A CONVERSATION WITH ST. OLAF PROFESSOR OF CHEMISTRY WES PEARSON

For the past 50 years, **Wes Pearson '54** has taught students to see small and think big.

By Patricia Grotts Kelly '77 PHOTOGRAPHED BY TOM ROSTER

ESLEY PEARSON ATTENDED St. Olaf as a student because the school offered him \$50 more in scholarships than the other schools he considered. "St. Olaf bought me, so to speak," he says with a laugh. "People can reflect on whether or not St. Olaf got a good dea!!"

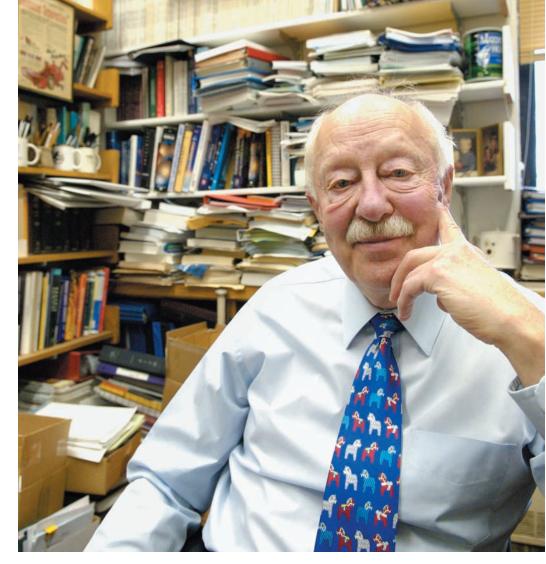
In 1954, Pearson was the only one in his class to graduate summa cum laude. He'd hardly finished his Ph.D. at the University of Minnesota before he was invited back to the Hill to teach organic chemistry. Fifty years later, he remains an active and beloved member of the faculty, still teaching organic chemistry and now developing "green" lab experiments to carry his department into an earth-friendlier future.

Chemistry is about change, Pearson says. Throughout his career, he has instigated and embraced change whenever he felt it necessary — always to serve the best interests of the students. His creation and leadership of the St. Olaf premedical advisory committee is a national model and continues to help students get accepted to medical school and other professional programs.

Today Pearson receives letters from his former chemistry students all across the United States, many of whom hold impressive positions as physicians, research chemists and professors but who still take the time to reminisce about their St. Olaf experience and to thank the man who helped them find their path.

"I guess that's the way I've always looked at teaching," he says. "It's an important and rewarding — part of what we do. We help students get to the next step."

Were you interested in chemistry at an early age? Did you conduct experiments in your mom's kitchen?



No. I grew up on a farm near Red Wing, Minnesota. Most people I knew went to one-room schoolhouses, but I went to a consolidated school with three different rooms. We took general science, but there were no laboratory experiments. I was a typical farm kid; there were a lot of things to do in addition to schoolwork. As soon as I got old enough, probably first grade, I was assigned to do things like feeding the

animals, milking cows and taking care of the horses. When I went to Red Wing High School, I had a chance to get into biology, physics and chemistry. I guess that's when [my interest] really started.

Were you inspired by any one professor at St. Olaf?

All my chemistry professors influenced me: Al Finholt, who was my advisor; Allen Hanson, who is still in Northfield; Courtland Agre, who taught organic at that time; and Marvin Skougstad, who taught analytical chemistry. Professors in physics and math also influenced me. I wasn't set on chemistry when I first came to St. Olaf. It evolved. And part of the evolution was I knew I needed to be able to do something when I graduated because my parents had invested money in "I tell my students: you have to really develop a different concept of the world around you. You have to start thinking of things in the smallest dimension, in molecules," says Chemistry Professor Wes Pearson. "I tell them, once you start thinking that way, you're hooked! You'll never look at the world the same again."

my education. Chemistry at that time had a very good job market.

I went to the University of Minnesota for graduate school. In the spring of my final year there, AI Finholt came by and said, "We need somebody to teach for a year. Are you interested in coming [to St. Olaf] and teaching?" I said "Okay." I never interviewed for the job.

I was sitting in my office on a Saturday morning in January, grading papers, when AI Finholt stuck his head in the door and said, "Well, I got a letter from Court [Agre] today, and he said he's not coming back to St. Olaf. Do you want to stay on?" And that was it. I've been here ever since.

Were you nervous when you came to teach at St. Olaf?

No, I wasn't nervous. I'd had some experience teaching at the University of Minnesota. The summer before I came to St. Olaf the administration decided organic chemistry should be taught as a sophomore course instead of a junior course. They put all the sophomores in organics as well as the juniors, so my first class was much bigger than any organic classes had been previously at the college. I can remember AI Finholt saying, "Well, you know, one thing you can be sure of — it'll never be this big again!" The truth of the matter is, it's never been that small again!

