Faces of ACS ENVR: George Cobb

By Michal Ruprecht



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GEORGE COBB

"Faces of ACS ENVR" is a series of profiles on scientists and leaders that have been impacted by the ACS Division of Environmental Chemistry (ACS ENVR). Our first profile covers George Cobb, Ph.D. who joined ACS ENVR in 1984 and has been an active member for over 30 years. He was the chair of the division from 2015-2017. Dr. Cobb is an ACS fellow and Chair of the Environmental Science Department at Baylor University.

Science is in George Cobb's blood. George Cobb, Ph.D., was born and raised in Clinton, South Carolina to a family of science teachers and college professors. His exposure to science at a young age lead him to a career he fell in love with in high school: chemistry.

ENVR Contributing Web Editor Michal Ruprecht spoke with Dr. Cobb about his early passion for science and his career in the ENVR.

The following interview has been edited for clarity, length, and AP Style.

Michal Ruprecht: Can you tell me a little bit about your roots and where you grew up?

Dr. George Cobb: I was born and raised in South Carolina. I grew up in a little town of about 2,000 people called Clinton. I grew up in a family of educators and basically farming communities, so I was fortunate to have many family members who were either teachers or science teachers or some relatively close close cousins who were college professors so I was exposed to nature and science and math a lot when I was younger, and that's kind of how I got interested in this.

Tell us a little bit about your undergraduate experience. Did you go into college immediately majoring in Chemistry?

I was pretty well decided as a Chemistry major. The college I went to had a lot of pre-med students and so I thought for about half a semester, "Well, maybe I would consider that," but I never really seriously considered anything other than chemistry as a major.

When and why did you get interested in environmental chemistry?

I took an environmental chemistry course from College of Charleston faculty member William Frank Kinard, Ph.D. Professor Kinard was a really great instructor. He not only taught me a lot about environmental chemistry that semester but he also gave me a research opportunity in his research group that really made me in very many positive ways. So that was really the turning point to go to environmental versus other things.

Why did you end up joining the environmental division?

When I was in college I didn't realize that there were divisions that had anything other than really the ACS bigger picture, so I didn't even think about divisions until I got into graduate school. The opportunity to interact with scientists that were doing cuttingedge kinds of research and having the opportunity to read their work or talk with them about what they were doing at regional or national level is very beneficial.

What do you think differentiates the environmental division from other divisions?

Our focus is on chemistry that affects and hopefully improves the environment. Other divisions are focused on among the fundamental basic chemistry of how molecules assemble themselves and/or how instruments function. For instance if you're dealing with people in an industry, they may very much want to do everything they can to protect the environment. However, if they're making a product that has some small amount of a hazardous material that is being produced, they certainly want to get as much of that out of the environment as they can but that simply may not be cost effective to get every atom out. So understanding some of the some of the factors that influence how things are done, and the the actual similarities in people who you might think have differing fibers, if you will, has been very important in my growth as just a person, but also interacting with lots of scientists and engineers within the division has really improved my ability to conduct science and ability to interact with people from vastly different disciplines.

Why did you join the ENVR leadership team? Was mentorship one of your reasons?

I really do think that mentoring students and giving them advice and interacting with them in positive, professional, and social activities is very important. Mentorship is always a driving factor, but it wasn't actually a factor in choosing to become part of the leadership of the division. I viewed that as something that I was supposed to do just walking around everyday. I simply saw that there was a need. I felt like my students were getting a lot out of participating in the activities that ACS and the division had to offer, and I simply wanted to help out.

How has the division impacted you?

First off, being in the leadership of any aspect of the ACS is very prestigious, and it's looked upon very favorably by employers. And so that that helped my career in ways I'm not sure I can quantify. The many activities that I have been able to enjoy internationally and many of the collaborations that I have in my research capacities are because of my involvement with the division. It's allowed me to sit back and take a more thoughtful view of other people's opinions and other people's perspectives on how to do things and the factors that influence the decisions that people have to make. Interacting with lots of scientists and engineers within the division has really improved my ability to conduct science and ability to interact with people from vastly different disciplines. I can't emphasize enough the interactions with very well respected colleagues, much more respected them myself in the division who have helped me learn how to navigate different aspects of a professional career has been really valuable for me.

Where do you hope to see the ENVR in the future?

I would like to see the environmental division continue to grow and attract young scientists. Environmental concerns are one of the major concerns that the younger generations have. It seems that the environmental chemistry division would be a place

where younger chemists could find a home and find some interest in the types of things that we do. I also hope that the environmental division can work with other aspects of the ACS like the committee for environmental improvement and the Green Chemistry Institute to actually help develop and implement sustainable solutions for chemical processes going forward and products that can both benefit us and help protect the environment.

To see more Faces of ACS ENVR, or the Legends of Environmental Chemistry videos, visit acsenvr.com, and look under Resources.