

Alumni Association



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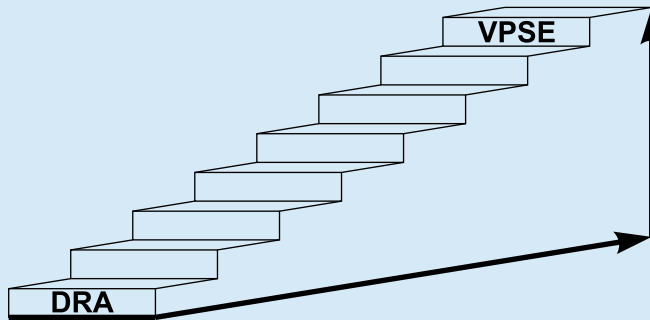
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IN THIS ISSUE

This diagram represents (choose one):

- a. A stairway to heaven
(Apologies to Led Zeppelin)
- b. Steppenwolf's inspiration
- c. One alum's career path
- d. An acronymous step function

See page 6 for the answer.



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Spring Fling: Picnic at Burgess Park

Each year the SRI Alumni Association has two events, a more formal reunion at SRI in the fall and something it calls a Spring Fling. The latter has taken its alumni to some very interesting places like local museums of various sorts, the wind tunnels of Moffett Field, the machinations of a big recycle center, SLAC, and the huge nuclear-fusion-oriented billion-dollar Ignition Facility in Livermore. Most have been quite well attended.

But this spring we opted for something simple: just let alumni come and reacquaint themselves with former colleagues. It was held Thursday, May 11, and consisted of a free lunch at Burgess Park. Sixty-five folks showed up and visited for nearly three hours. Of course, everyone is curious about how SRI is doing, but most of the time was spent reliving experiences at SRI and exploring retirement adventures.

Thanks to Gary Bridges for Spring Fling photos.







How I Became an Opera Singer

By Peter Weissshuhn



Having been forbidden by my family to sing at weddings and funerals on account of my voice, I was surprised by an invitation from former SRI colleague Gia Campari to join her many friends in June 2017 in a “Concerto di

Amici.” This event was to be held in Gia’s hometown, Fidenza, in the province of Parma, Italy. I learned that Gia organizes this event every few years. The concert would take place in the local opera house, the programme to comprise choruses from operas by Verdi and Rossini, a chorus from *The Gondoliers* by Gilbert and Sullivan, several solos and duets, and the finale of Act 1 of the *Barber of Seville*.

There would be four rehearsals in London and more in Fidenza on the Friday and the morning preceding the production on 10 June. In accepting the invitation, I could choose to sing or come along as a spectator. Secure in the belief that I would never be called to perform in opera, I thought, “Why not sing?” Would my vocal cords, incapable of producing melodious sound, eliminate me? Apparently not, as both Gia and our formidable music director decided.

At the London rehearsals, I was impressed by the high professionalism of the specialists Gia had enrolled to fuse us into an ensemble that would perform credibly before an audience of locals, relatives, and friends of those involved. Our guides and patient taskmasters along the way were a music director, a pianist, a stage director, and a choreographer, all with years of international experience. I was also reassured to

find that many of Gia’s friends are accomplished singers who would mask my lack of ability, as long as I kept my volume low. And I learned that Gia is an excellent singer, her talent on display in a solo and in a duet from Bellini.

After extensive preparations, meticulously planned by Gia, the curtain went up to applause from the approximately 150 spectators in the auditorium of Teatro Magnani. As the seats were free, the locals had no cause to throw eggs or tomatoes to express potential dissatisfaction. In fact, they were generous in their appreciation of our efforts. During the interval, when the Prosecco flowed freely and platefuls of delicious nibbles were consumed, I found myself surrounded by local beauties intent on taking selfies with me, not something to which my hitherto sheltered existence had exposed me. The reason was my knight’s armour, complete with chain-mail helmet, which I wore for my role in the chorus of Crusaders and pilgrims on their way to Jerusalem during the First Crusade in Verdi’s *I Lombardi*. Alas, none of these lovelies thought of sending me a copy, so my moment of stardom passed without anything to show my doubting family. (But the local TV station recorded it all, so there is the prospect of a DVD.)

