

James Edgar Parks (Jim) was born January 12, 1939 to Thomas Edgar Parks and Ada Conley Wakefield Parks in Morganton, Burke County, North Carolina. They lived in a small 4 room house at 112 Regan Street. At the time both sets of grandparents were living although at the age of three his Grandfather Parks (Julius Harrison Parks) passed away. Memories of his grandfather Parks are among his earliest memories—his taking Jim to the barn to feed and water the horses and his funeral. Grandpa Parks would take young Jimmy to the barn with him and set him in the manure spreader while he let the horses out of their stalls. The horses would come running out scaring him and imprinting this oldest of memories of times past. The second memory is of his Grandpa Parks' funeral, held at the old homeplace with his body and casket located in the small dining room. He remembers being held by Tom and Ada's neighbor across the street, John Reid Brown, to view the body. Perhaps because both of these events were somewhat traumatic, they nevertheless left an indelible memory. Thus, maybe, an interest in genealogy was begun.

The Parks and Wakefield families on both sides of Tom and Ada's marriage have a rich background of family history dating as far back as the 1600's, and further, with good documentation to draw upon. The families of Parks (Parkes), Rhyne, Wakefield, Roderick, Beck and others are laced with interesting stories that peak one's interest in genealogy. Fortunately, relatives on both sides of the family have had an interest in genealogy and have preserved and passed down the information throughout the years.

When Jim was the age of 4 years, nearly 5, Tom was inducted into the army where he fought in the Philippines in World War II. This too was another significant event that left Jim with one of his earliest and most vivid memories. He remembers his mom Ada taking his dad Tom to the bus station to leave for Camp Croft in Spartanburg, SC (see Chapter VIII). As a consequence of this, and to reduce the burden of Ada's father having to travel from the country during gasoline rationed war times to his highway maintenance job, Jim's grandparents moved in with the two of them. Also at the time, Ada was pregnant with Jim's sister Kaye who was born in August probably right at the time that Tom was leaving the states from New Orleans on his assignment overseas (his actual departure time was kept secret). The times were not easy, and help from the grandparents was appreciated, although sometimes the interactions were a bit testy. Thus, again Jim's early life was influenced by his elders.

Jim started his education entering the first grade of Morganton Primary School in September of 1945. Tom was discharged from service December 31 of that year. Things started to return to normal. Before the war, Tom and Ada both worked in the Morganton Hosiery Mill, Tom as a knitter, and Ada as a looper, operating machines to make women's silk or nylon stockings. The work was tedious, boring, stressful, and challenging particularly when the machines were malfunctioning. Pay was determined by production, meeting a minimum quota of flawless goods. Ada continued to work after having Jim and until Tom left for service. Jim was kept at home and tended after by a young black (colored) girl named Callie. When Tom returned from service, he then returned to work at the hosiery mill, first at the Morganton Hosiery Mill and then at the Huffman Hosiery Mill. Ada continued to stay at home looking after Jim and Kaye. In May of 1948 Jim's brother John was born, giving Ada more to tend to on the home front. Times were not easy, and they got worse. Ada returned to looping at the hosiery mill. Due to company problems and unionizing efforts, work was cut to three days a week and then to complete layoffs. Tom and Ada

only had eighth grade educations and regretted not having gone further. They along with Ada's parents stressed that Jim should do well in school and should go on to college.

During hard times Jim was sent or chose to spend time in the summers at his grandma Parks' farm on Linville River. He enjoyed staying with her, and his Aunt Cynthia and Uncle Ralph. Being there was fun even though the work was sometimes hard. His cousins Larry Brown and Bobby Parks would join him frequently and they enjoyed each other and doing things together. The farm was isolated back then and there were few visitors. The river, creeks, fields, and mountains were fun places to play. Work had to be done like hoeing corn, cultivating the crops, harvesting the wheat, feeding the stock, and milking the cows.

Jim continued his education through elementary and middle schools, entering the sixth grade of Morganton Junior High School, and finally graduating from Morganton High School as valedictorian of his class. He was heavily influenced by two of his science teachers at Morganton High, Charles Snyder and Charles Postelle. They encouraged him to attend college and Mr. Snyder, being a graduate of Berea College, encouraged him to attend Berea. He took him there for a visit, and Jim was accepted to attend Berea starting in the fall of 1957.

