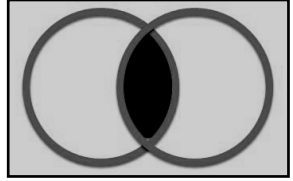


NewsLetter



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M. Hall, E. Kliem,
M. McCann, W. Rosen

Polaroid Retirees Association

October-December
2023

THIS PUBLICATION IS SOLELY FOR THE USE OF THE PRA MEMBERSHIP
POLAROID RETIREES ASSOCIATION, INC. P.O. BOX 541395, WALTHAM, MA 02454-1395
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President's Letter

Dear PRA Members,

It's been a long hot summer with some serious weather events around the country.

We send our wishes for a good recovery to the people of Maui and those areas experiencing unprecedented wildfires. We are also thinking of our PRA colleagues in Florida and elsewhere who have just experienced hurricanes and high water. Please let us know how you're doing!

The PRA board of directors is currently planning our Fall Luncheon. The venue will be the same as in the spring, the Warren Conference Center in Ashland, Massachusetts. It received very positive reviews from the spring attendees. Visit the website at www.warrencenter.com for views of the center and for driving directions. The Warren Center is just a short drive from the Framingham exit/entrance of the Mass Turnpike.

Our featured speaker for this luncheon is Steve Fantone, a Polaroid alumnus and former member of Polaroid's Optical Engineering Department. Steve is currently the President of Optikos, a company that he founded. He has an interesting history as a Polaroid scientist and as an entrepreneur. I'm sure you will enjoy his reminiscences.

We must limit attendance at this event to 100 people because of space limitations for our meeting area. Reservations will be accepted on a FIRST COME - FIRST SERVED BASIS! Be sure to act promptly in making your reservation. Registration Form is on page 10 of the *Newsletter*. Luncheon reservations will be accepted only from paid-up members and their guests.

The reservation fee for this Luncheon is \$48. This is a significant increase over our last Fall Luncheon (in 2019), reflecting the increase in most dining prices over the past four years.

As a final note, it is with sadness that we have to report that Nino Dilanni, longtime member of the PRA and recently its Treasurer, passed away after a long illness. Nino was known as an avid Red Sox fan, a BC Eagles Booster, and a gracious guide to Boston's North End, his boyhood home.

Bob Ruckstuhl has assumed the position of Treasurer pro tem until the annual meeting in June of 2024. This is in addition to his work as Membership Chair.

Bob reminds us that if you receive a paper PRA *Newsletter*, the note above your mailing address is a reminder of your Membership dues status. If you receive the *Newsletter* by email, the announcement shows your dues status.

We are looking forward to seeing you in November.

John Flynn, *President, PRA*

Welcome New Members!

Jay Moniz, Davenport FL
James Ingraham, Santa Barbara, CA

Laura Keith, Raymond, ME
George Bray III, Kingston, MA

Board of Directors & Officers

President
John Flynn

1st Vice President
Open

2nd Vice President
Ruth Scanlan

Treasurer
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Caren Friedman

Touie Jackson

Erika Kliem

Paul Lubin

Mary McCann

William Rosen

George Stebbins

In Memoriam

Find more complete obituaries at www.polaroidretirees.org



Alexander, Joseph "Joe", 85, Beaufort, SC, 4/17/23 was the husband of Kathy, father of Michael, Mark and Jennifer, grandfather of seven, and great-

grandfather of three. He served in the U.S. Navy. Joe loved the outdoors, so was often seen hiking, biking or in his kayak on the waters of Habersham Creek.

Agelopoulos, James L., 96, West Yarmouth, MA, 6/8/23 was the husband of the late Jennie and father of Dean, Margaret, and Mary. He served in the U.S. Navy. James was the Director of Substance Abuse Counseling. He enjoyed cooking, traveling, and discussing politics with his friends, and he was an avid Red Sox Fan.

Amaral, Maria G., 69, Sandwich, MA, 3/19/23 was the wife of Robert, mother of



Kimberly, grandmother of Noah, Thomas and Alexander, and sister of Jose, Estrela, Paula, Fatima, Paz and the late Maria and Mario.

Argento, Lucille A., 91, Cumming, GA, 6/21/23 was the sister of Jean, Sandra,



Judy and Michel, and aunt of many nieces and nephews. Lucille worked in Waltham. She was very involved with her family and had pictures of all their children and grandchildren scattered throughout her home.

Aucello, Stephen A., 79, Stoneham and Everett, MA, 6/16/23 was the father of



Maria, Dianne and Stephen and the grandfather of five. Steve served in the U.S. Navy as an Airplane Mechanic. He was on the air crew and a plane Captain.

He was a Chemical and a Construction Engineer. He enjoyed playing pool and cribbage, spending days at the beach or poolside, and watching old westerns and gangster movies. His favorite was, of course, "The Godfather." Steve was a passionate cook with his specialties including lasagna, gravy, Oysters Rockefeller, and shrimp scampi.



Aucoin, William D. "Bill", 94, Waltham, MA, 7/3/23 was the husband of the late Priscilla, father of David, William, Brian, Yvonne,

Nancy and Diane, grandfather of thirteen, and great-grandfather of four. Bill enjoyed watching old movies and television programs, listening to his favorite classic '40s, '50s, and '60s tunes, and being an "assistant DJ" with his son, David.

