

Joseph Sucher

1930-2019



**Memorial Album to Commemorate His
90th Birthday**

This was to have been the program for the memorial service which had been scheduled to take place at the University of Maryland in March 2020, but was ultimately canceled due to the COVID-19 pandemic.

Opening Remarks & Acknowledgements:

Evelyn Torton Beck

Friends, Colleagues and Family:

Francis Mechner (video)

Wally Greenberg

Drew Baden

Evelyn Torton Beck

Tom Cohen

Rob Baluch

Evelyn Sucher

Paul Berman

Ron Sucher

Francis Mechner will perform some classical piano pieces that Joe loved.

Joseph Sucher was Professor Emeritus of Physics at the University of Maryland. Together with his family he escaped from Vienna in 1938 and after more than two years in war-torn Europe, he arrived in the USA in 1941 at the age of 10. He attended Erasmus Hall High School, Brooklyn College and Columbia University, where he obtained his Ph.D. in 1957, with a thesis on the quantum electrodynamics of the helium atom.

He is best known for his work on relativistic theory of many-electron atoms, quantum theory of long-range forces, and the foundations of relativistic quantum



theory. His name is associated with the Gellman-Low-Sucher level-shift formula, the no-pair Hamiltonian for many-electron atoms, the Levy-Sucher identity, the Dirac-Sucher equation and the Feinberg-Sucher formula for the long-range force between neutral atoms.

He recounted his family's escape from Vienna in his memoir, *Luck Was on Our Side*, as well as in a series of audio interviews.

In *The Romance of Physics* he wrote "I encountered many of the great contributors to theoretical physics in the second half of the 20th century. By the romance of physics, I mean the tales and stories about the major actors in this field. They give a certain life to this abstract endeavor to understand the nature of the world and are not to be found in textbooks. In the 50s there were over ten Nobel Prize winners in the Columbia Faculty, many of whom became household names among physicists. I hope to regale you with some untold tales about them and others of their ilk."

In addition to physics he loved chess, Chopin, puns, Paris, his family and his friends.



ESTHER JAGERMAN (cousin): *He was my little cousin and he was always Joey to me. He was born the day I started first grade and I always felt pride and enjoyment watching him grow into the wonderful person he became. With Joey gone the world looks a little darker. May Joey's memory be for a blessing.*

BLANKA SUCHER (sister-in-law): *My very first meeting with my then future brother-in-law will always stay vividly in my mind. I had arrived in Brooklyn in January 1952 for a short visit to my future husband,*

Harry. I was corresponding with him, and learned a lot about Harry's family. At my arrival I remember Joe jumping up from his seat, and greeting me so warmly by exclaiming: 'You are just as pretty as you look on the photo Harry showed us.'! That warm greeting will always stay with me.

SHERRIE MATHIESON (Niece): *Joey was always a joy in our lives and he will be forever remembered as such.*



ELIEZER ROBINSON (cousin): *Joe and I were born in Vienna Austria. His mother and my father were brother and sister. The family included four brothers and two sisters. It was when Nazi Germany incorporated the Austrian Republic that the Gestapo came and Jews were looking for where to go. Joe's*

family came to the USA and our family to Palestine. Our families kept in contact and we met again 50 years later. I remember him always charming, happy, loving his family, knowledgeable and looking forward to hear good news.

DAN SUCHER (grandnephew): *I will always remember Joe's enthusiasm for life and learning. It was so special for Joe to fly across the country for our wedding just a few years ago and despite the day being a whirlwind I vividly remember speaking with Joe before the reception. He had a very memorable light blue suit and a big smile on his face that made me feel so lucky that he could be there. I was thinking about both of my grandfathers who were not there that day and Joe's presence made me feel that I did have a grandfather there after all.*

ELIZABETH SCHWEBEL WIND (cousin): *He was a lovely warm man, who was so intelligent, friendly and down-to-earth. He made people feel at home when he was with them.*

LILA SNOW: *Sometimes eulogies to others are about the person giving the eulogy but Joe's were gems about himself as well. He said about George (Snow): "For the first time he has given us pain." He was our gatekeeper to the other side, a very special muse and a dear friend. George said about Joe, "I thought Sucher meant sweet because Joe was so sweet but it means seeker and he was a seeker as well." He embraced family and friends and physics, piano, chess, travel and much more. Farewell dear Joe. You will be missed.*



OLGA SHADYRO: *Your father Joe was very dear to me. From the time we met in Minsk at the conference. He was amazingly kind, soft and cheerful! Now there is an empty space in my life.*



- short runx!