To celebrate our success and relief, Gia had reserved the Salone Moresco in the lovely nearby spa town of Salsomaggiore Terme. Its large hall was the only facility in the area able to accommodate us all for a most convivial farewell dinner. There, I had a further opportunity to become acquainted with more of Gia’s friends, and what an enjoyable occasion it was.

My eternal thanks to you, Gia.

Editor’s note: See the April and August 2012 newsletters for articles on Gia’s previous Friends in Concert event (available online in the Alumni Association newsletter archive).



The Successful Career Path of One SRI Alum

By Don Nielson

This is a story about someone who with modest beginnings here at SRI rose to imposing positions of responsibility and in the process left a lot of notable accomplishments in his wake. You will find his journey interesting.



Keith Klemba joined SRI in the summer of 1969. At the time, he was working on an Associates degree with a computer engineering emphasis from the local community college, De Anza. He received that degree in 1970. Prior to school and SRI, he had served

with distinction in the Army in Vietnam, a tenure that included active combat, and in the process he received a couple of Purple Hearts.

He joined SRI as a Data Reduction Aide with a computing service organization in SRI's Engineering Group. The group did some programming and data entry, and in those days that all started with keypunching. Shortly thereafter, he joined the same kind of computing service group that was more central to all of SRI, and by the end of 1971 he had earned the title of Programmer. In that capacity, he usually offered programming services to a variety of projects around SRI.

Under various titles, Keith remained in that role until mid-1978, when he was invited to join one of the groups he was working with, the Telecommunications Sciences Center. This move started him on a path that would continue to help him realize his potential. The vehicle for this growth was a project in mobile digital radio called, appropriately, packet radio. At that point, the project had already demonstrated its potential by contributing to the world's first digital internetworking demonstrations in 1976 and 1977. But the work with packet radio and the design of reliable protocols, both within the radio net and in internetworking, continued and Keith was part of that effort. His obvious talents led to his promotion to Research Engineer just a year or so after his transition.

The photo below shows Keith operating the packet radio network's central controlling node, called "the station." Though not appreciated at the time, an important contribution to his learning curve was that this DARPA-sponsored project was at the forefront of digital networking in the world. Mastering this technology and its associated network protocols helped prepare him for the rapidly expanding world of communications that was already helping define the Internet.



Keith certainly took advantage of the opportunity given him, for as the packet radio project was approaching its final phase, he accepted a project leadership role in this first instantiation anywhere of mobile digital networking. That same project, using new and more modern radios, entered another phase and continued on for another decade or so. But in 1984, after about 14 years at SRI, Keith decided to leave and join a communications startup called Vitalink. There he became a product manager and network architect responsible for the company's worldwide satellite and earth-station monitoring system.

In 1986, Keith moved to what would become the Network Architecture Lab of Hewlett Packard, where he would help that company move into the digital networking world. His job was to follow network-related innovations that could become products for the marketplace. This was a fruitful time for Keith as he helped design HP's enterprise network management architecture, called HP OpenView. It was published in HP and networking literature in 1989. During this time, Keith was awarded a bundle of patents. If you

search a bit, you'll find about 19 U.S. and 26 foreign patents in networking and security with his name on them! As such, he became one of HP's important spokesmen at networking conferences. These patent awards also gave him some important recognition within HP, including as direct advisor to CEOs Lewis Platt and Carly Fiorina. These relationships, together with his awareness of the potential of digital information technology, sent his speaking engagements to higher realms outside HP.

Sometime during Keith's time at HP, I met him on the street one day, the only time I recall meeting Keith after he left SRI. He mentioned that he was going to address a meeting that had connections to the G8—yes, that G8. Upon clarification, Keith was to speak at a UNESCO conference on behalf of HP about the need for improving educational access for people in underdeveloped countries, such as those in Africa. Perhaps HP or someone could introduce written standard instructional materials in place of the uneven, geographically divergent oral instruction they were getting, with even the possibility of mobile publishing facilities that could produce books on demand. The venue for this innovative talk was the brand new parliamentary building in Canberra, Australia.

