Cover: A beach (for Carl Sagan) (detail), 2016. Overall dimensions variable.
Andrew Yang holds an MFA and a PhD in biology with studies in the philosophy of science. He is an associate professor at the School of the Art Institute of Chicago and a research associate at the Field Museum of Natural History. He identifies as a natural historian and uses hybrid methods to understand the cosmos. I begin with Yang’s credentials because they signal multiple dimensions to his work. On the other hand, beginning with them is in many ways antithetical to his project. After all, this is not a museum of science but of contemporary art. Yang does not produce an authoritative subject but instead investigates different ways to share his inquiry with viewers. In other words, rather than using equations, text, or illustrations to lay out scientific findings, the artist creates opportunities for audiences to encounter the subjects he himself contemplates. He populates the place of the scientist with multiple experiential positions.

Yang’s Chicago Works exhibition suggests that the galaxy is something far off from which we are distanced; we live in it, we are surrounded by it, we are it. A central concern for Yang in the installation A beach (for Carl Sagan) is our diminishing visual access to the galaxy. He observes: “The Milky Way galaxy is our home, but because of nighttime light pollution, it is simply not visible in urban areas. This means the majority of humans has no basic visual access to their own galaxy in an immediate, astronomical sense.” Yang describes:

In his book Cosmos, Carl Sagan claims, “The total number of stars in the universe is greater than all of the grains of sand on all of the beaches of planet earth.” In fact, based on data from the Hubble telescope, astronomers in 2003 estimated the number of stars in the universe as likely ten times greater than all the grains of sand on earth’s beaches and deserts. Taking Carl Sagan’s pronouncements to heart, I created a scale model of the Milky Way. Such an indoor model in downtown Chicago is a stand-in for the Milky Way Chicagans cannot see in the sky above them outside.
The backlit sample of sand in the installation, which looks like its own constellation of stars, gives visitors a visual comparison between the 1,500 grains of sand on the LED screen and more than one hundred billion installed in the interior gallery. We can then use our experience of these quantities to imagine our relation to the galaxy.

Yang’s work is at times instructive but at others intuitive and poetic. The granules of sand in A Beach (for Carl Sagan), for instance, form a one-to-one model of the number of stars in the galaxy, an astronomical scale that can be difficult to comprehend. The installation also includes a sound component of white noise, which contains traces of Cosmic Microwave Background—a residual signal from the beginning of the universe. The piece offers not only scientific information, but also a contemplative experience that allows viewers to connect to that information on a personal level.

In much traditional scholarship, the voice of the scholar can be difficult to detect, naturalized as it is by its disciplinary genres. Rather than obscure the presence of the researcher, Yang confounds the line between objective and personal information. In Stella’s Stoichiometry (all things being equal, 6 lbs. 13 oz.), 2012, the artist takes creative license in his selection of objects—some found, some made—collapsing the boundaries between the natural and the cultural. Both organic and synthetic materials, for example, are inherent parts of the galaxy. But does Yang organize the display by scientific classification or formal and aesthetic relationships? the Way within becomes a game of taxonomy, presenting nature as a simultaneous encounter with culture.

Objectivity in the sciences serves a crucial purpose in the accumulation of information, but there is no knowing without interest. And there is no interest without an encounter that sparks an intellectual, emotional, or experiential connection or curiosity. We have to care to know. The information we seek must matter.

THERE IS A REAL QUESTION WHETHER ANYONE MAY FULLY GRASP THE NATURE OF ANY OBJECT WHEN THAT OBJECT HAS NOT BEEN PERCEIVED, WISHED FOR, MISSED, AND THOUGHT ABOUT IN LOVE AND IN HATE, IN EXCITEMENT AND IN APATHY, IN DISTRESS AND IN JOY. —SILVAN TOMKINS

Andrew Yang’s work actually goes beyond the designations of science and art. Although he works in the field of natural history, he uses a cross-disciplinary approach of observational and experimental methods to question categories of natural objects and organisms. His work challenges the idea that nature is a cohesive category; it instead points to myriad culturally based worldviews and histories. Multinaturalism, for example, is the idea that there is not one true nature but perhaps as many natures as cultures. This notion does not privilege particular historical, evolutionary events or scientific classifications.

In Yang’s video work Interviews with the Milky Way, he speaks with an astrophysicist and his mother. The one thing the scientist wants the general public to know about the universe is this: “It is comprehensible, and we can study it and get answers about it and that is a funda-
mentally important discovery." Although knowledge is, for him, provisional, we can get answers. Yang then asks, "Is there anything that you feel you get out of studying the universe personally?" He responds that learning about the universe provides him with a sense of wellbeing. He also agrees with the artist that, factually, he is the Milky Way.

THE MOST INCOMPREHENSIBLE THING ABOUT THE WORLD IS THAT IT IS COMPREHENSIBLE.
—ALBERT EINSTEIN

This video intermingles the astrophysicist’s explanation of the galaxy with that of the artist’s mother—both legitimate sources for stories of origin. Yang’s mother discusses her early experiences looking at the stars, which to her seemed white, granular, and milky. She talks about the connection between the history of the words lactate and galactic and about breastfeeding the artist, which she describes as a countercultural thing to do in the early 1970s. Intimate expressions like this that foreground our connection to the galaxy are characteristic of the exhibition. Even the title of the video work, Interviews with the Milky Way, posits that the subjects of the interviews are, in fact, the galaxy. If the astrophysicist, the artist and his mother, the artworks, the museum, and its visitors are the Milky Way, then the exhibition as a whole is not only a model of the galaxy, but also the galaxy reflecting on itself.

In many ways, differences in scale in this exhibition have a relationship to the sublime in the art historical sense. The sublime refers to the experience of something so vast as to simultaneously conjure a sense of beauty and terror, like venturing out onto the Skydeck at the Willis Tower (formerly Sears Tower), or standing over a deep chasm in the Grand Canyon. It is also used to describe landscape paintings from the romantic period, for example, characterized by lofty and stormy peaks. In his work about the relationship between humankind and the galaxy, Yang at once exposes and bridges the differences in scale: between seven tons of sand and more than 100 billion stars, or between the human time needed to make a child and the geologic time needed to make a rock. Those who matter most to us are galactic material, so for Yang, all matter matters; it has value, influence, and meaning.

And the wall drawing, executed by the artist and his family and friends, provides us with a final meditation:

I MATTER, THEY MATTER, YOU MATTER, ALL MATTER . . .
Andrew Yang explores the interwoven matrix of the cultural and the natural. His work has been exhibited from Oklahoma to Yokohama, and his recent installation IO-OX: a Dialogue Concerning Two World Systems was included in the 14th Istanbul Biennial in 2015. His writing and research can be found in journals including Biological Theory, International Studies in the Philosophy of Science, Gastronomica, and Leonardo. This past year he was a visiting scholar at the Max Planck Institute for the History of Science in Berlin. Yang received an MFA from Lesley University College of Art and Design and a PhD in Biology from Duke University. He is an associate professor at the School of the Art Institute of Chicago and a research associate at the Field Museum of Natural History.