Auld, John, 77, 5/31/23 was the husband of Patricia, father of Stephanie, stepfather of Trisha, Kevin, Cheryl and Gordon, and grandfather of thirteen. He served in the U.S. Air Force (Vietnam War). John was Manager of the Inventory Department.



John will be remembered for his big heart, quick wit and wry sense of humor.



Baker, Edward J. "Ed", 76, Woodstock, CT, 7/27/23 was the husband of Joanne, father of Donald and Katherine and grandfather of four. He served in the

U.S. Army as a trainer in the Signal Corps. Edward was an Electrical Engineer (Cambridge) and SAP programmer. Ed loved music and flying. He and his wife built two experimental planes and owned the Woodstock Airport in CT for 4.5 years – owning an airport being Ed's lifelong dream.



Baker, Warren L. Jr., 80, Fall River, MA, 8/22/23, was the husband of Marjorie, father of Wendy, Warren III, Gary and Pamela, grandfather of

thirteen, and great-grandfather of twelve. Warren served in the U.S. Navy. He was a Chemical Technician. He enjoyed fishing, bowling, ping-pong and riding his bicycle. He often rode his bike to work to New Bedford.



Bardsley, Mary R., 75, South Yarmouth, MA, 6/30/23 was the mother of Lori. She had many, many treasured friends. She was the owner of Pine Hill

Circle Embroidery. She enjoyed being a part of a Bowling League, a Shuffleboard League and a Dart League, and she loved to play cribbage with her best friend Ellen.

Bjork, Kathryn, 86, Atkinson, NH, 5/27/23 wife of the late Paul, mother of Karin, and Stephen, and "Munga" of Jesse, Cheyenne, Blake, Isaiah and Kari Bjork. She was a Model. Kathryn



enjoyed boating, golf and traveling.

Brodie, Frederick Leitah "Tay", 48,



Brockton, MA, 2/23/23 was the husband of Tedra, son of Frederick and Delores, father of Amahri, Zayden and Elijah and grandfather of Duke. Tay was an avid

sports fan and a diehard Celtics fan. He loved R&B music, playing basketball, video and card games and pool. Tay loved sending family and friends YouTube clips.

Brown, Ann E. "Nana", 85, Greensboro,



NC, 7/3/23 was the wife of the late Harry, mother of Michael, Rodney and Jacqueline, grandmother of six, great grandmother of fifteen, and great-great-grandmother of one. She

worked at the Waltham, Norwood and Cambridge plants. Ann loved to cook, and feed friends and neighbors. She never let anyone who entered her home leave hungry. Throughout her life she loved listening to music, dancing and bowling. Ann was an avid Boston sports fan and enjoyed watching a good game.

Burke, John T. Jr., "Jack", 63, Pelham, NH, 11/29/22 was the husband of



Christina and brother of Sharon and Colleen. He worked in Waltham and Norwood. Among his many interests, Jack enjoyed cars, playing with his dogs he so

loved and his family.

Cassidy, Paul W., 81, Weymouth, MA, 8/18/23 was the husband of Deborah, and



father of Eryka and Joanna. He served in the U.S. Air Force (Vietnam) as well as a member of the Auxiliary Coast Guard. He was a Trades Specialist at

Polaroid. Paul was an avid boater, enjoyed vacations on the Cape and made custom furniture and carvings of any kind.

Cautillo, Alfonso, "Al", 69, Middleboro, MA, 12/19/22 was the husband of



Patricia, father of Christopher and Robert and grandfather of three. He was a Quality Technician in Camera Division, Norwood. Al was an avid music lover, known for his encyclopedic knowledge of rock and blues

and his enormous vinyl and CD collection. He loved cars, reading, live music, spicy

In Memoriam continued

food, the ocean, and sport shooting.

Cohen, Stanley M., 94, Bridgton, ME, 7/10/23 was the husband of Barbara, father of Holland, Jan, Ben, Peri, the late Peter and the late Lydia, grandfather of seven and great-grandfather of one. He worked in Marketing. He was a humble man known not to boast, but his many achievements and important humanitarian involvements were greatly appreciated by his community.



Crafton, Heather, 60, Medfield, MA, 7/2/23 was the wife of Daniel and the mother of Matthew and Brian. She was a Senior Principal Plastics Engineer (Norwood and Waltham). She enjoyed cooking, sewing, watching HGTV, and vacationing in Ogunquit, ME.



De Lemos, Edward, 88, Needham, MA, 7/1/23 was the husband of Carol, father of Ellen, Elizabeth, Suzanne and Cynthia. and grandfather of ten. Ed leaves behind many good friends he amassed throughout his life including his childhood friends Philip Sullivan of Brighton and John Brown of Oregon.



DiBiase, Dolores F., "Duckie", 91, Cambridge, MA, July 8, 2023, was the wife of the late Rocco, mother of William, Cheryl and Lynne, grandmother of five, and great-grandmother of eight. She was an Administrative Assistant. She enjoyed cooking, shopping, word puzzles and Sudoku. She was a member of the PRA.



Dickson, Charles R., 76, Spencertown, NY, 8/8/23 was the husband of Barbara and brother of John and Susan. He pioneered and patented many inventions. Charles designed and built his house in New York, enjoyed exploring the world with his wife, tutoring students, taking care of his kitties, eating ice cream, and enjoying a pint of Guinness with friends at the Lion's Den.