But after about 15 years at HP, Keith left in 2001 to co-found and become Chief Engineer of a new company that came to be called Firetide. Based in Campbell, California, it still provides fixed and mobile wireless IP network infrastructure products. However, after a year or so there, Keith left Firetide and, after a brief time, decided to join SAP as Director of Research in its Palo Alto Lab. There, Keith's first job was to design and build something called "Car Weaver," which was intended to help manage the performance of mobile fleets.

It was successfully demonstrated with the Palo Alto Fire Department. This exercise logically drew on his experience in mobile networking gained at SRI.

Following that, Keith embarked on the design of one of SAP's most important new products. Called SAP HANA, it is the processing core for SAP's relational database system. It operates at blazing speed because all processing is done in memory rather than through peripherals and virtual addressing. The product has been so successful that it has come into worldwide use as a cloud-based server. As this HANA capability and applications broadened within the company, Keith transitioned to become SAP's Vice President of Systems Engineering. As of April of this year, after 11 years at SAP, Keith has entered retirement, but he is still finding ways to help others realize their potential as he has done throughout his career.

So, why this story? It illustrates how far a talented person can go in the meritocracy that is Silicon Valley. It also shows something of the training ground that SRI can be. SRI offers an environment wherein someone, by seeing a research opportunity, writing a corresponding proposal for change, and then learning the rudiments of project leadership and client interface, can carry that method of self-development into almost any corporate setting, including startups. From the most modest beginnings at SRI, Keith Klemba certainly excelled in his professional journey and is to be congratulated for his success. Finally, all those who worked with him learned how easy that was and how caring he could be toward his colleagues.

Written with contributions from Keith's former colleagues Dave Tribby at HP and Mark Kuehner at SAP.



2017 Annual SRI Alumni Reunion in Menlo Park: October 5

SRI Alumni Association members who will be in the Bay Area on October 5 are encouraged to come to the annual reunion. It will be held in the International Building from 4:00 until 7:00 p.m. The program generally includes a presentation on the state of SRI and a technical presentation featuring a current SRI project or emerging technology. A special feature of the reunion will be the induction of one or more SRI alumni into the Alumni Hall of Fame. You can count on sumptuous hors d'oeuvres, excellent drinks, delightful conversation, and plenty of door prizes.

The charge is \$35 for each attendee. An invitation to the reunion with sign-up form is included with this mailing; members receiving electronic distribution will need to print the sign-up form from their email attachment. Please complete the form and return it with your check by September 29.

Alumni Association Membership Renewals Due by October 15

It's almost time to renew your SRI Alumni Association membership for 2018. Membership renewal forms will be mailed to association members in September. The fee is \$25 per member, due by October 15, 2017. All members who renew by mid-November will be included in the 2018 Alumni Directory, which will be issued in January.

Directory Addendum

The enclosed directory addendum (covering the period April 1, 2017, to July 31, 2017) contains new members and corrections. Please add it to your 2017 Directory.



The SRI Alumni Association welcomes new members:

David Ager
 Kenneth Augustyn
 David Baughman
 Scott Belanger
 Wallace Bradford
 Aveek Das
 Alecia Dinkins
 Navad Gur
 John Patrick Henry, Jr.
 Janet Knowles
 Annie Liang
 Carmen Lietz
 Dennis Matthies
 Lloyd Peters
 Robert Wilson
 Runxi Gong Yin

And welcomes back previous members:

Elva J. Hoogner
 Michael (Mike) Wilbur

We look forward to your participation in the Alumni Association and hope to see you at our next group event.

Wanted: Your Submissions

We welcome articles and shorter items from all Alumni Association members to be considered for publication in the newsletter. Have you done something interesting or traveled to interesting places? Received any awards or honors? Your fellow alumni want to know! Please send items to steering-committee-alumni@sri.com.



