



Old Traditions in a New World

Max Planck scientists cooperate with partners in around 120 countries worldwide. Here they relate their personal experiences and impressions. During a visit to the laser laboratory in Riyadh, quantum physicist Nora Kling got to know a new, fascinating world.

Normally I would never in my life have considered going to Saudi Arabia for my research. Nearly everything I knew about the country had come from media reports. That made me somewhat afraid initially; life there appeared to be so different. But even in my first week at the newly established laser laboratory at King Saud University, which collaborates with the Max Planck Institute of Quantum Optics and Ludwig Maximilian University, I noticed how respectful and polite the people are. In fact, they're so polite that I hardly ever spoke with other students on campus during my stay there. While it's perfectly natural for people from Western countries to approach strangers and ask them questions, in Saudi Arabia, that's considered pushy.

Having grown up on a farm in South Dakota, I was raised to be very down-to-earth and independent. I always experienced an open atmosphere during my university studies in the natural sciences, and also later at the Max Planck Institutes. I was able to develop my research skills completely independently of gender roles. Coming from this background, for me, the separation between men and women in Arabic society is rather disconcerting. The fact that women aren't allowed to drive is something I find especially strange.

The separation of the sexes also pervades everyday life. Some restaurants have special "family areas" with private booths closed off by velvet curtains. There, women can remove their face veils undisturbed and sit together with family and friends to enjoy the food – which, incidentally, is really fantastic. Hospitality has a long tradition in Saudi Arabia and plays a very significant role in the culture. Attentive university staff built a new restroom in line with Western standards especially for us, the cooperation partners from Germany.



Nora Kling, 32, is studying ultrafast, light-induced movements of electrons and atomic nuclei within molecules. Born in the US, she studied chemistry and mathematics, but she also took physics courses, which enabled her to obtain a Ph.D. in physics at Kansas State University. She wrote her dissertation on the development of an imaging method that analyzes the ultrafast interactions between laser light and ions in molecules. As an external Fulbright scholar and visiting scholar of the Max Planck Society, she was already able to spend two years working on her Ph.D. project at the Max Planck Institute of Quantum Optics before returning to Ferenc Krausz at the MPI and to the LMU Laboratory for Attosecond Physics in Garching as a postdoc in 2014.

Since the lab is located on the men's part of the campus, I never saw a single female student during my stay at the laser lab in Riyadh. But I also didn't have a lot of time, as I was fully focused on my work.

Science is my greatest strength – what I'm best at. And I would like my work to contribute to overcoming cultural barriers, and to show that women, too, can work in science. The women's part of the campus is completely separate from ours, but actually it is precisely basic research in physics and engineering that is so interesting for the young, highly educated women of Saudi Arabia. Their male colleagues prefer the better paying jobs in the finance sector or the oil industry, anyway.

Our lab is unique: it's located in the middle of the desert, where it's exposed to the merciless heat and sun. The special location offers us the opportunity to bring leading-edge technology to this part of the world and to create new synergies with existing research projects. For instance, one of our first cooperation partners is a biophysicist who can use our equipment to study the ultrafast internal conversion of melanin – the pigment that protects us against the sun.

I find it incredibly exciting to help initiate such interesting and interdisciplinary projects that might not exist otherwise. And I hope our lab not only offers a shared research platform, but can also build up greater understanding for cultural diversity among scientists.