Jim found his niche in the Department of Physics and became a member of an outstanding group of other physics majors. At Berea, students were required to work at least ten hours per week and Jim did so by working in the woodcraft and broomcraft student industries. He also worked one semester in the college post office. After those jobs, the physics department hired him and it became his home until he graduated in Physics in 1961. After graduating from Berea, he began work as a summer student in the Health Physics Division of Oak Ridge National Laboratory in Oak Ridge, Tennessee working with Dr. George Samuel Hurst. He applied for graduate school in the Department of Physics and Astronomy at the University of Tennessee, Knoxville and was accepted and awarded a teaching assistantship to pursue graduate studies in Physics. He was awarded a M.S. Degree in physics in 1965 for his academic work and completion of a thesis, "Studies of Electron Transport in Gases, Using Time-of-Flight Swarm Methods" under the guidance of Dr. Hurst. Near the end of his work at Tennessee he accepted a two-year teaching position in physics at Berea College where he replaced faculty taking sabbatical leaves. He continued to work summers at Oak Ridge National Laboratory. During this time period, he met his wife Barbara Catron and they were married September 15, 1962. In August of 1964 they had their first child, Sharon Kaye Parks.

In Fall of 1966, after completing his employment at Berea, he returned to graduate school in physics at the University of Kentucky where he again teamed up with Sam Hurst to pursue research for a dissertation. In the spring semester of 1970 he received his Ph.D. in Physics for his research on the "Ionization of Noble Gases by Protons." During his 4-year tenure at Kentucky a son James Edgar Parks, II (December 18, 1967) was born and a second son, Kermit Hunter Parks (January 24, 1970) was born.

Following graduation from the University of Kentucky, Jim accepted an Assistant Professor position in Physics at Western Kentucky University in Bowling Green, Kentucky in the Fall of 1970. He taught there 11 years, rising to the rank of Full Professor and having received tenure in 1979. Their youngest child, Christine Carol Parks was born there December 9, 1972. Jim continued

to work some summers and do consulting work with the Photophysics Group, Chemical Physics Section, Health and Safety Division of Oak Ridge National Laboratory.

In the summer of 1981 Jim took a 2 year leave of absence from Western to become Technical Director of Atom Sciences, Inc. in Oak Ridge, Tennessee. Atom Sciences was a new company formed by Sam Hurst and Hal Schmitt to develop and commercialize applications for a new analytical technique using lasers and a process called Resonance Ionization Spectroscopy. The idea was that lasers and RIS could be used to sensitively and selectively detect impurities in materials. He remained in this position until March 1988 when he was offered the opportunity to become director of each of 2 interrelated organizations, one associated with the University of Tennessee and the other with the Tennessee Center for Research and Development (TCRD). The University of Tennessee became his primary employer and TCRD contracted with the university for his time to be the Director of TCRD's Laser Technology Center. For his primary employment with the university, he became Director of the Institute of Resonance Ionization Spectroscopy (RIS). For this work, he organized international symposia on RIS, secured funding, and published proceedings. As Director of the Laser Technology Center he was charged with helping Tennessee companies use lasers in their business to further their work. He taught laser technology courses at the local technical community college.

In the Fall of 1993, Jim had the opportunity to return to his passion of academic teaching and experimental laboratory work. At this time he was appointed Director of Undergraduate Laboratories in the Department of Physics and Astronomy of the University of Tennessee, Knoxville. In August, 1996, the newly appointed department head, Dr. Lee Riedinger, asked him to serve as the department's Associate Head. Jim held these 2 positions working with several department heads until his retirement March 1, 2016. As Director of Undergraduate Laboratories, he was responsible for training and supervising approximately 50 graduate teaching assistants, writing laboratory experiments, planning the laboratory curriculum, teaching the advanced modern physics lab, securing funding for equipment, and purchasing and maintaining apparatus. As Associate Head he was responsible for oversight of the department's machine and electronics shops, and a host of other administrative odds and ends like laboratory safety, chemical safety, radiation safety, and facilities (building and classroom) management.

In summary, Jim, during his professional career, has written over 57 scientific publications and 5 undergraduate physics experiment manuals. He has 3 patents and had 16 major R&D and educational contracts totaling \$1.7 M (since 1981). His areas of expertise and interests include Resonance Ionization Spectroscopy, Interaction of Light with Matter, Secondary Ion Mass Spectrometry, Mass Spectrometry, Vacuum Ultraviolet Spectroscopy, Gaseous Electronics, Electron and Ion Mobility, Charged Particle Interactions, Surface Enhanced Raman Spectroscopy, Fiber Optics, Laser Technology, Radiation Physics, Stimulated Electronic Raman Spectroscopy, Atmospheric Pollution Studies, Non-linear Optics and Light Generation, Technology Transfer and Economic Development, Curriculum Development, Laboratory Teaching and Laboratory Development, Classroom Innovations and Teaching Strategies, and Educational Pedagogy.

Finally in retirement, his hobby interests include photography, genealogy, bragging on his children and grandchildren, and taking care of his faithful companion Yogi III, a Pembroke Welsh Corgi. He has had a long time interest in photography, having started taking photos in the 1950s.

These old photos have served him well in his genealogy pursuits. With the digital age, his interest in photography reached a higher peak, pursuing photography more as an art form and for its aesthetics nature.