The Alumni Association has openings for Steering Committee members and encourages you to lend your support. As a committee member, you will interact with former SRI colleagues as you help plan events, work on the archives, edit the newsletter, or help keep track of the association's finances. We currently need volunteers to fill the following positions:

- Main chairperson
- Hall of Fame chairperson
- Administrative assistant
- Newsletter coordinator or managing editor
- Backup editor
- Backup newsletter layout artist
- Backup treasurer

If you would be interested in volunteering for one of these positions or would like further information, please send a message to steering-committee-alumni@sri.com.

CREDIT UNION NEWS

A woman with blonde hair, wearing a black shirt and a red apron, is painting a large abstract painting. The background is a vibrant, colorful abstract scene with purple, yellow, and blue tones. The text "BECAUSE I NEED MORE SPACE TO CREATE" is overlaid on the left side of the image in large white letters. At the bottom, the text "What's your why?" is followed by the SRI Federal Credit Union logo and the word "MORTGAGES" in large white letters.

Note: Beginning with this issue, the In Memoriam section will contain only contributed obituaries and memorial tributes for former SRI staff members. We welcome contributions in the form of original text, copies of published obituaries, or links to online sources of obituaries. Please send contributions by email or postal mail to the addresses shown on the front of the newsletter.

Donald Lock Hildenbrand



Scientist, hiker, skier, U.S. Army veteran, loving husband and father, Don Hildenbrand passed away on May 19, 2017, surrounded by his family. He was 92.

Born in Baltimore, Maryland, in 1924, he was drafted into the Army in 1942 and captured by the Germans in January 1945. He spent five months in a forced labor camp that was a satellite of the Buchenwald concentration camp. He received the Silver Star for bravery and is listed as an official Holocaust survivor.

Don attended Johns Hopkins University and then did graduate work in chemistry at UC Berkeley, where he met his wife of 49 years, Nancy. With PhD in hand, he embarked on a 60-year career in research chemistry, the last 40 years at SRI in Menlo Park.

Don was a lifelong outdoorsman, adept at hiking, skiing, fly fishing, board sailing, and cycling. With his family or friends, he spent 60 years roaming the Sierra Nevada on foot or skis, on or off trail, reveling in the grandeur of nature.

Don was preceded in death by Nancy in 2001; he is survived by his children, Philip of Rio Linda, Bruce of Mountain View, and Janice of Sacramento.

Based on an obituary published in the San Jose Mercury News on June 1, 2017.

Remembering Dr. Donald L. Hildenbrand



Don was a great person and scientist who enlightened the lives of many of us, and one of the top high-temperature thermochemists of the 20th century. His contributions will survive the test of time.

Don, a native of Maryland, was part of the heroic generation that fought in World War II in Europe, where he was a POW for a while. Once he got back to the USA, he earned several degrees in physical chemistry from Johns Hopkins University, where he had met another of our illustrious departed colleagues, Dr. Ken Sancier. When Don arrived at SRI, he was already a respected scientist for his contributions to the field of high-temperature chemistry at Douglas Aircraft Company in Southern California. He brought with him his unique high-temperature mass spectrometer system and his torsion effusion unit and proceeded to make an impact by accurately measuring the enthalpies of formation and vaporization behavior of many compounds.

Don and colleague Dr. Daniel Cubicciotti created a school that trained many of us who, attracted by their reputations, came from all corners of the world to SRI. Don with his pursuit of reliable values and Dan with his modeling abilities created a world-respected group at SRI. They were a key part of a larger technically powerful group in the Bay Area that included Profs. Leo Brewer and Alan Searcy of UC Berkeley and Dr. Krikorian of LLNL, among others. This group, together with those headed by Profs. Claude Bernard

in France and Lev Gurvich in the former Soviet Union, were responsible for a large fraction of the thermochemical data that scientists and engineers all over the world today use routinely to select materials and processes (e.g., JANAF tables).

Don Hildenbrand managed SRI's High-Temperature Program and eventually became director of the Materials Research Laboratory (MRL), which he led for a decade. Upon his retirement, he continued to work and write articles with all of us at MRL well into his 80s. In addition to his technical depth in thermochemistry, he made critical contributions to a wide range of areas, including lamp chemistry; nuclear materials; production of TiO_2 pigments; production of Si, Ti, Si_3N_4 ; and materials for combustion environments.