Dilanni, Nino A., 84, Framingham, MA, 8/19/23 was the husband of Patricia, father to Susan, and Anthony, step-father to Jeff, and grandfather of two. He was an Accountant. Nino was active both locally and in leadership positions with the Middlesex and greater Boston ARC. A great fan of all of Boston sports, he was a member of the BoSox Club and enjoyed going to see the Red Sox every year at spring training. He was a member of the PRA and Treasurer of the Polaroid Retirees Association.



Dunn, Harold, 67, Hingham, MA, 5/3/23 was the husband of Ellie, father of Michael, Ronald, Stephen and Christopher, grandfather of twenty, and great-grandfather of eight. He served in the U.S. Naval Reserve. He enjoyed coaching youth sports, co-founded the Rockland Girls Basketball league, and enjoyed many memorable summers in Hull.



Gaidis, Maryellen, 79, Weymouth, MA, 6/16/23 was the daughter of the late Joseph and Mary and sister of Joseph and Kathleen. She enjoyed yard sales, reading books, detective TV shows and her cats.

Gardner, Michael J., "Mickey", 67, Newnan, GA, 4/9/23 was the father of Micah and Abigail, brother of Jane, Judy, and Marty and uncle of many. Mickey worked in Sales Management. He was an avid reader, swimmer, and car aficionado. He loved Notre Dame Football.

Hanly, John F. "Jake", 89, Quincy, MA, 6/23/23 was the husband of Gabe, father of Lynn, Patty and Debby and grandfather of six. He was a Tool and Die Maker. Jake had a passion for boating and fishing and was a lifetime member of the Quincy Yacht Club. He enjoyed traveling and cruises, playing softball, golf and bowling.



Karmelin, Barbara, 92, Wrentham, MA, 7/30/23 was the mother of Steven, Ruth, Debra and Lisa, grandmother of six, and great-grandmother of four. She enjoyed playing golf and watching it on TV, reading, playing mahjong, dancing, watching Boston and New England sports



teams, and spending time at Gilly's House.

Kearney, Frederick Richard "Rich", 61, 7/19/23, Walpole, MA was the husband of Laurie, father of Daniel, Nicholas and Claire, and uncle of many. He worked in the R&D and the Graphics Imaging Division as a Scientist. He was a hands-on dad, often working behind the scenes with homework, patiently teaching his kids how to ride a bike, or passing on his love of fishing.



Kearney, Linda K., Morris County, NJ, 6/28/23 was the wife of late Gerald, mother of Laurie and Kellie and grandmother of six. She worked in Paramus, NJ. Linda loved to travel and the beach, and her greatest pride in life were her six grandsons. Spending time with them was her biggest joy.



Kiely, Philip, 91, Morrisville, VT, 3/17/23 was the husband of Barbara, and Cynthia, father of Mary, Phil Jr., Lisa, Christine, Charles, Deirdre and Steven, and father to children in-law Kari, Danny, Stephanie, Jeff, Bobby, Becca and Sharon, grandfather of seven, and stepfather to Mark, Craig and Jill. He was a Patent Attorney, and a Trademark Counsel for Polaroid. He loved history, politics, reading, telling stories and the New England Patriots.



Leary, Margaret J., (Peggy), 87, Lakeland, FL, 6/20/23 was the wife of the late Fred, mother of David and the late Paul, grandmother of two, and great-grandmother of two. She was an Executive Assistant. Peggy and her husband were very active playing golf, boating, motorcycling, snowmobiling and enjoying family.



LeBlanc, Ralph Emery, Sr., 78, 8/4/23 was the husband of Ann, father of Ralph Jr., David, and Suzanne, and grandfather of four. He served in the U.S. Navy (Vietnam War). Ralph was a Film Technician. After retirement, he became a self-published author, writing 11 books. He was an avid reader and science fiction was his favorite genre. He



In Memoriam continued

enjoyed traveling, and would never turn down a trip to Dunkin Donuts or Dairy Queen.

Lepore, Raymond, 94, New Bedford, MA, 5/29/23 was the husband of Mary, father of Alan, Joanne and Donald, grandfather of four, and great-grandfather of several. He served in the US Army (Korean Conflict). His decorations include the Army of Occupation Medal (Germany) and he was a member of the Disabled American Veterans. He was a Stock Clerk. He was a member of the PRA.



Manning, David P., 89, Revere, 6/20/23 was the husband of Carol, father of David Jr., Julie, and the late Kathleen and grandfather of one. He served in the U.S. Air Force (Korean War). He was a Financial Analyst. He enjoyed working on his house and maintaining the property.



Marzuolo, Mary L., 96, Norwood, MA, 7/15/23 was the wife of the late Lawrence, mother of Laura, Leo and Larry and the late Dottie, grandmother of nine, great-grandmother of nine, and great-great grandmother of three. She could sew like a seamstress, was always ready for a game of scrabble and loved to cook, dance and travel. She was a member of the PRA.



McKee, John David, 80, Brunswick, ME, 7/4/23 was the husband of late Anna and partner of Barbara, father of Andrew and Elizabeth and grandfather of three. He worked to innovate and commercialize Smart Cards and Biometric Technologies. Dave's many passions were family, music, history, baseball, education, and innovation.



McNeil, Edward J., 83, Norwood, MA, 3/26/23 was the husband of Joan, father of Edward, and grandfather of one. Edward was a Senior Electrician (Norwood/Waltham). He was a longtime volunteer for the Meals on Wheels and the Norwood Food Pantry.