But it encouraged me that people signed up for my class, even though it was rumored to be the hardest course on campus.

Does organic deserve that reputation?

It does have its own sort of aura. And some of it is probably justified; a lot of it isn't. I always think of the student I had who rode on a bicycle tour from Seattle to Washington, D.C., one summer. I got this card, mailed from somewhere in Missouri, and she wrote, "We just got through Nebraska, and it reminds me a lot of organic — you hear so much about it ahead of time, but when you get there, it's really not bad at all!"

Do you remember your first students? Were they different from your students of today?

I remember my first class very well. The majority of students came from small towns, and because they came from small schools they hadn't had a lot of opportunities in science. But they came with a tremendous work ethic.

Certainly students today have a lot more background in science and a much wider range of experience. As for basic abilities, I don't think there's that much difference. I had great students back when I started teaching, in terms of their ability to assimilate material and being curious and ambitious. They had great goals. But that's been true of students in the chemistry department all along. They're very goal oriented, and they want to get as much out of their abilities as they possibly can.

What else has changed about chemistry majors?

There were about 65 students in my first class, with only about a half-dozen women. I have a class of 84 right now, and I have more women than men. Today we're graduating as many women with chemistry majors as we are men.

Our department has always been a very unbiased place, and that's not been true in science departments elsewhere. I got a letter from a graduate a number of years ago who had gone on and done very well. She wrote, "I think back on the time that I was at St. Olaf, and I didn't see any kind of bias against women, but I sure have seen it since! I really appreciate the fact that St. Olaf was a place where I could feel that I was just like everybody else."

That's a compliment to St. Olaf, to the department, and to everyone who had contact with that student. Because I know that out there, it's not always the way it should be.

How has the chemistry department changed over the years?

When I first started teaching, the department was geared to producing people who were just chemists, who would work in the chemistry industry or teach. Since then, we have broadened the way we teach so we accommodate many more people. We've got a lot more students who go into the health sciences, for example.

Is this a result of the way you teach?

Yes. And the way in which you make it possible for students to achieve what they want to. If most of the class wants to be researchers, I push certain directions. If they want to be physicians, I emphasize other things. I think that's why, for the past 20 years, we have produced more chemistry majors than any other four-year liberal arts college in the United States. I attribute that to our focus on teaching.

When I was chair of the Review and Planning Committee years ago, we emphasized that when assessing a faculty member's contribution to the college, one should consider teaching, professional activity and

be more or less environmentally friendly. We first teach students about the idea of minimizing waste and the impact that it might have on the environment — the toxicity and so on. That's really what green chemistry is about: finding ways to perform more environmentally friendly experiments. This is very important for us as we're gearing up to move into the new Science Complex. The fact that there are fewer hoods put in means we are not going to generate as many noxious things in the lab.

If you weren't a chemistry professor, what would you do?

If I had lots and lots of money, I probably would enjoy owning a major league baseball team. I've always been interested in athletics. I've been the college's faculty athletic representative and one of the go-betweens between the NCAA and St. Olaf. I've also served as the timer for the football games and for the men's basketball games and sometimes for women's basketball games, almost the entire time I've been here.

What have some of your students gone on to do professionally?

I really hate to single people out, because I'll forget someone, but we've had graduates who are chemists, chemistry teachers, physicians, chairs of departments of chemistry at liberal arts colleges and major universities, heads of research departments in industrial

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other contributions — in that order. Teaching is first. Our main job is to take the students and get them to the next step. Research work is important from the standpoint of people keeping up within their field, doing creative work, but it's important that it involve the students as well. And when it involves the students, it's another form of teaching.

What kind of a person is good at chemistry?

Chemists have to be curious about things and wonder why. All scientists have this curiosity about what's going on. You need to have a pretty good analytical mind and be interested in mathematics and physics because they are such an underpinning of chemistry. Chemistry is about change, and you have to be interested in why changes take place.

What are you working on in terms of research?

I'm creating more green chemistry experiments. Whenever you do a chemical process, there is waste, and that waste may chemistry, even one who is head of transplant surgery at a major teaching institution.

At one time, I think there were more than 40 [chemistry alumni] who were teaching at various colleges and universities. A few years ago, the American Chemical Society recognized one of our graduates as an outstanding secondary school teacher. This is just as important as someone who heads a research group in a major company. In the medical field, we have someone who heads a big emergency room department, but we also have a graduate who has spent an entire career in Alaska, flying into the backwoods to provide medical care to the indigenous people.

I remember them all very well. These are the people that I've had the privilege of being associated with. That's the great thing about teaching at St. Olaf: the quality of the students. And if I can make a difference in helping them along, I can look back on it and say, hey, that was a good thing.

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