Gulf of Aden in broken boats, to arrive at a desert tent city subjected to furious sand storms and temperatures of up to 134 degrees Fahrenheit.

At the same time, I watched migrant Ethiopians fleeing their country’s oppression and poverty as they braved a four day walk across the desert of Djibouti. With only threads of clothing hanging off their backs, the Ethiopians didn’t all survive the journey. Their water supply often ran out before the desert

did. If they made it to the shore, they would take the same boats back across the Gulf to Yemen.

This cross current of human movement, all in pursuit of survival and possibility, while not exclusively necessitated by human exploitation and a changing climate, bares some hallmarks of the future we have wrought on this planet.

Janet Biggs, *Space Between Fragility Curves*, 2018. Two-channel HD video installation with sound. Courtesy the artist, Cristin Tierney Gallery, New York, N.Y., Analix Forever, Geneva, Switzerland, CONNERSMITH, Washington, D.C., and Hyphen-Hub, New York, NY.

At the other end of a spectrum of human movement in pursuit of survival and new possibilities, there are scientists working in such diverse locations as the desert of Southern Utah and high in the Himalayas. Daily, they don spacesuits or “sim suits,” exit the airlock of their habitat, and head off on extravehicular activities (EVAs) to collect data in the hope of someday doing the same on Mars. In 2018 and again this year, I was a crewmember and artist-in-residence on two Mars analog missions, filming the experiences from inside a simulation-spacesuit.

Multiple organizations, like The Mars Society and Mars Academy USA have constructed Mars Analogue Research Stations (MARS) here on Earth. From Elon Musk to Dr. Robert Zubrin, aeronautic engineers and entrepreneurs predict that human survival depends on our ability to survive in space. In preparation for this event, simulation astronaut crews are conducting missions at remote locations on earth that closely resemble the terrain of the red planet, learning how to live

in this inevitable future, where the air is unbreathable. Without an atmosphere, everything outside your spacesuit, capsule, or habitat will kill you.

This is what it feels like to live inside a spacesuit. It is heavy, both the physical weight of wearing a life sustaining garment and the psychological weight of knowing that you must. Simple tasks like bending over and picking up a stone become Herculean. I learned to hum. It regulates your breathing. If you breathe too hard or fast, your helmet fogs and you can't see. If you breathe too hard or fast, you use up all your oxygen. Once your helmet is locked into place, any moisture inside—sweat, a runny nose, tears—can blind you. Once your helmet is locked into place, your peripheral vision is blocked and depth perception altered.

What looked like a small step was a big step, and then a bigger fall. First there is panic. Did I tear my suit? Then, did I break something? My Helmet? Oxygen tanks? Bones? Am I bleeding? Can I get up? You can't feel for a bump, a bruise, a cut. You couldn't stop the bleeding anyway. That thing we all do, brush a piece of hair from our eyes, run your hand over your skin to detect some change, something new, is impossible inside pressurized gloves. That thing we all do, run our hand over someone else's skin, is impossible.

In 1987, Frank White coined the term *overview effect* in his book *The Overview Effect: Space Exploration and Human Evolution.* The overview effect was a cognitive shift reported by a number of astronauts having looked back from space to their home planet Earth. It is one planet, one ball hanging in space. National borders are not visible. We are one population, human, and our atmosphere is frighteningly fragile and paper thin. The earth will remake itself and survive the legacy of its human inhabitants, but will we?

Contributor

Janet Biggs

Janet Biggs, a 2018 John Simon Guggenheim Foundation fellow, is known for her work in video, photography and performance which focuses on individuals in extreme landscapes or situations, often navigating the territory between art and science.