

CHAPTER 31

THE MOST IMPORTANT DAY OF MY LIFE

At 85, I can recall many important days in my wonderful life: (a) the day Jeannie and I were married and the day each of our children was born, (b) the day I survived an appendectomy in Iquitos, Peru, (c) the days on which I received various educational degrees, without which my professional career would not have been possible, (d) the days on which I received a Presidential Commendation or became a member of the American Academy of Arts and Sciences, the National Academy of Sciences, and the American Philosophical Society, and (e) chronologically last, but not least, the day (February 21, 2005) that my companion of 64 years died.

None of the days mentioned above would have ever happened if I had not met Jeannie in fall 1941 at Penn State University. The moment is as vivid as the day it happened. One of my three roommates, Bobbie Beacher, at Alpha Zeta (AZ) fraternity had a date with Betty Ann Spear, and I was to date Betty Ann's friend, Jeannie Ogden. Bobbie and I walked into the lobby of Grange Women's Dormitory, a hall door opened, and Jeannie came walking toward me, smiling and with her hair bobbing slightly. My memory is blank on everything but her face and smile. I currently have on my desk a picture of Jeannie taken with two of her friends (Kathy Osgood and Evelyn Godfrey); it reminds me of that moment – same smile, same "hairdo." After that meeting, she and I spent lots of time together hiking and spending Saturday nights at the AZ house.

Jeannie always had high grades and was often on the Dean's List. When she missed the List, it was by only a narrow margin. My grades were nothing to brag about. When we were married on August 5, 1944, by Rear Admiral Duncan McNair (a friend of Jeannie's family), Jeannie had a BS in biochemistry and I had no college degree – but, Jeannie had confidence in my future. I finally got an AB from Swarthmore College in 1947, and Jeannie strongly supported my efforts to get this first degree, then the MS in 1949 and the PhD in 1953 from the University of Pennsylvania.

After one year of coursework at the University of Pennsylvania in my MS program, my major professor, David Wenrich, recommended me for a summer position as a protozoologist on one of Ruth Patrick's two teams studying the effects of pollution on the aquatic communities in the Conestoga River and its tributaries. In the Zoology Department at the University of Pennsylvania in the late 1940s, the primary focus was on the genetics and physiology of cells. Suddenly, I was in a position that involved studies of single celled organisms in the context of an entire complex system. This era was one of "lone wolf" research. Moreover, this science affected the general public (e.g., jobs), industry (e.g., waste treatment costs), and regulating agencies (e.g., adherence to law). Most scientists of that era were not accustomed to such interactions. Jeannie and Karen (not yet 3 years old) came along. We shared breakfast and dinner, but I was rarely finished before midnight each day. Mary Gojdics, a senior protozoologist with publications, was on the other team. She sat across a lab table from me and kindly helped me along. The teams had weekends off, but I worked the usual hours of the weekdays, as did Ruth Patrick and Mary Gojdics. If my research as part of the team's studies met the University of Pennsylvania's scientific standards, it could serve as an MS thesis – it did. Jeannie never complained and treated this time as an interesting experience. We both got to experience the life of a research scientist. At the end of summer, a single, permanent river survey team was formed, and I was invited to join.

The Limnology Department at the Academy of Natural Sciences was founded, and I worked my way from Assistant Curator of Limnology, to Associate Curator, to full Curator (the last about 10 years after I received my PhD). As a member of the river survey team, I had to be in the field a significant amount of time, which placed the full parenting burden on Jeannie. Between surveys, I was learning aquatic toxicology under the tutelage of Dr. W. B. Hart, one of the pioneers of the field, and carrying out research for my PhD dissertation. I was also learning how to acquire extramural funding under the tutelage of Ruth Patrick. This schedule sounds worse than it seemed because research is so exciting. Even so, I could not have adhered to the time consuming schedule without Jeannie's support and encouragement.

Jeannie, Karen, and I lived with her supportive mother, Eleanor Ogden, until we were able to get our first house in 1949. Times were difficult, both financially and in terms of time I could spend with my family, but Jeannie's support never wavered. I never planned for or hoped for an academic life with much travel. Inside, I have always been a boy from a small mill town in Pennsylvania who experienced the Great Depression and World War II. However, I never lacked opportunities and challenges, most of them daunting. Jeannie and I never had long discussions about our life's path, but her attitude was unmistakable – "sounds interesting; go do it." So I did.

The 20th century was an age of specialization in science and, although I viewed my research as the study of the effects of stress (e.g., pollution) on aquatic ecosystems, to most people it appeared to be a hodgepodge of unrelated components. The view of most of my fellow graduate students was that one's research should be in a single specialty and one should not transgress disciplinary or subdisciplinary boundaries. An old saying expresses this view well: "Shoemaker, stick to your last." This "lack of focus" did not bother Jeannie – when asked what I did, she replied simply: "He's trying to save the world from pollution." In addition, some people thought that scientists of that time should never become involved in

public policy issues, especially controversial ones. This attitude never bothered Jeannie – she felt everyone should be involved in public policy issues. She was always involved in a number of such issues, including fair housing, discrimination, head-start, etc.

Although research scientists are always doing something exciting to them, which usually requires long hours, they are also perpetual students who are attempting to keep up with an ever increasing volume of new literature. Scientists are also, as they should be, subject to continuous scrutiny and peer judgment when they submit manuscripts for publication, apply for extramural funding, or present papers at professional meetings. Ironically, in addition to Jeannie's unwavering support, I received much of the ego support everyone needs from non-scientists. My research on pollution effects on aquatic organisms was useful to waste treatment engineers. I had articles published in *Industrial Wastes* and the *Purdue University Engineering Bulletin*. I even gave a keynote address on the effects of thermal waste discharges on aquatic organisms at one of the annual waste conferences. However, I would not have tried these then contrarian activities had Jeannie's support not preceded them. Becoming a Fellow in 1969 of the American Association for the Advancement of Science was the first major indication that my career path had merit. The Presidential Commendation in 1971 indicated that involvement in the public policy aspects of science had value.

One of Jeannie's favorite books was *What Do You Care What People Think?* by Richard P. Feynman. Her attitude was: if what you are doing is interesting or useful or both, just go with it despite negative comments or ridicule. Not surprisingly, this attitude applied equally well after my receiving major awards and acquiring modest success. Jeannie did not believe that resting on one's laurels led to any significant degree of life satisfaction. My awards hang in my den in the assisted living center where I live, not as memories of past success but to remind me that every worthwhile undertaking involves some risk. Jeannie's attitude of "Get with it" still guides me today.

When Jeannie died in February 2005, part of me died with her. Sixty-four years of companionship makes a lasting impression, as it should. I tend to be realistic (or pessimistic) and see all the obstacles in my path. People often ask how I can carry out research on environmental destruction and not get severely depressed. I do not get depressed because I can still see the world, although less clearly, through Jeannie's eyes. It is, as always, a fascinating place to be, and I am blessed to have had the opportunity to live on this wonderful Earth – and it all began on that most important day of my life in 1941 when Jeannie walked toward me with her enchanting smile.