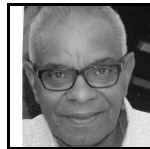
Medeiros, Daniel B., 97, New Bedford, MA, 8/3/23 was the husband of the late Maria, brother-in-law of Eduarda, godfather of Marina and Michael, and uncle of several. He was a Forklift Operator. He enjoyed gardening, tending his grapevine, and traveling.



Mello, George D. "Dan", 75, Studio City, CA, 8/17/23 was the husband of Ann Marie, father of Josh and Nate, stepfather of Michael, grandfather of two, and step-grandfather of two. He served in the U.S. Army and the U.S. Army National Guards at Camp Edwards, MA, and was a Sergeant with Top Security Clearance. He was an Operations Manager. Dan enjoyed watching television shows and documentaries about history, was an avid NE sports fan and enjoyed feeding the wildlife in his backyard.



Miranda, Octavio F., "Titon", 96, Dorchester, MA, 7/2/23 was the husband of the late Domingas, father of Leonilde, Anita, Jeannot, Eurides, Nelson, Lucette, Emily, Jacqueline and the late Nellie, grandfather of eleven, and great-grandfather of one. He served in the Portuguese Military. Octavio was a Master Plumber. He was a self-taught artist, carpenter and metalsmith and was a Master Plumber.



Musie, James A. "Jim", 87, Middletown, MA, 8/7/23 was the husband of the late Margaret, father of Kara and brother of Leo. Jim served in the U.S. Army overseas in Orleans, France, and the National Guard at home. He was a Buyer (Technology Square, Cambridge). Jim enjoyed carving walking sticks and giving them away, working in his yard,



World War II history, and keeping up with Nova Scotian news.



Noel, C. Louise, Dedham, MA, 8/29/23, was the wife of the late George, mother of Carroll and Deborah, grandmother of five, and great-grandmother of three.

Norton, Marie F., 88, Marlborough, MA, 7/17/23, was the mother of Richard and the late Bernard, grandmother of four, and great-grandmother of four. Marie was an Administrative Assistant (Waltham).



Oberhauser, David F., Hingham, MA, 7/6/23 was the husband to Louise, brother of the late Frances, Charles, Albert, Richard and Grace Marie and uncle of many. He was a Senior Scientist. David loved sailing and held the position of Commodore at the Hull Yacht Club. He was an avid reader, enjoyed skiing, traveling and listening to jazz and folk music.



Paolini, Nina, 83, Dedham, MA, 7/7/23 was the mother to Norina, Rita, and Renzo, grandmother of five, and great grandmother of two.



Parise, Elizabeth D., Hopkinton, MA, 6/29/23 was the daughter of the late Anthony and Alvina, sister of Rose Marie, Cecilia and Rena, and aunt of many nieces and nephews. She also had her own cake decorating business and enjoyed sewing and crocheting. Elizabeth also did volunteer work for various organizations. She was a member of the PRA.



Perry, Eugene J., 82, Somerville, MA, 4/16/23 was the father of Michael, Robert, and Debra, and grandfather of five. Gene was an avid Boston Bruins fan and liked to spend time working on his puzzles and word search books.



In Memoriam continued

Renahan, Richard H. "Dick", 89, Plymouth, MA, 7/28/23 was the husband of Bessie, father of Katherine, Diane and the late Linda, grandfather of three and great grandfather of two. He was a Corporate Traffic Manager. Dick was a huge Patriots fan as well as a season ticket holder. Dick and his wife enjoyed wintering in Florida and loved a round of golf.



Searcy, Eugene, "Gene", 69, Roxbury, MA, 8/21/23, was the husband of Pamela, son-in-law of Rosalie, father of Desmond, Alonzo, Robert, Kenya and Dwayne, and grandfather of twenty-two. You could often find Gene behind a video camera, or creating playlists of his favorite music, and he was loved for his famous Gene Q ribs.



Souther, James M., Sr., "Jim, Jimmy" 66, Attleboro, MA, 8/17/23 was father of AnnMarie, Lauren, James, Jr. and Steven, son of Micheline, grandfather of three, and ex-husband of Jean and Deborah. He was an Assembler, (Waltham). His hobbies - fishing, bowling, playing pool and cards, partaking in a game of bingo, watching Lifetime movies, basking in the warmth of the beach-all brought him joy.



Stigas, Rosemary, 89, East Bridgewater, MA, 7/1/23 was the wife of the late Alexander, mother of Paul, Larry, Christine, Yvonne, Andrea, and the late Daniel, grandmother of sixteen and great-grandmother of seven. Rosemary's life calling was to be a wife and mother but over the years she held many jobs at Sudbury Farms, Polaroid, and Blue Cross Blue Shield.



Thomas, Angeline, 82, Keysville, FL, 8/3/23, was the wife of the late George, mother of Marian, Curtis and Winnie, grandmother of four, great-grandmother of two, and great-great-grandmother of two. She worked in Manufacturing. She was an avid seamstress, enjoyed fishing and loved to knit and crochet finding solace and enrichment in the process.



Valles, Joseph L., 101, 6/28/23, New Bedford, MA was the husband of late Edith, father of Vincent, grandfather of two, and great-grandfather of two. He served in the U.S. Army. He was a Personal Administrator.