THIS IS IT!

PHYSICS: THE PARTICLE PHYSICS GROUP AT UMD. Colleagues remember Joe.



1965 (l-r) Jogesh Pati, Harry Lam, Dan Fivel, Joe Sucher

JOGESH PATI: Joe was indeed a very special person in my life, as an inspiring teacher when I was a student at Maryland, and as a warm friend and colleague for over four decades when I was a member of the faculty. Always full of good will and humor, with a smile, and advice when I needed, and above all a refined taste for anything that is beautiful in physics and mathematics. I can hardly imagine our Particle Theory Group without Joe, even after he retired. I owe him a debt of gratitude and will badly miss him.

*AJAYA K. MOHANTY: He was a wonderful human being besides being a great physicist! All his students and post-docs and colleagues will always remember him with fondness and sweet gratitude. **As the notes from his friends keep pouring in, one can now slowly comprehend what a marvelous human being he was, and how he, in his inimitable style, touched so many lives and changed their destiny for the better. And, that is what great souls do!!***

*BEI LOK BERNARD HU: Joe is the best example amongst our colleagues of **a humanist in a scientist** — full of life and giving hope to others, despite his private sufferings facing many misfortunes in his family.*

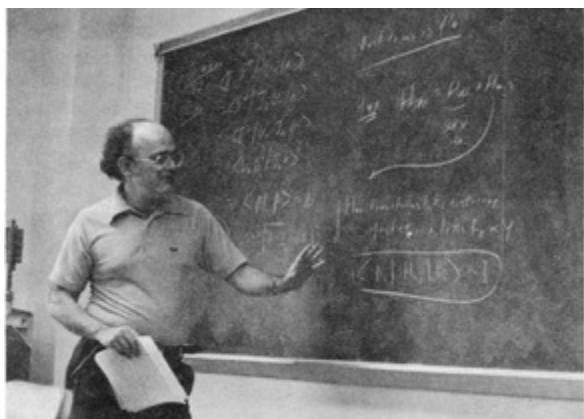
VELVEL HUSHWATER: I was his (last) graduate student in 90s. He helped me a lot in different ways. My work with Joe was great fun and I am grateful to him for everything he has done for me. Joe was very nice and intelligent person - a real mensch! He had a difficult life, especially as a child in the Europe under fascist domination before his family managed to escape to US on the last possible ship.

RICHARD BRANDT: *Joe hired me as a postdoc in the U of M Physics Department in 1966. That was my first job and the 3 years that I spent there were formative. The atmosphere created by Joe and his colleagues (Wally Greenberg, Ching-Hung Woo, Jogesh Pati, etc.) was stimulating, and I and another postdoc Claudio Orzalesi, and Claudio's wife Giovanna, soon became good friends with Joe and his family (Dorothy, Gabe, Michael, Anatol, and baby Ann). Joe was a brilliant and inspiring collaborator and friend, with a fine sense of humor and a wide range of interests. I will miss him.*

CLAUDIO ORZALESI: *I think that all of us have lost our best friend, Joe: he was like a generous father to all of us.*

CLAUDE KACSER: ***Joe was the friendliest, most "human," genuine, and most accessible person in the UMD Physics Particle Theory Group.*** *Joe created the group, and continually added new members; he mentored them, and led the group in a very gentle way. Joe had been hired by "Johnnie" Toll to create the group, when Joe was a very promising young Ph.D. straight out of Columbia. Joe hired me and mentored me.*

Joe was always tremendously friendly and outgoing. He had a phenomenal memory for anecdotes of past happenings with physicists he knew. His large desk consisted of many many tall piles of mixed journals, preprints, correspondence to and from others, and his own



handwritten research papers and semi-worked out ideas; and other random materials. And yet Joe could find anything he wanted to retrieve from what looked like this disorganized "chaos" (this was when we still wrote long-hand and had live secretaries!). Joe also had a phenomenal memory for physics, which helped everyone in the group.