An avid sportsman, Don biked to and from work, participated in 200-mile bike races, went on long alpine skiing adventures, and walked for days along trails in the Sierra Nevada. Don inspired our generation not only in the scientific realm but also in leading a healthy and positive long life. He and his wife, Nancy, were very active in children's education and a variety of charitable and social events. When his wife fell ill, Don became a caretaker for years. After Nancy died, he dedicated a significant part of his time to helping others in similarly painful experiences.

Don is survived by his two sons and a daughter.

Don is now gone but not forgotten by his friends and disciples, and his technical contributions will survive the test of time. Generations to come will continue to quote his work and will benefit from his productivity, accuracy, and contributions.

Submitted by Kai Hung Lau, Angel Sanjurjo, Gopala Krishnan, Fran Tanzella, Palitha Jayaweera, Marc Hornbostel, Steven Crouch-Baker, Brian Xie, Anoop Nagar.

George Max Muller*



George Max Muller, loving husband, godparent, and friend, passed away peacefully December 2, 2016, having just said goodnight to his beloved wife, Holde. George was born in Vienna, Austria, on January 19, 1922, to Marianne and Paul Muller. In 1938, the family immigrated to England, where George attended Falmouth Grammar School to earn his Cambridge School Certificate.

In 1939, George immigrated to the United States, where he lived in Philadelphia with his uncle before receiving a scholarship to Bowdoin College. In 1941, he enlisted in the U.S. Army and received his U.S. citizenship in July 1942. As a paratrooper in the Regimental Headquarters Company, 506th Parachute Infantry Regiment, 101st Airborne Division, he jumped on D-Day, June 6, 1944, near the town of Carentan, France. On June 23, 1944, George was wounded while on reconnaissance patrol and was later awarded the Purple Heart.

After the war, George returned to Bowdoin College, where he graduated in 1946 magna cum laude with an AB in physics. He went on to Yale University, where he received an MS in mathematics and physics in 1947. George then moved to Richland, Washington, to work as a Nuclear Reactor Physicist at General Electric's Hanford Works. In 1951, he left GE to attend graduate school at Harvard, earning an AM in mathematics in 1953. He returned to Richland and worked for GE until 1955. He then moved to Menlo Park to join the Poulter Laboratory at SRI as an Applied Mathematician, working on a variety of theoretical and experimental programs until 1975.

George then worked as a staff scientist at Haimson Research Corporation for two years on the application of electron beam devices. In 1978, he joined Dalmo Victor's Advanced Systems Department as a Senior Research Scientist, with duties in system and software design, primarily on airline collision avoidance. After his retirement in 1994, George started his own software consulting business, consulted for computer companies, and promoted his long, extensive research in digital signal processing, in particular spline function techniques.

He excelled at the research and development of novel numerical techniques and authored or coauthored six papers published in refereed scientific journals, as well as numerous conference articles and project reports. He was a long-standing member of several professional societies and served as a referee for the *Journal of Applied Physics*. In 1946, he was elected to the Phi Beta Kappa Society; in 1956, he was added to the *American Men of Science* biographical directory.

George was a true Renaissance man who loved to laugh and, even more, to make others laugh, usually with a bawdy limerick or lyric. He was a life-long learner, had a scholarly interest in the English language, and enjoyed poetry. He was a keen student of philosophy, history, the arts, and music, particularly Mozart, always humming a tune or two. Also, he was an advocate for peace, justice, and human rights.

During his time at SRI, on February 22, 1969, this committed bachelor first met the love of his life, Holde Lautenschläger, and they were married on April 18, 1970. Together, they enjoyed the outdoors and loved the arts, classical music, and spending time with their friends. They traveled extensively, even as recently as in the summer of 2016—once more to Vienna.

George is survived by Holde and by many dear friends. He will be missed so very deeply!

Obituary provided by Holde Muller.

*Member of the SRI Alumni Association

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