

**A**s AAAS Science & Technology Policy Fellows and social scientists, **Sharri Clark** and **Janis Johnston** have used their expertise to better understand security and communications issues. They also met some long-admired people along the way.

For Sharri Clark, meeting Secretary of State Hillary Clinton was an unforgettable moment. “On her first day at State, many of us gathered in the main lobby to welcome Secretary Clinton,” she says. “When security cleared a path, I wound up on the front line and got to shake her hand.”

Sharri, a Fellow in the Office of the Coordinator for Counterterrorism at the Department of State, has been interested in foreign policy since she first decided to return to graduate school. “I had a career in computers as an IT professional, but decided to take some graduate coursework in archaeology,” she explains. Sharri eventually earned a PhD in anthropology from Harvard University, with expertise in the archaeology of South Asia and the Middle East. That training made her a good match for the State Department.

“I chose State because I wanted to be part of policy development,” she says. “I am interested in how national identity affects politics because how people see themselves affects how they deal with other nations. Cultural differences can have a large impact on relations with other countries. Little things like touching the wrong hand or use of a particular color can leave an impression,” she explains.

Because of her experience in the Middle East, she was asked to develop a strategy for protecting critical infrastructure and resources in those countries. “Infrastructure protection—such as oil refineries—is of national concern,” she explains. Even vaccines or rare minerals could be considered critical dependencies. “Each year we develop a list of these items and engage with countries to protect resources by developing procedures or vulnerability assessments,” she explains.

Sharri has also been working on violent extremism and radicalization, a priority in her office and in the White House. It is an area where she hopes to have an impact. “At State, even though I am a small cog in the machine, I feel like I’m making a contribution.”

The way Janis Johnston tells it, you’d think Paul Krugman was a rock star. Janis met Krugman, a professor of economics and international affairs at Princeton University and winner of the 2008 Nobel Prize in economics, at the Swedish Embassy. “Fellows are invited to meet Nobel laureates,” she says. “It was one of the networking opportunities.”

Raised in Wyoming, Janis worked at a grocery store until she decided to go back to school as a non-traditional student. “I went to a junior college and then earned two bachelor’s degrees—one in math and one in natural sciences,” explains Janis, who now has a PhD in sociology from Colorado State University.

As a graduate student she had done program evaluation, so when she saw the AAAS Fellowship notice she was intrigued. “But at first, I thought you had to be a ‘hard’ scientist to apply,” recalls Janis. “Then I saw the word ‘social’ and that drew me in. I knew AAAS valued someone with my experience and training.”

Janis worked on risk communication in the National Homeland Security Research Center at the Environmental Protection Agency. As the only social scientist in her office, she brought something new to the table. “Emergency messages in an acute event need to be informative and understandable without being mired in detail,” she explains. But it is also important to know more about the population receiving those messages for them to be effective. “Power structures, literacy, culture, race, and ethnicity all have an effect on how messages are communicated and received.”

**Audrey Glynn**, who is in the Office of Naval Research-Global at the Department of Defense, also recognizes that understanding cultural differences is an important aspect of international security. How can deployed troops interact favorably to bring about peace?” she queries. “Sometimes we don’t realize we are offending people in a different culture.”

Audrey, who has a PhD in infectious disease from Pennsylvania State University, has always had an interest in the international implications of science. “I understand the value of being an expert, but I craved learning about various pieces of the puzzle,” she says.

During her fellowship, one of Audrey’s main duties was to organize an international workshop on human,

social, cultural, and behavioral sciences and modeling. Understanding the social and cultural influences on behavior can support activities such as security missions and disaster relief. “We brought scientists together from different disciplines—in areas such as anthropology, political science, economics, sociology, and neuroscience.” “It’s critical work because it is a largely undefined field.” The workshop, held in Istanbul, Turkey, included scientists from four continents.

“It was a really educational experience for me,” she says, “one in which I used both instrumental leadership, emphasizing the completion of tasks, as well as expressive leadership, focusing on maintaining group morale and minimizing tension and conflict.”

Audrey renewed her fellowship for a second year in her office, and would like to continue with the type of work she is doing now. “I might like to work on social science efforts in combating terrorism,” she says. “The experience as a Fellow is fantastic. I have expanded personally and professionally.”

**Ryan MacFarlane** encountered the AAAS Fellowship in so many places, it would have been surprising had he not applied. “I heard about it at a conference in Oaxaca, Mexico, from a lab mate, and the career center. AAAS staff also came to my campus and talked about the fellowship,” says Ryan, who has a PhD in microbiology and immunology from Stanford University.

Ryan spent his first year as a AAAS Fellow in the Office of International Affairs at the Department of Homeland Security. “I chose this office because I believe in its mission, which is to capture lessons learned from disaster events, such as the tsunami in Indonesia, to better understand preparation and response.”

But it was after the H1N1 virus emerged in the spring of 2009 that Ryan’s expertise was directly called upon. Because his office provides information about travel advisories, trade restrictions, and antiviral stockpiles to other agencies such as the U.S. State Department, it handles a lot of information requests. A small team, including Ryan, worked around the clock to address every request that came in. “For example, an email might come in from the Transportation Security Administration asking what to do with gloves

when the screeners are done with them,” he explains. “Someone might ask if there’s a biohazard and how they should be disposed?”

In his second fellowship year, Ryan is working in the Office of Economic Policy, Bureau of East Asian and Pacific Affairs at the U.S. Department of State. “It has been an incredible experience,” he says. “The fellowship is preparing me for lots of career options.”

### **Audrey Glynn, PhD, Infectious Disease**

Tulane University

2008-09 National Defense & Global Security (NDGS) Fellow; Department of Defense, Department of the Navy, Office of Naval Research-Global

### **Janis Johnston, PhD, Sociology**

Colorado State University

2007-09 Energy, Environment, Agriculture & Natural Resources (EEANR) Fellow; Environmental Protection Agency, Office of Research and Development, National Homeland Security Research Center

### **Ryan MacFarlane, PhD, Microbiology & Immunology, Stanford University**

2008-09 National Defense & Global Security (NDGS) Fellow; Department of Homeland Security, Office of Health Affairs, Office of International Affairs

### **Sharri Clark, PhD, Anthropology**

Harvard University

2008-09 Diplomacy Fellow; Department of State, Office of the Coordinator for Counterterrorism