As a physicist, Joe became one of the world's experts on the Casimir and van der Waals effects. Joe kept up with all aspects of his general high (and low) energy physics areas, and made many important contributions to many different aspects, starting when he was very young (Day, Snow and Sucher).

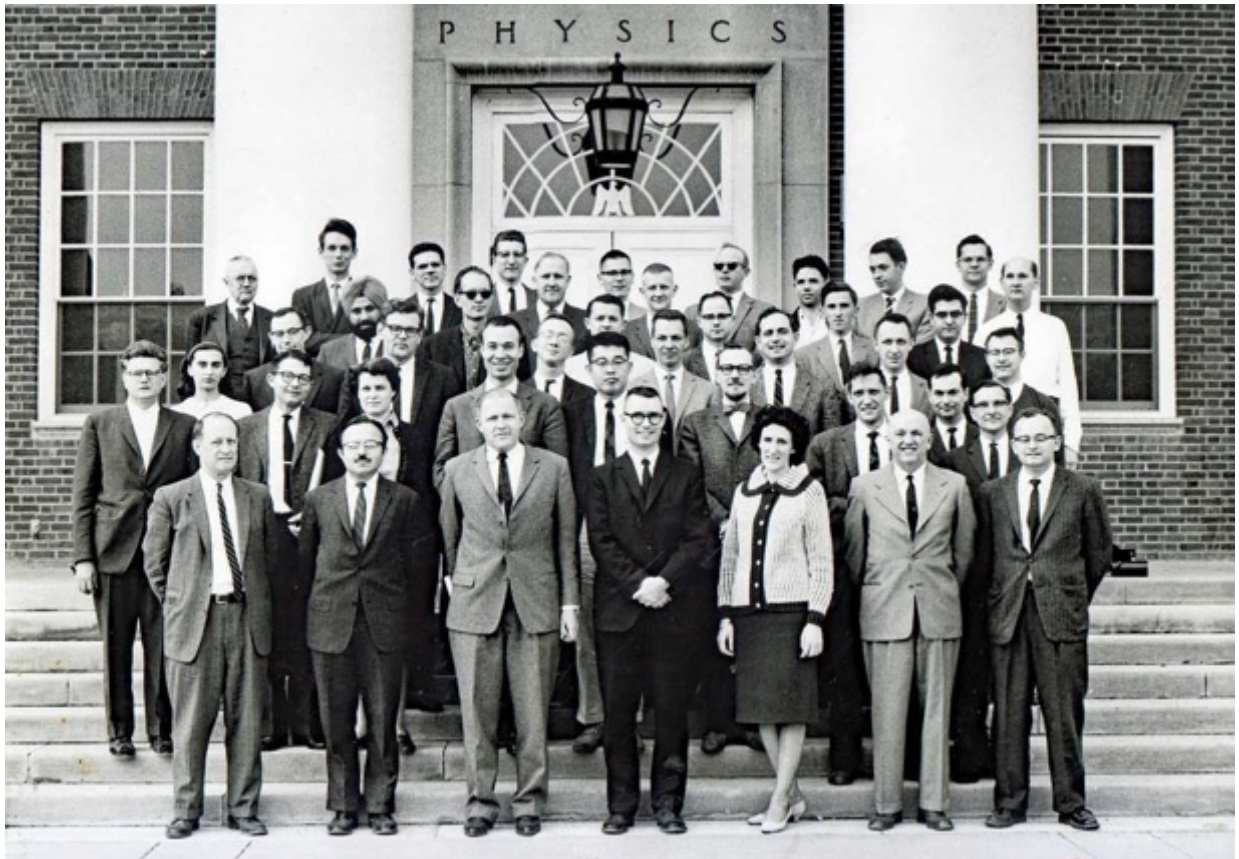
TED JACOBSON: *His sweetness and sense of humor, great stories, and deep insights into the quantum mechanics of atoms, were one of the bright lights in the Maryland physics department for me. When I sat down to write this note, I found a few things from Joe in my email box that delightfully bring him to life. This included some of his reminiscences in memorials for friends, replete with jokes and good stories. Re-reading them reminded me of how good I always felt when I ran into Joe.*

JAMES BABB: *I knew your father through the late Larry Spruch and colleagues, and was fortunate to take his course on relativistic atomic physics in the 1980's, when he was at NYU on*

sabbatical; he also visited our Institute several times. I'll remember his humor, which made conversations with him very delightful.