Ventura, Julia L., 85, Hopedale, MA, 8/1/23 was the wife of late Anthony, mother of Anthony and Julianna, and grandmother of four. She was a movie buff and also a skilled baker, loved to crochet, and was a longtime supporter of St. Jude Children's Research Hospital.



White, Major M., 82, Concord, MA, 6/28/23 was the husband of Holli, brother of Alice, Lynette and Sammy. He was a Mechanical Design Engineer in the Optical Projects Division, (Cambridge). He enjoyed traveling to visit family in NJ and playing golf.



Whyte, Edward J., 86, Nashua, NH, 5/28/23 was the husband of Ellen, father of Erin, Kevin, and the late Andrew and grandfather of two. He was a Computer Software Programmer. Ed pursued many hobbies in life. He was a competitive sailor and avid photographer, a lifelong

runner, hiker, skier and skydiver. Ed spent many hours at Wachusett Mountain and Pepperell Skydive.

Williams Jr., Charles G., "Charlie", 76, Abington, MA, 7/15/23 was the husband of Maryann and father of Charles III. He served in the U.S. Navy, (Vietnam War), as a Petty Officer Second Class and was a decorated veteran of the River Patrol Force. Charlie worked in



Engineering and Finance. He was known for his awesome ribs and spending many hours trying to recreate his Momma Maddie's biscuits with sausage gravy. Charlie was a dedicated NY Yankees and Seattle Seahawks fan and he enjoyed golf.

Witham, Edward P, "Eddie", Reading MA, 8/14/23 was the husband of the late Santana, father of Paul, Edward and Anneliese, and grandfather of two. He served in the U.S. Army. A lover of sports from baseball to racquetball, Eddie's true passion was running and he took part in countless road races.



Wonoski, Frederick H., "Fred", 87, Lynn & Ossipee, NH, 9/3/23 was the husband of the late Joyce, father of Jil-Lyn, Paul, Paula and Steven, and grandfather of eight. He served in the U.S. Army. Fred was a Master Electrician. He signed with the Bruins minor league team and was chosen for the US National Hockey Team where he skated in Europe and Russia.



Polaroid Proud Stories

This *Newsletter* has stories that make us proud to be Polaroid Retirees. These stories are about the 200 million cameras we made since 1948. The first recalls Dr. Land's dreams and plans for N1 and Eames' "SX-70" description of the camera's technology. Walter Byron's second describes how the Forbes Estate became N1. Then, Jan Valentijn, Enschede, NL, tells of his 35 years working on the same film assembly machine today. Finally, Steve Fantone, introduces his PRA Luncheon talk.

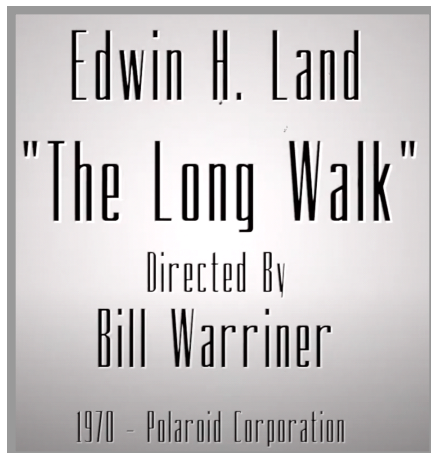
Mary McCann

Buildings Have A History!

When we think of history, we usually think of people who lived a long time ago. This article is about the history of a building built in 1970, namely, Polaroid's N1, Norwood Camera factory. Between the introduction of the first Polaroid camera in Boston's Jordan Marsh in 1948, and the SX-70 in 1972, Polaroid designed all its cameras, but had subcontractors manufacture them.

The SX-70 camera was the integration of so many innovations that its manufacture required a new kind of factory. The 1970 Annual Polaroid Shareholders meeting featured a movie of **Dr. Edwin Land**, made by **Bill Warriner** (A/V Dept/549 Tech Sq). It was a helicopter tour of Polaroid's Manufacturing buildings. Dr. Land introduced the tour on the beautiful entranceway of the new Reservoir film assembly buildings designed by I. M. Pei. Land described that these new buildings would house new automated film assembly machines for a new type of film. He then walked down the steps into the parking lot and got into a helicopter in front of the Farmhouse meeting rooms. The reservoir site was built on a Waltham farm. Land and Pei refurbished the old farm house,

making it into meeting rooms. Land then narrated a flyby of Polaroid's 1265 Main St. Waltham film manufacturing, and the new Perkin chemical factory that would make **Howie Rogers'** dye-developer molecules. The flight continued over the W4 prototype film manufacturing



building, Polaroid's New England distribution center in Needham; and the Cambridge Tech Square and Osborn Street headquarters. Next, Land narrated the flyover of Norwood camera manufacturing and polarizer buildings that were in a very early stage of construction. Finally, Land entered the N1 building shell that has cement columns, a roof, sand on the floor, and almost nothing else. Using a large blueprint, Land explained the factory's workflow with a piece of wood as a pointer. Then Land walked the length of the 400-foot floor describing the camera assembly factory that would fill this space. Land summarized the tour by saying he looked forward to returning in a few years to share the excitement of seeing the factory in operation, and the excitement of starting to use Polaroid's ultimate camera.

<https://www.youtube.com/watch?v=99jA8o15n3Q&t=771s>

In 1972, **Charles and Ray Eames** made a second movie that showed all the remarkable technical and artistic results created by SX-70 cameras made in the



Norwood plant. This video shows the fulfillment of what Land described in *The Long Walk*.

