49. Having It All: Personal Lives and Professional Choices*

Susan Houde-Walter

Despite the vigorous involvement of Hilda Kingslake at the inception of The Institute of Optics, there were very few women in the student body for the first few decades. Women made inroads during the 1960s and 1970s. By 1986, the ratio of women to men graduate students was 19 to 100 (the number was 61 to 225 for undergrads).

Jean Bennett was president of the Optical Society of America in 1986, and she paid a visit to the Institute. She met with a number of graduate students. One of these students (your scribe) was seven months pregnant, and it was just beginning to dawn on her that a baby might impact her career in optics. Other students wondered about networking, finding the right mentors, whether to go to industry or academia, and so on. Unfortunately for us students, there were few females on campus at the time who might serve as mentors. Jean suggested we import them for a day. She helped to identify prospective speakers and we organized a day-long seminar. We approached Ken Teegarden, then director of the Institute, for funds, which he generously granted. The University also embraced the seminar as one of the “University Day Seminars” with the improbable name, “Having It All: Personal Lives and Professional Choices.” Some excerpts from the transcripts follow.

Irene Engle, professor of physics, United States Naval Academy, Annapolis, Md.
“The ‘Old Girl Network’ as a Supplementary Professional Support System”

“. . . the rate of production of women Ph.D.s [in Physics] has remained almost constant, hovering about 63 per year during the past ten years. So if one is searching for a mentor, particularly a mentor who is a woman, one doesn’t necessarily find women available. Now there is always the possibility of finding a good man and most women who have somehow or other survived through the process, have found quite a number of good men who have helped them along the way in various ways. But no matter how many good ones there are, there are just as many areas where it really helps to have women who have the life experience of women as well as the concomitant life experience of scientists.”

Teresa M. Motz, optical engineer, Welch-Allyn, Skaneateles Falls, N.Y.
“Being a Professional Woman: Attitudes, Social Structures, and Environmental Considerations”

“I was a foreman in a machine shop, I was the youngster and the only girl there, I had thirty older men that I was supposed to supervise. They had decided to set up a test for me. They brought in appropriate [sic] centerfolds and tacked them on the inside lids of their tool

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boxes to see my reaction. Basically they set up a situation where they wanted to find out
how I felt about certain social issues, how I reacted in potentially embarrassing situations
and furthermore what rights I respected in a supervisor-employee relationship. So I found
it—of course this occurred right before a very important management tour was coming
through. A lot can be gleaned about a person’s character by forcing response to, in this par-
ticular case, pornography. Reactions are important, and I found it quite interesting that after
a few days, the pictures suddenly disappeared. . . . I don’t want whether or not I’m a male
or female in any way to influence how they deal with me on a technical level. But basically
the teasing that goes on between male and female colleagues is colorful in nature, so to
speak, various shades of red being the predominant color for one or both parties involved.”

Janet Jackel, Research Scientist, Bell Communications Research, Redbank, N.J.
“Now that you have it all, what do you do with it?”

“About nine or ten years ago when I was very new at Bell Labs I was sent to a work-
shop—it was called Women in the Work Environment. . . . It was mostly for men in fact
and male managers and how to deal with women, and it was run by sort of a psycholo-
gist type and we discussed a lot of things. . . . We talked about this and on the very last
day—we had gotten to many, many issues, including really important ones like should a man
hold a door for a woman and stuff like that—and I just felt that something was miss-
ing. . . . Then it hit me—no one had talked about families. Now, in case you haven’t
noticed it, well—first—most people want families. . . . Really, people did not want to talk
about it and then they said, ‘Well, if you’re going to do that, we don’t know what to do.
You want to have everything, everything.’

