

This monthly article highlights one of our branch members. We hope that you enjoy knowing a little more about your fellow members and the interesting life they have had. If you have someone you would like to nominate or if you would like to help author an article, please email the editor, Ron Nakamoto, at [ron.nakamoto\(at\)yahoo.com](mailto:ron.nakamoto(at)yahoo.com).

## ROGER POTASH



For many years, Roger had read about Himalayan climbers, and one day decided to book a trek in the Nepalese Himalaya to see for himself. He joined a group of sixteen Americans and hiked for a month in the Khumbu region, supported by a dozen Sherpas and yaks. A non-technical climb to the top of Kala Patthar mountain (18,500ft) provided a breathtaking view of Everest basecamp, across the Khumbu glacier to the icefall and up to the top of Everest with the deep blue sky above. A sherpa gifted Roger with a handful of snow leopard fur taken off rocks above a trail. Another highlight was a very slow trek up the snowbound Chola Pass (17,800ft), with a view from the top down the other side of an untouched

snowfield that seemed to extend forever. The trip ended with a visit to Tiger Tops in southern Nepal, to spot a rare one-horned rhino with its baby. This trip, a dream come true, taught Roger that the natural world can indeed offer deeply rewarding, life affirming moments of startling beauty and scale.

Roger was born and raised in Queens, New York, the middle son of three boys. His father retired as Chief of Safety for the New York Post Office in Manhattan, and his mother was a retail office manager. He graduated from Brooklyn Technical High School, which was an all-boys school. He enjoyed the technical classes and shops (pattern making, drafting, and foundry) which helped direct him later to his career path.



*Roger trekking in the Himalayas, Mt. Everest in center background*

Early in life, Roger fell in love with sailing on Long Island Sound, where he found the joy of moving quietly over the water in a sailboat, in a breeze of fresh sea air, and decided to become a naval architect. Roger attended the University of Michigan, enrolling in the College of Engineering, Department of Naval Architecture. He worked summers with the

leading yacht design firm of Sparkman & Stephens, and with New York Shipbuilding Corporation, famous for building the NS Savannah, a nuclear-powered commercial ship, which sailed to ports around the world promoting peaceful uses of atomic energy. His workdays were filled with folding blueprints and talking with veteran engineers to understand what it was like to design and build ships. Supported with a scholarship and having made the Dean's List, he graduated with a BS in Engineering in 1965. With a classmate, he drove his red 1962 MGA Mk II 1600cc cross country to pursue his PhD at UC Berkeley, California. (Michigan and Berkeley were the top American universities with large naval architecture departments.) It was on this trip, crossing the Rockies and Sierra Nevada Mountain ranges that Roger's interest in, and love for mountains began.

In the summer 1967, he sailed on the SS United States to Le Havre, France to begin research for his thesis at the University of Grenoble, Department of Fluid Mechanics. Several French applied mathematicians in the 19<sup>th</sup> century had taught there, including Lagrange, whose theory Roger applied to an analysis of stagnation point fluid flow on a lifting surface. Roger's research in France was abruptly ended when he was injured in an auto accident outside of Geneva. As Roger recounts, he was invited by an Argentinian researcher who he met at a French language lab for visiting scholars, to drive up to Geneva for the weekend. The driver was going way too fast for the narrow, winding road, causing the car to skid, ejecting Roger from the car. Roger was rushed to a small hospital in St. Julien where a French surgeon, with too much garlic on his breath performed surgery to rejoin his broken femur. He remembers the cute, non-English speaking nurses that cared for him. After recuperating at home, Roger returned to Cal in the summer of 1968. His leg injury disqualified him from military service, and he completed his PhD at Cal, in 1970, with his thesis on the second-order theory of ship motions. Following publication, Roger learned that Knud Prytz, a Danish naval architect working in France applied his thesis to develop a ship's motion computer program.