JORDAN GOODMAN: *He was a truly wonderful person. No faculty meeting was complete without a joke from Joe.*

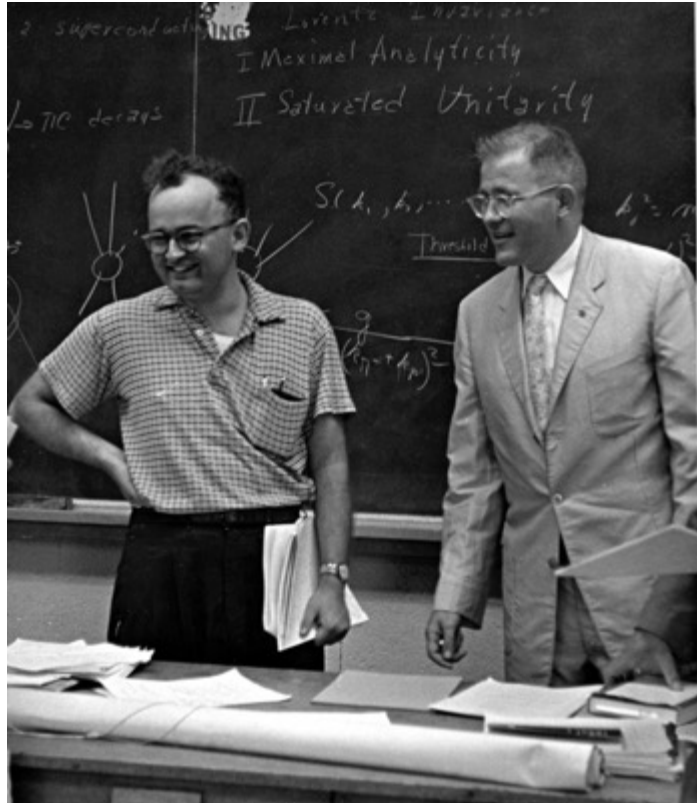
UNIVERSITY OF MARYLAND PHYSICS FACULTY, 1963



DEPARTMENT OF
PHYSICS

**Excerpted from *A TRIBUTE TO PROFESSOR JOSEPH SUCHER* by John Toll,
Professor of Physics and Chancellor Emeritus, on the occasion of Joe's
60th Birthday Symposium**

Back in prehistoric time, I had the best job one can imagine as Professor and Chairman of this Department. My major task in working with colleagues to build the Physics Faculty was to find brilliant young physicists. In this task I went annually to the American Physical Society and reviewed the placement files on recent PhD's. This was usually tedious and unrewarding work, but occasionally I would find a real star. The brightest theoretical physicist I ever located in this way was Joe Sucher, just completing his PhD degree at Columbia University. I had the good fortune in 1957 to persuade Joe to join our faculty with great benefit to the University ever since.



Joe with John Toll in 1962

Joe has done much work in a kind of dispersion theory, but far different from the impractically mathematical dispersion theory that I've been

involved in; he can do that too, but he specializes in using dispersion techniques to determine molecular forces and other predictions that can be compared with experiment. Joe has developed a beautiful approach to relativistic effects in the interactions of many electron systems. All of his work is characterized by an ability to strike through a morass of material and to explain what's really going on in ways that clarify and stimulate the work of many others... Joe has the advantage of working equally well with the arrests or experimentalists. For example, he combined with Tom Day and George snow in a series of papers that brought national attention to our department for their help in understanding K-meson experiments.

