

Humans have long been mystified by the night sky above us. Although by no means the first civilizations to attempt to categorize the stars, we still hear the Greek and Roman myths of how celestial bodies intervened in human life. It is important to note how these intricate rituals and lessons served to teach people about their role in the cosmos. Today, we apply a more scientific lens to the study of space, but still look for knowledge that cannot be found on Earth. Most recently, space has increasingly become a field of exploration for the common man, with Space X performing the first launch by a private company in early 2020.¹ We are looking for something ahead of us – be that new community, new technology, or simply new inspiration – in a year where the human story has been largely constricted to a narrow, grim focus on the present. It is also in this year that the Purdue Honors College invited Dr. Briony Horgan to engage with students via the Visiting Scholars Series.

Briony Horgan is an Associate Professor of Planetary Science. Her research program uses data from NASA satellites and rovers, along with lab and field work back on Earth, to understand the surface processes that have shaped Mars and the Moon. She is particularly interested in using mineralogy to investigate weathering and past surface environments on Mars, as well as volcanic, sedimentary, and impact processes on both planets. Briony is a Participating Scientist on NASA's Mars Science Laboratory rover mission and a Co-I on NASA's upcoming Mars 2020 rover mission, the first step toward Mars Sample Return.

The launch of the Perseverance rover was one of the rare, exceptional bright spots in the 2020 news cycle. It reinvigorates the old question - are we alone in the universe? The question on many people's minds in 2020 is "how can I feel less like the only person in the universe?." Clearly, our interest in space is no longer an exercise in humanity, but instead of community. Space exploration requires collaboration beyond disease, political parties, and national borders. Its results can hold promise for all people, if we let it. Thus, it is fitting that when faced with one of the loneliest periods in modern history, we first look to each other and then to the stars.

The writers and editor of this issue of *Ideas* magazine hope that this collection of works furthers your interest in both Dr. Briony Horgan's research and the distinct possibility of extraterrestrial life. Included in this issue is a part-by-part breakdown of the Perseverance rover, by Briar Qualizza and Katherine Zhang, a timeline of the Mars 2020 mission and future operations, by Kevin Wu and Isha Chavan, and an archive of readings concerning astrobiological life, by Keely Dehn and Shayan Bawaney.

Jannine Huby is an undergraduate student studying Political Science and Global Studies at Purdue University. She was a student editor for "Visiting Scholars Seminar", Fall 2020. Around campus, Jannine can also be seen performing her duties as a representative for the College of Liberal Arts on the Honors Leadership Council (HLC) and as a member of Student English Association (SEA).

¹"NASA Astronauts Launch from America in Historic Test Flight of SpaceX Crew Dragon", NASA, Published May 30, 2020, <https://www.nasa.gov/press-release/nasa-astronauts-launch-from-america-in-historic-test-flight-of-spacex-crew-dragon>