SX-70 by Charles and Ray Eames
<https://www.youtube.com/watch?v=zpv8J8e9gWI>

The movie begins with "Since 1947, Edwin Land and Polaroid have pushed a central concept, one single thread. The removal of the barriers between the photographer and his subject."

The narrator describes the new SX-70 camera and how to use it with dozens of its beautiful photos. Next, a three minute section describes all the automated steps between pressing the red button and receiving the finished photo. This segment emphasizes the numerous new SX-70 technologies in camera and film. The narrator says "This invention is finally a system. A system of novelties. The camera enters the real world only once it is precisely manufactured in quantity. That process has its visual beauty. It links the inventors, engineers, the workers, the distributors into one chain of craftsmanship. The user is the final link." The film ends with dozens of wonderful SX-70s.

These movies are remarkable bookends of the transformation from those images of N1's dark hall with a sandy floor into dozens of beautiful SX-70 images of people, places, and things.

Moderna

Jumping ahead to June 28, 2023, the front page of *The Boston Globe* had a story by Robert Weisman about the advanced research and development currently conducted in Polaroid's Norwood camera manufacture buildings. The article described a talk at BIO 2023, the industry's largest convention, by Noubar Afeyan, He is Chairman of Moderna Corporation, whose headquarters are in 200 Technology Sq, Cambridge, Massachusetts. Recognized for Moderna's celebrated COVID-19 vaccine, Afeyan told the Boston audience the company's origin story. Stuart Cable, from Goodwin Law, called Moderna the most successful story in the history of biotechnology. The company's mRNA vaccine protected tens of millions of people from COVID-19. They generated more than \$36 billion in vaccine sales.

Moderna scientists use mRNA, a single-stranded molecule with genetic instructions, to turn human cells into medicine makers, producing their own disease-fighting proteins. The idea is to make the human body make drugs for itself. Afeyan said the coronavirus was Moderna's first target. Their mRNA technology is being applied to therapies in oncology, immuno-oncology, cardio-metabolic, rare diseases, and infectious diseases. These mRNA therapeutics are a new class of drugs that generate human proteins and antibodies within patient cells to treat diseases caused by the lack of a fundamental protein.

Pharmaceuticals Technology Magazine (Aug. 2, 2022) described the new facility developed for Moderna in a building that was previously occupied by Polaroid Camera Manufacturing. The new conversion is a state-of-the-art Good Manufacturing Practice (GMP) clinical manufacturing facility in Norwood, Massachusetts, previously called Polaroid N1. The Moderna facility opened in July 2018. It includes spaces for GMP manufacturing, plasmid manufacturing, pre-clinical operations and testing, quality control labs, development labs, a cancer vaccine unit, a warehouse, and maintenance and administrative offices.

One building- Two Revolutionary Products

For decades the center of Polaroid was located at the intersection of Main St. and Osborn St., Cambridge. The Osborn St. building is on historic registers, noted as the destination of Edison's first long-distance telephone call, the home of Walworth Manufacturing, the home of Singer Sewing machines, and the birthplace of Instant Photography.

The Norwood N1 facility was one of Polaroid's later major construction sites. It was built for manufacture of innumerable advances in optics and manufacturing that led to the world-wide distribution of state-of-the-art technology in imaging. Today, those same walls are housing innumerable advances in RNA research and manufacturing that led to world-wide distribution of state-of-the-art technology in medicine.

Buildings, as well as people, are a part of history!

*By Mary McCann with thanks for conversations with
Walter Byron, Maryann Hall, Touie Jackson, Susie Gray & Bob Nowak*



Left - Edwin Land holding his wallet to illustrate the convenience of Polaroid's future cameras

Middle - Land standing in the middle of the empty factory in 1970

Right - Frame from Moderna YouTube video of factory reconstruction in 2016

Walter Byron adds...

"The number of instant cameras produced by Polaroid over the years from 1948 through 2000 is a tick under 200 million! (199,586,000)

"There were probably a few thousand more made after 2000, perhaps up to the second bankruptcy, and, of course, the Impossible Project may have made a few - and the new Polaroid still does. So, the number of Polaroid instant cameras made is well over **200 million** by now.

"Maybe someone kept score on the number of rolls and packs of film produced over the years, but I never came across those numbers while I was at Polaroid."

How many rolls and packs of film did Polaroid produce? If YOU know the answer, please let us know!

Norwood Site & Camera Operations by *Walter Byron*

In the late 1960s Polaroid purchased an estate in Norwood located off Route 1A near the Westwood Town Line. This estate was the former home of William Cameron Forbes who had been involved in various posts in the US Administration of the Philippines and was Governor General there from 1909 to 1916 and, later, Ambassador to Japan from 1930 to 1932. Upon his return from the Philippines, he purchased the land in Norwood and built his three-story brick mansion where each room was sheathed in a different type of Philippine mahogany wood that he had shipped home. There was a bar in the mansion, accessible via a ramp from ground level where one could ride your Polo pony in for a quick drink between games. And, an associated garage had a turntable so that you could drive the car in, then have it turned around inside so you could avoid backing out. The mansion served as Camera Division headquarters for a decade and then transitioned to a conference and training center.

After “uncle Cam’s” death in 1959 the estate was sold. The last owner before Polaroid had been the United Fruit Company who constructed a small greenhouse adjacent to the mansion.