Whenever I had any idea that I thought might be good, he was usually the first colleague I would discuss it with, for he has an open style, great breadth, and a readiness to attack any problem... His cooperative attitude and zest for research have set a tone that reinforced our Department as one of the best places in the world for a theorist to work. It is his openness and the love of a good puzzle that he conveys to students that makes him such an excellent teacher... He has brought international recognition to Maryland and has won numerous honors, (including) a Guggenheim fellowship (in 1968).

-JOHN TOLL

FROM ATOMS TO QUARKS
A Symposium in Honor of Joseph Sucher

NAME: *Melba Phillips*

INSTITUTION: *Retired*

BITNET NUMBER:



Remembering Joe Sucher

by Sandra A. Lange



PHOTO BY COURTESY OF ANATOL SUCHER

At the 1972 Labor Day Festival, Joe Sucher played simultaneous games of chess against all comers to raise money for the Greenbelt CARES.

We remember our friend Joe Sucher as an interesting, intelligent, kind and generous person. We especially remember him as a chess wizard. As a teenager, Joe learned to play chess at the Marshall Chess Club in New York City. There he met many chess greats including Larry Evans and L. A. Horowitz. As Joe's teaching and research career grew, as well as his family of four children, he gave up playing chess. However, from 1972 to 1975, and again in 1979, Joe conducted a Chess Marathon at the Greenbelt Labor Day Festival. He challenged all comers, first come-first served. The first few marathons were sponsored by Greenbelt CARES, but the 1979 marathon benefited the Prince George's County Chapter of the National Organization for Women. Initially, in 1972, he played 16 games simultaneously, both in the afternoon and evening. In subsequent years, he pared down to one

evening Chess Marathon, playing 10 or 12 games simultaneously. This feat has been unmatched in Greenbelt's history.

In 2012, at the News Review's 75th anniversary dinner, Joe announced the establishment of the Dorothy Sucher Memorial Fund which would commemorate the life and work of his late wife Dorothy. The Greenbelt Museum and the Greenbelt News Review would each receive a \$1,000 annual award to be given to deserving interns.

Dorothy Sucher's Letter to the Editor of the News Review in 1972 began a decades-long dialogue over the establishment of a museum. Commemorating the city's 50th anniversary, the Greenbelt Museum came into being in 1987 largely due to her early efforts. Three Dorothy Sucher-funded interns have worked at the Greenbelt Museum over the last few years. They have assisted the museum director



and the education-and-volunteer coordinator with the planning and execution of educational programs, collections care and cataloging, maintenance of the historic house, historical research, and administrative tasks.

Dorothy Sucher was an important player in the News Review for most of her life in Greenbelt. The newspaper likewise has benefited from the intern program funded by the Sucher family. News Review interns report on council worksessions, they attend baseball games, they are at art openings, and, if needed, they go to the pooch plunge. They also join the copy editing and proofing teams, learn to pitch stories and get to know Greenbelt. At the News Review, our interns see the paper from the beginning to the end. They have a chance to really learn what it takes to create a good local paper, a piece of knowledge that should be useful for the rest of their careers.

Excerpts from *On the Retirement of Joe Sucher* by V. Hushwater, Dec. 17, 1998

I could not get a Ph.D. in the Soviet Union [where I lived] in spite of the fact that I worked there in applied physics research. So there I was in my forties at University of Maryland, exhausted by years and years of the fight for emigration. Having difficulties focusing on any particular field I was wandering around trying to work with a number of professors... not fully satisfied by the



topics of research they wanted me to do. Joe Sucher was one of them.

After I ran short of possibilities, I began the second round, but apparently none of these professors wanted to start again, probably, feeling the lack of commitment on my side. Only one person, after some struggle and resistance, decided to give me a second chance. This was Joe. Maybe he was tempted by the opportunity to discuss chess with me... or, maybe, being a very nice person, he could not just kick me in the... let's call it the lower back.