Following graduation, Roger worked with his friend, yacht designer Gary Mull for several months conducting yacht R&D on the Bay. Roger recalls going with Gary to meet a potential client who wanted a yacht designed for his girlfriend. An exciting afternoon was spent at the St. Francis Yacht Club bar. Later, Gary designed a 6-meter class sloop for the club, and we spent a day sailing the new boat on San Francisco Bay in typical strong winds. Roger was in charge of measuring and recording the tensile loads in the fixed stays. Care was needed to keep one's head down, as the boom was just clear of the deck and open cockpit. With a deep, heavy keel, and fine lines, this boat was thrilling to sail.

Roger's first date with Deborah Dunnavan in late summer of 1970 didn't happen. Roger was supposed to meet her at the Berkeley Yacht Club. Unfortunately, Roger was racing on a 5.5-meter yacht when the wind died on their way back to the Berkeley marina. He had no way to let Deborah know he was becalmed and would not make it. During her wait, she visited with the wife of the yacht's owner, who told her not to worry, that this often happens. Deborah eventually gave into Roger's many pleas to give him another chance. At their "second" date they had dinner at the Hotel de France, a small French restaurant near the Broadway tunnel in San Francisco. The service was not the best,

but when Roger paid the check, he included a nice tip, explaining to Deborah that the waiter had to feed his family, and that it may not have been his fault that the meal was so tardy. Roger learned many years later that the compassion he showed, so impressed Deborah that not only did she forgive him for standing her up on their first date, but that she was willing to see him again. They fell in love and were engaged to be married. Roger accepted a research naval architect position at the Hydro & Aerodynamics Laboratory in Lyngby, Denmark and flew to Copenhagen on New Year's Day 1971. His fiancée left her English teaching position at Lowell High School and flew to Denmark that Spring, where they were married in the English Kirke, across from the little mermaid statue in Copenhagen harbor. Roger still has the ashtray from this restaurant, on the bookshelf in his office as a treasured memento.



*Deborah & Roger, Bilila Lodge, Serengeti National Park, Tanzania*

Roger became intrigued with and accepted a position with Lockheed Ocean Systems in Sunnyvale. As one of at least a dozen naval architects in the division, he was fortunate to have the opportunity to work on many state-of-the-art development programs in his field. He spent four years on Jacques D'Arsonval's Ocean Thermal Energy Conversion (OTEC) concept, culminating in a successful demonstration plant moored off Keahole Point, Hawaii. (*Editor's note: This proof-of-concept project was the first floating OTEC plant to produce a net power of 17 kilowatts!*) Although this research came to an end in the United States, OTEC development continues in Japan to this day. This was the beginning of Roger's interest in alternative, then renewable, and now sustainable energy concepts to replace fossil fuels.

Deborah and Roger purchased a townhouse in Sharon Heights in 1977, leaving their beloved San Francisco for the Peninsula. After ten years, Roger left Lockheed to work in a friend's small naval architecture firm where he designed a hull for the State of Alaska, Department of Marine Highway's ferry replacement project. He conducted hydrodynamic tests of the hull in a towing tank and seakeeping facility in Wageningen, Holland. The project manager invited Roger home for dinner, out to try "rijsttafel" (Indonesian), and toured the government plaza in the capital, The Hague. They've maintained their friendship of forty years.

Roger taught classes in ship hydrodynamics in his old department at Cal, and following a few years of consulting, returned to Lockheed Ocean Systems, renamed Marine Systems. Some of his projects included writing the final report for the deep-sea mining

program, hydrodynamic R&D for the Sea Shadow prototype stealth vessel, and subcontract management for an undersea vehicle. Following closure of Marine Systems, Roger trained as a Systems Engineer and worked on the commercial launch vehicle LLV for deployment of the Ikonos satellite. He was systems engineer for the NASA Lunar Prospector satellite and did instrument integration for the Spitzer Space Telescope. Roger's final assignment was systems engineer responsible for the instrument specification and requirements verification, for eight years on NIRCcam (Near Infrared Camera) in Palo Alto research lab (now Advanced Technology Center) before his retirement in 2009. (Editor's note: NIRCcam is a science instrument and primary mirror commissioning instrument on the James Webb Space Telescope, currently planned for launch at the end of this year, 2021.)