“Things break down constantly. . . . If you can somehow get a job with time flexibil-
ity, you’re way ahead because the disasters keep coming up. They come up like when
somebody calls at three o’clock in the afternoon and they say, ‘Well. . . . don’t get too
upset. We took him to the emergency room and there’s somebody with him, but the
surgeon will not suture the scalp until a parent comes.’ ”

Ursula Gibson, assistant professor of optics, Optical Sciences Center, University of
Arizona, Tucson, Ariz.
“Getting Tough and Getting Through: the Ph.D. and Beyond”

“As part of a Bell Labs grant, I went down to work a couple of summers there. . . . It turns out they had this shielded room, just a mesh room inside the lab where they did all their experiments and part of the tradition had been that they had this 1940s calendar girl on the wall. Part of the ritual was that this ‘goddess’ would look after things in the screened room while they weren’t there to take care of them. So they were very reluctant, despite my arrival in the lab, to take this down. They thought, well gosh, what can we do, I mean, we’ve got this female scientist coming into the lab and we know that they are special and different and probably can’t handle this. And it wasn’t a pornographic picture, it was just an old-fashioned calendar girl. And so they decided they’d put curtains on it. I was working in the screen room by myself one day and I saw there was this thing obviously covered up, so I opened it up and there was the (fairly modest) pin-up girl. And so I thought, well isn’t that cute, they are worried about being sexist. I covered it back up and went off. That night I went to the grocery store and I bought a copy of Playgirl. I figured all’s fair in science and war, so I picked out a picture which I thought was similarly revealing, no details necessary, I’m sure. I took it up very early the next morning, I went in and put it next to the pin-up girl and put curtains over it. Then I went off and waited to see what would happen. I came back in for a coffee break about two or three hours later and they were all jabbering away and when I came in it got very quiet. So I knew something was going on. It turned out that by that one act I had completely absolved them of their fears, especially the technicians. They thought it was stupid that just because a woman was coming in, they had to put curtains over their pin-up girl. But the technicians could see the parity involved in the male pin-up and after that there really were no problems.”

Elsa Garmire, professor of electrical engineering and physics and director of the Center for Laser Studies, University of Southern California.

“Does Being a Woman Make a Difference?”

“I was a student at Harvard and I did apply to Harvard and MIT to grad school but I wasn’t at all sure that I was even going to get in. Well I was offered positions both places along with research money. I look back now and I must have been a pretty good student. . . . I didn’t feel like I was a good student. The only reason I went to graduate school was I was married and it was either do that or be a secretary. There really weren’t any other options. You made about the same amount of money as a research assistant as you did with a secretarial job so I went to graduate school.

“We’ve been talking a lot about getting married and having two career families. What I suggest is that you should all go out and marry a wife. . . .

“The technical community is really a very close-knit small community. We’re a tribe. I heard a talk once that said that people like to belong to tribes and that tribes used to be the people that lived near you. Now the tribes are the people of the same professional interests and outlook and so the Optical Society is a tribe and the people will be there. So whatever friendships you make, or enemies you make, are going to be with you for your life, so remember that. . . .

“I had an opportunity to work for a woman one summer when I was at Argonne National Labs and I didn’t want anything to do with her and I thought you know I just really don’t want anything to do with a woman. She passed away a few years ago. It makes me very sad. When she passed away she had been such a wonderful role model for so many young women and I never had the opportunity because I wasn’t willing to listen. . . .
“I do believe networking is very, very important... I really want you all to be involved in networking with other women. I would like to get started an organization within the Optical Society of women that will, at least, keep in touch with each other so that when we need jobs, etc., we know who to talk to.” [Note: WOSA, or Women of the Optical Society of America, now meets once a year at the OSA annual meeting.]

Sixteen years have elapsed since the Having It All seminar, and conditions for women in the field of optics continue to improve. Many thanks to Jean and the seminar speakers for bringing their experience to us, as well as Ken and the University for providing funds and the event venue. Thanks also to the fellow grad students who cooperated to make the seminar happen. May the progress continue!

Transcripts of the Having It All seminar are available by mailing your surface mail address to shus@optics.rochester.edu.