*Joe told me that I should develop a microscopic theory of the Casimir force between macroscopic bodies. He added, "But I do not believe that you will do this." And you know, he was right. I never did it. Meanwhile salvation had come in the form of a new problem, to explain how it is possible for the Casimir force to be negative, i.e. repulsive in some cases. In connection with this, Joe had a brilliant characteristic comment, to which I referred later in my paper on this problem, "**Understanding of signs is a sign of understanding.**"*

"I LOVE A PIANO" Joe's Piano Repertoire:

Recarni: Old Repertoire

Sarabande in D (Frisvater #1)

Bach: { Prelude o Fugue in C minor *
 { Prelude in E♭ minor *

Mozart: { Sonata in C
 { Sonata in G
 { Turkish Rondo *

Beethoven: { Sonata in F minor
 { " " C minor
 { " " Pathétique *

Chopin: { Waltz in B minor
 { " " E minor
 { Nocturne in C#
 { Prelude #15 in D♭ *
 { Fantaisie Impromptu *
 + ~~ETUDE #13~~ #3

Schubert: Impromptu in B♭.

(A) Learns: Brahms { Rhapsodie in G *
 Wal { Waltzes?
 { Scherzo in E♭

Chopin ETUDE #9, 13

List: Consolation #3

Schumann: Prophet Bird.

Chopin: { Etude in A♭
 { Mazurka? }



This was Joe's Steinway Piano we had growing up in Greenbelt. It was originally purchased from Joe's childhood friend Francis Mechner. Coming full circle, when my parents moved to Riderwood in 2004 they sold this piano to Francis' son Jordan.



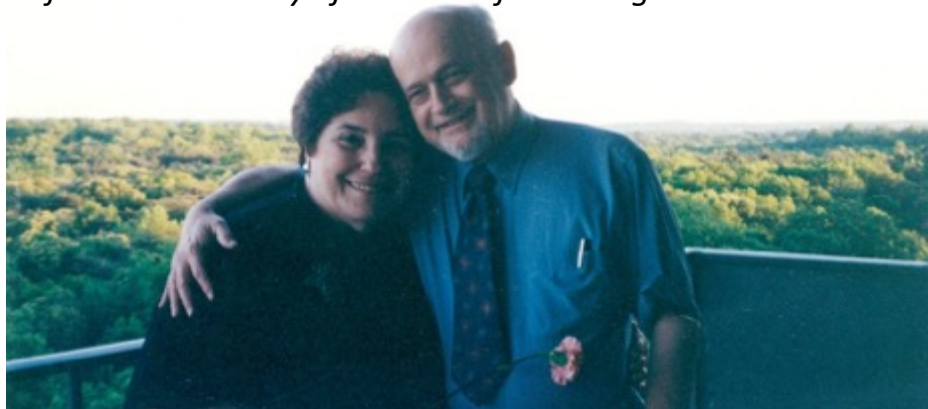
WALT AND ERIKA RYBECK: *Being friends with your parents was a special highlight of our years at Riderwood. Their wonderful stories, their keen sense of social justice, their multiple talents, their ability to be life of the party despite family traumas—all these were a wonder and inspiration. Just as we can never forget Dorothy’s moving account about tracing her family’s roots, Joe’s rhymes, chess exploits and uniquely Viennese comic-cynical outlook on humanity will long be remembered. We will greatly miss our frequent get-togethers with Joe—a kind, and loving friend.*

EVE SIEGEL: *Your dad was beyond wonderful—as was your mom. They welcomed me when Anatole (Beck) and I found each other and set stunning examples of Menschlichkeit.*

MARYSE KLEIN: *We will miss his brilliant participation in our French class as well as his wonderful sense of humor. He used to put together crossword definitions, all with a French relevance, to challenge the students in class. They loved it! It was fun and rewarding for everyone. I have taken it upon myself to continue this game during class, with a fond mention of him. We call it: “les mots de Joe”. You see, he lives on in many ways.*

EDITH BEAUCHAMP: *Both your parents were such supports for my mother, and there were many years when we were young that my mother relied on their friendship to “make it through.” Having both of them as friends was part of what made Greenbelt special for her. I have never forgotten their hospitality to us when we spent several weeks in Geneva with your family during the summer of 1964.*

