

In this moment, especially in the field of climate science, we need, more than ever, for the public to engage with science. Through inviting and evocative designs that tell the story of the data in a more intuitive way, we can better foment the magnitude of the climate crisis in the public psyche and, ultimately, encourage people to invest in the necessary solutions. This public buy-in would go a long way toward productively addressing the climate dilemma.

Data Visualization and Better Science

It is perhaps intuitive that art and design can help scientists better communicate their results to the public.

However, I maintain that improvements in data visualization (through collaboration with artists and designers) can also facilitate exploratory research and help researchers ask qualitatively “better” scientific questions. Exploratory analysis, or a precursory evaluation of data with the intent of generating a research inquiry or hypothesis, is often hampered in efficacy by an arduous data-parsing process or incomplete and confusing data visualization.

As a case study, I worked with Adrian Galvin, a designer at JPL, to develop a data interface and visualization tool for the Multi-angle Imaging Spectroradiometer (MISR) smoke plume project (adriangalvin.space/merlin), a unique and valuable data set often overlooked because of its inaccessible interface. Together we conducted a thorough workflow inquiry and iterative prototyping sessions to refine interactions and visual representations. The interface redesign that resulted from this process streamlined exploratory investigation and reduced the time taken to generate visualizations and correlations on the order of days. The result of these efforts facilitated better science.

Through this project, Adrian and I hypothesize that similar human-centered art and design processes can critically enhance the practical value of many Earth and climate science data sets. As we update our understanding of the environment, we must also update the tools we use to study it and the methods we use to present it to the public. There is real potential for art and design to dramatically improve the way climate research is conducted and communicated.

A New Chance to Be Truly Revolutionary

Fifty years ago, queer folks began a revolution that demanded that we be respected as equals—both in life and in law—and that revolution has resulted in enormous progress for LGBT+ people everywhere.

On the last day of class, I tell all my students that the climate dilemma offers another opportunity for us to be truly revolutionary. Through collaboration with artists and designers, we can work toward the demystification of climate science, because when science becomes understandable to the public, people become interested in not only the results but also the scientific process, discussions, and, most important, solutions.

It is my hope that we will follow in the footsteps of our revolutionary ancestors and solve the climate crisis, together.

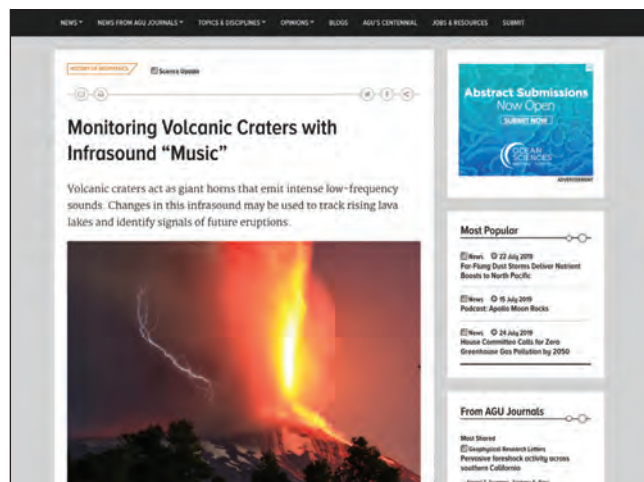
By **Mika Tosca** (@climategal84), School of the Art Institute of Chicago, Chicago, Ill.

► [Read the full story at bit.ly/Eos_transcending-science](https://bit.ly/Eos_transcending-science)

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Scientists Who Selfie from the Field

When the semester ends, many geoscientists abandon the cold air and fluorescent lights of laboratory research for more natural climes. They wade into swampy waters, scale steep mountainsides, climb into caves, sail the open seas, and traverse frozen tundra. They install seismic networks, drill ice cores, collect sediments, and measure streamflow. They teach the next generation of geoscientists to do the same.

This summer, AGU asked geoscientists to share via social media selfies from the field that showcase exciting research done outside the lab.

By **Kimberly M. S. Cartier** (@AstroKimCartier), Staff writer

► [Read the full story at bit.ly/Eos_selfie-from-fie](https://bit.ly/Eos_selfie-from-fie)

Sondes Like Important Work



Jose Martinez-Claros (he/him)
@xatruchNMT

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About a month ago doing a test radiosonde launch, preparing for #NCAR #OTREC2019, a research field mission in Costa Rica that starts in August to study tropical convection at the E Pacific near the ITCZ #AGU100 #FieldWorkSelfie



10:57 AM - 14 Jun 2019

A Magnetic Moment in the Field



Lior Kamhaji
@LKamhaji

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Hot summer fieldwork - Paleomagnetic drilling at Troodos mountains, Cyprus for demagnetization processes and AMS measurements at Dr. Ron Shaar Lab (HUJI) #AGU100 #FieldWorkSelfie



12:37 AM - 14 Jun 2019

A Glacier from a Different Age: 2007



Dan Shugar
@WaterSHEDLab

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Here's my #AGU100 #fieldworkselfie from Black Rapids Glacier about 12 years ago. @theAGU



1:27 PM - 17 Jun 2019

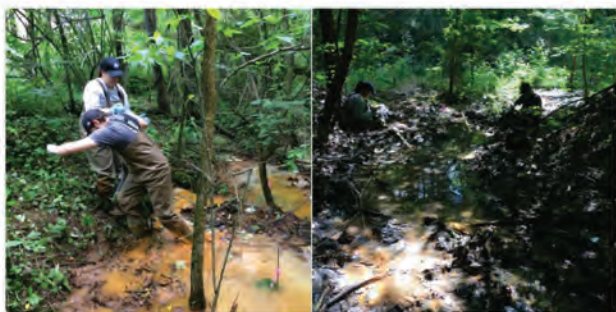
Well, That's Not a Basic Selfie

Rachel Gabor
@RiverChem

@theAGU, here are photos of my amazing undergrads sampling an acid mine drainage stream for the #AGU100 #FieldWorkSelfie [twitter.com/RiverChem/stat...](https://twitter.com/RiverChem/status/1139888888)

Rachel Gabor @RiverChem
Replying to @RiverChem

Wundergrads Chris and Holly did a fantastic job adjusting to the terrain, collecting samples, and pulling each other out of knee-deep mud. This is Chris's 2nd summer with me and this was Holly's first day in the field - these samples are part of her undergraduate honors project.



4 2:44 PM - Jun 24, 2019

Rockin' Outcrops

Hayina H. A
@hayinoablo

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Visiting the rocks 'cus we rock 😎 Got the chance to witness the northeastern Taiwan coastal outcrops despite the pouring rain ☔ #AGU100 #FieldWorkSelfie



11:01 AM - 14 Jun 2019

Hazardous Selfies, for Professionals Only

Sir MarcNeil Amandy
@MarcusNeil

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Hello, @theAGU here are my entries for #FieldWorkSelfie for #AGU100. My photos are from our Geohazard Mapping in Abra Province, Luzon, Philippines. [twitter.com/theAGU/status/...](https://twitter.com/theAGU/status/1139888888)



3:33 AM - 17 Jun 2019

Selfie Near Everest? Check

MB CHAND
@MohanBChand

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Selfie was taken during field trip in Ngozumpa Glacier, Everest region, Nepal #AGU100 #FieldWorkSelfie while taking ground control points (GCPs) for the UAV survey.



11:20 AM - 20 Jun 2019