Polaroid began construction of a three-building campus on the Norwood site soon after their purchase of the property. The power plant for the site, dubbed building N3, provided utilities for the other two buildings. Building N2 was designed to house the Polarizer manufacturing facilities that were relocated from Ames Street in Cambridge, as well as the Sesame (Polavision and 35mm slide film) coater that was relocated from the third floor of 640 Memorial Drive. There was also space on the second floor of building N2 that in the late 1970s housed the manufacturing facilities for some camera subassemblies. Perhaps a later chapter of these “buildings I worked in” stories will cover the Polarizer and Sesame histories.

Building N1 was constructed to house the manufacturing of the SX70 camera. There was a large first floor manufacturing space and a much smaller second floor which housed the cafeteria and, behind that, floor space originally dedicated to office space. The N1 building was completed in early 1971 and the SX70 camera manufacturing development effort was moved there from its Cambridge birthplace (because of space limitations, the shutter manufacturing development was left at 38 Henry Street where the follow-on manufacturing remained for a few years until relocating to N1). For the SX70 camera, a continuous flow production system, similar to automobile assembly, was chosen as the camera production methodology. This required lots of people to produce the cameras and camera assembly became a big time people operation over the years. As many will recall, Dr. Land introduced the SX70 system to the world at the shareholders meeting in the spring of 1972, and the system was first delivered

to the public in the fall that year in Miami, followed by a regional roll out across the US and the world in 1973.

While SX70 camera manufacturing continued in N1, the Polavision product manufacturing began, and there was insufficient space in N2. Consequently, a portion of the first floor space in N1 was dedicated to Polavision film cartridge winding and assembly.

In 1976 the non-folding Pronto camera was introduced and production began in N1. Shortly thereafter, Kodak introduced their instant camera system, and Polaroid responded with a redesigned Pronto called the One Step. The One Step became the best-selling camera ever, and camera production in the late 70s boomed causing the N1 building to bulge at the seams.

To free up space in N1, Camera Division headquarters and support operations of planning and purchasing were relocated to a leased building a mile away at 990 Washington Street, in Westwood, but that was still insufficient and the camera manufacturing operations were running on three shifts while needing more space. A new building was required which led to the construction of a 225,000 square foot N4 factory on Forbes’ old Polo field, opening in July 1979. Once N4 was available, Optics Manufacturing was relocated from 640MD to N1 where it remained until after the 2001 bankruptcy, and camera manufacturing moved from N1 to N4 where it remained until phased out in favor of overseas manufacturing in the late 1990s. The Industrial Hardware manufacturing operation also occupied a section of the N4 building for a few years in the late 80s and early 90s.

Sales of Polaroid cameras and film followed a seasonal pattern, very slow in the first quarter, a second quarter bump with the spring holidays and graduations, a big third quarter to stock the wholesale and retail chains for the Christmas season and a slower fourth quarter. Production tended to follow that pattern which meant hiring and training lots of people each year to build up production, usually increasing the number of assembly people by double or even triple, followed by cutbacks as the production schedule peaked and then dipped. This put a strain on factory personnel. It was not until several years into the decade of the 1970s that a more “level scheduling” system was adopted. Norwood camera operations were known throughout the company as a people-intensive business. The peak production of cameras in Norwood occurred in 1979 and there were in excess of 5000 people working on three shifts in the camera operations that year. In the late 1980s automation was introduced to produce some camera subassemblies with the gain being largely consistent high quality. About ten years later, sufficient learning had occurred and, had the folding SLR Joshua camera system been a marketing success, the follow-on hard body Joshua camera would have been the first to be completely assembled by robotics.

Camera Product Design in its later years moved to N4 after Industrial Hardware moved to the Vale of Leven site in Scotland, and the Joshua (Captiva) Camera was developed and manufactured in the N4 building. The last cameras to be made in Norwood were produced in N4 and were some of the small, reloadable Joshua variety in 1998.

After the Polaroid bankruptcy in the early 2000s, the Norwood site was sold and the buildings put to various other uses.



One Step Assembly Lines in Building N1

Don Foster forwarded to the Newsletter a link to the YouTube video:

Inside the Last Polaroid Factory in the World

www.youtube.com/watch?v=ZK4jd4Rbgso

This is a fascinating video for Polaroid Retirees who may never have seen the inside of a Polaroid film production facility – and even for those who have. Don reports “Things I saw in the video looked very similar to equipment we had in NB1. And the foil-stripping machine in the film was the actual one that I worked on in W5 -- it had been “harvested” from W5 and moved to Enschede.”

The video is the work of **Ben Fraternal** ---- an American enthusiast of “*all things Polaroid.*”

The film-maker moved through the Enschede building, home of the new Polaroid, chatting with workers and peering at assembly machines. PRA members who have traveled to the Enschede plant may recognize equipment - or even employees: One interview featured **Jan Valetijn**, Operator. He tells us that he started at Polaroid Enschede in ‘78 and worked until it closed. He worked elsewhere for seven years, and was asked to come back. On the first day of his return, he surprised co-workers by fixing a jammed machine in the dark – and then disclosed that he had worked on the unit in his earlier career.

“I worked 35 years for this machine. Outside, inside, I know everything! It has no secrets from me!”



Sign up for the Thursday, November 2nd, PRA Fall Luncheon!

PRA Spring Luncheon
The Warren Conference Center, 529 Chestnut St., Ashland, MA
Thursday, November 2, 2023

We hope you'll join us!