EVELYN (“EVI”) TORTON BECK: *Joe Sucher was a most unusual man: brilliant and modest, compassionate and warm, ever ready with a most winning smile. His wit was legendary (especially his passion for puns, which succeeded so well they made you cringe!) I knew him since he married Dorothy, my best friend in college and till the day she died. I knew him as a wonderful husband and father, but he was also always a true friend to me. My life is richer for having known him.*



ARJUN YODH: *I was very fond of your dad. I would go over to your house, mainly to play with Michael, but your dad engaged with us and was interesting to me in so many ways -- from commentaries about chess to commentaries about classical music and more. He was very obviously a thoughtful, generous, and empathetic man too.*



MAYA YODH: *He was such a kind human being. I have such fond memories of him at your house, at our house, in Deep Creek Lake. We enjoyed some wonderful family experiences.*

SARA AND PRONOB MITTER: *We have fond memories of the grand old days, the late 1960s at University of Maryland. Pronob had done a post-doc at Santa Barbara, and when we returned to the East Coast, Joe and Dorothy*

were among the first to welcome us. From time to time we dined with you all around the table in Greenbelt. In later years, we saw some of you in Paris, and eventually Joe alone when he made a farewell tour of friends in Europe. His European roots were strong. "Joe Sucher was a remarkable human being who combined lively intelligence with sweetness of character. His sly sense of humor was much appreciated, as were his talents as a writer and speaker.



BARBARA MCGREW: I knew your father (and mother) since the late 1970's when I was living in Madison and seeing his good friend, Anatole Beck. Coincidentally enough, many years later, I married Joe's friend and colleague at the U. of Maryland, Daniel Fivel. So Joe came back into my life. He visited Dan and me often in Vermont, and me many summers after Dan died. His charm, erudition, humor and wit can be seen in this poem, which he wrote for our wedding. He was Dan's best man. I will miss Joe always.

MY FATHER OFTEN WROTE VERSES FOR HIS FRIENDS FOR SPECIAL OCCASIONS: This was written for the 2004 wedding of long-time colleague Dan Fivel to Barbara McGrew.

*A Trilingual Wedding Toast**

*Here's to Barbara McGrew,
Whose beauty's matched by very few,
And to Professor Daniel Fivel,
Whose wit and charm have no real rival.
May they always be gesund
And live happily in Vermont!*

**English, Yiddish, and Abenaki*

THE ERASMUS FOUR



GEORGE LIPKIN: I am profoundly saddened by the passing of your father, my oldest friend, greatly cherished for his humanity, brilliant mind and irrepressible wit. We first met when he joined my 7th grade elementary school class in 1942 shortly after his family arrived in Brooklyn after their long and difficult journey. Our two apartments literally faced each other across Franklin Avenue so that as our friendship developed, I got to know and

appreciate his family from my occasional visits. His buoyant spirit, wit and sense of humor were even then evident. We later attended Erasmus Hall High School together, and though our paths then diverged we still managed to meet occasionally on his visits to NYC when I heard about some of the fascinating work he never ceased to enthusiastically embrace. He was extremely modest and self-effacing. It was a rare privilege to have known Joe, a beautiful human being.

Joseph Schatzi Secher,

Schatzi means sweetheart in German. So when I called him, I would say "hello schatzi" and he would laugh and we would laugh a lot together.

Joe and I were both born in Vienna, Austria. We went through the holocaust and did not know each other until we came to Riderwood.

Joe had a wonderful sense of humor and we laughed a lot together. We had our somber moments as well but we decided not to dwell on those very long. Joe was also one of the smartest men I ever knew. I miss him so very much.

Trudy Schonberger

Angehörige

Verwandtschaftsgrad	Name	Geburtsort	Geburtsdatum	Beruf
1) Gattin	Laiube	Wachkautz	10. V. 1897	Schneiderin
2) Töchter	Cecilie	Wien	28. VII. 1925	Wirtschafterin
3) Söhne	Harry	Wien	28. VII. 1925	- " -
4) Töchter	Erika	- " -	10. IX. 1930	Chorleiterin
5) Söhne	Josef	- " -	10. IX. 1930	Schüler
6)				
7)				
8)				
9)				
10)				

Welche der obgenannten Angehörigen sollen jetzt und welche später auswandern?

alle sollen jetzt auswandern.