At age 65, Roger decided to retire during the Great Recession of 2009, thinking that his rapidly shrinking 401K plan was going to be depleted by Wall Street, so "... better to use it before it completely disappeared". His colleagues advised him to continue to work to rebuild his portfolio and he is glad he didn't take their advice as his portfolio continues to grow in the biggest bull stock market in history, in spite of his best efforts to spend it.

Roger and Deborah enjoyed attending performances at the San Francisco Opera, Ballet and Symphony. They often visited family in La Jolla, Seattle, and the Bay Area, and spent many happy moments with friends hosting dinner parties at their home. Roger continued racing sailboats on weekends. They have taken car trips all over the western states, followed by trips to Alaska and Hawaii and they have travelled to over two dozen countries. Sadly, six years ago, Deborah passed away ending their 44 years of marriage. Roger benefitted greatly from grief counseling, and the support of family and friends during this difficult period.

At about the time of his retirement, Roger began a long-term interest in the study of global warming (later climate change) inspired by his love of the natural world, and his interest in science and engineering. He met Professor Stephen Schneider at Stanford, who recommended he see for himself the dramatic impact of climate change in the Arctic, which he did in 2010. An evening discussion with German biologist Fredericka Bronny revealed that she had first come to Greenland in 1979 and has since returned annually. Her observations were that the temperature was about the same in 1985, a bit warmer in the 1990's, culminating in a heat shock in 2000 with 30 deg C temperatures. We enjoyed coffee on an outdoor café deck in Illulisat, where the helicopter flight to the glacier face which used to measure 35km, now measured 65km. Fredericka's hope is for children who grow up understanding the impacts of pollution to our environment will become leaders that will make changes for the better. Roger is encouraged that many leaders in many walks of life have spoken up and begun long term plans and actions to mitigate and adapt to a warming planet.

Roger volunteered at Filoli, the former Woodside estate of the Bourne family. He gardened around the main house, and trained as a Nature Education docent, guiding school children in the oak woodland hills. He also volunteered at Lucile Packard Children's Hospital at Stanford, working in their small school reading to critically ill



children. One day a fellow Filoli volunteer told Roger that she would like him to meet another volunteer who had recently lost her spouse. She knew that they both shared a love of classical arts, architecture, reading, history, and travel. Pamela Smith and Roger met, fell deeply in love and are now life partners experiencing family, friends, and the world together. Both are so fortunate to have met each other, are very happy together, and feel blessed that their giving (volunteering) has gained them each other. "So far, we've vacationed to Ireland, Norway, Costa Rica, Panama and Greece. In Greece we chartered a boat with five friends and sailed the Cyclades Islands followed by a tour of the Peloponnese peninsula in Southern Greece with a private car and driver. We arrange our private travels with a travel planner through WendyPerrin.com, whom we highly recommend to friends. Once the pandemic allows, we look forward to resuming our travels around the United States and to countries of interest around the world."



*Pamela & Roger sailing on San Francisco Bay*

Roger concludes with ..."The Costa Rican saying "Pura Vida" (Simple Life, Pure Life) rings true. This small country has made significant choices in its recent history, including preserving much of its natural beauty for future generations, spending its limited resources on education and health, not on a military. If one is fortunate to tour Costa Rica, seeing the resplendent quetzal bird reminds us of how precious our natural world is to the well-being of all."

*(Editor's note: Member John Richardson, who introduced Roger to SIR and who suggested that Roger write this article, met and became friends through their wives, who were volunteers with Palo Alto Auxiliary for Children supporting Packard Children's Hospital)*