Overlooking the Ashland Reservoir and 100 acres of woodland, the Warren Center is midway between Framingham and Hopkinton. It is wheelchair friendly. You can see photos, directions from Boston, south, north and west, and more at:

<https://www.warrencenter.com>

10a.m. Registration,
 Conversation & Coffee
 11a.m. Steve Fantone, Speaker
 11:45 Cash Bar and Social Time
 12:30 Seated for Lunch
 1:30 Reunion Adjourned

Attendance Limited to 100
First Come - First Served so
SIGN UP NOW!
\$48 per person

--**Chicken Roma:** pan seared breast of chicken, prosciutto, tomato, basil, mozzarella, roasted tomato beurre blanc & balsamic reduction drizzle
 --**Baked Haddock** with herb crusted, lemon beurre blanc
 --**Wild Mushroom Ravioli** with shallot cream, roasted red pepper coulis, seared shitake mushrooms
Chef's choice of vegetable, breads, salad, coffee, tea & dessert.

<i>Name for Name Tag</i>	<i>Chicken</i>	<i>Fish</i>	<i>Vegetarian</i>

Make checks payable to:

Polaroid Retirees Association, Inc.

Mail with this reservation form to:

Bob Ruckstuhl, Polaroid Retirees Assn
P.O. Box 522
Rowley, MA 01969

Registrations and luncheon choices must be received by October 17.

In case of an emergency, email praemail@comcast.net



Steve Fantone to Speak at Fall PRA Luncheon

Polaroid Corporation’s entire history is centered around and inspired by optics, light and human perception. Few appreciate the broader impact the company and its principals have had - and continue to have - in the optical, remote sensing, reconnaissance, and national defense communities as well as consumer products. This talk will provide an overview of the momentous and lasting legacy that Polaroid and its principals have contributed to the optics and global communities. Stephen (Steve) Fantone’s involvement with Polaroid extended over a period of 33 years, starting when, as a high school student, Polaroid’s marketing department supplied him with an ED-10 camera and pack film for use in taking astronomical photographs through a telescope. Steve’s employment with Polaroid was truly a family affair. When he was hired in 1978, he became the 7th member in the Fantone family to be employed by Polaroid.

Starting as a senior engineer in Dr. William Plummer’s Optical Engineering Department, Steve worked throughout the corporation on a broad range of projects. After transitioning from an employee to a consultant in 1984, he continued to be involved in the design of camera products, test and manufacturing equipment, and in the development and application of optical technology in all three of Polaroid’s divisions. His broad portfolio provided him with the opportunity to work with many of the key technologists that made Polaroid a technology force—the Apple of its day!

Steve will provide some context to the lasting effect that Polaroid has had on the larger optical community, how its free-form optical technology has been “rediscovered” by the optical community over 50 years later, and the roles that Edwin Land, Howie Rogers, James Baker, Bill Plummer and the group that was assembled at 38 Henry Street had on the global advancement of optical technology.

Steve has received bachelor degrees from MIT in EE and Management and a Ph.D. in Optics from the Institute of Optics at the University of Rochester. He is founder and CEO of Optikos Corporation. He served for over 18 years as treasurer of Optica (formerly known as The Optical Society) and was its president during 2020. He has served on the boards of several public companies including Zygo Corporation, Benthos, Inc., and Rofin-Sinar Technologies. He has been awarded over 70 patents and is an elected member of the National Academy of Engineering. He is a fellow of both the Optica and SPIE worldwide technical societies. He also served several years as chair of the Pioneer Institute, the major public policy think tank in Boston.

Making Contact by Ruth Scanlan

One of the major themes throughout the recent Polaroid Retirees Association Survey was the desire for members to be ‘in touch’ with other PRA members. The Board of Directors will be developing tools to make that happen. But the best tools of all are already available to the membership. If you want to know who lives in your area, you can access the Membership Roster on the PRA website. Type www.polaroidretirees.org and see this selection box:

[Home](#) [Organization](#) [Bulletin Board](#) [Upcoming Events](#) [Videos/Meetings](#) [Links](#) [Contact Us](#)
[Luncheon Photos](#) [Newsletters/Minutes/Obits](#) [Membership Roster](#)

Choose ‘Membership Roster’ to gain access to names, city, state, and zip code information. Instructions are included if you wish to get contact information for an individual.

If you are interested in contacting a number of fellow PRA members, you may want to request a hard-copy Membership Directory. – THERE IS A WAY!

Page 12 of the Newsletter is the Mailing Address page, mostly “boilerplate.” Most of us might scan it to see if our dues are up to date, but we skip most of the print. The box immediately below the mailing address holds the headline MEMBERSHIP DIRECTORY. It outlines the process to request the current record. There is a charge of \$6.00 to cover costs of shipping and handling – and you have the opportunity to find old friends in any part of the country.

Now you can set up your own get-togethers, whether they be breakfasts or luncheons at a local restaurant, field trips to a local park, Duck Boat tours, train or bus day-trips, Zoom meetings, Facebook contacts or email. Many thanks to **Bill Rosen** for the easy-to-use updated Membership Roster.

You can also let members know what you are doing by ‘advertising’ in the *Newsletter*. The editor welcomes your “Life after Polaroid” messages. And photos of a get-together are welcomed!

Good luck and share your success via the website section, www.polaroidretirees.org/Contact-Us.html