Wien, am 1. Juni 1938

J. Secher
Unterschrift.

REMARKS BY RON SUCHER WRITTEN FOR JOSEPH SUCHER'S MEMORIAL:

We read from the book of Job (left to right):

There is no replacing a person of wisdom. There are mines for silver,
And places where gold is refined. Iron is taken from the earth,
And copper is smelted from the rock. But where can wisdom be found?
And where is the source of understanding? There is no replacing a person of wisdom.

Joseph Sucher, my uncle Joe, or Joey, as many in the family called him, was a person of great wisdom. He was named after his maternal great uncle, Rabbi Joseph Robinzohn, as well as the revered biblical character "Joseph" from the book of Genesis. The biblical Joseph, like uncle Joe, was of course also a wise man, having used his insight to manage the pending famine in Egypt and secure power for the "good" Pharaoh during those difficult times.

Aside from that, the points of comparison are a bit less compelling. The Joseph of biblical times interpreted dreams - both his own and that of others, to help him reach his conclusions. Uncle Joe preferred to use models and equations to substantiate his theories. The Joseph of biblical times proudly dazzled with his coat of many colors, even to the extent of inspiring a modern musical. Uncle Joe probably didn't place fashion as high up in his personal value system. Though quite outgoing, he didn't need to be the most colorful character in the room, instead concentrating on being a role model for kindness, fairness, and scholarship. The Joseph of biblical times spent much of his life negotiating conflicts and complex issues with his brothers. Uncle Joe showed nothing but love and respect for his siblings. I know this first hand because Joe was my father Harry's brother. They were alike in many ways; similar in appearance, similar Viennese accent, similar love of learning, similar gift of creating rhythmic song parodies and poems, similar system of values, and similar sweet disposition. Heck, they even each had a twin sister!

My father was a very good chess player, and Joe of course was a chess master, something he aspired to become from a very young age. So back in the late 1960s during one of our family's annual trips to Greenbelt, when my cousin Mike and I heard that our dads were going to play a game of chess, we excitedly huddled around them as competitive little boys will do. Well, it didn't take long for us to realize that competing with each other was the last thing that was on our dads'

minds. Now my recollection may be slightly fuzzy on this point, but it seemed like it took them an hour to make about five moves between them; instead choosing to ramble on about what chess greats like Capablanca and Lasker would do. I do remember that a few years later when I spent a couple of weeks with my cousins out on Long Island, Mike and I recalled that time and reminisced how their objective was never to compete with each other, but rather use the opportunity as a teaching moment for their sons. Joe's passion for these types of teaching moments extended of course to his wonderful career as a professor, and even through his retirement. His extraordinary ability to absorb concepts of the utmost complexity was surpassed only by his enthusiasm to enrich the knowledge of others. "A gentleman and a scholar" is a phrase that's overused, and usually in a lighthearted manner, but one very appropriate to describe Joe; a man who dedicated his life to family, learning, teaching, and sharing.

O G-d, full of compassion, Who dwells on high, grant true rest upon the wings of the divine presence, in the exalted spheres of the holy and pure, who shine as the resplendence of the firmament, to the soul of Joseph Sucher; beloved son of Max and Toby, beloved brother of Harry, Lilly, and Erica, beloved husband of Dorothy, beloved father of Gabriel, Michael, Anatol, and Anne, beloved father-in-law to Ann and Carol, beloved grandfather to Rachel, beloved brother-in-law, uncle, cousin, friend and colleague to so many, who has gone to his heavenly world. May his place of rest be in the Garden of Eden. Therefore, may the All-Merciful One shelter him with the cover of his wings forever, and bind his soul in the bond of life. May he rest in peace; and let us say: Amen.



LUCK WAS ON OUR SIDE

**Escaping from Nazi Europe
1938-1941**



In the early 2000s Joe assembled a memoir “Luck was on our Side” recounting his family’s escape from Austria.

“SERPA PINTO: The Portuguese Ship that took us to safety”



Joe with twin sister Erica, age six.

